

Healthy Iowans 2010

Mid-Course Revision

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Healthy Iowans 2010 Mid-Course Revision
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Introduction

The Significance of *Healthy Iowans 2010*

In the past century, public health has been credited with adding 25 years to life expectancy by contributing to the decline in illness and injury. Progress has been made, for example, in smoking reduction, infectious disease, and motor vehicle and workplace injuries. Besides its focus on traditional concerns such as clean water and safe food, public health is adapting to meet emerging health problems. Particularly troublesome are health threats to youth: teenage pregnancies, violence, substance abuse, sexually transmitted diseases, and other conditions associated with high-risk behaviors. These threats add to burgeoning health care costs.

A conservative estimate of \$69 billion in medical spending could be averted through the impact of public health strategies aimed at heart disease, stroke, fatal and nonfatal occupational injuries, motor vehicle-related injuries, low birth weight, and violence. These strategies require the collaboration of many groups in the public and private sectors.

Collaboration is the bedrock of public health and Healthy Iowans planning. At the core of *Healthy Iowans 2000* and its successor, *Healthy Iowans 2010*, is the idea that all Iowans benefit when stakeholders decide on disease prevention and health promotion strategies and agree to work together on them. These strategies can improve the quality of life and hold down health care costs. The payoff for health promotion and disease prevention is not immediate, but it has long-lasting benefits.

The Iowa plan is a companion to the national plan, *Healthy People 2010*. An initiative to improve the health of Americans, the national plan is the driving force for federal resource allocation for disease prevention and health promotion. The state plan is used in the same way. Both plans have received broad support from Republican and Democratic administrations. Community planners are using the state plan to help assess health needs and craft health improvement plans.

Healthy Iowans 2010 was written at an unusual point in history – a new decade, a new century, a new millennium. The introduction was optimistic. “The 21st century,” it says, “promises to add life as well as years through improved health habits coupled with medical advances. Scientists have suggested that if these changes occur, the definition of adulthood will also change. An extraordinary number of people will live fuller, more active lives beyond that expected in the late 20th century.” At the same time, the country has spawned a new generation of health hazards. According to Dr. William Dietz of the Centers for Disease Control and Prevention (CDC), it has replaced “the diseases of deficiency with diseases of excess” (*Newsweek*, August 2, 1999). New threats, such as childhood overweight, can reverse progress made in the last century. This demands concerted action.

Broad Grassroots Input and Support for the State Health Plan

Published in 2000, Iowa's action plan, *Healthy Iowans 2010*, was a product of 550 Iowans working in teams. The Iowa Department of Public Health was the lead agency. In 2004, another 425 people used the outcomes of the first four years of implementation to update *Healthy Iowans 2010*.

Private, public and non-profit organizations and agency representatives not only developed the plan, they also were asked for a commitment to action. Every action step in *Healthy Iowans 2010* is supported by an organization that has agreed to take that step. In this way, responsibility for achieving goals is shared by the groups drafting the plan and updating it. A tracking system, an integral part of implementation, assures accountability. Each year, organizations and agencies committed to taking action will be asked to make an assessment of progress.

Examples of Accomplishments

- Major improvements in mortality rates for cancer, the second leading cause of death in Iowa, have occurred. Since 1994-1996, female breast and prostate cancers, the most common cancers in women and men, improved by 17% and 19% respectively. For prostate, oral cavity and pharynx, and skin melanoma, the original 2010 goals have already been achieved.
- Childhood lead poisoning is a concern in Iowa. Many homes in the state were built before 1950 when lead-based paint was common. An estimated 13% of Iowa's children under age 6 were lead poisoned for the period 1992-1998. The most recent figures show that 9.4% of Iowa's children under age 6 are lead poisoned.
- Surveys by the Iowa Youth Behavioral Risk Survey showed that students in grades 9-12 who are sexually active remained at 43% between 1997 and 2001. Adolescent pregnancies among females aged 15 to 17 decreased from 26 per 1,000 in 2000 to 21.6 in 2003. For females aged 12 to 14, the number of pregnancies decreased from 91 in 2000 to 67 in 2003.
- Although Iowa has a higher occupational fatality rate than the national average, the overall occupational injury and illness rates documented a 20.4% reduction, 5.4% greater than the goal for 2010.
- Dramatic steps have been taken in substance abuse prevention. In 2003, the legal limit for alcohol levels while operating a motor vehicle was changed from 0.10 to 0.08 to reduce the number of traffic injuries and fatalities. Between 1999 and 2002, the proportion of students who had used alcohol decreased from 47% to 42%; and the proportion who had tried marijuana declined from 17% to 15%.
- Iowa Youth Tobacco Survey data also showed that high school students who had used tobacco declined from 39% in 2000 to 34% in 2002. From 2000 to 2002, a 13% decrease in smoking among high school students and a 31% decrease among middle school students occurred. Since its creation in 2000, 7,000 Iowa teens became members of the anti-tobacco movement, "Just Eliminate Lies."
- Few public health measures can compare with the benefits of vaccines. The National Immunization Survey showed that Iowa has one of the highest childhood immunization rates. In 2003, the national rate was 77.9%. Iowa was at 83.2%. Also in 2003, Iowa had the third best flu and pneumonia immunization rates for people aged 65 and over, according to a CDC report.
- Seat belt use also improved. In 2002, 84% of Iowans wore a seat belt, compared to 78% in 1999. The types of child restraints that offer the best protection for various ages of children have been refined to improve their safety.

- Early childhood education is a fundamental element for developing healthy children. During 1996-1997, 40.9% of school districts offered pre-school programs, while 51.9% offered them during 2002-2003.

Major Challenges to Iowans' Health Status

In 2004, Morgan-Quito Press, a publisher of health rankings, placed Iowa among the nation's five healthiest states for the fourth year in a row. Also in 2004, the United Health Foundation ranked Iowa 11th best. In the 15 years the report has been produced, Iowa consistently has been ranked in or near the top 10 healthiest states. In 2003, Fordham University ranked Iowa number one in the nation for social health, the second year the state received top ranking. The social health ranking system combines 16 social indicators that include such important health determinants as infant mortality; child abuse; children in poverty; teenage suicide, drug abuse, and high school completion; homicides; alcohol-related traffic deaths; food stamp coverage; and income inequality. Although the state continues to rank as one of the healthiest, Iowa will need to do better in several areas if it wants to maintain its high rankings. Following are some of the state's challenges:

- Despite efforts by groups such as the American Diabetes Association, provider training, and public forums, Iowa diabetes rates continued to rise each year, from 5.2% in 1998 to 6.8% in 2003. One risk factor, obesity, has risen to epidemic proportions. It will take a massive effort to increase healthy lifestyles and decrease mortality due to diabetes.
- Between 400 and 600 Iowa communities discharge approximately 4.5 billion gallons of untreated human waste into streams and rivers. Some progress, however, has been made. Over 100 communities have now installed treatment systems and taken advantage of the State Revolving Fund.
- Food safety continues to be a major challenge. In 2003, approximately 750 Iowans were affected by 11 major food-borne illness episodes. Improving the quality of retail food establishment inspections can enhance the state's ability to reduce the risks of food-borne illness.
- Since 1996, Chlamydia has increased by 55%, with 6,462 cases reported in 2003 (219.0 cases per 100,000 persons). High-risk groups include people aged 15 to 24, minority populations, and those in the juvenile justice system.
- Stroke is the leading cause of disability and the third leading killer among diseases. The death rate from stroke has risen from 74.7 per 100,000 in 1991 to 75.6 in 2002.
- Infant mortality is one of the leading health indicators used to assess the overall health of a society. Iowa experienced an overall downward trend in infant mortality rates over the last decade; however, there continues to be a wide and unacceptable disparity in rates for white and African-American infants. Preliminary data for 2003 shows an Iowa rate of 5.7 per 1,000 live births, an increase from the 2002 rate of 5.3.
- Approximately 11.8% of the state's adult population had no health insurance in 2003, an increase from 8.8% in 2002.
- Legislation requiring insurers to provide coverage for mental illness and addiction, as they do for any other chronic illness, has not been enacted.
- In 1998, 11% of all murder victims were aged 5 or younger. That proportion increased to 12% in 2002.
- The prevalence of adult overweight/obesity increased from 46.2% in 1991 to 61.7% in 2003. The state's 23.9% obesity rate is higher than the 15% goal set for the nation in *Healthy People 2010*.

- Increased physical activity can cut the rate of many chronic diseases. Almost 23% of adult Iowans do not engage in any leisure time physical activity.
- Since 1998, the adult smoking rate has remained constant at 23.2%. The rate dropped slightly in 2003 to 21.7%.

What's New in the Healthy Iowans 2010 Mid-Course Revision

Since *Healthy Iowans 2010* was published in 2000, there are new challenges to the health of Iowans. Examples include bio-emergencies and terrorism, obesity, a growing senior population, the increasing number of Iowans without health insurance, and the needs of new Iowans. Two new chapters have been written – “Vision” and “Emergency Preparedness & Response.” In addition, some chapters were completely revised.

The Process for Updating Healthy Iowans 2010

In March 2004, 25 chapter teams met to start reviewing and updating *Healthy Iowans 2010*. In making revisions, team members were challenged to recognize emerging health problems and, at the same time, continue advances for keeping Iowans healthy. The teams were joined by resource persons who are experts on such special populations as low income, race/ethnicity, gender, age, and disability. Resource persons were responsible for assuring that an overall goal – eliminating health disparities – was addressed. The teams also were asked to pay special attention to the Olmstead Decision, which is a U.S. Supreme Court decision that requires 1) government services to be delivered in a way that avoids discrimination against people with disabilities; and 2) states to administer their programs, services and activities in the most integrated settings appropriate to the needs of qualified people with disabilities.

Each chapter team selected a representative for a committee to review the draft chapters, offer feedback, and approve the draft. Beginning in July 2004, the review team and the resource persons listened and responded to chapter presentations. This process ensured that major health problems were considered, crosscutting issues were included, and health disparities were addressed. The review process was completed in December 2004.

Each team was responsible for writing an updated or new chapter. Although many team members authored the mid-course chapter revisions, each chapter has the following common elements:

- An introduction describing the problem in Iowa, supported by data.
- A report on achievements since the plan was published in 2000.
- Revised or new goal statements with baseline data and a rationale. (Goal statements without baselines were considered developmental goals.)
- Action steps to achieve the goals within the next five years and the organization(s) responsible for taking the action. (Action steps with no time line will be tracked each year and are considered ongoing.)

Each chapter has inter-related goals and action steps found in other chapters. The impact of any one chapter is more complete and powerful when these inter-relationships are considered. Dr. Ronald Eckoff, review team member and former medical director in the Iowa Department of Public Health, prepared an updated list at the end of each chapter.

Healthy People 2010: The Model for Healthy Iowans 2010

In general, *Healthy Iowans 2010* chapters modeled *Healthy People 2010*. Some focus areas in the national plan are addressed in different chapters: osteoporosis, arthritis, medical product safety, and health communications. Problem gambling, not found in *Healthy People 2010*, is covered in Iowa's Substance Abuse and Problem Gambling chapter. In the Occupational Safety and Health chapter, more attention is given to farm safety than in *Healthy People 2010*. The Iowa plan also has separate chapters for violent and abusive behavior and unintentional injuries. Another difference is that the new *Healthy Iowans 2010* chapter on vision was not expanded to include hearing.

Contact Information

Chapter team leaders, facilitators and members are listed at the end of each chapter. Chapter team facilitators can respond to questions about citations or chapter content.



Chapter 1

Access to Quality Health Services

Introduction

This chapter is an evolution and expansion of goals in the *Healthy Iowans 2000* chapter on Clinical Preventive Services. It covers the topics included in the federal *Healthy People 2010* chapter on Access to Quality Health Services with the exception of Emergency Medical Services (EMS). That topic is included in the *Healthy Iowans 2010* chapter on Unintentional Injuries. During the 2005 mid-course review, the chapter was updated to reflect progress and revisions based on current resources, goals and strategies of stakeholders and statewide assessed needs.

Access to primary and preventive care and other components of health care is important to achieve the overall *Healthy People 2010* goals of eliminating health disparities and increasing years of healthy life. Ensuring access to quality health care is one of the federal plan's four "enabling" goals that bolster progress toward overall goals. Many of the persistent disparities in health outcomes reflect problems of access within a continuum of care that includes:

- Preventive services;
- Primary care;
- Emergency services;
- Long-term care;
- Home and community-based care; and
- Rehabilitative care.

These elements are critical components of the interface between public health and clinical medicine and are linked to goals in this chapter and other chapters in *Healthy Iowans 2010*. The mid-course review also considered the Olmstead decision, the health-care workforce, and establishment of a medical home concept and other methods of coordination of care, transportation,

and a system to address language as a barrier to access.

Access is the foundation upon which the outcomes of private and population health care are predicated. Therefore, it is important that this chapter be reviewed in conjunction with other *Healthy Iowans 2010* chapters for its cross-cutting-impact in all areas of health care.

Access has been defined by the Institute of Medicine (IOM) as "...the timely use of personal health services to achieve the best possible health outcomes." This definition requires considering as indicators both the utilization of services and the outcomes. The IOM definition of quality is "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge."

Healthy Iowans 2010 goals and action steps focus on areas where significant disparities in access to quality health services exist between the general population and vulnerable populations when such disparities are likely to result in differences of care that affect years of healthy life.

The issues are crosscutting – measuring and seeking to improve quality of life and dealing with aspects of health services that improve and maintain physical, mental, emotional, and social functioning. They include such apparent barriers to services as distribution of providers and services, knowledge and cost of services, and knowledge of how to access services. The initial focus in this chapter is on the interface between population-based interventions and clinical care.

Over the past two decades, major changes have occurred in the structure of the American health-care delivery system and the roles of the federal, state and local governments in ensuring access to quality care for all at-risk populations.

Such changes include a shift toward home and community-based care, increased patient acuity, or degree of illness in the inpatient setting and changes in the provider reimbursement system. Access to primary care and appropriate preventive care for all Americans remains a challenge. Furthermore, health care must meet acceptable standards of quality and be delivered in a setting that fosters culturally competent care.

Having adequate access to health care can significantly influence patient use of the system, and, ultimately, improve outcomes. Consequently, measures of access are important for evaluating the quality of the nation's and Iowa's health care. Limitations on access to care extend beyond such simple causes as shortage of providers or facilities in some areas.

Even when health care is readily available, people may not have a consistent source of care or may experience barriers to services. These could include cost barriers (e.g., no health-care insurance or inadequate insurance); structural barriers (e.g., proximity of facilities or providers); transportation barriers; and language barriers. Also, populations with special needs, such as the elderly, chronically ill, HIV-infected people, and people with disabilities, require access to providers with special knowledge and skills.

One significant measure of the access problem is the proportion of people without health insurance. Since the early 1990s, that proportion has increased. Nationally, those under 65 without coverage increased from 15.7% in 1989 to 17.6% in 2003. Comparatively, 13.1% of Iowa's population under the age of 65 had no health insurance in 2003.

Additionally, significant disparities in coverage exist among racial and ethnic groups. Nationally, approximately 32.9% of Hispanics lacked coverage in 2003 while 21.5% of African Americans were in that situation.

On the other hand, the proportion of people with ongoing primary care (excluding the emergency room) rose during the decade, from approximately 78% to 84% nationally. Having a usual source of care is associated with improved access to preventive and follow-up care.

If the first step is assuring access, the logical second step is assuring quality. The problem of

how to define, monitor and assure quality have received extensive attention in recent years. Varieties of measures are being developed at the national, state, local and private sector levels. The National Committee on Quality Assurance (NCQA), a managed care accreditation group, is doing some of the most significant work. This has led to the development of HEDIS (the Health Plan Employer Data and Information Set), which is widely used for evaluating health-plan performance as a measure of quality.

The Centers for Medicaid and Medicare Services (CMS) has participated in the development of HEDIS measures, particularly those designed for Medicare and Medicaid. HEDIS 3.0 includes Medicare and Medicaid measures. The Joint Commission for the Accreditation of Healthcare Organizations (JCAHO) has developed performance measures as well. In addition, the Agency for Health Care Policy and Research has developed the Consumer Assessment of Health Plans Survey (CAHPS), which will be used by organizations to assess consumer experiences with health plans.

The Institute of Medicine released the report, "To Err is Human" in 2000 and "Crossing the Quality Chasm" in 2001. These reports furthered the efforts of policy makers and health-care institutions to improve the quality of health services on a more global scale. The findings and recommendations of these two reports are reflected in this chapter and throughout *Healthy Iowans 2010*.

The growth of managed care has created a national emphasis on preventive services, health-education materials, and the role of the patient in adopting healthy behaviors. Iowa is experiencing dramatic changes in population demographics, including increasing numbers of high-risk populations.

At the same time, there are diminished resources for publicly funded health care and an increase in demand. These factors, coupled with the emergence of managed care, have made implementation of a system built on prevention and informed consumers an imperative. Within the evolving health-care system, it is recognized that the health status of the whole state and nation will improve only as disparities in services are reduced and eliminated.

Access to high quality preventive care is an integral part of quality health care and critical to eliminating disparities in outcomes. Clinical preventive services, which include immunizations, screenings and counseling, have a substantial impact on morbidity (disease and/or illness) and mortality (death) from many of the leading causes of death.

Assuring access to primary and secondary prevention has proven effective in reducing population morbidity and mortality. The recommendations of the U.S. Preventive Services Task Force are a guide for services that should be a component of quality care. Improving access to appropriate preventive care requires removal of barriers at many levels, including those for the patient, the provider, and the system.

Important patient barriers include lack of knowledge or conviction about the importance of prevention, lack of a primary care provider, and lack of financial resources. While patient awareness and acceptance of some procedures such as mammography are high, other preventive services such as screening for colorectal cancer or sexually transmitted diseases are less accepted. Some patient populations are skeptical of even widely accepted preventive measures. Patient autonomy must be respected while being provided access to accurate information in order to make informed decisions.

Strong predictors of appropriate preventive care are having health insurance, a good income, and a primary care provider. While reimbursement for common screenings such as mammography and the Pap smear is standard in most insurance plans, reimbursement for other effective preventive services, such as tobacco cessation counseling, is less common.

Important provider barriers include lack of time, lack of training in prevention, doubt about effectiveness, and medical practices that do not facilitate prevention. Although provider acceptance of screening is generally high, there is greater skepticism about the effectiveness of counseling patients on healthy lifestyles. A variety of measures, such as computerized or manual tracking, patient and provider reminders, clinical guidelines, patient input, and health edu-

cation can help providers deliver preventive services.

System barriers may include lack of resources or attention to prevention, lack of coverage or inadequate reimbursement, and lack of systems to track performance in prevention. Measures that can increase delivery of clinical preventive services include offering them among standard covered benefits, feedback on performance to providers and practices, incentives for improved performance, and a system to identify and provide outreach to patients overdue for services.

Another frequently identified system barrier is the lack of transportation. Many low-income families do not have reliable transportation. Public transportation has limited routes and time schedules which may not coincide with the needs of clients. Some transportation systems may not be accessible to people with disabilities. Though there are many transportation services throughout Iowa, the level of coordination varies. Transportation problems are also covered in the *Healthy Iowans 2010* chapter on disabilities.

Healthy Iowans 2010 addresses health-care access along the continuum of care. Goals and action steps for long-term care, home and community-based care, and rehabilitative services cover persons with functional limitations regardless of age. Long-term care is health, personal care, and social services delivered over a sustained period to persons who have lost or never acquired some degree of functional capacity. People who need long-term care have physical or mental conditions that limit their capacity for self-care.

They include people of all ages, from those who acquired physical or mental limitations at birth or in their youth to those with diminished functioning as a result of aging or some life-altering incident. About 40% of these people are under age 65 and include people who need the help or supervision of other people to perform daily activities. The activities include personal care, such as bathing, dressing, eating, toileting, going from bed to chair, and getting around (with special equipment, if needed) inside the home. Instrumental activities of daily living enable a person to live independently and include preparing meals, shopping, using the tele-

phone, taking medications, managing money, and performing housework.

Long-term care covers a continuum of health and social services in institutions, the community and at home. The continuum includes services in institutions such as nursing homes, rehabilitation hospitals, and places providing sub-acute care, hospice and assisted-living services. Other levels include home-based services such as home health and personal care, hospice, homemaker help, home-delivered meals, and community-based services such as adult day care, social services, congregate meals, transportation and escort services, legal protective services, and counseling for clients and caregivers.

The goals of all of these services are to improve functioning through rehabilitation, maintain existing functioning, or slow deterioration in functioning while delivering care in the least restrictive way. To do so, people with special needs should be identified early. Rehabilitative services are meant to restore specific skills, including overall physical mobility and functional abilities. Their goal is to return people to the highest level of functioning by various kinds of therapy.

Progress

During the *Healthy Iowans 2010* mid-course review, Chapter 1 – Access to Quality Health Services was revised to address the quality of health care. Specifically, some goals from the original version were replaced with new ones to improve access to quality health service by targeting providers and systems. The goals reflect what is already in development and what is planned by stakeholders, and have a stronger likelihood for achievement of success by 2010. The intent is to better assess access and improve it through provider training and systems coordination (e.g., establishing quality performance measures, transportation, interpretation, technology).

The goal to increase funding by 50% for Iowa's education of health professions and allied health disciplines was achieved. The State Loan Repayment Program increased federal funding from \$75,000 to \$150,000. All of the State Loan

Repayment funds are allocated each year. The J1-Visa waiver program known as Conrad 20 increased to 30 physician placements and places 100% of the foreign physicians in underserved areas.

Furthermore, the state is participating in a national recruitment and retention web site known as the 3R Net, (Rural Recruitment and Retention Network). It provides national access for employers and potential applicants to advertise or find employment for health care in Iowa. It is administered by the Iowa Department of Public Health. During the current state and federal fiscal constraint, it is important to maintain funding and its use through 2010 for Iowa's education of health professions and allied health disciplines.

To move toward elimination of health disparities and increasing years of health, Iowans need access to quality health services. The goals in this chapter support those in other *Healthy Iowans 2010* chapters. They are intended to set the stage for those chapters to increase greater access.

Goal Statements & Action Steps

1–1 Goal Statement

Reduce to zero the proportion of children and adults under aged 65 without health care coverage. Baseline, 2003: 8.6% of Iowans under age 18 and 13.1% of Iowans under age 65 do not have health insurance.

Rationale

According to the Kaiser Family Foundation, the last 25 years of health-services research supports the notion that having access to health insurance or using more medical care improves life chances. Immigrants, refugees, and self-employed people, as well as their families, are among those who have the most trouble obtaining coverage.

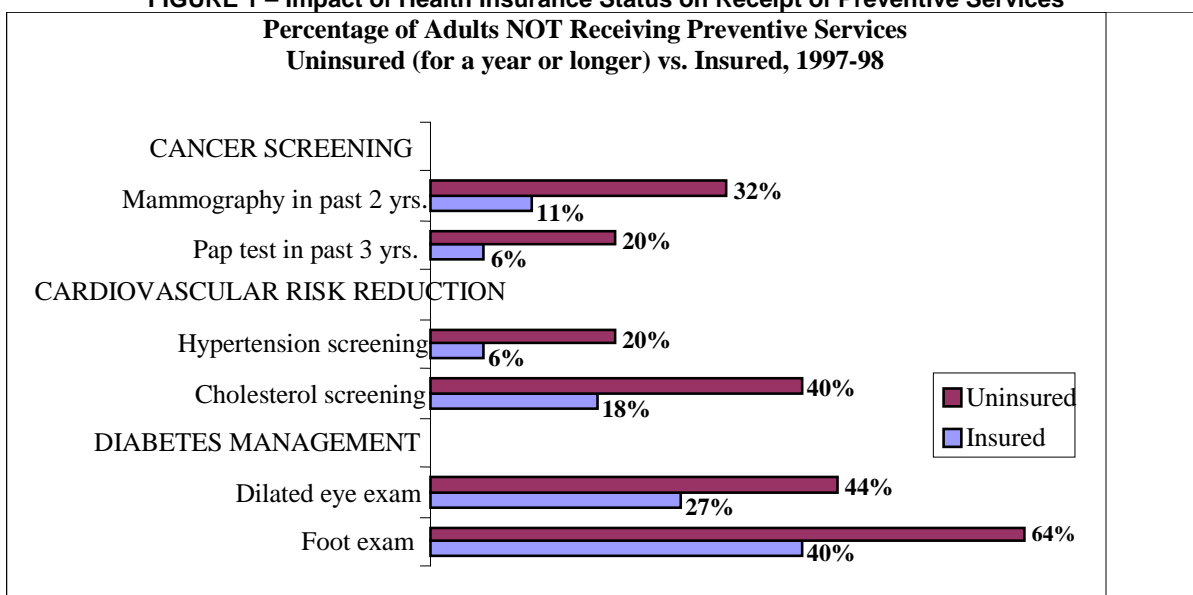
Having health insurance reduces mortality rates by 10-15%. Having a better state of health or good health improves annual earnings by 10% to 30% (depending on measures and specific

health condition) and increases educational attainment. People without coverage are less likely to obtain preventive services, resulting in increased morbidity and mortality.

According to the U.S. Census Bureau, 17.6% of Americans under age 65 had no health insurance in 2003. Among children under 18, 11.4% were without coverage. In Iowa, 13.1% of the under-65 population was without coverage in 2003. For those under age 18, the figure

was 8.6%. Since 2001, there has been erosion in the amount of private, employer sponsored insurance in Iowa. Figure 1 and Tables 1-3 show data for uninsured groups and preventive care and for special populations in Iowa. Table 3 reflects the decline in refugees over the past five years, shifting emphasis to other immigrants that are uninsured or underinsured.

FIGURE 1 – Impact of Health Insurance Status on Receipt of Preventive Services
Percentage of Adults NOT Receiving Preventive Services
Uninsured (for a year or longer) vs. Insured, 1997-98



Data source: Kaiser Commission on Medicaid and the Uninsured (Ayanlan, 2000). Note: All differences are statistically significant after adjusting for age, sex, race/ethnicity, region, employment, education and income.

TABLE 1 – Health Insurance Status, Iowans <65
 Iowa: 2001-2003: Health Insurance Coverage Persons < 65

	Not Covered		Covered by Private Employment-Based Health Ins.	
	Total	%	Total	%
2003	329,000	13.1	1,984,000	79.0
2002	274,000	10.9	2,034,000	80.6
2001	215,000	8.7	2,121,000	85.6

Source: U.S. Bureau of the Census, Housing and Household Economic Statistics Division; Prepared By: State Library of Iowa, State Data Center Program: www.iowadatacenter.org.

TABLE 2 – Health Insurance Status, Iowans <18
 Iowa: 2001-2003: Health Insurance Coverage Persons <18

	Not Covered		Covered by Private Employment-Based Health Ins.	
	Total	%	Total	%
2003	60,000	8.6	478,000	68.4
2002	42,000	5.9	515,000	72.4
2001	34,000	4.7	557,000	77.7

Source: U.S. Bureau of the Census, Housing and Household Economic Statistics Division; Prepared By: State Library of Iowa, State Data Center Program: www.iowadatacenter.org.

TABLE 3 – Iowa New Refugee Arrivals by Ethnicity in Iowa FFY1998 - FFY2004*

Ethnicity	1998	1999	2000	2001	2002	2003	2004*	Total
Bosnian	1,323	1,067	943	677	247	***	***	4,309
Liberian	***	***	***	***	***	***	130	235
Serbian		182				***		192
Sudanese	55	107	130	133	***	87	241	780
Vietnamese	160	200	122	123	70	***	***	715
Other**	131	213	147	121	88	151	49	666+
Totals	1,669	1,769	1,342	1,054	405	238	420	6,897

Numbers reflect the number of refugees resettled by all resettlement agencies in Iowa, not just the Bureau of Refugee Services. Data are for Federal Fiscal Year Oct. 1 – Sept. 30. They are not reflective of refugees who were resettled in other states then moved to Iowa.

+ After the number reflects refugees less than 50 in other categories already represented in existing table

* FFY2004 includes 11 months of data only. September data not yet available.

** Other includes ethnic groups that appear in 1 year of the period having less than 50 refugees from that ethnicity.

Ethnicities included in other are as follows:

1998 – Mende, Byelorussian, Chad, Congolese, Iranian, Iraqi, Liberian, Nigerian, Russian, Somali, Sierra Leone, Togolese, Ukrainian.

1999 - Guinea, Ivory Coast, Cameroon, Byelorussian, Chad, Congolese, Ethiopian, Iraqi, Liberian, Nigerian, Russian, Rwandan, Somali, Sierra Leone, Togolese, Ukrainian.

2000 - Congolese, Ethiopian, Iraqi, Nigerian, Russian, Somali, Sierra Leone, Togolese, Ukrainian, Liberian.

2001 - Burundi, Eritrea, Congolese, Ethiopian, Iraqi, Nigerian, Russian, Somali, Togolese, Ukrainian.

2002 - Belarusian, Benadir, Iraqi, Liberian, Russian, Sierra Leone, Somali, Sudanese.

2003 – Kurd, Bosnian, Congolese, Iranian, Liberian, Nigerian, Serbian, Sierra Leone, Somali, Vietnamese.

2004 – Benin, Bosnian, Congolese, Somali, Togolese, Vietnamese.

*** N <50

Although this goal focuses on the under-65 population, the problems of coverage for those aged 65 and over also are recognized. Affordability of pharmaceuticals is a major problem for many in this population, despite Medicare reforms enacted in 2004.

1–1.1 Action Step

Through 2010, publish an annual report on the health insurance status of Iowans and present it to the Legislature. The report will include breakdowns on age, sex, race, and other demographic variables, including information on coverage sources and costs. (An Iowa Department of Public Health action step.)

1–1.2 Action Step

By 2010, increase eligibility for HAWK-I (health insurance program for indigent children) to 300% of federal poverty. (A HAWK-I board, health-care provider groups, and others concerned with the welfare of children action step.)

1–1.3 Action Step

By 2006, complete a study to assess the feasibility of expanding eligibility for HAWK-I to include low-income families and expand coverage for the entire family not just members aged 0 to 19. (A HAWK-I board and Iowa Department of Human Services action step.)

1–1.4 Action Step

By 2007, complete a study to assess the feasibility of expanding state government-sponsored health insurance programs (such as the State Employee Health Plan or the HAWK-I program) to allow small businesses and other small groups to buy health insurance. (An Iowa Department of Personnel, Iowa Department of Human Services, and purchasing cooperatives action step.)

1–1.5 Action Step

By 2010, assess the feasibility of and develop a plan to design a "wrap around" system to include an enhanced service package for children with special needs as part of the HAWK-I program, and implement the package through a medical home model. (A HAWK-I board, HAWK-I Special Health Care Needs Committee, and Iowa Department of Human Services action step.)

1–1.6 Action Step

By 2008, survey Iowans with activity limitations (as identified by the Behavioral Risk Factor Surveillance System) on the availability and adequacy of their coverage and how it affects their health status and independence. (An Iowa Department of Public Health, University of Iowa, Iowa University Affiliated Program, Prevention of Disabilities Policy Council, and Developmental Disabilities Council action step.)

1–1.7 Action Step

By 2006, determine the nature and scope of problems of adequate health care access for Iowans with disabilities. Analyze the capacity of all public and private programs to handle the problem. Identify options to meet identified needs and develop a proposed plan of action. (A Prevention of Disabilities Policy Council, Developmental Disabilities Council, Iowa Department of Human Services, and Iowa Department of Public Health action step.)

1–2 Goal Statement

Drive quality improvement of health care through Iowa’s Critical Access Hospitals by developing a plan and engaging in activities that promote and encourage providers to follow standardized quality performance measures. Baseline: See Rationale.

Rationale

Access and quality are inextricably linked. In the first draft of *Healthy Iowans 2010*, Chapter 1, Access to Quality Health Services, authors and contributors sought to address access to quality health services through use of the Health Plan Employer Data and Information Set (HEDIS). The strategy was to promote awareness of HEDIS outcomes to enable health consumers to better choose which services were of the highest quality.

In the 2005 mid-course review, team members believed that consumer choice of a health-care provider was based more on their health insurance options and coverage. Therefore, the focus has broadened to address ways to enable and assure that all health care is of the highest quality. The problems of how to define, monitor and assure quality have received extensive attention in recent years. Varieties of measures are being developed at the national, state, local, and private sector levels. Many organizations are assisting medical clinics, hospitals, home-health agencies, and nursing homes to improve patient safety and quality of care.

The National Committee on Quality Assurance (NCQA) is a managed-care accreditation

group working with medical clinics. Its work led to development of HEDIS, which is widely used for evaluating health-plan performance of medical clinics.

The Centers for Medicare and Medicaid (CMS), formerly known as Health Care Financing Administration, has participated in the development of HEDIS measures, particularly those designed for Medicare and Medicaid. HEDIS 3.0 includes Medicare and Medicaid measures.

In response to two reports by the Institute of Medicine, “To Err is Human” (2000) and “Crossing the Quality Chasm” (2001), about a dozen national organizations are urging hospitals to lead the charge to improve patient safety and quality of care. Six steps are recommended:

1. **Safe:** avoiding injuries to patients from the care that is intended to help them.
2. **Effective:** providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and overuse).
3. **Patient-centered:** providing care that is respectful of and responsive to patient preferences, needs and values, and ensuring that patient values guide all clinical decisions.
4. **Timely:** reducing waits and sometimes harmful delays for those who receive and those who give care.
5. **Efficient:** avoiding waste, including waste of equipment, supplies, ideas, and energy.
6. **Equitable:** providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status.

Some of Iowa’s rural and urban hospitals are following the 30 recommendations of Leapfrog, a private sector group addressing performance measures, while others are developing network-wide comparative benchmarks of quality. Currently, there is an initiative to gather and benchmark statewide quality data from the Critical Access Hospitals and report statewide best practices to the Iowa Hospital Association (IHA). The ultimate goal is to participate in multi-state benchmarking.

Tied to quality is patient satisfaction. The Centers for Medicine and Medicaid will soon require all hospitals to participate in assessing patient experiences through the Hospital Consumer Assessment of Health Plans Survey (HCAHPS). This, too, will have benchmarking capabilities. State government can assist in driving quality improvement of health care through performance measures by:

- Drawing attention to best practices and encouraging providers to adopt them;
- Facilitating comparisons of accountable entities, such as hospitals, health plans, long term care facilities, and, potentially, physicians' practices;
- Enabling the development of national benchmarks and helping to identify regional differences;
- Supporting efforts to sensibly reward quality through payment or other means;
- Expanding researchers' capacity to identify factors that drive or diminish health-care quality;
- Helping to link accountable entities to patient outcomes;
- Providing the clinical data needed to formulate workable risk-adjustment techniques; and
- Providing data to identify providers who consistently provide substandard care, and developing strategies for improvement or narrowing of their scope of practice.

1–2.1 Action Step

By 2010, sponsor continuing education and networking for hospitals, clinics, community health centers, and providers to identify current research and practices, share best practices, and collaborate in data collection and reporting. (An Iowa Department of Public Health, Iowa Hospital Association, Iowa Foundation for Medical Care, action step.)

1–2.2 Action Step

By 2010, support data collection and development of standardized benchmarks through grants to Critical Access Hospitals through the Medicare Rural Hospital Flexibility Program and the Small Rural Hospital Improvement Program. (An Iowa Department of Public Health, Iowa Hospital Association, and Iowa Foundation for Medical Care action step.)

1–2.3 Action Step

By 2010, promote recruitment and retention of a health workforce that conforms to state requirements for standardized education, testing and licensure or registration to assure minimum competence to practice. (An Iowa Department of Public Health, Iowa Hospital Association, and Iowa Foundation for Medical Care action step.)

1–2.4 Action Step

By 2010, identify and communicate strategies to increase representation of racial and ethnic minorities in Iowa's health-care workforce through partnerships with public and private entities. (An Iowa Department of Public Health, Iowa Hospital Association, and Iowa Foundation for Medical Care action step.)

1–3 Goal Statement

Increase by 25% access to primary care for the underserved population. Baseline, 2004: The community health center network in Iowa provided access to 12% of the state's underserved population.

Rationale

Loss of population in rural areas and increasing proportions of elderly and immigrants present challenges to Iowa's public and private health care providers to extend statewide access to primary care. Although the total number of primary care physicians practicing in Iowa has increased in recent years, the proportion willing to practice in rural areas has decreased. This is due to the retirement of elderly physicians and the tendency for younger ones to practice in urban areas. In a recent study (Iowa Health Fact Book, 2001), 54% of primary care physicians practiced in the eight metropolitan counties, leaving less than half of them to provide access in the remaining 91 counties.

In response to the uneven distribution of primary care providers and clinics, a series of federal and state programs offer incentives to increase health care access in Iowa. The National Health Service Corps, PRIMECARRE, Student Community Primary Care Initiative (SCPCI), and Nurse Education Loan Repayment

Program provide educational loan repayment incentives to recruit and retain providers in underserved areas. The J-1 Visa waiver gives international physicians the opportunity to practice in underserved regions.

Federally funded safety net programs offer low cost health care, preventive care and Medicare services at community health centers, Federally Qualified Health Centers (FQHC), tribal health clinics, migrant health centers, and health centers for the homeless. Federally Qualified Health Centers offer fees based on ability to pay, extending affordable care to the uninsured and underinsured. In 2004, the Community Health Center network in Iowa had seven centers providing access to 12% of the state's underserved population. Expansions and new starts of FQHCs can extend the safety net to a larger proportion of underserved individuals and families.

1–3.1 Action Step

By 2010, increase access points (expansions or new starts) of federally funded health centers to provide access to 25% of the underserved population. (An Iowa Department of Public Health, Bureau of Health Care Access and Iowa Nebraska Primary Care Association action step.)

1–3.2 Action Step

By 2010, increase by ten the number of facilities that use federal programs (e.g., State Loan Repayment Program or National Health Service Corps) offering a sliding fee scale to patients. (An Iowa Department of Public Health, Bureau of Health Care Access, action step.)

1–3.3 Action Step

Through 2010, continue to administer federal and state recruitment and retention programs (e.g., National Health Service Corps, PRIMECARRE, J-1 Visa, Student Community Primary Care Initiative, and Nurse Education Loan Repayment Programs) to staff health care access points. (An Iowa Department of Public Health, Bureau of Health Care Access action step.)

1–4 Goal Statement

Ensure a competent and diverse health workforce by assessing and forecasting workforce supply and demand and by promoting local strategies to recruit and retain workers through the inclusion of all 99 counties in a nurse tracking project. Baseline: See Rationale.

Rationale

Data collection and strategic planning is required to meet the health needs of Iowa's largely rural population as the proportion of elderly people and immigrant children with limited resources steadily increases.

National supply and demand models project a shortfall of 9,100 registered nurses (RNs) in Iowa by 2020, almost one-fourth of the current actively licensed RN workforce. The Bureau of Labor Statistics projects a growing need for direct care workers. Iowa data is required to identify trends in demographics, economics, education, cross-state migration, health-care use patterns, and strategies to recruit and retain health workers that impact Iowa's projected demand.

Direct contact with employers provides information about supply and demand in their communities, making it easier to predict and avert shortages, fill vacancies, and reduce turnover. Direct contact with health workers provides new information that allows them to access jobs, education and new resources to improve the work environment. Strategies developed and implemented locally, and adapted for statewide application, are highly effective when administrators become state experts who demonstrate and communicate best practices for recruitment and retention of health workers.

Tracking of Iowa's registered nurses was initiated in July 2003, and the development of this model will be used to expand to other health professions. A project to track patient choice and population trends by hospital service area and diagnostic category was initiated in April 2004

1–4.1 Action Step

By 2010, include all RNs in the University of Iowa Office of Statewide Clinical Education

(OSCEP) Health Professions Tracking Inventory. (An Iowa Department of Public, Health Bureau of Health Care Access and University of Iowa Office of Statewide Clinical Education action step.)

1–4.2 Action Step

By 2010, track patient choice and population trends by hospital service area and diagnostic category. (An Iowa Department of Public Health, Bureau of Health Care Access action step)

1–4.3 Action Step

By 2010, maintain a web-based state point of contact to access best practices and local experts on recruitment, retention and Iowa’s health-care workforce. (An Iowa Department of Public Health, Bureau of Health Care Access action step)

1–5 Goal Statement

Minimize barriers to entry into the health workforce to increase its diversity and increase access to health occupations education through at least one collaborative state project that identifies and reduces barriers. Baseline: Will be identified through assessment by the Iowa Department of Public Health, Bureau of Health Care Access.

Rationale

Under-representation of racial and ethnic minorities in the health professions is increasing in Iowa. The disparity is particularly evident among Mexican-Americans who comprise the largest segment of the Latino population. Iowa’s Latino population increased by 152.7% from 1990 to 2000. During that period, the Latino population increased by as much as 1,100% in six of Iowa’s 99 counties. The greatest increase occurred in rural, non-metropolitan counties. At this time, 39.7 % of the Latino population is under age 18. Language and prior education are barriers to entry into the health fields for many Hispanic adults. Between July 1, 2002 and June 30, 2003, 41% of Iowa’s minority populations were served in the adult literacy

program. Hispanics represented 22% of enrollment in the adult basic education program.

In 2004, more than 80% of respondents to a statewide survey of nursing faculty reported an increase in enrollments in the current academic year and 90% projected an increase in the 2004-2005 year. Compounding the demand for education, respondents projected 128 faculty vacancies in nursing alone in fall 2004. Nurse faculty vacancies impact the number of students able to enroll in nursing schools. Many institutions are reporting waiting lists for nursing enrollment. While individual programs provide innovative teaching methods, a need exists for statewide coordination and inclusion of additional health occupations.

1–5.1 Action Step

By 2010, establish an Area Health Education Center (AHEC)-style center in collaboration with schools and universities in Iowa. (An Iowa Department of Public Health, Bureau of Health Care Access action step.)

1–5.2 Action Step

By 2010, develop collaborative projects that assist children from racial and ethnic minority, immigrant and refugee populations to enter, and succeed in, health occupations. Establish a web-based point of contact to access state data, trend analyses, local experts, and funding opportunities. (An Iowa Department of Public Health, Bureau of Health Care Access action step.)

1–5.3 Action Step

By 2010, create a strategic plan to increase E-learning access to health occupations education. Implement recommendations of the strategic plan in Iowa’s educational programs and health facilities. (An Iowa Department of Public Health, Bureau of Health Care Access action step.)

1–6 Goal Statement

Develop a cost effective state mechanism to ensure the quality of language interpreters in medical facilities. Baseline: See Rationale.

Rationale

With the exception of good mental health programs for Bosnians in Des Moines and Waterloo, Iowa's health and mental health systems are ill-equipped to meet the linguistic needs of Limited English Proficient (LEP) people. In the absence of bilingual professionals, courts, government agencies and service/health organizations must depend on interpreters and translators to communicate and serve their clients.

The Iowa court system tested 77 people across the state and will have tested about 25 more in the fall of 2004 on ethics in interpretation in the courts. This progress, however, does not solve the problem that Iowa has no statewide mechanism (i.e., credentialing or certification) to assure the education, ethical practice, quality, and competence of interpreters and translators.

In a clarification of Title VI of the Civil Rights Act of 1964, the federal Office for Civil Rights stipulated in 2000 that any entity receiving federal funds, including health care organizations receiving Medicaid and SCHIP (State Child Health Insurance Program), must provide no-cost language assistance to patients with limited English proficiency.

Unemployment in Iowa ranged from 2.6% in 2000 to an estimated 4.5% in August 2004, compared to the national average of 5.8% in 2004. Iowa depends on recruiting refugees, immigrants, and migrant and seasonal farm workers to meet the demand for workers. A healthier workforce may be maintained if health education is provided in appropriate languages about how to stay well, developing healthy habits, and obtaining basic preventive services. Many health materials are available, but they are often poorly translated, hard to read, or are not culturally appropriate.

Several studies have found that bilingual patients are evaluated differently when interviewed in English rather than Spanish. In one study, Hispanic-Americans with bipolar disorder were more likely to be misdiagnosed with schizophrenia than were their non-Hispanic white counterparts, and only 24% of Hispanics with depression and anxiety were found to have received appropriate care, compared to 34% for whites. Another study found that Latinos who

visited a general medical doctor were less than half as likely as whites to receive either a diagnosis of depression or antidepressant medicine (2001 Fact Sheet, Substance Abuse and Mental Health Services Administration Aging)

The Iowa Commission on Latino Affairs, (ICLA) reports that only 50% of Latinos have health insurance. Latinos are less likely to access preventive health, pre-natal and mental health services. They are more likely to use emergency rooms, live in housing that contains lead risks, be over-vaccinated, and be exposed to environmental hazards in the workplace. In May 2004, the Iowa Commission on Latino Affairs, (ICLA) proposed legislation to develop a mechanism to ensure the qualification of Spanish-language interpreters in the areas of health and social services.

1–6.1 Action Step

By 2005, develop a Language Access Taskforce to identify and provide recommendations for administrative rules on implementation of IC 246: Iowa Spanish Language Interpreters Law. (An Iowa Department of Public Health and Iowa Department of Human Rights action step.)

1–6.2 Action Step

By 2007, the Language Access Taskforce will develop a training and credentialing model to ensure the qualification of Spanish-language interpreters. The model should include:

- Language testing in English and Spanish;
- Development of a general interpretation training program;
- Development of specialized training paths;
- Development of a continuing education process; and
- Development of a web-based interpreters and translators listing.

(An Iowa Department of Public Health and Iowa Department of Human Rights action step.)

1–6.3 Action Step

By 2010, the Language Access Taskforce will replicate the Spanish Language Interpreters model in at least two other commonly used languages in Iowa. (An Iowa Department of Public Health and Iowa Department of Human Rights action step.)

1–6.4 Action Step

By 2010, identify, promote and support sound culturally competent training to provide continuing education to providers to improve cultural competency. (An Iowa Department of Public Health and Iowa Department of Human Rights action step.)

1–6.5 Action Step

By 2010, complete an assessment of networks of bilingual professionals in health care, public health, education, and social services available for translation and/or interpretation. Develop the capacity for translation and/or interpretation services in person and through media such as ICN-linked telecommunication and University of Iowa telemedicine project, with availability 24 hours a day. (An Iowa Department of Public Health and Iowa Department of Human Rights action step.)

1–6.6 Action Step

By 2010, develop educational opportunities to enhance the cultural competence of the existing health workforce. (An Iowa Department of Public Health and Iowa Department of Human Rights action step.)

1–7 Goal Statement

Complete the development of and begin implementing a long-range plan for re-balancing long-term care for Iowa's aging population and those with disabilities. Baseline: See Rationale.

Rationale

Long-term care has been defined as nursing facility care. Today's definition is a community network of health and supportive services that helps chronically impaired persons and their caregivers manage their situations with the right provider, at the right time and in the least restrictive setting they can call home. The components of the long-term care continuum include nursing facilities, adult day care, housing with supportive services, assisted living, intermediate care facilities for the mentally retarded and developmentally disabled, and home and community-

based services (Adapted from the American Association of Homes and Services for the Aging).

Iowa is moving to reform its Medicaid Long Term Care Program. Along with most other states, Iowa recognizes that home and community-based alternatives can be effective in diverting people need care from expensive nursing facilities. For over 35 years, the Area Agencies on Aging has successfully provided home and community-based services for older people in Iowa.

Medicaid, which is funded by federal and state governments, is the largest funding source for long-term care in the United States. Until 20 years ago, Medicaid offered older people the option of going into a nursing facility with Medicaid funding (state/federal match) or losing out on Medicaid support altogether. "Waivers" from this traditional long-term care system were offered in recognition that states may have alternative ways to contain costs and better meet the needs of older persons.

In 1988, Iowa applied for and received waivers to begin development of a community-based system. Community-based systems are well received and are a good start at allowing people to stay in their homes for as long as possible. In Iowa, however, the waivers are limited in scope and function as pieces of a fragmented system. Inadequate reimbursement has been, and continues to be, a barrier to accessing Home and Community-Based Services (HCBS).

Iowa has at least two significant efforts to establish a Universal Assessment Tool. The first is the National Governors' Association project with Iowa State Senators Tinsman and Ragen, State Representatives Heaton and Foege, Directors Concannon (Iowa Department of Human Services), Haverland (Iowa Department of Elder Affairs), Hansen, (Iowa Department of Public Health), Young (Iowa Department of Inspections and Appeals) and key stakeholders, including AARP Iowa and the Iowa Association of Area Agencies on Aging. The second is a legislative long-term care committee established by State Senator Tinsman and Representative Heaton to explore this issue, along with others, during the 2005 legislative session.

From a policy perspective, payment of HCBS providers in general will be discussed by the legislature in 2005. The Iowa Department of Elder Affairs (IDEA) is aware that HCBS providers are justifiably walking away from providing Title XIX HCBS waiver services because there is a negative financial impact in providing the HCBS services, and in the initial assessment and ongoing case-management service, which is required but unfunded.

While the assessment is theoretically paid for, actual remuneration to providers and Area Agencies on Aging (AAA) is often far below the actual cost. For example, it may take two or more home visits by a professional to complete an assessment. The cost of the first assessment is usually provided at a loss, and the need for a second visit is usually completely written off by the HCBS provider or AAA.

Increasingly, HCBS providers are declining to enroll low-income adults because they are no longer able to subsidize a state program. The result is that consumers' access to services may be limited and, ultimately, the overall cost of long-term care increased. Rebalancing Iowa's long-term care system will not be possible unless the problem with assessments is addressed. Also, providers of Title XIX HCBS must receive equitable remuneration for the cost of completing assessments, ongoing case management, and other services rendered.

Major rebalancing of Iowa long-term care will require the strong support and advocacy of the Governor and the legislature. The following action steps from state government are necessary for Iowa to implement a truly coordinated system of long-term care.

1–7.1 Action Step

By 2010, create a legislative mandate to rebalance the long-term care system using the best practices of Iowa and other states, some of which are included in the following strategies. (An Iowa Department of Elder Affairs action step.)

1–7.2 Action Step

By 2010, build a multi-year (2 or 3 years) long-term care budget that will assume:

- The development of the new “rebalanced” system to be “budget neutral” to the State of Iowa; and
- Savings from reduced “bed days” in nursing facilities will be redirected to adequately fund home and community-based services, case management, quality control, technology enhancement, and local administration.

(An Iowa Department of Elder Affairs, Senior Living Coordinating Unit action step.)

1–7.3 Action Step

By 2010, develop new strategies that promote the rebalancing of the long-term care system, including:

- Pre-screening for all admissions;
- Diversion and relocation from institutional settings; and
- Delay of estate recovery to allow people to return to their own homes after temporary absences in the hospital or nursing facility.

(An Iowa Department of Elder Affairs, Senior Living Coordinating Unit action step.)

1–7.4 Action Step

By 2010, use the Senior Living Program, as it was originally designed, as a model for how the system should respond to client needs. The program includes:

- Flexible spending;
- Multiple options for intervention; and
- Least intervention appropriate to needs.

(An Iowa Department of Elder Affairs, Senior Living Coordinating Unit action step.)

1–7.5 Action Step

By 2010, make access to the Medicaid system more responsive by:

- Dramatically decreasing the period between application for Medicaid, eligibility determination, and the start of services;
- Allowing Medicaid services to begin as soon as possible with “presumptive eligibility” within limits set by the state;
- Making more services available under existing waivers to allow for more choices and better options; and
- Co-locating eligibility and service planning to create efficiency and good customer service.

The current system fragments decision making between financial eligibility and service assessments, causing delay and often undue difficulty for the client.

(An Iowa Department of Elder Affairs, Senior Living Coordinating Unit action step.)

1–7.6 Action Step

By 2010, build a statewide system that is available and accessible to all and that will be a safety net for all Iowans by:

- Allowing and encouraging business models that have been shown to work for some populations, including Physician-based Assessment and Counseling for Exercise (PACE), Cash and Counseling, and other managed-care models;
- Defining the range of services that must be available to clients statewide; and
- Adapting to local needs, but ensuring consistent outcomes statewide.

(An Iowa Department of Elder Affairs, Senior Living Coordinating Unit action step.)

1–7.7 Action Step

By 2010, authorize Iowa’s Area Agencies on Aging to implement a system at the local or regional level to enhance:

- Accessibility;
- The most appropriate use of local, state, federal, or private resources for the most appropriate intervention for the client;
- The involvement of “natural” caregivers and volunteers as appropriate; and
- Mix and match of funding sources (within the limits of the law) in the best interests of the client.

(An Iowa Department of Elder Affairs, Senior Living Coordinating Unit action step.)

1–8 Goal Statement

Reduce the proportion of people unable to access long-term care in Iowa. Baseline: To be identified.

Rationale

Long-term care encompasses health care at many levels and in a variety of environments. Providers include nursing homes, home health

care agencies, adult day care, and assisted living. Populations served include people over age 65, people of all ages who are chronically mentally and/or physically ill, and people with disabilities. These persons are unable to obtain services because of funding problems, lack of available staff, lack of information about services, transportation problems, lack of understanding about the potential benefits of the services, and unwillingness to accept assistance from others.

Another barrier to access is that people typically do not seek information on long-term care before a crisis. The physician, the discharge planner, the various allied providers, and the pastor or rabbi are often points of contact and direction. The importance of family members must be recognized. It is frequently the children of aging parents who are sandwiched between two generations and competing needs – that is, their own children's needs and their parent's needs – while balancing work demands. These families are the most urgently in need of information and services.

Today's seekers of this information are baby boomers who may be technologically sophisticated in accessing information. Information and referral services such as the Elder Care Locator (1-800-677-1116 or www.eldercare.gov) and Iowa Family Caregiver Program (1-866-468-7887 or www.iowafamilycaregiver.org) will be vital in helping obtain access. Their linkage is connected to the aging network of providers.

1–8.1 Action Step

By 2007, identify the number of people needing long-term care in Iowa and develop a targeted awareness campaign to educate them on resources. (An Iowa Department of Elder Affairs, Senior Living Coordinating Unit action step.)

1–8.2 Action Step

By 2006, begin educating the public and providers on the availability of long-term care in communities. (An Iowa Department of Elder Affairs, Senior Living Coordinating Unit action step.)

1–8.3 Action Step

By 2006, conduct a study of the availability of para-professionals trained to provide long-term care. (An Iowa Department of Elder Affairs, Senior Living Coordinating Unit action step.)

1–8.4 Action Step

By 2008, increase by 10% the number of para-professionals trained and available to provide long-term care support. (An Iowa Department of Elder Affairs, Senior Living Coordinating Unit action step.)

1–9 Goal Statement

Assess the health workforce and develop training to enhance sensitivity and skills in providing care to people with disabilities, and develop incentives to encourage workforce and local public health participation and support. Baseline: To be identified.

1–9.1 Action Step

By 2006, as part of the Prepare Iowa Learning Management System, create a sub-workgroup to assess e-learning and other education programs that enable the health workforce to better address the needs of persons with disabilities. (An Iowa Department of Public Health and University of Iowa, Iowa Center for Public Health Preparedness action step.)

1–9.2 Action Step

By 2007, assess programs and curriculum related to persons with disabilities, select the best programs, and modify or develop new programs that meet Iowa's needs of educating and training the health workforce to better address the needs of persons with disabilities. (An Iowa Department of Public Health and University of Iowa, Iowa Center for Public Health Preparedness action step.)

1–9.3 Action Step

By 2008, offer internet-based education and training for the health workforce based on the work of the sub-workgroup. (An Iowa Department of Public Health and University of Iowa, Iowa Center for Public Health Preparedness action step.)

ment of Public Health and University of Iowa, Iowa Center for Public Health Preparedness action step.)

1–9.4 Action Step

By 2010, collaborate with other state entities that provide continuing education and training to coordinate a statewide dissemination of resources and programs that enable the health workforce to access training and education to address the needs of persons with disabilities. (An Iowa Department of Public Health, University of Iowa, Iowa Center for Public Health Preparedness, and other state partners action step.)

1–10 Goal Statement

Establish a baseline on the number of people served through coordinated transportation systems, especially rural, and develop strategies to increase the number served and the number of rides provided for increased access to health care and other services in Iowa. Baseline: To be identified.

Rationale

Transportation was identified as a barrier to access by the Community Health Needs Assessment and Health Improvement Plan at the Iowa Department of Public Health. According to the executive summary of the National Academies Transit Cooperative Research Program, many rural communities are faced with meager transportation funding, multiple funding sources and service objectives, limited services, and inadequate public interest and transportation investments.

The report indicates that the best strategy is to do the best possible with available resources while seeking additional resources. Coordination offers strategies to improve the performance of diverse individual transportation services and overall mobility within a community. Therefore, this goal addresses rural and urban areas. Coordinated services may achieve economies of scale not available to smaller providers.

Iowa will address this problem with the development of the state-level Transportation Co-

ordination Council. This council will facilitate coordination among publicly funded programs providing passenger transportation services (Iowa Department of Transportation (DOT) Administrative Rules: 761-910.3 (324A) State-wide Transportation Coordination Advisory Council). In 2001, the coordination council added the Iowa Department of Public Health as a member and began discussions on transportation and access to health care. Transportation is also addressed in Chapters 4 and 12 of the *Healthy Iowans 2010*.

1–10.1 Action Step

By 2005, complete a survey of transit programs in Iowa to assess transit and generate a baseline to measure *Healthy Iowans 2010* goal 1–11. (An Iowa Department of Transportation and Iowa Department of Public Health action step.)

1–10.2 Action Step

By 2010, develop and implement strategies to better coordinate public and private agencies that provide or buy transportation services. The strategies should use or adapt national coordination models such as the “Toolkit For Rural Community Coordinated Transportation Services,” a report of the Transportation Research Board of the National Academies and/or “Framework for Action: Building the Fully Coordinated Transportation System” developed by the federal Department of Transportation. (An Iowa Department of Transportation and Iowa Department of Public Health action step.)

1–10.3 Action Step

By 2006, increase public health providers’ awareness of the state’s transportation system and the role of the health infrastructure in coordinating services through continuing education and health-care worker associations. (An Iowa Department of Transportation and Iowa Department of Public Health action step.)

1–10.4 Action Step

By 2006, revise the brochure, “Health Care and Public Transit: An Introduction” published by the Iowa Department of Transportation and Iowa Department of Public Health in 2002. (An

Iowa Department of Transportation and Iowa Department of Public Health action step.)

1–10.5 Action Step

By 2006, distribute the revised “Health Care and Public Transit: An Introduction” and accompanying training through public health conferences and workshops. (An Iowa Department of Public Health action step.)

1–10.6 Action Step

By 2010, create a comprehensive plan to coordinate transportation services with all stakeholders and demonstrate efficiencies through local best practices. (An Iowa Department of Public Health, Iowa Department of Transportation, State Transportation Coordination Council action step.)

1–11 Goal Statement

Increase to 100% all children in Iowa with special health care needs who have a “medical home.” Baseline, 2000: 57%.

Rationale

Following the Institute of Medicine’s recommendations to improve quality of care and the mission of the National Center of Medical Homes Initiatives to ensure that children with special needs have access to a medical home, Iowa established the Iowa Medical Home Initiative. According to the 2000 Household Health Survey, 57% of children with special health care needs had a medical home. This initiative focuses on such children and cuts across *Healthy Iowans 2010* chapter areas, including access to quality health care, disabilities, chronic diseases, and mental health.

Children with special health care needs have, or are at increased risk for, a chronic physical, developmental, behavioral, or emotional condition. They require health and related services of a type or amount beyond that required by children in general.

The federal Maternal and Child Health Bureau, in collaboration with the National Center for Health Statistics, completed a National Sur-

vey of Children with Special Health Care Needs in 2001. The survey indicated that approximately 12.8% of U.S. children aged 0 to 18 – or 9.4 million children – have a special health care need. The survey also noted that approximately one out of five homes in the United States has a child or youth with special health-care needs, not including children and youth at risk for a chronic condition.

According to the national group Health Partners/Institute for Health and Disability, children and youth with special health care needs (CYSHCN) account for 80% of pediatric health care expenditures. The annual cost of providing medical care to these children was broken down into the following expense areas:

- Hospitalization: 61%
- Specialists: 14%
- Durable medical equipment: 5%
- Primary care: 5%
- Other: 15%

“Medical home” is an approach to providing health care in a high-quality, comprehensive, and cost-effective manner through a primary care physician in partnership with allied practitioners and the family.

The Iowa Medical Home Initiative (IMHI) was established through collaboration with the following partners: Iowa Early ACCESS Program, Family Voices of Iowa, Child Health Specialty Clinics and its Parent Consultant Network, University of Iowa College of Public Health, Iowa Academy of Family Physicians, Iowa Academy of Pediatrics, Wellmark Blue Cross and Blue Shield of Iowa, Iowa Department of Human Services, Iowa Department of Public Health, and Calhoun County Public Health Department.

The IMHI group began working with primary care practices that are striving to improve using a “facilitative” model to implement medical home elements. The Center for Medical Home Improvement established the model, which includes organizational capacity, chronic condition management, care coordination, and quality improvement. An IMHI Core Advisory Group organized into work groups that will develop strategies for change. It will recruit new members to ensure that the changes are imple-

mented and sustainable. The group will also design and offer a learning collaborative for a primary medical home model.

Future reports will detail the progress of the IMHI Core Advisory Group and participating practices in changing care for children with special health care needs and its outcome. Information about the IMHI is on the Iowa Academy of Family Physicians web site at www.iaafp.org. At a point in 2010 yet to be determined (the anticipated end of the project period), an evaluation will focus on the effect of medical home care on selected health status and health care utilization variables. The Iowa team will consult with the Center for Medical Home Improvement on study design and analysis methods. More details on the medical home initiative can be found in the Maternal and Child Health Chapter.

1–11.1 Action Step

Through 2010, continue to consult with primary care practices intending to implement a medical home model. Evaluate the training and implementation process and measure achievement of medical home status for children with special health care needs. Work to change reimbursement and professional training curricula. (An Iowa Department of Public Health action step.)

1–12 Goal Statement

Develop a strategic plan to assess and employ telehealth and telemedicine that can increase access to quality health services in Iowa. Baseline: See Rationale.

Rationale

Telehealth and telemedicine use has grown in the United States in the past decade. Technologies have improved and the cost of telecommunication has dropped. Funding for rural communities is available through the Federal Communication Commission’s Universal Service Fund. Information is available at <http://telehealth.hrsa.gov/grants.htm>. Other forms of technical assistance are available through Rural Utilities Services within the U.S.

Department of Agriculture at www.usda.gov/rus/telecom/dlt/dlt.htm.

The U.S. Department of Health and Human Services (DHHS) Health Services and Resource Administration (HRSA) Office for the Advancement of Telehealth (OAT) defines telemedicine and telehealth as follows. Telemedicine is the use of electronic communication and information technologies to provide or support clinical care at a distance. Telehealth is the use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education, public health, and health administration. This office provides assistance and support through:

- Fostering partnerships within HRSA, and with other federal agencies, states and private-sector groups to create telehealth projects;
- Administering telehealth grant programs;
- Providing technical assistance;
- Evaluating the use of telehealth technologies and programs;
- Developing telehealth policy initiatives to improve access to quality health services; and
- Promoting knowledge exchange about best telehealth practices.

Comprehensive assessments of telehealth and telemedicine in Iowa have not been completed. Various efforts have been funded through HRSA but have not been coordinated statewide. Furthermore, the number of health care providers, facilities or communities that could take advantage of the Universal Services Fund to help implement telehealth and telemedicine are unknown.

1–12.1 Action Step

By 2006, assemble an ad hoc task force to create a plan to assess the use of telehealth and telemedicine in Iowa, identify potential users, create opportunities for education and technical assistance, and link potential partners. (A University of Iowa, Iowa Department of Public Health, and other partners action step.)

Goal Cross References

Chapter 2: Cancer

- 2–1 Reduce cancer deaths to a rate of no more than 173/100000.
- 2–2 Reduce cancer incidence to a rate of no more than 450/100000.
- 2–3 Ensure implementation of HI 2010 cancer action steps and the priority strategies of the Iowa cancer plan.
- 2–5 Reduce female breast cancer deaths to a rate of no more than 19/100000.
- 2–6 Reduce cervical cancer deaths to a rate of no more than 1.9/100000.
- 2–7 Reduce colorectal cancer deaths to a rate of no more than 15.5/100000.
- 2–8 Reduce oropharyngeal cancer deaths to a rate of no more than 1.8/100000.
- 2–10 Reduce skin melanoma deaths to a rate of no more than 1.9/100000.
- 2–11 Increase the relative 5-year survival rate for all invasive cancers to at least 68%.

Chapter 3: Diabetes

- 3–1 Increase awareness of diabetes in people with pre-diabetes risk and those with undiagnosed diabetes and limit the upward prevalence trend of diabetes to 0.2% per year.
- 3–2 Decrease disparities in diabetes prevalence and increase access to health care.
- 3–3 Offer leadership and educational opportunities to improve health care.
- 3–4 Decrease mortality and morbidity from diabetes by preventing or delaying complications.

Chapter 4: Disabilities

- 4–1 Improve consumer access to information about health care needs through provider education and coordination of consumer health information resources.
- 4–2 Develop and distribute a comparison of health plans and initiate a curriculum that helps people with disabilities select the best plan.
- 4–3 Assure that each HI 2010 chapter assesses the health issues and potential treatment available for people with disabilities.
- 4–4 Collect statewide data to better identify, describe and analyze information on

- health disparities, secondary conditions, and participation for people with disabilities.
- 4-5 Test at least three health promotion interventions designed for people with disabilities.
- 4-6 Establish a network of 10 community-based physical activity resource centers.
- 4-8 Maintain and expand the Iowa arthritis program to include surveillance, public awareness, health care provider and consumer education, and programs to decrease disability and improve quality of life.
- 4-9 Plan and conduct four arthritis self-help course leader workshops annually.
- 4-10 Plan and conduct at least three arthritis presentations annually for providers.
- 4-13 Develop a disability curriculum and initiate other mechanisms to provide up-to-date information to providers and pre-service health education programs.
- 4-17 Improve Iowa's Medicaid for Employed Persons with Disabilities buy-in program by removing the system's "bias to poverty."
- 4-18 Increase the earning power of Iowans with disabilities to accumulate assets and savings.
- 4-19 Improve the interface between private health insurers and other systems
- 4-21 Create an expanded array of assistive strategies for Iowans with disabilities to enable them to contribute in the workplace.
- 4-22 Expand the role of the State Level Transportation Coordination Council to coordinate among publicly funded programs that provide transportation.
- 4-23 Expand availability of publicly funded transportation services.
- 4-24 Establish a central repository for information on availability of public transit and human service transportation.
- 4-25 Provide consumer training on requirements of the Americans with Disabilities Act for public transit.
- 4-26 Refocus the service system to include innovative models for the delivery of cost effective, community-based services.
- 4-27 Eliminate the county of legal settlement as a criterion for receiving services.
- 4-28 Assure that persons with disabilities understand the health and other benefits of

assistive technology (AT), how to select and obtain AT, and have access to information on health-related funding sources for AT.

- 4-29 Assure that health care providers recognize the benefits of assistive technology (AT), provide information about AT to their clients, make appropriate referrals for AT, provide direct AT services, and facilitate their client's access to third-party funding.
- 4-30 Increase access to assistive technology through policy change and increase funding options.

Chapter 5: Educational and Community-Based Programs

- 5-2 Provide a set of basic health support services for students at a minimum of 10 schools and employ full-time nurses in 81% of school districts.
- 5-3 Increase to 40% the number of 3 to 4-year-olds served in a Iowa accredited pre-school programs.

Chapter 7: Family Planning

- 7-1 Increase to 65% the proportion of intended pregnancies among women aged 13 to 44.
- 7-2 Reduce pregnancies among females aged 15-17 to 12/1000 and among females aged 12-14 to 50 total in Iowa.
- 7-5 Establish a baseline for male involvement in pregnancy prevention and family planning and increase by 1% male involvement.

Chapter 8: Food and Drug Safety

- 8-5 Ensure the safest and most effective use of pharmaceutical products.

Chapter 9: Heart Disease and Stroke

- 9-1 Reduce by 13% heart disease deaths.
- 9-2 Reduce by 16% stroke deaths.
- 9-3 Identify and control of high blood pressure.
- 9-4 Reduce by 10% the adult population with high blood pressure.

Chapter 10: Immunization and Infectious Disease

- 10-1 Reduce by 50% indigenous cases of selected vaccine preventable disease.

- 10-2 Increase to 90% the rate of immunization among adults aged 65 and older.
- 10-3 Maintain the incidence of Hib meningitis at or below .4/100000 for children aged 2 months to 5 years.
- 10-4 Reduce Hep A cases to no more than 10/100000.
- 10-5 Reduce to zero newly diagnosed Hep B in Iowans under aged 25.
- 10-6 Reduce by 50% Hep B among adults aged 25 and older.
- 10-7 Make information on Hep C available to health care providers.
- 10-8 Reduce tuberculosis to no more than 1.0/100000
- 10-10 .. Reduce by 10% antimicrobial resistance in key reportable invasive antibiotic-resistant organisms.
- 10-12 .. Reduce by 25% invasive pneumococcal infections and invasive penicillin-resistant pneumococcal infections in persons under aged 5 and over aged 65.
- 10-13 .. Maintain at 90% immunization levels for children aged 19-35 months.
- 10-14 .. Maintain at 95% immunization compliance for children in licensed day care centers and kindergarten through first grade.
- 10-15 .. Maintain at 100% public Vaccine for Children (VFC) providers who measure immunization coverage and increase to 30% the number of private VFC providers who measure immunization coverage.
- 10-16 .. Increase to 75% the proportion of children aged 0-6 enrolled in a fully functional population-based immunization registry.
- 10-17 .. Increase by 20% the number of health care workers who annually receive influenza vaccine.
- 10-18 .. Educate health care providers and the public on use of antibiotics for ear infections.
- 10-19 .. Educate health care providers on the use of antibiotics for colds.

Chapter 11: Maternal, Infant and Child Health

- 11-1 Reduce the overall infant mortality rate to no more than 5/1000 of live births.
- 11-2 Reduce low birth weight to no more than 5% and very low birth weight to 1%.

- 11-3 Increase to 98% the percentage of newborns screened for hearing impairment before hospital discharge.
- 11-4 Reduce the rate of child mortality to 17/100000 for children aged 1-14.
- 11-5 Increase to 75% children who have a “medical home” as defined by the American Academy of Pediatrics
- 11-6 Maintain at 98% Medicaid-eligible children aged 1-21 who have received a service paid by Medicaid.
- 11-7 Increase to 70% children aged 0-3 served by Title V and Title XIX who receive mental and behavioral health care.
- 11-8 Reduce perinatal mortality to no more than 7.1/1000 live births.
- 11-9 Increase the number of professionals who provide mental health service to women of reproductive age.
- 11-10 .. Increase to at least 90% women who receive early and adequate prenatal care.
- 11-11 .. Develop Iowa as a state with a service system for Children with Special Health Care Needs.
- 11-12 .. Increase to 98% children with a source of health care insurance.
- 11-14 .. Increase the capacity to service children and families through enhanced pre-service curriculum and opportunities.
- 11-15 .. Increase to 75% children with special health care needs enrolled in managed care with a written plan.

Chapter 12: Mental Health and Mental Disorders

- 12-1 Develop a statewide campaign to increase public awareness about good mental health.
- 12-2 Reduce by 10% annual suicides among youth aged 15-24 and adults aged 65 and older.
- 12-3 Increase the number of mental health assessments performed by primary care physicians as part of routine patient care.
- 12-4 Improve the overall efficiency of child-serving state agencies by creating a shared state level vision for improving the well-being of children from early childhood through adult transition modeled after the Early ACCESS collaborative planning format.

- 12-5 Increase to 100% the number of mental health service agencies that include some form of consumer and family input when designing or modifying services.
- 12-6 Increase to 100% the number of mental health service agencies that include some form of youth and family input when designing or modifying services.
- 12-8 Expand by 30% the capacity to serve adult offenders in Iowa state correctional facilities and under community supervision.
- 12-10 .. Design and implement a system of care for adults with mental health needs.
- 12-11 .. Develop and implement a system of care for children with behavioral and developmental needs and their families.
- 12-12 .. Provide appropriate mental health services to all adults and children seeking services.
- 12-13 .. Provide affordable public transportation that is frequent enough to support an independent lifestyle for persons with mental health disorders.
- 12-14 .. Increase the use of mental health outreach service of the Medicaid Elderly Waiver.
- 12-15 .. Ensure universal access to social, emotional and behavioral health services for children aged 0-5.
- 12-16 .. Identify 100% of pregnant and postpartum women with depression or at high risk for depression.
- 12-17 .. Provide excellent mental health services in rural and urban settings.
- 12-19 .. Develop a system for collecting a uniform set of mental health data across all publicly funded services.

Chapter 13: Nutrition and Overweight

- 13-2 Educate Iowans so that 75% of infants are breastfed at birth, 35% until aged 6 months, and 15% until aged 12 months.
- 13-3 Prevent further rise in percent of Iowans who are overweight.
- 13-4 Prevent further rise of weight gain among persons under aged 18.
- 13-6 Increase by at least 20% the proportion of Iowans aged two and older who meet the dietary recommendations for calcium.
- 13-7 Provide nutrition education to those at high risk for related diseases due to

family history, genetics, disabilities, and/or lifestyle choices.

- 13-9 Provide nutrition screening and education to 90% of older adults who participate in health and nutrition programs.

Chapter 14: Occupational Safety and Health

- 14-4 Expand and promote safety and health training opportunities for employers, employees and medical professionals.

Chapter 15: Oral Health

- 15-1 Reduce cavities in primary and permanent teeth to the proportion of children who have had one or more cavities, filled or unfilled, is no more than 10% among children aged 3-5, 25% among children aged 7-9, and 50% among children 12-14.
- 15-2 Reduce cavities in primary and permanent teeth to the proportion of low-income children with decayed teeth not filled is no more than 2% among children aged 3-5, 10% among children aged 7-9, and 18% among children 12-14.
- 15-3 Reduce to no more than 20% the proportion of people aged 65 and older who have lost all their natural teeth.
- 15-4 Implement an annual statewide oral health surveillance system.
- 15-5 Reduce deaths due to cancer of the oral cavity and pharynx to Iowans aged 45-74 to no more than 5.3/100000 for men and 2.2/100000 for women.
- 15-6 Increase to at least 50% the proportion of children in the 3rd grade who receive sealants in permanent molar teeth.
- 15-7 Increase to at least 75% the proportion of people aged 65 and older who have had a dental exam the previous year.
- 15-9 Increase to 25% the use of topical fluorides by at-risk populations.
- 15-10 .. Increase to 25% the proportion of 1-year-olds receiving dental exams or screenings.
- 15-11 .. Increase to at least 80% the proportion of children entering school who have had an oral health exam or screening.
- 15-12 .. Increase to 85% the proportion of community health centers that have a direct oral health service component.

15–13 ..Increase to 80% the proportion of long-term care facilities that provide oral exams and/or screenings.

Chapter 16: Physical Activity and Fitness

16–2Certify 500 physician-based assessment and counseling for exercise (PACE) clinicians

Chapter 18: Respiratory Diseases: Asthma

18–1Reduce asthma-related hospitalizations by 10%, emergency department visits by 10%, and urgent care visits by 20%.

18–4Increase the proportion of persons with asthma who receive formal patient education.

18–6Educate health care professionals to work toward enhancing the overall health and well-being of people who have asthma by 1) promoting use of National Institutes of Health guidelines, 2) including information on indoor triggers and reduction methods, and 3) targeting homes, schools, child care providers, and workplaces.

18–7Support public policy to reduce the incidence and severity of asthma.

Chapter 19: Sexually Transmitted Diseases and HIV Infections

19–1Reduce Chlamydia trachomatis to no more than 140/100000.

19–2Reduce gonorrhea to no more than 43/100000.

19–3Eliminate transmission of primary and secondary syphilis.

19–4Maintain the number of public health jurisdictions with populations of 50,000 or more that have at least one dedicated sexually transmitted disease clinic.

19–5Establish a baseline for the proportion of sexually active women under aged 25 who are screened annually for Chlamydia and gonorrhea.

19–6Establish a baseline for the proportion of pregnant women screened for sexually transmitted diseases during prenatal health care visits.

19–7Establish a baseline for the number of youth detention facilities and adult city and/or county jails in which screening

for common bacterial sexually transmitted diseases is conducted within 24 hours of admission.

19–8 Reduce new cases of AIDS among adolescents and adults to no more than 2/100000.

19–9 Reduce by 50% the annual incidence of HIV infection.

19–10 .. Increase to 67% the proportion of sexually active students who report using a condom during the previous 3 months.

19–12 .. Increase the proportion of clients of state-funded HIV testing sites who are referred for screening for common bacterial STDs.

19–13 .. Increase to 1.0% the percentage of newly identified, confirmed HIV-positive test results by state-funded HIV counseling, testing and referral sites.

19–14 .. Increase to 75% the percentage of partner counseling and referral contacts with unknown or negative serostatus who receive an HIV test.

19–15 .. Increase to 90% the proportion of facilities providing treatment for injecting drug use that offer or provide referrals for HIV counseling and voluntary testing.

19–16 .. Maintain at 100% state prison inmates who receive HIV testing and counseling.

19–17 .. Increase to 90% county jails in counties with populations over 50,000 that regularly screen for HIV.

19–18 .. Increase to 100% new TB cases aged 24-44 who have their HIV status reported.

19–19 .. Increase the percentage of HIV-infected persons who regularly receive primary HIV medical care.

19–20 .. Reduce HIV mortality to no more than 0.4/100000.

19–21 .. Decrease the percentage of persons diagnosed with AIDS within one year of their HIV diagnosis.

19–22 .. Eliminate HIV acquired perinatally.

Chapter 20: Substance Abuse and Problem Gambling

20–1 Establish a systematic process and begin to access the infrastructure of the alcohol, tobacco and other drugs service system and its impact on prevention, early intervention, and treatment.

- 20–2 Increase by 3% youth aged 12-17 who never used alcohol and annually monitor and evaluate the increase.
- 20–4 Increase to 425 (from 325) the number of lowans aged 65 and older who receive screening, prevention, referral, and/or treatment for risk factors.
- 20–5 Increase availability of 24-hour residential treatment from 517 beds to 542 beds for lowans addicted to alcohol, tobacco and other drugs.
- 20–6 Enact legislation requiring insurers to provide coverage for mental illness and addiction.
- 20–7 Maintain the percentage of lowans engaging in problem gambling.

Chapter 22: Unintentional Injuries

- 22–1 Enhance Iowa's EMS system by implementing an integrated data system and linkage with 75% of EMS services, and by maintaining Iowa's trauma care
- 22–5 Establish a program for progressive resistance training to prevent falls among the elderly in all Iowa counties.
- 22–8 Reduce deaths, illnesses and costs from unintentional poisoning.
- 22–10 .. Reduce deaths by motor vehicles to no more than 1.3/100 million vehicle miles traveled, with special attention to aged 14 and under, 15-24, and 75 and older.

Chapter 23: Violent and Abusive Behavior

- 23–6 Identify the incidence of elder and dependent adult abuse in Iowa.
- 23–7 Establish procedures at 100% of hospital emergency departments, family planning agencies, public health clinics, community mental health centers, and substance abuse treatment programs for routinely identifying, treating and properly referring victims of child abuse, domestic abuse, elder abuse, and sexual assault.
- 23–8 Identify the incidence of intentional violence in schools and workplaces and establish a mechanism for reporting it.

Chapter 24: Vision

- 24–1 Establish a reliable Iowa-specific baseline data on vision.

- 24–3 Develop new or improved educational programs to reduce visual disabilities due to low birth weight or premature births.
- 24–5 Increase the number of preschool children who receive vision screenings and follow-up care.
- 24–6 Encourage health insurance carriers and employer groups to include vision benefits in their policies.

Chapter 25: Emergency Preparedness and Response

- 25–4 Develop a comprehensive plan to increase surge capacity for health care.
- 25–5 Maintain plans for and implement additional training and exercising for the Strategic National Stockpile program at the local, regional and state level.
- 25–6 Develop a plan to address the impact of mental health concerns on 5,000 adult and pediatric clients and health care workers per 1,000,000 population exposed to a biological, chemical, radiological, or explosive terrorist incident.
- 25–7 Develop a secure, web-based reporting and notification system that provides for rapid and accurate receipt of reports of disease outbreaks and other acute health events that might suggest bioterrorism.
- 25–8 Exercise, assess and implement needed change in plans annually to demonstrate proficiency in responding to terrorism attacks, natural disasters, infectious disease outbreaks, and other public health threats and emergencies.
- 25–9 Develop a self-sustaining payment system and user network to assure that emergency responders have ongoing access to the Health Alert Network.

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Chapter 2

Cancer**Introduction**

Cancer is the second leading cause of death in Iowa. According to Iowa Cancer Registry, an estimated 15,200 Iowans were diagnosed with cancer in 2004 and 6,500 died of cancer.

With the exception of bladder cancer, these numbers do not include carcinoma in situ (when the cancer is still localized in one place) because the norm is to exclude these cases in frequency and rate calculations. They also do not include basal and squamous cell carcinomas (cancers of the skin) because the Iowa Cancer Registry does not collect these data, as is the practice of most cancer registries in the United States.

Cancer annually accounts for about 230 of every 1,000 deaths in Iowa and affects Iowans in every county. Although it occurs in people of all ages, during the 1990s more than 65% of new cancers occurred in people aged 65 and older.

Four types of cancer most commonly affect Iowans: lung, colorectum, prostate, and female breast. From 1990 through 2002, these types accounted for 57.4% of all incident (new) cancers and 54% of all cancer deaths. Breast cancer was the most common female cancer, and prostate cancer was the most common male cancer. Lung cancer was the leading cause of cancer death, accounting for 27% of all cancer deaths.

Cancer incidence and death rates vary by racial group in the United States. For some groups, the rates are higher, indicating they are not benefiting equally from cancer prevention and control. This is true in Iowa as well where African-Americans have higher mortality rates than whites for lung, female breast, colorectum, and prostate cancers.

The number of newly diagnosed cancers in Iowa was evaluated to obtain a clearer picture of how people with malignant cancers are distrib-

uted by race. Cancer deaths were also evaluated in a similar manner and the results were similar.

Total Iowa Malignant Cancers diagnosed during 2000 by Race/Ethnicity

Race/Ethnicity	# State	% MSA Counties
White	15,170	44.4
White Hispanic	81	58.0
African-American	173	82.1
AI/AN	15	80.0
Asian/PI	59	66.1
Unknown	100	78.0

Note: DTS+ = Data too small to be reliable. MSA = Metropolitan Statistical Area. AI = American Indian. AN = Alaskan Natives. PI = Pacific Islanders. Source: State Health Registry of Iowa.

Over 80% of African-Americans diagnosed with cancer between 2000 and 2002 resided in metropolitan statistical area (MSA) counties. In the 2000 census, there were 20 such counties in Iowa: Benton, Black Hawk, Bremer, Dallas, Dubuque, Grundy, Guthrie, Harrison, Johnson, Jones, Linn, Madison, Mills, Polk, Washington, Pottawattamie, Scott, Story, Warren, and Woodbury. Similarly, over half of other races diagnosed with cancer during this period resided in MSA counties.

However, the absolute number of cancers for other races is much smaller than for whites. The numbers would be even lower if limited to site-specific cancers (a cancer located in a specific place) and result in unreliable rates. For this reason, baseline cancer rates will be shown for African-Americans and whites in MSA counties only.

Cancer rates in rural populations also differ from those in urban populations. Since Iowa is considered a rural state, this distinction can have particular significance to Iowans. One docu-

mented difference is the higher proportion of people over aged 65 in rural areas.

Tobacco use is the leading modifiable risk factor for cancer. Tobacco-associated cancers include those in the lung and bronchus, oral cavity (excluding lip), esophagus, larynx, pancreas, uterine cervix, urinary bladder, kidney, and renal pelvis. Of the 442,000 deaths annually attributed to smoking in the United States between 1995 and 1999, 155,700 (35%) involved some type of cancer, most commonly lung cancer.

The International Agency for Research on Cancer Working Group recently concluded that sufficient evidence exists to add as tobacco-associated cancers those occurring in the nasal cavity and paranasal sinuses, nasopharynx, stomach, liver, and myeloid leukemia. The estimated global mortality due to smoking in 2000 was 4.84 million (2.41 million in developing nations and 2.43 million in developed).

Alcohol consumption is also a known risk factor for cancers of the oral cavity (excluding lip), esophagus, and larynx, and to a lesser extent, liver. Ongoing research indicates that dietary factors and physical activity may play an important role in the occurrence of some cancers. Other important risk factors include excessive sunlight exposure for skin melanoma and genetic predisposition for breast cancer. These risk factors are dealt with in other chapters of *Healthy Iowans 2010*. Objectives in those chapters will support some of the action steps in this chapter.

Cancer incidence reveals more about risk factors in the population than cancer mortality because cancer mortality data also reflect outcomes of cancer screening practices and cancer treatment.

Widely accepted cancer screening guidelines exist for cancers of the female breast, uterine cervix, and colorectum. Recommended screening tests include mammography and clinical breast examination for female breast cancer, Papanicolaou (Pap) tests for cancer of the uterine cervix, and fecal occult blood tests, sigmoidoscopy, colonoscopy, and double contrast barium enema for colorectal cancer. The primary objective of these screening tests is to reduce site-

specific cancer mortality by detecting cancer at an earlier stage.

Some of these tests, especially the Pap test, mammography, and sigmoidoscopy/ colonoscopy, can detect precancerous lesions. This can also lead to a reduction in site-specific malignant (or invasive) cancer incidence rates. For these reasons, cancer incidence-related action steps will be included with cancer mortality (death) goals.

Progress

Over 40 types of cancer are typically reported by the Iowa Cancer Registry and the National Cancer Institute. In this chapter, besides all sites, particular attention is given to the more common cancer sites and sites where modifiable risk factors have been identified and/or screening guidelines are widely accepted. Between 1994 to 1996 and 2000 to 2002, all targeted cancer sites in Iowa showed improvement in mortality rates. For all sites, cancer mortality declined 4%. Female breast and prostate cancers, the most common cancers in women and men, showed improvements of 17% and 19%, respectively.

Measured Progress toward Cancer Mortality Goals for Year 2010, Iowa

Cancer Site	Sex	1994-1996 Baseline Rate*	2000-2002 Mid-course Rate*	% Improvement
All Sites	M&F	196.4	188.5	4%
Breast	F	29.0	24.1	17%
Cervix	F	2.6	2.3	12%
Colorectum	M&F	23.2	21.0	9%
Lung	M&F	54.1	51.6	5%
Oral Cavity & Pharynx	M & F	2.6	2.2	15%
Prostate	M	36.0	29.3	19%
Skin Melanoma	M&F	2.5	2.2	12%

*Per 100,000 population and age-adjusted to the year 2000 U.S. population estimate. Source: State Health Registry of Iowa and Iowa Department of Public Health. For prostate, oral cavity and pharynx and skin melanoma, the 2000-2002 mortality rate data indicate that the original 2010 goal has already been achieved. For other sites, such as cervix, lung and all sites, the original 2010 goal was too optimistic and needs to be revised upward.

Cancer Mortality Goals for Year 2010, Iowa

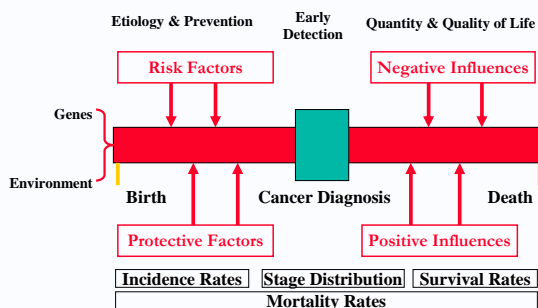
Cancer Site	Sex	Revised % Improvement (over 1994-1996 baseline rate*)	Mid-course Revised Goal	Original Goal
All Sites	M&F	12% (196.4)	173.0	157.0
Breast	F	34% (29.0)	19.0	23.4
Cervix	F	27% (2.6)	1.9	1.0
Colorectum	M&F	33% (23.2)	15.5	15.5
Lung	M&F	15% (54.1)	46.0	42.6
Oral Cavity & Pharynx	M&F	31% (2.6)	1.8	2.2
Prostate	M	28% (36.0)	26.0	32.6
Skin Melanoma	M&F	24% (2.5)	1.9	2.3

*Per 100,000 population and age-adjusted to the year 2000 U.S. population estimate.
Source: State Health Registry of Iowa & Iowa Department of Public Health.

To meet the goals, Iowans need primary prevention and the identification of risk factors and protective factors. Cancer incidence rates reflect progress in this area. Iowans want early detection, an early measure of which is the stage distribution.

They also want information on quantity and quality of life once diagnosed with cancer and effective treatment, rehabilitation and quality care. Survival rates directly measure quantity of life and indirectly measure quality of life. The cancer mortality rate provides the number of lives lost to cancer relative to the population at risk. It can be affected by changes in the incidence rate, stage distribution, or survival rate.

Population Interests in Cancer Prevention and Control



To achieve Iowa’s cancer goals, education and services must provide more effective information about modifiable risks, effective screen-

ing, diagnoses and treatment, quality of life, and research.

In this review, additional cancer sites, including non-Hodgkin’s lymphoma, uterine, ovarian, and testicular cancers, were considered but not included because there are no established, effective, endorsed guidelines for their prevention.

In 2002, the Iowa Consortium for Comprehensive Cancer Control, which includes more than 100 people representing 50 agencies and organizations around the state, developed a comprehensive state plan to change the face of cancer in Iowa. Through the consortium, citizens, leaders and many institutions are working together to reduce the burden of cancer. The state comprehensive cancer control plan fully supports the cancer goals in this *Healthy Iowans 2010* chapter.

The goals of Iowa’s Comprehensive Cancer Control Plan are:

- Whenever possible, prevent cancer from occurring;
- When cancer does occur, find it in its earliest stages;
- When cancer is found, treat it with the most appropriate therapy;
- Assure that the quality of life for every cancer patient is the best possible; and
- Move research findings more quickly into prevention and control.

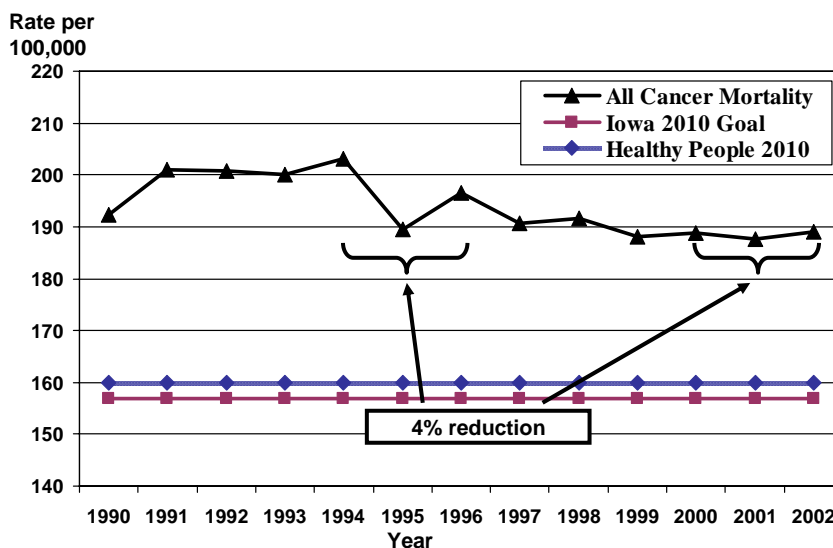
The mid-course revision of this chapter directly incorporates some of the strategies and priorities included in the state comprehensive cancer control plan. The cancer control plan is more comprehensive and goes beyond the incidence and mortality goals of *Healthy Iowans 2010* to include quality of life, end-of-life care, and research.

Goal Statements & Action Steps

2-1 Goal Statement

Reduce cancer deaths to a rate of no more than 173 per 100,000. Baseline: 1994 to 1996 age-adjusted rate of 196.4 per 100,000; 2000 to 2002 age-adjusted mid-course rate of 188.5 per 100,000; 2010 goal revised upward from 157 per 100,000 to better reflect an achievable goal.

All Sites Cancer Mortality, 1990-2002



Rationale

Cancer is the second leading cause of death in the United States and Iowa. From 1990 to 2002, cancers of the lung, colorectum, female breast, and prostate accounted for a majority of the cancer deaths in Iowa.

Cancer mortality for some cancers are significantly reduced by early detection and intervention. The goals in this chapter directly deal with breast, cervical, colorectal, melanoma, prostate, lung, oral cavity, and pharyngeal cancers, as well as initiatives in environmental health (Chapter 6), nutrition (Chapter 13), oral health (Chapter 15), physical activity and fitness (Chapter 16), and tobacco use (Chapter 21), address cancer.

Cancer Mortality

Select Population	2000-2002 Mid-course Rate*	# of Deaths 2000-2002
Aged <50	19.4	1,210
Aged 50-64	250.9	3,438
Aged 65+	1,082.9	14,613
Males	237.5	9,979
Females	157.1	9,282
Non-MSA counties	187.5	10,371
MSA counties	190.4	8,890
White	189.4	8,597
African-American	281.0	241

*Per 100,000 population and age-adjusted to the year 2000 U.S. population estimate. MSA = metropolitan statistical area.

To assist in meeting these goals, it is important to monitor trends in cancer incidence and mortality.

2–1.1 Action Step

Through 2010, collect and analyze statewide data for cancer mortality and expedite the dissemination of the data, including cancer mortality rates for special populations. (An Iowa Department of Public Health action step.)

2–1.2 Action Step

By 2010, review developments in early detection of cancer every other year to determine the feasibility of establishing initiatives for cancer. (An American Cancer Society and Iowa Department of Public Health action step.)

2–1.3 Action Step

Through 2010, advocate via a variety of community-based coalitions and interest groups for improved access to regular cancer screening for Iowans who are less likely to be screened, particularly those living in rural areas, with disabilities and/or mobility limitations, with low incomes, and within a minority population. (An Iowa Department of Public Health, American Cancer Society, and Iowa Consortium for Comprehensive Cancer Control action step.)

2–1.4 Action Step

By 2010, obtain more funding for the Iowa Cancer Registry from the state of Iowa as cost-sharing to support continued high quality cancer surveillance. (A State Health Registry of Iowa and Iowa Consortium for Comprehensive Cancer Control action step.)

2–2 Goal Statement

Reduce cancer incidence to a rate of no more than 450 per 100,000. Baseline: 1994 to 1996 age-adjusted rate of 467.3 per 100,000; 2000 to 2002 age-adjusted mid-course rate of 479.3 per 100,000; 2010 goal revised upward from 417 per 100,000 to better reflect an achievable goal.

Rationale

The potential for reducing cancer incidence through primary prevention appears to be extensive. Lifestyle, occupational, genetic, and environmental factors – individually or in combination – can increase a person’s risk of developing cancer. Currently, reductions in tobacco use and dietary modifications have the greatest potential to reduce cancer incidence and, ultimately, mortality.

The American Cancer Society, the National Cancer Institute, the Centers for Disease Control and Prevention, the Iowa Cancer Registry, the Iowa Department of Public Health, and other organizations provide important information on cancer prevention. The Iowa Consortium for Comprehensive Cancer Control also uses this information to establish cancer control initiatives and priorities.

An overall reduction in incidence will be achieved primarily through the action steps listed in the site-specific sections. To help meet these goals, cancer incidence and primary prevention trends and developments must continually be monitored.

Cancer Incidence

Select Population	2000-2002 Midcourse Rate*	# of Cases 2000-2002
Aged <50	96.8	5,990
Aged 50-64	855.5	11,709
Aged 65+	2,223.1	29,247
Males	561.1	23,941
Females	426.6	23,005
Non-MSA counties	477.4	25,805
MSA counties	481.2	21,141
White	474.5	20,166
African-American	492.6	457

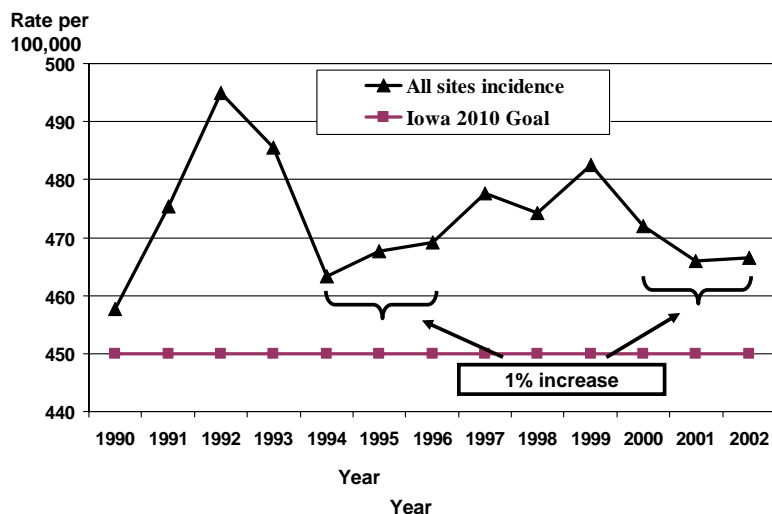
*Per 100,000 population and age-adjusted to the year 2000 U.S. population estimate. MSA = metropolitan statistical area.

The Iowa Cancer Registry has statewide cancer incidence data dating back to 1969. It continuously collects and analyzes comprehensive data on all types of cancer, except for basal cell and squamous cell. These data provide excellent information on cancer trends and the ba-

sics necessary for some cancer research. The National Cancer Institute primarily funds the registry, with additional cost-sharing funding

from the state of Iowa and the University of Iowa.

All Sites Incidence, 1990-2002



2–2.1 Action Step

Through 2010, maintain the operations and quality of the current source of cancer data, including the statewide tumor registry, the Behavioral Risk Factor Surveillance System, and other key surveillance systems throughout the state. (An Iowa Cancer Registry, State Health Registry of Iowa, and Iowa Department of Public Health action step.)

2–2.2 Action Step

By 2005, review developments in primary prevention and determine the feasibility of establishing initiatives to include in the state cancer plan and the need to revise the current state cancer plan’s primary prevention priorities.

The plan’s priorities are to:

1. Increase the state excise tax on cigarettes by \$1, making the total tax \$1.36 per pack;
2. Eliminate the public’s exposure to second-hand smoke in workplaces, restaurants and all other public facilities;
3. Support Lighten Up Iowa, a statewide campaign to reduce overweight and obesity among Iowans by increasing physical activity and improving food choices; and

4. Implement community-based interventions, focusing on children and adolescents by a) increasing the awareness of sunburn as a risk for skin cancer and b) implementing policy changes to help reduce over exposure to the sun. (An Iowa Consortium for Comprehensive Cancer Control, Iowa Department of Public Health, and American Cancer Society action step.)

2–3 Goal Statement

Ensure the implementation of the *Healthy Iowans 2010* cancer chapter action steps and assure implementation of the priority strategies of the Iowa cancer plan “Changing the Face of Cancer in Iowa: A state plan for 2003 – 2005” and its subsequent revisions. Baseline: See Rationale.

Rationale

Many Iowa health care organizations work independently in cancer prevention, cancer control, and health care access. Often, they don’t

adequately coordinate efforts or communicate important information and initiatives.

A statewide cancer plan and the strong commitment of the Iowa Consortium for Comprehensive Cancer Control to work for implementation provides an unprecedented opportunity to make more progress than ever in alleviating the burden of cancer.

2–3.1 Action Step

Through 2010, maintain adequate funding for a statewide, integrated cancer prevention and control program. (An Iowa Department of Public Health and Iowa Consortium for Comprehensive Cancer Control action step.)

2–3.2 Action Step

Through 2010, maintain the Iowa Consortium for Comprehensive Cancer Control, represented by citizens, leaders, organizations, and institutions that work to reduce the burden of cancer. (Iowa Consortium for Comprehensive Cancer Control action step.)

2–3.3 Action Step

Through 2010, monitor the following priority strategies and outcomes of the Iowa cancer plan, “Changing the Face of Cancer in Iowa.”

1. Develop a statewide information resource (e.g., web site) containing a wide variety of critical cancer control information and centralize information access for both the public and health professionals to provide an efficient means for informed decision-making.
2. Increase the state excise tax on cigarettes by \$1, making the total tax \$1.36 per pack.
3. Maintain a state commitment to an endowment for health at levels comparable to those that would have been available before the acquisition of the tobacco-related Master Settlement Funds.
4. Enact policies that prohibit Iowa insurers from:
 - Requesting or requiring collection or disclosure of genetic information without prior specific written authorization for that particular test from the customer;

- Using genetic information or customer requests for genetic services to deny or limit coverage to customers or their relatives;
- Establishing differential rates or premium payments based on genetic information, or a customer’s request for genetic services; and
- Releasing genetic information without specific, prior and written authorization from the customer.

5. Enact policies for Iowa employers that specifically prohibit:

- Using genetic information to affect a person’s hiring or the terms, conditions, privileges, benefits, or termination of employment;
- Requesting or requiring collection or disclosure of genetic information prior to a conditional offer of employment;
- Accessing genetic information in medical records released by people or their relatives as a condition of employment, in claims filed for reimbursement for health care costs, or other services; and
- Releasing genetic information without a person’s specific, prior and written authorization.

2–4 Goal Statement

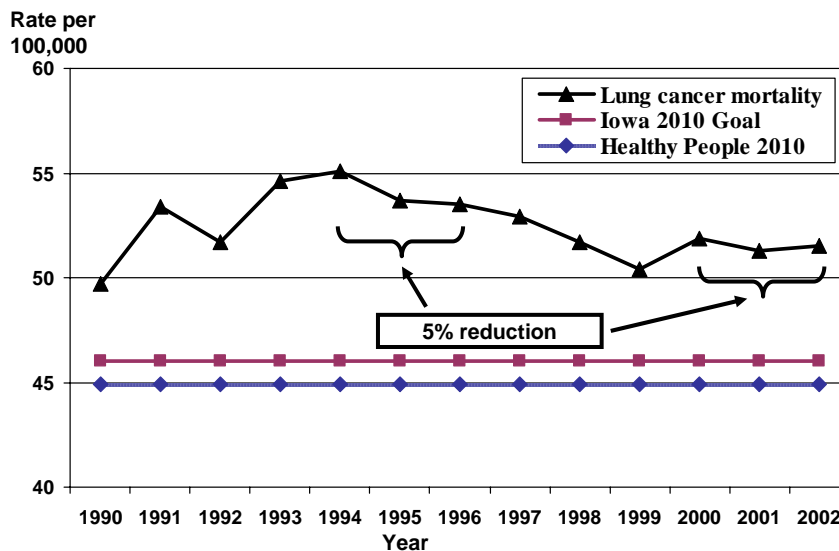
Reduce lung cancer deaths to a rate of no more than 46.0 per 100,000. Baseline: 1994 to 1996 age-adjusted rate of 54.1 per 100,000; 2000 to 2002 age-adjusted mid-course rate of 51.6 per 100,000; 2010 goal revised upward from 42.6 per 100,000 to better reflect an achievable goal.

Lung Cancer Mortality

Select Population	2000-2002 Mid-course Rate*	# of Deaths 2000-2002
Males	73.7	3,128
Females	36.1	2,032
Non-MSA counties	49.7	2,686
MSA counties	53.9	2,474
White	53.5	2,387
African-American	91.6	78

*Per 100,000 population and age-adjusted to the year 2000 U.S. population estimate. MSA = metropolitan statistical area.

Lung Cancer Mortality, 1990-2002



Rationale

Lung cancer is the most common cause of cancer death among both men and women in Iowa and in the United States. In 2004 in Iowa, an estimated 1,730 persons (1,040 men and 690 women) died from lung cancer, accounting for 27% of all cancer deaths. Among Iowa men, annual age-adjusted lung cancer mortality rates have declined since 1990. Between 1994 to 1996 and 2000 to 2002, the decline in these rates was 9%. Over this same period, annual age-adjusted lung cancer mortality rates for Iowa women increased by 1%.

During 1994 to 1996 in Iowa, age-adjusted lung cancer mortality rates were 85% higher among African-American men than white men. This decreased to 69% higher for 2000 to 2002. Between 1994 and 1996, rates were 6% higher among white women than among African-American women, but during 2000 to 2002 the rate increased to 72% higher among African-American women than white women.

Lung cancer accounted for an estimated 13% of all newly diagnosed cancers in Iowa in 2004. An estimated 2,020 persons (1,150 men and 870 women) were newly diagnosed with the disease. This will make lung cancer the second

most common cancer in men (trailing prostate cancer) and the third most common cancer in women (trailing breast and colorectal cancers).

Based on Iowa Cancer Registry information, annual age-adjusted lung cancer incidence rates for men declined since 1988. Between 1994 to 1996 and 2000 to 2002, the decline was 11%. In contrast, over this same period annual age-adjusted lung cancer incidence rates in Iowa women increased 6%. Between 1994 to 1996 and 2000 to 2002 in Iowa, age-adjusted lung cancer incidence rates increased from 49% to 69% higher among African-American men than white men, but decreased from 26% to 15% higher among African-American women than white women.

Cigarette smoking is the most important risk factor for lung cancer, accounting nationally for 87% of lung cancer deaths. During 2002, cigarette use in adult Iowans was 23.2% (26.3% in males and 20.3% in females).

For the same year, cigarette use in Iowa’s youth aged 18 to 24 was 32.3%. Other forms of tobacco, such as cigars and environmental tobacco smoke, are risk factors for lung cancer as well, as are occupational exposures (e.g., asbestos) and indoor and outdoor air pollution (e.g.,

radon and environmental tobacco smoke). After tobacco, radon is the second leading cause of lung cancer. In 2001 in the U.S., 156,000 people died of lung cancer. An estimated 18,000 of these deaths were attributed to radon, compared to 135,000 attributed to tobacco.

Lung-cancer mortality statistics closely parallel lung-cancer incidence statistics because survival rates are low, with 5-year relative survival rates at 13.8% for Iowans diagnosed with lung cancer between 1995 and 2000. There are no recommended screening tests for the early diagnosis of lung cancer in asymptomatic persons. Most people are diagnosed at an advanced stage.

From 1995 to 2000 in Iowa, 16%, 35% and 39% of lung cancers were detected in early, regional and distant stages, respectively. The strategy for reducing lung cancer deaths is to reduce lung cancer incidence through delaying tobacco use by minors and through smoking cessation.

2–4.1 Action Step

By 2010, decrease lung cancer incidence to a rate of no more than 52.7 per 100,000 (1994 to 1996 age-adjusted baseline rate: 68.4 per 100,000; 2000 to 2002 age-adjusted mid-course rate: 65.7 per 100,000) by supporting the following goals and action steps for changing environments and social norms that support tobacco use and reductions in residential radon exposure.

1. Support realization of the goals and action steps of *Healthy Iowans 2010* chapter 21, Tobacco Use.
2. Implement the strategies of the state cancer plan's goal 1, cancer problem 1 on tobacco use to:
 - a) Increase the excise tax on cigarettes by \$1.00, making the total tax per pack \$1.36;
 - b) Increase awareness of and participation in current programs for smoking and other tobacco product cessation;
 - c) Incorporate tobacco product cessation into counseling programs provided by licensed substance abuse treatment agencies;
 - d) Eliminate the public's exposure to second-hand smoke in workplaces, restaurants, and all other public facilities; and

- e) Increase funding for Iowa's tobacco prevention program to make it comprehensive in scope.
3. Support realization of the goals and action steps of *Healthy Iowans 2010* chapter 6, Environmental Health.
4. Implement the strategies of the state cancer plan's goal 1, cancer problem 4 on radon by:
 - a) Encouraging radon testing of all buildings by certified radon measurement specialists, before the building is sold and at the time of sale;
 - b) Supporting the programs and activities of the Iowa Air Coalition and the Iowa Department of Public Health that address mitigation of homes that have tested equal to or above 4 pCi/L; and
 - c) Encouraging newly constructed homes and buildings to be built according to the 2000 International Residential Building Code.

(An Iowa Consortium for Comprehensive Cancer Control action step.)

2–5 Goal Statement

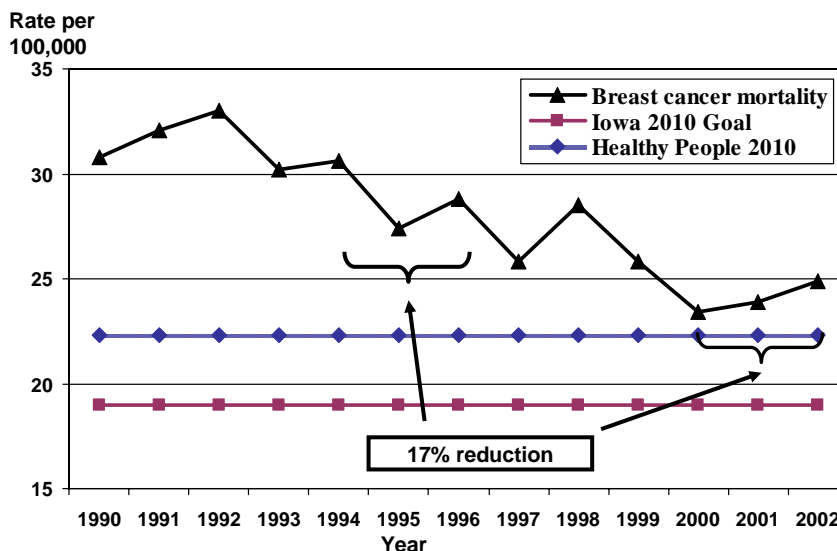
Reduce female breast cancer deaths to a rate of no more than 19.0 per 100,000 persons. Baseline: 1994 to 1996 age-adjusted rate of 29.0 per 100,000; 2000 to 2002 age-adjusted mid-course rate of 24.1 per 100,000; 2010 goal revised downward from 23.4 per 100,000 to better reflect results already achieved.

Female Breast Cancer Mortality

Select Population	2000-2002 Mid-course Rate*	# of Deaths 2000-2002
Aged < 40	1.3	29
Aged 40-64	30.7	427
Aged 65 and older	110.9	928
Non-MSA counties	25.6	778
MSA counties	22.6	606
White	22.2	580
African-American	41.5	21

*Per 100,000 population and age-adjusted to the year 2000 U.S. population estimate. Note: MSA = metropolitan statistical area.

Female Breast Cancer Mortality, 1990-2002



Rationale

Breast cancer is by far the most common cancer among Iowa women, with an estimated 2,250 new cases expected to have occurred in 2004 (Iowa Cancer Registry). An estimated 460 women died from breast cancer in 2004, accounting for 15% of all cancer deaths among Iowa women. The mortality rate remained relatively stable from 1973 to 1992; however, it has been declining since 1992.

The data for 2000 to 2002 show a higher age-adjusted mortality in residents of non-MSAs (metropolitan statistical areas) than in MSA counties. Due to the small size of Iowa’s minority population, and the consequent small number of breast cancer deaths among minority women, breast cancer mortality rates for Iowa’s minority populations are difficult to interpret. The data also indicate that two-thirds of all female breast cancer deaths in Iowa occurred among women aged 65 years and older.

On average, a woman’s lifetime risk of developing breast cancer is one in seven. For primary prevention, overweight is an established risk factor for breast cancer in postmenopausal women, probably due to their higher levels of circulating estrogen.

Mortality can be reduced substantially if a tumor is discovered at an early stage (in situ and/or localized incidence). Mammography on a regular basis is the most effective method for detecting these malignancies early. Clinical trials demonstrate that mammography can reduce breast cancer deaths by 20% to 39% in women aged 50 to 74 and about 17% in women aged 40 to 49.

Although the best tool in the fight against female breast cancer is early detection, early stage breast cancer is not being detected at the same rate in all segments of Iowa’s population. Overall, women in metropolitan statistical areas (MSAs) have breast cancer detected early at slightly higher rates than women in non-MSAs. Although the actual number of cases is low – making interpretation difficult – the 1994 to 1996 baseline data indicate that non-white women in MSAs have much lower early incidence detection rates than white women in MSAs.

Much can be done to reduce the burden of breast cancer through early detection by regular mammography. Suggested intervals for screening vary depending on age and other risks. However, there is universal agreement on the

importance of screening for breast cancer every one or two years.

Behavioral Risk Factor Surveillance Survey (BRFSS) data highlight the discrepancies in mammography screening for Iowa women aged 40 and older when self-reporting their adherence to screening guidelines. Overall, 76.8% of Iowa women aged 40 and older reported in 2002 receiving a mammogram during the preceding two years. However, segments of the population are screened disproportionately, including women with annual household incomes of \$20,000 or less (70.9% screened) and women using assistive technology (e.g., wheelchairs) (67.4%). Minority data are not available due to the small number of such persons in the sample.

The most frequent reasons reported by women for not having breast cancer screening are lack of a physician recommendation and the belief that a mammogram is not needed or not indicated in the absence of symptoms. Education of both the physician and the patient can improve mammography screening rates.

Since physician recommendation is one of the strongest predictors of breast cancer screening, one strategy to increase the likelihood of a physician recommendation is the use of an office reminder system. Although several studies on the mailing of general information about breast cancer screening to women have shown some increases in screening, the effect has typically been limited to a short-term increase in mammography use. A more promising approach has been to tailor messages to the individual.

2–5.1 Action Step

By 2010, increase the percentage of breast cancers diagnosed at an early stage (in situ and localized) to 75% (1994 to 1996 baseline rate: 69.0%; 2000 to 2002 rate: 70.5%, Iowa Cancer Registry, State Health Registry of Iowa).

Accomplish by increasing to at least 85% the percentage of women aged 40 and older who will have had a mammogram in the preceding one to two years. (An Iowa Department of Public Health, Iowa Foundation for Medical Care, American Cancer Society, Susan G. Komen Foundation, and Centers for Disease Control and Prevention action step.)

2–5.2 Action Step

Through 2010, use a variety of community-based coalitions and interest groups to continually advocate for improved access to breast cancer screening on a regular basis for women aged 40 and older who are less likely to be screened. In particular, this applies to women living in rural areas, women with disabilities and/or mobility limitations, women aged 65 and older, low-income women, and minority women. (An Iowa Department of Public Health, Iowa Foundation for Medical Care, Iowa Consortium for Comprehensive Cancer Control, Susan G. Komen Foundation, and American Cancer Society action step.)

2–5.3 Action Step

By 2008, educate and encourage primary care providers to systematically incorporate breast cancer screening guidelines into their practices. (An Iowa Department of Public Health, Iowa Foundation for Medical Care, Iowa Medical Society, Iowa Osteopathic Medical Society, and American Cancer Society action step.)

2–5.4 Action Step

By 2008, encourage primary care providers and mammography facilities to use reminder systems to help ensure annual and/or regular screening for breast cancer. (An Iowa Department of Public Health, Iowa Foundation for Medical Care, American Cancer Society, and Centers for Disease Control and Prevention action step.)

2–5.5 Action Step

By 2010, maintain the invasive breast cancer incidence rate in postmenopausal women (aged 55 and older) at the mid-course rate by halting the increase in overweight among postmenopausal women (1994 to 1996 age-adjusted baseline rate: 385.0 per 100,000; 2000 to 2002 age-adjusted mid-course rate: 395.1 per 100,000). (An Iowa Consortium for Comprehensive Cancer Control, Nutrition Chapter (Chapter 13), and Physical Activity and Fitness (Chapter 16) action item.)

2–6 Goal Statement

Reduce cervical cancer deaths to a rate of no more than 1.9 per 100,000 females.

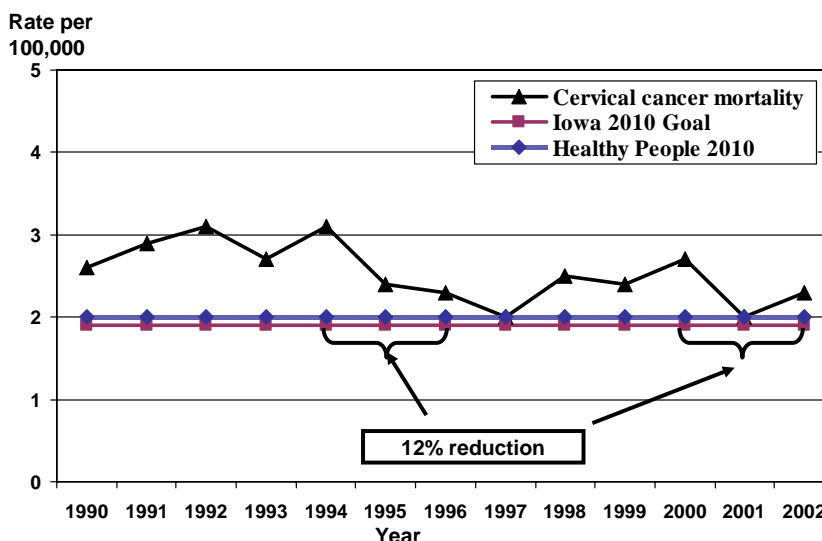
Baseline: 1994 to 1996 age-adjusted rate of 2.6 per 100,000; 2000 to 2002 age-adjusted mid-course rate of 2.3 per 100,000; 2010 goal revised upward from 1.0 per 100,000 to better reflect an achievable goal.

Cervical Cancer Mortality

Select Population	2000-2002 Mid-course Rate*	# of Deaths 2000-02
Aged <65	1.8	65
Aged 65+	7.5	59
Non-MSA counties	2.3	57
MSA counties	2.9	67
White	2.8	62
African-American	DTS+	<5

*Per 100,000 population and age-adjusted to the year 2000 U.S. population estimate. MSA = metropolitan statistical area. DTS+ = Data too small to be reliable.

Cervical Cancer Mortality, 1990-2002



Rationale

Cervical cancer is the second most common cancer in women worldwide. In Iowa, it is the 12th most common cancer among women, with 120 cases in 2002. An average of 39 Iowa women die each year from the disease. The mortality rate is higher among women living in metropolitan statistical areas (MSAs). Cervical cancer death rates for Iowa’s minority populations are unreliable due to the extremely small numbers of cervical cancer deaths among them.

Considerable accumulated evidence exists that screening for cervical cancer can reduce deaths from this disease. Pap test screening reduces the rate of invasive cancer because it iden-

tifies lesions before they become invasive. There is general agreement on the importance of screening women on a regular basis for cervical cancer. With early detection through screening, plus appropriate and timely treatment, survival can be almost 100%.

Unfortunately, not all Iowa women are screened to an equal extent. Overall, 88.1% of those surveyed in 2002 reported having had a Pap test during the three years preceding their interview with the Behavioral Risk Factor Surveillance System (BRFSS). The following segments of Iowa women were less likely to have been screened: those with household incomes less than \$20,000 per year (81.9%), those resid-

ing in non-MSA counties (85.6%), and those using assistive technology to get around (75.5%).

Strategies that have shown some effect in increasing Pap test use include education for providers and patients, and implementation of a computer tracking system.

2–6.1 Action Step

By 2010, decrease the rate of invasive cervical cancer to no more than 6.0 per 100,000 females (1994 to 1996 age-adjusted baseline rate: 8.0 per 100,000, 2000 to 2002 age-adjusted mid-course rate: 7.8 per 100,000, Iowa Cancer Registry, State Health Registry of Iowa) by increasing the percentage of women having a Pap test during the preceding three years to at least 90% (2002 baseline: 88.1%, Behavior Risk Factor Surveillance System). (An Iowa Department of Public Health, Family Planning Council of Iowa, and Centers for Disease Control and Prevention action step.)

2–6.2 Action Step

Through 2010, use a variety of community-based coalitions and interest groups to continually advocate for improved access to cervical cancer screening on a regular basis for women who are less likely to be screened. Those include, in particular, women living in rural areas, women with disabilities and/or mobility limitations, low-income women, and minority women. (An Iowa Department of Public Health, American Cancer Society, Family Planning Council of Iowa, Iowa Consortium for Comprehensive Cancer Control, and Centers for Disease Control and Prevention action step.)

2–6.3 Action Step

By 2008, increase awareness among Iowa primary care practitioners of the need for systematic incorporation of cervical cancer screening guidelines into their practices. (An Iowa Department of Public Health, Iowa Medical Society, Iowa Osteopathic Medical Society, and Centers for Disease Control and Prevention action step.)

2–7 Goal Statement

Reduce colorectal cancer deaths to a rate of no more than 15.5 per 100,000.

Baseline: 1994 to 1996 age-adjusted rate of 23.2 per 100,000; 2000 to 2002 age-adjusted mid-course rate of 21.0 per 100,000; 2010 goal unchanged from original.

Colorectal Cancer Mortality

Select Population	2000-2002 Mid-course Rate*	# of Deaths 2000-2002
Aged <50	1.4	83
Aged 50-64	24.0	329
Aged 65+	129.5	1,786
Males	25.0	1,045
Females	18.0	1,153
Non-MSA counties	21.7	1,251
MSA counties	20.1	947
White	20.1	923
African-American	30.3	24

*Per 100,000 population and age-adjusted to the year 2000 U.S. population estimate. MSA = metropolitan statistical area.

Rationale

Colorectal cancer is the second leading cause of cancer deaths in the United States and in Iowa. In 2004 in the United States, an estimated 146,940 new cases of colorectal cancer were diagnosed and an estimated 56,730 deaths occurred. In Iowa in 2004, an estimated 2,100 new cases were diagnosed and an estimated 740 deaths occurred.

The one- and five-year relative survival rates for patients with colorectal cancer are 82.8% and 65.9%, respectively. When colorectal cancers are detected in an early, localized stage, the 5-year relative survival rate is 95%; however, only 39% of colorectal cancers are discovered at an early stage. After the cancer has spread regionally to involve adjacent organs or lymph nodes, the survival rate drops to 70%; another 37% of colorectal cancers are diagnosed at this stage. The survival rate for persons with distant metastases is only 10%, with 18% of colorectal cancers are diagnosed at this stage.

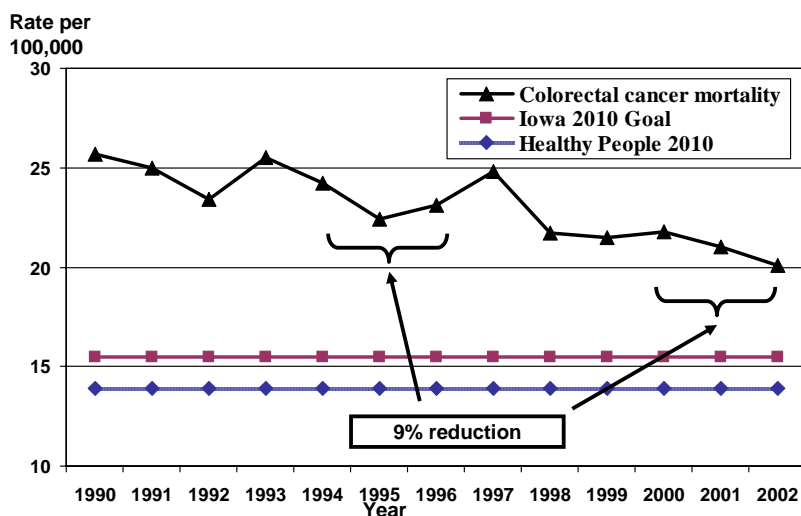
Risk factors of colorectal cancer include age, personal and family history of colorectal cancer or polyps, physical inactivity, inflamma-

tory bowel disease, a diet high in fat and low in fruits and vegetables, and obesity. Inherited syndromes (e.g., familial adenomatous polyposis, Gardner syndrome, and hereditary non-polyposis colorectal cancer) are also important risk factors in a small portion of the population.

The American Cancer Society recommends that men and women at average risk begin regular screening for colorectal cancer at age 50. Recommended options include:

- Fecal occult blood test (FOBT) and flexible sigmoidoscopy. If normal, repeat FOBT annually and flexible sigmoidoscopy every five years.
- Colonoscopy. If normal, repeat every 10 years.
- Double-contrast barium enema. If normal, repeat every 5 years.
- Digital rectal examination (DRE). To be performed at the same time as sigmoidoscopy, colonoscopy, or double-contrast barium enema.

Colorectal Cancer Mortality, 1990-2002



2-7.1 Action Step

By 2010, increase the percentage of colorectal cancers diagnosed at an early stage (in situ and localized) to 50% (1994 to 1996 baseline: 38.6%; 2000 to 2002 baseline: 42.0%, Iowa Cancer Registry, State Health Registry of Iowa) through increased use of recommended screenings. More specifically, the percentage of Iowans over aged 50 who have had a fecal occult blood test within the last two years should be increased to 55% (1997 baseline: 22.0%; 2002 baseline: 34.8%, Behavioral Risk Factor Surveillance System). Also, increase to 64% the percentage of Iowans over aged 50 who have had a sigmoidoscopy or colonoscopy (1999 baseline rate: 36.2%; 2002 rate: 48.6%, Behavior Risk

Factor Surveillance System). (An Iowa Colorectal Cancer Task Force, Iowa Consortium for Comprehensive Cancer Control, American Cancer Society, and Iowa Department of Public Health action step.)

2-7.2 Action Step

By 2006, provide information to the public and to health professionals on recommended screenings for colorectal cancer. (An Iowa Colorectal Cancer Task Force, Iowa Consortium for Comprehensive Cancer Control, American Cancer Society, Iowa Department Public Health, and Centers for Disease Control and Prevention action step.)

2–7.3 Action Step

Through 2010, support legislation to provide insurance coverage for colorectal screenings. (An Iowa Colorectal Cancer Task Force, Iowa Consortium for Comprehensive Cancer Control, and American Cancer Society action step.)

2–8 Goal Statement

Reduce oral cavity and pharyngeal cancer deaths to a rate of no more than 1.8 per 100,000. Baseline: 1994 to 1996 age-adjusted rate of 2.6 per 100,000; 2000 to 2002 age-adjusted mid-course rate of 2.2 per 100,000; 2010 goal revised downward from 2.2 per 100,000 to better reflect an achievable goal.

Oral Cavity and Pharyngeal Cancer Mortality

Select Population	2000-2002 Mid-course Rate*	# of Deaths 2000-2002
Male(all ages)	3.3	142
Females(all ages)	1.2	74
Non-MSA counties	1.8	99
MSA counties	2.5	117
White	2.5	112
African-American	DTS+	<5

*Per 100,000 population and age-adjusted to the year 2000 U.S. population estimate. DTS+ = Data too small to be reliable. MSA = metropolitan statistical area.

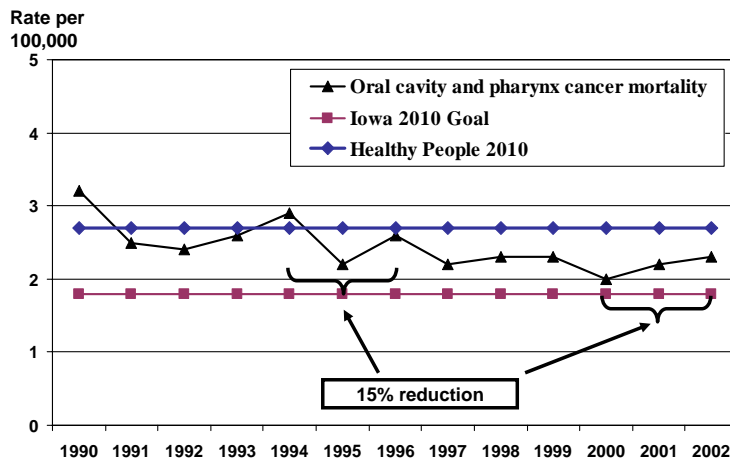
Rationale

Included in the oral cavity and pharyngeal cancer category are cancers of the tongue, floor of the mouth, palate, gingiva, alveolar mucosa, buccal mucosa, and pharynx. Cancer of the lip is not included in the statistics in this document. Oral cavity and pharyngeal cancer accounts for approximately 2% of cancers diagnosed in the United States. Approximately 28,250 cases are diagnosed annually, with approximately 7,250 deaths each year. There were 1,068 (malignant only) cancers of the oral cavity and pharynx in Iowa from 2000 to 2002, with 216 deaths.

Risk factors of oral cavity and pharyngeal cancer include cigarette, cigar and pipe smoking, use of smokeless tobacco, and excessive alcohol consumption. Other factors that may contribute to these cancers are injury, occupational exposures, and environmental exposures.

Cancers diagnosed at an early stage (in situ and localized disease) have a 5-year survival rate of 85%. The rate drops to 48.5% when the cancer is diagnosed in advanced stages. Unfortunately, 59% of oral cavity and pharyngeal cancers are diagnosed in advanced stages. The overall Iowa 5-year survival rate is 65% for the 1995 to 2000 period.

Oral Cavity and Pharynx Cancer Mortality, 1990-2002



The primary screening tool for oral cancer is inspection and palpation (feeling) of the oral cavity. Dental practitioners play an integral role in its detection. Clinical examinations of the oral cavity should be a key component of routine dental checkups. Also, this screening should be included in routine annual examinations by physicians. Oral self-exam also is recommended and should be promoted by both physicians and dental practitioners.

2–8.1 Action Step

By 2010, decrease oral cavity and pharyngeal cancer incidence to a rate of no more than 10.0 per 100,000 (1994 to 1996 age-adjusted baseline rate: 11.2 per 100,000; 2000 to 2002 age-adjusted midcourse rate: 11.1 per 100,000, Iowa Cancer Registry, State Health Registry of Iowa).

Accomplish by developing, implementing and evaluating a statewide campaign to increase public awareness of cancer of the oral cavity and pharynx and its link to alcohol consumption and tobacco use. The campaign will include a component on early detection, with an emphasis on oral cavity self-examination and the importance of regular dental checkups. (An Iowa Department of Public Health and Iowa Dental Association action step.)

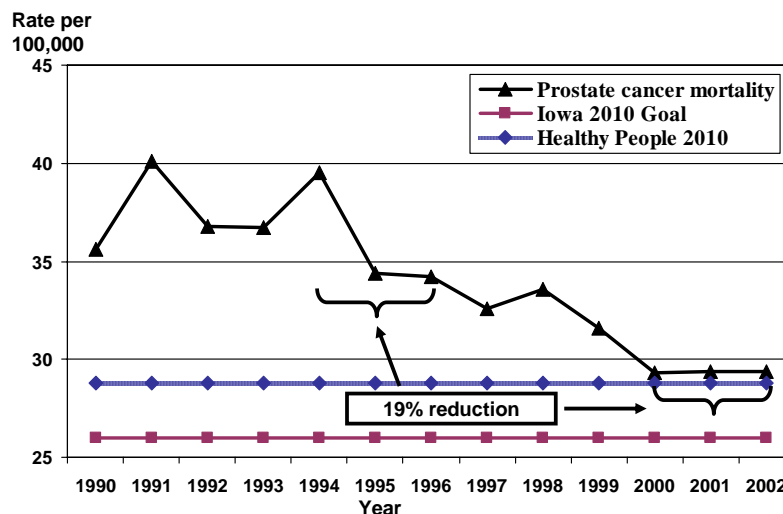
2–8.2 Action Step

By 2010, develop a health care curriculum that requires competency in prevention, diagnosis and management of oral cavity and pharyngeal cancer, including the prevention and cessation of tobacco use and alcohol abuse. This action step supports and will be coordinated with goals and action steps in chapter 15, Oral Health. (An Iowa Dental Association, Iowa Medical Society, and Iowa Osteopathic Medical Society action step.)

2–9 Goal Statement

Reduce prostate cancer deaths to a rate of no more than 26.0 per 100,000. Baseline: 1994 to 1996 age-adjusted rate of 36.0 per 100,000; 2000 to 2002 age-adjusted mid-course rate of 29.3 per 100,000; 2010 goal revised downward from 32.6 per 100,000 to better reflect current results.

Prostate Cancer Mortality, 1990-2002



Prostate Cancer Mortality by Select Populations

Select Population	2000-2002 Mid-course Rate*	# of Deaths 2000-2002
Aged 50-69	15.2	122
Aged 70+	287.2	1,058
Non-MSA counties	29.9	692
MSA counties	28.7	490
White	28.4	474
African-American	60.7	16

*Per 100,000 population and age-adjusted to the year 2000 U.S. population estimate. MSA = metropolitan statistical area.

Rationale

Prostate cancer is the leading cause of non-skin cancer, and the second leading cause of cancer mortality among men in Iowa and the United States. In 2004 in Iowa, prostate cancer accounted for an estimated 2,200 new cases and 400 deaths, or about 29% and 12% of all cancer cases and deaths in men, respectively. Recent trends tracked by the Iowa Cancer Registry show a 145% rise in annual age-adjusted incidence (1973 to 1992), followed by a 27% decline in incidence (1992 to 2002), and a 20% decrease in annual age-adjusted death rates during 1992 to 2002. Similar trends have been reported for the United States.

Causes of these trends are unclear, but may be attributed to increased awareness of the disease and more early detection. Risk factors include age (high prevalence in the elderly), race (higher rate in blacks), and diet. Dietary factors and agricultural exposures are still incompletely studied. The natural history of prostate cancer is poorly understood, and it is hard to determine clinically significant prostate cancer when it is confined to the prostate gland.

Three potential screenings for prostate cancer include the digital rectal exam (DRE), prostate-specific antigen (PSA), and transrectal ultrasound (TRUS). Transrectal ultrasound can be a useful diagnostic test when used in conjunction with DRE and PSA, but it is not recommended as an independent screening. Randomized clinical trials of the benefits of DRE and PSA screening are under way, but the results are not yet available. From 1995 to 2000, the Iowa Cancer Registry database shows that about 85%, 6%

and 8% of prostate cancers in Iowa were detected at stages of local and/or regional, distant, and unstaged, respectively. Data suggest that survival is better for local and/or regional stages. Indirect evidence suggests that more prostate cancer has been detected in this stage as a result of screening with PSA followed by DRE.

The general absence of modifiable risk factors for prostate cancer precludes any effective primary prevention. Secondary prevention to reduce deaths through screening and early detection remains controversial. The U.S. Preventive Services Task Force and the National Cancer Institute make no recommendations for routine screening with either DRE or PSA. However, the American Cancer Society recommends annual DRE and PSA testing beginning at aged 50 for those who have at least a 10-year life expectancy and for younger men who are at high risk.

A recent report suggests that testing for prostate-specific antigen may lead to a sustained decline in prostate cancer mortality. Nevertheless, widespread prostate cancer screening should be approached with caution until results of clinical trials provide evidence that it does more good than harm.

2–9.1 Action Step

Through 2010, continue to monitor secondary prevention research so a screening recommendation can be made and supported soon after it is established, provided that such screening does more good than harm. (An Iowa Consortium for Comprehensive Cancer Control, Iowa Department of Public Health, and American Cancer Society action step.)

2–10 Goal Statement

Reduce skin melanoma deaths to no more than 1.9 per 100,000. Baseline: 1994 to 1996 age-adjusted rate of 2.5 per 100,000; 2000 to 2002 age-adjusted mid-course rate of 2.2 per 100,000; 2010 goal revised downward from 2.3 per 100,000 to better reflect current results.

Rationale

Skin cancer is the most common form of cancer in the United States. The three major types are basal cell carcinoma, squamous cell carcinoma, and malignant melanoma. In Iowa, melanoma – the deadliest of all skin cancers – is the only skin cancer statistically monitored by the Iowa Cancer Registry.

Nationally, approximately 55,000 melanomas are newly diagnosed each year, and 8,000 melanoma deaths occur. In Iowa, 1,686 melanomas were diagnosed from 2000 to 2002, with 220 deaths. The death rate from melanoma is declining. This is due to more cases being diagnosed at an earlier stage.

Excessive exposure to the sun is accepted as a cause of melanoma, especially among light-skinned people. Heredity also may play a role. Atypical moles, which may run in families, can serve as markers and identify the person as being at higher risk for developing melanoma. Exposure to ultraviolet (UV) light from tanning beds has also been shown to increase the risk of developing skin cancer, including melanoma.

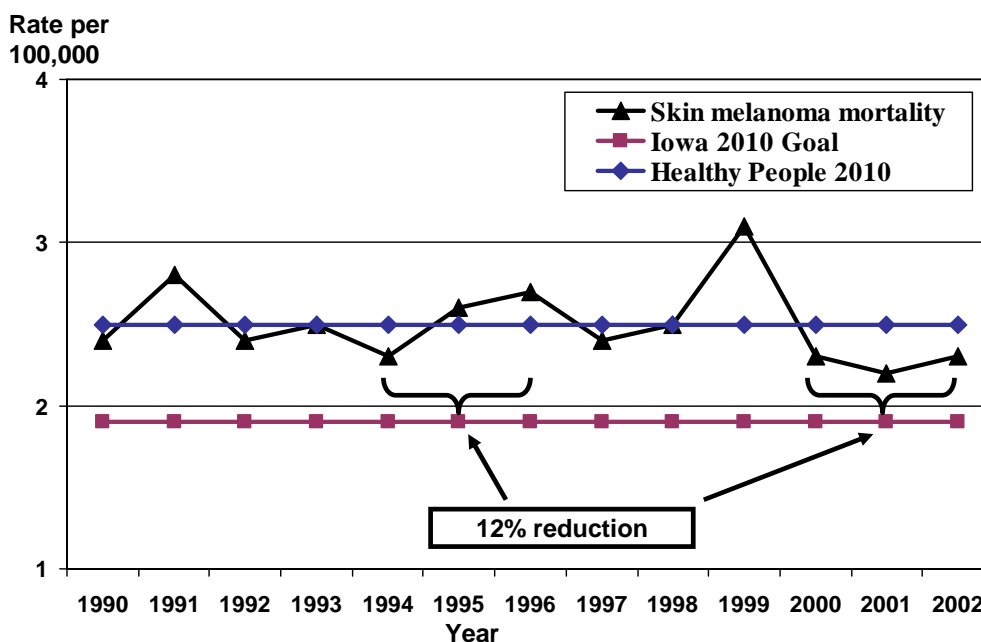
Dark brown or black skin is not a guarantee against development of melanoma. Although the incidence is low, people with dark brown or black skin can develop melanoma, especially on the palms of the hands, soles of the feet, under nails, or in the mouth.

Skin Melanoma Mortality by Selected Populations

Select Population	2000-2002 Mid-course Rate*	# of Deaths 2000-2002
Aged <50	0.7	44
Aged 50-64	3.7	51
Aged 65+	9.3	125
Males	3.5	148
Females	1.3	72
Non-MSA counties	2.5	125
MSA counties	2.1	95
Whites	2.1	94
African-American	0.0	0

*Per 100,000 population and age-adjusted to the year 2000 U.S. population estimate. MSA = metropolitan statistical area.

Skin Melanoma Mortality, 1990-2002



2–10.1 Action Step

By 2010, decrease in situ and malignant melanoma incidence to no more than 20 per 100,000 (1994 to 1996 age-adjusted baseline rate of 18.4 per 100,000; 2000 to 2002 age-adjusted mid-course rate of 27.6 per 100,000; 2010 goal revised upward from 17.6 per 100,000 to better reflect an achievable goal).

Accomplished by developing a statewide public education program to promote increased public awareness of risk factors. (An Iowa Department of Public Health, American Cancer Society, Centers for Disease Control and Prevention, and American Association of Dermatology action step.)

2–10.2 Action Step

By 2010, increase the percentage of skin melanomas diagnosed at an early stage (in situ and localized) to 93% (1994 to 1996 baseline rate: 92.3%; 2000 to 2002 rate: 90.5%).

Accomplish by developing a statewide public education program by 2005 that will promote the importance of early detection. (An Iowa Department of Public Health, Centers for Disease Control and Prevention, and American Association of Dermatology action step.)

2–11 Goal Statement

Increase the relative 5-year survival rate for all invasive cancers to at least 68%.

Baseline: 1987 to 1991 rate of 58.1%; 1991 to 1995 mid-course rate of 62.3%. This is a new mid-course goal for invasive cancers diagnosed between 1997 and 2001.

5-year Relative Survival Breakdown, 1991-1995

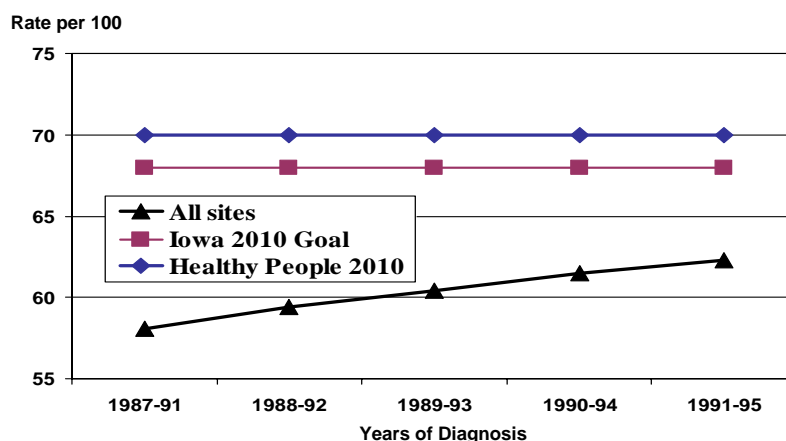
Select Population	1991-1995 Mid-course Rate*	# of Cases
Aged <50	73.5	7,725
Aged 50-64	62.6	14,540
Aged 65+	59.3	40,132
Males	61.4	33,313
Females	63.3	29,084
Non-MSA counties	62.0	33,348
MSA counties	62.7	29,049
White	62.5	61,400
African-American	51.4	773

*Per 100 cases. MSA = metropolitan statistical area.

Rationale

Cancer survivors are defined as people who have been diagnosed with cancer. They are accompanied by the people in their lives, including family members, friends and caregivers who are affected by their diagnosis.

5-year Relative Survival, All Cancer Sites, 1987-1995



Increasing innovations in medical technology have led to earlier diagnoses and improved treatment of many cancers, resulting in more cancer survivors each year. A 2003 American Cancer Society report says that approximately 63% of cancer survivors are expected to live at least five years after diagnosis. As of January 2000, there were approximately 9.6 million cancer survivors in the United States. This estimate includes people diagnosed with cancer, but does not include others affected by the disease, such as family members and friends.

The diagnosis of cancer poses a threat to a person's physical, psychological, social, spiritual, and economic well-being. People with cancer can be deprived of their independence and the disease can disrupt the lives of family members and caregivers. Therefore, an ever-growing number of cancer survivors need medical care, public health services, and support. All these factors must be taken into account when assessing the needs of cancer survival.

Cancer medicine is rapidly evolving. Clinical trials are the cornerstone of finding the best treatment and cure. While 70% to 80% of pediatric cancer patients participate in clinical trials, only about 3% of adult cancer patients do. Iowa needs a dramatic increase in the quality and quantity of clinical trials and a shift in understanding what such research can mean to the average patient.

Released in 2002, the nation's first state-by-state "report card" on availability and use of care for dying Americans shows that terminally ill and dying Iowans receive average to poor care at the end of life. Last Acts, the country's largest coalition to improve care and caring at the end of life, produced the report.

The report indicated that, in Iowa, hospice use is very low and most hospitals do not have palliative care programs. The report also found that state policies on pain management do only a fair job of allowing physicians to treat pain without undue scrutiny at end of life. Also, most Iowans do not die at home, where most Americans say they prefer to be in their final days.

The findings clearly indicate that Iowa needs to do more to meet the physical, emotional and

spiritual needs of people with cancer and their caregivers.

2–11.1 Action Step

By 2010, implement the following strategies of the state cancer-control plan's goal 3 (i.e., when cancer is found, treat it with the most appropriate therapy).

1. Improve patient access to care by:
 - a) Identifying gaps in treatment options and resources for disenfranchised cancer patients;
 - b) Developing a statewide web site that is accessible to patients and health care providers and lists sub-specialists and current clinical trials in order to eliminate the confusion of searching the Internet;
 - c) Coordinating with agencies to provide transportation for cancer patients to and from cancer treatment facilities;
 - d) Coordinating with organizations to provide translations; and
 - e) Identifying language barriers between cancer patients and health care providers.
2. Educate health care providers by:
 - a) Developing a speaker's bureau to facilitate statewide networking and communication among physicians; and
 - b) Developing a statewide web site that is accessible to health care providers and patients and lists sub-specialists and current local clinical trials.
3. Educate patients through cancer support groups, HMOs, insurance carriers, the American Cancer Society, and other organizations for exchanging information among the patients, families and caregivers, survivors, and physicians.

(An Iowa Consortium for Comprehensive Cancer Control action step.)

2–11.2 Action Step

By 2010, implement the following strategies of the state cancer control plan's goal 4 (i.e., assure that the quality of life of every cancer patient is the best it can be).

1. Address quality-of-life issues by:
 - a) Increasing health care providers' awareness of such issues and skills to help in decision-making;

- b) Improving the level of cooperation and shared decision-making in defining quality of life and developing a plan to increase patient and caregiver awareness of this issue; and
- c) Convincing patient care teams to take a more holistic approach, with attention to the emotional, physical, spiritual, and social well-being and quality of life of patients as well as the treatment of their medical condition.

2. Provide support and resources to caregivers by:

- a) Increasing awareness of the impact of cancer and its treatment, on them; and
- b) Increasing patient and family awareness of programs and resources available to address financial needs.

(An Iowa Consortium for Comprehensive Cancer Control action step.)

2–11.3 Action Step

By 2010, revise the state cancer plan to include potential survival issues such as surveillance and applied research, communication, education and training, infrastructure, and access to quality care and services. (An Iowa Consortium for Comprehensive Cancer Control action step.)

2–11.4 Action Step

By 2010, implement the following strategies of the state cancer-control plan's goal 5 (i.e., move research more quickly into prevention and control).

1. Clarify financial barriers to participate in clinical trials by:
 - a) Gathering and making public information from various insurance carriers on their coverage of cancer trial participation and whether or not they cover costs of routine care when enrolled in a trial; and
 - b) Distributing information on cancer clinical trials to insurance carriers, including the importance and value of well-designed trials and encouragement to agree that routine care resulting from trials be covered as outlined for Medicare.
2. Address the potential for genetic discrimination as an obstacle to participate in clinical cancer trials by:
 - Create policies that prohibit discrimination; and

Asking the state legislature to pass legislation that prohibits discrimination in life insurance, health insurance, or employment and protects those discriminated against with meaningful enforcement.

(An Iowa Consortium for Comprehensive Cancer Control action step.)

2–11.5 Action Step

By 2010, implement the following strategies of the state cancer plan's goal 4, cancer problem 2 (i.e., pain and symptom management are not consistently an integral part of the care plan for cancer patients).

1. Support and further develop the Pain as a 5th Vital Sign initiative consistently statewide.
2. Improve total physical, emotional and spiritual well-being.
3. Develop a system to identify and support the needs of cancer patients who have completed treatment, particularly addressing physical, emotional and financial outcomes.

(An Iowa Consortium for Comprehensive Cancer Control action step.)

2–11.6 Action Step

By 2010, revise the state cancer plan to include potential issues such as improving hospital end-of-life care, reducing barriers to state pain policies, increasing hospice use, and increasing the percentage of Iowa's health care workers who are palliative care-certified. (An Iowa Consortium for Comprehensive Cancer Control action step.)

Goal Cross References

Chapter 1: Access to Quality Health Services

- 1–1 Reduce to 0% children and adults under aged 65 without health care coverage.
- 1–2 Develop a plan and engage in activities that promote and encourage providers to follow standardized quality performance measures.
- 1–3 Increase by 25% access to primary care for the underserved population.

1-4Ensure a competent and diverse health workforce by assessing and forecasting workforce supply and demand and by promoting local strategies to recruit and retain workers by including all 99 counties in a nurse tracking project.

1-12Develop a strategic plan to assess and employ telehealth and telemedicine to increase access to health services.

Chapter 4: Disabilities

4-3Assure that each HI 2010 chapter assesses the health issues and potential treatment for people with disabilities and incorporates goals and action steps.

Chapter 5: Educational and Community-Based Programs

5-5All post-secondary community colleges to provide data on how the college addresses the six priority health risk behavior areas.

Chapter 6: Environmental Health

6-1Determine the prevalence of contaminants of health concern in 100% of small town private wells in concentrations exceeding EPA advisory levels.

6-3Ensure safe drinking water by helping 100% of public water supply systems to meet EPA requirements.

6-5Increase to 40% the number of homes in non-incorporated areas with acceptable wastewater treatment.

6-6Reduce by 30% unintentional exposures to household hazardous materials.

6-12Reduce pesticide poisonings through collection and analysis of pesticide poisoning reports and use of data in training programs for pesticide handlers and applicators.

Chapter 13: Nutrition and Overweight

13-5Increase to at least 50% the proportion of people aged two and older who meet the minimum daily average goal of at least five fruits and vegetables as recommended by the Dietary Guidelines for Americans.

Chapter 15: Oral Health

15-5Reduce deaths due to cancer of the oral cavity and pharynx in adults aged 45-74 to no more than 5.3/100000 for men and 2.2/100000 for women.

Chapter 21: Tobacco

21-1 Increase the tax on cigarettes by \$1.00 per pack.

21-2 Pass local control legislation that will allow communities the option to regulate smoking in public places to protect citizens from the dangers of secondhand smoke.

21-3 Enact legislation that requires the Iowa Division of Tobacco Use Prevention and Control to be consistent with the Best Practices for Comprehensive Tobacco Control Programs as outlined by the Centers for Disease Control and Prevention.

21-4 Reduce to 10% lowans' exposure to secondhand smoke in the workplace.

21-5 Implement comprehensive tobacco policies in 100% of Iowa school districts.

21-6 Increase to 69% the number of adults who report not allowing smoking anywhere in the home and to 65% the number of adults who report not allowing smoking inside vehicles.

21-7 Decrease to 18% the proportion of adults aged 18 and older who smoke cigarettes, decrease to 28% young adults aged 18-24 who smoke cigarettes, decrease to 25% adults in households with incomes less than \$25,000 who smoke cigarettes, and increase to 75% adult tobacco-use cessation attempts.

21-8 Decrease to 12% the number of women who smoked during pregnancy.

21-9 Establish comprehensive coverage by Medicaid for FDA-approved pharmacotherapies and behavioral therapies.

21-10 .. Decrease current use of any tobacco product in grades 6-12 and increase the number who report wanting to quit.

21-11 .. Increase to 94% retail compliance with existing tobacco statues to reduce youth access to tobacco products.

Cancer Chapter Team

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The Cancer Chapter Team is composed of these members of the Iowa Consortium for Comprehensive Cancer Control Executive Committee. The chapter was revised by members of the Executive Committee with the approval of the partners of the Consortium. Consortium members continue to work to assure the implementation of the state cancer plan and to make progress in meeting the goals in this chapter.

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Chapter 3

Diabetes

Introduction

Since *Healthy Iowans 2000* was published, a continued, alarming increase in the incidence of Type 2 diabetes has occurred in the United States and Iowa. This has been linked to the increasing incidence of obesity. This alarming trend is affecting adults, but more disturbing is that it is now affecting teen-aged and younger children. For this reason, many of the goals of this chapter have been revised and the approach toward management and prevention will focus on different populations and age groups.

What is Diabetes?

Diabetes mellitus is a group of diseases characterized by high blood glucose (sugar) resulting from defects in insulin production, insulin action, or both. It can be associated with serious complications and premature death. However, people with diabetes can control the disease and lower the risk of complications. (National Diabetes Fact Sheet by the Centers for Disease Control and Prevention.)

Magnitude of Diabetes

Diabetes is a chronic disease that is approaching epidemic proportions, affecting more than 18.2 million people in the United States, or 6.3% of the total population. More than 13 million people live with the burden of diabetes and another 5.2 million have the disease and don't know it. In Iowa, diabetes affects the lives of an estimated 148,410 people, according to the 2003 Behavioral Risk Factor Surveillance System (BRFSS), or 6.7 % of all Iowans. The disease strikes certain minority populations disproportionately, with higher incidence in Native Americans, Hispanics and African-Americans. It requires daily management to maintain glucose levels within an acceptable range to minimize disabling and life-threatening complica-

tions. In addition, quality of life is greatly affected by diabetes.

Skyrocketing costs accompany the epidemic, with an estimated total cost in the U.S. of \$132 billion. Of this, direct medical costs account for \$92 billion. The remaining \$40 billion are indirect costs and include disability, work loss, and premature mortality. The Levin Group, Inc., on behalf of the American Diabetes Association, bases this data on a study showing that in Iowa in 2002, total costs for in-patient diabetes-related hospitalizations were \$741,483,180. This total did not include outpatient services or physician charges.

Guidelines for Care

The standards for optimal clinical management of people with diabetes are included in the *American Diabetes Association: Clinical Practice Recommendations 1999*. Annual revisions are available on the American Diabetes Association (ADA) web site. All health care practitioners are encouraged to follow these recommendations.

Types of Diabetes

Type 1 diabetes was previously called insulin-dependent diabetes (IDDM), or juvenile onset diabetes. Type 1, usually described as an autoimmune disease, develops when the body's immune system destroys pancreatic beta cells, the only cells that make the hormone insulin which regulates blood glucose. This form of diabetes usually strikes children and young adults, although disease onset can occur at any age. Type 1 diabetes may account for 5% to 10% of all diagnosed diabetes cases. Risk factors may include autoimmune, genetic and environmental factors.

Type 2 diabetes was previously called non-insulin dependent diabetes mellitus (NIDDM), or adult-onset diabetes. Type 2 may account for

about 90% to 95% of all diagnosed diabetes cases. It usually begins as insulin resistance, a disorder in which the cells do not use insulin properly. As the need for insulin rises, the pancreas gradually loses its ability to produce insulin. Type 2 diabetes is associated with older age, obesity and family history of diabetes. The United Kingdom Prospective Diabetes Study followed 5,102 patients with newly diagnosed Type 2 diabetes for an average of 10 years. The study demonstrated that lowering blood glucose reduces the incidence of micro-vascular complications.

The Diabetes Control and Complications Trial (DCCT) followed two groups of Type 1 patients on a long-term basis, with one group treated conventionally and the other intensively. The study demonstrated that lowering blood-glucose concentration slows or prevents long-term development of diabetic complications. The American Diabetes Association guidelines reflect the findings of these studies. The guidelines must be given to health care providers with a message that emphasizes their importance. However, it is equally important that individualized treatment goals be established for children with Type 1 diabetes, and more recently, children with Type 2 diabetes.

These treatment goals should take into account the effects of one's age, lifestyle, growth, and other body changes in the child and youth, especially at puberty or during pregnancy. A team, including the child, parents, physicians, school nutritionist, and nurse, must provide care of children with diabetes in school or in child care settings. Siblings of persons with Type 1 diabetes are considered at-risk for the disease and should be monitored. To minimize the effects of the disease, early diagnosis and initiation of treatment should occur. Screening according to the following risk factors is appropriate and encouraged, especially in a clinic setting. However, most insurers do not reimburse for it.

Risk factors for type 2 diabetes include:

- Family history of diabetes.
- Obesity.
- Racial and/or ethnic heritage. African-Americans, Hispanic Americans, American Indians, Asian Americans, and Pacific Islanders have a higher risk.

- Age over 45.
- Previous impaired glucose tolerance or impaired fasting glucose (now called pre-diabetes).
- Hypertension (equal to or greater than 140/90 mm Hg).
- High-density lipoprotein equal to or less than 35 mg/dl and/or triglyceride levels of 250 mg/dl.
- History of gestational diabetes mellitus or delivery of a baby weighing more than nine pounds.
- Sedentary lifestyle.

Type 2 diabetes can be delayed or prevented by maintaining normal weight and being active. Proper nutrition and physical activity to reduce its incidence should be widely encouraged for adults and children alike.

Treating Diabetes

To survive, people with Type 1 diabetes must have insulin by injection or pump. People with Type 2 diabetes can control their blood glucose by following a healthy meal plan and exercise program, losing excess weight, and taking oral medications. Many people with diabetes also need to take medications to control their cholesterol and blood pressure. Diabetes self-management education is an integral component of medical care. Among adults with diagnosed diabetes, 12% take both insulin and oral medications, 19% take insulin only, 53% take oral medications only, and 15% do not take either insulin or oral medications.

Progress

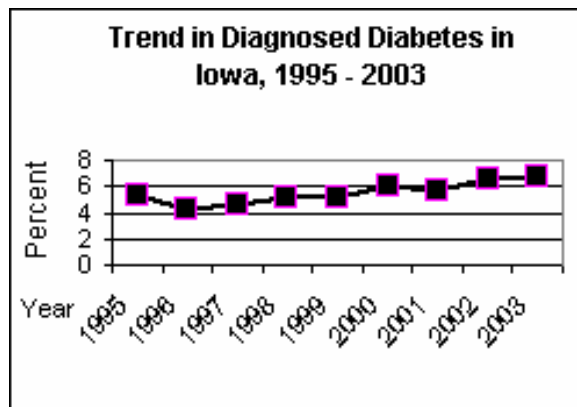
Diabetes has increased in Iowa to a self-reported prevalence of 6.7%. This compares to 4.7% in 1990, 4% in 1995, and 6.1% in 2000.

The risk of diabetes increases with age. One in seven Iowans over aged 65 report having the disease. Higher rates are also seen among people with less than a high school education, who earn less than \$25,000 per year, and who are African-American.

The state of Iowa has long been concerned about diabetes and its complications. In 1985, Iowa was one of the first states to establish diabetes outpatient education programs. Today, Iowa continues to support these programs. This

certification process is a requirement for payment for outpatient diabetes education classes by the state’s Medicaid program. The Iowa legislature passed a law that mandates payment by all Iowa-based insurers for outpatient education services provided by certified programs.

This past year legislation was introduced in the Iowa House to reduce some of the mandated service coverage areas for certain diagnoses, including some diabetes areas. Fortunately, the bill did not make it out of committee. This could have had a major impact on services to Iowans with diabetes. The issue also received national attention and strong support from small business organizations. The Iowa Department of Public Health established the Diabetes Prevention and Control Program (DPCP) in 1995 to build a structure for statewide efforts to promote awareness of the disease, provide access to quality care, and improve quality of life by prevention of complications.

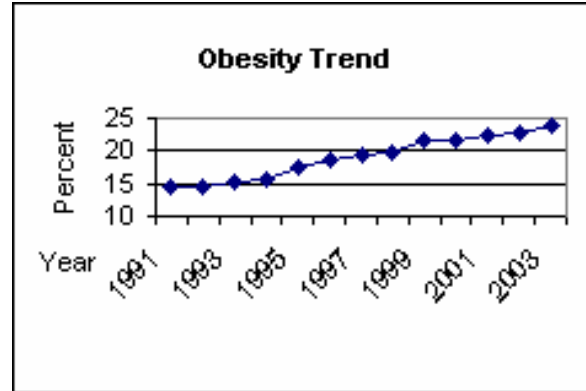


2003 Behavioral Risk Factor Surveillance System survey.

Goal Statements & Action Steps

3–1 Goal Statement

Increase awareness of diabetes in people with pre-diabetes risk and those with undiagnosed diabetes. Limit the upward prevalence trend of diabetes to 0.2% per year. Baseline, 2003: 6.7% of Iowans are diagnosed with diabetes (Behavioral Risk Factor Surveillance System).



2003 Behavioral Risk Factor Surveillance System survey.

Rationale

This effort can prevent or delay the onset of diabetes in people with pre-diabetes and prevent or delay complications for those who are diagnosed and receiving treatment and self-management education. The epidemic requires a significant increase in prevention. The increase in diabetes mirrors the growth of obesity in the United States and Iowa.

The need to refocus our efforts is apparent as the number of people with diabetes in Iowa continues to climb. Since 1995, a 24% increase in the rate of diabetes has occurred in Iowa, according to the 2003 Behavioral Risk Factor Surveillance System (BRFSS).

It is estimated that one-third of people with diabetes are undiagnosed. The number of people with the disease increases as the population ages. Those who are undiagnosed are at great risk of developing complications. The Diabetes Control and Complications Trial demonstrated that intensive therapy resulted in a delay in the onset and a major slowing of the progression of the three complications studied. Over the seven years of the study, there were reductions of approximately 60% in risk of retinopathy, nephropathy and neuropathy.

It is obvious that prevention is a very important goal at this time. If the trends of obesity and subsequent early onset of type 2 diabetes is not reversed, the economic and societal impact for Iowa will be staggering and unprecedented. As type 2 diabetes strikes younger and younger people, the incidence and severity of complications will occur earlier and possibly last longer.

Several programs are in place to help people increase physical activity and lose weight (see chapters 9, 13 and 16). The Iowa Diabetes Prevention and Control Program collaborates with the American Diabetes Association, the Iowa Diabetes Network, other Department of Public Health programs, health systems, and other organizations that include disparity groups and those at the local level.

The resources and energy of the Iowa Diabetes Prevention and Control Program will be redirected toward prevention while continuing to target early diagnosis, education and disease management.

The pre-diabetes diagnosis provides an opportunity to prevent or delay diabetes. Studies have found that lifestyle changes can prevent or delay the onset of type 2 diabetes among high-risk adults. These studies included people with impaired glucose tolerance (IGT) and other risk factors for developing diabetes. Lifestyle changes included diet modifications and moderate intensity physical activity (e.g., walking for 2½ hours each week). In the Iowa Diabetes Prevention and Control Program, a large prevention study of people at high risk for diabetes, the development of diabetes was reduced by 58% over three years by lifestyle changes.

Steps to motivate changes include awareness of risk factors for pre-diabetes and diabetes and the message that with positive lifestyle changes, diabetes can be prevented or delayed. People diagnosed with diabetes can manage their disease with appropriate self-management education in a variety of settings. High-risk populations should especially be targeted.

The most numerous minority populations in Iowa are African-American and Hispanic. The Native American population is also at very high risk for diabetes, but this group is small in Iowa. These minority groups need to be aware of their high risk for developing diabetes. Also, their medical providers must be alert to the importance of screening for diabetes and watching for signs of the disease.

The message that diabetes is common, serious, costly, and controllable has been tested by the National Diabetes Education Program (NDEP) and proven effective with populations

at highest risk. The NDEP also developed media campaigns. By participating in this program and using developed materials, messages can be provided to the correct populations in a culturally sensitive way.

Screening high-risk people to provide early diagnosis and subsequent treatment and control will result in a decrease in complications. At events such as the annual ADA Alert Day, participants' risk for diabetes is evaluated and high-risk people referred for testing. There is now no central place to post such information to enable people with interest in diabetes to access it. A specific web site has been recommended, with all interested parties sending information about screening or educational programs to that site.

Early detection and treatment can decrease complications and early death; therefore, efforts should be made to screen those at highest risk. A variety of measures to identify people at high risk is available and should be expanded to populations at risk. It is assumed that more people would be screened if all insurance carriers covered this test. Diagnosis at an early stage, when control could prevent complications, is delayed when there is a lack of reimbursement for routine screening of persons at risk for diabetes. If the inexpensive blood glucose test was reimbursed, it could result in increased discovery and referral for diagnosis of many symptomatic and undiagnosed people.

Many organizations in Iowa are recognizing the need to keep health care providers informed about the rising epidemic of diabetes. Several educational seminars were provided in Iowa during 2004, many of which were billed as "annual" updates. Iowa State University and ISU Extension provided information on the metabolic syndrome. The University of Iowa provided a diabetes update, including recent research information, and Iowa Health System joined with the Mercy Network to provide information on diabetes to health care providers. The Iowa Foundation for Medical Care continues to provide its annual quality forum with one of three breakout sessions focusing totally on diabetes.

The Iowa Department of Public Health (IDPH) collaborates every other year with nearly 30 governmental and non-governmental entities at the "Barn Raising." The primary focus is

public health in Iowa. The Iowa Public Health Association partners annually with the Iowa Environmental Health Association to bring health care providers together to increase their knowledge in many areas of public health. The Iowa Diabetes Network and the Iowa Diabetes Prevention and Control Program continue providing quarterly educational programs on diabetes for health care professionals.

In 2004, the Wellmark Foundation announced that its was focusing funding on the Institute of Medicine's (IOM) publication, *Priority Areas for National Action: Transforming Health Care Quality*, which includes diabetes and areas that could directly impact people with diabetes. In 2004, Wellmark awarded more than \$150,000 to projects working to make an impact on diabetes.

Also in 2004, the Diabetes Prevention and Control Program conducted an assessment of Iowa's Diabetes Health System using the 10 essential services for assessment. Focusing on strengths and areas that needed improvement, the following service gaps were identified:

1. No central agency or clearinghouse exists for the collection, analysis and dissemination of diabetes-related information and resources. (This included a strong recommendation for the Iowa Department of Public Health's Diabetes Prevention and Control Program to employ an epidemiologist to manage data.)
2. More emphasis is needed on prevention (including pre-diabetes), structural, and reimbursement issues. This includes increased reimbursement for primary care providers, with more focus on rewarding physicians for doing a good job rather than reimbursement based on the need for the patient to return several times for additional care, and providing reimbursement for other diabetes services such as diabetes education by dietitians and RNs.
3. Collaboration among all partners needs to be strengthened and formalized, possibly using the current Iowa Diabetes Network as an umbrella organization.
4. Marketing and public information need strengthening. This includes updating, reorganizing and marketing the Diabetes Prevention and Control Program web site.

5. Cultural diversity requires continued attention.
6. Rural Iowa needs more services for diabetics, including primary care collaboration.

In October 2004, the University of Iowa's School of Medicine was awarded a \$21 million grant from the National Institute of Health to help study diabetes.

3–1.1 Action Step

By 2010, annually provide 10 community programs to increase the focus on education and awareness of diabetes, identification of risk factors, pre-diabetes, and prevention. (An Iowa Department of Public Health, Iowa universities, Iowa Foundation for Medical Care, health systems in Iowa, and community coalitions action step.)

3–1.2 Action Step

Through 2010, conduct media promotions using National Diabetes Education Program (NDEP) and other materials designed and tested for at-risk populations. (An Iowa Department of Public Health action step.)

3–1.3 Action Step

By 2010, annually conduct public forums by health care educators and providers from throughout the state, making them available through grant projects when possible. (An Iowa Department of Public Health, American Diabetes Association, and Iowa Foundation for Medical Care action step.)

3–1.4 Action Step

By 2010, collaborate with other diabetes-oriented organizations to formalize a speakers bureau to provide diabetes awareness, prevention and management information. (An Iowa Diabetes Network and Iowa Department of Public Health action step.)

3–1.5 Action Step

Through 2010, provide a central source for current information on diabetes published by health care providers who share the information with other providers and the public through media such as newspapers, newsletters, the Iowa Diabetes Resource Manual, the Diabetes Preven-

tion and Control Program web site at the Iowa Department of Public Health, and other vehicles. (An Iowa Department of Public Health, American Diabetes Association, and health care systems in Iowa action step.)

3–1.6 Action Step

Through 2010, quarterly provide lifestyle intervention education for youth and their parents on such topics as nutrition, obesity and the need for increased physical activity in school and child care programs. (An American Diabetes Association, Iowa Games, Iowa State University, and Iowa Department of Public Health action step.)

3–1.7 Action Step

By 2010, annually monitor population distribution by age, income, education, race, and risk factor data using census data, National American Diabetes Association Fact Sheet, Centers for Disease Control and Prevention Fact Sheet, and the annual updated Behavioral Risk Factor Surveillance System. (An Iowa Department of Public Health action step.)

3–1.8 Action Step

Through 2010, continue informing targeted at-risk populations for diabetes using culturally appropriate messages developed by the National Diabetes Education Program. (An Iowa Department of Public Health action step.)

3–1.9 Action Step

Through 2010, continue an advocacy campaign to improve reimbursement for clinical diabetes screening and treatment for high-risk people by primary care providers. (An Iowa Foundation for Medical Care, Wellmark, the American Diabetes Association, and Iowa Diabetes Network action step.)

3–1.10 Action Step

By 2005, establish reliable Iowa-specific diabetes data collection and reporting. (An Iowa Department of Public Health/Diabetes Prevention and Control Program action step.)

3–1.11 Action Step

By 2005, develop and implement an awareness marketing campaign to alert health care providers and the public of the availability of data, resources and information on diabetes on the Iowa Diabetes Prevention and Control Program web site. (An Iowa Department of Public Health/Diabetes Prevention and Control Program action step.)

3–1.12 Action Step

Through 2010, collaborate with community leaders to promote a broader approach to diabetes prevention that includes encouraging weight loss by providing more healthy food choices and promoting physical activity through walking trails, bike trails, and other community activities such as “Lighten Up Iowa.” (An Iowa Department of Public Health and local organizations action step.)

3–2 Goal Statement

Decrease disparities in diabetes prevalence and increase access to health care, including detection, quality diabetes education, treatment, and management for all Iowans regardless of age, ethnicity, race, income, insurability or location.

Baseline: See Rationale.

Rationale

Based on statistics from the American Diabetes Association “Diabetes Statistics” and the Centers for Disease Control and Prevention (CDC) “National Estimates on Diabetes,” certain racial and ethnic populations, the elderly, rural residents, and the economically disadvantaged are disproportionately affected by diabetes and its serious complications. The prevalence of diabetes in Hispanic whites is 12.5 million, or 8.4 % of all non-Hispanic whites aged 20 or older who have diabetes. For African-Americans, the prevalence is approximately 2.7 million, or 11.4 % of those aged 20 or older. However, one-third of them do not know it. For the Latino-Hispanic population, approximately 2 million, or 8.2 % of all Latino Americans aged 20 or older, have diabetes. For Native American

and Alaska Native populations, 14.9 % who received care from Indian Health Services have diabetes, or 110,814 persons.

Minority communities are characterized by the following:

- Greater prevalence of diabetes resulting in higher mortality, amputations and complications from this disease.
- Greater seriousness of diabetes (e.g., hyperglycemia is worse or other serious co-morbid conditions such as hypertension exist to complicate the presence of diabetes).
- Inadequate access to proper diabetes prevention and control programs. If diabetes services such as education and eye evaluation are not available, then efficacious programs to reduce the burden of diabetes will not be accessed and used.
- Improper quality of care. Even if diabetes management were available, if its quality is inadequate, prevention would not be effective.

Iowa's minority populations are growing more rapidly than its Caucasian population. Minorities are located in both rural and urban communities. Smaller communities may be less prepared to provide services for minorities. Language is also a barrier to care, especially for health care providers without appropriate written material or interpreters. Interpretation services are not plentiful in rural areas, especially for medical terms. It is also difficult to find written materials in the appropriate language, though not all people read in their native language. Federal agencies are often clearinghouses for such materials. Linking them with providers could dramatically reduce disparities and enable providers to relate better to their clients.

Minority populations are scattered throughout the state. They live in rural areas that are far from diabetes centers or certified diabetes outpatient education programs. Minorities often have difficulty communicating and are medically underserved, uninsured or underinsured; therefore, they need prevention, screening and treatment. One solution is to take screening activities to communities to help provide access to screening and referral for care. Problems also include public transportation, which is available in some areas, but not others. In some communities, the

only transportation is by school bus and area agency-on-aging trolley systems.

A possible solution is to help health care providers identify barriers to care and locate local resources, followed by strategies to provide other needed services to overcome these barriers. Members of any population with an access problem should be included in problem identification, determining possible solutions, and selecting the best solution for their areas. For example, seniors in rural areas frequently lack public transportation or funds to pay for drivers. However, public health nursing services are available in all 99 Iowa counties for home health care. With recent budget cuts and decreased state funding, some agencies have had to reduce services.

Undocumented residents may also have difficulty accessing care. Many organizations that provide funding, including the Iowa Medicaid program and many county government agencies, cannot use state or county funds for undocumented persons. Agencies must often depend on special grants or refer to free clinics or community health centers to provide services for undocumented and uninsured.

In 2004, six community health centers were available across Iowa, some of which have the designation by the Centers for Disease Control and Prevention (CDC) of a "diabetes collaborative." Diabetes collaboratives collect and submit data to help measure the impact of diabetes on Iowa. These centers should be targeted for assessment of problems and assistance in developing solutions. Access to services may also be difficult for care providers. Travel to large metropolitan areas for required education may prevent some providers from participating in a certified outpatient education program.

Providers who participate in a comprehensive education curriculum and who have professional and peer support are able to demonstrate greater skills, knowledge, motivation, and support to manage the disease. This helps increase quality of life and prevents or delays long-term complications through appropriate disease management. "Patients' self-management, including metabolic monitoring and adjustment of drug dosages, has been successful in improving treatment outcomes in both Type 1 and Type 2

diabetes," according to the May 12, 1999, *Journal of the American Medical Association*.

Cultural competency training is becoming more important for health care professionals. Some cultures may respond negatively to the phrases, mannerisms and customs of Midwestern culture. To understand and not offend, health care providers must be knowledgeable and sensitive about patient responses. Providing cultural information to providers may improve health care and compliance.

People with disabilities should also have easy access to all health care facilities. Existing laws help, but continual vigilance is necessary to ensure that they are implemented. Many people with diabetes have special needs due to complications such as blindness caused by retinopathy and mobility problems from neuropathy or lower limb amputation. Most health care facilities provide accommodations for clients with disabilities. Technology advances have also helped people with diabetes manage the disease with insulin pumps, special syringes for the visually impaired, and glucose monitors that require minute amounts of blood that can be obtained from many sites. However, people with limited income and no health coverage often are not able to use them.

Most home delivered meal programs, senior meals centers, airlines, conferences, conventions, and restaurants offer special menus for people with diabetes. Low or no calorie soft drinks and other food, and non-caloric sweeteners for cooking, can also help people manage diabetes.

Because of the extensive impact of diabetes, there are many shared goals across *Healthy Iowans 2010* chapters. Communication and collaboration among partners is essential, especially with limited resources. Examples of such chapters are heart disease and stroke, disabilities, vision, immunizations, mental health, nutrition, oral health, physical activities, and the new chapter on vision.

3–2.1 Action Step

By 2006, develop and implement specific strategies to increase access to care. (An Iowa Department of Public Health, Iowa Foundation

for Medical Care, and federally qualified health centers action step.)

3–2.2 Action Step

By 2010, annually estimate the percent of diagnosed diabetics in high-risk populations on use and access of services. (An Iowa Department of Public Health, Iowa Foundation for Medical Care, and federally qualified health centers action step.)

3–2.3 Action Step

By 2010, conduct focus groups with various groups of Iowans, including rural, urban, minorities, senior citizens, and others to determine barriers to screening, education and treatment of diabetes. (An American Diabetes Association, Iowa Department of Public Health, Iowa Department of Human Rights, and minority health care organizations action step.)

3–2.4 Action Step

By 2010, annually conduct at least two planning meetings that involve members of each target population to determine strategies to improve access to health care. (An American Diabetes Association, voluntary organizations and agencies, Iowa Department of Public Health, Iowa Department of Human Rights, Hispanic Network, and Asian and African-American communities action step.)

3–2.5 Action Step

By 2010, implement strategies that impact diabetes in at least one site annually for each of the target populations. (An American Diabetes Association, Iowa Department of Public Health, American Association of Retired Persons, Iowa Department of Elder Affairs, and Iowa Department of Human Rights action step.)

3–2.6 Action Step

Through 2010, improve care to non-Caucasian Iowans with diabetes. (An Iowa Department of Public Health, Hispanic Network, Proteus, and Iowa Department of Human Rights action step.)

3–2.7 Action Step

Through 2010, provide and update a re-source list on the Iowa Diabetes Prevention and Control Program web site for diabetes-related health care information in non-English languages. (An Iowa Department of Public Health and Iowa Diabetes Network action step.)

3–2.8 Action Step

By 2010, increase from 85 to 90 the number of outpatient diabetes education programs that have been certified by Iowa or recognized by the American Diabetes Association targeting underserved areas. (An Iowa Department of Public Health and Iowa Diabetes Network action step.)

3–2.9 Action Step

In 2005, update the guide on establishing an Iowa certified diabetes outpatient education program on the Iowa Diabetes Prevention and Control Program web site. (An Iowa Department of Public Health action step.)

3–2.10 Action Step

Through 2010, distribute information on the certification process to all Iowa hospitals now lacking a certified outpatient education program. (An Iowa Department of Public Health action step.)

3–2.11 Action Step

Through 2010, provide diabetes education to health care providers through the Iowa Communications Network (ICN) by 1) selecting topics that meet requirements of the American Diabetes Association and for state-certified diabetes education programs for dietitians and RNs, and 2) increasing the number of ICN sites as funding allows. (An Iowa Department of Public Health and Iowa Diabetes Network action step.)

3–3 Goal Statement

Offer leadership and educational opportunities to health care professionals to enable them to give improved medical guidance to people with diabetes so that they can assume management of their disease. Baseline: See Rationale.

Rationale

Evidence has long existed and now is further supported that monitoring practitioners' practice behaviors encourages greater attention to indicators of early organ damage. Behaviors include blood pressure monitoring, and eye and foot examinations. Better secondary and tertiary prevention will also discover signs of complications early. These behaviors should also be monitored.

During the past decade, research has established that controlling certain macro-vascular risks such as blood glucose will result in fewer diabetes-related complications. Further, identification of early indicators of organ damage (e.g., micro-albuminuria) and proper treatment with ACE-inhibitors will reduce progression to renal failure. These quality indicators of diabetes prevention and control should be monitored.

Activities ultimately decided by the patient are essential in preventing diabetes. Representative individual behaviors that should be periodically monitored include smoking, use of aspirin, and self-blood glucose monitoring. The American Diabetes Association recommendations, updated annually (1999, updated in 2004), encourage aspirin therapy as secondary prevention in diabetic men and women who have evidence of large vessel disease. It should also be used as primary prevention in high-risk men and women with type 1 or type 2 diabetes with family histories of coronary heart disease, cigarette smoking, hypertension, obesity, albuminuria (micro or macro), and for various lipid criteria.

This lipid criterion includes cholesterol greater than 200 mg/dl, low density lipoprotein (LDL) cholesterol greater than 130 mg/dl, high density lipoprotein (HDL) cholesterol less than 40 mg/dl, and triglycerides greater than 150mg/dl. The American Diabetes Association also recommends a minimum of one foot examination annually.

Diabetes patient education is uniformly viewed as effective and economical in preventing longer-term complications of diabetes. A person with diabetes spends less than 0.5% of his or her time in contact with the health care system, and thus must make a variety of critical decisions about diabetes on a daily basis. There-

fore, an informed and motivated patient is essential, and diabetes education should be monitored.

Diabetes control is best achieved through a team consisting of the physician, nurse, dietitian, pharmacist, other professionals, and the patient. Health care providers must have access to the most current medical practices and to patient care instruction. In Iowa, primary health care professionals provide management of diabetes. To meet the goals of preventing long-term complications, it is essential to provide current information to all medical practitioners in Iowa.

The Iowa Diabetes Resource Directory, first developed and distributed in 1998, is also important. It contains information about state programs, specific county data and services available to people with diabetes, and a listing of local resources. The directory will be made available through the Iowa Department of Public Health web page to provide statewide access. Providing tools for the health care provider to document and follow progress of a patient will result in more efficient and effective patient management. The person with diabetes is the most important member of the team, providing day-to-day management of the disease. Resources to help keep track of blood glucose, regular examinations, and diet are helpful and should be available.

Current standards developed by the American Diabetes Association, based on the *Report of the Expert Committee on the Diagnosis and Classification of Diabetes Mellitus*, have been distributed to 2,800 primary care physicians and internists in Iowa. Follow-up and reinforcement through education for all providers of health care must be accomplished. Use of the Iowa Communications Network (ICN) fiber optic interactive statewide video system is being used, but will be used to an even greater extent in the future. The Diabetes Prevention and Control Program and the Iowa Diabetes Network provide quarterly programs that address the required components of a certified program.

Partnership support to develop an ongoing endorsement program for health care providers continues. Programs presented by respected educators and practitioners in diabetes can be made available in many areas that are distant from the originating ICN site. The interactive

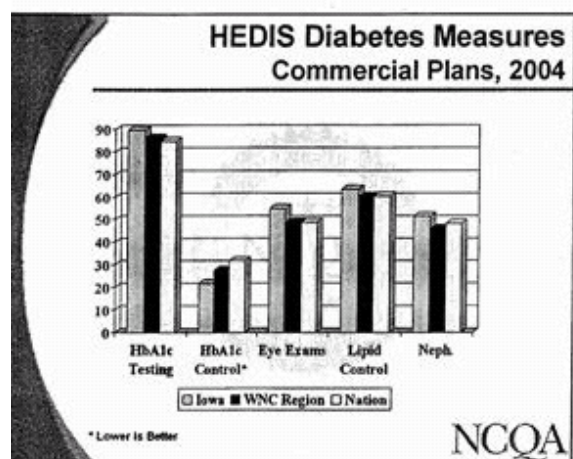
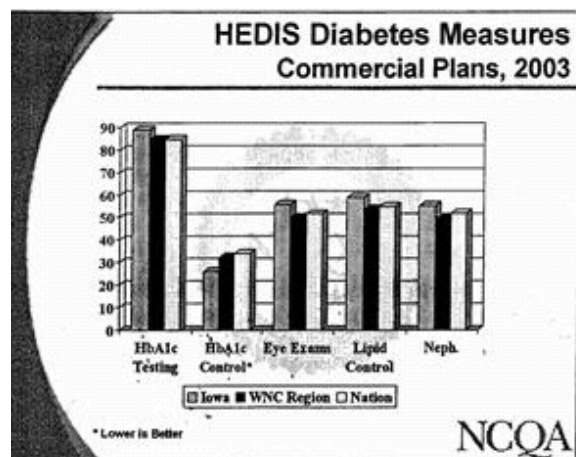
format allows for questions to be answered. Also, 2-hour programs make attendance more convenient for practitioners who would not have to leave their practice for a long period. A successful effort between the Iowa Medical Society and the Iowa Department of Public Health was well received.

Indicators of quality health care that are measurable through the Behavioral Risk Factor Surveillance System (BRFSS), Health Plan Employer Data and Information Set (HEDIS), and by peer review provide a measure of the level of care. Health care professionals who provide secondary prevention are aware of the needs of their patients and are being proactive. HEDIS is considered one of the most reliable measures for comparing health care quality and is used by more than 90% of America's health plans to evaluate clinical quality and customer service rather than simply price. Seven commercial insurance plans in Iowa report HEDIS 2004 diabetes measures (based on 2003 services).

Iowa exceeds the other measured groups in all categories (except HbA1c control where lower is better). Improvements were made in every area except eye exams, where the data shows a slight decrease.

HbA1c measures persons with diabetes who have received at least one A1c test annually. The A1c test measures a person's blood sugar over time. The eye exam category measures persons with diabetes who have had annual eye exams. The lipid control category measures persons with diabetes who have received lipid screening in the last year.

The following two graphs compare 2003 and 2004 Iowa HEDIS data with the west north central region and the nation.



Source: National Health Care Quality, State of Health Care Quality Report 2004.

3–3.1 Action Step

By 2010, provide new and/or updated information and tools to Iowa health care providers on a regular basis through a variety of media to meet quality care indicators and establish a central point of collection and dissemination of diabetes data and resources. (An Iowa Department of Public Health, other government agencies, peer review organizations, health care facilities, the diabetes collaboratives, third-party payers, medical societies, health care professional organizations, and Iowa Foundation for Medical Care action step.)

3–3.2 Action Step

Through 2010, improve preventive and therapeutic care of Iowans with diabetes according to the following indicators:

- By 2010, increase from 78.3% to 80% the proportion that has an annual dilated eye examination (Behavioral Risk Factor Surveillance System, 2003).
- By 2010, increase from 74% to 75% the proportion that has at least one annual comprehensive foot examination (Behavioral Risk Factor Surveillance System, 2003).
- By 2010, increase from about 90% to 95% the proportion that has a glycosylated hemoglobin measurement at least once a year (Behavioral Risk Factor Surveillance System, 2003).
- By 2008, increase to 75% the proportion that has adequately controlled their blood pressure under 130/80.
- By 2008, increase to at least 85% the proportion that annually obtains lipid assessment (i.e., total cholesterol, low density lipoprotein cholesterol, high density lipoprotein cholesterol, triglyceride).
- By 2008, increase to 40% the proportion that has at least one annual urinary measurement of microalbumin.
- By 2008, increase to 55% the proportion over aged 40 that regularly take aspirin.
- By 2010, increase from 62.5% to 70% the proportion that performs blood glucose self-monitoring on a regular basis (Behavioral Risk Factor Surveillance System, 2003).
- By 2010, increase to 35% the proportion also associated with cardiac and/or renal disease that are prescribed ACE inhibitors.
- By 2010, increase to 50% the proportion also associated heart disease that is prescribed beta-blockers.
- By 2010, increase from 88.1% to 95% the proportion that has been seen by a health professional for diabetes within the previous year (Behavioral Risk Factor Surveillance System).
- By 2008, increase to 50% the proportion that has had a serum creatinine determination within the previous year.
- By 2010, increase to 50% the proportion that has received counseling by a dietitian in the previous year.

(An Iowa Department of Public Health, other government agencies, peer review organizations, health care facilities, the diabetes collaboratives, third-party payers, medical societies,

health care professional organizations, and Iowa Foundation for Medical Care action step.)

3–3.3 Action Step

Through 2010, promote a team approach to comprehensive diabetes care that encourages collaboration by doctors, nurses, dietitians, pharmacists, podiatrists, optometrists, and dental care professionals, as well as others not traditionally considered in this arena. (An Iowa Department of Public Health action step.)

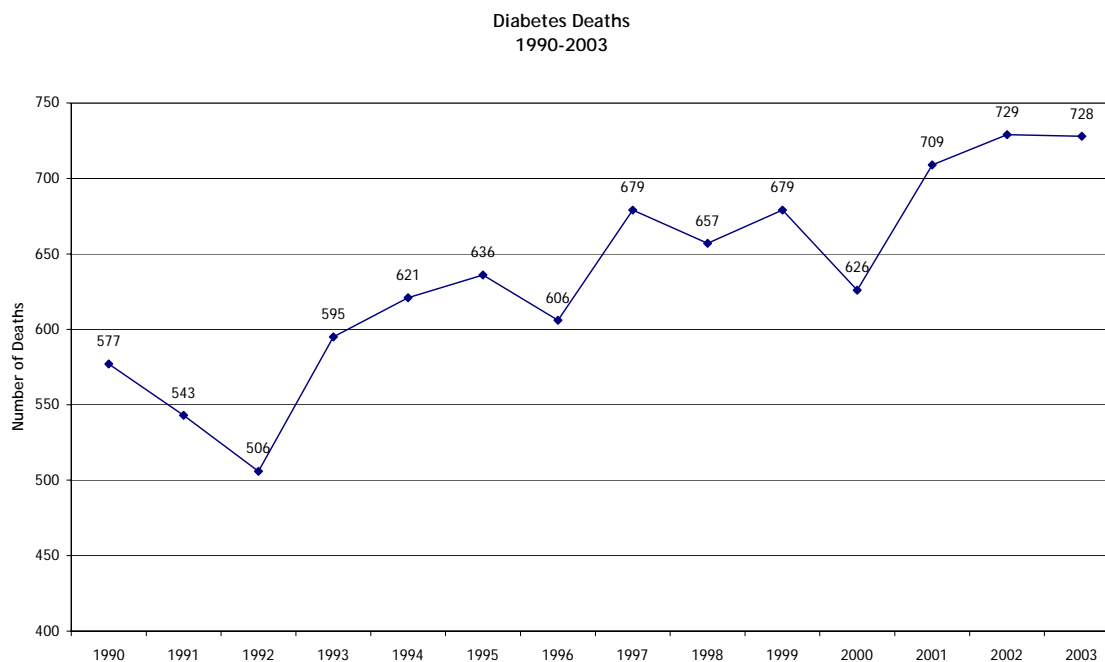
3–4 Goal Statement

Decrease mortality and morbidity from diabetes by preventing or delaying complications of premature death, blindness, kidney damage, cardiovascular disease, cerebrovascular disease, nervous system disease, and renal disease. Baseline: See Rationale.

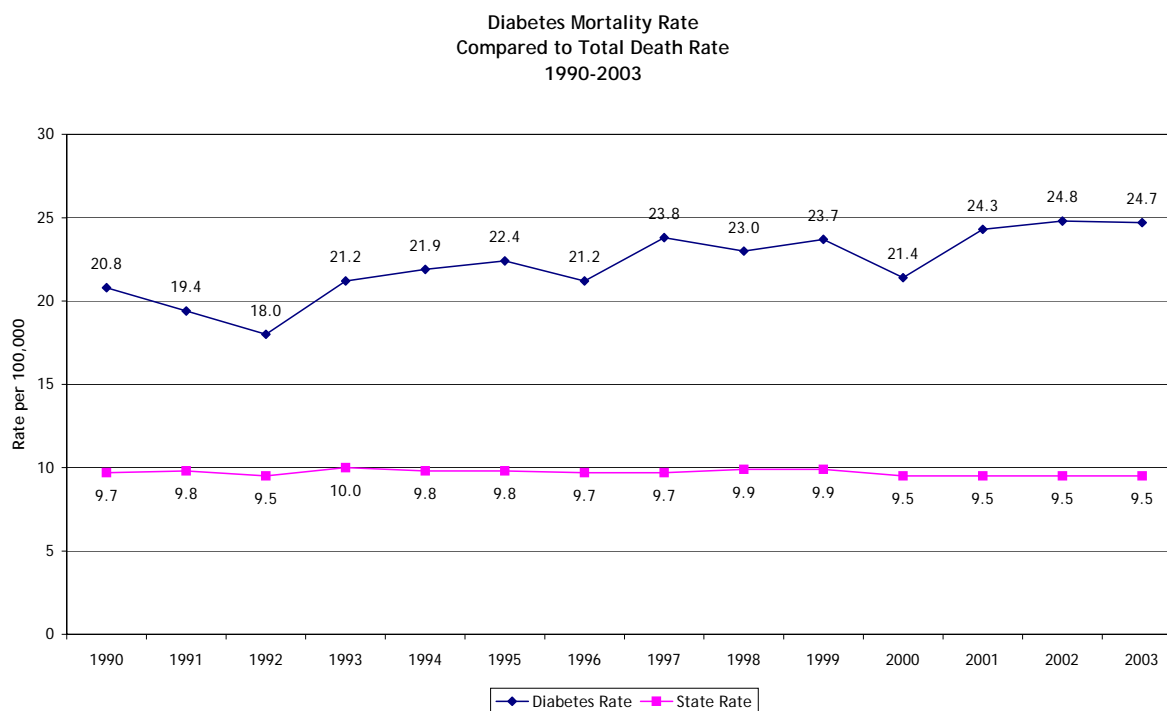
Rationale

People with diabetes have mortality rates, especially from cardiovascular disease, two to four times greater than non-diabetic people. Other contributing factors may include end-stage renal disease (ESRD), diabetic acidosis, and infection. Studies indicate that debilitating conditions in people with diabetes can be prevented and certainly delayed with secondary and tertiary prevention.

Convincing, consistent and continuing scientific evidence exists that with secondary and tertiary prevention, micro vascular complications of diabetes can be substantially reduced. Improved quality of life, diminished mortality, and improved economics can result from improved clinical and public health diabetes prevention directed at micro vascular and metabolic complications of diabetes.



Diabetes as primary cause of death, Vital Statistics



Organ donation is also vitally important to those with diabetes since successful kidney transplantation can extend and greatly improve quality of life. Iowa has opportunities for organ donation with driver's license renewal. There are three transplant programs in Iowa. End-stage renal disease (ESRD) has been increasing in prevalence from 1,183 cases in 1992 to 1,404 in 1996. The percentage of those cases with diabetes as a primary diagnosis increased from 27% to 36%. A total of 112 kidney or kidney and/or pancreas transplants were done at two of the three Iowa facilities. Of those, 35, or just over 31%, were for persons with diabetes. The end-stage renal disease grant was discontinued in Iowa, eliminating the source of data. The Diabetes Prevention and Control Program epidemiologist will pursue additional sources.

Increasing awareness of diabetes and ways to prevent and manage it, and early treatment for it, will decrease its devastating effects and result in an improved quality of life. According to the *Journal of the American Podiatric Medical Association*, 1994, 15% of people with diabetes will likely develop foot ulcers. The annual inci-

dence of lower extremity amputation ranges from 37 to 137 per 10,000 people with diabetes, a rate 15 to 40 times higher than that of non-diabetic people.

Diabetic retinopathy is a common complication of diabetes that affects the tiny blood vessels of the retina, which can break down, leak or become blocked, affecting and impairing vision over time. In some people with diabetic retinopathy, serious damage to the eye can occur when abnormal new blood vessels grow on the surface of the retina. Diabetic retinopathy can affect almost anyone with diabetes. The Centers for Disease Control and Prevention (CDC) estimate that 10.3 million Americans have diagnosed diabetes, while an additional 5.4 million have diabetes that has not been diagnosed. In general, the longer someone has diabetes, the greater the risk of developing diabetic retinopathy. Eventually, almost everyone with juvenile onset diabetes will develop some signs of the condition. Those who acquire diabetes later in life are also at risk, though somewhat less so.

Diabetes also increases the risk of other eye diseases such as cataract and glaucoma. Be-

cause of its dangers to good vision, people with diabetes are urged to seek annual dilated eye exams. Research suggests that the risk of diabetic retinopathy can be reduced through careful control of blood sugar. People with diabetes are also encouraged to control their blood pressure (*Vision Problems in the U.S.* by National Eye Institute to Prevent Blindness America).

Organ donation is vitally important to those with diabetes since successful kidney and/or pancreas transplantation can extend and greatly improve quality of life. Iowans can sign up for organ donation when they seek driver's license renewal, which also provides an effective awareness campaign, that reaches a broad spectrum of the population.

Each year, as many as 25,000 people lose their sight to diabetic eye disease, a leading cause of blindness in the United States. The major cause in persons with diabetes is diabetic retinopathy. Detecting and treating it with laser therapy can reduce the development of severe vision loss by an estimated 50% to 60%, according to the CDC. An annual dilated eye exam can identify diabetic retinopathy early, frequently before symptoms are apparent.

Comprehensive foot care can reduce amputation rates by 45% to 85%, according to the CDC. Working together, people with diabetes and their health care providers can reduce the occurrence of this complication by controlling the levels of blood glucose, blood pressure and blood lipids, as well as other preventive care such as regular comprehensive foot exams.

3–4.1 Action Step

By 2010, decrease to 480 the number of deaths in persons with diabetes as the primary cause (from 729 in 2002). (An Iowa Department of Public Health action step.)

3–4.2 Action Step

By 2010, decrease renal disease deaths as a primary cause to three (from 4 in 2002) and decrease renal disease deaths as a contributing cause to 38 (from 58 in 2002). (An Iowa Department of Public Health, health care systems, and Iowa Diabetes Network action step.)

3–4.3 Action Step

By 2010, decrease the number of deaths due to diseases of the heart with diabetes as a contributing cause to 800 (from 881 in 2002) through prevention and awareness activities, earlier diagnosis and treatment, and effective education and lifestyle changes. (An Iowa Department of Public Health, health care systems, and Iowa Diabetes Network action step.)

3–4.4 Action Step

By 2010, decrease the number of deaths from cerebrovascular disease with diabetes as a contributing cause to 170 (from 189 in 2002) through prevention and awareness activities, early diagnosis and treatment, and effective educational and lifestyle changes. (An Iowa Department of Public Health and health care systems action step.)

3–4.5 Action Step

By 2010, reduce the frequency of blindness to below 100 per 100,000 persons with diabetes by educating them and health care providers on the importance of an annual dilated eye exam. (An Iowa Department of Public Health, health care systems, and Iowa Diabetes Network action step.)

3–4.6 Action Step

By 2010, reduce the number of hospital discharges for lower extremity amputations to fewer than 600 per year through health care provider education. (An Iowa Department of Public Health, health care systems, and Iowa Diabetes Network action step.)

3–4.7 Action Step

By 2010, quarterly offer updated information on diabetes via the Iowa Communications Network (ICN) at statewide locations to health care providers, including

nurses, dietitians, and those who qualify as certified diabetes educators. (An Iowa Department of Public Health and Iowa Diabetes Network action step.)

3–4.8 Action Step

During 2005 to 2006, increase collaboration within the following Iowa Department of Public Health programs: heart disease and stroke, physical activity, obesity, oral health, dental, cancer, disabilities, maternal child health, women's health, asthma, and other programs working to impact diabetes in Iowa. (An Iowa Department of Public Health action step.)

Goal Cross References

Chapter 1: Access to Quality Health Services

- 1–1Reduce to 0% children and adults under aged 65 without health care coverage.
- 1–2Develop a plan and engage in activities that promote and encourage providers to follow standardized quality performance measures.
- 1–3Increase by 25% access to primary care for the underserved population.
- 1–4Ensure a competent and diverse health workforce by assessing and forecasting workforce supply and demand and by promoting local strategies to recruit and retain workers by including all 99 counties in a nurse tracking project.
- 1–12Develop a strategic plan to assess and employ telehealth and telemedicine to increase access to health services.

Chapter 4: Disabilities

- 4–3Assure that each HI 2010 chapter assesses the health issues and potential treatment for people with disabilities and incorporates goals and action steps.

Chapter 5: Educational and Community-Based Programs

- 5–5All post-secondary community colleges to provide data on how the college addresses the six priority health risk behavior areas.

Chapter 9: Heart Disease and Stroke

- 9–1Reduce by 13% heart disease deaths.
- 9–2Reduce by 16% stroke deaths.

Chapter 13: Nutrition and Overweight

- 13–3 Prevent a further rise in the percent of Iowans who are overweight.
- 13–4 Prevent further rise of weight gain among children and adolescents under aged 18.
- 13–5 Increase to at least 50% people aged 2 and older who meet the minimum daily average goal of at least 5 fruits and vegetables as recommended by the Dietary Guidelines for Americans.
- 13–8 Reduce to 5% the incidence of food insecurity.
- 13–9 Provide nutrition screening and education to 90% of older adults who participate in health and nutrition programs.

Chapter 16: Physical Activity and Fitness

- 16–1 Establish funding that targets sedentary Iowa lifestyles and a plan that includes support for planning, local efforts, environmental projects, model policy initiatives, and education.
- 16–2 Certify 500 Physician-based Assessment and Counseling for Exercise (PACE) clinicians, 50 of whom are doctors, or similar programs.
- 16–3 Establish an enhanced comprehensive strategy that shares the main physical activity message with as many Iowans in as many environments as possible.
- 16–4 Create strategies that share the physical activity message with special and high-risk populations.
- 16–6 Create and disseminate a detailed list of best or expected practices that provide students an educational environment that teaches and fosters a healthy active lifestyle.
- 16–7 Create an electronic media plan using the Internet, the ICN system, etc.
- 16–8 Work with the Iowa Department of Transportation and other entities to promote environments that are physically appealing and conducive for regular physical activity.
- 16–10 .. Increase the proportion of school-age children who meet the Centers for Disease Control and Prevention recommendations for physical activity and physical education.

Chapter 24: Vision

- 24-1Establish reliable Iowa-specific baseline data on vision.
- 24-2Build awareness of the importance of early intervention and rehabilitation to increase positive outcomes for adults who are visually impaired or blind.
- 24-4Build awareness of the importance of maintaining good eye health through prevention and education.

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Chapter 4

Disabilities**Introduction**

This chapter is dedicated to the concept that people with disabilities must be recognized as whole and healthy beings. Living with a disability is unique. It cannot be fully understood until it is experienced. Disability is a natural part of the human experience that does not diminish the disabled person's right to the opportunity of living in and contributing to the mainstream of American society.

Disability encompasses a wide range of experiences. It can begin anytime during one's life, at conception, during pregnancy, at birth, during childhood or adulthood, or as the result of aging. It may affect one or more areas – mobility, personal care, communication, or learning. It can be hidden, as with dyslexia, or obvious, as with a spinal cord injury or Down syndrome. It may be mild or severe, or it may be progressive, chronic or intermittent, as in the beginning stages of multiple sclerosis.

A disability is rarely static. Instead, it will likely fluctuate during the course of life. The same disability may manifest itself differently in different people, as is often the case with cerebral palsy. It may result from genetic abnormalities, trauma, illness, chemical imbalances, or conditions usually associated with aging. Some disabilities can be prevented, others cannot.

Disabilities are of many different types: physical, cognitive, psychiatric, behavioral, or sensory. However, it is not the type of "diagnosis" that makes a condition a disability. People with disabilities do not need to have their disability removed or fixed to be whole and contributing members of society. Often, whether or not a person with a disability participates in and contributes to society is determined by the individual's access to society's goods and services,

and the availability of individualized, "consumer controlled" services and supports. For a person with a disability, services and supports must include health promotion, primary and specialized health care, transportation, assistive technology (devices which help the disabled person to function), personal assistance, and peer support.

For far too long, society has considered the concepts of good health and disability to be contradictory. In fact, good health has been considered to be synonymous with the absence of disability and assumed to be beyond the reach of people with disabilities. Such assumptions are not necessarily true. Most people with disabilities have the potential to lead healthy and productive lives if given the opportunity to attain good health and fully participate in society.

Attaining and maintaining good health for people with disabilities, like all people, is a process that must focus on maximizing functioning and well-being throughout the lifespan. Because the nature of the process that leads to good health is interactive and involves considerations other than biology, prevention must deal with traditional health issues as well as the social, educational, spiritual, and environmental factors that ultimately help to determine quality of life.

Health promotion for people with disabilities includes:

- Promotion of healthy lifestyles and a healthy environment;
- Prevention of health complications and further disabling conditions;
- Preparation of the person with a disability and his or her family to understand and monitor personal health and health care needs; and
- Promotion of opportunities for participation in commonly held life activities.

People with disabilities particularly need quality health promotion and rehabilitative services, as well as long-term services and supports. Having a disability is not an immunization against developing the same chronic conditions as the rest of the population. People with disabilities are susceptible to the same health conditions and, in some cases, may be at increased risk. The *Healthy People 2010* chapter on disability and secondary conditions notes that when compared to people without disabilities, those with disabilities have higher rates of chronic conditions, including diabetes, depression and sadness, elevated blood pressure and blood cholesterol, obesity, tooth loss, and vision and hearing impairments. They also have lower rates of recommended health behaviors (e.g., cardiovascular, strengthening and flexibility activities, and abstention from cigarette smoking). A number of studies have also shown that people with a traumatic brain injury have higher than average rates of substance abuse.

Prevention is important for people with disabilities as for everyone else and includes self-care, counseling, screening for early detection, appropriate and timely treatment, and early recognition and reduction of known risks. Many of the health promotion strategies developed to reduce the risk of illness in the general population can be used directly with people with disabilities. In some cases, however, new strategies need to be developed or adapted for people with disabilities and tested in inclusive, community-based settings.

People with disabilities also are at risk of developing certain secondary conditions (i.e., conditions directly related to their primary disability) that may add to their level of disability and negatively affect their independence and quality of life. These conditions may include chronic pain, drug interactions, contractures, skin breakdown, injuries, and psychosocial problems such as communication difficulties or depression-related conditions due to their isolation in society. One Iowa-specific study, the “University of Iowa College of Public Health Prevention of Secondary Conditions Study of Iowans with Mobility Impairments,” found higher than usual rates of drug interactions among adults and elders with mobility impairments. That same

study noted significant rates of depression in adults with mobility impairments. In addition, many people with disabilities, particularly those with mobility impairments, report they experience one or more conditions generally associated with aging (e.g., pain, fatigue, loss of function, and loss of independence) beginning as early as their twenties.

Although more research is needed to understand the incidence, cause and prevention of certain secondary conditions, a number of studies have identified specific secondary conditions that are preventable or manageable. One study of 40 common secondary conditions in people with mobility impairments reported that participants had an average of 13 secondary conditions during the previous year. This study also found that 11 of the 15 conditions with the highest incidence and severity involved environmental, behavioral and psychosocial factors that could be prevented.

Disparity problems resulting from disability are complex and unique. As with other groups that historically have been disadvantaged, people with disabilities have higher rates of unemployment, lower incomes, less educational opportunities, fewer living options, and an ongoing struggle for inclusion. Although the Americans with Disabilities Act (ADA), which became law in 1990, was created to address many of the barriers to participation in society, full implementation has not yet been realized.

People with disabilities also encounter significant structural, financial and personal barriers that limit their access to health and health-related care. Those who are elderly or members of minority groups face additional barriers. Our health care system does not foster the inclusion, integration and independence of people with disabilities. Instead, services are often fragmented, frequently inadequate in addressing the constellation of needs of people with disabilities, and many times inaccessible.

Major concerns for people with disabilities include structural barriers such as the lack of availability of services and accessible buildings, transportation and programs. A number of services needed by people with disabilities (e.g., specialty medical care, rehabilitation, long-term services, and supports) are not universally avail-

able and are particularly lacking in rural areas. Other services may be available but physically inaccessible. For example, women with disabilities are concerned about the high incidence of false negative mammograms due to equipment that is not properly adapted or technicians who do not know how to properly position women with disabilities.

Data show that women with severe physical disabilities are significantly less likely to receive regular pelvic examinations. And one study found that physically disabled women are at the same risk for physical and sexual abuse as able-bodied women, but experience abuse over longer periods because they lack access to resources to help them escape abusive environments.

Personal barriers, including attitudes, knowledge and communication, also influence access to care for people with disabilities. Consumers with disabilities report that many health care providers focus on the disabilities and fail to deal with critical primary care. They also indicate that they lack important information about maintaining their health and managing their disability, which is vital to helping them attain and maintain their health and independence.

There are numerous complaints that health education materials are not available in accessible formats and that health providers lack the knowledge and time to communicate in an effective manner. Communication with people with disabilities may involve adapting the content or print size of written materials, using interpreters, recording instructions, or working with special communication devices.

People with disabilities also face a number of financial barriers to access services. Obtaining adequate private insurance can be particularly difficult due to restrictions on pre-existing conditions, caps on the amount or cost of services, benefit packages that do not cover needed services, and the affordability of the package.

Affordability is a particularly important issue in a rural state like Iowa where significant numbers of people with disabilities work for small employers who do not pay for health care benefits. As a result, many people with disabilities are forced to forego working or limit themselves to part-time employment in order to main-

tain government health insurance because they cannot obtain adequate coverage through their employers or cannot afford to buy it.

According to the 2000 Census, 49.7 million Americans have some type of long lasting condition or disability. They represented 19.3% of U.S. citizens aged 5 and older in the civilian non-institutionalized population – or nearly one person in five.

People were defined as having a disability if they met one or more of the following:

- They were aged 5 or older and had a sensory, physical, mental, or self-care disability;
- They were aged 16 or older and indicated they had a disability affecting going outside the home; or
- They were aged 16 to 74 and indicated they had an employment disability.

Those in the 2000 Census who were found to have a disability included:

- 9.3 million (3.6%) with a sensory (sight or hearing) disability;
- 21.2 million (8.2%) with a condition limiting basic physical activities, such as walking, climbing stairs, lifting, or carrying;
- 12.4 million (4.8%) with a condition causing difficulty in learning or remembering;
- 6.8 million (2.6%) with a condition causing difficulty in dressing, bathing or getting around inside the house; and
- 21.3 million aged 16 to 64 (11.9%) with a condition that affected their ability to work at a job or a business.

Over 46% of those reporting a disability reported more than one disability.

A disability affects not only the person with the disability but the person's family. Studies show that about 80% of primary helpers are relatives and nearly half of them live with the person with the disability. Over 30% of American families have a member limited in a life activity. Without adequate support, providing care for a person with a disability can result in significant stress and affect the health of the family member(s) providing the care.

The effects of disability in Iowa are only now beginning to be understood. Although a comprehensive, coordinated state data system

does not yet exist, available data provide a picture of the scope and influence of disability for Iowa's citizens. For instance, over 10% of the state's school-age children routinely receive special education or related services due to some type of disabling condition.

Some data about the effects of disability on the adult Iowa population are becoming known. In 2003, about 375,000 non-institutionalized adults (17.1% of the designated population) reported having activity limitations, according to the Behavioral Risk Factor Surveillance System. About 34,000 of those surveyed in 2002 reported they needed assistance with personal care, and 88,500 reported needing help with routine tasks such as household chores, shopping or getting around.

There has been significant growth in the rate of disability in America in the last quarter of the 20th century. The percent of the population with at least one activity limitation grew from 11.7% in 1970 to 16%–18% in 1994. This growth is attributed to a gradual long-term increase due to the aging of the population and a short-term increase in younger populations.

The long-term increase is expected to continue, if not accelerate, in the coming decades. The percent of the total population aged 65 and older is projected to increase from 12% to 20% in the next 30 years. This means that even if the rate of disability in the older age group remains constant, the actual number of people with disability will increase substantially. This trend supports the need for a public health approach to prevention and participation.

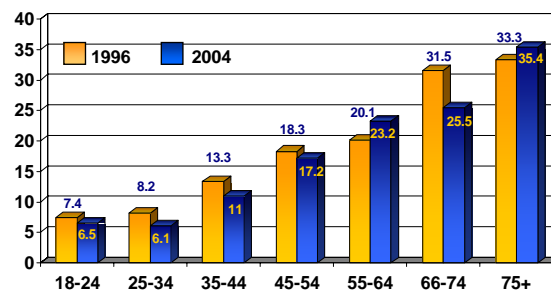
Before 1990, disability rates for children and younger adults held steady for nearly two decades. Since 1990, however, dramatic changes have been noted in the rate of disability for both groups. Between 1990 and 1994, the disability rate increased by 16% among adults aged 18 to 44, and by 40% for boys and 33% for girls under aged 18. Similar increases have been noted in recent studies of work disability and personal assistance needs in the same age groups. Although speculation is rife, the reasons behind these increases are not yet fully understood.

Among adults aged 18 to 44, increases are noted in the rates of orthopedic impairments and

mental and nervous disorders. In children under aged 18, rate changes may be partly due to recent improvements in health care. As a result of improved health care, some 95% of children with disabilities and severe chronic health conditions now reach adulthood. National data found increases in the prevalence of severe asthma, mental disorders (including attention deficit disorder), mental retardation, and learning disabilities in children. Because about 70% of the population is under aged 45, these increases are responsible for the recent rise in the proportion of the population with disabilities.

The likelihood of having a disability increases with age. In Iowa, the elderly experience disability at roughly twice the rate of those in the older working ages (45 to 64) and three times the rate of the younger working age group (18 to 44). A still smaller fraction of children have disabilities.

Percent of Iowans with Disabilities by Age



Source: Iowa Department of Public Health.

According to the 1994 National Health Interview Survey on Disability, nearly two-thirds of the population with functional disabilities and half of those with long-term care needs were under aged 65. These numbers, taken with the length of time younger people will live with their disability, shows the importance of including the younger populations with disabilities in public health policy and program planning.

Although age appears to be the main factor in the likelihood of a disability, some differences by self-identified race and ethnicity remain. Nationally, the rate of disability reported by people in different ethnic groups varied from a low of 16.6% for Asians and 19% for Pacific Islanders to a high of 24.3% for both African-Americans

and Native Americans. The rate for Hispanics was 20.9% and for whites 18.3%.

The only way to eliminate years of disparity for people with disabilities is to recognize them as full participants in diverse, tolerant and inclusive communities. Inclusion was used as a guiding principle in developing its approach and determined that, whenever possible, the health promotion and preventive service needs of people with disabilities should be addressed within each individual chapter of *Healthy Iowans 2010*. Thus, the team developed and distributed a white paper on crosscutting access issues and a set of guiding principles for serving people with disabilities to other chapter teams, which is presented at the end of this introduction.

This is supported by the June 1999 U.S. Supreme Court Olmstead decision that held discrimination on the basis of disability as illegal. The decision stated that people with disabilities have the right to services provided in the most integrated setting appropriate to their needs. In February 2003, Governor Tom Vilsack signed Executive Order 27 urging Iowa to “move purposefully to swiftly implement the Olmstead decision” and coordinate a comprehensive effort by state agencies to “reshape the structure and nature of community-based services.”

Covered in this chapter's action plan are broad prevention questions about people with disabilities, including those about infrastructure and promotion of opportunities for participation in common life activities. Many of the goals and action steps reflect the goals of Executive Order 27. Within this framework, the committee has organized the action plan into five sections: health care information and empowerment; health, wellness and disability; professional training; participation in society; and individual and community-based services and supports. Iowans with disabilities will still face much disparity even if all the plan's goals are met.

People with disabilities must be recognized as people first. They share hopes and dreams and have the same expectations as all members of society. They expect to:

- Attain economic self-sufficiency, live independently, enjoy good health, and fully participate in all aspects of life;

- Live, work, recreate and learn in the communities of their choice; and
- Be active, valued and contributing members of their communities and society.

People with disabilities require the information and respect necessary to make their own decisions. They must be equal partners in conceptualizing, developing, directing, and evaluating policies, programs and services.

Traditional health services and systems must be adapted to foster the inclusion and independence of people with disabilities.

Specifically, services and systems must:

- Provide information and training to help people with disabilities make their own health care decisions and choose their own health care plans and providers;
- Emphasize prevention and wellness to promote independence and personal responsibility;
- Address chronic health conditions and enhanced functioning;
- Provide both acute and episodic care;
- Allow the appropriate use of specialty and rehabilitative care;
- Facilitate transportation and provide physical access to buildings, programs and services; and
- Promote coordination and continuity of care between health care providers and health and human service systems.

Public and private sector health care financing must assure equity in access to health care, promote the development of a seamless system of care, and develop policies that are responsive to the needs of diverse populations, including people with disabilities. Such mechanisms need to:

- Eliminate discrimination on the basis of pre-existing conditions;
- Support a consumer-driven, risk-neutral system that covers everyone;
- Provide broad-based benefits that adequately meet individual needs;
- Provide access to affordable health care; and
- Eliminate disincentives for people to pursue employment and economic self-sufficiency because of their inability to obtain health coverage.

Prevention efforts for people with disabilities need to address not only traditional health issues but also the social, educational, spiritual, and environmental factors that maximize functioning and independence, and ultimately determine quality of life. Long-term services and supports for people with disabilities must:

- Promote the use of individual and in-home services as the first option and out-of-home placement as the last resort;
- Be individually designed to meet the needs of the individual and the family in which he or she lives;
- Be provided in inclusive, community-based settings; and
- Be coordinated through service teams that are directed by people with disabilities and their families who have choice and flexibility in the services and supports they receive.

Health promotion must include assurance of access to places, buildings and services for people with disabilities to participate in commonly held activities, including regular and higher education, employment, housing, religion, and recreation.

Progress

A number of products were developed and objectives achieved since the disability plan was unveiled in 2000. Guidelines were created for health care professionals who communicate with Iowans with disabilities. A “Consumer Report Card” provided comparisons between Health Management Organizations and organized delivery systems. “Living Well” and “Continuing to Live Well with a Disability” health promotion programs were conducted around the state. An adolescent version of the “Living Well” program was developed and is being piloted in several community schools. A state arthritis program was established. Training to make services physically accessible was conducted.

Also, workshops on “fair housing laws” were held and objectives on reducing barriers to employment achieved. Several goals on enhancing transportation for Iowans with disabilities were reached. Informational sessions on assistive technology were held. Finally, Iowa held its first conference on disability and health in November 2003. The “Iowa Summit on Disability

and Health: A Call to Action” addressed health disparities, program strategies, and inclusion of people with disabilities in health promotion, access to health care, substance abuse, and injury/violence prevention.

Several goals were not achieved, primarily because of limited resources. The plan to visit all state offices to assess physical barriers was not possible because of lack of available staff. However, an Americans with Disabilities Act (ADA) compliance survey is available free-of-charge upon request. The full-time state ADA coordinator position was eliminated because of funding cuts; therefore, ADA compliance information is now provided by staff from the Commission on Persons with Disabilities. The proposal to establish a statewide, consumer-controlled personal assistance service was not funded due to budget shortfalls.

Many of the objectives and action steps contained in the updated version of this chapter represent a continuation of objectives that have been attained. Updated data were used throughout the document. New issues, such as the Olmstead decision, will have a profound affect on service delivery and are also incorporated into the revised document.

Goal Statements & Action Steps

4–1 Goal Statement

Improve consumer access to appropriate information about their health care needs through provider education and coordination of consumer health information resources. Baseline: See Rationale.

Rationale

Empowerment means being able to make informed choices. Maintaining and improving health depends on the person’s ability to access and use health care information. To make effective choices, information on 1) services and support networks; 2) disability-specific signs and symptoms that require evaluation and intervention by medical and allied health care providers;

3) basic human rights for health care; and 4) current disability research are essential.

With the advent of electronic information processing, the amount of information on health care and disabilities in all formats has increased greatly. However, there is no integrated or readily accessible, comprehensive system of information dissemination in Iowa. Designing an infrastructure that enhances the availability and accessibility of health care information for people with disabilities and their support persons will greatly facilitate their participation in health care decisions.

4–1.1 Action Step

Through 2010, identify and provide disability-related materials to a minimum of 25 service providers annually. (An Iowa Department of Public Health action step.)

4–1.2 Action Step

During 2005, identify funding resources and develop a web site for coordination and dissemination of specific disability health care and related information with links to web sites on education, service provision, funding resources, technology, support groups or persons, disabilities research, speakers, chat rooms and other appropriate sites. (An Iowa Department of Public Health action step.)

4–1.3 Action Step

During 2005, identify funding sources and develop a pilot project to teach people with disabilities and others to evaluate printed and electronic health care and related information and to use this information in health care decision-making. (An Iowa Department of Public Health, Center for Disabilities and Development, and Child Health Specialty Clinics action step.)

4–2 Goal Statement

Develop and distribute a comparison of health care plans and initiate a curriculum that helps people with disabilities select the best health insurance plan.

Baseline: See Rationale.

Rationale

Managed care has brought a proliferation of health care plans and a corresponding need for persons with disabilities and their support persons to become discriminating consumers. Material describing such plans is often difficult to interpret and may not readily convey to people with chronic health care needs what is covered by the plan and often does not provide opportunities for consumer input.

The development of guidelines for the presentation of plan information to persons with disabilities would greatly enhance their ability to participate as informed consumers. Educational opportunities encouraging the development of self-advocacy and negotiating skills are also important to consumer participation.

4–2.1 Action Step

In 2006, identify funding to develop and pilot a curriculum that teaches people with disabilities how to choose their health care team members, plan visits with providers, understand their rights as consumers, and negotiate with providers and payers. (An Iowa Department of Public Health, Center for Disabilities and Development, and Child Health Specialty Clinics action step.)

4–3 Goal Statement

In compliance with the Olmstead decision, assure that each *Healthy Iowans 2010* chapter assesses the health issues and potential treatment available for people with disabilities and incorporates appropriate goals and action steps in each chapter's action plan to help eliminate health disparities for the disabled.

Baseline: See Rationale.

Rationale

People with disabilities are susceptible to the same chronic health conditions as the general population and sometimes are at increased risk. They are also at risk for secondary conditions that can increase their disability and decrease their quality of life. For these reasons, health

promotion and prevention, promotion of self-care and counseling, screening for early detection and treatment, and early recognition and reduction of known risks are particularly important to people with disabilities.

Despite this situation, anecdotal and study data suggest that people with disabilities receive fewer health promotion and preventive services than the population as a whole. The following action steps are intended to create an infrastructure to obtain data to enable state and community health providers to initiate effective health promotion and prevention for this population.

4–3.1 Action Step

During 2008, initiate a system to collect, track and analyze disability data within all health department systems. (An Iowa Department of Public Health action step.)

4–3.2 Action Step

During 2005, assess the health problems and potential treatment available for people with disabilities and amend chapter action plans to initiate effective health promotion and prevention for this group. (A *Healthy Iowans 2010* Chapter Committees action step.)

4–3.3 Action Step

Through 2010, establish a method to continuously collect information on effective prevention and resources and to disseminate the information gathered to key *Healthy Iowans 2010* leaders. (An Iowa Department of Public Health and Prevention of Disabilities Policy Council action step.)

4–4 Goal Statement

Collect statewide data to better identify, describe and analyze information on health disparities, secondary conditions, and participation for people with disabilities. Baseline: See Rationale.

Rationale

The Iowa Department of Public Health, Prevention of Disabilities Policy Council, and Uni-

versity of Iowa are conducting a statewide survey to identify the secondary conditions and risk factors of Iowans with mobility impairments. However, these surveys are time-limited. The state needs an ongoing data system to track changes in secondary conditions and risk factors. Such a system will identify important trends and aid in the evaluation of potential treatments.

4–4.1 Action Step

Through 2006, analyze and disseminate information obtained from the longitudinal study of secondary conditions in people with mobility impairments. (An Iowa Department of Public Health, University of Iowa College of Public Health, and Prevention of Disabilities Policy Council action step.)

4–4.2 Action Step

Beginning in 2005, identify questions to be added to the Behavioral Risk Factor Surveillance System that identify and describe health disparities, secondary conditions, and participation for people with disabilities, and initiate a request for funding data collection and analysis through the state's Centers of Disease Control and Prevention Disabilities and Health grant. (An Iowa Department of Public Health and Prevention of Disabilities Policy Council action step.)

4–4.3 Action Step

Through 2010, collect and analyze data from the questions added to the Behavioral Risk Factor Surveillance System and, in 2006, disseminate the information to interested disability groups and state and local policy makers, health planners, and service providers. (An Iowa Department of Public Health, University of Iowa College of Public Health, and Prevention of Disabilities Policy Council action step.)

4–5 Goal Statement

Test at least three health promotion programs designed for people with disabilities. Baseline: See Rationale.

Rationale

With funding from the Centers for Disease Control and Prevention (CDC), Iowa can select and study potential programs to increase the proportion of people with disabilities who engage in appropriate health care practices. Grant participants will design the studies, which will address needs as identified through the secondary conditions survey and other data sources discussed earlier.

4–5.1 Action Step

During 2005, conduct a study of the selected programs, including Living Well with a Disability and Continuing to Live Well with a Disability, and evaluate the results. (An Iowa Department of Public Health, University of Iowa Health Care Center for Disabilities and Development, and Prevention of Disabilities Policy Council action step.)

4–5.2 Action Step

By 2007, design and pilot a health promotion curriculum for older adolescents with disabilities who are transitioning into adulthood. (An Iowa Department of Public Health, University of Iowa Health Care Center for Disabilities and Development, and Prevention of Disabilities Policy Council action step.)

4–5.3 Action Step

Through 2010, review and design additional health promotion programs for testing. (An Iowa Department of Public Health, Prevention of Disabilities Policy Council, Center for Disabilities, and Development and Blue Ribbon Panel on Secondary Conditions action step.)

4–6 Goal Statement

Establish a network of at least 10 community-based physical activity resource centers around the state for use by people with disabilities. Baseline: See Rationale.

Rationale

People with disabilities, their families, and their health and human service providers need access to information and resources to help them understand their physical activity needs and adapted, individualized physical activity programs. Such knowledge and resources are not readily available through conventional community health sources. A network of resource centers that receive regular information and training from the Iowa Department of Public Health's Disability and Health program will help meet this need.

4–6.1 Action Step

During 2005, conduct a series of focus groups with people with disabilities, their families, and their providers to determine the type of information and resources that are needed and would be used. (An Iowa Department of Public Health action step.)

4–6.2 Action Step

During 2006, contact Iowa Centers for Independent Living and other community services to solicit their support and design a community-based resource. (An Iowa Department of Public Health action step.)

4–6.3 Action Step

During 2007, begin establishing community-based physical activity resource centers and provide training as needed. (An Iowa Department of Public Health action step.)

4–7 Goal Statement

Identify new funding and develop collaborative applications that will expand health promotion and prevention for Iowans with disabilities. Baseline: See Rationale.

Rationale

Research is identifying effective health promotion and prevention for people with disabilities. As this data becomes available, federal and private funding sources are responding by

initiating new disability prevention efforts. Some of them deal with prevention through such methods as personal care, communication or mobility. Others address disability prevention by gender or diagnostic categories, as is the case with the new federally funded arthritis initiative discussed in goal 4–8.

Iowa needs a way to track research, identify new funding, and respond to requests for proposals quickly. Locating funding will be critical to expanding state health promotion and prevention to all disability groups.

4–7.1 Action Step

During 2005, identify and respond to funding opportunities for collaborative prevention of disability and health promotion for persons with disabilities. (An Iowa Department of Public Health and Prevention of Disabilities Policy Council action step.)

4–7.2 Action Step

Through 2010, obtain resources to implement the recommended collaborative prevention of disability and health promotion activities of this and other *Healthy Iowans 2010* chapters. (An Iowa Department of Public Health and Prevention of Disabilities Policy Council action step.)

4–7.3 Action Step

During 2005, ensure that mid-course revisions of *Healthy Iowans 2010* chapters consider and/or include appropriate disability-related goals, activities and/or data collection. (An Iowa Department of Public Health and Disability Chapter Task Force action step.)

4–8 Goal Statement

Maintain and expand the Iowa arthritis program to include surveillance, public awareness, health care provider and consumer education, and programs to decrease disability and improve quality of life. Baseline: See Rationale.

Rationale

An estimated 585,000 adult Iowans (26.6%) have been diagnosed with arthritis by a doctor – 352,000 women and 233,000 men. An additional 384,000 adult Iowans (17.5%), 170,000 women and 214,000 men, have chronic joint symptoms (possible arthritis) but do not have doctor-diagnosed arthritis. Arthritis is a leading cause of disability in Iowa. (2003 Behavioral Risk Factor Surveillance System.)

The Iowa arthritis program was established in 1999 and the Iowa Arthritis Task Force was convened in 2000. The Iowa Arthritis Action Plan was issued in 2001. The program and plan provide surveillance, health care provider and consumer information and resources, awareness of arthritis, and expansion of existing evidence-based self-management. Strategies such as weight control, physical activity and self-management education help Iowans with doctor-diagnosed arthritis and chronic joint symptoms (possible arthritis) manage their conditions. These strategies need statewide implementation.

Maintaining and expanding the Iowa Arthritis Program within the Iowa Department of Public Health will bring together the resources of various public, private and voluntary stakeholders to reduce the impact of arthritis and improve the quality of life of Iowans affected by it.

4–8.1 Action Step

Through 2010, by July 1st of each year, annually secure funding to maintain and expand the Iowa arthritis program. (An Iowa Department of Public Health action step.)

4–8.2 Action Step

By December 2005, update the Iowa arthritis action plan. (An Iowa Department of Public Health and Iowa Arthritis Task Force action step.)

4–8.3 Action Step

Through 2010, convene the Iowa Arthritis Task Force a minimum of two times annually to provide guidance to the Iowa arthritis program and to assist in arthritis programs in the Iowa arthritis action plan. (An Iowa Department of

Public Health and Iowa Arthritis Task Force action step.)

4–9 Goal Statement

Plan and conduct four arthritis self-help course leader workshops annually. Baseline: See Rationale.

Rationale

Evidence-based self-management education, such as the arthritis self-help course, has proven to reduce arthritis pain and health care costs. Nationally, these programs are estimated to reach a small proportion of people with arthritis. The arthritis self-help course is available across Iowa, but expansion is limited by the lack of trained leaders and resources to deliver the course. Availability of self-management courses in rural counties is particularly important because they lack health care providers and resources. The needs of an increasingly aging population also contribute to the challenge. The arthritis self-help course should be available in all areas of the state.

4–9.1 Action Step

Through 2010, identify locations statewide for arthritis self-help course leader training and promote to targeted groups (e.g., local public health, AARP, parish nurses, hospitals) and individuals in February and August each year. (An Iowa Department of Public Health, Arthritis Foundation Iowa Chapter, and Iowa Arthritis Task Force action step.)

4–9.2 Action Step

Through 2010, plan and conduct two spring and two fall arthritis self-help course leader training workshops in May and October each year. (An Iowa Department of Public Health and Arthritis Foundation Iowa Chapter action step.)

4–9.3 Action Step

Through 2010, provide ongoing technical assistance through a variety of methods, training resources, and materials to arthritis self-help course leaders throughout the year. (An Iowa

Department of Public Health and Arthritis Foundation Iowa Chapter action step.)

4–9.4 Action Step

Through 2010, assess the effectiveness of the arthritis self-help course leader training in July and December of each year. (An Iowa Department of Public Health and Arthritis Foundation Iowa Chapter action step.)

4–9.5 Action Step

Through 2010, by December 31st of each year, collect and evaluate survey data from arthritis self-help course participants and the Behavioral Risk Factor Surveillance System. (An Iowa Department of Public Health action step.)

4–10 Goal Statement

Plan and conduct at least three arthritis presentations annually for providers who deliver direct care to people with arthritis. Baseline: See Rationale.

Rationale

Many advances in the management of arthritis have occurred in recent years. Iowa health care providers need access to current information on the treatment and management of arthritis and up-to-date health communications and assistive technology resources.

4–10.1 Action Step

Through 2010, by April 30th of each year, identify audiences and events for the presentation of arthritis information and resources. (An Iowa Department of Public Health and Iowa Arthritis Task Force action step.)

4–10.2 Action Step

Through 2010, by November 15th of each year, plan and conduct presentations and provide resources. (An Iowa Department of Public Health action step.)

4–10.3 Action Step

Through 2010, by December 31st of each year, collect evaluations and evaluate the effec-

tiveness of presentations. (An Iowa Department of Public Health action step.)

4–11 Goal Statement

Collect and analyze data every odd year through 2009 and report on the impact of arthritis in Iowa every even year. Baseline: See Rationale.

Rationale

Surveillance is important for assessing the impact of arthritis in Iowa and its related risk behaviors; for describing how arthritis affects various subpopulations (e.g., gender, age and race); and for monitoring trends over time. It is also important for targeting treatment, and guiding and evaluating Iowa arthritis program efforts. Arthritis data is available through the Behavioral Risk Factor Surveillance System (BRFSS) and other sources, such as outpatient/ambulatory and Iowa hospital discharge data sets. Findings on the impact of arthritis from surveillance should be clearly and routinely communicated to the health care community, arthritis stakeholders; and the public through state of arthritis reports and the Iowa arthritis program web page.

4–11.1 Action Step

Through 2010, by November 30th of even years, ensure that the arthritis optional module is in Iowa's Behavioral Risk Factor Surveillance System survey every odd year. (An Iowa Department of Public Health action step.)

4–11.2 Action Step

Through 2010, by December 31st of odd years, collect arthritis and related data from the Behavioral Risk Factor Surveillance System. (An Iowa Department of Public Health action step.)

4–11.3 Action Step

Through 2010, by June 30th of even years, analyze arthritis data from the Behavioral Risk Factor Surveillance System and other related data sources. (An Iowa Department of Public Health action step.)

4–11.4 Action Step

Through 2010, by September 30th of even years, complete and disseminate a state of arthritis report that includes subpopulation data (e.g., gender, age and race) and update the Iowa arthritis program web page with odd-year Behavioral Risk Factor Surveillance System data and data from other sources. (An Iowa Department of Public Health action step.)

4–12 Goal Statement

Establish and maintain an Office of Disability and Health within the Iowa Department of Public Health. Baseline: See Rationale.

Rationale

Although people with disabilities are nearly one-fifth of the state's population, there has been no concerted effort to assure they are included in the state's health promotion and prevention efforts. In general, there has been limited awareness of the health needs of the disabled, and many providers have lacked the information needed to implement effective health promotion and prevention for this group.

Critical data about disability and health are being gathered at the national and state levels and research is beginning to identify effective health promotion and prevention that can be offered in inclusive, community settings. This highlights the need to identify an entity to focus the state's disability and health efforts. On behalf of people with disabilities, that entity could create awareness of the need for health promotion and prevention; facilitate the development of core data to identify issues and disparities; gather and disseminate information on effective health promotion and prevention to people with disabilities, health planners, and health care providers; and assist state and local groups to establish health promotion and prevention programs.

4–12.1 Action Step

Through 2010, develop and implement a plan to secure funding to support the Office of Disability and Health and its activities over the coming decade. (An Iowa Department of Public

Health and Prevention of Disabilities Policy Council action step.)

4–13 Goal Statement

Develop a disability curriculum and initiate other mechanisms to provide up-to-date information to providers and pre-service health education programs.

Baseline: See Rationale.

Rationale

The curricula of many health care educational programs do not specifically deal with the needs of persons with disabilities. Even if basic introductory information is provided, information without experience is easily forgotten. Few medical providers have frequent contacts with persons with a disability.

Frequent opportunities for further education, plus the ability to obtain information on the disabilities of a given patient, will improve care to persons with disabilities. Also, diagnoses and treatment change frequently with new research. Finally, some aspects of disability are so rare that appropriate information is difficult to find.

4–13.1 Action Step

By 2006, convene an ad hoc committee to develop and implement strategies for incorporating competencies in working with people with disabilities into licensure requirements of pre-service and continuing education programs accredited by the Iowa Department of Public Health. (An Iowa Department of Public Health action step.)

4–13.2 Action Step

By 2010, provide pre-service education on a wide variety of disability-related topics to graduate students and post-doctoral fellows through the Iowa Leadership Education in Neurodevelopmental and Related Disabilities (LEND) program. (A Center for Disabilities and Development action step.)

4–13.3 Action Step

By 2010, explore collaboration with entities such as the Centers for Disease Control and Pre-

vention (CDC) and the Association of University Centers on Disabilities (AUCD) to secure funding for expansion of communications training for health professionals supported by the Prevention of Secondary Conditions Grant. (A Center for Disabilities and Development and Iowa Department of Public Health action step.)

4–13.4 Action Step

By 2010, identify needed funding to provide information on the health care needs of people with disabilities through the Center for Disabilities and Development's Disability Resource Library and a web site to be updated monthly. (An Iowa Department of Public Health and Center for Disabilities and Development action step.)

4–13.5 Action Step

By 2010, identify funding and expand development of continuing education programs. Use the Iowa Communications Network (ICN) or related technologies on advances in primary and secondary prevention, diagnosis and treatment of medical problems associated with disability, diversity awareness, and adaptations required to provide appropriate primary, secondary and tertiary care to people with disabilities. (An Iowa Department of Public Health and Center for Disabilities and Development action step.)

4–14 Goal Statement

Perform accessibility checks on new facilities leased by state agencies within 20 working days of receiving the request.

Baseline: See Rationale.

Rationale

All Iowans, including those with disabilities, should be able to access state agencies to obtain information and services, including transportation, employment, social services, personal support services, and other services necessary to be economically self-sufficient, live independently, and enjoy good health. Executive Order 46 and the Governor's directive dated August 23, 1990, require state agencies to comply with the Americans with Disabilities Act (ADA) guidelines.

Transition plans for each state agency to accomplish this were to be completed by July 1992. However, there has been no structured follow-up on agency progress. The Division of Persons with Disabilities in the Iowa Department of Human Rights makes recommendations, but there is no assurance they are being followed. Only the following Iowa entities use this service: Department of Human Services, Department of Inspections and Appeals, Department of Corrections, Department of General Services, Division of Vocational Rehabilitation Services, Iowa Communications Network (ICN), Iowa Department of Public Health, and state court administrators. Also, staff in the Division of Persons with Disabilities hear instances where state employees have not treated people with disabilities with proper respect or equitable service. Services will improve with appropriate attitude and accommodation training.

4–14.1 Action Step

By 2010, send an accessibility survey to Iowa state agencies, requesting its completion within five working days. (An Iowa Department of Human Rights action step.)

4–14.2 Action Step

By 2010, process the accessibility survey within five working days of receiving it. (An Iowa Department of Human Rights action step.)

4–14.3 Action Step

By 2010, return the accessibility survey results to the state agencies within 10 working days. (An Iowa Department of Human Rights action step.)

4–15 Goal Statement

Train city and county employees on the Americans with Disabilities Act (ADA) and provide information to city and county governments on making their services physically accessible to residents with disabilities. Baseline: See Rationale.

Rationale

All Iowans, including those with disabilities, should have equal access to goods and services from cities and counties in order to maintain healthy lifestyles and be participating members of their communities. In accordance with the Americans with Disabilities Act (ADA), each city and county is to have a designated ADA coordinator; however, this individual is usually assigned this as an additional duty and has no training on ADA or similar state laws.

Many people with disabilities cannot live where they choose because of current laws and practices. Many are denied loans for housing because of a lack of credit history. Only a handful of builders use universal design concepts in their single family housing. Some people with disabilities cannot find accessible and/or affordable housing in their communities. Apartment managers often are reluctant or unwilling to make ADA accommodations and tenants are often afraid to "make waves" or simply don't know their rights.

These barriers have a dramatic impact on the health and well-being of Iowans with disabilities and their families, who are often the primary caregivers. Establishing systems and policies that enhance choices in living and community participation can reduce the social isolation that leads to depression.

4–15.1 Action Step

Through 2010, provide at least two training sessions annually for city and county governments to make their facilities and programs accessible on the Division of Persons with Disabilities web site via presentations at the League of Cities and Iowa State Association of Counties, or by any other appropriate method. (An Iowa Department of Human Rights action step.)

4–15.2 Action Step

Through 2010, provide city and county government agencies with information on an ongoing basis to enable them to become resources for private service providers who have questions or need information on serving Iowans with disabilities. (An Iowa Department of Human Rights action step.)

4–15.3 Action Step

Through 2010, provide Americans with Disabilities Act accessibility training upon request. (A Division of Persons with Disabilities action step.)

4–16 Goal Statement

Create access to additional housing for Iowans with disabilities. Baseline: See Rationale.

Rationale

Personally owned or controlled housing and personalized support have become part of the nation's agenda as people have challenged the standard way of providing services for persons with developmental and other disabilities. Throughout the nation, advocates and innovative service providers have made significant shifts from institutions and group homes to the creation of community supports, including housing, that allow people to live in homes of their choosing. This trend is part of a broader shift away from traditional, agency controlled services toward a focus on resources that foster personal control and community inclusion.

In 2002, Governor Tom Vilsack challenged the state to create 1,000 new accessible housing units. In 2003, Lt. Governor Sally Pederson hosted a housing summit that resulted in a comprehensive housing plan. In 2004, the plan was reviewed and additional action steps identified at the second housing summit. Both housing summits identified partners to determine available housing resources and options.

4–16.1 Action Step

Through 2010, assess the needs and barriers of housing options for people with disabilities, including an assessment of the capacity of resources to meet existing need and recommend strategies to handle any gaps. (An Iowa Department of Human Rights/Division of Persons with Disabilities and Iowa Finance Authority action step.)

4–16.2 Action Step

Through 2010, provide information on affordable housing resources to Iowans with disabilities. (An Iowa Department of Human Rights/Division of Persons with Disabilities and Iowa Finance Authority action step.)

4–16.3 Action Step

Through 2010, engage partners to implement the recommendations on available housing and gaps through the statewide comprehensive housing plan. (An Iowa Department of Human Rights/Division of Persons with Disabilities, Olmstead Real Choices Consumer Taskforce, Iowa Program for Assistive Technology, and Iowa Finance Authority action step.)

4–16.4 Action Step

By 2010, increase the number of tradesmen that are knowledgeable about accessible housing, home modifications, and universal design. (An Iowa Program for Assistive Technology, Iowa Contractor Network/FMR, and Olmstead Real Choices Consumer Task Force action step.)

4–17 Goal Statement

Improve Iowa's Medicaid for Employed Persons with Disabilities (MEPD) buy-in program by removing the system's "bias to poverty." Baseline: See Rationale.

Rationale

Iowans with disabilities continue to live longer and move to sustainable employment and economic self-sufficiency. However, much remains to be done before employment parity is reached. Removing the "bias to poverty" in Iowa's Medicaid program will remedy the lack of significant incentives for program enrollees to work in a meaningful way, save or accumulate assets, and become self-sufficient.

4–17.1 Action Step

By September 30, 2006, encourage the Iowa Department of Human Services to restructure the premium scale by amending the current sliding fee scale to encourage people with disabilities to earn more. (A Center for Disabilities and

Development and Employment Policy Group action step.)

4–17.2 Action Step

By September 30, 2006, encourage the Iowa Department of Human Services to amend Iowa’s Medicaid policies so that people with disabilities who are currently in “symbolic employment” have the opportunity to move to gainful employment. (A Center for Disabilities and Development and Employment Policy Group action step.)

4–17.3 Action Step

By September 30, 2006, encourage the Iowa Department of Human Services to link premiums more substantially to the “unearned” cash benefits, applying a higher premium to the unearned portion of Medicaid for Employed Persons with Disabilities beneficiaries’ income and a premium equation that applies lower premium rates on earnings. (A Center for Disabilities and Development and Employment Policy Group action step.)

4–18 Goal Statement
Increase the earning power of Iowans with disabilities to accumulate assets and savings, thereby creating increased net worth. Baseline: See Rationale.

Rationale

Incentives are needed to induce Iowans with disabilities to enter and remain in the workforce. Accumulating assets will provide a powerful incentive.

4–18.1 Action Step

By September 30, 2006, promote program policies for creation of wealth and accumulation of assets through incentives for people with disabilities to earn more and raise resources and assets limits. (A Center for Disabilities and Development and Employment Policy Group action step.)

4–18.2 Action Step

By September 30, 2006, encourage the Iowa Department of Human Services to increase the allowable resource provisions of Medicaid for Employed Persons with Disabilities by allowing wage earners to have higher asset and resource limits, thereby providing incentives to earn more. (A Center for Disabilities and Development and Employment Policy Group action step.)

4–18.3 Action Step

By September 30, 2006, track the performance of the approved accounts (e.g., medical savings, retirement savings, assistive technology) to assess effects. (An Iowa Department of Human Services action step.)

4–19 Goal Statement
Improve the interface between private health insurers and other systems. Baseline: See Rationale.

Rationale

An argument must be developed and disseminated that the Medicaid for Employed Persons with Disabilities (MEPD) program is cost effective. Private health insurers must be part of this process.

4–19.1 Action Step

By September 30, 2006, identify private insurance champions to encourage the Iowa Department of Human Services to structure a business model design of the Medicaid for Employed Persons with Disabilities program and promote it. (A Center for Disabilities and Development and Employment Policy Group action step.)

4–19.2 Action Step

By 2006, use actuarial data to develop cost projections for analyzing system outcomes. (An Iowa Department of Human Services and representative from private insurance action step.)

4–20 Goal Statement

Create a viable infrastructure of employment and workplace services and supports for Iowans with disabilities.

Baseline: See Rationale.

Rationale

Empowering Iowans with disabilities to remain gainfully employed may require a number of workplace services and supports. Investing in these services and supports will eventually pay dividends as Iowans with disabilities remain on the job and become self-supporting, tax paying citizens.

4–20.1 Action Step

By March 1, 2006, amend Iowa’s six Home and Community-Based Services (HCBS) waivers to incorporate a self-direction option. (An Iowa Department of Human Services action step.)

4–20.2 Action Step

By September 30, 2006, use blended funding and “cashing out” to implement an enhanced infrastructure and execute a Medicaid demonstration waiver targeting youth aged 14 to 25 to help them achieve improved transition results. (An Iowa Department of Human Services, Center for Disabilities and Development, and Employment Policy Group action step.)

4–20.3 Action Step

By September 30, 2006, apply the successes and “lessons learned” from the enhanced Medicaid demonstration infrastructure to a variety of populations, assuring fidelity to the self-direction model throughout Iowa’s service delivery system. (An Iowa Department of Human Services, Center for Disabilities and Development, and Employment Policy Group action step.)

4–21 Goal Statement

Create an expanded array of assistive strategies for Iowans with disabilities to enable them to contribute in the workplace. Baseline: See Rationale.

Rationale

Despite the promises of the New Freedom Initiative and its related federal and state programs, many barriers remain. Persons with disabilities, transitioning youth, service providers, and employers need information, training and support to fully include all persons in the workforce.

4–21.1 Action Step

By September 30, 2006, make available statewide employer and employee directed workplace personal assistance services in post-school environments. (An Iowa Department of Human Services, Center for Disabilities and Development, and Employment Policy Group action step.)

4–21.2 Action Step

Through 2010, increase access to assistive technology and rehabilitation engineering services that can improve the quality of life for people with disabilities and enhance their ability to participate in the workplace. (An Iowa Program for Assistive Technology/Iowa COMPASS, Division of Vocational Rehabilitation, and Center for Disabilities and Development action step.)

4–21.3 Action Step

By 2010, identify funding and expand loan programs to make assistive technology in the workplace more affordable to Iowans with disabilities. (An Iowa Program for Assistive Technology action step.)

4–21.4 Action Step

By 2008, advocate for expanded tax credits to provide incentives for the employment of people with disabilities. (An Olmstead Real Choices Task Force action step.)

4–22 Goal Statement

Expand the role of the State Level Transportation Coordination Council to coordinate among publicly funded programs that provide transportation. Baseline: See Rationale.

Rationale

Agencies that fund transportation need to work together to encourage the enterprises they fund to coordinate their efforts so the funds can be spent more effectively and the benefits of public spending can reach all Iowans, including persons with disabilities. For this reason, a State Level Transportation Advisory Council was established in 1993, but became inactive sometime after 1996. In April 2001, partially as a result of *Healthy Iowans 2010*, the Council was reactivated, but lasted for only about 18 months before falling into inactivity again.

While the council was active, it met quarterly to discuss transportation coordination, deal with institutional or regulatory barriers to coordination, and assist the Iowa Department of Transportation in reviewing compliance with the coordination mandates in Chapter 324A of the Code of Iowa.

Membership originally included the Iowa departments of transportation, human services, elder affairs, and education, plus the Iowa State Association of Counties. When the council was reactivated in 2001, the Iowa Department of Public Health, Workforce Development, and the Iowa League of Cities were added. In addition, the rules establishing the council provide that additional public or private sector members could participate. Interest was also expressed in adding consumer representation and the Iowa Department of Human Rights' Division of Persons with Disabilities to the council, even though the Division does not administer any transportation funding.

4–22.1 Action Step

Through 2010, continue a minimum of quarterly meetings of the State Level Transportation Coordination Council. (An Iowa Department of Transportation/Coordination Council action step.)

4–22.2 Action Step

By July 2005, review council membership and attendance policies. (A Coordination Council action step.)

4–23 Goal Statement

Expand availability of publicly funded transportation for persons with disabilities and all others throughout Iowa.

Baseline: See Rationale.

Rationale

Increasing the hours of transit service is critical to improving access to participation in society by people who rely on public transit, which includes a large percentage of persons with disabilities. In 2000, *Healthy Iowans 2010* identified the welfare reform and/or welfare-to-work programs as providing the best prospect for funding expansion of transit hours. Eleven transit systems successfully applied for the first round of funding under the Federal Transit Administration's (FTA) Job Access/Reverse Commute (JARC) program in 1999, using Temporary Aid to Needy Families (TANF) funds as a partial match. The number of transit systems establishing new services under these programs increased by 50% as a result of information sessions held by the departments of transportation and human services, which is consistent with the original *Healthy Iowans 2010* work plan.

Every effort was made to ensure that the services provided during the additional hours are available to all citizens – not just those coming off welfare. This is consistent with Iowa's mandate for coordination of publicly funded transportation and the concept of creating long-term solutions to the transportation problems of former welfare recipients.

Similar efforts would be appropriate to ensure that the maximum possible number of citizens benefit from transportation funds through other state and federal programs.

A recent report from the federal government identifies 62 federal programs that can fund transportation. The majority of these programs typically focus on a single clientele, but can also be used to help support coordinated public transportation. Transportation benefits for people are the same whether their transportation is provided by a public transit system or by a human services agency. However, more members of the community are likely to benefit from public expenditures on transportation if the services

are provided by, or at least coordinated through, public transit.

An opportunity to improve mobility for all Iowans is lost each time a grant application for one of these programs is submitted with no transportation component. Maximization of overall transportation benefits to Iowans that are allowable under the programs falls short when transportation funding is obtained but used only to establish exclusive services for the clients of a single program.

4–23.1 Action Step

By December 2005, meet with each state agency that administers funding under federal programs with the ability to support transportation to discuss the need for expanded transportation opportunities and to explore the mechanics of using program funds to support coordinated public transit. (An Iowa Department of Transportation/Coordination Council action step.)

4–23.2 Action Step

By December 2006, establish a mechanism to anticipate applications under selected federal programs and to bring program applicants and transit systems together to develop transportation components which will result in increased availability of transit services. (An Iowa Department of Transportation/ Coordination Council action step.)

4–24 Goal Statement

Establish a central repository for information on availability of public transit and human service transportation throughout Iowa. Baseline: See Rationale.

Rationale

Iowa cities over 20,000 population are served by an urban transit system, while rural counties are part of a regional system where levels of service vary from 21 hours-a-day/7 days-a-week to one day every other week or less. The web site for the Iowa Department of Transportation gives hours of service in the largest communities, but there is no central source of information about the level of service available in

smaller communities and rural areas. Many regional transit systems do not publish schedules in the communities they cover. A centralized source of such information would assist the public, who may wish to include transit services when deciding on a community in which to live or when planning a visit to another community.

The information would also be a baseline to measure trends in the availability of transit services, and possibly help in designing programs to increase the availability of services in selected areas. If information on the availability of transportation services from human services agencies was also included, the value would be increased several-fold. It might also assist in securing further coordination between human service and public transportation providers.

4–24.1 Action Step

By July 2005, survey Iowa transit systems and human services agencies to document the services available in each Iowa incorporated city. (An Iowa Department of Transportation/ Coordination Council action step.)

4–24.2 Action Step

By December 2005, survey human service agencies that provide transportation services to collect targeted transportation information. (An Iowa Department of Transportation/ Coordination Council action step.)

4–24.3 Action Step

By April 2006, publish transit availability data on the Internet. (An Iowa Department of Transportation/Coordination Council action step.)

4–24.4 Action Step

By December 2005, establish a procedure for periodic review and updating of transit availability data. (An Iowa Department of Transportation/Coordination Council action step.)

4–25 Goal Statement

Provide consumer training on requirements of the Americans with Disabilities Act (ADA) for public transit. Baseline: See Rationale.

Rationale

The Americans with Disabilities Act (ADA) guarantees consumers of public transportation several rights. To ensure compliance with this provision of the law, people with disabilities must understand their rights.

4–25.1 Action Step

By December 2006, develop an educational program on public transportation rights in collaboration with transportation consumers. (An Iowa Department of Transportation/ Coordination Council action step.)

4–25.2 Action Step

By December 2007, present the disability education program in each of Iowa's metropolitan areas. (An Iowa Department of Transportation/Coordination Council action step.)

4–25.3 Action Step

By December 2008, develop a customized version of the educational program for rural audiences and present to at least six rural audiences. (An Iowa Department of Transportation/Coordination Council action step.)

4–26 Goal Statement

Refocus the service system to include innovative models for the delivery of cost effective, community-based services in rural and urban areas that meet the medical, psychological, behavioral, employment, and housing needs of all persons with disabilities. Baseline: See Rationale.

Rationale

Iowa must ensure the availability of community services. The new focus is on developing innovative individual and family-centered

services that offer a range of options, from day care to out-of-home placement, through accessible programs and facilities. Funding should be directed toward innovative, cost-effective services designed by persons with disabilities to meet their needs and to maximize independence and participation in the community.

4–26.1 Action Step

By 2006, as required by House File 2537 (signed into law April 19, 2004, and effective July 1, 2004), plan, collect and analyze data on system costs and projected costs; identify revenue sources and cost projections in support of system redesign; and support legislation seeking enactment of system redesign with identified revenue sources and cost projects. (A MH/MR/DD/BI Commission and Iowa Department of Human Services action step.)

4–26.2 Action Step

By 2008, implement service vouchers and counseling for people eligible for Medicaid Home and Community-Based Services waivers, providing them the opportunity to choose and direct their own services. This will incorporate non-traditional services such as personal assistance services. (An Iowa Department of Human Services in consultation with the Olmstead Real Choices Consumer Task Force action step.)

4–27 Goal Statement

Eliminate the county of legal settlement as a criterion for receiving services. Baseline: See Rationale.

Rationale

The first step for many Iowans with disabilities to live in the community of their choice is to be able to access services any place in Iowa (not linked to their county of legal settlement). Iowans without disabilities choose where they live based on employment and educational opportunities, family and friends, cultural and recreational opportunities, and a host of other factors. Many disabled Iowans do not have those options because of the way services are funded. Iowa's outdated system of county-based "legal settle-

ment" must be eliminated for all Iowans to have equal access to housing and the option to live independently. Legal settlement requires a period of residence in a county before qualifying for services.

4–27.1 Action Step

Through 2010, implement the legal settlement dispute resolution process required by House File 2537, signed into law April 19, 2004, and effective July 1, 2004. The process settles legal settlement disputes for people receiving services under Code Chapter 222 (state resource centers); Code Chapter 230 (state mental health institutes); and Code Chapter 249A (medical assistance [Medicaid] program). (An Iowa Department of Human Services action step.)

4–27.2 Action Step

By 2005, complete planning required by House File 2537 so legislation changing legal settlement to legal residency can be drafted for consideration during the 2006 legislative session. Planning should:

- Establish statewide standard of proof of residency;
- Include a data system for identifying residency of eligible people;
- Determine how people in county by court order of criminal sentence will become county residents (presumably upon leaving court supervision);
- Include contested residency dispute resolution; and
- Address other implementation problems. (An MH/MR/DD/BI Commission action step.)

4–27.3 Action Step

By 2010, contingent upon appropriate legislative action, replace legal settlement with legal residency. (An Iowa Department of Human Services action step.)

4–28 Goal Statement

Assure that persons with disabilities understand the health and other benefits of assistive technology, how to select and obtain assistive technology, and have access to information on health-related funding sources for assistive technology. Baseline: See Rationale.

Rationale

Assistive technology enables people with disabilities to live independently, be successful in school and work, and be fully included in their communities. Assistive technology can prevent secondary disabilities and can be used to make health promotion and injury prevention programs accessible. People with disabilities need current and ongoing information about the benefits of assistive technology, the kinds available, and how to obtain it.

4–28.1 Action Step

Through 2010, provide ongoing information and referral to all Iowans about health-related and other assistive technology via Iowa COMPASS. (An Iowa Program for Assistive Technology/Iowa COMPASS action step.)

4–28.2 Action Step

Through 2010, provide assistive technology awareness in collaboration with other disability-related organizations as funding allows. (An Iowa Program for Assistive Technology action step.)

4–28.3 Action Step

Through 2010, provide technical assistance on assistive technology to disability-related consumer entities and advocacy organizations to increase their capacity to provide assistive technology to consumers as funding allows. (An Iowa Program for Assistive Technology action step.)

4–28.4 Action Step

Through 2010, continue to collaborate with community and state programs to provide awareness and training on the benefits of assistive technology to people from minority populations, in rural areas, and other under-represented

populations as funding allows. (An Iowa Program for Assistive Technology action step.)

4–29 Goal Statement

Assure that health care providers recognize the benefits of assistive technology, provide information about assistive technology to their clients, make appropriate referrals for assistive technology, provide direct assistive technology services, and facilitate their client's access to third-party funding. Baseline: See Rationale.

Rationale

Assistive technology enables many people with disabilities to live independently, be successful in school and work, and fully included in their communities. It can prevent secondary disabilities and be used to make health promotion and injury prevention programs accessible to maximize independence. Health care providers need more information and training on all aspects of assistive technology.

4–29.1 Action Step

Through 2010, provide ongoing information and referral through Iowa COMPASS to health care providers on medically appropriate and health-related assistive technology. (An Iowa Program for Assistive Technology/Iowa COMPASS action step.)

4–29.2 Action Step

Through 2010, provide ongoing information on assistive technology to the University of Iowa's Center of Excellence on Disabilities training program for students in medicine, nursing, psychology, social work, physical therapy, audiology, occupational therapy, dentistry, health administration, nutrition, recreation therapy, and speech language therapy as funding allows. (An Iowa Program for Assistive Technology action step.)

4–29.3 Action Step

Through 2010, collaborate with other entities, including Easter Seal's Iowa Rural Solu-

tions, to do awareness and training activities on assistive technology with rural service providers and other under-represented groups as funding allows. (An Iowa Program for Assistive Technology and Rural Solutions action step.)

4–29.4 Action Step

Through 2010, provide technical assistance on assistive technology to the Iowa Department of Elder Affairs and to area agencies on aging health and community education service providers as funding allows. (An Iowa Program for Assistive Technology and Area Agencies on Aging action step.)

4–30 Goal Statement

Increase access to assistive technology through policy changes and increased funding options. Baseline: See Rationale.

Rationale

Publicly funded programs in health, housing, employment, aging, and education must develop policies that better combine resources and move the state toward non-categorical coverage of assistive technology and appropriate home and vehicle modifications throughout life. For people to live as independently as possible, home and vehicle modifications are necessary. Many aids to independent living, or low-tech assistive technology, are not covered under traditional health policies. Health insurance programs should provide coverage for a broad range of assistive technology rather than use exclusive lists. People need home and vehicle modifications based on individual needs rather than programmatic caps. People in care facilities should also have access to assistive technology.

4–30.1 Action Step

During 2005, review policies and practices and initiate policy change on the provision of adapted wheelchairs and other assistive technology to residents of care facilities. (An Iowa Program for Assistive Technology in collaboration with the University of Iowa's College of Law Clinical Program action step.)

4–30.2 Action Step

Through 2010, provide technical assistance to state agencies and communities on how to expand coverage of assistive technology and home and vehicle modifications for people with disabilities through expansion of the Medicaid, Medicaid waiver programs, Community Development Block Grant, and other sources as funding allows. (An Olmstead Real Choices Task Force, Iowa Program for Assistive Technology, and University of Iowa’s College of Law Clinical Program action step.)

4–30.3 Action Step

By 2008, increase the number of people with disabilities who obtain services through their county managed care plans and who know and exercise their rights. (An Iowa Department of Human Services/Olmstead Real Choices Task Force action step.)

4–31 Goal Statement

Establish local disability peer support groups to provide a mechanism for mutual support and to advocate and mobilize for change. Baseline: See Rationale.

Rationale

Historically, society has kept persons with disabilities “with their own kind.” No one wants to return to the segregation and isolation associated with that philosophy. However, peer support is universally defined by people with disabilities as critical to their well-being. People draw strength from their common experiences by sharing information and resources, and by validating experiences.

Peer support comes in a variety of forms – friendships, one-on-one peer counseling (as through centers for independent living), or local peer support groups. Peer support can be interaction among people with similar disabilities, although “cross-disability” interactions are often preferred. Peer support may also include mutual support, information sharing, training opportunities, peer counseling, technical assistance, social and/or recreational opportunities, advocacy, and systems change.

The focus of this goal recognizes that there are many barriers to the development of support groups. Barriers include 1) availability and costs of transportation and personal assistance services (including interpreters); 2) limited community organizing and leadership experience on the part of local leaders with disabilities; 3) inadequate administrative capacity and resources; and 4) lack of funding for long-term success.

4–31.1 Action Step

By 2008, through a coalition of advocacy and human service groups, identify and leverage resources needed to develop a network of local cross-disability and single-disability peer support and self-advocacy groups (to include traditionally underserved areas). They will provide mutual support and peer counseling, information and resource sharing, social opportunities, and/or advocacy on the local, state and national levels. (A Center for Disabilities and Development and Developmental Disability Council action step.)

4–31.2 Action Step

By 2006, develop and maintain a list of local peer support groups and their contacts, and make that information available to people with disabilities as resources permit. (An Iowa COMPASS action step.)

4–31.3 Action Step

By 2010, provide self-advocacy, self-determination, health and wellness, and other training directly to Iowans with disabilities. Use the training as a springboard for ongoing peer support as resources allow. (A Center for Disabilities and Development and Developmental Disability Council action step.)

4–31.4 Action Step

By 2008, connect local peer support groups and individuals with disabilities through a state association as resources allow (also see goal 4–32). (A Developmental Disability Council action step.)

4–31.5 Action Step

By 2008, identify ongoing funding resources for local peer support groups. (A Developmental Disability Council action step.)

4–32 Goal Statement

Establish a unified, cross-disability presence within Iowa to articulate the demand for change. Baseline: See Rationale.

Rationale

A statewide organization is clearly needed to connect and unify Iowans with disabilities. This entity must include opportunities for leadership, policy training, and influencing public policy on disability and health.

The entity must be managed and directed by Iowans with disabilities, as well as reach out to family groups, providers, vendors, professionals, and the business community. Ways must be found to collaborate with non-traditional groups (e.g., the elderly) without compromising the voice of Iowans with disabilities.

4–32.1 Action Step

By 2006, fund a dedicated staff to promote information sharing among peer support groups and people with disabilities and coordinate activities related to this goal. (A Developmental Disability Council action step.)

4–32.2 Action Step

By 2009, conduct an annual, statewide conference to promote networking among people with disabilities, and provide for the advancement of issues of importance to those attending, as resources permit. (A Developmental Disability Council action step.)

4–32.3 Action Step

Through 2010, continue the Iowa Disability Advocates (IDA) LISTSERV, InfoNet, or similar mechanisms to connect advocates with and without disabilities from across the state for information and resource sharing. (A Conner

Center and Developmental Disability Council action step.)

4–33 Goal Statement

Include people with disabilities in all local emergency preparedness. Baseline: See Rationale.

Rationale

County emergency management committees in Iowa are represented by local health care agencies, public safety, print and broadcast media, local government agencies, civil defense, transportation, and industry that use chemicals regulated by the federal Emergency Planning and Community Right-to-Know Act of 1986.

Emergency management people who plan for potential emergencies have additional problems concerning people with disabilities. People who have difficulty understanding directions or who are hearing impaired require special notification. Those with mobility problems may need special help to evacuate or obtain emergency medical or nutritional supplies. Because people with disabilities are not always included in planning, their needs may not be addressed. To assure that they are, each local emergency management committee should include at least one person with a disability.

4–33.1 Action Step

By 2006, county emergency management committees and directors will identify groups and/or individuals in their service areas that may require assistance. (An Iowa Department of Public Safety/Division of Homeland Security and Emergency Management action step.)

4–33.2 Action Step

By 2008, include at least one person with a disability or one who has a special health care need on each of the 25 emergency management committees. (An Iowa Department of Public Safety, Division of Homeland security and Emergency Management action step.)

4–33.1 Action Step

By 2010, include people with disabilities in each county's emergency planning. (An Iowa Department of Public Safety/Division of Homeland Security and Emergency Management action step)

4–34 Goal Statement

People with disabilities will develop personal preparedness plans for home, work, school, or other places they frequent. Baseline: See Rationale.

Rationale

As the stories of survivors and others who died in the World Trade Center Towers illustrate, some people with disabilities were able to evacuate safely and others died. Some people who had experienced the first attack on the Towers in 1993 had participated in regular evacuation drills. Others had not practiced evacuation or were unaware of safe exits.

Iowa has the potential for man-made and natural disasters. Potentially hazardous materials may be carried on or in rail lines, barges, pipelines, interstate and federal highways. Small airports and grain elevators may also be the site of a disaster. Everyone should have a plan, even though Iowans are more likely to experience snowstorms, floods, fires, or tornadoes. All Iowans should assess their needs and make appropriate plans regardless of the emergency.

4–34.1 Action Step

In 2005 and 2006, provide a minimum of six presentations each year to disability groups about personal preparedness plans. (An Iowa Department of Public Health action step.)

4–34.2 Action Step

Through 2010, provide ongoing information about personal emergency preparedness plans to people with disabilities. (An Iowa Department of Public Health, Iowa Department of Public Safety/Division of Homeland Security and Emergency Preparedness, American Red Cross, Iowa State University Extension offices, Deaf

Services Commission of Iowa, Iowa Department for the Blind, and Easter Seals Iowa action step.)

Goal Cross References**Chapter 1: Access to Quality Health Services**

- 1–1 Reduce to 0% children and adults under aged 65 without health care coverage.
- 1–2 Develop a plan and engage in activities that promote and encourage providers to follow standardized quality performance measures.
- 1–3 Increase by 25% access to primary care for the underserved population.
- 1–4 Ensure a competent and diverse health workforce by assessing and forecasting workforce supply and demand and by promoting local strategies to recruit and retain workers.
- 1–7 Complete the development of and begin implementing a long-range plan for re-balancing long-term care.
- 1–8 Reduce the proportion of people unable to access long-term care in Iowa.
- 1–9 Assess the health workforce and develop training to enhance sensitivity and skills in providing care.
- 1–10 Establish a baseline on the number of people served through coordinated transportation systems and develop strategies to increase the numbers.
- 1–11 Increase to 100% all children with special health care needs who have a "medical home."
- 1–12 Develop a strategic plan to assess and employ telehealth and telemedicine to increase access to health services.

Chapter 2: Cancer

- 2–4 Reduce lung cancer deaths to a rate of no more than 46/100000.

Chapter 3: Diabetes

- 3–4 Decrease mortality and morbidity from diabetes by preventing or delaying complications.

Chapter 5: Educational and Community-Based Programs

5-1Increase to 91% public high school graduations and reduce disparities associated with gender, race and ethnicity.

Chapter 6: Environmental Health

6-8Reduce to 0 deaths from unintentional non-fire carbon monoxide poisonings.

Chapter 11: Maternal, Infant and Child Health

- 11-2Reduce overall low birth weight to no more than 5% of live births and overall very low birth weight to no more than 1% of live births.
- 11-3Increase to 98% the percent of newborns who are screened for hearing impairment before hospital discharge.
- 11-4Reduce the rate of child mortality to 17/100000 for ages 1-14.
- 11-11 ..Develop Iowa as a state that has a service system for Children with Special Health Care Needs.
- 11-12 ..Increase to 98% children with a source of health care insurance for primary and specialty care.
- 11-14 ..Increase Iowa’s capacity to serve children and families through pre-service maternal and child health curriculum, teaching and practicum opportunities.
- 11-15 ..Increase to 75% children with special health care needs enrolled in managed care who have a written plan.

Chapter 12: Mental Health and Mental Disorders

- 12-1Develop a statewide campaign to increase public awareness about the need for good mental health through media, community leaders, and schools.
- 12-4Improve the overall efficiency of child-serving state agencies by creating a shared state level vision for improving the well-being of children from early childhood through adult transition modeled after Early ACCESS.
- 12-6Increase to 100% the number of mental health service agencies that include some form of youth and family input.
- 12-7Identify and serve children and youth in the juvenile justice system by develop-

- ing an integrated community-based mental health service delivery model.
- 12-10 ..Design and implement a system of care for adults with mental health needs.
- 12-11 ..Develop and implement a system of care for children with behavioral and developmental needs.
- 12-12 ..Provide mental health services to all adults and children who seek service.
- 12-13 ..Provide affordable and frequent public transportation to support an independent lifestyle for all persons with mental health disorders.
- 12-14 ..Increase use of the mental health outreach service, Medicaid Elderly Waiver, among Iowans aged 65 and older.
- 12-15 ..Ensure universal access to social, emotional and behavioral health services for children aged 0-5.
- 12-17 ..Provide mental health services in rural and urban settings in accordance with established best practices.
- 12-18 ..Develop a process to influence state public policy development, planning and clinical response.
- 12-19 ..Develop a system for collecting a uniform set of mental health data across all publicly funded services.

Chapter 13: Nutrition and Overweight

- 13-1 Provide educational tools for Iowans to make decisions on the reliability of nutrition messages through at least 3 media.
- 13-2 Educate Iowans so that 75% of infants are breastfed at birth, 35% until the infant is 6 months old, and 15% until age 12 months.
- 13-3 Prevent a further rise in the percent of Iowans who are overweight.
- 13-6 Increase by at least 20% people aged two and older who meet the dietary recommendations for calcium.
- 13-7 Provide Iowans at higher risk for nutrition related disease information on reducing such diseases and death risks.
- 13-9 Provide nutrition screening and education to 90% of older adults who participate in health and nutrition programs.

Chapter 14: Occupational Safety and Health

- 14-1 Reduce the overall occupational injury and illness rate to 7/100 full-time workers.

- 14–2Decrease occupational fatal and nonfatal injuries in agricultural populations
- 14–6Reduce to 0 adults with blood-lead concentrations greater than or equal to 25 micrograms per deciliter of whole blood.

Chapter 15: Oral Health

- 15–7Increase to at least 75% people aged 65 and older who have had a dental exam in the previous year.
- 15–13 ..Increase to 80% long-term care facilities that provide residents oral exams or screenings and initiate prevention, education and oral health treatment services no later than 60 days after entry.

Chapter 16: Physical Activity and Fitness

- 16–4Create strategies that share the physical activity message with special and high-risk populations.
- 16–7Create an electronic media plan using the Internet, ICN system, etc.

Chapter 18: Respiratory Diseases: Asthma

- 18–1Reduce asthma-related hospitalizations by 10%, emergency department visits by 10%, and urgent care visits by 20%.

Chapter 20: Substance Abuse and Problem Gambling

- 20–4Increase to 425 Iowans aged 65 and older who receive screening, prevention, referral, and/or treatment for risk factors.
- 20–5Increase the availability of 24-hour residential treatment to 542 beds.

Chapter 22: Unintentional Injuries

- 22–1Enhance the Emergency Medical Services system by implementing an integrated data system, linking with 75% of Iowa EMS systems, and maintaining the trauma care delivery system at 100%.
- 22–2Reverse the increasing trend of brain injury hospitalizations from falls.
- 22–3Reduce nonfatal brain injuries from motor vehicle crashes to no more than 20/100000.
- 22–4Reduce nonfatal spinal cord injuries so hospitalizations for this condition are no more than 4.5/100000.

- 22–5 Establish a program for progressive resistance training to prevent falls among the elderly in all Iowa counties.
- 22–7 Develop a plan to address childhood injuries on playgrounds.
- 22–8 Reduce deaths caused by unintentional poisoning to 30/year, and reduce resulting illness and costs.
- 22–9 Reduce the fire death rate to less than 1/100000.
- 22–10 .. Reduce deaths by motor vehicle crashes to no more than 1.3/100 million vehicle miles traveled
- 22–11 .. Increase to 90% of motor vehicles the use of occupant protection systems such as safety belts and child safety seats.
- 22–12 .. Reverse the current increasing trend of brain injuries due to motorcycles, motorized bicycles, and bicycles.
- 22–13 .. Provide academic instruction in formats for special populations on motor vehicle injury prevention in the public school system's mandated safety education curricula in grades K-12.
- 22–15 .. Develop a plan to address the injury threat of off-road vehicles such as ATVs and snowmobiles.

Chapter 23: Violent and Abusive Behavioral

- 23–6 Identify the incidence of elder and dependent adult abuse in Iowa.

Chapter 24: Vision

- 24–1 Establish a reliable Iowa-specific baseline on vision.
- 24–2 Build awareness of the importance of early intervention and rehabilitation to increase positive outcomes for adults who are visually impaired or blind.
- 24–3 Develop new or improved educational programs to reduce visual disabilities due to low birth weight or premature births.
- 24–7 Educate Iowans on the benefits of certified eye protection when engaged in potentially hazardous activities that have chemical, physical or radiation agents.

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Chapter 5

Educational and Community-Based Programs**Introduction**

Healthy Iowans 2010, Chapter 5, Educational and Community-Based Programs, contains goals and action steps intended to promote and/or deliver public-health-related education in a variety of settings, including communities, K-12 schools, post-secondary institutions, and health systems. The chapter's action steps address improvements to school health services, early childhood services, health education, physical education, and resource access. Special consideration is given to race, ethnicity, age, gender, physical and mental ability/disability, socioeconomic status, and rural versus urban locales.

Reducing quality-of-life disparities is an overarching goal of *Healthy Iowans 2010*. In support of this goal, the Iowa Department of Education (IDE) creates partnerships with other organizations to promote, fund or directly provide education for people with disabilities and other special needs populations. Examples of services include funding for sign language interpreters, an agreement between IDE and the Iowa Braille and Sight Saving School for services for people with vision needs, and disability-friendly modifications to the IDE web site. The Iowa Department of Education maintains an electronic foreign language library for people with disabilities who are not fluent in English. The library contains documents and resources in 23 languages, and is accessible on-line at <http://www.mynclb.com>. The website can be viewed in eight languages.

Since the first version of *Healthy Iowans 2010* was distributed by the Iowa Department of Public Health (IDPH) five years ago, public health priorities have shifted at the state and federal levels, and funding from these sources has declined. Although some of the original goals

have been met, others require additional work before they can be complete. Still others need updating, including the addition, modification or removal of action steps and measurement criteria to make them current. Refer to the initial (January 2000) version of this chapter to access background information on educational and community-based programs in Iowa or to review the original goals, action steps and graphics.

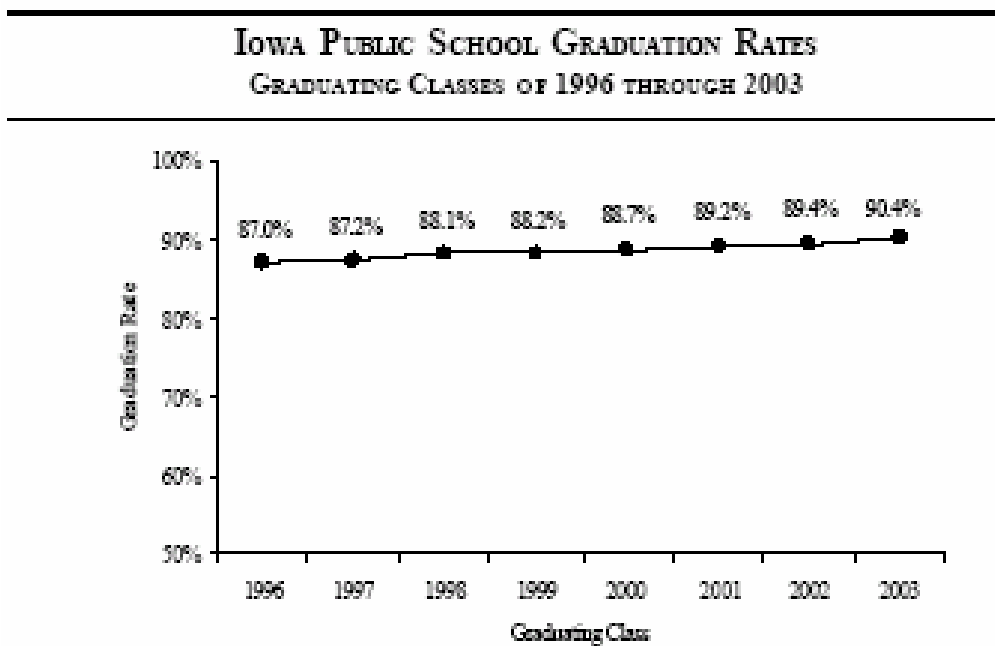
Goal Statements & Action Steps**5–1 Goal Statement**

Increase to 91% the public high school graduation rate while reducing disparities associated with gender, race and ethnicity. Baseline: 2000, 88.7%; 2001, 89.2%; 2002, 89.4%; and 2003, 90.4%.

Rationale

Research shows that high school graduates are more likely to be employed, earn higher wages, have less reliance on public assistance, are less likely to be single parents, and, for women, have children at an older age (The Urban Institute, a nonpartisan economic and social policy research organization). “No Child Left Behind” (NCLB) legislation, enacted by Congress in 2001, requires states to collect data to measure public high school graduation rates and use them as an indicator for identifying schools that need improvement. Iowa is doubly fortunate in that its long-term average high school graduation rate is among the top three in the nation and that this rate has been increasing annually for the past several years (W Haney et al. *The Education Pipeline in the United States 1970-2000*; IDE's *Annual Condition of Education*, 2004, p. 187).

Figure 93



Source: Iowa Department of Education; Bureau of Planning, Research, and Evaluation; Basic Educational Data Survey, High School Completers and Dropout Files; Annual Condition of Education, 2004, p. 187. (<http://www.state.ia.us/educate/fis/pre/coer/index.html>)

5–1.1 Action Step

By 2010, develop and adopt state-level policies and guidelines to increase the annual high school graduation rate to 91%, as measured by Iowa Department of Education data. (An Iowa Department of Education action step.)

5–1.2 Action Step

By 2010, narrow the gender gap in public high school graduation by attaining at least a 91% rate for females and a rate for males that differs from the rate for females by no more than 1%. The data indicate that females have consistently higher rates than males. The 2003 baseline is 91.7% for females and 89.1% for males. (An Iowa Department of Education action step.)

5–1.3 Action Step

By 2010, decrease racial and ethnic disparities among graduation rates by raising them to 86% for American Indians, 74% for Hispanics, and 81% for African Americans. Baseline, 2003: 80% for American Indians; 67.7% for Hispanics; 74.5% for African Americans; by

comparison, the rate was 91% for Asians and 91.3% for whites. (An Iowa Department of Education action step.)

5–1.4 Action Step

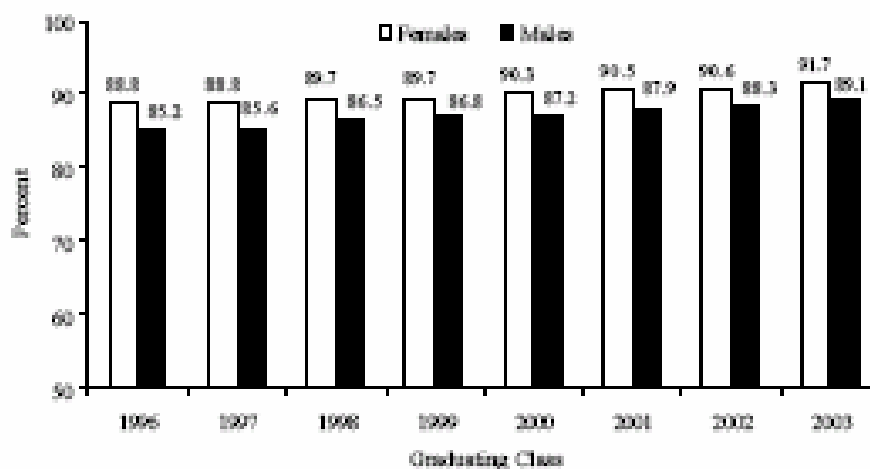
By 2010, increase statewide average daily attendance (ADA) in kindergarten through eighth grade (K-8) to 96%, as measured by Iowa Department of Education attendance data. The “No Child Left Behind” (NCLB) legislation defined data-collection requirements for ADA, and Iowa has designated the ADA for elementary and middle school students as the K-8 indicator for NCLB accountability. Baseline, 2003: 95.6%. (An Iowa Department of Education action step.)

5–1.5 Action Step

By 2010, increase to 31,000 the number of public school special education students participating in special education less than 21% of the day. Baseline: 29,939, October 2002 Individuals with Disabilities Education Act Report. (An Iowa Department of Education action step.)

Figure 94

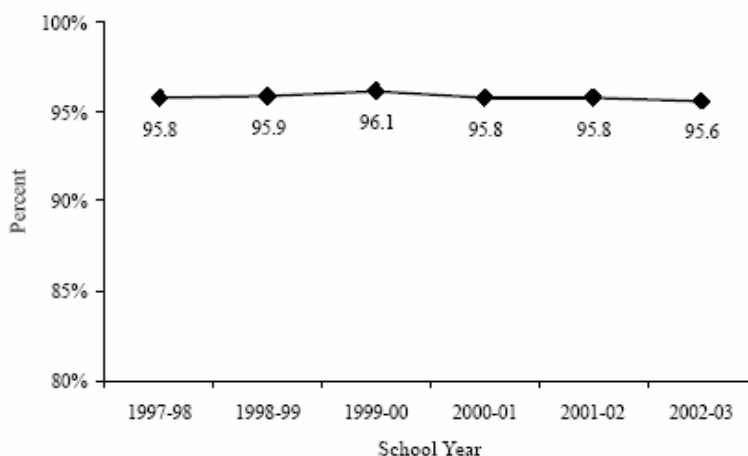
**IOWA PUBLIC SCHOOL GRADUATION RATES BY GENDER
GRADUATING CLASSES OF 1996 THROUGH 2003**



Source: Iowa Department of Education, Bureau of Planning, Research, and Evaluation, Basic Educational Data Survey, High School Completers and Dropout Files.

Source: Iowa Department of Education; Bureau of Planning, Research, and Evaluation; Basic Educational Data Survey, High School Completers and Dropout Files; Annual Condition of Education, 2004, p. 187 (<http://www.state.ia.us/educate/fis/pre/coer/index.html>).

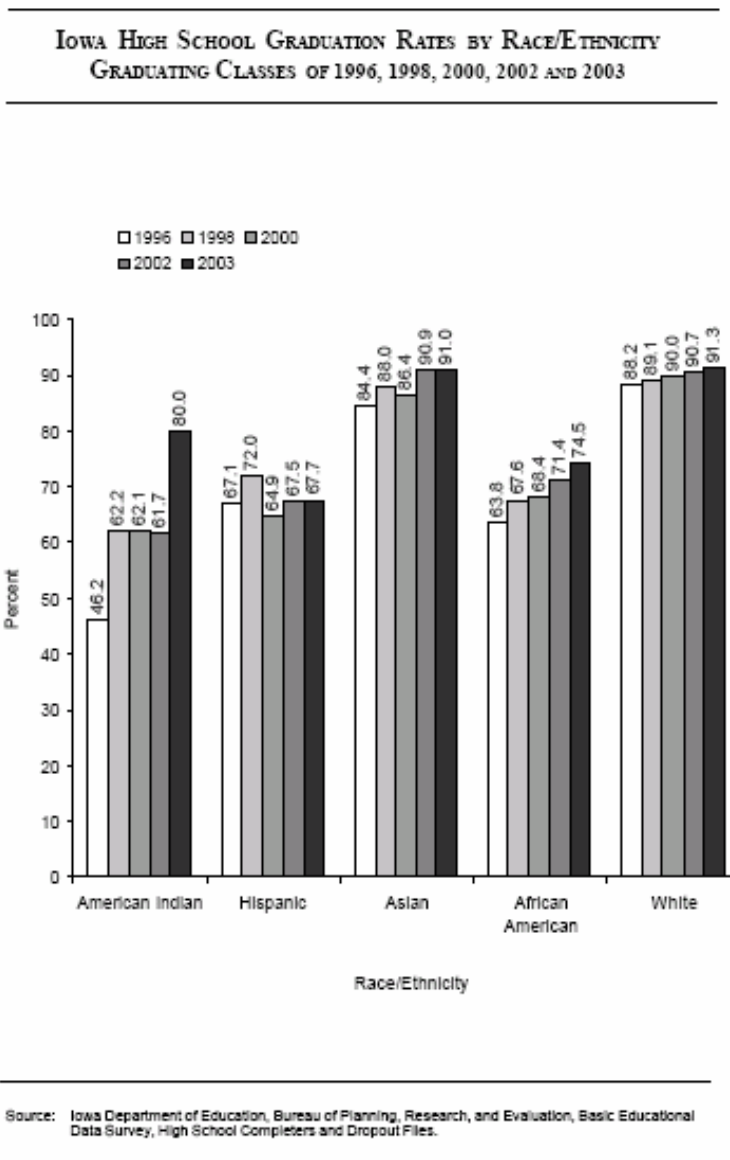
**IOWA PUBLIC SCHOOL GRADES K-8
AVERAGE DAILY ATTENDANCE RATE
1997-1998 TO 2002-2003**



Source: Iowa Department of Education, Certified Annual Reports.

Source: Iowa Department of Education, August 2004, The State Report Card for No Child Left Behind (NCLB), p. 55 (<http://www.state.ia.us/educate/ecese/nclb/reportcard.html>).

Figure 35



Source: Iowa Department of Education; Bureau of Planning, Research, and Evaluation; Basic Educational Data Survey, High School Completers and Dropout Files; Annual Condition of Education, 2004, p. 188 (<http://www.state.ia.us/educate/fis/pre/coer/index.html>).

5–1.6 Action Step

By 2010, at least 300 local public education agencies (school districts) will seek additional funding to improve services for at-risk students and their families through increased interagency collaboration. Baseline: 275 districts, 2004, all using the “allowable growth” funding method provided in Iowa Code Chapter 252.38-41. (An Iowa Department of Education action step.)

5–1.7 Action Step

By 2006, all public school districts will have a wellness policy in accordance with the Federal Child Nutrition and WIC Reauthorization Act and as verified by the Iowa Department of Education. Baseline: 0. (An Iowa Department of Education action step.)

5–2 Goal Statement

To build a stronger foundation for academic achievement, at least ten schools will provide a set of basic health support services for students (see action step 5–2.2 for the minimum set of services), and 81% of school districts will employ a full-time nurse who will, among other things, provide or advocate for these services. Baseline, 2003: for school districts with nurses, 76%; for schools offering all the basic support services listed in 5–2.2, 0.

Rationale

When children have the appropriate health supports, academic achievement improves. School nurses directly provide or facilitate access to needed health supports for students, provide frontline interventions for disparate populations, implement public health principles, and assist in meeting many other Healthy Iowans goals.

Seventy-six percent of Iowa school districts in 2002-2003 reported having hired a school nurse, and 35% reported a nurse-to-student ratio of 1:750 or less. This ratio, which is among the data that districts provide to the Iowa Department of Education each year, has been attained by increasingly fewer districts due to budget reductions and legislative decisions. The statewide average mean ratio of school nurse-to-students was 1:878 during 2002-2003, and the nurse-to-building ratio was 1:3.5. A research-based presentation called “Improving Academic Achievement by Meeting Student Health Needs” was developed in February 2003 and can be accessed in various formats at <http://www.state.ia.us/educate/ecese/cfcs/hpi/doc/iaa.ppt>.

5–2.1 Action Step

By 2010, increase to 81% the proportion of public school districts that report hiring a nurse. Continue to follow data and trends, and promote school health services to build support for increasing the number of school nurses. Baseline, IDE’s 2004 Certified Annual Report: 76%. (An Iowa Department of Education action step.)

5–2.2 Action Step

By 2010, adopt a plan to establish a comprehensive school-based system of health supports that are selected by their ability to improve academic achievement as indicated by evidence from published research. Begin implementing the system in ten Iowa schools. The system must include, at a minimum, student health services, physical fitness, nutrition, health education, a healthy and safe school environment, family and community involvement, and staff education on health and wellness.

Successful implementation will involve collection of data to measure the health and the academic achievement outcomes associated with these supports. The intent is that these ten schools will be a model for other districts, although statewide implementation of the school-based health supports system is not anticipated by 2010. Source: IDE, Certified Annual Report, 2003. (An Iowa Department of Education action step.)

5–3 Goal Statement

Increase to 40% the proportion of 3- and 4-year-old children served statewide in quality, Iowa accredited pre-school programs, including Head Start, early childhood education, Title I, and special early childhood education. Baseline, 2003: 15%.

Rationale

The state-funded Shared Visions quality preschool program reported statewide enrollment of 2,360 children in 2003. The Governor’s goal is that 90% of three and four year olds have access to high quality programs. Current statewide enrollment is 15%. Funding has decreased the last two years for Shared Visions and Empowerment programs <http://www.state.ia.us/educate/ecese/is/cdcc/documents.html>.

5–3.1 Action Step

By 2010, support establishment of a system that coordinates early childhood programs and reporting methods to ensure that necessary services, including education and health services,

are reaching all eligible children. The Iowa Learns Council, a public policy advisory group, recommends that this system:

- 1) build an integrated, comprehensive early care health and education system;
- 2) promote seamless transition between the early care health and education system and the K-12 system;
- 3) provide universal pre-school for 3- to 4-year-olds;
- 4) support the implementation of Iowa's early learning standards; and
- 5) identify and provide community and early childhood providers with a directory of recommended research-based family-support services.

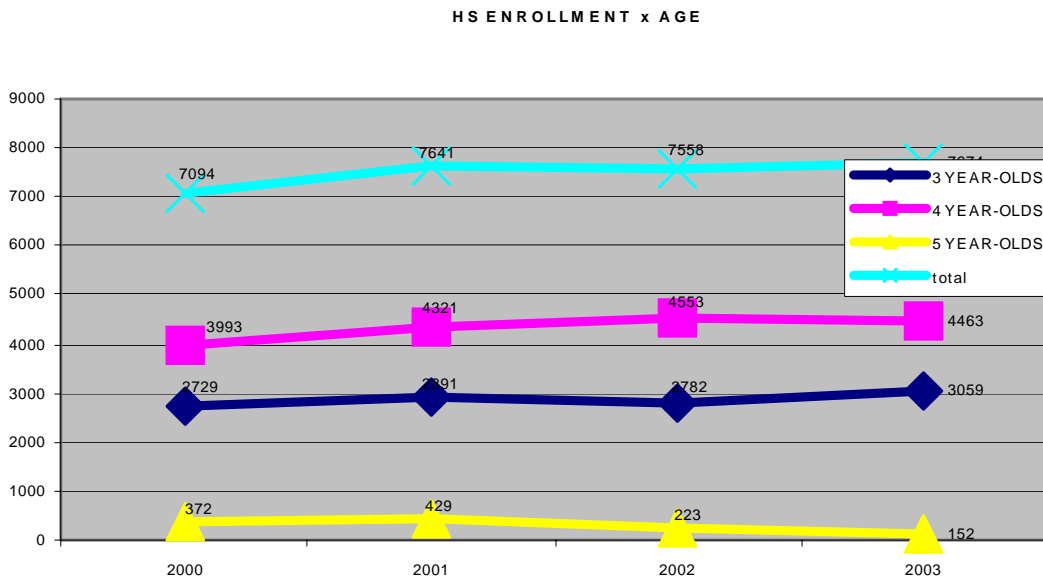
(An Iowa Division of Head Start, Iowa Department of Education, Iowa Department of Public Health, Iowa Department of Human Services, Shared Visions, and empowerment programs action step.)

5–3.2 Action Step

By 2010, encourage school districts to collaborate with community, child and family-service organizations to ensure the development of a coordinated service-delivery system for early childhood care and preschool education that includes all young children. Increase the number of children served to 11,000. Baseline, 2003-2004: 9,778 children attending a preschool or child development program for 3-, 4-, and 5-year-old children at public schools, tuition programs, Head Start, and Child Development Coordinating Council programs. Source: Condition of Education, 2004, p. 132. (An Early Childhood Systems and Preschool Systems action step.)

5–3.3 Action Step

By 2010, increase the number of children enrolled in Head Start to 8,800. Baseline, 2003: 7,674 Head Start children ages three, four and five. Trend data shows an 8% growth from 2000 to 2003 (see the following graph). (An Iowa Head Start State Collaboration Office and Iowa Department of Education action step.)



Source: Iowa Child Development Coordinating Council Annual Report to the Governor at <http://www.state.ia.us/educate/ecese/is/cdcc/documents.html>

5–3.4 Action Step

By 2010, an early childhood program accreditation system will exist and its use encouraged by all early childhood programs. An accreditation process is under review by the National Association for the Education of Young Children (NAEYC), National Association of Family Child Care (NAFCC), and the Iowa Department of Human Services Gold Seal program. (An Early Childhood systems, including Iowa Early Childhood Learning Standards and Iowa Quality Preschool Program Standards, action step.)

5–4 Goal Statement

Policies and guidelines will exist to ensure that school health education and physical education are compliant with statutory education program requirements [281 IAC 12.5(256)]. Baseline: Compliance data have not been compiled and will be obtained through completion of the first action step under this goal.

Rationale

Each year, 20% of Iowa school districts are accredited. This process includes reviewing their school-improvement plans for compliance with the health education and physical education requirements in the Iowa Administrative Code. The current tight budgetary conditions may have adversely affected school district compliance in one or both of these areas. This creates a need to establish a clear baseline that fully reflects the administrative code requirements, monitor schools for continued compliance with the baseline and requirements, and, to the extent possible, provide support to address any deficiencies.

Comprehensive School-Improvement Plans will soon be accessible on the Web, facilitating the collection and comparison of data on the availability and type of health content provided to students. Likewise, collection of data from a new Iowa Department of Education initiative called Project EASIER (Electronic Access for Iowa Education Records) will be available after

2005. Its aims are to improve individual student record transfer by reducing data burden; encourage better decision-making by establishing and maintaining cost-effective access methods; and transfer accurate and timely education information to districts, postsecondary institutions, and the Iowa Department of Education.

5–4.1 Action Step

By 2010, gather statewide information on the health content of school district improvement plans and develop a report describing how districts incorporate the broad state laws and rules requiring health content in the curriculum. Distribute the report to districts, state and local public health officials, the Legislature, and other interested parties. Baseline: None. (An Iowa Department of Education action step.)

5–4.2 Action Step

By 2010, 100% of Iowa public schools will advocate for the health of children and adolescents by sharing their Iowa Youth Survey (IYS) results and Youth Risk Behavior Survey (YRBS) results with the Community Health Needs Assessment and Health Improvement Plan (CHNA/HIP). The Iowa Department of Public Health and/or the Iowa Department of Education will assess school participation by reviewing CHNA/HIP. The Iowa Youth Survey and CHNA/HIP are available online at <http://www.state.ia.us/educate/ecese/cfcs/iys/documents.html> and <http://www.idph.state.ia.us/chnahip/reports.asp>. (An Iowa Department of Education and Iowa Department of Public Health action step.)

5–5 Goal Statement

All post-secondary community colleges will provide data on how the college addresses the six priority health risk behavior areas: tobacco use, alcohol and drug use, sexual activity, disease-causing dietary patterns, inadequate physical activity, and behaviors that may result in unintentional or intentional inju-

ries. Baseline: Five community colleges have provided some data.

Rationale

The Centers for Disease Control and Prevention documented six categories of priority health-risk behaviors among college age young adults. These six behaviors are responsible for disease and many deaths among college students. Education that is focused on these health-risk behaviors has the potential to impact future lifestyle behaviors. Information does not exist on how Iowa post-secondary institutions address the six health-risk behaviors.

5–5.1 Action Step

By 2008, send an explanatory letter and supplemental information to all community colleges requesting that they gather culturally specific and age-appropriate student information on the six priority health-risk behavior areas, in a manner relevant to racial and ethnic minorities and special needs populations, and submit the data to Iowa Department of Public Health. (An Iowa Department of Public Health and Department of Education action step.)

5–5.2 Action Step

By 2010, utilize phone calls, e-mail messages, follow-up letters, personal visits, and other reminders as needed to ensure that 100% of community colleges will provide Iowa Department of Public Health the data described in Action Step 5–5.1. (An Iowa Department of Public Health and Department of Education action step.)

5–6 Goal Statement

100% of counties will have completed at least two updates (2005 and 2010) to their Community Health Needs Assessment, Health Improvement Plan (CHNA/HIP) and related materials, using online resources and processes when feasible. Baseline, February 2005: CHNA/HIP updates completed by all county local health departments.

Rationale

Each county board of health is required to develop and implement a Community Health

Needs Assessment, Health Improvement Plan (CHNA/HIP) every five years. The 2005 update was due in February 2005, and all plans are posted (<http://www.idph.state.ia.us/chnahip>). The Iowa Department of Public Health developed and distributed health promotion materials for a variety of prevention programs to communities statewide. The materials are available in Spanish, Laotian and Vietnamese. Federal money has been the most reliable source of funding for this purpose. Assistance with developing health promotion materials or answering specific questions is available from the Iowa Department of Public Health upon request.

5–6.1 Action Step

Through 2010, continue to help counties implement their Community Health Needs Assessment, Health Improvement Plans (CHNA/HIP) and the 5-year updates. (An Iowa Department of Public Health action step.)

5–6.2 Action Step

By 2010, offer technical assistance and identify funding resources for communities to develop health promotion and disease prevention programs and materials that are relevant to racial and ethnic groups, rural and urban settings, and the full spectrum of special needs populations. (An Iowa Department of Public Health action step.)

5–6.3 Action Step

Through 2010, on an ongoing basis and in partnership with the Wellness Council of Iowa, provide wellness-education opportunities, including job-site health promotion and disease prevention programs and materials, to the Iowa workforce. (An Iowa Department of Public Health action step.)

5–6.4 Action Step

Through 2010, increase the online use of health education, prevention, and promotion resources and encourage the online submission of questions and requests for technical assistance. Give special emphasis to making available culturally appropriate, easy to understand materials that are relevant to minority and special needs populations. In particular, the materials will

take into consideration race, ethnicity, age, gender, physical and mental ability, setting (i.e., rural v. and urban), and socioeconomic status. (An Iowa Department of Public Health and Iowa Department of Education action step.)

Goal Cross References

Chapter 2: Cancer

2–11 Increase the relative 5-year survival rate for all invasive cancers to at least 68%.

Chapter 3: Diabetes

3–1 Increase awareness of diabetes in people with pre-diabetes risk and undiagnosed diabetes, and limit the upward prevalence trend of diabetes to 0.2% per year.

3–2 Decrease disparities in diabetes prevalence and increase access to health care, including detection, education, treatment, and management.

3–3 Offer leadership and educational opportunities to health care professionals to enable them to give improved medical guidance to persons with diabetes.

3–4 Decrease mortality and morbidity from diabetes by prevention or delaying complications.

Chapter 4: Disabilities

4–1 Improve consumer access to information about their health care needs through provider education and coordination of consumer health information resources.

4–3 Assure that each HI2010 chapter assesses the health issues and potential treatment for people with disabilities and incorporates appropriate goals and action steps.

4–5 Test at least three health promotion programs designed for people with disabilities.

4–7 Identify new funding and develop collaborative applications that will expand health promotion and prevention for Iowans with disabilities.

4–9 Plan and conduct four arthritis self-help course leader workshops annually.

Chapter 6: Environmental Health

6-14Ensure that 100% of schools (grades 1-12) provide information on environmental health in their health curricula.

Chapter 7: Family Planning

- 7-2Reduce pregnancies to 12/1000 among females aged 15-17 and to 50 total in Iowa among females aged 12-14.
- 7-3Establish a baseline of sexual activity for Iowa adolescents.
- 7-5Establish a baseline for male involvement in pregnancy prevention and family planning.
- 7-6Assure that all abstinence education, teen pregnancy prevention, and adolescent sexual health programs are science-based and medically accurate as defined by the standards developed by the Centers for Disease Control and Prevention.

Chapter 9: Heart Disease and Stroke

- 9-1Reduce by 13% heart disease deaths among all Iowans.
- 9-2Reduce by 16% stroke deaths among all Iowans.
- 9-3Achieve identification and control of high blood pressure through health care, worksite, and community systems with policy, environmental and systems support, and communication strategies.
- 9-4Reduce by 10% adults with high blood cholesterol through policy, environmental and systems support, and communication to improve detection, awareness, evaluation, treatment, and control.

Chapter 10: Immunization and Infectious Disease

- 10-1Reduce by 50% indigenous cases of selected vaccine preventable disease.
- 10-4Reduce hepatitis A cases to no more than 10/100000.
- 10-5Reduce to 0 newly diagnosed hepatitis B rates in persons under aged 25.
- 10-10 ..Reduce by 10% antimicrobial resistance to key reportable invasive antibiotic-resistant organisms.
- 10-14 ..Maintain at 95% immunization compliance for children in licensed day care centers, kindergarten, and first grade.

- 10-18 .. Educate health care providers and the public on the use of antibiotics for ear infections.
- 10-19 .. Educate health care providers on the use of antibiotics for colds.

Chapter 11: Maternal, Infant and Child Health

- 11-5 Increase to 75% children who have a “medical home” as defined by the American Academy of Pediatrics.
- 11-8 Reduce the overall perinatal mortality rate to no more than 7.1/1000.
- 11-9 Increase the number of professionals who provide mental health services for women of reproductive age and their families.
- 11-10 .. Increase to at least 90% pregnant women who receive early and adequate prenatal care as measured by the Kotelchuk Index.
- 11-11 .. Develop Iowa as a state that has a service system for Children with Special Health Care Needs.
- 11-15 .. Increase to 75% children with special health care needs enrolled in managed care who have a written plan of shared management protocols developed in partnership with primary and specialty care providers, care coordination providers, and families.

Chapter 12: Mental Health and Mental Disorders

- 12-2 Reduce by 10% the annual incidence of suicides among youth aged 15-24 and adults aged 65 and older.
- 12-4 Improve the overall efficiency of child-serving state agencies by creating a shared state level vision for improving the well-being of children from early childhood through adult transition modeled after Early ACCESS.
- 12-11 .. Develop and implement a system of care for children with behavioral and developmental needs.
- 12-15 .. Ensure universal access to social, emotional and behavioral health services for children aged 0-5.
- 12-16 .. Identify 100% of pregnant and postpartum women with depression or at high risk for depression.

12–19 ..Develop a system for collecting a uniform set of mental health data across all publicly funded services.

Chapter 13: Nutrition and Overweight

13–4Prevent further rise of weight gain among children and adolescents under aged 18.

13–5Increase to at least 50% people age 2 and older who meet the minimum daily average goal of at least 5 fruits and vegetables as recommended in the Dietary Guidelines for Americans.

13–7Provide nutrition information to Iowans at risk of nutrition related diseases.

13–8Reduce to 5% the incidence of food insecurity.

Chapter 15: Oral Health

15–1Reduce cavities in primary and permanent teeth so the proportion of children who have had one or more cavities, filled or unfilled, is no more than 10% among children aged 3-5, 25% among children aged 7-9, and 50% among adolescents aged 12-14.

15–2Reduce untreated cavities in primary and permanent teeth so that the proportion of low-income children with decayed teeth not filled is no more than 2% among children aged 3-5, 10% among children aged 7-9, and 18% among adolescents aged 12-14.

15–4Implement a statewide oral health surveillance system that will annually collect information on the oral health status of Iowans.

15–6Increase to at least 50% children in 3rd grade who have received protective sealants in permanent molar teeth.

15–9Increase to 25% the use of topical fluorides and fluoride toothpaste by at-risk populations.

15–11 ..Increase to at least 80% children entering school who have received an oral health screening or exam.

Chapter 16: Physical Activity and Fitness

16–1Establish funding targeted at sedentary lifestyles and a plan that includes support for planning, local efforts, environmental projects, model policy initiatives, and education.

16–3 Establish a comprehensive strategy that shares the main physical activity message with as many Iowans in as many environments as possible.

16–4 Create strategies that share the physical activity message with special and high-risk populations.

16–6 Create and disseminate a detailed list of best or expected practices that provide students and educational environment that teaches and fosters a healthy active lifestyle.

16–10 .. Increase the proportion of school-age children who meet the Centers for Disease Control and Prevention recommendations for physical activity and education.

Chapter 18: Respiratory Diseases: Asthma

18–1 Reduce asthma-related hospitalizations by 10%, emergency department visits by 10%, and urgent care visits by 20%.

18–4 Increase the proportion of persons with asthma who receive formal patient education, information and resources as an essential part of their management.

18–5 Raise community awareness of environmental exposures known to trigger asthma and increase community involvement in primary prevention.

18–7 Support public policy to reduce the incidence and severity of asthma and increase actions by local, city and state groups.

Chapter 19: Sexually Transmitted Diseases and Human Immunodeficiency Virus Infection

19–1 Reduce the incidence of Chlamydia trachomatis to no more than 140/100000.

19–2 Reduce the incidence of gonorrhea to no more than 43/100000.

19–8 Reduce new cases of AIDS among adolescents and adults to no more than 2/100000.

19–9 Reduce by 50% the annual incidence of HIV infection.

19–10 .. Increase to 67% the proportion of sexually active students who report using a condom during the previous 3 months.

19–11 .. Increase to 97% the proportion of high school students in grades 9-12 who receive age-appropriate classroom

education on HIV and other sexually transmitted diseases.

Chapter 20: Substance Abuse and Problem Gambling

- 20-1Establish a systematic process and begin to assess the infrastructure of the alcohol, tobacco and other drugs service system in Iowa and its impact on quality prevention, early intervention, and treatment.
- 20-2Increase by 3% youth aged 12-17 who never used alcohol and annually monitor and evaluate the increase.
- 20-3Reduce to 15% alcohol and other drug-related death and injury, and chronic disease rates.
- 20-8Increase to 115 and sustain state, county, community, and neighborhood collaborative groups to reduce problems of alcohol, tobacco, other drugs, and problem gambling.

Chapter 21: Tobacco Use

- 21-5Implement comprehensive tobacco policies in 100% of Iowa school districts.
- 21-10 ..Decrease the use of tobacco products in grades 6-12 and increase the number who want to quit.

Chapter 22: Unintentional Injuries

- 22-6Reduce by 5% unintentional firearm-related deaths for ages 1-18.
- 22-7Develop a plan to address childhood injuries on playgrounds.
- 22-13 ..Provide academic instruction in formats for special populations on motor vehicle injury prevention in the public school system’s mandated safety education curricula in grades K-12.
- 22-14 ..Reduce the number of fatal water-related injuries to less than 30/year.

Chapter 23: Violent and Abusive Behavior

- 23-1Reduce the risk of victimization from violent crime to fewer than 300/100000 and maintain the risk of homicide at or below 2.0/100000.
- 23-2Reduce firearm mortality to 5.0/100000, firearm suicide to fewer than 4 annually, and violent crime using a firearm to 25 annually.

- 23-8 Identify the incidence of intentional violence in schools and workplaces and establish a mechanism for reporting it.
- 23-9 Create opportunities for adults and youth to develop skills to be able to manage differences by building peaceable communities and schools.

Chapter 24: Vision

- 24-1 Establish a reliable Iowa-specific baseline on vision.
- 24-3 Develop new or improved educational programs to reduce visual disabilities due to low birth weight or premature births.
- 24-4 Build awareness of the importance of maintaining good eye health through prevention and education.
- 24-5 Increase the number of preschool children receiving vision screenings and appropriate follow-up.
- 24-7 Educate Iowans on the benefits of certified eye protection when engaged in potentially hazardous activities that have chemical, physical or radiation agents.

**Education &
Community-Based Programs**

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Chapter 6

Environmental Health

Introduction

Concern about the health effects of environmental contaminants continues at an all-time high. Only economic concerns, such as unemployment, taxes, schools, and government budgets, rank higher in citizen concerns. A statewide community-health needs assessment found that environmental concerns were among the top priorities. Iowans are concerned about the quality of their drinking water, recreational waters, indoor and outdoor air quality, lead poisoning, safe housing, and hazardous and solid waste.

Concern today is focused primarily on the health effects of environmental contamination and is a major element of the public's need for environmental protection. The public is bombarded with reports from the media, government officials, and the private sector that state or hint at adverse health effects from environmental contamination. However, the health effects and risks from environmental contamination are not clearly explained. Besides, the best solutions for dealing with them frequently are not discussed. Officials demand more sophisticated answers and expect details on actual risks and real solutions.

As a result, the public is concerned, and at times confused, about the quality of its environment and the effects it may have on health. Local public health, building officials, conservationists, medical professionals, and the public need better assessment of environmental data to fully understand actual and perceived risks. Assessment also allows local officials to deal with high-risk conditions and institute actions that will reduce or eliminate a problem.

Healthy Iowans 2010 responds to these needs. The environmental health goals and action steps focus on 1) documented health and safety effects from existing environmental conditions; 2) the assessment of risks; and 3) actions or solutions for significantly reducing exposure to environmental contaminants.

A total of 75 persons representing state, local, university, private, environmental health and protection interests were formally involved in the process of developing this chapter's original environmental health goals and action steps.

Progress

Significant progress was made in environmental health during the first half of the decade. However, many challenges remain. Achievements in environmental health include establishment of the Division of Environmental Health in the Iowa Department of Public Health and a state revolving-loan program for on-site wastewater treatment systems. It also includes a competitive grant to build environmental health capacity, federal funding to examine the relationship between environmental exposures and human health outcomes in a rural Iowa county, and an increase in the percentage of Iowa children who are tested for lead poisoning. Each of these achievements is described below.

During the summer of 2000, the Iowa Department of Public Health consolidated all programs in environmental health under one division, the Division of Environmental Health. Such programs had been spread throughout the department. The reorganization was made possible by funding from the master tobacco settlement. Better collaboration and

communication among environmental health programs has resulted.

The Iowa Department of Natural Resources created a revolving loan fund that allows owners of non-compliant private sewers to apply for low interest loans to repair or replace their septic systems. In the short time since its creation, over one million dollars has been provided and over 100 systems have been updated.

The Iowa Department of Public Health, Division of Environmental Health competed for and received in 2001 a 3-year grant from the Centers for Disease Control and Prevention (CDC) to build environmental health capacity at the state and local levels. It enabled the Iowa Department of Public Health to provide training to local and state environmental health practitioners on the ten essential services and core competencies to practice environmental health. Additionally, mini-grants were distributed to local health departments and regional consortiums to build capacity to address environmental health. Following successful implementation of the grant during the first three years, it will be extended through 2007.

In 2002, the Iowa Department of Public Health, Division of Environmental Health received federal funding to conduct a “Comprehensive Assessment of Rural Health in Iowa” (CARHI) in an Iowa county. This project is examining potential associations between known environmental exposures and human health in Carroll County. Funding will continue through 2006. CARHI is a collaborative project between Division of Environmental Health staff and University of Iowa researchers. Health-care providers and county officials are also playing a critical role.

The percentage of Iowa children receiving at least one blood-lead test before the age of six has increased from 26.3% for the 1991 birth cohort to 57.4% for the 2000 birth cohort. The amount of state funding available for this program has increased from \$39,547 in 2000 to approximately \$350,000 in 2005. The Bureau of Lead Poisoning Prevention now has four employees who are bilingual in Spanish and

English to meet the needs of Iowa's growing Latino population.

To receive continued funding from the CDC in 2004, the Bureau was required to develop a "lead elimination plan" with actions it will take to eliminate childhood lead poisoning in Iowa by 2010. Goal 6–8 and its corresponding action steps were revised to reflect changes in the federal lead programs, Iowa's lead elimination plan, current baseline data, and if necessary, revised targets and/or dates for reaching the targets.

One challenge to environmental health over the last several years has been budget cuts at the federal, state and local levels. Emerging issues in environmental health also present significant challenges. They include mold, housing standards, the "built environment," antibiotics in surface water, air quality around animal confinements, and concern about the safe levels of mercury in fish.

Each agency responsible for an action step in this chapter has filed a plan of compliance with the Olmstead decision and Executive Order 27. All materials and services described in this chapter will be provided as described in the plan.

Goal Statements & Action Steps

6–1 Goal Statement

Determine the prevalence of contaminants of health concern in 100% of small town private wells in concentrations exceeding the Environmental Protection Agency health advisory levels (HALs) or maximum contaminant levels (MCLs) for drinking water. Baseline: 0.

Rationale

Private drinking water wells are not routinely sampled for the array of contaminants that public water supplies sample for as required by the Safe Drinking Water Act. While public water supply users pay for this sampling through their regular water bills, private well water monitoring is done at the well owner's initiative. The Iowa Department of Natural Resources

administers the Grants to Counties program for private well water testing. These funds are mainly used to cover the costs of nitrate and bacteria analyses. Analysis of water samples for common organic compounds (including pesticides) can also be covered by the Grants to Counties Program. Even with free well water analysis available, many private well owners are hesitant or noncommittal about having their well water tested, particularly if the water looks and tastes okay. This failure to regularly (on an annual basis) test their drinking water speaks to a lack of understanding about potential impacts of various water contaminants on human health.

Results from the Iowa Community Private Well Study (2002) underscore the need for regular sampling of private wells located within communities. This project was a one-time sampling of 103 randomly selected wells in 50 Iowa incorporated communities without public water systems. The wells had numerous detections of contaminants: 57% had nitrate (23% were >10 mg/L (EPA MCL for NO₃-N); 30% had coliform bacteria; 26% had arsenic; 19% had atrazine and 28% had the atrazine metabolite DEA. While these wells were located in incorporated communities exclusively using wells, private drinking water wells located in unincorporated areas may also have similar problems with contaminants. Establishing a statewide baseline database of contaminant levels in private wells located in these Iowa communities is needed.

6–1.1 Action Step

Through 2010, continue to identify small towns (incorporated and unincorporated) that rely on private wells for drinking water and, for each such town, determine the general geological setting, whether there is an existing or former agricultural chemical dealer site in town or near town, and whether there are individual sewage-disposal systems or a municipal sewage-collection system. (An Iowa Department of Natural Resources action step.)

6–1.2 Action Step

By 2008, develop a plan, including estimated costs and time of completion, to collect samples for bacteria (fecal coliform, E.

coli, and enterococci), pesticides and nitrate analyses from 20% to 30% of the drinking water wells in 100% of small towns that rely on individual private drinking-water wells. (An Iowa Department of Natural Resources action step.)

6–1.3 Action Step

Through 2010, continue to implement a sampling plan for bacteria, pesticides and nitrates in small towns relying on private drinking-water wells. (An Iowa Department of Natural Resources action step.)

6–1.4 Action Step

By 2008, complete a report, using language that is easily understood and culturally sensitive, within six months of completing the bacteria, pesticide and nitrate sampling plan and make recommendations for future action. (An Iowa Department of Natural Resources action step.)

6–2 Goal Statement

Reduce to 20% the number of private drinking-water wells testing positive for coliform bacteria. Baseline: In 2003, 23% of private drinking-water wells tested positive for coliform bacteria (University of Iowa Hygienic Laboratory).

Rationale

About 20% of Iowans obtain their drinking water from private wells. Other than original construction standards, these wells are unregulated. Well owners must on their own assure that the quality of their water is adequate to protect their family's health. According to the Center to Disease Control and Prevention (CDC) for the period 1999-2000, 25 states reported a total of 39 waterborne-disease outbreaks associated with drinking water. Twenty-eight were linked to private wells or noncommunity water supplies (MMWR, November 22, 2002).

University of Iowa Hygienic Laboratory (UHL) private well testing from 1997 to 2004 showed statewide average contamination rates of 12% and 27% for total coliform bacteria and nitrate respectively. Over the period of 1997 to 2004, the UHL analyzed 60,702 private well samples for nitrates and 67,627 private well

samples for total coliform bacteria (www.uhl.uiowa.edu).

Grants-to-Counties data, collected in DNR's private well tracking system, shows that on average, local environmental health programs are plugging over 2,000 wells annually. This number is expected to decrease slightly over this decade as the number of abandoned wells decreases, thus making it more difficult to identify existing abandoned wells.

6–2.1 Action Step

By 2005 and ongoing thereafter, collaborate to provide an annual training for local environmental health officials on proper well construction and inspection techniques. (An Iowa Department of Public Health, Iowa Department of Natural Resources, and Iowa Water Well Association action step.)

6–2.2 Action Step

Through 2010, continue to analyze data available from over 100,000 water samples tested under the Grants-to-Counties program to determine a better method of identifying which wells or well factors are more likely to be a problem and which additional sampling may be useful. (An Iowa Department of Natural Resources action step.)

6–2.3 Action Step

By 2010, develop a strong cooperative effort with local environmental health, Iowa Department of Natural Resources, Iowa Water Well Association, and Iowa Department of Public Health to aggressively pursue plugging 70,000 abandoned wells. (An Iowa Department of Public Health action step.)

6–2.4 Action Step

By 2010, encourage county environmental health programs to conduct inspections on 80% of all newly constructed private wells on an ongoing basis through ongoing educational activities. (An Iowa Department of Natural Resources action step.)

6–2.5 Action Step

Through 2010, continue to provide cost-share incentives for the renovation of marginal

wells to improve the average quality of wells statewide, with a renovation goal of 250 marginal wells per year. (An Iowa Department of Natural Resources action step.)

Progress

Fiscal year 2003: 196 wells renovated,
Fiscal year 2004: 168 wells renovated.

6–3 Goal Statement

Ensure safe drinking water for Iowans by helping 100% of public water-supply systems meet Environmental Protection Agency (EPA) requirements. Baseline: Public water supplies are required to meet EPA's maximum contaminant levels (MCLs) to provide drinking water to their customers. The Iowa Department of Public Health will begin working with Iowa Department of Natural Resources in 2005 to start collecting data on MCL violations.

Rationale

The 1996 Safe Drinking-Water Act Amendments established several new programs to help public water suppliers ensure a long-term, healthy water supply. These included the availability of a Clean Water State Revolving Fund to provide loan for the update and replacement of water system infrastructure, and a Source-Water Protection Program and Implementation Strategy.

A Capacity Development Program also exists to ensure that all public water supplies have the technical, financial and management resources needed. Also, an evaluation and protection program exists for disinfectant byproducts. These programs will be implemented to attain the goal.

6–3.1 Action Step

By 2010, facilitate the EPA-funded state revolving-loan program to provide low-interest loans to public water systems for the cost of drinking-water infrastructure on an ongoing basis. (An Iowa Department of Public Health and Iowa Department of Natural Resources action step.)

6–3.2 Action Step

By 2007, assure that all community water supplies have completed source-water protection assessments to identify potential sources of contamination and assure that 50% of community water supplies have source-water protection in place. (An Iowa Department of Natural Resources action step.)

Progress

Currently, 100% of community water supplies have source-water protection assessments, while only about 5% of community systems now have a source-water protection plan.

6–3.3 Action Step

By 2005 and ongoing thereafter, develop and implement a capacity-development strategy for public water supplies to ensure that each system is viable and that all new systems and current systems receiving state revolving funds develop and implement a capacity-development program. (An Iowa Department of Natural Resources action step.)

6–3.4 Action Step

By 2010, conduct ongoing source-water assessment and remediation for all counties that will reduce the nitrate concentration in drinking-water sources to levels less than half the MCL as stipulated by the U.S. Environmental Protection Agency. (An Iowa Department of Natural Resources action step.)

6–3.5 Action Step

By 2010, ensure that public water supplies meet the new disinfectant maximum levels and the revised disinfection byproduct standards as they become effective. (An Iowa Department of Natural Resources action step.)

6–4 Goal Statement

Reduce to 10 the number of annual notifications received by the Iowa Department of Public Health from the Iowa Department of Natural Resources on “acute” bacterial contamination in community water systems. Baseline: In 2004, the Iowa Department of Public Health received approximately 25 notifications.

Rationale

Current Iowa Department of Public Health resources are inadequate to respond to the increasing demand for service to the public, building officials, consulting engineers, and plumbers. A limited staff is available to handle the responsibility. A line-item budget and plumber positions need to be re-established to implement required plumbing enforcement and consultation. Plumbing funding and a plumber position were eliminated due to internal budget shifting.

There is evidence of increased drinking-water contamination due to building and household plumbing. Backflow of wastewater and contaminants into potable water is generally considered a significant contributor to potable water quality problems in distribution systems. The number of reported backflow incidents is small, but many are not reported or not recognized.

Cross connections (points where backflow of wastewater into drinking water is possible) are prevalent throughout the state because of lack of understanding and regulations. No plumbing inspection and enforcement authority exist in most parts of Iowa. Outside of jurisdictions that license plumbers, there is no required plumbing training and no check of competency.

6–4.1 Action Step

By July 2006, establish an environmental specialist-plumber position within the Iowa Department of Public Health. (An Iowa Department of Public Health action step.)

6–4.2 Action Step

By July 2006, revise the Iowa State Plumbing Code to adopt a 2004 edition code. (An Iowa Department of Public Health action step.)

6–4.3 Action Step

By 2010, establish proper cross-connection control as a requirement for licensing commercial agricultural chemical facilities. (An Iowa Department of Public Health action step.)

6–4.4 Action Step

During 2005, develop a half-day training course on cross-connection control for city officials, public health personnel, water-supply operators, and commercial facility operators to be offered via the Iowa Communications Network (ICN). (An Iowa Department of Public Health action step.)

6–4.5 Action Step

By 2006, establish statewide licensing of plumbers, mechanical trade workers, and plumbing inspectors. (An Iowa Department of Public Health action step.)

6–4.6 Action Step

By 2007, expand plumbing-code coverage to all Iowa buildings. (An Iowa Department of Public Health action step.)

6–5 Goal Statement

Increase to 40% the number of homes in non-incorporated areas with acceptable wastewater treatment. Baseline: An estimated 80% of rural Iowa households lack acceptable wastewater treatment. In 2003, a survey found that 96% of rural households in Clay County lacked a wastewater-treatment system that would meet code standards.

Rationale

Untreated wastewater can spread disease and contaminate drinking-water sources. Direct contact with human sewage can result in a number of wastewater-related diseases, including typhoid, paratyphoid, bacillary dysentery, gastroenteritis, and cholera. As many as 100 different virus types, such as hepatitis, are present in raw sewage. Parasites such as *Cryptosporidium* may also be present. Scientists believe hundreds of disease-causing organisms yet to be identified may exist in sewage and wastewater. Wastewater also may contain harmful chemicals and heavy metals known to cause a variety of environmental and health problems.

People who have suppressed immune systems because of HIV/AIDS, chronic disease,

chemotherapy, or other conditions are especially at-risk from wastewater-related diseases.

Children, the elderly, and the urban and rural poor are also significantly more at-risk than the general population.

Forty-five percent of Iowa houses lack connections to public sewers. Over 350 named communities have no public sewer system. At least half of these homes discharge inadequately treated human sewage into the environment.

Thirty seven percent of new homes are not on a public sewer.

6–5.1 Action Step

By 2007, establish a statewide program for on-site wastewater to provide and coordinate training and technical support for county regulatory programs. By 2008, expand the program to include research on new technologies. (An Iowa Department of Natural Resources action step.)

6–5.2 Action Step

By 2008, establish statewide requirements for an evaluation of septic systems at the time of real estate transactions. (An Iowa Department of Natural Resources action step.)

6–5.3 Action Step

By 2005, develop required training and certification for county sanitarians on the design and inspection of residential septic systems. (An Iowa Department of Natural Resources action step.)

6–5.4 Action Step

By 2010, establish ongoing statewide management entities that design, finance, install, and maintain on-site sewer systems for communities and rural areas where central sewers are not financially feasible. (An Iowa Department of Natural Resources action step.)

6–6 Goal Statement

By 2010, reduce the number of unintentional exposures to household hazardous materials by 30%. Baseline: In 2002, the Iowa Statewide Poison Control Center received 11,330 calls on household hazardous materials.

Rationale

The Iowa Statewide Poison Control Center (ISPCC) answers questions about toxic substances and provides emergency poison information 24 hours a day, seven days a week for all Iowans. In 2002, the ISPCC responded to 26,482 calls on human exposures to potential poisons (ISPCC Annual Report, 2002-2003). The most frequent callers are mothers or day-care providers for children under five years of age. Each year in the United States, about one million reported poison exposures occur in children less than five years old. Most occur in children aged two to three, accounting for over 50% of reported poison exposures in the U.S.

Common substances in accidental poisonings in children include common household products, cleaning products, personal care products, plants, and berries. Of the calls received by ISPCC in 2002, 11,330 were associated with household hazardous materials (DNR Household Hazardous Materials Program Annual Report, 2003).

Toxic Cleanup Days are voluntary, one-day events, for households free of charge. A designated site is promoted and staffed as a drop-off point for disposal of small amounts of hazardous waste (220 pounds or 25 gallons per household). In 2003, more than 71,000 pounds of hazardous materials were collected at nine Iowa Department of Natural Resources (IDNR) sponsored Toxic Cleanup Days. A total of 1,620 households participated, for an average participation rate of 2.1 percent. The IDNR has educational resources on the proper handling of household hazardous materials and provides notices on the availability of grant funds for hosting toxic cleanup days on its web site, www.iowadnr.com.

6–6.1 Action Step

By 2010, raise the awareness of Iowans about the health, safety and environmental results of incorrect use or storage of household hazardous material (HHM) and their incorrect disposal by:

- Maintaining strong, ongoing household hazardous materials education that

emphasizes correct use, storage and disposal of HHMs. (An Iowa Department of Natural Resources action step.)

- Maintaining a strong, ongoing coalition of teachers, county naturalists, public health officials, recycling-education coordinators, toxic cleanup day coordinators, regional collection-center managers, and representatives from minorities, special at-risk populations, immigrants, refugees, and other relevant organizations to present a unified HHM educational message. (An Iowa Department of Natural Resources action step.)

6–6.2 Action Step

By 2010, provide access to a regional collection center or other facility for every Iowan for correct disposal of household hazardous wastes. (An Iowa Department of Natural Resources action step.)

Progress

By 2004, 63 counties have access to a regional collection center or satellite site.

6–6.3 Action Step

By 2010, help reduce injuries from handling hazardous household materials in the trash through on-going collections, which also helps prevent illegal dumping. (An Iowa Department of Natural Resources action step.)

6–6.4 Action Step

By 2010, initiate a system to differentiate among minority, at-risk, immigrant and refugee populations on hazardous household materials exposure and establish a baseline. (An Iowa Department of Public Health action step.)

6–7 Goal Statement

Eliminate blood-lead levels greater than or equal to 10 micrograms per deciliter (µg/dL) in children under six years old.

Baseline: Data gathered from mandatory reporting of blood-lead testing for children born from January 1, 1995, through December 31, 1997, and tested before the age of six shows an estimated 9.4% of Iowa children under the age of six have blood-lead levels of 10 micrograms per deciliter (µg/dL) or greater.

Rationale

Lead is a poison that affects virtually every system of the body, and it is the single most preventable childhood disease. Lead is especially harmful to the developing brains and nervous systems of children under six years of age. At very high levels, children can have severe brain damage or even die. Levels as low as 10 µg/dL can affect children's intelligence, hearing and growth. This damage can be stopped if a child's lead exposure is reduced; however, the damage cannot be reversed. A number of studies have estimated that a child's IQ will drop by one to three points for every increase of 10 µg/dL in blood-lead level.

In 2002, researchers estimated that the average decrease in lifetime earnings of a child with a blood-lead level of 10 µg/dL would be at least \$40,000 and that the average decrease for a child with a blood-lead level of 20 µg/dL would be at least \$80,000. (Environmental Pollutants and Disease in American Children: Estimates of Morbidity, Mortality, and Costs for Lead Poisoning, Asthma, Cancer, and Developmental Disabilities. PJ Landrigan, DB Schechter, JM Lipton, MC Fahs, and J Schwartz. Environmental Health Perspectives, Volume 110, Number 7: 721-728.)

The rate of lead poisoning among Iowa children under aged six is 9.4%, approximately four times the national average of 2.2%. From July 1992 to December 2003, 28 Iowa children had blood-lead levels greater than or equal to 70 µg/dL, which is considered a medical emergency and can result in brain swelling, coma and convulsions. The highest blood-lead level reported in Iowa was 360 µg/dL in an 18-month-old child.

The Iowa Department of Public Health recommends that all children under aged six be tested for lead poisoning. The Department reports the rate of blood-lead testing among children and the prevalence of lead poisoning by birth cohort. A birth cohort is a group of children born during a given period. This method is used because it is the only one that allows reporting of both the percentage of children tested and the percentage identified as

lead-poisoned. The percentage of children tested has increased substantially, from 26.2% of children born in 1991 to 57.4% of children born in 2000. (Note: Data for children born in 2000 will not be complete until December 31, 2006, when all children in the birth cohort have reached the age of six.)

In Iowa, most cases of lead poisoning are caused by lead-based paint. Such paint in a home becomes a lead hazard as it deteriorates and paint chips end up on floors and in window wells, as well as in the soil around the exterior. The chips also crumble and become part of the dust on floors and window troughs. Most of Iowa's older homes contain lead-based paint. Young children who live in older homes become lead-poisoned when they put paint chips or exterior soil in their mouths or when they get house dust and soil on their hands and put their hands in their mouths.

Although lead-based paint was not banned until 1978, and most federal regulations apply to housing built before 1978, most cases of lead poisoning in Iowa are associated with homes built before 1960. Some homes built between 1950 and 1960 contain lead-based paint, but the Center for Disease Control and Prevention (CDC) recommends that pre-1950 housing is at the greatest risk of having lead-based paint hazards. Therefore, while the Iowa Department of Public Health advises people to be concerned about lead-based paint in pre-1960 housing, pre-1950 housing is used for statistical analyses.

Housing data from the 2000 census show that 39.3 percent of housing in Iowa (483,849 units) was built before 1950. This is substantially greater than the national average of 22.3 percent. Iowa ranks fifth among the states in the percentage of housing built before 1950 and third in percentage of housing built before 1940. Two of Iowa's faster-growing counties are the only ones with less than the national average of 22.3 percent of pre-1950 housing.

6–7.1 Action Step

By 2007, initiate more local childhood lead-poisoning prevention programs and continue to support existing programs so that they are

available in all 99 counties. Additional state funds of \$600,000 per year are needed to complete this step. (An Iowa Department of Public Health action step.)

Progress

In Fiscal Year 2005, the programs served 68 counties.)

6–7.2 Action Step

By 2010, increase the percentage of Iowa children receiving at least one blood-lead test before age six to 90% for both Medicaid and non-Medicaid children. (An Iowa Department of Public Health action step.)

Progress

Data from the Systematic Tracking of Elevated Lead Levels and Remediation (STELLAR) indicate that 57.4% of Iowa children born in 2000 have received at least one blood-lead test.

6–7.3 Action Step

By July 2006, adopt a model regulation for lead reduction in the cases of lead-poisoned children, using the authority of the Code of Iowa 135.105B, which other cities and counties could adopt and increase to all 99 the number of counties that have adopted such a regulation. (An Iowa Department of Public Health action step.)

Progress

In 2003, 10 counties have such a regulation.

6–7.4 Action Step

By 2010, increase the number of homes of lead-poisoned children where remediation has been completed to 1,000 per year. (An Iowa Department of Public Health action step.)

Progress

In 2003, data from STELLAR indicate that remediation was completed in 300 homes of lead-poisoned children.

6–7.5 Action Step

By 2008, develop a matching grant to aid families in covering the costs of treating lead hazards in their homes. (An Iowa Department of Public Health action step.)

6–7.6 Action Step

By July 2007, decrease the average time for venous blood-lead levels in children under aged three to drop to less than 20 µg/dL to 10 weeks. (An Iowa Department of Public Health action step.)

Progress

In 2003, data from STELLAR indicate the average time was 24 weeks.

6–7.7 Action Step

By 2010, increase to 10,000 the number of people who have completed an approved 8-hour course on temporary treatment of lead-based hazards in homes (lead-safe work practices training course). (An Iowa Department of Public Health action step.)

Progress

Iowa Department of Public Health data show that 3,330 people completed this course as of Dec. 31, 2003.

6–8 Goal Statement

Reduce deaths from prolonged exposure to radon by 10%. Baseline: The Environmental Protection Agency estimates that in 2005, over 200 Iowans died from radon-induced cancer.

Rationale

Radon is a naturally occurring, colorless, and odorless radioactive gas. Both National and International agencies have concluded that radon decay product exposure is a known human carcinogen. The International Agency for Research on Cancer (IARC), which is part of the World Health Organization, has rated radon a *Group 1 carcinogen*. The IARC places toxicants in Group 1 when they are known to be carcinogenic to humans based either on sufficient human evidence or sometimes on sufficient evidence in experimental animals and strong human evidence. The U.S. Department of Health and Human Services' Agency for Toxic Substances and Disease Registry (ATSDR) and the National Toxicology Program (NTP) both list radon as a known human carcinogen.

Iowa has the highest mean residential radon concentrations in the nation. Radon surveys in Iowa suggest that over 50% of the homes in Iowa may have year-long radon concentrations exceeding the U.S. EPA's action level of 4 pCi/L. In fact, radon exposure within the state delivers over 70% of the average Iowan's effective radiation dose equivalent. Radon enters the home primarily through cracks or openings in the foundations of homes. Radon can also be off-gassed from ground water sources during the use of water (e.g. showering, etc). As radon gas undergoes radioactive decay, it releases small bursts of energy called alpha particles that can damage sensitive lung tissues.

Lung cancer is considered monoclonal in nature. In other words, it is thought that even a single alpha particle from a radon decay product striking sensitive lung tissue can initiate lung cancer. According to the U.S. Environmental Protection Agency, 21,000 lung cancer deaths each year in the United States are the result of prolonged exposure to residential radon exposure (<http://www.epa.gov/radon/>). Large-scale case-control epidemiologic studies in Iowa have demonstrated that a 15-year radon exposure even at the U.S. EPA action level of 4 pCi/L increases lung cancer risk by 50% (<http://www.cheec.uiowa.edu/misc/radon.html>). The findings of the Iowa study are supported by pooled residential radon studies performed in both North America and Europe/China that found increased lung cancer risk with prolonged radon exposure even below the U.S. EPA's action level. The findings of the residential radon studies suggest that over 200 Iowans die each year from radon-induced lung cancer.

6–8.1 Action Step

Beginning in 2005, release publications and news releases periodically throughout the year stressing the need for residential, workplace, and school radon testing. (An Iowa Department of Public Health, Iowa Air Coalition, and University of Iowa action step.)

6–8.2 Action Step

Beginning in 2005, provide a minimum of two educational programs on radon annually for

radon testing and mitigation professionals and two for public health, real estate, or building professionals. (An Iowa Department of Public Health, Iowa Air Coalition, and University of Iowa action step.)

6–8.3 Action Step

Beginning in 2006, initiate radon mitigation system inspection activities by local governmental agencies acting as agents under contract with the Iowa Department of Public Health. Iowa Department of Public Health officials and Iowa Air Coalition members will provide training for the inspectors. (An Iowa Department of Public Health and Iowa Air Coalition action step.)

6–8.4 Action Step

Beginning in 2006, initiate bi-yearly double-blind testing of commercially available radon detectors (charcoal and alpha-track) to assess the accuracy and precision of detectors sold in Iowa. (An Iowa Department of Public Health and University of Iowa action step.)

6–8.5 Action Step

Beginning in 2007, require that all schools perform radon testing to determine the potential for student and teacher exposure. (An Iowa Department of Public Health and Indoor Air Coalition action step.)

6–8.6 Action Step

Beginning in 2007, require radon testing as part of all real estate transactions. (An Iowa Department of Public Health and Department of Commerce action step.)

6–8.7 Action Step

Prior to 2009, promote radon resistant new construction (RRNC) at the local level. (An Iowa Department of Public Health and Indoor Air Coalition action step.)

6–9 Goal Statement

Reduce deaths from unintentional non-fire carbon monoxide (CO) poisonings from 0.70 per 100,000 (20.3 deaths per year) to zero. Reduce CO exposures and subsequent health problems. Baseline:

From 1979 through 1988, 203 Iowans died from carbon monoxide inhalation, according to an article in the *Journal of the American Medical Association* by Nathaniel Cobb, M.D. and Ruth Etzel, M.D., PhD. In 1997, a single utility reported finding 1,327 structures with more than 20 parts per million of carbon monoxide. Carbon monoxide poisoning became a reportable condition under Iowa Administrative Code Chapter 1 “Notification and Surveillance of Reportable Communicable and Infectious Diseases, Poisonings, and Conditions” in 2001. The Iowa Department of Public Health is collecting more recent baseline data on carbon monoxide poisonings and deaths.

Rationale

Almost 5,000 people are injured each year from unintentional carbon monoxide (CO) poisoning at a residential-societal cost of over one billion dollars annually, according to the U.S. Department of Health and Human Services in 1998. Carbon monoxide is the leading cause of poisoning deaths in the United States, accounting for 3,500 to 4,000 annual fatalities. Each year, an estimated 10,000 people either lose a day's work or seek medical attention because of carbon monoxide poisoning. Approximately two-thirds of fatalities occur during a fire. Most of the remainder result from exposure to products of incomplete combustion.

Appliances that are out-of-adjustment, rusty, defective, and/or not venting correctly can produce high concentrations of carbon monoxide that can spill into occupied areas. Carbon monoxide exposure, death and disease data are not systematically collected in Iowa. Carbon monoxide is an insidious poison. It is colorless, odorless, tasteless, and non-irritating. Intoxication causes confusion, memory loss, and irrational thinking, making it difficult for victims to recognize they are being poisoned.

From 30% to 100% of carbon monoxide cases are initially misdiagnosed, according to two articles, the first in the *Journal of Emergency Medicine* in 1999, the second in *Annals of Emergency Medicine* in 1987. The effects are many and can mimic other diseases. Carbon monoxide poisoning is difficult to diagnose and, until recently, the only way to determine CO levels in the blood was through a

blood test. However, federal approval has recently been given for the use of CO breath analysis equipment, making screening simple, rapid, inexpensive, and non-intrusive. Linn County hospitals used this equipment in surveys in 1997-1998. Routine use of CO breath analyzers would decrease the number of misdiagnosis.

6–9.1 Action Step

Beginning in 2006, release publications and news releases annually that stress the need for carbon monoxide alarms and yearly maintenance of heating appliances. (An Iowa Department of Public Health and Iowa State University action step.)

6–9.2 Action Step

Beginning in 2007, provide a minimum of two education programs on carbon monoxide annually for HVAC contractors and environmental public health professionals. (An Iowa Department of Public Health and Iowa State University action step.)

6–9.3 Action Step

During 2007, extend the requirements of the State Mechanical Code to all new construction in Iowa. (An Iowa Department of Public Health and Iowa Department of Public Safety action step.)

6–9.4 Action Step

Beginning in 2006, conduct annual educational programs on the symptoms, screening, treatment, surveillance, emergency response, or source investigations for medical personnel. Include information on medical screening programs for carbon monoxide using breath analyzers in emergency rooms and/or in emergency medical services (EMS) vehicles. (An Iowa Department of Public Health, University of Iowa, and Iowa State University action step.)

6–9.5 Action Step

Beginning in 2006, provide annual warnings on the effects of carbon monoxide exposure from a variety of sources (cigarette smoke, car washes, charcoal grills, warehouses, etc.), and

coordinate with other groups to assist in meeting their goals. (An Iowa Department of Public Health, University of Iowa, and Iowa State University action step.)

6–10 Goal Statement

Decrease the number of emergency visits for respiratory distress on days in which outdoor air quality is considered impaired using the Environmental Protection Agency's Air Quality Index.

Baseline: See Rationale.

Rationale

Drinking and using water is a conscious decision. We notice lakes and streams, but we are constantly looking through air and are immersed in it. We live at the bottom of an "ocean" of air tens of thousands of feet deep. Air has weight and moves and behaves like a fluid (www.iowadnr.com).

But unlike water, we consume air automatically, continuously and without choosing when or where. Adults breathe about 20,000 times daily, with an average volume intake of 15,000 liters. Athletes may consume 30,000 liters of air. By comparison, most people drink a few liters of water daily (www.iowadnr.com).

With their developing lungs and rapid breathing, children can pull in more pollutants per pound of body weight than an adult breathing the same air. On days when air pollution is high, children are at increased risk. Older Iowans are also susceptible to bad air. Because Iowa has a large proportion of elderly residents, high quality air is especially vital (www.iowadnr.com).

But clean air is also important for Iowa's economy and businesses. Areas that routinely fail to meet outdoor air standards can be federally declared in "non-attainment" status under the Clean Air Act. That means stepped-up efforts must occur to reduce emissions with sometimes costly, stringent control equipment, hopefully returning it to its former clean air status. Preserving clean air results in less regulatory oversight and operating costs and lower health-care costs (www.iowadnr.com).

In many areas of the U.S. where air quality suffers, there is increased regulation and there are efforts to clean the air for consumers, industry, businesses, and vehicle owners. Maintaining clean air and reducing emissions is a daily challenge. And in Iowa, we drive more miles every year, electrical demand is rising, and people are using and consuming more goods. To maintain and improve air quality, emission reductions must keep pace, too (www.iowadnr.com).

6–10.1 Action Step

Through 2010, continue the state's current administrative program of controlling air pollution through permits regulating the emission of criteria pollutants and of 188 hazardous air pollutants. This will enforce set emission limits, monitor ambient air, and implement the 1990 Clean Air Act. (An Iowa Department of Natural Resources action step.)

6–10.2 Action Step

Through 2010, continue to investigate and identify pollutants from traditional and nontraditional sources of both criteria and hazardous pollutants by techniques such as emission inventories. Nontraditional sources include backyard refuse burning, livestock feeding, mobile sources, and use of consumer products. (An Iowa Department of Natural Resources action step.)

6–10.3 Action Step

By 2006, assess the need for administrative rules to deal with air pollutants from nontraditional sources and hazardous air pollutants not currently scheduled for regulation under the federal Clean Air Act. (An Iowa Department of Natural Resources action step.)

6–10.4 Action Step

Through 2010, continue to improve outreach by publication and distribution of news articles, press releases, and brochures about Iowa's air quality. (An Iowa Department of Natural Resources action step.)

6–10.5 Action Step

Through 2010, continue to inform the public of potential health impacts of specific air-pollution issues, such as animal feed-lot emissions, open burning, industrial emissions, and toxic air emissions. Also see the Respiratory Disease, Asthma chapter for quality outdoor air and environmental health goals and action steps on control of open burning. (An Iowa Department of Natural Resources action step.)

6–10.6 Action Step

By 2006, implement the requirements of Iowa Administrative Code 567-32, Animal Feeding Operations Field Study. (An Iowa Department of Natural Resources action step.)

6–11 Goal Statement

Establish a core state committee called the Safe and Healthy Homes Committee with a special focus on children, minorities and people at-risk. Baseline: See Rationale.

Rationale

The Safe and Healthy Homes initiative is designed to take a comprehensive approach to environmental health and safety issues. In the past, environmental issues have been handled by departments or programs with little to no communication and collaboration. Thus, it has been an isolated, fragmented process. Since Healthy Iowans 2010 started, committees have been formed to deal with these issues. Members of various departments, bureaus, programs, and agencies are beginning to see connections among programs and/or projects and beginning to collaborate.

The major environmental concerns in this chapter on safe and healthy homes are:

- Indoor air quality, such as radon and carbon monoxide
- Lead poisoning
- Asthma environmental triggers
- Household hazardous waste
- Private water wells and septic tanks
- Accessibility to environmental data

Safe and Healthy Homes would provide:

- Education and technical assistance on additional environmental risks in and around the home (holistic approach).
- Coordination to make better use of the 800 to 1,000 state and local field staff with direct contact with Iowa families (collaboration).

**Safe and Healthy Homes Current Data
Information by Issue and Situation:
A Summary of Sections in the Chapter**

Issue	Situation
Indoor Air Quality	
Radon	<ul style="list-style-type: none"> • Iowa has the highest mean radon concentrations in the United States • Over 200 Iowans die each year from residential radon exposure
Carbon monoxide	<ul style="list-style-type: none"> • 203 Iowans died in 1979-1988 from carbon monoxide inhalation • 5,000 are injured nationally from carbon monoxide exposures
Lead poisoning	<ul style="list-style-type: none"> • 9.4% of Iowa's children under age 6 are lead poisoned • 39.3% of Iowa's housing stock was built before 1950 and contains lead-based paint and potential hazards
Environmental Triggers	<ul style="list-style-type: none"> • 7.1% of Iowans believed to have asthma in 1998
Household Hazardous Waste	<ul style="list-style-type: none"> • 2,757 toxic exposures from household hazardous materials in 1998 • 18,200 tons of household hazardous materials is land-filled in Iowa per year
Private Water Wells	<ul style="list-style-type: none"> • 58% of private drinking wells in Iowa are unsafe for drinking
Septic Tanks	<ul style="list-style-type: none"> • 4% of Iowa's population is served by public water that does not meet safe drinking-water standards • 25% (350 named communities) of Iowa homes are not served by public sewer systems • 175 Iowa communities discharged inadequately treated human sewage into the environment

In a Safe and Healthy Homes project, people with access to homes with children are prepared to counsel families on child health and safety in the home. For example, someone who is investigating a case of childhood lead poisoning would also ask whether a child has asthma and discuss environmental triggers for asthma. Or, a nurse who is visiting an at-risk family may observe that there are no smoke alarms and counsel the family about them.

Iowa Code 364.17 requires communities with a population of at least 15,000 to adopt rental housing regulations. These communities have 166,989 units of rental housing, which represent about 50% of the rental housing in Iowa. Communities have five options from which to choose when adopting a rental housing regulation, or communities can adopt a rental housing regulation that is as protective as the listed codes. This section of the Iowa Code was last changed in 1983. Two of the five options for codes no longer exist. The other three have changed substantially, but Iowa law does not require communities to adopt updated versions. The codes are not equivalent in their protection for hazards that may affect health, such as lead-based paint. No state agency has the authority to ensure that communities with a population of at least 15,000 adopt a rental housing regulation. The Iowa Department of Public Health has received an increasing number of calls from residents of rental housing who are concerned about conditions.

6–11.1 Action Step

During 2006, establish a state Safe and Healthy Homes Advisory Committee (SHHAC) with representatives from the Iowa Department of Public Health, the Iowa Department of Natural Resources, the Iowa Department of Education, the Iowa Department of Human Services, Iowa State University Extension, University of Iowa, University of Northern Iowa, local health departments, minority or at-risk populations, and other relevant organizations. Establish the committee during the summer of 2006 to identify Iowa agencies that deal with environmental health and safety risks in and around the home and develop a public and community education program on

safe and healthy homes. (An Iowa Department of Public Health action step.)

6–11.2 Action Step

By 2007, develop language and culture sensitive information packets that contain environmental and other health information and solutions to problems. Field staff will distribute them as they visit homes and identify risks. (An Iowa Department of Public Health and Safe and Healthy Homes Committee action step.)

6–11.3 Action Step

By 2007, develop a comprehensive brochure that is language and culture sensitive, encompassing environmental issues covered by Safe and Healthy Homes. (An Iowa Department of Public Health, Iowa Department of Natural Resources, Iowa State University Extension, and Safe and Healthy Home Committee action step.)

6–11.4 Action Step

By 2010, collaborate with the Iowa Department of Economic Development, Iowa Finance Authority, and Iowa Association of Housing officials to develop legislation to implement a statewide rental housing regulation. Give a state agency authority to oversee the adoption of rental housing codes by local governments. (An Iowa Department of Public Health action step.)

6–12 Goal Statement

Increase the capacity of local boards of health to take on core environmental health programs, such as water and on-site wastewater-system permit programs, grants-to-counties, and nuisance conditions in all of Iowa's 99 counties. Baseline: See Rationale.

Rationale

Many local environmental health programs lack the capacity to provide all the services that fall under local board of health responsibilities for environmental health. A lack of expertise, experience and/or commitment exists at the local level to evaluate, assess and offer solutions to environmental health risks. Local boards of

health continually request help in developing effective methods to evaluate and handle high-risk environmental conditions. A 1998 Iowa Department of Public Health survey of Iowa's Local Boards of Health shows that 73% of counties are unable to provide core environmental health coverage.

A range of services, from none to fragmented, exist in these counties, and they are unable to fully handle core environmental health issues. A more thorough assessment of local environmental health programs is needed to make further determinations on needs and weaknesses.

Additionally, most state agencies are unable to deal with the needs and requests of local boards of health. Emerging concerns and issues are also not directly addressed at the state or local level due to a lack of resources or knowledge.

The first step in achieving the established goal is to have a state-level person devoted solely to providing technical assistance to local boards of health and sanitarians. Technical assistance includes providing guidance on developing and maintaining essential environmental health programs and identification of advanced training needs and/or opportunities. Examples include policy and procedures on selection of personnel, rule making, permit programs, inspection procedures, and collection of fees. More than a single state-level position would be needed to deal with the needs of local programs. Assessments will identify needs and support the need for additional positions.

The limited orientation currently offered by the Iowa Department of Public Health with the help of other state agencies receives positive feedback. Evaluations indicate a need for formally establishing the orientation to handle the growing needs of participants.

6–12.1 Action Step

Beginning in 2006 and every two years thereafter, survey local public health and local boards of health for capacity data. (An Iowa Department of Public Health action step.)

6–12.2 Action Step

Through 2010, complete annual assessments of ten county and/or city environmental health programs. (An Iowa Department of Public Health action step.)

6–12.3 Action Step

By 2006, increase and promote the availability of formal training by working with area community colleges, professional associations, state agencies, and other training providers, and annually identify and promote 20 formal training opportunities for local boards of health and sanitarians. (An Iowa Department of Public Health action step.)

6–12.4 Action Step

Through 2010, provide an annual formal orientation for newly established sanitarians. (An Iowa Department of Public Health action step.)

6–12.5 Action Step

During 2005, create a mechanism to track requests for assistance on environmental risks for which there is no program and use the data to evaluate and make determinations on the need for resources to cover areas not currently covered. (An Iowa Department of Public Health action step.)

6–13 Goal Statement

Reduce pesticide poisonings through collection and analysis of pesticide-poisoning reports and use of data in training programs for pesticide handlers and applicators. Baseline: In 2002 and 2003 respectively, the Iowa Department of Public Health received 131 and 204 reports of pesticide exposures.

Rationale

Pesticides are widely used to control many different pests across Iowa. They advance public health and allow the production of needed food and fiber. However, pesticide accidents can threaten health. Reports of pesticide exposures with acute poisoning effects need to be catalogued.

6–13.1 Action Step

During 2005, establish an electronic reporting system and develop criteria for content of reports. (An Iowa Department of Public Health action step.)

6–13.2 Action Step

By 2006, establish a program that assures follow-up investigations, studies, data assessment, trend reporting, communication with outside agencies, and identification of high-risk environmental conditions and exposure. (An Iowa Department of Public Health action step.)

6–13.3 Action Step

By 2007, develop a method to educate health-care providers on pesticide exposure in Iowa. (An Iowa Department of Public Health action step.)

6–14 Goal Statement

Designate a government agency to be a central repository of environmental data from participating entities. Baseline: See Rationale.

Rationale

Environmental policy should be based upon the best available scientific information to convince the public of the need to conduct human activities in a prescribed manner. To make environmental data available to researchers who are conducting evaluations, it is necessary to discover who is conducting data gathering. A network is needed to facilitate the cooperative transfer of data. The internet has become the fastest and easiest mode of communication. An internet site that lists basic information on research could be a starting point to network people with similar research interests.

6–14.1 Action Step

By 2007, complete an assessment of the quality and quantity of environmental health data. (An Iowa Department of Public Health action step.)

6–14.2 Action Step

By 2008, develop a standardized form and catalog the identified data (electronic or written), including identifying quality assurance and/or quality-control standards. (An Iowa Department of Public Health action step.)

6–14.3 Action Step

During 2009, publicize the data-sharing network to environmental staff and researchers in the public and private sector. (An Iowa Department of Public Health action step.)

6–15 Goal Statement

Ensure that 100% of schools, grades 1-12, provide information on environmental health in their health curricula.

Baseline: to be established by the Iowa Department of Public Health, see Rationale.

Rationale

A significant amount of information is available to the public on the six priority health-risk behaviors of the Centers for Disease Control and Prevention. They are:

- Physical activity;
- Dietary behaviors;
- Behaviors that result in intentional and unintentional injuries;
- Sexual behaviors that result in HIV infection, other STDs, and unintentional pregnancies;
- Alcohol and other drug use; and
- Tobacco use.

These behaviors are also emphasized in school-health curricula. Far less information is available to the public on improving by reducing exposure to environmental hazards. Iowa Administrative Code 281, Chapter 12 says health is a required component of the curriculum for children in K-12. This chapter also states that health instruction for children in grades 1 through 12 shall include environmental health. It is not known how many Iowa schools address environmental health in their health curricula or the extent to which it is addressed. Age-appropriate units on environmental health are

available from sources such as www.healthteacher.com and www.toucaned.com. Also, environmental health professionals are resources teachers could use to supplement standard curricula just as school nurses and other health professionals are used as resources for other health subjects. The best way to address the environmental health education needs of the population is by starting with school-age children who are already required by law to receive instruction in environmental health.

6–15.1 Action Step

By 2008, collaborate with the Iowa Department of Education and the Iowa Association for Health, Physical Education, Recreation and Dance (IAHPERD) to determine how many Iowa schools include environmental health in their health curricula and the extent to which it is included. (An Iowa Department of Public Health and University of Northern Iowa action step.)

6–15.2 Action Step

By 2010, collaborate with the Iowa Department of Education and the Iowa Association for Health, Physical Education, Recreation and Dance (IAHPERD) to determine the best way to ensure that Iowa schools include relevant environmental health information in their health curricula. (An Iowa Department of Public Health and University of Iowa action step.)

6–16 Goal Statement

The Iowa Department of Public Health and the Iowa Department of Natural Resources will issue joint fish consumption advisories wherever it is confirmed that contaminant standards have been exceeded. Baseline: See Rationale.

Rationale

There is much concern nationwide about the levels of mercury in fish and the potential health effects of consuming fish. The U.S. Food and Drug Administration and the Environmental

Protection Agency issued a joint statement in 2004 on fish consumption, recommending limits for those in high-risk populations (e.g., women who may become pregnant, pregnant women, nursing mothers, and young children).

The Iowa Department of Public Health and the Iowa Department of Natural Resources are working closely to monitor fish-tissue sampling for mercury and other contaminants statewide (e.g., PCBs, Chlordane). The Iowa Department of Natural Resources issues fish-consumption advisories wherever it is confirmed that U.S. Food and Drug Administration standards have been exceeded. Language and culture sensitive educational materials have been developed and posted on each agency's web site.

6–16.1 Action Step

By July 2005, make culture and language sensitive educational pamphlets on fish consumption available at locations where people buy fishing licenses. (Iowa Department of Public Health and Iowa Department of Natural Resources action step.)

6–16.2 Action Step

By July 2005, conduct an assessment of Iowa's fish-tissue sampling to determine if expanded sampling is necessary. (Iowa Department of Public Health and Iowa Department of Natural Resources action step.)

Goal Cross References

Chapter 4: Disabilities

4–3Assure that each HI2010 chapter assesses the health issues and potential treatment available for people with disabilities and incorporates appropriate goals and action steps.

4–16Create access to additional housing for Iowans with disabilities.

Chapter 8: Food and Drug Safety

8–1Reduce food-borne infections by major bacterial pathogens to no more than 6.9 for Salmonella, 11.5 for Campylobacter, and 1.0 for E. coli 0157:H7.

8–2 Reduce by 20% food-borne outbreaks in retail food establishments.

8–3 Provide two consumer food safety education programs annually.

8–4 Improve surveillance of food-borne diseases to ensure early recognition and prompt reporting to public health officials so causes of disease are determined in 90% of recognized cases.

Chapter 11: Maternal, Infant and Child Health

11–4 Reduce the rate of child mortality for ages 1-14 to 17/100000.

Chapter 14: Occupational Safety and Health

14–2 Decrease occupational fatal and non-fatal injuries in agricultural populations.

14–4 Expand and promote safety and health training opportunities for employers, employees and medical professionals.

Chapter 15: Oral Health

15–8 Increase to at least 93% the proportion of the population served by community water systems with optimally fluoridated water.

Chapter 18: Respiratory Diseases: Asthma

18–1 Reduce asthma-related hospitalizations by 10%, emergency department visits by 10%, and urgent care visits by 20%.

18–5 Raise community awareness of environmental exposures to known triggers of asthma and increase community involvement in primary prevention.

18–7 Support public policy at all levels to reduce the incidence and severity of asthma and increase the actions by local, city and state groups.

Chapter 21: Tobacco Use

21–6 Increase to 69% adults who report not allowing smoking anywhere in the home and to 65% adults who report not allowing smoking inside vehicles.

Chapter 22: Unintentional Injuries

- 22-7Develop a plan to address childhood injuries on playgrounds.
- 22-8Reduce deaths caused by unintentional injuries to 30/year, and reduce resulting illness and costs.
- 22-9Reduce fire deaths to less than 1/100000.
- 22-10 ..Reduce deaths by motor vehicle crashes to no more than 1.3/100 million miles traveled.

Chapter 24: Vision

- 24-7Educate Iowans on the benefits of certified eye protection when engaged in potentially hazardous activities that have chemical, physical or radiation agents.

Chapter 25: Emergency Preparedness and Response

- 25-2At least every three years, conduct comprehensive needs assessment of public health, laboratories, and health care emergency preparedness and response.
- 25-3Enhance disaster preparedness plans in each county and at the state level to include an all-hazards approach.
- 25-8Exercise, assess and implement needed change in plans annually to demonstrate proficiency in responding to public health threats and emergencies.
- 25-9Develop a self-sustaining payment system and user network to assure emergency responders have ongoing access to the Health Alert Network.

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Chapter 7

Family Planning**Introduction**

Progress for the *Healthy Iowans 2010*, Chapter 7, Family Planning, has been mixed. The intended pregnancy percentage has remained stable at 64% from 2000 to 2003. Adolescent pregnancies among females aged 15-17 have decreased from 26 per 1,000 females in 2000 to 21.6 in 2003. For females 12-14 years the number of pregnancies has decreased from 91 in 2000 to 67 in 2003.

At the time the Healthy Iowans 2010 process began, the Iowa Youth Risk Behavior Survey (YRBS) provided weighted data that could be generalized to the whole Iowa population of youth in grades 9-12. Since then the school participation in the survey has decreased. Now the data, while valid for the youth that take the survey, cannot be generalized to the whole Iowa population of youth grades 9-12. As a result, there are no valid data available currently to monitor the sexual behavior of Iowa adolescents.

Data from the Family Planning Council of Iowa and the Iowa Department of Public Health are available for monitoring contraceptive use among clients of the public family planning clinics. However, we have not yet found a way to obtain data on contraceptive use from the private health sector.

Before we can increase male involvement in pregnancy prevention and family planning we must first have a baseline from which to measure improvement. This will require obtaining data from the Family Planning Council of Iowa, the Iowa Department of Public Health family planning program, the Family Planning Council of Iowa special male initiative, the Iowa Department of Human Services community adolescent pregnancy prevention program, and the

Iowa Department of Public Health abstinence education program.

After much thought, the chapter team decided that we are unable to obtain data about the sexual activity of persons aged 18-24. We might be able to obtain some data about persons in college, but there is no way to obtain information about the large number of persons who do not attend school in that age group. The team will continue to direct outreach and educational information to persons aged 18-24, but will eliminate the goal regarding sexual activity for persons in this age group.

In the last few years, there has been a significant increase in funding for abstinence education programs. This has resulted in an increase in the types of programs developed and offered related to adolescent pregnancy prevention. Concern has been raised both at the national and state levels about the content and quality of many of the new programs.

The Food and Drug Safety chapter team decided that making emergency contraception available from pharmacies without the need for a prescription was not consistent with the direction of their chapter. They suggested that emergency contraception falls within the family planning chapter.

Goal Statements & Action Steps**7-1 Goal Statement**

Increase to 65% the proportion of intended pregnancies among Iowa women aged 13 to 44. Baseline, 2003: 64%.

Rationale

The original goal was based on the unintended pregnancy percentage calculation in 1999, which was 42% or 58% of intended pregnancies. When the unintended pregnancy calculation was completed for 2003, it was 36% or 64% of intended pregnancies. Thirty six percent has been consistent for the years 2000-2003. It would appear that the calculation for this indicator is different from the calculation in 1999.

The Bureau of Health Statistics had not reported pregnancy data except for occasional special reports requested by the family planning program. As a result, the calculation for pregnancy data was not standardized. As a result of the Healthy Iowans 2010 request for pregnancy data, the Iowa Department of Public Health's Bureau of Health Statistics has standardized this calculation and data for this indicator, therefore, should be easier to use for determining intended and unintended pregnancy percentages from now on. Using the present calculation, there has not been any change in the percentage of intended pregnancies from 2000 to 2003. Consequently, the team decided to change the goal. In light of the stable percentage of intended pregnancies from 2000 to 2003, the change in the goal is to increase the intended pregnancies in Iowa by only one percent, to 65%, for 2010.

7–1.1 Action Step

By 2010, increase the funding available for clinical family planning services by agencies and organizations that work together to identify needs and determine funding level. (An Iowa Department of Public Health and Iowa Department of Human Services action step.)

7–1.2 Action Step

By 2010, maintain Medicaid eligibility for postpartum women for family planning from the current 60 days to one year and provide Medicaid eligibility for all women aged 13-44 whose income is at or below 200% of poverty. (An Iowa Department of Human Services action step.)

7–1.3 Action Step

Beginning in 2006, encourage the provision of emergency contraception availability from

pharmacists without a prescription. (An Iowa Department of Public Health and Iowa Pharmacy Association action step.)

7–1.4 Action Step

Beginning in 2006, promote contraceptive coverage in federally regulated private health plans by interested agencies and organizations that work together. (An Iowa Department of Public Health and Family Planning Council of Iowa action step.)

7–1.5 Action Step

By 2010, develop and support a culturally appropriate public-awareness campaign on the benefits of intended pregnancy and ways to access family planning. (An Iowa Department of Public Health and Family Planning Council of Iowa action step.)

7–1.6 Action Step

Through 2010, continue to promote culturally appropriate educational strategies on pregnancy prevention for all ages. (An Iowa Department of Public Health and Family Planning Council of Iowa action step.)

7–1.7 Action Step

By 2006, the Iowa Department of Public Health, Bureau of Health Statistics will develop an annual report on intended pregnancy. (An Iowa Department of Public Health action step.)

7–1.8 Action Step

By 2010, work with the Iowa Pharmacy Association to make emergency contraceptive pills available from pharmacists without a prescription in Iowa. (An Iowa Department of Public Health and Family Planning Council of Iowa action step.)

7–2 Goal Statement

Reduce pregnancies to 12 per 1,000 among females aged 15 to 17 and to 50 total among females aged 12 to 14. Base-line, 2003: 26 per 1,000 for aged 15-17 and 67 total for aged 12-14..

Rationale

This goal had two indicators to reduce pregnancies among 15-17 year olds and to reduce pregnancies among 12-14 year olds. The original goal for 15-17 year olds was a 5% reduction. However, no baseline from which to calculate the reduction existed. In 2000, the pregnancy rate for 15-17 year olds was 18.0. In 2003, the same rate was 14.9. This indicator shows improvement and the new indicator reduces it more, to 12 per 1,000.

The second part of the original goal was to eliminate pregnancies among 12-14 year olds. This, unfortunately, is not realistic. There were 91 pregnancies among 12-14 year olds in 2000 and 67 in 2003. This shows improvement as well. The new indicator reduces the number to 50 pregnancies.

7–2.1 Action Step

By 2005, obtain pregnancy data from the Iowa Department of Public Health, Bureau of Health Statistics using the aggregate ages in the 7–2 goal statement. (An Iowa Department of Public Health action step.)

7–2.2 Action Step

By 2007, determine the proportion of sexually active males and females under age 18 who use dual contraception that effectively prevents pregnancy and provides a barrier against STDs. (An Iowa Department of Public Health, Family Planning Council of Iowa, and clinics action step.)

7–2.3 Action Step

Through 2010, continue to promote culturally competent education and education for disabled youth, including special education groups and in public and private schools, about the social and psychological health benefits of postponing early sexual activity and pregnancy prevention. (An Iowa Department of Public Health and education community action step.)

7–2.4 Action Step

Through 2010, continue to educate adolescents about the use of dual contraception. (An

Iowa Department of Public Health, Family Planning Council of Iowa, and clinics action step.)

7–2.5 Action Step

By 2006, promote Iowa school participation in the Youth Risk Behavior Survey (YRBS). (An Iowa Department of Public Health and Iowa Department of Education action step.)

7–2.6 Action Step

By 2006, promote inclusion of questions about sexual health and pregnancy prevention in the Youth Risk Behavior Survey (YRBS). (An Iowa Department of Public Health and Iowa Department of Education action step.)

7–2.7 Action Step

By 2006, promote inclusion of questions on the Youth Risk Behavior Survey (YRBS) about early coercive sexual activity and family violence. (An Iowa Department of Public Health and Iowa Department of Education action step.)

7–2.8 Action Step

By 2010, work with the Iowa Pharmacy Association to make emergency contraceptive pills available from pharmacists without a prescription in Iowa. (An Iowa Department of Public Health, Family Planning Council of Iowa, and interested parties action step.)

Goal 7–3 Statement

Establish a baseline of sexual activity for Iowa adolescents.

Rationale

At the beginning of the mid-course revision process, the team believed that the data from the 2001 and 2003 Iowa Youth Risk Behavior Survey (YRBS) could be applied to all Iowa students in grades 9-12. Recently, however, we learned that the proportion of Iowa schools participating in the YRBS is not a large enough percentage for the results to be applied to all Iowa students. That leaves us with no valid data about sexual activity among Iowa students in grades 9-12. In order to address sexual activity

among Iowa adolescents we must have accurate data on which to build goals.

7–3.1 Action Step

Through 2010, support the Iowa Department of Education in promoting school participation in the YRBS for the 2005 survey. (An Iowa Department of Public Health and Iowa Department of Education action step.)

7–3.2 Action Step

By 2006, develop a strategy for encouraging parents to allow their adolescent children to participate in the YRBS. (An Iowa Department of Education action step.)

7–3.3 Action Step

By 2006, request inclusion of questions from the YRBS about adolescent sexuality in the Iowa youth survey that is administered by the Iowa Department of Public Health. (An Iowa Department of Public Health action step.)

7–4 Goal Statement

Obtain data regarding the proportion of females aged 15-44 at risk of unintended pregnancy who use contraception. Baseline: See Rationale.

Rationale

This goal remains the same with the exception that the word *effective* is eliminated from the goal. Because it is very difficult to define *effective*, the team felt that we should eliminate that word from the goal.

7–4.1 Action Step

Through 2010, continue to investigate data on the current proportion of females aged 15-44 at risk of unintended pregnancy who use contraception. (An Iowa Department of Public Health and Family Planning Council of Iowa action step.)

7–4.2 Action Step

Through 2010, continue to investigate the family planning data that recognizes and deals with health disparity issues. (An Iowa Department of Public Health and Family Planning

Council of Iowa action step.)

7–4.3 Action Step

Through 2010, assure that questions added to data collection tools are culturally sensitive and language appropriate. (An Iowa Department of Public Health and Iowa Department of Education action step.)

7–5 Goal Statement

Establish a baseline for male involvement in pregnancy prevention and family planning and increase by 1% male involvement in pregnancy prevention and family planning as measured by the increase in education and outreach to males. Baseline: See Rationale.

Rationale

This goal had been changed to have two targets. One target is to establish a baseline for this goal so it can be measured. The other target is to increase that baseline by 1%. Increasing the numbers of males involved with responsibility for sexual activity and pregnancy prevention has been a family planning priority for at least five years. The 1% increase should be realistic.

7–5.1 Action Step

Through 2010, continue to explore culturally competent means to raise awareness of the positive role males have in pregnancy prevention, family planning, and the importance of services to men. (An Iowa Department of Public Health, Family Planning Council of Iowa, and Iowa Department of Human Services action step.)

7–5.2 Action Step

Through 2010:

- By 2007, collect information on the current level of involvement of males in pregnancy prevention and family planning, including racial and ethnic specific family planning data statewide.
- By 2007, determine which, if any, agencies currently gather and maintain this information.

- By 2007, collect data from organizations, agencies and providers that serve males and survey them on any pertinent data kept on males.
- By 2010, compile and analyze data from Family Planning Program data.

(An Iowa Department of Public Health and Family Planning Council of Iowa action step.)

7–6 Goal Statement

Assure that all abstinence education, teen pregnancy prevention, and adolescent sexual health programs in Iowa are science-based and medically accurate as defined by the standards developed by the Centers for Disease Control and Prevention (CDC). Baseline: See Rationale.

Rationale

The number of programs addressing adolescent sexual health has grown over the last 20 years. The body of research that can be used to influence the development and content of these programs has also grown and should be incorporated into present programs and new programs as they are developed. Iowa youth need to be receiving abstinence education, teen pregnancy prevention, and sexual health education programming that is science-based and medically accurate. This goal is designed to assure that programs are medically accurate and use science-based practices.

7–6.1 Action Step

By 2010, encourage the Iowa Department of Education to require that all abstinence education, teen pregnancy prevention programs, and adolescent sexual health programs provided in Iowa public schools are medically accurate and science-based according to the CDC standards. (An Iowa Department of Public Health and adolescent pregnancy prevention programs action step.)

7–6.2 Action Step

By 2010, adopt the CDC standards for science-based practice and medical accuracy for all abstinence education, teen pregnancy prevention, and adolescent sexual health education

programs that they administer. (An Iowa Department of Public Health, Iowa Department of Education, and Iowa Department of Human Services action step).

7–6.3 Action Step

By 2010, review abstinence education, teen pregnancy prevention, and adolescent sexual health programs funded and supported by the Iowa Department of Public Health, the Iowa Department of Education, and the Iowa Department of Human Services for adherence to science-based practice and medical accuracy according to the CDC criteria. (An Iowa Department of Public Health, Iowa Department of Education, and Iowa Department of Human Services action step).

Goal Cross References

Chapter 1: Access to Quality Health Services

- 1–1 Reduce to 0 the proportion of children and adults under aged 65 without health care coverage.
- 1–2 Develop a plan and engage in activities that encourage providers to follow standardized quality performance measures.
- 1–3 Increase by 25% access to primary care for the underserved population.
- 1–4 Ensure a competent and diverse health workforce by assessing and forecasting workforce supply and demand and by promoting local strategies to recruit and retain workers through the inclusion of all 99 counties in a nurse tracking project.
- 1–12 Develop a strategic plan to assess and employ telehealth and telemedicine that can increase access to quality health services.

Chapter 4: Disabilities

- 4–3 Assure that each HI2010 chapter assesses the health issues and potential treatment available for people with disabilities and incorporates appropriate goals and action steps.

Chapter 6: Environmental Health

- 6-2Reduce to 20% the number of private drinking water wells tested positive for coliform bacteria.
- 6-5Increase to 40% the number of homes in non-incorporated areas with acceptable wastewater treatment.
- 6-15The Iowa Department of Public Health and the Iowa Department of Natural Resources will issue joint fish consumption advisories wherever it is confirmed that contaminant standards have been exceeded.

Chapter 7: Family Planning

- 7-1Increase to 65% the proportion of intended pregnancies among women aged 13-44.

Chapter 9: Heart Disease and Stroke

- 9-3Identify and control high blood pressure through health care, worksite, and community systems with policy, environmental and systems supports, and communication strategies.

Chapter 10: Immunization and Infectious Diseases

- 10-10 ..Reduce by 10% the statewide incidence of antimicrobial resistance in key reportable invasive antibiotic-resistant organisms.
- 10-18 ..Educate health care providers and the public on the use of antibiotics for ear infections.
- 10-19 ..Educate health care providers on the use of antibiotics for colds.

Chapter 12: Mental Health and Mental Disorders

- 12-16 ..Identify 100% of pregnant and postpartum women with depression or at high risk of depression.

Chapter 13: Nutrition and Overweight

- 13-3Prevent a further rise in the percent of Iowans who are overweight.
- 13-4Prevent further rise of weight gain among children and adolescents under aged 18.

- 13-7 Provide Iowans at higher risk for nutrition-related disease with nutrition education.
- 13-8 Reduce to 5% the incidence of food insecurity.

Chapter 20: Substance Abuse and Problem Gambling

- 20-4 Increase to 425 the number of Iowans aged 65 and older who receive screening, prevention, referral, and/or treatment for risk factors.
- 20-8 Increase to 115 and sustain state, county, community, and neighborhood collaborative groups to reduce problems of alcohol, tobacco, other drugs, and problem gambling.

Chapter 22: Unintentional Injuries

- 22-8 Reduce deaths caused by unintentional poisoning to 30/year, and reduce resulting illness and costs.

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Chapter 8

Food and Drug Safety**Introduction**

Food and drug safety is an important component of public health and helps secure the well-being of Iowans. These concerns are shaped by consumer interests, the opinions and actions of private purveyors of foods and/or pharmaceuticals, and government oversight.

Of necessity, the federal government assumes a major role in the surveillance, research, regulation, and enforcement of these products that are, for the most part, produced and distributed for interstate commerce.

Some state agencies, such as the Iowa Department of Inspections and Appeals (IDIA), the Iowa Department of Agriculture and Land Stewardship (IDALS), and the Iowa Department of Public Health (IDPH), have complementary roles and adhere to U.S. Department of Agriculture (USDA) and Food and Drug Administration (FDA) standards.

This chapter focuses on point-of-use, or consumption, where Iowa consumers have an expectation that foods will be safe and nutritious and medications safe and effective.

Risk of infectious food-borne disease is influenced by changes in diet and food preparation. The risks are from microbes such as *E. coli* O157:H7 from alfalfa sprouts, increasing consumption of commercial food eaten or prepared at home, and contamination by microbes such as *Salmonella* from restaurant and take-out service. Risks are also from new methods of producing and distributing food that cause infections from such microbes as *Cyclospora* from Guatemalan raspberries, new or re-emerging infectious food-borne agents such as *Listeria monocytogenes* from hot dogs, and Hepatitis A from green onions.

Risks are also from the increase in the amount of food imported into the United States from countries with less stringent food safety regulations and from the growing number of people already at high risk, especially the elderly and immuno-suppressed.

This chapter plan expands oversight through close monitoring of key food-borne diseases such as *Salmonella*, *Campylobacter*, *E. coli* O157:H7, and *Listeria*. Generally, major outbreaks are easily recognizable.

Improved surveillance, including expanded laboratory testing, is proposed to address the fundamental need to recognize sporadic and less frequent cases that remain largely unreported but are costly in school and work absenteeism and personal discomfort.

Because the majority of outbreaks reported are from food consumed away from home, improved monitoring is planned for retail food service to ensure that "hazard analysis critical control point" (HACCP) principles are used. It also reflects the most current food code standards, including certification of management.

Since foods prepared at home also carry risk, the plan proposes a sample survey to assess home handling and cooking, as well as annual targeted consumer education that is sensitive to the needs of special populations.

As previously mentioned, drugs are regulated by the FDA for safety and efficacy. However, the state has a major role in ensuring proper use through screening for adverse drug reactions (ADRs) at the time of drug dispensing.

Another safety method includes thorough patient counseling on proper drug use and interaction with other medication, diet or herbal supplements and their effect on current medical conditions. This plan proposes to sharply in-

crease the use of these techniques in Iowa’s drug dispensing industry.

Drug safety and use of prescription medications not obtained from physicians or pharmacies are a significant threat to Iowans. Prescription medications from the Internet and imported from outside the United States bypass patient safeguards that have been established by federal and state agencies to ensure that the medications dispensed are those that have been prescribed. Prescription medications obtained in this manner reduce the ability of pharmacists to identify potential adverse drug reactions and provide patient education to ensure that the medications are used properly.

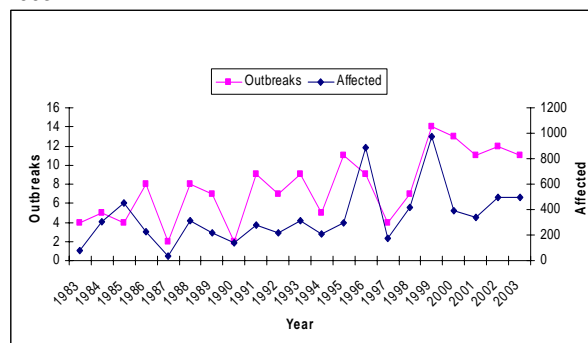
It should be noted that Iowa continues to have an increasingly larger elderly population and other populations with increased vulnerability to food-borne infections and adverse drug reactions. Goal statements and action steps aim to ensure the safety of food and drugs used by all Iowans.

Progress

Although the target number of 2010 cases in goal 8–1 has not been met, slight reductions in case rates occurred for each of the bacterial pathogens for which data is routinely collected. Iowa rates, however, still exceed national rates of illness for both Salmonella and E. coli 0157:H7. The Iowa Food Safety Task Force was formed and has sponsored retail and consumer food safety activities. The task force, in collaboration with representatives from industry and other state agencies, is still determining the feasibility of developing an integrated food safety network in Iowa.

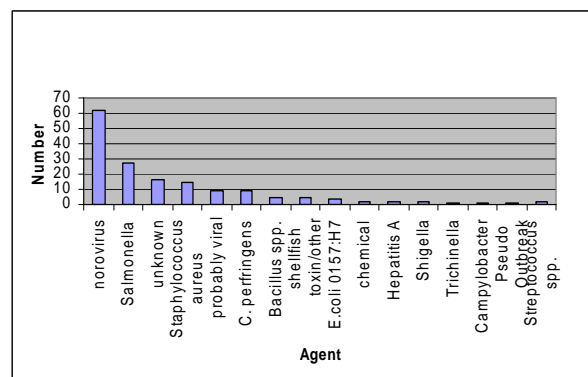
Determining progress on goal 8–2 has been hindered by lack of baseline data. The Iowa Department of Inspections and Appeals (IDIA) began obtaining baseline data through development of a database to track food-borne illness risk factors. It will involve a pilot period, after which it will be implemented statewide. The IDIA received three FTEs and sufficient funding to implement the 1997 food code in the 16 counties under its immediate jurisdiction under action step 8–2.2. However, a need still exists to ensure sufficient resources to implement it in the remaining 83 counties.

Figure 1. Iowa Food-borne Illness Outbreak History 1983-2003



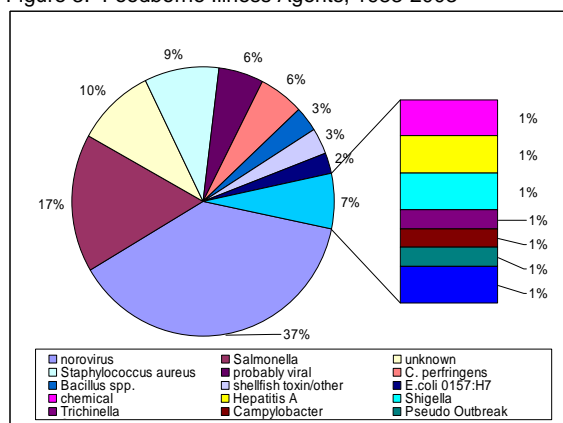
Source: Iowa Department of Public Health, 2004. From 1983 to 2002, 162 outbreaks occurred in Iowa, for an average of 8 per year. A total of 7,200 Iowans were estimated to have become ill as a result.

Figure 2. Agents of Food-borne Illness Outbreaks in Iowa, 1983-2003



Source: Iowa Department of Public Health, 2004. Norovirus is the leading cause of known food-borne illness in Iowa, accounting for more than 60 outbreaks between 1983 and 2003. This trend reflects a national estimate of food-borne illness by the Centers for Disease Control and Prevention (CDC).

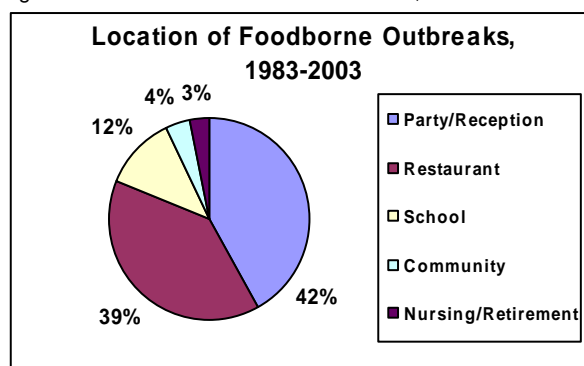
Figure 3. Foodborne Illness Agents, 1983-2003



Source: Iowa Department of Public Health, 2004. Norovirus is suspected to be the cause in 37% of food-borne illness in Iowa between 1983 and 2003, followed by Salmonella (17%) and Staphylococcus aureus (9%). The cause could not be confirmed in 10% of the food-borne illness outbreaks during the period. Though norovirus is suspected to be a leading cause of food-borne illness, it is difficult to prevent because illness can be caused with a low infectious dose. The pathogen also is environmentally stable and is transmitted in many ways.

Legislative bills were proposed to increase licensing fees for regulated facilities to meet funding shortfalls and provide money for implementing the food code in all counties. No progress has been made toward establishing requirements on food safety education from action step 8–2.3. Improper hand washing was added to the third risk factor identified in the table. The previous statement of poor personal hygiene lacked an explicit statement on improper hand washing, which contributes to a significant number of cases of food-borne illness annually.

Figure 4. Location of Foodborne Outbreaks, 1983-2003



Source: Iowa Department of Public Health, 2004.

Goal 8–2 was revised to reflect a more readily available measure of food-borne illness associated with retail food establishments.

There is no means of determining progress toward achieving the 8–3 goal. Action steps 8–3.1 and 8–3.2 aimed at obtaining baseline data on consumer practices and a comprehensive plan to reach consumers have not been accomplished. Action step 8–3.1 was removed in this revision due to the inability to establish a baseline. Action step 8–3.2 was changed to reflect a more achievable goal targeted at Iowa consumers. Goal statement 8–3 was modified to a measurable goal, while the original goal statement was incorporated into the rationale.

For goal 8-4, progress was made toward identifying 90% of the causes of disease. Identification of the agent involved increased by 19% to 70% for 47 major food-borne outbreaks between 2000 and 2003. The University Hygienic Laboratory (UHL) completed action step 8–4.1 through a survey in January 2001; therefore, that step is deleted.

The “survey of laboratory practices for isolation, referral and case reporting” was delivered to 110 laboratories and clinics, with 48 responding. The step to survey clinical laboratories was completed, although not by its projected date. Action step 8–4.2 was not completed as outlined in *Healthy Iowans 2010*. Establishment of the Center for Disease Control and Prevention (CDC) Cooperative Agreement and the funds it provided allowed development of education materials for clinical laboratories statewide. It is aimed at increased specimen submission and expanded testing. Also, the CDC agreement provided funds that allowed local public health agencies to develop improvement plans for the reportable disease surveillance system. Implementation of these plans will strengthen the statewide reportable disease surveillance system.

Action step 8–4.3 was not completed as outlined in *Healthy Iowans 2010*. The “Epidemiology of Food-borne Diseases” poster, which will be based on CDC’s “Diagnosis and Management of Foodborne Illness: A Primer for Physicians” materials, will be developed and distributed through mass mailings. The Iowa Department of Public Health’s Center for Acute Disease Epidemiology is revising the “Reportable Disease” poster, which outlines the manner in which diseases are to be reported.

Upon completion, this document will be made available to health care providers and other disease reporting sources. Action step 8–4.6 was added because CDC’s Expanding Laboratory Capacity grant provided funding to continue and enhance the molecular fingerprinting capability of food-borne pathogens. These funds also allowed University Hygienic Laboratory to increase testing of stools for Shiga-toxin producing E.coli (0157 and non 0157).

None of the action steps in goal 8–5 have been completed. This goal statement and action steps will not be included in the mid-course revision of *Healthy Iowans 2010*. Lack of consumer access to irradiated foods and the ability to implement food-borne illness control measures through proper cooking influenced the ability to develop a market demand for the product. Barriers exist on cost, implementation and public perception of irradiated foods. Also, a number of companies once doing food irradiation

have gone out of business, resulting in a lack of access to such technology. As a result, the benefits of food irradiation for improving food safety and extending shelf life have yet to be realized. As additional information and studies become available on the safety and application of this technology to alter public perception, its inclusion in future revisions should be re-examined.

Goal 8–6, action step 8–6.1 was not met due to the impracticality of surveying all licensed pharmacies in Iowa on their capacity to employ these systems. This was due to state budget cuts and subsequent decrease in the number of Iowa Board of Pharmacy Examiners (IBPE) investigators. The use of automation is not suggested to replace human activity and professional judgment in all instances, but rather supplement it. Often professionals either become too reliant on automation, or simply discount it by overriding it with human capabilities. Changing the language to encourage “a system” without specifying that it be technology-driven encourages human intervention and implementation of systems that work for the people involved.

Action step 8–6.2 was attempted by the Iowa Board of Pharmacy Examiners, but has not yet been established. Work will continue to move forward with this action step.

Action step 8–6.3 was revised since it was not feasible to know if 90% of patients receive information conforming to the Omnibus Budget Reconciliation Act of 1990 (OBRA-90) and Iowa pharmacy laws. It is feasible, however, to continue to educate pharmacists and physicians on their role in informing and educating patients appropriately about their medications and helping patients understand the information.

Under action step 8–6.4, the Iowa Board of Pharmacy Examiners performed spot checks for a period to determine whether pharmacists were meeting the requirements of OBRA-90. This was an education and disciplinary process. It has become even more important to document errors in the medication dispensing process, as well as to determine the causes and reduce the numbers of errors. A plan exists to file legislation to allow documentation, without fear of punishment, of potential and real errors in order to implement changes to decrease the errors.

Action step 8–6.5 was accomplished by 2005. The Iowa Board of Pharmacy Examiners will continue to seek allowable legislation on a year-to-year basis.

In action step 8–6.6, pharmacists were encouraged to complete continuing education on their pharmacy practice. Since a requirement for every pharmacist to complete these programs would not be useful, this step was replaced with an action step noting that drug product safety is compromised when prescription medications are obtained outside the traditional health care system, such as through the Internet and from sources outside the United States. The pedigree of these medications cannot be traced; therefore, people are not guaranteed that the products they buy are those they were prescribed. Drug use safety is also compromised because there is no prescriber or pharmacist interaction to ensure that the medication is correct.

Action step 8–6.7 was also deleted because its essence is incorporated into the activities of 8–6.1 and 8–6.3. Action step 8–6.8 was deleted because it was not directly related to drug-product or drug-use safety. The same is true for action steps 8–6.9 and 8–6.10.

Goal Statements & Action Steps

8–1 Goal Statement

Reduce food-borne infections by major bacterial pathogens to no more than 6.9 for Salmonella, 11.5 for Campylobacter, and 1.0 for E. coli 0157:H7 as indicated in the following table. Baseline: See table below.

Pathogens Cases per 100,000.

Pathogens	2000	2002	2003	2010 Target
	National	Iowa	Iowa	
Salmonella	11.7	16.0	13.3	6.9
Campylobacter	18.9	14.5	15.6	11.5
E. coli 0157:H7	2.8	3.8	3.3	1.0
Listeria*				

*Only *Listeria monocytogenes* invasive disease is reportable in Iowa. NA=Not Available. Source: Iowa Department of Public Health.

Rationale

Food-borne infections have become an important public health challenge in Iowa. *Salmonella*, *Campylobacter* and *Escherichia coli* 0157:H7 are three of the four most important food-borne pathogens in the United States and in Iowa. The data are based on the number of reported cases in the state surveillance program. *Listeria*, the fourth microorganism, is less frequent but has a high death rate.

Salmonella incidence has remained relatively static, going from 13.4 cases per 100,000 in 1998 to 16.0 in 2002 and 13.3 in 2003. *Campylobacter* incidence has decreased slightly, from 16.0 cases per 100,000 in 1991 to 14.5 in 2002 and 15.6 in 2003. *E. coli* 0157:H7 incidence has increased slightly, from 3.3 cases per 100,000 in 1998 to 3.8 in 2002. It decreased to 3.3 in 2003.

In 2003, the Iowa Department of Public Health reported 11 major food-borne illness outbreaks in Iowa affecting approximately 750 people. Food-borne illnesses can cause a variety of unpleasant symptoms and may be life-threatening, especially to those who already have serious health problems.

Populations at high-risk of complications are the elderly, the pregnant, infants in the first 28 days of life, and people with suppressed immune systems, including cancer patients, organ transplant recipients, and AIDS patients. Infants and young children are also usually more susceptible to food-borne infections than adults.

Tens of millions of cases of food-borne illness occur in the United States every year. The sources include a wide range of foods. While raw foods of animal origin are most likely to be contaminated, consumption of raw fruits and vegetables produced under unsanitary conditions has been responsible for a number of recent outbreaks.

A trend has developed toward consuming more food prepared outside the home. Reported food-borne illness is attributed to production methods or improper food preparation and handling in the food service area as well as in the home.

Food-borne illness caused by major bacterial pathogens can be reduced if suggested action

steps are implemented. However, it will require more resources at state and local levels.

Furthermore, this plan recognizes that the current structure for food safety in Iowa is complex and multi-faceted. Many agencies play varied but vital roles in food safety, from production to consumption. The magnitude of this fragmentation results in an inefficient environment for advancing food safety in Iowa. Accordingly, a proposal to establish a centralized and unified state structure is imperative to improving the food safety system.

8–1.1 Action Step

By 2010, continue advocacy of the Iowa Food Safety Task Force for adequate resources, ensure implementation of all goals and action steps, monitor progress, evaluate outcomes, and showcase progress. (An Iowa Department of Inspections and Appeals and Iowa State Board of Health action step.)

8–1.2 Action Step

Through 2010, use the Iowa Food Safety Task Force, with identified state agencies and community partners, to identify annual joint training activities to meet food safety education goals for retail, home, community, consumer, and special populations. (An Iowa Food Safety Task Force action step.)

8–2 Goal Statement

Reduce by 20% food-borne outbreaks in retail food establishments. Baseline: See Rationale.

Rationale

Improper holding temperatures, inadequate cooking, poor personal hygiene, contaminated equipment, and food from unsafe sources have caused food-borne outbreaks in retail food establishments. Focusing regulatory efforts on changing behavior and practices will reduce this risk. Minimizing risk will reduce the probability of food-borne illness and achieve the greatest degree of consumer protection.

Measuring the reduction of the risk of food-borne illness cannot be accomplished without first establishing a baseline. Reducing risk factors from determined levels is essential and will reflect progress toward decreasing food-borne illnesses resulting from retail food establishment inspections. These efforts, as outlined in the 1997 Food Code of Iowa, lack full implementation due to insufficient funding. Therefore, increased funding is necessary to improve the quality of retail food establishment inspections and enhance the state’s ability to reduce food-borne illness.

An underlying challenge is high turnover among usually youthful retail food service workers. It is a work force often lacking adequate knowledge about food safety.

Food-borne Illness Risk Factors*

- Improper holding temperatures
- Inadequate cooking
- Poor personal hygiene/improper hand washing
- Contaminated equipment
- Foods from unsafe sources

Source: CDC; FDA Retail Foodborne Illness Risk Factor Database, 2000; 2004

However, retail food service managers are usually more mature and can provide the consistent authority to ensure that food safety is implemented. Improving the knowledge of managers through specific training will assure greater employee compliance and improve food safety in retail businesses.

8–2.1 Action Step

Through 2010, initiate a pilot study to identify a baseline for risks of food-borne illness. By 2007, implement a statewide computer tracking system to collect information by risk factor to achieve a baseline and by 2010, establish a targeted goal. (An Iowa Department of Inspections and Appeals action step.)

8–2.2 Action Step

Through 2010 and within two years of its introduction, support the adoption of the most current FDA Model Food Code and adequate resources to ensure its implementation. (An

Iowa Department of Inspections and Appeals and Iowa Department of Public Health action step.)

8–2.3 Action Step

By 2007, establish a requirement that each retail food establishment have a Food Certification Training Program certified manager. (An Iowa Department of Inspections and Appeals action step.)



8–3 Goal Statement

Provide two consumer food safety education programs annually. Baseline: To be established.

Rationale

The food-preparing consumer represents the last opportunity to assure protection against food-borne illness. Consumers familiar with food safety principles can do a great deal to protect themselves and their families from the hazards of food-borne illnesses within the home.

Increasing the proportion of consumers who practice each of the seven critical food handling behaviors by the U.S. Department of Agriculture, listed below, will help reduce the incidence of such illness:

- Wash hands before handling food;
- Keep food safe – refrigerate;
- Don’t thaw food on the kitchen counter;
- Wash hands, utensils and surface again after contact with raw meat and poultry;
- Never leave perishable food out for over two hours;

- Thoroughly cook raw meat, poultry and fish; and
- Freeze or refrigerate leftovers promptly.

To quantify this problem, consumer food handling practices must be defined and a base-line determined. Effective measures can then be established. Increasing the proportion of consumers practicing safe food handling will result in a decrease in food-borne illnesses from home-prepared food.

8–3.1 Action Step

By July 2006, identify food safety educational materials appropriate for the public and improve access to them for all populations through consumer-directed public service announcements. Make materials more available in collaboration with the Iowa Food Safety Task Force and academic and community/industry partners. (An Iowa Department of Inspections and Appeals, Iowa Food Safety Task Force, and Iowa Department of Public Health action step.)

8–4 Goal Statement

Improve surveillance of food-borne diseases to ensure early recognition and prompt reporting to public health officials so causes of disease are determined in 90% of recognized cases. Baseline: See Rationale.

Rationale

Iowa investigated 47 major food-borne outbreaks involving nearly 2,000 ill persons between the years 2000 and 2003. The agent involved was determined in only 70% of cases due to delayed reporting and the fact that suspected food and clinical specimens were often not available for laboratory analysis.

The number of sporadic cases of food-borne illness is estimated to be considerably more than the number that are recognized, reported and investigated. Surveillance is the key to disease prevention and control. It offers an opportunity for investigation of episodes, including prevention of continuing cases. It also provides assessment of time trends, including recognition of

emerging problems and evaluation of standard safeguards. Collection of this data requires many resources and a commitment to report summary information to health care providers, citizens and public health officials.

The present surveillance system is largely passive and depends on case reports from practitioners. However, earlier recognition of cases and outbreaks could be achieved through expanded and improved surveillance. Earlier detection could also be improved through use of active disease reporting, such as routine, solicited inquiries, and additional laboratory evaluation, including DNA fingerprinting by Pulsed-Field Gel Electrophoresis (PFGE). In addition, earlier detection would improve investigations and help prevent more cases.

PulseNet is a national molecular subtyping network for food-borne disease surveillance that was initiated in 1998 in response to a large outbreak of E.coli O157:H7 in western United States. It has revolutionized food-borne disease surveillance by allowing near real-time DNA fingerprinting of pathogenic bacteria by state and local public health laboratories. They use rapid and highly standardized PFGE protocols, enabling the rapid comparison of DNA fingerprints to a national database of fingerprint patterns for each food-borne bacterial pathogen. PulseNet makes rapid detection of clusters of food-borne illnesses possible and provides an early warning system that will limit outbreaks by identifying sources of contamination and raising awareness of food safety issues.

National databases for E.coli O157:H7, Salmonella, Listeria monocytogenes, and Shigella sonnei are managed by the Center for Disease Control and Prevention (CDC). The University Hygienic Laboratory is a participant of PulseNet and funds from CDC's Epidemiology and Laboratory Capacity for Infectious Diseases Cooperative Agreement (ELC) provides continued support to perform real-time PFGE typing of foodborne pathogenic bacteria using PulseNet standardized protocols.

Surveillance also allows earlier recognition of industry-wide food contamination and permits timely interventions to prevent additional cases. For example, the CDC-directed FOODNET is a nationally-based, sentinel-surveillance system in

10 states and localities that has enabled public health authorities to recognize sporadic cases of food products having a low level of contamination distributed through interstate commerce. Early recognition assures prompt product recall and consumer advisories.

The Presidential Food Safety Initiative of 1997 was one example. It resulted in unprecedented cooperation among the CDC, Food and Drug Administration (FDA), and U.S. Department of Agriculture – the three federal agencies responsible for food safety in the country.

Under FDA leadership and through partnerships with state agencies and the Retail Food Regulatory Program Standards, states have joined to identify impediments to communication and cooperation. They have also developed a seamless food safety system that transcends jurisdictional boundaries.

FDA-sponsored food safety task forces have been established in many states. Consisting of representatives of industry, academia, regulatory agencies, and consumers, the task forces deal with various areas of federal agency roles and responsibilities. They also deal with coordination of outbreak response and investigation, data collection and information sharing, communication, uniform standards, and laboratory operations and coordination.

The results of these groups will be incorporated into national guidelines for enhanced epidemiological surveillance. This will facilitate rapid recognition, response and intervention in the event of multi-state food-borne illness outbreaks. It will also facilitate the investigation and recall of commercial products distributed through interstate commerce.

The scope of this program requires the support and cooperation of all levels of government, including those in Iowa.

8–4.1 Action Step

By 2006, the University Hygienic Laboratory (UHL) will complete visits to laboratories throughout the state to educate staff on various topics, including the need for increased submission of specimens. (An Iowa Department of Public Health and University Hygienic Laboratory action step.)

8–4.2 Action Step

By 2006, provide outreach support and assistance throughout the state to improve timeliness and completeness of gastrointestinal-disease reporting. (An Iowa Department of Public Health action step.)

8–4.3 Action Step

By 2008, adopt federal guidelines of the FDA's Retail Food Regulatory Program Standards, Standard # 5 – Foodborne Illness Investigation and Response for prevention and control of food-borne disease. Amend the Code of Iowa to require industry cooperation during food tracing of commercial food products implicated in food-borne disease outbreaks. (An Iowa Department of Inspections and Appeals and Iowa Department of Public Health action step.)

8–4.4 Action Step

By August 2005, develop Iowa's Food-borne Illness Outbreak Investigation Manual to aid public health practitioners in the identification, recognition, management, and cause of outbreaks. (An Iowa Hygienic Laboratory, Iowa Department of Inspections and Appeals, and Iowa Department of Public Health action step.)

8–4.5 Action Step

Through 2010, expand laboratory-based surveillance and testing for foodborne pathogens as new methods are developed and become available. (A University Hygienic Laboratory action step.)

8–5 Goal Statement

Ensure the safest and most effective use of pharmaceutical products. Baseline: See Rationale.

Rationale

Industry and government study groups estimate that more than 50% of the 1.8 billion prescriptions filled annually in the United States are used incorrectly.

Of particular concern are patients who take multiple medications that might result in adverse

drug reactions (ADRs). The elderly, an increasing proportion of Iowa residents, are a vulnerable population. Adverse drug reactions account for an estimated 10% of all hospital admissions, increasing the costs of medical care, and, in severe cases, leading to death.

Compounding this concern is the fact that during the 1990s, the FDA approved a record increase of new drugs and biologics, compressing the time that health care providers have to familiarize themselves with proper use. The FDA also streamlined some of the new drug and generic drug approval and testing processes so drugs are available more quickly than they have been in past decades. Adverse drug reactions may also result from apparently low rates of complications either singly or in combinations that were undetectable during clinical trials. These observations illustrate that primary care providers and pharmacists, in particular, need to establish protocols that use thorough patient background evaluation and expanded use of computer and surveillance technology to detect and report adverse drug reactions.

One of the *Healthy Iowans 2010* goals is to ensure that proper counseling is provided to 80% of patients by the year 2006.

Consumer counseling not only improves the quality of information given to the patient, but also notes relevant information useful to medical management of the patient. Since subtle side effects of drugs, such as those with potential links to aging and male and/or female differences, are often ignored by patients and not reported to their physicians or pharmacists, the possibility of excluding a negative change in therapy is lost. Additionally, improved communication between prescribers and patients may prompt questions that could lead to the discovery of novel drug-drug interactions or drug-allergy interactions.

Recognizing the importance of counseling, the Omnibus Budget Reconciliation Act of 1990 mandated that pharmacists counsel Medicaid patients when they receive prescription drugs. A majority of states have expanded this requirement to all patients.

Current demographic trends continue to reflect an Iowa population that is increasingly eld-

erly, with a higher proportion able to live productive lives while being maintained on medication, other therapies, and diet and lifestyle modifications.

Thus, improved clinical oversight is needed to evaluate complex regimens such as the potential for adverse outcomes resulting from changing health or disease states, subtle lifestyle changes, and use of other therapies. Such efforts should help assure improved medical care and improved patient outcomes.

Additionally, it should be recognized that Iowans, often from necessity, may be in multiple health care environments or may self-manage much of their care. Pharmaceutical use, over-the-counter (OTC) product use, and even alternative medicines may interact to produce adverse outcomes. This may include the use of "natural" or herbal products.

Lastly, the inability to afford medication has increased, particularly in people who lack adequate insurance. Many have turned to sources other than pharmacies in the United States for more affordable prescription medications. The safety of the product and its use is in question in these instances, and it is a public health responsibility to address the problem.

8–5.1 Action Step

By 2007, ensure that all pharmacies in Iowa employ a system that identifies potential and actual adverse results and medication dispensing errors. (An Iowa Board of Pharmacy Examiners action step.)

8–5.2 Action Step

By 2006, establish a law that encourages prescribers to include indications or ICD-9 codes on prescriptions to be presented for dispensing by a pharmacist. (An Iowa Board of Pharmacy Examiners action step.)

8–5.3 Action Step

Through 2010, ensure that outpatient prescription medications are dispensed with appropriate patient information, and that efforts are made to ensure that the patient understands the information. (An Iowa Board of Pharmacy Examiners action step.)

8–5.4 Action Step

By 2005, establish a law that requires all pharmacies to implement continuous quality improvement and protects program information from civil discovery. (An Iowa Board of Pharmacy Examiners and Iowa Pharmacy Association action step.)

8–5.5 Action Step

Through 2010, continue funding the Iowa Board of Pharmacy Examiners to maintain pharmacist inspectors. This will ensure compliance with many of the action steps listed in this chapter, specifically use of automated information systems, the listing of disease conditions on medication containers, and provision of patient drug information material with new medications. (An Iowa Board of Pharmacy Examiners and Iowa Pharmacy Association action step.)

8–5.6 Action Step

By January 2007, educate Iowans on the lack of drug-product and drug-use safety of prescription medications obtained outside the physician-pharmacy health care environment. (An Iowa Board of Pharmacy Examiners and Iowa Pharmacy Association action step.)

Goal Cross References

Chapter 1: Access to Quality Health Services

- 1–1Reduce to 0 the proportion of children and adults under aged 65 without health care coverage.
- 1–2Develop a plan and engage in activities that encourage providers to follow standardized quality performance measures.
- 1–3Increase by 25% access to primary care for the underserved population.
- 1–4Ensure a competent and diverse health workforce by assessing and forecasting workforce supply and demand and by promoting local strategies to recruit and retain workers.
- 1–12Develop a strategic plan to assess and use telehealth and telemedicine to increase access to health services.

Chapter 4: Disabilities

- 4–3Assure that each HI2010 chapter assesses the health issues and potential treatment available for people with disabilities and incorporates appropriate goals and action steps.

Chapter 6: Environmental Health

- 6–2 Reduce to 20% the number of private drinking water wells tested positive for coliform bacteria.
- 6–5 Increase to 40% the number of homes in non-incorporated areas with acceptable wastewater treatment.
- 6–15 The Iowa Department of Public Health and the Iowa Department of Natural Resources will issue joint fish consumption advisories wherever it is confirmed that contaminant standards have been exceeded.

Chapter 7: Family Planning

- 7–1 Increase to 65% the proportion of intended pregnancies among women aged 13-44.

Chapter 9: Heart Disease and Stroke

- 9–3 Identify and control high blood pressure through health care, worksite, and community systems with policy, environmental and systems supports, and communication strategies.

Chapter 10: Immunization and Infectious Diseases

- 10–10 .. Reduce by 10% the statewide incidence of antimicrobial resistance in key reportable invasive antibiotic-resistant organisms.
- 10–18 .. Educate health care providers and the public on the use of antibiotics for ear infections.
- 10–19 .. Educate health care providers on the use of antibiotics for colds.

Chapter 12: Mental Health and Mental Disorders

- 12–16 .. Identify 100% of pregnant and postpartum women with depression or at high risk of depression.

Chapter 13: Nutrition and Overweight

- 13-3Prevent a further rise in the percent of Iowans who are overweight.
- 13-4Prevent further rise of weight gain among children and adolescents under aged 18.
- 13-7Provide Iowans at higher risk for nutrition-related disease with nutrition education.
- 13-8Reduce to 5% the incidence of food insecurity.

Chapter 20: Substance Abuse and Problem Gambling

- 20-4Increase to 425 the number of Iowans aged 65 and older who receive screening, prevention, referral, and/or treatment for risk factors.
- 20-8Increase to 115 and sustain state, county, community, and neighborhood collaborative groups to reduce problems of alcohol, tobacco, other drugs, and problem gambling.

Chapter 22: Unintentional Injuries

- 22-8Reduce deaths caused by unintentional poisoning to 30/year, and reduce resulting illness and costs.

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Chapter 9

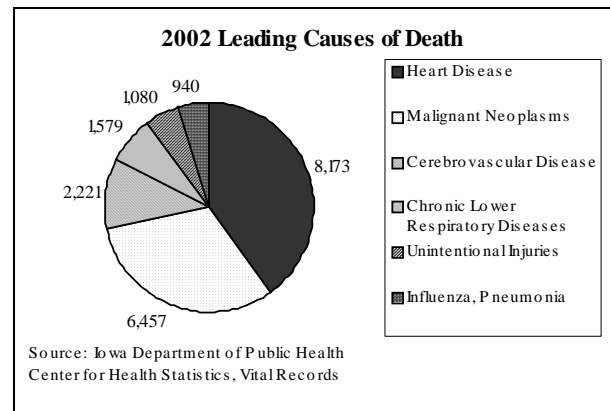
Heart Disease and Stroke**Introduction**

Heart disease and stroke are the first and third leading causes of death in the United States. Over 940,000 Americans die of cardiovascular disease each year, which is equivalent to one death every 34 seconds (Centers for Disease Control and Prevention (CDC), Cardiovascular Health). Deaths from heart disease and stroke are only part of the picture. Almost one-fourth of the American population lives with cardiovascular disease, which results in over six million hospitalizations annually. Stroke is a leading cause of disability, affecting more than one million Americans (CDC, Cardiovascular Health).

Heart disease is also Iowa's leading killer. In 2003, Iowa ranked 25th in the nation in heart-disease deaths (America's Health: State Health Rankings). In 2003, Iowa was 25th in that ranking, and 27.8% of all Iowa deaths were caused by heart disease. This percentage represents 7,825 people.

Cerebrovascular disease (stroke) is the third leading cause of death in Iowa, resulting in 7.4% of the state's total deaths in 2003. This percentage equals 2,073 people (Iowa Department of Public Health, Center for Health Statistics, 2003 Vital Statistics of Iowa, 2004).

The statistics cited below apply to the general population in Iowa, but certain at-risk populations, such as women and the ethnically diverse, have increased risk. Heart disease affects African-Americans disproportionately. Age-adjusted mortality rates for heart disease and stroke were each 48% higher for African-Americans than whites in 2001 (Iowa Department of Public Health, Family and Community Information Tracking System [FACITS]).



Before proceeding, following are definitions related to heart disease and stroke.

- Cardiovascular disease (CVD) comprises diseases of the circulatory system, including coronary heart disease, stroke, congestive heart failure, high blood pressure, and other conditions.
- Coronary heart disease (CHD) is a condition that reduces blood flow through the coronary arteries to the heart muscle.
- Cerebrovascular disease (stroke) is a shortage of blood to the brain. Stroke classifications include atherothrombotic brain infarction, ischemic, hemorrhagic, and transient ischemic attack (TIA).

Stroke shares several risk factors with coronary heart disease, including elevated blood pressure, high blood cholesterol/serum triglycerides, inactivity, diabetes, smoking, and a diet high in fat and sodium. Prevalence of modifiable risks, such as high blood pressure, high cholesterol and diabetes, increase with age. Prevention or effective treatment of modifiable risks can reduce or delay cardiovascular deaths.

The condition of overweight/obesity, is usually a collection of modifiable risk factors for cardiovascular disease. These may include a

high fat diet, inactivity, elevated blood pressure, elevated blood cholesterol, and diabetes. Overweight and obesity are measured by three factors: body mass index (BMI), waist circumference, and risks for disease and conditions associated with obesity.

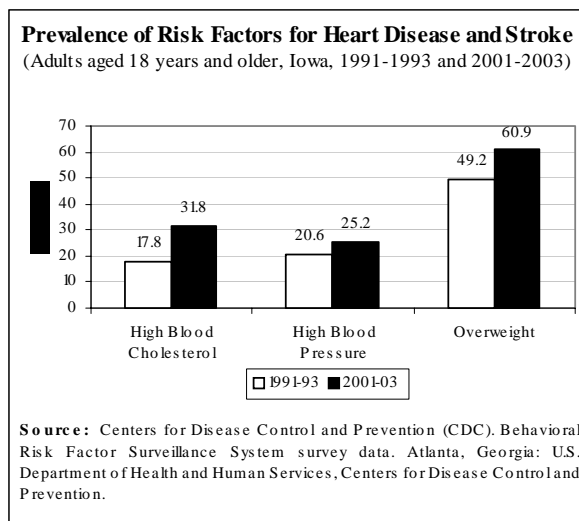
Adult overweight is defined as a BMI of 25 to 29.9, adult obesity as a BMI greater than or equal to 30, and adult morbid obesity as a BMI greater than 40. BMIs at or greater than 25 are associated with increased cardiovascular disease risk. Waist circumferences greater than 40 inches for men and 35 inches for women also increase risk for cardiovascular disease. Iowa’s ominous increase in obesity will contribute significantly to heart disease and stroke in the next several decades. The state’s obesity rate increased 60.0% between 1991 and 2003. In 2003, 61.6% of adult Iowans were overweight or obese (Behavior Risk Factor Surveillance System, 2003).

Healthy American adults over age 20 can lower their blood cholesterol levels by adopting a low-fat, low-cholesterol diet and increasing physical activity. Each 10% reduction in the population’s average blood cholesterol level can reduce deaths from coronary heart disease.

In the past, the first line of defense against coronary heart disease and stroke was treatment, rather than prevention. However, the cost of heart disease and stroke in the United States is projected to have been \$368 billion in 2004 (CDC, Cardiovascular Health), and there are a number of recommendations and guidelines for preventing heart disease and stroke for people with identified risks. Improved detection of high-risk people and aggressive control of risks could reduce the overall rate of coronary heart disease and stroke deaths by over 20% (Merck Manual of Medical Information-Home Edition, Section 12, Chapter 139, c 1995-2003 Merck & Co., Inc.).

However, prevention and risk reduction depend on self-management support – the ability of people, with health care providers, to manage risk and adhere to guidelines. In 2002, 77.7% of Iowa’s adults reported multiple risk factors. However, only 25.2% were advised to be more physically active and only 16.6% were advised to eat fewer high fat or high cholesterol foods

(Behavior Risk Factor Surveillance System, 2002). Therefore, improving the detection and control of risk, particularly high blood pressure and high blood cholesterol, requires improving existing networks that provide screenings, referrals and subsequent medical treatments and monitoring.



Action steps presented in this and related chapters (including nutrition, physical activity and fitness, diabetes, and tobacco use prevention) recognize prevention as the first step toward reducing coronary heart disease and stroke deaths. Action steps are based on years of research on causes and prevention. They also recognize that most coronary heart disease and stroke can be prevented or significantly delayed by implementing what is already known. Each action step is designed to allow tracking of key indicators to evaluate progress toward meeting the associated goal and redirection as needed.

The strategy of reducing mean levels of risks recognizes that most people with heart disease and stroke do not have extreme risk-factor values. With behavioral modifications such as improved nutrition, increased physical activity, and health care provider support, Iowans of all ages can reduce the incidence of risk factors for cardiovascular related diseases.

Health promotion must be designed to ensure universal access to places, buildings and services for people with disabilities. In June 1999, the U.S. Supreme Court held that dis-

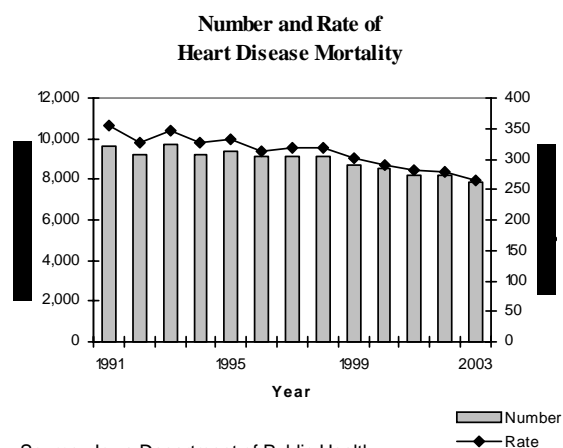
crimination on the basis of disability is illegal (Olmstead decision). It also said people with disabilities have a right to services in the most integrated setting appropriate to their needs. Community placement must be considered when providing medical devices, health screenings, or treatment to reduce coronary heart disease or stroke deaths. This chapter focuses on the reduction of heart disease and stroke, which can cause a number of disabilities.

The chapter was rewritten to align with the goals and objectives of *Healthy People 2010*.

Goal Statements & Action Steps

9–1 Goal Statement

Reduce by 13% heart disease deaths among all Iowans. Target: 232 deaths per 100,000 population. Baseline, 2003: 266 deaths per 100,000.



Rationale

Death rates for heart disease have declined steadily in Iowa since the mid-1960s but have begun to plateau since 1990. The rate declined from 344.9 in 1991 to 265.8 in 2003. Given the state's increasing proportion of elderly, however, the state's death rates due to heart disease are on the rise. Currently, 15% of the population is 65 years or older (Iowa Department of Public Health, Center for Health Statistics).

Many people with signs or symptoms of heart attack wait too long to get help. The longer they wait the more damage occurs to the heart. Nearly half of new therapies administered within one hour of onset can stop the development of the heart attack. Iowans need to be educated on the signs and symptoms, the importance of accessing rapid emergency care by calling 911, and CPR – critical skills for reducing disability and death rates.

Treatment is not an option for Iowans whose deaths are their first sign of coronary heart disease. Nationally, 250,000 sudden deaths occur each year from coronary heart disease without hospitalization or previous history of heart disease (Center for Disease Control and Prevention, Public Health Action Plan to Prevent Heart Disease and Stroke).

High-risk populations need to be targeted as well. While ethnic minorities account for 5% of Iowa's population (Iowa Department of Public Health, Iowa Census, 2000) they have an increased risk of heart disease. In 2002, heart diseases were the leading cause of death in Iowa's Hispanic/Latino and African-American populations. Iowa's population is aging rapidly so the needs of the elderly must be addressed. Extra effort must also be made to reach low-income and rural families who often have less access to health care.

9–1.1 Action Step

By 2010, increase from 350,000 to 500,000 per year the number of people over age 16 (trained through state or nationally recognized programs) who are aware of the early warning signs and symptoms of a heart attack and the importance of rapid emergency care by calling 911. (An American Heart Association, Heartland Affiliate, and Mercy Medical Center-Des Moines action step.)

9–1.2 Action Step

By 2010, increase from 250,000 to 400,000 per year the number of people over aged 16 trained in cardiopulmonary resuscitation (CPR) through state or nationally recognized programs who are willing to call 911 and administer CPR when they witness an out-of-hospital cardiac arrest. (An American Heart Association, Heart-

land Affiliate and Mercy Medical Center-Des Moines action step.)

9–1.3 Action Step

By 2007, identify networks to disseminate model program and best practice guidelines for coronary heart disease among health care providers, prevention professionals, disability service providers, faith-based networks, and other community stakeholders in at least 25 counties. The guidelines shall be provided through supportive trainings, tool kits, and other health care professional educational materials. (An Iowa Department of Public Health, American Heart Association, Heartland Affiliate, community stakeholders, Iowa Health System, and Iowa Foundation for Medical Care action step.)

9–1.4 Action Step

By 2010, promote adoption of the Chronic Care Model and self-management support to improve care for patients with chronic conditions, including congestive heart failure. Initiate as pilot projects by 2005, expand geographically by 2007, and make available statewide by 2010. (An Iowa Department of Public Health, community stakeholders, Iowa Health System, and Iowa Foundation for Medical Care action step.)

9–1.5 Action Step

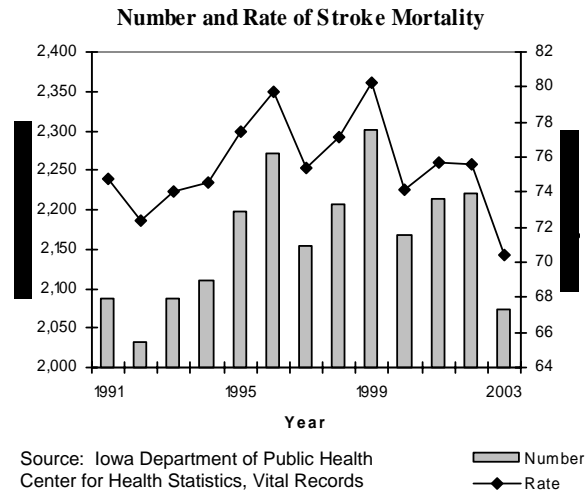
By 2010, promote community environmental and policy changes targeting prevention, detection and control of coronary heart disease. Initiate as pilot projects by 2005, expand geographically by 2007, and make available statewide by 2010. (An Iowa Department of Public Health, American Heart Association, Heartland Affiliate, community stakeholders, Iowa Health System, and Iowa Foundation for Medical Care action step.)

9–2 Goal Statement

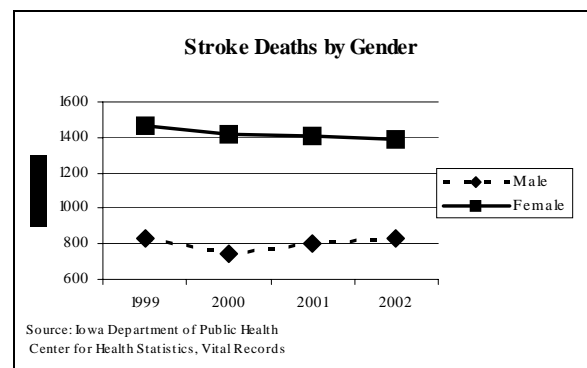
Reduce by 16% stroke deaths among all Iowans. Target: 59 deaths per 100,000 population. Baseline, 2003: 70.4 deaths per 100,000.

Rationale

The rate of death from stroke in Iowa has gone from 74.7 per 100,000 population in 1991 to 70.4 in 2003. However, this downward trend began to reverse in 2000 with improvement in 2003. Stroke shares with coronary heart disease several modifiable risks, such as elevated blood pressure, but their impact may vary.



Many people are unaware of the signs or symptoms of stroke and do not seek medical care quickly enough. Therapies can stop and even reverse brain damage if given within three hours of onset. Only 19.7% of Iowans surveyed knew all six symptoms of stroke. Therefore, education should focus on signs and symptoms, use of 911 to access timely medical care and ensuring increased enrollment in CPR certification classes. These measures will help reduce death and disability (Behavior Risk Factor Surveillance System, 2003).



High-risk groups, such as women, ethnic minorities, low-income families, rural families, and seniors, need special consideration. Women and minorities have an increased rate of stroke. Elderly Iowans, low-income families, and rural families often have less access to medical care.

9–2.1 Action Step

By 2010, increase from 19.7% to 30% the proportion of people over age 16 that are aware of the early warning signs and symptoms of a stroke and the necessity of accessing rapid emergency care by calling 911. (An Iowa Department of Public Health, American Heart Association, Heartland Affiliate, community stakeholders, and Iowa Foundation for Medical Care action step.)

9–2.2 Action Step

By 2010, increase the effectiveness and quality of health care provider systems through collaboration with health care providers by providing trainings, tool kits, and other professional educational programs in at least 25 counties. Pilot programming in seven counties from 2002 to 2004 established effective protocols for implementation. This includes health care provider education and quality improvement targeting cerebrovascular disease (stroke) prevention in high-risk populations through use of screenings. (An American Heart Association, Heartland Affiliate, Iowa Department of Public Health, Community stakeholders, Iowa Health System, and Iowa Foundation for Medical Care action step.)

9–2.3 Action Step

By 2010, promote adoption of the Chronic Care Model and self-management support to improve care for patients with chronic conditions. Initiate as pilot projects by 2005, expand geographically by 2007, and make available statewide by 2010. (An Iowa Department of Public Health, community stakeholders, Iowa Health System, and Iowa Foundation for Medical Care action step.)

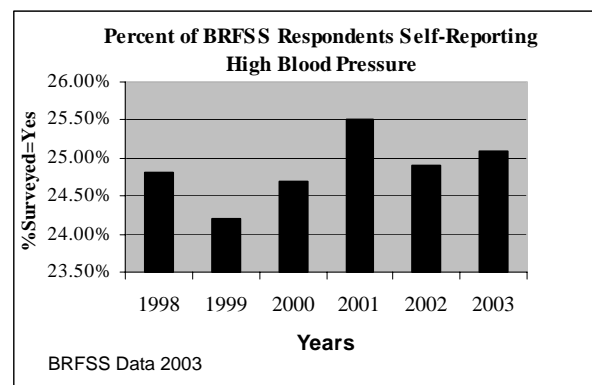
9–2.4 Action Step

By 2010, promote community environmental and policy changes targeting prevention,

detection and control of cerebrovascular disease (stroke). Initiate as pilot projects by 2005, expand geographically by 2007, and make available statewide by 2010. (An Iowa Department of Public Health, community stakeholders, Iowa Health System, and Iowa Foundation for Medical Care action step.)

9–3 Goal Statement

Identify and control high blood pressure in Iowans through health care, worksite, and community systems with policy, environmental and systems supports, and communication strategies. Target: 14.9% of Behavioral Risk Factor Surveillance System (BRFSS) respondents reporting high blood pressure. Baseline, 2003: 25.1% of BRFSS respondents were told their blood pressure was high.



Rationale

Elevated blood pressure remains a primary risk factor of stroke. People who are overweight or obese are at increased risk of high blood pressure. As the body mass index levels rise, so do average blood pressure and cholesterol levels.

The 2003 BRFSS data show that 77.5% of people with high blood pressure take medication. Respondents over aged 65 with high blood pressure reported that 92.7% of treatment is medication. The percentage of medicated treatment increases with age.

There are many proven recommendations and guidelines for preventing heart disease and stroke for people with identified risks. Studies

have shown that lifestyle changes can help prevent high blood pressure. Improved detection of high-risk people and aggressive control of detected risk factors could reduce the rate of heart disease and stroke deaths. Networks that provide screening, referrals and treatment must be improved for detection and control of risk factors in high-risk populations.

Education to increase knowledge of blood pressure readings and their meanings, plus the role of diet, exercise and weight control, will help people live healthier and decrease their risk of heart disease and stroke.

9–3.1 Action Step

By 2010, provide public education that includes blood pressure screenings to detect initial high blood pressure. Initiate referrals to a health care provider, and facilitate self-management for people with histories of high blood pressure. This will increase the proportion of adults with high blood pressure who take action (e.g., losing weight, increasing physical activity, or reducing sodium intake) to help control their conditions.

Establish a baseline with data from the pilot projects established through the Iowa Department of Public Health and community stakeholders that are scheduled to conclude in the spring of 2005. Successful efforts will be expanded geographically by 2007 and made available statewide by 2010. (An Iowa Department of Public Health, American Heart Association, Heartland Affiliate, community stakeholders, and Iowa Foundation for Medical Care action step.)

9–3.2 Action Step

By 2010, reduce by 20% the number of people controlling high blood pressure strictly by medication. The proportion of adults will increase who control their blood pressure through behavior and community policy changes such as alternative menu and food options to reduce sodium intake. Initiate as pilot projects by 2005, expand geographically by 2007, and make available statewide by 2010. (An Iowa Department of Public Health, community stakeholders, Iowa Health System, and Iowa Foundation for Medical Care action step.)

9–3.3 Action Step

By 2010, increase the proportion of adults who have had their blood pressure measured within the previous two years and can state whether their blood pressure was normal or high. Collaborate on education, environmental and policy interventions to detect and control high blood pressure in high-risk populations. Measure success through Behavioral Risk Factor Surveillance System data. (An Iowa Department of Public Health, American Heart Association, Heartland Affiliate, Iowa Association of Cardiovascular and Pulmonary Rehabilitation, community stakeholders, Iowa Health System, and Iowa Foundation for Medical Care action step.)

9–3.4 Action Step

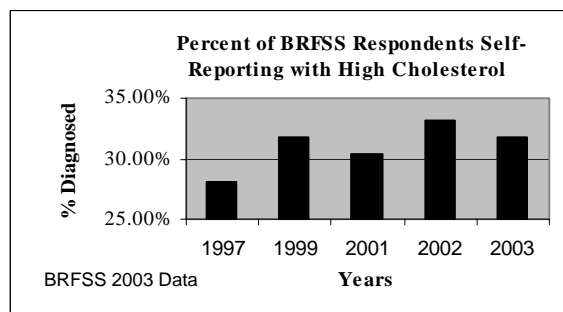
By 2006, four targeted regions of service will identify a network of health care providers and prevention professionals to distribute educational materials and policies for the detection and control of high blood pressure for Iowans, including high-risk populations. (An Iowa Department of Public Health, American Heart Association, Heartland Affiliate, Iowa Association of Cardiovascular and Pulmonary Rehabilitation, community stakeholders, Iowa Health System, and Iowa Foundation for Medical Care action step.)

9–3.5 Action Step

By 2010, expand the distribution of educational materials and policy interventions for the control of high blood pressure to all counties in Iowa. By 2008, the networks will pilot the distribution of educational materials and policy interventions. (An Iowa Department of Public Health, American Heart Association, Heartland Affiliate, Iowa Association of Cardiovascular and Pulmonary Rehabilitation, community stakeholders, Iowa Health System, and Iowa Foundation for Medical Care action step.)

9–4 Goal Statement

Reduce by 10% adults with high blood cholesterol through policy, environmental and systems supports, and communication to improve detection, awareness, evaluation, treatment, and control. Baseline, 2003: 31.7% of BRFSS respondents reported their blood cholesterol was high.



Rationale

Besides detecting and treating people with high blood cholesterol, using population approaches to reduce cholesterol is an important and viable strategy to reduce heart disease and stroke. Decreases as high as 70% may be attainable by reducing population mean diastolic blood pressure to 80 mm Hg and mean blood cholesterol to less than 190 mg/dL (CDC, Public Health Action Plan to Prevent Heart Disease and Stroke).

9–4.1 Action Step

By 2010, reduce the mean blood cholesterol levels among adults through targeted public education using health literacy principles. Public education includes media opportunities and organization health education. This will increase the proportion of adults with high blood cholesterol who are taking action, such as losing weight, increasing physical activity, or receiving medical treatment, to control their cholesterol levels. A baseline will be established by using data from pilot projects established through the Iowa Department of Public Health and community stakeholders, scheduled to conclude in the spring of 2005. Successful efforts will be expanded geographically by 2007 and made available statewide by 2010. (An Iowa Department of Public Health, American Heart Association,

Heartland Affiliate, community stakeholders, Iowa Health System, and Iowa Foundation for Medical Care action step.)

9–4.2 Action Step

By 2010, increase the proportion of adults with their high blood cholesterol under control through community policy and environmental changes, such as alternative menu and food options to reduce high fat intake. Initiate as pilot projects by 2005, expand geographically by 2007, and make available statewide by 2010. This step will be measured through Behavioral Risk Factor Surveillance System (BRFSS) data. (An Iowa Department of Public Health, American Heart Association, Heartland Affiliate, community stakeholders, Iowa Health System, and Iowa Foundation for Medical Care action step.)

9–4.3 Action Step

By 2010, increase to 81.3% the proportion of adults who will have had their blood cholesterol checked within the preceding five years and can say whether it was normal or high. Include collaboration on education and policy to detect and control high blood cholesterol in high-risk populations. In 2003, 71.3% of BRFSS respondents had been checked for high cholesterol in the previous five years. (An Iowa Department of Public Health, American Heart Association, Heartland Affiliate, Iowa Association of Cardiovascular and Pulmonary Rehabilitation, community stakeholders, Iowa Health System, and Iowa Foundation for Medical Care action step.)

9–4.4 Action Step

By 2006, four targeted regions of service will identify a network of health care providers and prevention professionals to distribute educational materials and policy interventions for the detection and control of high blood cholesterol for Iowans, including high-risk populations. (An Iowa Department of Public Health, American Heart Association, Heartland Affiliate, Iowa Association of Cardiovascular and Pulmonary Rehabilitation, community stakeholders, Iowa Health System, and Iowa Foundation for Medical Care action step.)

9–4.5 Action Step

By 2008, networks will pilot the distribution of educational materials and policy interventions for the detection and control of high blood cholesterol for Iowans, including high-risk populations. (An Iowa Department of Public Health, American Heart Association, Heartland Affiliate, Iowa Association of Cardiovascular and Pulmonary Rehabilitation, community stakeholders, Iowa Health System, and Iowa Foundation for Medical Care action step.)

9–4.6 Action Step

By 2010, expand the distribution of the educational materials and policy interventions for the detection and control of high blood cholesterol for Iowans, including high-risk populations, to all counties in Iowa. (An Iowa Department of Public Health, American Heart Association, Heartland Affiliate, Iowa Association of Cardiovascular and Pulmonary Rehabilitation, community stakeholders, Iowa Health System, and Iowa Foundation for Medical Care action step.)

Goal Cross References

Chapter 1: Access to Quality Health Services

- 1–1Reduce to 0 the proportion of children and adults under aged 65 without health care coverage.
- 1–2Develop a plan and engage in activities that encourage providers to follow standardized quality performance measures.
- 1–3Increase by 25% access to primary care for the underserved population.
- 1–4Ensure a competent and diverse health workforce by assessing and forecasting workforce supply and demand and by promoting local strategies to recruit and retain workers.
- 1–12Develop a strategic plan to assess and use telehealth and telemedicine to increase access to health services.

Chapter 3: Diabetes

- 3–1 Increase awareness of diabetes in people with pre-diabetes risk and undiagnosed diabetes, and limit the upward prevalence trend of diabetes to 0.2% per year.
- 3–3 Offer leadership and education opportunities to health care professionals to enable them to provide improved medical guidance to people with diabetes.
- 3–4 Decrease mortality and morbidity from diabetes by preventing or delaying complications.

Chapter 4: Disabilities

- 4–3 Assure that each HI2010 chapter assesses the health issues and potential treatment available for people with disabilities and incorporates appropriate goals and action steps.

Chapter 5: Educational and Community-Based Programs

- 5–5 All post-secondary community colleges will provide data on how the college addresses the six priority health risk behavior areas.

Chapter 6: Environmental Health

- 6–2 Reduce to 20% the number of private drinking water wells tested positive for coliform bacteria.

Chapter 13: Nutrition and Overweight

- 13–3 Prevent a further rise in the percent of Iowans who are overweight.
- 13–4 Prevent further rise of weight gain among children and adolescents under aged 18.
- 13–5 Increase to at least 50% the proportion of people aged two and older who meet the minimum daily average goal of at least five fruits and vegetables as recommended in the Dietary Guidelines for Americans.
- 13–6 Increase to at least 20% the proportion of people aged two and older who meet the dietary recommendations for calcium.
- 13–7 Provide Iowans at higher risk for nutrition-related disease with nutrition education.

- 13–8Reduce to 5% the incidence of food insecurity.
- 13–9Provide nutrition screening and education to 90% of older adults who participate in health and nutrition programs.

Chapter 16: Physical Activity and Fitness

- 16–1Establish funding targeted at sedentary lifestyles and a plan that supports planning, local efforts, environmental projects, model policy initiatives, and education.
- 16–2Certify 500 Physician-based Assessment and Counseling for Exercise (PACE) clinicians or similar programs.
- 16–3Establish a comprehensive strategy that shares the main physical activity message with as many Iowans in as many environments as possible.
- 16–4Create strategies that share the physical activity message with special and high-risk populations.
- 16–5Continue to recruit and improve worksite wellness programs.
- 16–6Create and disseminate a detailed list of best or expected practices that provide students an educational environment that teaches and fosters a healthy active lifestyle.
- 16–7Create an electronic media plan that uses the Internet, ICN, etc.
- 16–8Work with the Iowa Department of Transportation and appropriate entities to promote environments that are physically appealing and conducive for regular physical activity.
- 16–10 ..Increase the proportion of school-age children who meet the Centers for Disease Control and Prevention recommendations for physical activity and education.

Chapter 21: Tobacco Use

- 21–1Increase the tax on cigarettes by \$1.00 per pack.
- 21–2Pass local legislation that will allow communities the option to regulate smoking in public places to protect citizens from the dangers of secondhand smoke.
- 21–3Enact legislation that requires the Iowa Division of Tobacco Use Prevention and Control to be consistent with the Best

Practices for comprehensive Tobacco Control Programs as outlined by the Centers for Disease Control and Prevention.

- 21–4Reduce to 10% Iowans' exposure to secondhand smoke in the workplace.
- 21–5Implement comprehensive tobacco policies in 100% of Iowa school districts.
- 21–6Increase to 69% the number of adults aged 18 and older who report not allowing smoking anywhere in the home and to 65% the number of adults aged 18 and older who report not allowing smoking inside vehicles.
- 21–7Decrease the proportion of adults who smoke and increase tobacco-use cessation attempts.
- 21–8Decrease to 12% the number of women who smoked during pregnancy.
- 21–9Establish comprehensive coverage by Medicaid for FDA-approved pharmacotherapies and behavioral therapies.
- 21–10 ..Decrease current use of tobacco products by students in grades 6-12 and increase the number who want to quit.
- 21–11 ..Increase to 94% retail compliance with existing tobacco statutes to reduce youth access to tobacco products.

Chapter 22: Unintentional Injuries

- 22–1Ensure Iowa's Emergency Medical Services system by implementing an integrated data system, linking with 75% of EMS services, and maintaining at 100% Iowa's trauma care delivery system.
- 22–5Establish a program in all Iowa counties for progressive resistance training to prevent falls among the elderly

**Heart Disease & Stroke
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Chapter 10

Immunization and Infectious Diseases**Introduction**

Since the inception of this chapter, new diseases and threats of disease have emerged. These include monkeypox, West Nile Virus (WNV), severe acute respiratory syndrome (SARS), and avian influenza. The state has seen increases in diseases such as pertussis among people ranging from 19 days to 86 years of age.

Given the terrorist attacks on September 11, 2001, there has been an increased sense of urgency about bioterrorism. This resulted in the training and vaccination with smallpox vaccine of 472 Iowans, with ongoing training on rash surveillance, disease recognition, and the techniques of administering the vaccine. (Refer to chapter 25, Bio-emergencies.)

Major changes to this chapter include those on surveys about rabies post-exposure prophylaxis practices. They were deleted due to lack of staff and money. The tuberculosis (TB) goals and objectives were changed to more closely align with national goals. A goal was added to address influenza immunization rates in health care workers.

Infectious diseases are major sources of sickness and death in this country despite predictions of many experts that the public health significance of infectious diseases would wane in the United States. Yet, new infectious agents and diseases continue to be detected, and diseases considered to be under control have re-emerged in recent years. One example of an emerging disease in the 1900s is the previously unrecognized hantavirus that caused an outbreak of fatal respiratory illness in the American Southwest. This agent has now been identified in more than half of the states. Iowa has had six cases of hantavirus syndrome since 1997.

Other examples include contamination of a public water supply with the parasite *Cryptosporidium*, resulting in the largest waterborne outbreak in U.S. history. It also resulted in widespread outbreaks of food-borne illness due to *Escherichia coli* O157: H7 and a subtype of influenza A not previously associated with human illness that produced an outbreak of disease in Hong Kong.

Compounding the problem is that antimicrobial resistance is evolving rapidly in a variety of hospital and community-acquired infections. These trends provide timely reminders of the importance and potential volatility of infectious diseases as we begin the new century.

Between 1980 and 1992, death from infectious diseases rose 58% in the United States. A significant proportion of this increase is due to the increasing burden of Human Immunodeficiency Virus (HIV)-associated disease. However, even when HIV is removed, mortality from infectious diseases still increased 22% during this time. Considered as a group, infectious diseases were the third leading cause of death in the United States in 1992, the most recent year for which final data were available and analyzed. In Iowa, the rates for infectious disease deaths increased from 11.5 in 1990 to 14.0 in 1995.

The global context of infectious diseases also must be considered. Increased international travel, importation and mass distribution of foods, improper human and veterinary use of antibiotics in the U.S. and abroad, and global environmental changes increase the potential for global epidemics of infectious diseases. That includes emerging and re-emerging diseases as well as drug-resistant strains. International cooperation and collaboration on disease surveillance, response, research, and training are essen-

tial to prevent or control these epidemics. The action taken in one country can affect the health of people globally.

Because of the impact of infectious diseases on society, a coordinated strategy is necessary to understand, detect, control, and ultimately, prevent them. Such a strategy is needed to protect the gains achieved in life expectancy over the 20th Century, which resulted from the control and prevention of infectious diseases. The strategy would also ensure further improvements in the 21st Century. Prevention of infectious diseases will improve quality of life for the individual and for society.

Surveillance is needed to promptly recognize and monitor emerging pathogens and outbreaks. A response is mounted when surveillance or other data indicate a change in the incidence or distribution of an infectious disease, or when a new variant of a known pathogen is recognized. Research, surveillance and response all depend on the public health infrastructure that supports, trains and equips public health workers and links them in national and global networks.

The Iowa Department of Public Health has added six regional epidemiologist positions. They are training local health departments on disease surveillance, response and reporting. Ultimately, effective prevention and control result from the convergence of ongoing surveillance, response, applied research, infrastructure, and training. It is important to maintain or increase this capacity to respond to the threat of emerging or re-emerging diseases.

To accomplish the goals of controlling and preventing infectious diseases, the Iowa plan focuses on certain categories of emerging diseases and on particular groups at increased risk. Many priority areas are included, in whole or in part, as 2010 objectives. Issues include antimicrobial resistance, foodborne and zoonotic diseases, diseases transmitted through transfusion of blood or blood products, and vaccine development and use. At-risk populations discussed in this chapter or in other chapters include persons with impaired host defenses, pregnant women, newborns, travelers, immigrants, and refugees.

Some 2010 objectives target diseases and pathogens that were unknown only 20 years ago. Others represent re-emergent problems once thought to be well controlled. These objectives, taken together, should give our public-health partners, and society, a road map for prevention and control of many emerging and re-emerging infectious diseases over the next decade.

Any such effort would be doomed without effective partnerships and collaborations. These include federal agencies, state and local health departments, other government and non-governmental organizations, academic institutions, professional societies, international organizations, and experts in public-health infectious diseases and medical microbiology. Prevention is effective only if society in Iowa, the U.S., and abroad adopts the prevention strategy.

Therefore, the infectious disease prevention strategy in Iowa must include a comprehensive group representing partner organizations that work to make the state a healthier place through the prevention and control of emerging and re-emerging infectious diseases. Through dedicated work now and into the next millennium, this plan can be successful in decreasing death and sickness.

One way to prevent and control disease is through vaccines. Biological substances that interact with the human immune system, usually producing an immune response identical to that produced by the natural infection, do not subject a person to the "full-blown" disease or its complications.

The country's experience with the ravaging effects of disease, primarily among youth, has shown that vaccines can play a powerful role in preventing debilitating and, in some cases, fatal effects of infectious diseases. In the 1950s, polio infected 7,813 Iowans, requiring them to need braces, crutches, wheelchairs, and iron lungs.

Also, prior to vaccines most children had measles. Some survivors were left with deficits or defects ranging from seizures to severe mental retardation. During the 1960s, more than 35,433 Iowans contracted rubella, resulting in some children born with major malformations,

including deafness, blindness, congenital heart disease, and mental retardation.

None of these organisms have disappeared. Rather, they have receded into the background due to the remarkable effect that vaccines have had in preventing them. They will re-emerge if vaccination use drops. The serious health burden of vaccine-preventable diseases (VPDs) is evident from the number of measles cases from 1981 to 1990, totaling over 9,517 statewide. This threat to public health has decreased greatly with only 26 cases from 1991 to 2000. The risk of disease being re-introduced to the United States has increased due to international travel and populations within the country not accepting vaccination.

Health care providers are concerned that vaccination rates will decrease as the public fails to see a threat, perceiving instead a risk from vaccines. The Institute of Medicine, however, has released a report that conclusively dismisses the theory of thimerosal as a cause of autism.

Vaccines protect more than the vaccinated person. They also protect society. When immunization levels in a community are high, the few who cannot be vaccinated (those too young for vaccination or who have legitimate reasons to avoid immunization due to allergic reactions, etc.) are often indirectly protected because they are surrounded by vaccinated people (herd immunity).

Few public health measures match the benefits of vaccines. Cost-benefit analyses have been done on vaccination of children. Two vaccines – measles, mumps and rubella vaccine (MMR) and *Haemophilus influenzae* type b (Hib) vaccine – result in substantial direct medical savings for each vaccine dollar spent.

For every \$1 spent on the MMR vaccine, more than \$21 is saved in direct medical costs. For every \$1 spent on diphtheria-tetanus-acellular pertussis (DTaP) vaccine, more than \$30 is saved. And for every \$1 spent on polio vaccine, more than \$6 is saved. The 1989-1991 measles outbreak was estimated to cost over \$100 million in direct medical care. However, when indirect savings – including prevention of work loss by parents to care for ill children, prevention of death, and prevention of lost earnings

from disability – are added, all the vaccines routinely recommended for children are highly cost-effective.

Major strategies for ensuring that children are protected from vaccine-preventable disease are:

- Improving the quality of vaccination delivery;
- Minimizing financial burdens for needy children;
- Increasing community participation, education and partnership;
- Improving monitoring of disease and vaccination coverage; and
- Improving vaccines and vaccine use.

The greatest burden of VPDs in the United States is on adults. In 2001, pneumococcal and influenza disease accounted for more than 878 deaths in Iowa, mostly in the elderly. Pneumonia and influenza were the sixth leading causes of death in Iowa in 2001. In September 1997, the U.S. Department of Health and Human Services approved an agency-wide plan to improve adult immunization rates and reduce disparities among immigrant, refugee and racial and ethnic minorities.

Although childhood immunization rates have been historically lower in minority populations, rates for preschool children have been increasing at a more rapid rate, thereby significantly narrowing the gap. A report in the October 1997 issue of the *Morbidity and Mortality Weekly Report* presented findings from the National Immunization Survey. It documented substantial progress in achieving the 1996 Childhood Immunization Initiative coverage goals (90% immunization coverage by 2 years of age) by racial and ethnic groups. Currently, for quarter 3 of 2002 through quarter 2 of 2003, the national rate is 77.9%. Iowa is at 83.2%.

Despite this unprecedented progress, efforts to increase vaccination coverage must be intensified, particularly for children in poverty. In Iowa, pockets of need continue in both urban and rural areas, which have substantial numbers of under-immunized children. Children with disabilities are also at greater risk for disease and/or complications from disease and need to

be targeted to assess vaccine status and initiate vaccinations where needed.

These areas are of great concern because of the potential for disease outbreaks.

- Isolated incidences of vaccine shortages have occurred in the last few years. Currently, there are only four vaccine manufacturers. This leads to concerns about development of new vaccines and the supply of current vaccines.
- In 2003, an early influenza season and media coverage led to a rush on influenza vaccine, resulting in a temporary shortage of vaccine. This tested the infrastructure for communication between health care providers in all areas of health care and distribution to areas of need.

Besides the very young, adults are at increased risk for many vaccine-preventable diseases. Although vaccination levels against pneumococcal infections and influenza among people aged 65 years and over have increased slightly for African-Americans and Hispanics, coverage in these groups remains well below the general population and 2010 targets of 60%.

For example, national influenza immunization rates for whites were 57% in 1994, while coverage rates for African-Americans and Hispanics were only 39% and 38%, respectively. Similarly, pneumococcal immunization rates in the same year were 31% for whites, with African-American and Hispanic rates trailing at 15% and 14%, respectively. Immunizations for tetanus-diphtheria for adults are also lagging. In the last four years, Iowa has reported two cases of tetanus each year. As adults with disabilities move from institutions into the community, an infrastructure must exist to ensure that their needs for immunization are met.

The Immunization Registry Information System (IRIS) is a web-based, statewide immunization registry. It enables public and private providers to consolidate and maintain a computerized immunization record for each person who receives vaccinations in Iowa. This allows for accurate tracking of immunizations and allows health care providers to administer vaccine without missing or duplicating doses. The IRIS was implemented in February 2002. Currently, all public health providers and over 200 private providers are enrolled.

Besides the childhood schedule, the Advisory Committee on Immunization Practices (ACIP) has issued an adult immunization schedule. In 2004, the ACIP is recommending that children between 6 and 23 months of age be vaccinated annually against influenza. It is anticipated that more vaccines will be available and placed on the appropriate immunization schedule. Hopefully, this will encourage insurance companies to cover routine vaccinations.

In 2004, Iowa isolation and quarantine laws were updated and now allow for isolation of people with diseases and quarantine of non-immune contacts that put the public at risk. (Reference Iowa Administrative Code 641, Chapter 1, “Notification and Surveillance of Reportable Communicable and Infectious Diseases, Poisonings and Conditions.”)

Goal Statements & Action Steps

10–1 Goal Statement

Reduce by 50% indigenous cases of selected vaccine-preventable disease.

Baseline: See chart below.

Infectious Diseases 1997 and 2010 Target

Disease	1997 U.S.	2010 Target	1997 IA	2003 IA
Congenital rubella syndrome	4	2	0	0
Diphtheria (people <35 years)	4	2	0	0
Haemophilus influenzae type b	165	83	0	0
Hepatitis B(people <25 years)	8,693	4,346	33	1
Measles	135	68	0	0
Mumps	612	306	10	2
Pertussis(children<7 years)	2,633	1,317	62	27
Polio(wild-type virus)	0	0	0	0
Rubella	161	81	0	0
Tetanus(people<35 years)	10	5	0	0
Varicella deaths	100	50	0	0

Source: Centers for Disease Control and Prevention and the Iowa Department of Public Health.

Rationale

High immunization coverage has proven to be highly effective in reducing the number of childhood vaccine-preventable diseases to record low levels. Data on the spread of disease and viruses show a post-immunization drop in native transmission of such diseases.

Polio has already been eliminated in the United States by high vaccination coverage. Reported cases of diphtheria and tetanus are also near zero due to widespread use of vaccine. However, everybody must be vaccinated and exposure to tetanus minimized to achieve the goal of zero cases.

Reported cases of pertussis will likely decrease by increased vaccine coverage, but it will continue to occur since the organism circulates among older children and adults and the vaccine is not 100% effective. Given that pertussis has recently increased among adults, it is hoped that in the near future adult acellular pertussis vaccine will be available. Once adults are no longer the reservoir for pertussis, the number of cases statewide should decrease.

Hepatitis B infection will be greatly reduced as more children are covered by universal infant and adolescent immunization. Conjugate vaccines for the prevention of Haemophilus influenzae type B are highly effective and further reductions in disease are anticipated.

With increased use of varicella (chickenpox) vaccine, a decline in varicella cases, and subsequent deaths, is anticipated. In 2003, legislation was passed requiring varicella vaccine for children in licensed child care centers and schools. Because varicella’s rash is the most likely to be confused with the smallpox rash, a decrease in varicella will lessen its confusion with smallpox, should it occur.

10–1.1 Action Step

Through 2010, identify areas where substantial numbers of under-immunized children reside and develop a plan to immunize them. Ensure culturally, racially, and ethnically sensitive educational materials. (An Iowa Department of Public Health and local health-agencies action step.)

Progress

Many local agencies have identified underserved populations in their areas and have activities to increase immunization among them.

10–1.2 Action Step

Through 2010, educate health care providers to ensure that varicella (chickenpox) vaccine is widely used to decrease complications and death. (An Iowa Department of Public Health action step.)

Progress

In 2003, mass mailings were made to all health care providers to educate them on and promote the use of the vaccine.

10–2 Goal Statement

Increase to 90% the rate of immunization among adults 65 years of age and older.

Baseline: See chart below.

Percent of Iowans 65 and Older Immunized

Type of Vaccine	1997	2002	2010 Target
Influenza	69.7%	73.5%	90%
Pneumococcal	51.5%	66.2%	90%

Source: Behavioral Risk Factor Surveillance System (BRFSS), 1997, 2002

Rationale

Recent federal initiatives have highlighted the need to focus on immunizing adults. Current coverage varies widely by risk group. While immunization levels for influenza and pneumococcal have increased slightly for African-Americans and Hispanics, coverage for these groups remains substantially below that of the general population.

With Iowa’s aging population, increasing numbers of adults will be at risk for complications and death from pneumococcal and influenza disease. People of any age with high-risk conditions (e.g., heart disease, diabetes, chronic respiratory disease and asthma) are at increased risk, as are people in institutions. Vaccination is effective in reducing illness and death.

10–2.1 Action Step

By July 2005, develop a plan, and through 2010, promote influenza, pneumococcal and tetanus-diphtheria vaccination among minority and immigrant populations. Ensure culturally, racially, and ethnically sensitive educational materials. (An Iowa Department of Public Health, Iowa Foundation for Medical Care, and Immunization Coalition action step.)

Progress

In collaboration with the Iowa Immunization Coalition, promotional activities have occurred, including public service announcements by Dr. Jose Angel on the Hispanic radio station.

10–2.2 Action Step

By July 2005, identify areas in the state with substantial numbers of under-immunized adults 65 years of age and older and high-risk people. Develop a plan to increase public immunization sites, which may include senior citizen centers, homeless shelters, churches, free clinics, and youth shelters. (An Iowa Department of Public Health, Iowa Foundation for Medical Care, Iowa Immunization Coalition, and local health agencies action step.)

Progress

In October 2003, the Iowa Foundation for Medical Care and the Iowa Department of Public Health sent a mailing encouraging immunization to all Medicare beneficiaries in 12 counties with influenza and pneumococcal immunization rates under 40%.

10–2.3 Action Step

Through 2010, develop and distribute educational materials for health care providers and the public on the benefits of immunization against influenza and pneumococcal disease. Ensure culturally, racially, and ethnically sensitive materials. (An Iowa Department of Public Health and Iowa Immunization Coalition action step.)

Progress

The Iowa Immunization Coalition promotes vaccine in the adult population by marketing influenza vaccine through the Flu Bug campaign and inclusion of flyers promoting influenza vaccination with the delivery of meals on wheels.

10–2.4 Action Step

By 2007, initiate contact with insurance companies to promote the benefits of vaccine and invite an Iowan for Quality Health Care representative to the immunization coalition. (An Iowa Immunization Coalition action step.)

10–3 Goal Statement

Maintain levels of H. influenzae type b (Hib) immunization to keep the incidence of Hib meningitis among children 2 months to 5 years old at or below 0.4 cases per 100,000 population. Also, monitor vaccine and immunization advances, providing opportunities to reduce pneumococcal and meningococcal meningitis among all Iowans. Baseline: See Rationale.

Rationale

Until the introduction of widespread conjugated Hib vaccine – a type of vaccine that is effective in children as young as two months – approximately 68 cases of Hib meningitis in children 2 to 5 years of age were reported annually in Iowa. These cases accounted for half of all cases of bacterial meningitis reported to the Iowa Department of Public Health annually. With 95% of Iowa's children 2 months to 5 years of age immunized, only one case of bacterial meningitis due to Hib was reported from 1995 through 1997.

Over the same period, 31 cases of Group B and C meningococcal meningitis occurred in children under the age of six. New and improved meningococcal and pneumococcal vaccines will likely be introduced over the next decade, providing an opportunity to significantly reduce severe disease from those pathogens. In February 2000, a seven-valent pneumococcal conjugate vaccine (Prevnar) was licensed. The Advisory Committee on Immunization Practices (ACIP) recommended the use of the vaccine in June of 2000.

10–3.1 Action Step

Through 2010, assure that all public sites continue to use Hib vaccine. When new and improved meningococcal and pneumococcal vaccines are released, ensure that they are available to appropriate populations at those sites. (An Iowa Department of Public Health and local health agencies action step.)

Progress

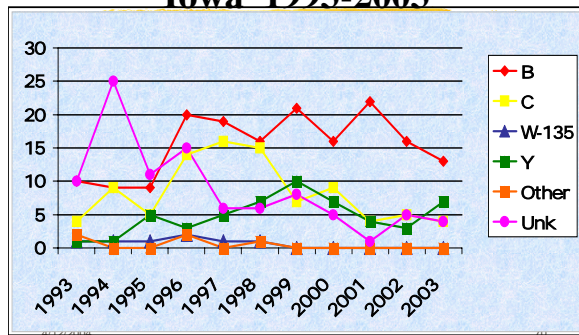
When new vaccines are recommended on the ACIP schedule and available to the state on the Center for Disease Control and Prevention (CDC) contract, the Iowa Department of Public Health must make the vaccine available to all Vaccine for Children (VFC) providers, along with education on and recommendations for vaccine use.

10–3.2 Action Step

Through 2010, track the incidence of invasive Hib, meningococcal and pneumococcal disease through case reporting. (An Iowa Department of Public Health action step.)

Invasive Hib is reportable by law. One case was reported in 2004, the first since 1999. Over the last decade, 25 –56 cases per year (1.3 cases per 100,000 population) of *Neisseria meningitidis* have been reported.

***Neisseria meningitidis* serogroups Iowa 1993-2003**



Source: IDPH/CADE 3/17/2004

10–3.2 Action Step

Through 2010, collaborate with institutions of higher learning to implement a 2004 Iowa legislation and do continuing data collection. The law requires institutions of higher learning that have on-campus residence halls or dormito-

ries to provide students with meningococcal disease vaccination information on student health forms. (An Iowa Department of Public Health and institutions of higher learning action step.)

Reported Meningococcal Invasive Disease - Serogroups, Iowa 1998-2003, Ages 17-25

Serogrp 1998 1999 2000 2001 2002 2003

B	5	8	5	7	5	5
C	4	0	1	2	0	2
Y	0	0	2	1	1	1
Unk	1	0	2	1	1	2

Vaccine contains serogroups A, C, Y & W135

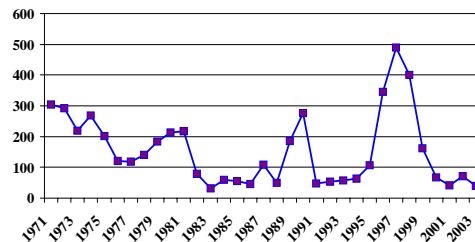
Source: IDPH 3/17/2004

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10–4 Goal Statement

Reduce hepatitis A cases to no more than 10 per 100,000 population. Baseline: The average incidence in Iowa from 1996 to 1998 was 14.45; in 2001- 2003 there were 1.71cases.

Reported Cases of Hepatitis A, Iowa 1971-2003



Source: IDPH

Rationale

Epidemics of hepatitis A have occurred in Iowa about every decade. They have been mainly extended, community-wide epidemics in which the infection is acquired primarily by person-to-person contact. Between epidemics, hepatitis A continues to occur at an endemic rate. In 1998, the rate of reported hepatitis A cases in Iowa was 14.45 per 100,000 population. The 2003 rate was 1.4.

10–4.1 Action Step

By 2010, focus on pre-exposure vaccination of people in high-risk groups and routine vaccination of children in selected areas to prevent and control hepatitis A until recommendations for routine hepatitis A vaccination of all children exist. High-risk groups for which hepatitis A vaccination is recommended include:

- Illegal drug users;
- Men who have sex with men;
- People traveling to hepatitis A virus endemic countries;
- People with an occupational risk of infection (e.g., people who work with hepatitis A-infected primates or with hepatitis A virus in a laboratory – no other occupational groups have been shown to be at increased risk of exposure);
- Children two years of age or older in communities with high rates of hepatitis A infection and periodic hepatitis A outbreaks; and
- American Indian children.

(An Iowa Department of Public Health and local health agencies action step.)

10–5 Goal Statement

Reduce to zero newly diagnosed hepatitis B rates in persons under aged 25.

Baseline: The average incidence in Iowa from 1996 to 1998 was 1.36 reported new cases per 100,000 population. The average incidence in Iowa from 2001 to 2003 was 0.07.

Rationale

In the United States, 5% of the population has been infected with hepatitis B virus, and an estimated 250,000 to 300,000 infections have occurred annually over the past 20 years. Although most infections occur among young adults with high-risk behaviors (e.g., those with multiple sex partners, injection drug users), young children have the highest risk of chronic infection. It often leads to chronic liver disease, including cirrhosis and liver cancer.

10–5.1 Action Step

Through 2010, promote the Advisory Committee on Immunization Practices (ACIP) im-

munization strategy for hepatitis B. (An Iowa Department of Public Health action step.)

Progress

The Iowa Department of Public Health follows up on women of childbearing age in whom a positive hepatitis B test is reported. If such a woman is pregnant, family members are assessed for hepatitis B vaccine status and the infant is provided hepatitis B vaccine and hepatitis B immune globulin (HBIG) within 12 hours of birth to decrease the risk of that child developing the disease.

Effective in the 1999 school year, all children born on or after July 1, 1994, entering school systems are required to have three doses of hepatitis B vaccine. In 2003, the Iowa Department of Public Health started a program with two juvenile homes and six county health departments to provide hepatitis A vaccine to these high-risk populations.

10–6 Goal Statement

Reduce by 50% hepatitis B among adults aged 25 and older. Baseline: In 1998, there were 2 reported cases per 100,000 population. In 2003, 0.6 cases were reported in this population.

Rationale

Implementation of routine infant vaccination will eventually produce a highly immune population sufficient to eliminate hepatitis B transmission in the United States. However, high rates of acute hepatitis B continue to occur. Most of them are among young adults, including persons with a history of multiple sex partners (more than one partner in the prior six months); men who have sex with men; injecting drug users; incarcerated persons; and household and sexual contacts of infected people. In most of these groups, vaccine coverage is low.

10–6.1 Action Step

By July 2005, implement programs targeting adolescents and adults in high-risk groups at sites where hepatitis B vaccination should be offered to all susceptible patients. The sites include clinics that treat sexually transmitted dis-

eases, correctional facilities (e.g., juvenile detention facilities, prisons, jails), drug treatment clinics, and community-based HIV prevention sites. (An action step coordinated by the Iowa Department of Public Health.)

10–7 Goal Statement

Make information on hepatitis C available to health care providers through pamphlets, programs or other educational materials. Cross Reference HIV/STD Chapter 19.

Rationale

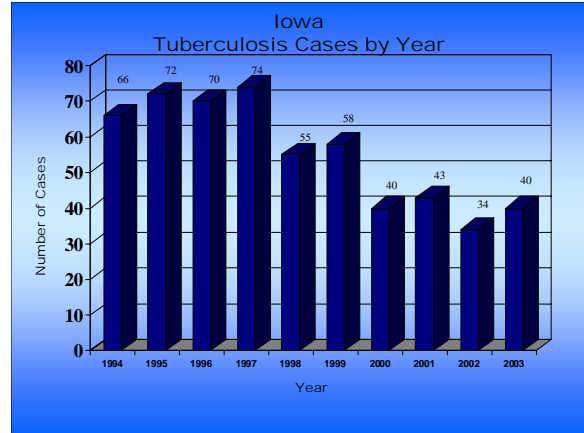
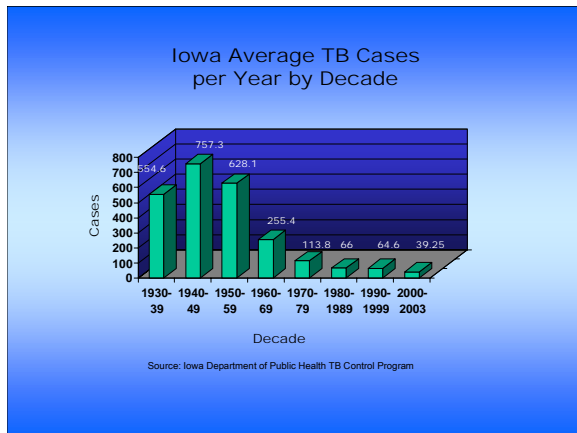
Hepatitis C is causing increased disease and death across the United States and in Iowa. Diagnosis and treatment will probably continue to change rapidly over the next few years.

10–7.1 Action Step

By July 2005, develop or gather educational materials on hepatitis C and distribute to health care providers. Ensure culturally, racially and ethnically sensitive materials. (An Iowa Department of Public Health and University of Iowa Hygienic Laboratory action step.)

10–8 Goal Statement

Reduce tuberculosis (TB) to no more than 1.0 cases per 100,000 population. Baseline: For the years 1996-1998, the rate was 2.4. In 2003, it was 1.4.



Rationale

The trend toward elimination of tuberculosis (TB) was reversed when the nation experienced a 20% increase between 1985 and 1992. With more resources, TB is once again on the decline. The U.S. is at an all-time low in TB cases reported, with 10 consecutive years of decline. Iowa has had a significant decrease as well.

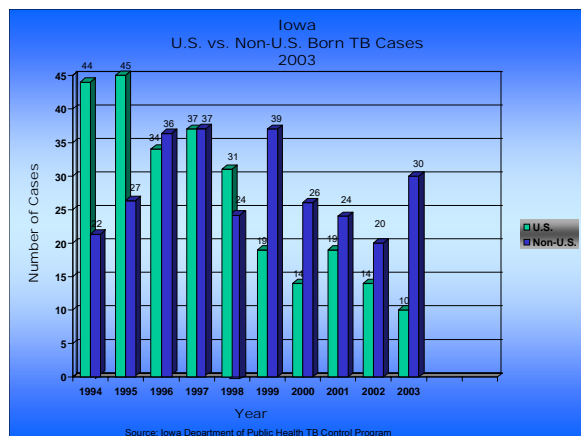
The commitment of additional resources and the rebuilding of the TB infrastructure during the mid-1990s make it reasonable to target a state rate of no more than 1.0 per 100,000 by 2010. Its achievement will depend in part on the availability of continued resources and significant cooperation among public and private health care providers and agencies at federal, state and local levels. However, the proportion of TB cases in non-U.S. born people has increased significantly during the past decade. In 1994, 33% of all reported TB cases were among non-U.S. born persons, compared to 70% in 2003. This population poses the greatest challenge to Iowa’s TB control.

10–8.1 Action Step

By 2010, screen and evaluate all class B1 and B2 refugees within two weeks of arrival at their primary settlement location. This involves a medical evaluation with a chest x-ray to rule out active disease. (An Iowa Department of Public Health, refugee program, and local health agencies action step.)

Progress

This process is currently in place.



10–8.2 Action Step

By 2010, ensure that at least 90% of patients with newly diagnosed tuberculosis (TB), for whom therapy for one year or less is indicated, will complete therapy within 12 months. (An Iowa Department of Public Health and local health agencies action step.)

Progress

During 2002, 34 TB cases were reported to the Iowa Department of Public Health. For people for whom therapy for one year or less was indicated, 33/34 (97%) completed therapy within 12 months.

10–8.3 Action Step

By 2010, identify contacts for at least 90% of newly reported sputum AFB-smear positive TB cases. (An Iowa Department of Public Health and local health agencies action step.)

Progress

During 2003, 40 verified cases of TB were reported to the Iowa Department of Public Health, 24 of which were sputum AFB-smear positive. The contacts of all 24 cases were identified. The resulting indicator would be that contacts of 24/24 (100%) of newly reported sputum AFB-smear positive TB cases were identified. A total of 590 contacts were identified for these 24 cases.

10–8.4 Action Step

By 2010, evaluate at least 95% of contacts of sputum AFB-smear positive TB cases for infection and disease. (An Iowa Department of

Public Health and local health agencies action step.)

Progress

During 2003, 590 contacts were identified. Of them, 452 (76%) were completely evaluated.

10–8.5 Action Step

By 2010, ensure that at least 85% of infected contacts started on treatment for latent TB infection complete therapy. (An Iowa Department of Public Health and local health agencies action step.)

Progress

During 2002, 64/68 (94%) contacts that started therapy completed treatment.

10–8.6 Action Step

By 2010, report all newly diagnosed cases of tuberculosis (TB) to the Center for Disease Control and Prevention (CDC) using its electronic reporting system. Variables reported in the expanded Reportable Verified Case of Tuberculosis (RVCT) will be at least 95% complete. (An Iowa Department of Public Health and local health agencies action step.)

Progress

During 2003, 40 TB cases were reported to the Iowa Department of Public Health. All (40/40 – 100%) were reported to CDC via the Tuberculosis Information Management System (TIMS) with complete data for all variables.

10–8.7 Action Step

By 2010, report drug-susceptibility results for at least 90% of all newly reported, culture-positive TB cases. (An Iowa Department of Public Health and local health agencies action step.)

Progress

During 2003, initial drug-susceptibility results were reported for all (40/40 – 100%) of the 40 cases.

10–8.8 Action Step

By 2010, report HIV status for at least 75% of all newly reported TB cases aged 25 to 44. (An Iowa Department of Public Health and local health agencies action step.)

Progress

Of the 40 TB cases reported in 2003, 13 were among people aged 25 to 44. The HIV status was reported on all (13/13, (100%) newly reported cases.

10–8.9 Action Step

By 2010, promote the use of Directly Observed Therapy (DOT) incentives and promote helpers to increase the completion of therapy rates on an ongoing basis. (An Iowa Department of Public Health action step.)

Progress

DOT has been a reimbursed service since August 2001. In 2003, 95% of reported cases received partial/100% DOT services.

10–8.10 Action Step

By 2010, report on Iowa's National TB Objectives annually and provide county-specific feedback on "Follow-up and Treatment for Contacts to TB Cases." (An Iowa Department of Public Health action step.)

Progress

An epidemiological report is posted on the Iowa Department of Public Health web site each year. It is also available in hard copy.

10–9 Goal Statement

For potential rabies exposure, provide technical support to providers and local health departments on post exposure prophylaxis (PEP). Baseline: See Rationale.

Rationale

Approximately 40,000 post-exposure prophylaxis (PEP) treatments are given in the United States annually, but no baseline data on their appropriateness is available. In 2003, Iowa had its first case of human rabies since 1951.

10–9.1 Action Step

By 2010, ensure access to "Iowa Rabies Exposure Assessment Tree" to all Iowa hospital emergency rooms, clinics and veterinary offices. (An Iowa Department of Public Health action step.)

Progress

New physicians can access this document through the clearinghouse or at http://www.idph.state.ia.us/adper/common/pdf/rabies_exposure_all_animals.pdf

10–9.2 Action Step

Through 2010, promote physician consultation and reporting on all incidents that result in rabies PEP for two or more patients. (An Iowa Department of Public Health action step.)

10–10 Goal Statement

Reduce by 10% the statewide incidence of antimicrobial resistance in key reportable invasive antibiotic-resistant organisms. Baseline: Year 2000 data for 1) Vancomycin-resistant enterococci (VRE) 22; and 2) Methicillin-resistant *Staphylococcus aureus* (MRSA) 125 isolates. Source: Report of the Iowa Antibiotic Resistance Task Force, 2nd Edition, Fall 2004.

Rationale

During the last two decades, methicillin resistance in staphylococci and vancomycin resistance in enterococci have been increasing. This has resulted in infections that are hard to treat with available antibiotics. Prudent antibiotic administration and infection control may minimize the problem. Recently, vancomycin intermediate *Staphylococcus aureus* (VISA) was recognized in a number of health care settings. To avoid their joining the ranks of prevalent problems, it may be desirable to prospectively survey for colonization and local infections with methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant enterococci (VRE), and VISA.

Data from the Emerging Infections and Epidemiology of Iowa Organisms (EIEIO) surveillance in 14 Iowa hospitals showed that some 25% of the isolates of *Staphylococcus aureus* are MRSA. The majority of the resistance was in a few medical centers. The focus of surveillance for resistance in colonization and local infections could center on these "sentinel" hospitals.

Data from the EIEIO project and the Iowa Antibiotic Resistance Task Force (IARTF) project show that approximately 5% of enterococcal isolates are vancomycin-resistant. Unfortunately, colonization with these agents tends to antedate systemic infection and the data do not reflect the prevalence of colonization. To anticipate infection, prospective surveillance is necessary. As of June 2003, three cases of vancomycin-resistant *Staphylococcus aureus* (VRSA) have been reported in the U.S.

10–10.1 Action Step

By 2010, track the data from the Iowa Antibiotic Resistance Task Force (IARTF). (An Iowa Department of Public Health, University of Iowa Hygienic Laboratory, and Iowa Antibiotic Resistance Task Force action step.)

Progress

The IARTF has selected methicillin-resistant *Staphylococcus aureus* (MRSA), *Streptococcus pneumoniae*, *Enterococcus*, *Streptococcus pyogenes* isolated from selected, sterile body sites to track and trend resistance. Iowa's rate of penicillin-resistant *Streptococcus pneumoniae* is 22.1%, which is similar to the nationally reported rate. The rate of erythromycin resistant *Streptococcus pneumoniae* is in Iowa 24.1%, compared to the national rate of 34.5%. The rate of vancomycin resistant enterococcus in Iowa is 13%, compared to the national rate of 20%.

10–10.2 Action Step

Through 2010, conduct ongoing public-education campaigns on the appropriate use of antibiotics. (An Iowa Department of Public Health, Iowa Antibiotic Resistance Task Force, and local health agencies action step.)

Progress

Along with the education of the public and physicians on proper and prudent use of antibiotics, Iowa laboratories also have been educated on the best practices and standards of laboratory testing for antimicrobial susceptibility.

10–10.3 Action Step

By 2010, provide information to health care personnel and health care colleges on appropriate administration of antibiotics for ear infec-

tions. (Iowa Antibiotic Resistance Task Force action step.)

10–11 Goal Statement

Maintain 100% of hospital participation in reporting specific isolates as required by Iowa law. Baseline: In January through April of 1999, 59% of facilities with a laboratory sent isolates to the University of Iowa Hygienic Laboratory (UHL).

Rationale

As organisms become increasingly resistant, treatment will depend on knowing antibiotic-resistant patterns in all areas of Iowa. All hospitals must send isolates to the University of Iowa Hygienic Laboratory as required by the Iowa law.

10–11.1 Action Step

Through 2010, educate the staffs of all laboratories and acute care hospitals in Iowa on the law's requirements. (An Iowa Department of Public Health and University of Iowa Hygienic Laboratory action step.)

Progress

Personnel of all laboratories in Iowa have been educated on submission requirements and provided with the transport media and mailing kit. The data indicate that there has been a significant decrease in the number of Strep pneumoniae submissions from 1999 to 2003, while there were fairly steady submission rates for enterococcus. A decrease of about 50% in submissions of Group A beta streptococcus during 2001 and 2002, and a steady increase in methicillin-resistant *Staphylococcus aureus* (MRSA) submissions, was noted.

10–12 Goal Statement

Reduce invasive pneumococcal infections by 25% of the baseline per 100,000 persons under aged 5, and by 25% of the baseline per 100,000 persons aged 64 and older. Reduce invasive penicillin-resistant pneumococcal infections by

25% of baseline per 100,000 persons aged 5 and under and aged 64 and older.

Baseline: See chart below.

Invasive Pneumococcal Infections in Iowa, 1999 and 2000 per 100,000 Population

	<5 years		>64 years	
	1999	2000	1999	2000
Total invasive infections	58.4	44.6	53.6	40.1
Infections due to penicillin-resistant organisms	23.4	19.6	9.9	11.7

Source: UHL

Rationale

Invasive pneumococcal infections occur primarily in infants, the elderly, and groups with underlying medical conditions. Pneumococcal meningitis and septicemia result in high fatality. *S. pneumoniae* is responsible for an estimated 3,000 cases of meningitis annually in the U.S., with a 20% mortality; 50,000 cases of bacteremia, with a 20% mortality; and between 150,000 and 570,000 cases of pneumonia with 5% to 10% percent mortality. Multiple antibiotic-resistant *S. pneumoniae* emerged in the U.S. in the early 1990s. Use of the multi-valent pneumococcal vaccine has reduced the rate of pneumococcal infections.

Invasive Pneumococcal Infections* in the United States, Estimate, 1997, Per 100,000 Population

	<5 years	>64 years
Total invasive infections	76.0	62.0
Infections due to penicillin-resistant organisms	15.7	8.5

Source: Healthy People 2010 draft

*Note: Infections of sterile sites (e.g., blood, spinal fluid, joint fluid).

10–12.1 Action Step

Through 2010, continue surveillance of invasive pneumococcal infections. (An Iowa Department of Public Health and University of Iowa Hygienic Laboratory action step.)

Progress

The database to be developed by July 2001 is currently in place. Surveillance will continue.

10–12.2 Action Step

During 2005, promote pneumococcal vaccination among adults and children under 5 years of age. (An Iowa Department of Public Health, Immunization Coalition and local health agencies action step.)

Progress

In February 2000, a seven-valent pneumococcal conjugate vaccine (Prevnar) was licensed. It was recommended by Advisory Committee on Immunization Practices (ACIP) in June 2000 and is promoted by Iowa’s Vaccine for Children (VFC) program. The immunization coalition continues to promote pneumococcal vaccine in the adult population.

10–13 Goal Statement

Achieve or maintain immunization levels of at least 90% among children aged 19 to 35 months. Baseline: See chart below.

Immunizations of Two-Year Olds Compliance Levels, 1996-1997, 2002-2003

Recommended Immunizations	1996-97 % of Compliance	2002-03 % of Compliance
At least 4 doses of diphtheria-tetanus-pertussis vaccine	85%	87%
At least 3 doses of Hib vaccine	96%	94%
At least 1 dose of measles-mumps-rubella vaccine	90%	95%
At least 1 dose of varicella vaccine	13%	73%
At least 3 doses of polio vaccine	94%	95%
4 DTPP, 3 Polio, 1 MMR, 3 Hib	80%	84%

Source: National Immunization Survey data June 1996-June 1997, 2002-2003

*Note: Two years of age is measured at 19-35 months by the National Immunization Survey.

Rationale

Maintenance of high immunization coverage in early childhood best prevents the spread of vaccine-preventable diseases among children and provides the foundation for controlling them

among adults. The measles epidemic of 1989 through 1991 demonstrated that high immunization levels at school entry was insufficient to control vaccine-preventable disease outbreaks. Coverage levels are currently the highest ever recorded. However, the introduction of Prevnar vaccine into the childhood immunization schedule highlights the need to continuously monitor coverage and to search for gaps in coverage.



10–13.1 Action Step

By 2006, change Administrative Code 631, chapter 7, to update the immunization requirement for children enrolled in licensed child care and schools to accurately reflect the recommendations of the Advisory Committee on Immunization Practices (ACIP) for doses of currently required vaccine. (An Iowa Department of Public Health action step.)

10–14 Goal Statement

Maintain at 95% immunization compliance for children in licensed day care centers, kindergarten and first grade.
Baseline: See chart below.

Rationale

Day care and school immunization requirements are the most effective way to ensure that children are appropriately immunized. More than 90% of the children in Iowa are vaccinated prior to school entry.

Immunizations for Children through Grade 1

Recommended Immunizations	Compliance Levels for 1998-1999 School Year			
	Day Care 1998-99 2000-01		K-1st Grade 1998-99 2000-01	
Diphtheria-tetanus-pertussis	91%	89%	90%	85%
Measles-mumps-rubella	92%	93%	97%	90%
Haemophilus influenzae type B	92%	93%	NA	90%
Polio	91%	91%	93%	92%
Hepatitis B	NA		NA	
Varicella	NA		NA	

Source: Iowa Department of Public Health Audit.

10–14.1 Action Step

Through 2010, collaborate with local health care providers, local public health, department of education, head start, and Women, Infants and Children (WIC) program to develop and implement a plan to provide immunizations through community or school-based youth-service centers. Ensure culturally, racially, and ethnically sensitive educational materials. (An Iowa Department of Public Health, local health agencies, local communities, schools, and health care provider action step.)

10–15 Goal Statement

Maintain at 100% the public Vaccine for Children (VFC) providers who systematically measure immunization coverage in their populations and increase to 30% (from 10% in 2002; 20% in 2003) the number of private VFC providers who systematically measure immunization coverage in their populations. Baseline: See Rationale.

Rationale

In 2003, immunization coverage of all public Vaccine for Children (VFC) providers in Iowa was assessed. Approximately 20% of pri-

vate VFC providers were also assessed. With the increasing role of managed care and use of Health Employer Data Information Set (HEDIS) measures, private providers should have additional opportunities to have their immunization coverage assessed.

Most providers overestimate immunization coverage among their patients. Assessment of practice-based coverage and feedback to the providers has been an effective strategy for increasing immunization of children at some practices. Practice-based assessments are endorsed by the Advisory Committee on Immunization Practices (ACIP), the National Vaccine Advisory Committee (NVAC), the American Academy of Pediatrics (AAP), and the American Academy of Family Physicians (AAFP).

10–15.1 Action Step

Through 2010, develop collaboration among the Iowa Department of Public Health, health care providers, and health care organizations to promote practice-based assessments in private provider settings. (An Iowa Department of Public Health action step.)

10–15.2 Action Step

By 2010, develop a component of the state immunization registry to provide population-based, practice-based, and geographically-based assessment data. (An Iowa Department of Public Health action step.)

Progress

This process is dependent upon the Bureau of Health Statistics in the Iowa Department of Public Health completing its electronic birth-record system. Once this system is completed, this action step will move forward.

10–16 Goal Statement

Increase to 75% the proportion of children aged birth through six enrolled in a fully functional population-based immunization registry. Baseline: In 2003, 60% of children under aged 5 had records in IRIS.

Rationale

State immunization registries will be the cornerstones of our nation's immunization system by 2010. Registries facilitate timely immunization of children by ensuring that the child's complete immunization history is available to the health care provider at the time of visit. The registry can facilitate methods for increasing immunization coverage (e.g., reminder/recall systems) and feedback on practice-based immunization coverage for providers. Registries also provide a simple means for assessing coverage at the geographic and population levels, thus facilitating efforts to reduce gaps in coverage among subgroups.

10–16.1 Action Step

Trough 2010, market and promote the immunization registry to private Vaccine for Children (VFC) providers, schools, hospitals and other potential users. (An Iowa Department of Public Health action step.)

10–17 Goal Statement

Increase by 20% the number of health care workers who annually receive influenza vaccine. Baseline: Data from 10 hospitals in central Iowa for 2002 and 2003 show a rate of 48%. Data from the National Health Interview Survey show only 36% of health care workers are actually immunized against influenza each year.

Rationale

Health care workers infected with influenza can transmit the highly contagious virus to patients. This is particularly troubling for many patients at high risk for influenza-related complications, where it can lead to serious illness or death.

Medical literature suggests that health care workers can be a key source of outbreaks in a variety of health care settings. They encounter high-risk patients during the influenza season in medical practices, general hospitals, specialty hospitals, long-term care and rehabilitation facilities, home care sites, and other health care settings.

10–17.1 Action Step

Through 2010, educate staff of hospitals and long-term care facilities and health care providers on the importance of being vaccinated, targeting top management and administration. (An Iowa Department of Public Health and Immunization Coalition action step.)

10–18 Goal Statement
Educate health care providers and the public on the use of antibiotics for ear infections. Baseline: See Rationale.

Rationale

Approximately 30% of ear infections are classified as otitis media with effusion, which does not require antimicrobial treatment. Through promotion, use of antibiotics for this condition can be reduced substantially. The Iowa Antibiotic Resistance Task Force (IARTF) that convened in January 1998 published a guideline in 1999 for all Iowa health care providers. It covers the use of antimicrobials in otitis media with effusion. All Iowa health care providers will be asked to review the guideline to educate themselves on strategies to deter antibiotic resistance.

The 2004 revision of the IARTF will reference more specific guidelines on the treatment of otitis media with effusion. Go to <http://www.aafp.org/PreBuilt/aomguidelines.pdf> for the 2004 CDC recommendations for otitis media

10–18.1 Action Step

Through 2010, distribute educational materials to professional associations and health care schools. Request that they provide programming on the judicious use of antibiotics, specifically on otitis media with effusion. Develop and distribute educational materials for the public that are racially, ethnically and culturally specific. (An Iowa Department of Public Health, Iowa Medical Society, and Iowa Pharmacists Association action step.)

10–19 Goal Statement

Educate health care providers on the use of antibiotics for colds. Baseline: See Rationale.

Rationale

Prescribing antibiotics for the common cold is not appropriate. Through a campaign for judicious use of antibiotics, a substantial proportion of antibiotic prescriptions for viral upper respiratory infections could be reduced. The Iowa Antibiotic Resistance Task Force (IARTF), which convened in January 1998, published a guideline in 1999 for all Iowa health care providers. It covers use of antimicrobials in viral infections such as colds. All health care providers in Iowa will be asked to review the guidelines to educate themselves on strategies to deter antibiotic resistance.

10–19.1 Action Step

Through 2010, distribute educational materials to professional associations and health care schools requesting that they provide programming discouraging the use of antibiotics for the common cold. Develop and distribute during 2004 to 2005 educational materials for the public that are racially, ethnically and culturally specific. (An Iowa Antibiotic Resistance Task Force action step)

Goal Cross References**Chapter 1: Access to Quality Health Services**

- 1–1 Reduce to 0 the proportion of children and adults under aged 65 without health care coverage.
- 1–2 Develop a plan and engage in activities that encourage providers to follow standardized quality performance measures.
- 1–3 Increase by 25% access to primary care for the underserved population.
- 1–4 Ensure a competent and diverse health workforce by assessing and forecasting workforce supply and demand and by promoting local strategies to recruit and retain workers.

1–12Develop a strategic plan to assess and use telehealth and telemedicine to increase access to health services.

Chapter 4: Disabilities

4–3Assure that each HI2010 chapter assesses the health issues and potential treatment available for people with disabilities and incorporates appropriate goals and action steps.

Chapter 6: Environmental Health

6–4Reduce to 10 the number of annual notifications received by the Iowa Department of Public Health from the Iowa Department of Natural Resources on “acute” bacterial contamination in community water systems.

6–5Increase to 40% the number of homes in non-incorporated areas with acceptable wastewater treatment.

Chapter 8: Food and Drug Safety

8–1Reduce food-borne infections by major bacterial pathogens to no more than 6.9 for Salmonella, 11.5 for Campylobacter, and 1.0 for E. coli 0157:H7.

8–2Reduce by 20% food-borne outbreaks in retail food establishments.

8–3Provide two consumer food safety education programs annually.

8–4Improve surveillance of food-borne diseases to ensure early recognition and prompt reporting to public health officials so causes of disease are determined in 90% of recognized cases.

Chapter 11: Maternal, Infant and Child Health

11–4Reduce the rate of child mortality for children aged 1-14 to 17/100000.

Chapter 18: Respiratory Diseases: Asthma

18–1Reduce asthma-related hospitalizations by 10%, emergency department visits by 10%, and urgent care visits by 20%.

18–5Raise community awareness of environmental exposures known to trigger asthma and increase community involvement in primary prevention.

Chapter 19: Sexually Transmitted Diseases and Human Immunodeficiency Virus Infection

19–1 Reduce Chlamydia trachomatis to no more than 140/100000.

19–2 Reduce gonorrhea to no more than 43/100000.

19–3 Eliminate transmissions of primary and secondary syphilis.

19–5 Establish a baseline for the proportion of sexually active women under aged 25 who are screened annually for Chlamydia and gonorrhea in primary health care settings.

19–6 Establish a baseline for the proportion of pregnant women screened for STDs during prenatal health care visits.

19–7 Establish a baseline for the number of youth detention facilities and adult city and/or county jails in which screening for common bacterial STDs is conducted within 24 hours of admission.

19–8 Reduce new cases of AIDS among adolescents and adults to no more than 2/100000.

19–9 Reduce by 50% the annual incidence of HIV infection of the 2001 baseline.

19–10 .. Increase to 67% the proportion of sexually active students who report using a condom during the previous 3 months.

19–11 .. Increase to 97% the proportion of high school students in grades 9-12 who receive age-appropriate classroom education on HIV and other STDs.

19–12 .. Increase the proportion of clients of state-funded HIV testing sites who are referred for screening for common bacterial STDs.

19–13 .. Increase to 1.0% the percentage of newly identified, confirmed HIV-positive test results by state-funded HIV counseling, testing and referral sites.

19–14 .. Increase to 75% the percentage of partner counseling and referral contacts with unknown or negative serostatus who receive an HIV test.

19–15 .. Increase to 90% the proportion of facilities providing treatment for injecting drug use that offer or refer persons for HIV counseling and voluntary testing.

19–16 .. Maintain at 100% the proportion of state prison inmates who receive HIV testing and appropriate counseling.

- 19–17 ..Increase to 90% the proportion of county jails in counties with populations over 50,000 that regularly screen all inmates for HIV.
- 19–18 ..Increase to 100% the proportion of new tuberculosis cases in people aged 25-44 who have their HIV status reported.
- 19–19 ..Increase the percentage of HIV-infected persons who are receiving regular primary HIV medical care.
- 19–20 ..Reduce HIV mortality to no more than 0.4/100000.
- 19–21 ..Decrease the percentage of persons diagnosed with AIDS within a year of their HIV diagnosis.
- 19–22 ..Eliminate HIC acquired perinatally.

Chapter 25: Emergency Preparedness and Response

- 25–2At least every 3 years, conduct comprehensive needs assessment of public health, laboratories, and health care emergency preparedness and response.
- 25–3Enhance disaster preparedness plans in each county and at the state level to include an all-hazards approach using the National Incident Management System.
- 25–4Develop a comprehensive plan to increase surge capacity for health care.
- 25–5Maintain plans for and implement additional training and exercising for the Strategic National Stockpile program at the local, regional, and state level.
- 25–7Develop a secure, web-based reporting and notification system for disease outbreaks and other acute health events that might suggest bioterrorism.
- 25–8Exercise, assess and implement needed change in plans annually to demonstrate proficiency in responding to terrorism attacks, natural disasters, infectious disease outbreaks, and other public health threats and emergencies.
- 25–9Develop a self-sustaining payment system and user network to assure that emergency responders have ongoing access to the Health Alert Network.

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Chapter 11

Maternal, Infant and Child Health**Introduction**

This chapter is dedicated to promoting the health and well being of Iowa's children and families. The boundaries of concern are wide and encompass individuals from women's health across the lifespan to infants, children, adolescents, and young adults. Both health status and the health services that maintain and improve health are acknowledged. Special attention is given to the public health infrastructure that supports the provision of accessible and quality services. Children and youth with special health care needs, that is, children with long-term chronic and disabling conditions and representing approximately 17% of children (Iowa Child and Family Household Health Survey 2000), are the specific focus of a number of goals.

A unifying vision for this chapter is the concept, "Family Quality of Life." This concept proposes that a primary role of maternal and child health (MCH) programs in Iowa is to support families who are by nature diverse in composition and structure. Families are important because it is within their structure that children form strong, stable, emotional attachments, and through them that children meet continuing physical, emotional and social needs. Family quality of life depends on roles and interactions, both within the family and between the family and the community, that influence the health and well being of children.

Maternal and child health programs can help families meet the needs of children in several areas: 1) material support; 2) emotional support; 3) socialization; and 4) basic life skills. Families are challenged to meet these fundamental needs. Despite a growing economy, the average income of Iowa families with children has remained essentially unchanged from levels of a decade ago

(according to the U.S. Census Bureau). The percentage of Iowa children in poverty according to the 2000 U.S. Census was 10.7%.

There are many other factors that may negatively impact family functioning. Substance abuse, family violence, mental illness, and inappropriate parental expectations are significant contributors. Social isolation and discrimination based on race, ethnicity or social status may hinder families' motivation and opportunity for healthy functioning. Families whose children have special health care needs are additionally affected by economic and emotional challenges. Even the best functioning families are likely to need outside help when caring for a physically or emotionally ill or injured child. The "Family Quality of Life" concept has motivated a chapter of broad scope with recognition that families and the service system interact for diverse reasons and at varying intensities.

Although the overall Iowa infant mortality rate has approximated the federal 2000 goal of 7 deaths per 1,000 live births for the past several years, there continues to be a wide and unacceptable disparity in the rates for white and African-American infants. The African-American rate is more than three times the white rate. Greater than twofold differences between these groups also exist for low birth weight and very low birth weight rates. Rate disparities among other demographic groups must also be monitored and dealt with.

At mid-decade, continuity of care and integrated systems remain challenges. Care coordination is a well-accepted quality strategy; however, further documentation of its cost-effectiveness is still needed. A systematic approach to monitoring and tracking at-risk infants remains absent, but is gaining support for its development. Progress has been made through

medical home and early childhood systems building efforts. It is encouraging that the core public health functions of assessment, policy development, and assurance are being practiced more aggressively and competently by Iowa's state and local MCH-related agencies. As part of this enhancement, a new goal addresses the pre-service training of MCH professionals.

Accessibility of mental and behavioral health services has long been a problem in Iowa, as well as nationally. Unequal distribution of providers, under identification of need, inappropriate referral patterns, and inadequate insurance coverage contribute to the problem. These problems all persist at mid-decade; however, solutions are being pursued. Among these are the Governor-supported mental health system redesign efforts, the early childhood healthy mental development project, and experimental use of telehealth technology to improve access to mental health providers. A new goal addresses the importance of early identification of infants and toddlers at risk for mental health or behavioral problems.

Postpartum depression is a serious mental health condition for women that create an enormous burden. According to the World Health Organization, depression is one of the leading causes in the world of lost years of healthy life among women. Postpartum depression can no longer be ignored. It results in increased risks of maladaptive social, emotional and cognitive development in children with detrimental effects on the family structure and environment. A new goal specifically addresses postpartum depression.

There remains a concern regarding the safety and quality of child care environments. Many child care providers are not properly trained in health and safety procedures, including procedures applicable to children with special health care needs. The goal related to child care has been deleted in deference to a sufficient representation in Chapter 5 (Educational and Community-Based Programs).

Across the United States, more than six million children are being raised in households headed by grandparents and other relatives as parents struggle with substance abuse, mental

illness, incarceration, economic hardship, divorce, domestic violence, and other serious challenges. These family members are caring for the children both inside and outside of the foster care system. As of March 2003, the Iowa Department of Human Services had a total of 4,953 children in out-of-home placements.

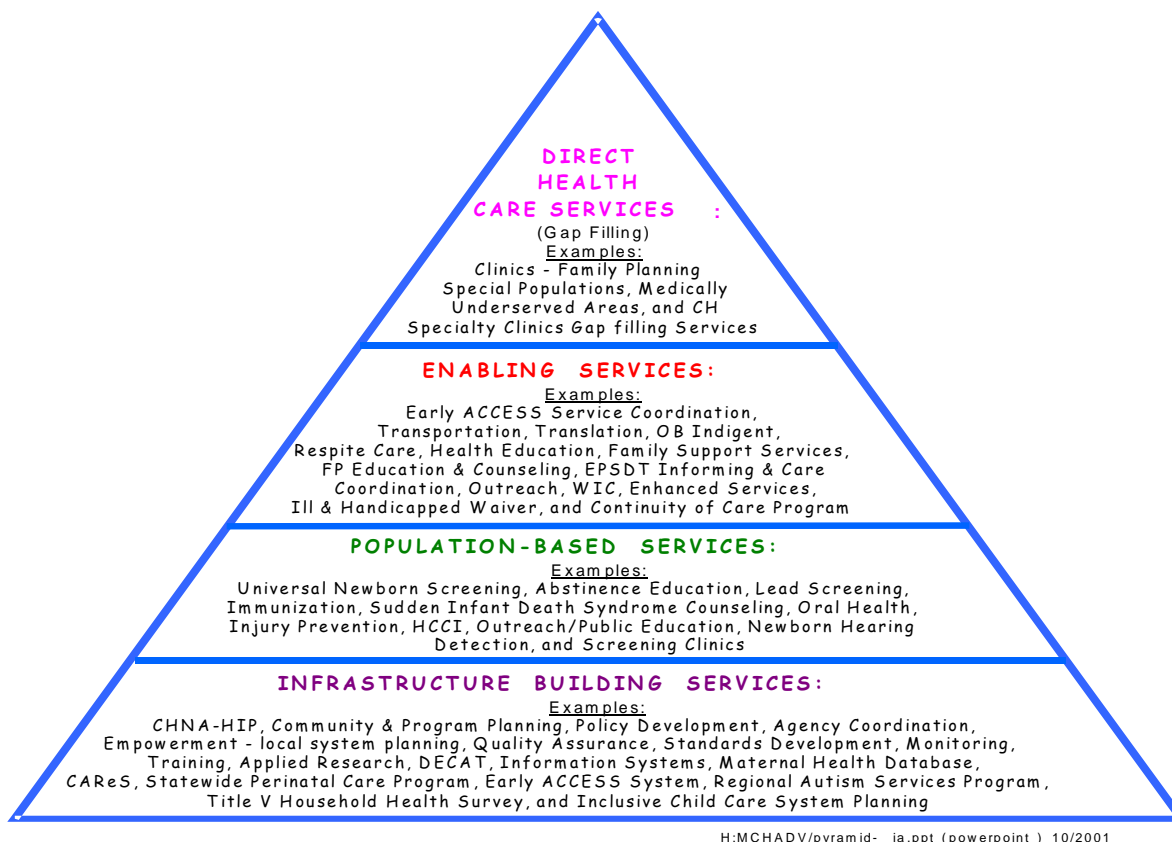
Although the rate of first trimester entry into prenatal care is improving, the importance of this preventive behavior demands continued attention. Special attention must be directed to vulnerable populations such as minority, refugee and immigrant groups.

Currently, Iowa law requires all newborns and infants born in the state of Iowa to be screened for the following: biotinidase, congenital adrenal hyperplasia, congenital hypothyroidism, expanded panel disorders, galactosemia, hemoglobinopathies, medium chain acyl-C.A. dehydrogenase deficiency, and phenylketonuria. The Iowa Neonatal Metabolic Screening Program identifies babies who may have one of these disorders and alerts the baby's health care provider to the need for further testing and special care. With early diagnosis and treatment, complications from these serious disorders can usually be prevented. Iowa passed a law in 2004 that requires a newborn hearing screening test on all newborns before hospital discharge. Because Iowa has done well in screening newborns for hearing loss, the target for this goal has been increased.

Despite an abundance of private and public initiatives, there continues to be a major problem obtaining insurance coverage for all Iowa children. Insurance status is important because it strongly correlates with health care-seeking behavior.

Data systems to guide planning and monitoring of the health care system for children and families are improving. The Iowa Child and Family Household Health Survey, completed in 2001 and fully analyzed in 2003, provides a population-based data source for rational informed planning and accountability monitoring. The survey will be re-administered in 2006. Important database integration efforts are underway in the Iowa Department of Public Health and the Iowa Department of Education Early ACCESS Program.

In the past, maternal and child health programs focused primarily on children and their physical health. This was mostly accomplished through provision of, or payment for, direct health care services. This direct service model is changing. The MCH programs will improve children's health and well-being by focusing on families and the service system that supports them. The federal Maternal and Child Health Bureau has placed emphasis by promoting a model that encourages more "population-based services" and "infrastructure building services," and fewer "direct health care services." The intended service emphases are depicted in the illustration below.



The model does not intend to abandon the direct care needs of individual families, but rather to fill gaps as necessary while improving the overall service system for all families. Families and their communities are adjusting to new trends, most notably greater local control of service priorities (devolution), and the increasing presence of managed care. Public health programs play a role in monitoring system changes. This is accomplished through activities such as assessment of the population; assurance of service accessibility and quality; policy development; program evaluation; and information and data system development.

Due to a growing family focus and a shifting maternal and child health service emphasis, this

chapter's goals are greater in number and breadth than the MCH goals for *Healthy Iowans 2000*. There are still traditional MCH goals related to infant mortality, birthweight, prenatal care, and newborn screening. There are also new, less traditional goals related to medical homes, insurance coverage, behavioral health, pre-service education, and data systems.

Other MCH concerns such as unintentional injury, child abuse, environmental exposure, adolescent suicide, breastfeeding, obesity, and women's health issues such as cancer, cardiovascular disease, domestic violence have goals in other chapters. The goals and action steps here do not reflect every relevant MCH-related issue for families; however, they do represent a

thoughtful consensus of goals to guide improvement of health and quality of life for Iowa families over the next decade.

There are two major sources for the goals included in this chapter. The first is the national *Healthy People 2010* document based on the rationale that national goals are for the most part relevant to individual states. The second source is the national and state-specific goals of the Iowa Title V (of the Social Security Act) Program. Title V goals are based on issues of established national importance and Iowa-specific needs assessment results.

The broadest goals from the source pool were chosen as chapter goals, while smaller scale goals from the pool were transformed into action steps. Some of the goals from the pool were eliminated due to duplication or greater relevance to other chapters.

Organizing the chapter goals was challenging. A simple long list of goals was thought to be confusing and difficult to interpret with respect to completeness and relevance. Similarly, choosing a taxonomy to organize the chapter was difficult because no single approach seemed to provide optimum order and flow of goals. Ultimately, the team agreed on a simple familiar approach – categorization by age group. For this chapter, three groups were chosen: newborn and infant; child and adolescent; and maternal health. Within each age category, there are goals related to both health status and direct health care services. An additional category – system infrastructure – contains a few goals specifically supporting the MCH service system infrastructure.

To stay current with evolving national and state MCH priorities, chapter goals were reviewed and reorganized at the mid-course review. A summary of the new goals follows:

Original goal 11-1: “Infant mortality rate”

- Original goal 11-2: “Low and very low birth weight”
- Original goal 11-3: “Newborn hearing screening”
- Original goal 11-4: “Child mortality”
- Original goal 11-5: “Medical home”

- Original goal 11-6: “Medicaid services for Medicaid-eligible children”
- Original goal 11-7: “Early childhood developmental screening by primary care providers”
- Original goal 11-8: “Perinatal mortality”
- Original goal 11-9: “Maternal depression”
- Original goal 11-10: “Prenatal care”
- Original goal 11-11: “Service system for children”
- Original goal 11-12: “Insurance for primary and specialty care”
- Original goal 11-13: “Data system development”
- New goal 11-14: “Pre-service MCH educational and practicum opportunities”
- New goal 11-15: “Shared management protocols for children with special health care needs”

Newborn & Infant Goals

11–1 Goal Statement

Reduce the overall infant mortality rate to no more than 5 infant deaths per 1,000 live births, paying specific attention to the discrepancy of African-American infant mortality. Baseline: White 4.5 per 1,000; African-American 14.0 per 1,000. Source: Iowa Department of Public Health, Bureau of Vital Statistics, 2002.

Rationale

Infant mortality is a critical indicator of the health of a population because it reflects the overall state of maternal health, as well as the quality and accessibility of primary health care available to pregnant women and infants. Advances in medical technology and access to care have produced declines in infant mortality rates across the country, including Iowa.

Iowa’s infant mortality rate has been less than the U.S. rate; however, residents of Iowa’s metropolitan counties (>50,000 inhabitants) have higher rates – closer to the national average

– than residents of the small urban (>5,000, but < 50,000 inhabitants) or rural (<5,000 inhabitants) counties.

This rate difference by population density reflects the continuing difference in rates among racial and/or ethnic subgroups. The infant mortality rate for African-Americans in Iowa was 13.9 per 1,000 in 2000 and 10.3 per 1,000 in 2001.

Birth defects (which also cause infant morbidity) are one of the four causes that account for over half of infant deaths; the others are low birthweight, Sudden Infant Death Syndrome (SIDS), and respiratory distress syndrome. Categories of birth defects that can be prevented include neural tube defects through the use of adequate folic acid by women before and during pregnancy. Approximately 50% to 70% of neural tube defect cases can be prevented if all women of childbearing age consume at least 400 micrograms of folic acid daily.

In addition, there are genetic conditions that may not be preventable, but that can be screened for at birth to allow for early intervention. Thus, all newborns can be screened for conditions such as phenylketonuria, sickle cell anemia and hypothyroidism. For confirmed diagnoses, such interventions as a dietary formula for phenylketonuria, penicillin prophylaxis for sickle cell anemia, and hormone treatment for hypothyroidism can significantly decrease morbidity and death.

SIDS is the leading cause of postneonatal mortality among all racial and ethnic groups, representing nearly one third of all cases of postneonatal death cases in Iowa. Although the SIDS rate has been declining steadily nationwide since the inception of the “Back to Sleep Campaign” in 1994, Iowa’s SIDS rate still exceeds that of the nation as a whole. In 2000 and 2001, the number of reported SIDS cases decreased from the number reported in 1999. As a group, SIDS deaths among minority populations comprise approximately 16.2% of the total SIDS deaths in Iowa each year.

The *Healthy Iowans 2010* family planning chapter has goals and action steps directed at reducing the problem of unintended pregnancy among all women and preventing all pregnancy

among females ages 12-17 years. These family planning goals and action steps are important in reducing infant mortality and other adverse pregnancy outcomes

11–1.1 Action Step

By 2006, promote prenatal risk screening, targeting high-risk women such as African-American women, to identify factors which may influence the health of the infant and distribute prenatal risk screening guidelines to prenatal care providers. (An Iowa Department of Public Health, Iowa Department of Human Services, and Iowa Department of Human Rights action step.)

11–1.2 Action Step

Through 2010, continue educational initiatives to increase the proportion of women of childbearing age who take a daily vitamin with the recommended dose of 400 micrograms of folic acid for the purpose of decreasing the incidence of neural tube defects. (An Iowa Department of Public Health action step.)

11–1.3 Action Step

By 2010, facilitate use of research-based and innovative methods that assist pregnant women to modify high-risk behaviors, such as alcohol use, illicit drug use, and tobacco use. Promote universal screening of pregnant women to detect substance abuse. (An Iowa Department of Public Health action step.)

11–1.4 Action Step

Through 2010, continue to assure availability of a metabolic newborn screening panel to every infant born in Iowa, with periodic review of included metabolic disorders. (An Iowa Department of Public Health action step.)

11–1.5 Action Step

Through 2010, continue educational initiatives to increase the portion of infants who are breastfed. Educate hospital personnel in Iowa maternity hospitals and child care providers to available resources for the provision of breastfeeding support. (An Iowa Department of Public Health action step.)

11–1.6 Action Step

Through 2010, continue educational initiatives to increase the portion of infants who are put to sleep on their backs in a safe sleeping environment. Educate hospital personnel in Iowa hospitals that provide obstetrical care to place healthy, newborn infants on their backs in the newborn nursery as a model for new parents. Provide training for child care providers through the Healthy Child Care Iowa SIDS education programs. (An Iowa Sudden Infant Death Syndrome (SIDS) Foundation, Iowa Department of Public Health, and Iowa Perinatal Review Program action step.)

11–1.7 Action Step

By 2010, develop statewide autopsy and death scene protocols (procedures) for sudden and unexpected deaths occurring in infancy. (An Iowa Department of Public Health and Medical Examiner's Office action step.)

11–1.8 Action Step

By 2010, assure state capacity to offer appropriate high-risk perinatal services to women experiencing multiple gestation pregnancies. High-risk perinatal services include access to experienced and knowledgeable providers and facilities specializing in high-risk perinatal care. (An Iowa Department of Public Health and Iowa Department of Human Services action step.)

11–2 Goal Statement

Reduce overall low birth weight to an incidence of no more than 5% of live births; and overall very low birth weight to no more than 1% of live births. Specific attention should be paid to the disparities of African-American low birth weight and very low birth weight rates.

Baseline: Overall low birth weight – 6.6%, White – 6.5%, African-American- 10.4%. Very low birth weight – White- 1.1%, African-American- 2.3%. Source: Iowa Department of Public Health, Bureau of Vital Statistics, 2002.

Rationale

Low birth weight (<2500 grams) and pre-term delivery are specifically related to poor birth outcomes, including infant mortality. Low birth weight (LBW) from pre-term birth or intrauterine growth retardation is the risk factor most closely associated with neonatal mortality (death within 28 days of birth). Infants surviving LBW also have a higher risk for future developmental disabilities, including neurologic problems. Very low birth weight (<1500 grams) is nearly always due to pre-term birth, and is itself a major risk factor for neonatal death. Very low birth weight is associated with maternal nutritional status, infection, multiple births, and use of tobacco and alcohol during pregnancy.

The effects of licit and illicit drugs, including alcohol, tobacco, cocaine, marijuana, meth, and some prescription medications, on the developing fetus are well documented. Heavy alcohol use is associated with fetal alcohol syndrome (FAS) and moderate alcohol use has demonstrated effects on pre-term delivery. Tobacco use during pregnancy is associated with the onset of premature labor, fetal growth retardation, low birth weight, spontaneous abortion, and SIDS. The use of cocaine during pregnancy is associated with premature birth, impaired fetal growth, neonatal seizures, and maternal infections such as hepatitis B and the human immunodeficiency virus (HIV). Marijuana use during pregnancy may be associated with low birth weight, preterm birth, and neurobehavioral functioning that is not normal; however, it is difficult to isolate the effects of marijuana on newborns because users often also use both alcohol and tobacco.

Women at particular risk for having low birth weight infants include teenagers and African-Americans. Short interpregnancy intervals, psychosocial stress, delayed prenatal care, and low pregnancy weight gains are possible risk factors for low birth weight.

11–2.1 Action Step

Through 2010, promote prenatal risk screening, targeting high-risk women such as African-American women, to identify factors that may influence the health of the mother and infant.

Distribute prenatal risk screening guidelines to prenatal care providers. (An Iowa Department of Public Health and Iowa Department of Human Services action step.)

11–2.2 Action Step

By 2010, facilitate use of proven research-based and innovative methods to assist women to abstain from alcohol during pregnancy. (An Iowa Department of Public Health action step.)

11–2.3 Action Step

By 2010, facilitate use of proven research-based and innovative methods to assist women to abstain from tobacco during their pregnancy. (An Iowa Department of Public Health action step.)

11–2.4 Action Step

By 2010, facilitate use of proven research-based and innovative methods to assist women to abstain from illicit drugs during their pregnancy. (An Iowa Department of Public Health action step.)

11–2.5 Action Step

By 2010, assure state capacity to offer appropriate high-risk perinatal services to women experiencing multiple gestation pregnancies. High-risk perinatal services include access to experienced and knowledgeable providers and facilities specializing in high-risk perinatal care. (An Iowa Department of Public Health and Iowa Department of Human Services action step.)

11–2.6 Action Step

By 2010, increase the proportion of very low birth weight infants born at facilities for high-risk deliveries and neonates through Iowa's Regionalized System of Perinatal Care. (An Iowa Department of Public Health action step.)

11–3 Goal Statement

Increase to 98% the percentage of newborns who are screened for hearing impairment before hospital discharge.

Baseline: 93%. Source: 2003 Survey of OB Hospitals.

Rationale

The future of children born with significant hearing loss depends largely on early identification followed by immediate and appropriate intervention. If children with hearing loss are not identified early, it is difficult, if not impossible, for them to acquire fundamental language, social and cognitive skills. With early identification and intervention, children with hearing loss make dramatic progress. In 2004, a mandatory law was established requiring all newborns to be screened for hearing loss prior to discharge in obstetric and birthing hospitals.

11–3.1 Action Step

By 2005, implement the web-based data management system for early hearing detection and intervention among hospitals, area education agencies, and the Iowa Department of Public Health. (An Iowa Department of Public Health, Area Education Agencies, and Center for Disabilities and Development action step.)

11–3.2 Action Step

Through 2010, convene at least four times a year a newborn early hearing detection and intervention advisory committee chaired by the Iowa Department of Public Health to discuss systems development for early hearing detection and intervention, including issues related to disparities in participation rates among minority, refugee or immigrant populations. (An Iowa Department of Public Health and Iowa Department of Education action step.)

11–3.3 Action Step

Through 2006, provide technical assistance and training regarding newborn hearing screening and follow-up services to hospitals via a formal agreement between the Iowa Department of Public Health and the Iowa University Center for Excellence in Disabilities. (An Iowa Department of Public Health and Center for Disabilities and Development action step.)

11–3.4 Action Step

By 2006, develop protocols with Individuals with Disabilities Education Act (IDEA) Part C Early ACCESS to ensure timely entry into early intervention for Iowa's children who are deaf or

hearing impaired. (An Iowa Department of Education, Iowa Department of Public Health, Iowa Department of Human Services, and Child Health Specialty Clinics action step.)

Child & Adolescent Goals

11–4 Goal Statement

Reduce the rate of child mortality for ages 1 through 14 to 17 deaths per 100,000. Baseline: 19.1 per 100,000. Source: Bureau of Vital Statistics, 2002.

Rationale

The death rate among children has declined substantially over the past decades, but the decline has slowed in recent years. The leading cause of death for children of all ages is injury (motor vehicle crashes, drowning, and fire and/or burns for children aged 1-4, and motor vehicle crashes and firearms for children aged 5-14), which for the most part is preventable. Congenital anomalies, malignant neoplasms (cancer), and heart disease are other leading causes of childhood mortality. The Iowa Child Death Review Team reviews all infant and child deaths from birth through 17 years of age and makes recommendations for future prevention of childhood mortality.

11–4.1 Action Step

Through 2010, provide technical assistance as requested to the Emergency Medical Services (EMS) for efforts regarding the special emergency-related needs of children with special health care needs. (An Iowa Department of Public Health action step).

11–4.2 Action Step

By 2010, implement the array of child mortality prevention recommendations (including improved compliance with the use of motor vehicle child restraints, bicycle helmets, fencing around pools, firearm use and storage safety recommendations, and expansion of caregiver first aid and CPR training) set forth by the Iowa Child Death Review Team, with special emphasis on the revised state and local child mortality

investigation and reporting procedures. (An Iowa Department of Public Health action step.)

11–4.3 Action Step

By 2010, expand the "Healthy Opportunities for Parents to Experience Success" program (HOPES) and the Community Empowerment initiative to deal with issues related to parenting skill deficits, such as social isolation, emotional alienation, and lack of information, that may unintentionally endanger children under the care of unprepared parents. (An Iowa Department of Public Health action step.)

11–4.4 Action Step

By 2010, intensify efforts to deliver culturally targeted and language-appropriate educational messages regarding an array of preventive care and practices (such as caretaker stress management, respite care options, infant sleep practices, motor vehicle child restraint use, bicycle safety, second-hand tobacco smoke exposure, and smoke alarm use) that reduce the risks of intentional and unintentional child mortality. Collaborate with the Iowa Department of Human Services to distribute mailings of parenting/child development brochures to parents of Medicaid children aged 0 to 12 months. (An Iowa Department of Public Health and Iowa Department of Human Services action step.)

11–5 Goal Statement

Increase to 75% the percentage of all Iowa children, including those with special health care needs, who have a "medical home" as defined by the American Academy of Pediatrics. Baseline: 57% for children with special health care needs (CSHCN). Source: 2002 Iowa Child and Family Household Health Survey. A baseline for children without special health care needs will be determined by the 2006 Iowa Child and Family Household Health Survey.

Rationale

A medical home, as defined by the American Academy of Pediatrics, provides high quality, cost-effective care to infants, children and adolescents that are accessible, continuous, fam-

ily-centered, comprehensive, coordinated, compassionate, and culturally-effective. Mutual responsibility and trust should develop between the service provider and child's family. These service qualities are preferred and contrast with those found in emergency departments and walk-in clinics where care is often more expensive and less continuous.

11–5.1 Action Step

By 2008, utilize the Title V new statewide population-based 2006 Iowa Child and Family Household Health Survey (with over-sampling design for minority populations) to assess the medical home status of all children in Iowa, including those with special health care needs. (An Iowa Department of Public Health, Child Health Specialty Clinics, and the University of Iowa Public Policy Center action step.)

11–5.2 Action Step

Through 2010, continue to use Covering Kids and Families outreach strategies and further develop hawk-i (Healthy and Well Kids in Iowa, i.e., the Title XXI of the Social Security Act Children's Health Insurance Program) and other system development initiatives (e.g., grants and contracts) to increase access to medical homes for all children. (An Iowa Department of Public Health, Child Health Specialty Clinics, Iowa chapters of the American Academy of Pediatrics, American Academy of Family Physicians, and National Association of Pediatric Nurse Associates and Practitioners action step.)

11–5.3 Action Step

By 2008, disseminate information on current and evolving standards of pediatric practice to community-based primary care physicians for the purpose of increasing the proportion of children aged 0-5 years who receive recommended developmental and primary care services. (An Iowa Department of Public Health, Child Health Specialty Clinics, Early ACCESS, Iowa chapters of the American Academy of Pediatrics, American Academy of Family Physicians, and National Association of Pediatric Nurse Associates and Practitioners action step.)

11–5.4 Action Step

By 2010, integrate lessons learned from the Healthy and Ready to Work adolescent transition project with other quality improvement strategies available to primary care practices involved in establishing a medical home model of care. (A Child Health Specialty Clinics and Iowa Department of Education Vocational Rehabilitation action step.)

11–6 Goal Statement

Maintain at 98% the percentage of Medicaid-eligible children aged 1 to 21 who have received a service paid for by the Medicaid program. Baseline: 98% Health Care Financing Administration (HCFA) 416 Medicaid Report 2002.

Rationale

Eligibility for Medicaid health care coverage does not guarantee enrollment in Medicaid or, if enrolled, the utilization of health care services. The ultimate purpose of making coverage available to all children is unfulfilled if children do not receive needed preventive, primary and specialty care.

11–6.1 Action Step

Through 2010, monitor, through the Care for Kids Interagency Committee, the participation rate of children enrolled in Medicaid, including Medipass and HMOs, and make recommendations for improvement. (An Iowa Department of Human Services, Iowa Department of Public Health, Center for Disabilities and Development, Child Health Specialty Clinics, and Prevention of Disabilities Policy Council action step.)

11–6.2 Action Step

Through 2010, Title V staff will continue to collaborate with the Iowa Department of Human Services to decrease barriers to enrollment, including racial and cultural barriers, based on the findings of a Wellmark funded survey. (An Iowa Department of Public Health action step.)

11–6.3 Action Step

By 2010, use Medicaid data to plan strategies to address disparities in health status and service utilization among minority, refugee and immigrant populations. (An Iowa Department of Public Health action step.)

11–7 Goal Statement

Increase to 70% the portion of children aged 0 to 3 served under Title V and Title XIX who receive regular developmental screenings for mental and behavioral health issues from their primary care provider. Baseline: National - 57%. Source: Parental Assessment of Development in the Pediatric Office, Pediatrics, June 2004.

Baseline: National - 57%. Source: Parental Assessment of Development in the Pediatric Office, Pediatrics, June 2004.

Rationale

Early childhood screening for mental and behavioral health problems increases the likelihood that children experiencing or at-risk for mental health problems will receive effective assessments and, if needed, therapeutic intervention. Young children in need of age-appropriate mental and behavioral health services often do not receive those services due to under-identification of need and/or inappropriate referral patterns. Other factors include the lack of qualified mental health providers and low Medicaid reimbursement rates.

Public programs have the responsibility to provide, coordinate or advocate for specialty services, including mental health services. This effort is timely given national recognition of infant and children's mental health services and their equal importance to physical health and child development services.

11–7.1 Action Step

By 2006, collaborate with the Iowa Department of Human Services to recommend appropriate mental and behavioral health screening tools to Medicaid providers. (An Iowa Department of Human Services, Iowa Department Public Health, Center for Disabilities and Development, Council for Disabilities and Prevention, Family and Provider Stakeholders, Early AC-

CESS, and Child Health Specialty Clinics action step.)

11–7.2 Action Step

By 2006, participate in developing standards, policies and contract provisions to promote the use of and appropriate reimbursement for using recommended screening tools. (An Iowa Department of Human Services, Center for Disabilities and Development, Council for Disabilities and Prevention, Child Health Specialty Clinics, Family and Provider Stakeholders, and Iowa Department Public Health action step.)

11–7.3 Action Step

By 2006, develop recommendations for condition-specific standards of care for children aged 0 to 3 for whom mental and behavioral health screening prompts the need for follow-up services. (An Iowa Department of Human Services, Iowa Department Public Health, Center for Disabilities and Development, Council for Disabilities and Prevention, Family and Provider Stakeholders, Early ACCESS, and Child Health Specialty Clinics action step.)

11–7.4 Action Step

By 2006, design, test, evaluate, and promote a referral system to address the needs of children who have a mental and behavioral health issue but do not qualify for Early ACCESS. (An Iowa Department of Human Services, Iowa Department Public Health, Center for Disabilities and Development, Council for Disabilities and Prevention, Family and Provider Stakeholders, Early ACCESS, and Child Health Specialty Clinics action step.)

11–7.5 Action Step

By 2010, define, test and evaluate the appropriate roles for Title V, Iowa Department of Human Services, Early ACCESS, and community agencies in providing screening, referrals and treatment for children aged 0 to 3 considered at risk for mental and behavioral health issues. (An Iowa Department of Human Services, Iowa Department Public Health, Center for Disabilities and Development, Council for Disabilities and Prevention, Family and Provider Stake-

holders, Early ACCESS, and Child Health Specialty Clinics action step.)

11–7.6 Action Step

By 2010, use lessons learned from the Assuring Better Child Development Project demonstration sites to make recommendations for a statewide system for mental and behavioral services for children aged 0-3. (An Iowa Department of Public Health, Iowa Department of Human Services, Center for Disabilities and Development, Council for Disabilities and Prevention, and Child Health Specialty Clinics action step.)

Maternal Health Goals

11–8 Goal Statement

Reduce the overall perinatal mortality (deaths from 20 weeks gestation to 7 days after birth) rate to no more than 7.1 per 1,000 live births. Baseline: 8.4 per 1,000 live births. Source: Iowa Department of Public Health, Bureau of Vital Statistics, 2002.

Rationale

Perinatal mortality reflects the health of the pregnant woman in addition to the health of the newborn and serves as an information source regarding the pregnancy environment, as well as early newborn care. Racial disparities in this measure persist with the African-American rate being nearly twice the white rate and the Hispanic rate nearly 1.5 times the overall rate.

11–8.1 Action Step

Through 2010, monitor state capacity to evaluate and influence the problem of perinatal mortality disparities among demographic subgroups using tools of population-based assessment, quantitative and qualitative program evaluation, and epidemiology and economic analysis. (An Iowa Department of Public Health action step.)

11–8.2 Action Step

Through 2010, encourage providers of primary care to women of reproductive age to routinely provide preconception counseling con-

cerning risks for maternal morbidity due to maternal behaviors and exposures, maternal health complications, and previously affected pregnancies. Distribute the *Maternal Mortality Report* as it is available, which includes recommendations to decrease maternal mortality and morbidity risk. (An Iowa Department of Public Health and professional associations of primary care providers action step.)

11–8.3 Action Step

By 2008, distribute Spanish and English language versions of the brochures *Early Prenatal Care* and *Health Diaries* to contract agencies and others serving low-income clients, such as School-Based Youth Services Programs. Investigate the possibility of translating the *Early Prenatal Care* brochure into other languages. (An Iowa Department of Public Health action step.)

11–8.4 Action Step

By 2010, develop strategies to ensure that women receive prenatal care that is at least adequate, according to the Adequacy of Prenatal Care Utilization Index through 2010. (An Iowa Department of Public Health action step.)

11–9 Goal Statement

Increase the number of accessible professionals who provide mental health services for women of reproductive age and their families. Baseline: See Rationale.

Rationale

Depression is considered an underreported problem. Women report a reluctance to discuss their emotions during the perinatal period due to the perceived stigma associated with it. Many women do not realize that they are suffering from a treatable condition and are often left to deal with the problem on their own. Without appropriate treatment, perinatal depression can dramatically affect women and their families.

Data from prenatal care surveys indicate the extent of the problem in Iowa. Over 15% of postpartum women completing a survey on their second postpartum day report feeling sad or

miserable in the two weeks prior to completing the survey. Health care providers in Iowa indicate that they understand the importance of early screening and identification of perinatal depression. However, they are reluctant to screen and identify clients who may be at-risk for depression because of the providers' lack of awareness of available resources for client interventions. The Iowa Department of Public Health and the University of Iowa Center for Depression and Clinical Research will be collecting data through a physician survey in the next year to determine the baseline.

11–9.1 Action Step

By 2010, conduct a survey of all health care providers, including those in local public health agency settings, who have contact with postpartum women. Include family practice physicians, obstetricians, pediatricians, nursing professionals, physician assistants, and mental health professionals to determine the capacity of the existing health care system, including primary care and mental-health care settings, and to provide mental health screenings, referrals and treatment for pregnant women. (An Iowa Department of Public Health, Iowa Department of Human Services, and University of Iowa Center for Depression and Clinical Research action step.)

11–9.2 Action Step

By 2010, continue collaboration with the Iowa Department of Public Health, Bureau of Health Care Access for designation of Mental Health Professional Shortage Areas (HPSAs) and Medically Underserved Areas (MUAs). (An Iowa Department of Public Health action step.)

11–9.2a Action Step

By 2007, increase awareness about perinatal depression among primary health care providers, mental health professionals, and maternal and child health care providers, and also about the need for and the training available to evaluate the emotional and mental well-being of mothers and their families. (An Iowa Department of Public Health, Iowa Department of Human Services, and University of Iowa Center for Depression and Clinical Research action step.)

11–9.2b Action Step

By 2008, promote use of and training for standardized, validated assessment tools for postpartum depression. Tools may be used by the health care provider or by trained persons in the natural support system. (An Iowa Department of Public Health, Iowa Department of Human Services, and University of Iowa Center for Depression and Clinical Research action step.)

11–9.3 Action Step

By 2010, assure state capacity to offer appropriate culturally sensitive mental health services in settings that are accessible to all women, including women with disabilities. (An Iowa Department of Public Health, Iowa Department of Human Services, and University of Iowa Center for Depression and Clinical Research action step.)

11–9.4 Action Step

By 2010, decrease the stigma attached to perinatal depression through the provision of educational media campaigns that present the issues of emotional changes occurring in the postpartum period as a normal process that may vary in intensity in each woman. (An Iowa Department of Public Health, Iowa Department of Human Services, and University of Iowa Center for Depression and Clinical Research action step.)

11–9.5 Action Step

By 2010, promote a policy of mental health parity in insurance coverage for all of Iowa residents. (An Iowa Department of Public Health, Iowa Department of Human Services, and University of Iowa Center for Depression and Clinical Research action step.)

11–9.6 Action Step

By 2008, promote postpartum home visits by health care providers to occur by the sixth postpartum week. Include mental and emotional health status assessments at this visit and make appropriate referrals. (An Iowa Department of Public Health, Iowa Department of Human Services, and University of Iowa Center for Depression and Clinical Research action step.)

11–10 Goal Statement

Increase to at least 90% the proportion of all pregnant women who receive early and adequate prenatal care as measured by the Adequacy of Prenatal Care Utilization Index (Kotelchuk Index). Baseline: 89%. Source: Iowa Department of Public Health, Bureau of Vital Statistics, 2002.

Rationale

Prenatal care reduces perinatal morbidity and mortality by identifying and reducing potential risks and helping women to deal with behavioral factors that contribute to poor outcomes. Prenatal care is more effective if received early in pregnancy and continued throughout pregnancy. There are demographic groups at-risk for inadequate prenatal care. In Iowa, African-American, Hispanic, and American Indian pregnant women enter first-trimester prenatal care at lower rates than white pregnant women. Also, according to the 2002 findings by the "Iowa Barriers to Prenatal Care Project," mothers under 18 years old were more likely to report difficulty obtaining prenatal care and more likely to complete a pregnancy without any prenatal care.

The Kotelchuk Index is an index that indicates the adequacy of prenatal care based on the start time of prenatal care and the number of prenatal visits.

11–10.1 Action Step

By 2010, use information regarding barriers to early prenatal care as a basis to collaborate with the Iowa Department of Human Rights on strategies that can be suggested for local maternal health agencies to access and serve pregnant women, especially racially and culturally diverse populations and women with disabilities. (An Iowa Department of Public Health and Iowa Department of Human Rights action step.)

11–10.2 Action Step

By 2010, promote use of the Kotelchuk Adequacy of Prenatal Care Utilization Index to assess the adequacy of the initiation of prenatal care and the adequacy of the use of prenatal services once care has begun. (An Iowa Department of Public Health action step.)

11–10.3 Action Step

By 2010, solicit representation from at-risk population groups to serve in an advisory capacity for policy development related to assuring early prenatal care. (An Iowa Department of Public Health action step.)

System Infrastructure Goals**11–11 Goal Statement**

Fully develop Iowa as a state that has a service system for Children with Special Health Care Needs that is community-based, family-centered, coordinated, comprehensive, and culturally competent. Baseline: See Rationale.

Rationale

Children with special health care needs are defined as children who have or are at-risk for chronic conditions, including psychosocial, developmental and physical conditions. They also need health and related services beyond those required by children generally. Service systems for such children should be organized networks of services with the following qualities: comprehensive, community-based, coordinated, family-centered, and culturally competent. Each quality contributes to optimizing the child's health as well as to strengthening the family's ability to care for and support themselves and their child within a complex service system.

11–11.1 Action Step

By 2010, monitor policy changes that allow health care providers to become service coordinators for children with special health care needs in Iowa's Early ACCESS system when that option best meets the needs of the child and family. (An Iowa Department of Education and Early ACCESS Council Executive Committee action step.)

11–11.2 Action Step

By 2007, contribute to the development of a second statewide population-based Iowa Child and Family Household Health Survey (with over-sampling design for minority populations)

in order to obtain needs assessment data, including information on the number and percentage of children with special health care needs in Iowa and the health care issues facing them. (A Child Health Specialty Clinics, Iowa Department of Public Health, and University of Iowa Public Policy Center action step.)

11–11.3 Action Step

By 2010, review and improve avenues to assure family participation in program and policy activities within Iowa’s Title V Children with Special Health Care Needs Program in partnership with state level family advocacy organizations. (A Child Health Specialty Clinics action step.)

11–11.4 Action Step

By 2006, make recommendations as mandated by the Iowa Legislature related to the design of an improved service system that meets the developmental and behavioral needs of Iowa children and families. (An Iowa Department of Human Services MH/MR/DD/BI Commission action step.)

11–11.5 Action Step

By 2010, promote the Iowa Medical Home Initiative in its leadership efforts to establish the medical home model as a standard of quality care for children with special health care needs. (A Child Health Specialty Clinics, Iowa Chapters of Academies of Pediatrics and Family Physicians, Iowa Department of Education, and Early ACCESS Council Executive Committee action step.)

11–11.6 Action Step

By 2008, promote the work of the Early Childhood Comprehensive Systems Project in its leadership efforts to establish a statewide early care, health and education system for all children aged 0-5. (An Iowa Department of Public Health, Child Health Specialty Clinics, Community Empowerment, Iowa Department of Education, Iowa Department of Human Services, Iowa Department of Human Rights, and Early Childhood Iowa Stakeholders action step.)

11–12 Goal Statement

Increase to 98% the percent of children in the state (including children with special health care needs) with a source of health care insurance for primary and specialty care. Baseline: 91.4%. Source: 2003 Census.

Rationale

Insurance coverage with an adequate scope of benefits is essential to improving access to health care for all children birth through age 18. According to *Health Insurance Coverage of Children in Iowa: Results from the Iowa Child and Family Household Health Survey* released in May 2004, uninsured children, when compared to insured children, reported a higher unmet need for care. Uninsured children are also less likely to have a regular source of medical or dental care.

With respect to ethnicity, Hispanic children are twice as likely to be uninsured as non-Hispanic children. With respect to family stress, families of uninsured children report a higher rate of substance abuse and a higher rate of worry regarding ability to pay for their children’s health care. Of the approximately 6% of Iowa children who are uninsured, about 80% are eligible for Medicaid or the hawk-i Program. This suggests the importance of outreach efforts to increase enrollment of children into coverage. Children with special health care needs are disproportionately low-income and, therefore, more likely to have Medicaid as their source of coverage.

11–12.1 Action Step

By 2010, disseminate via local community contractor agencies materials designed by the Iowa Department of Human Services to increase Medicaid and hawk-i (Healthy and Well Kids in Iowa, the Iowa Title XXI Children’s Health Insurance Program) enrollment. (An Iowa Department of Public Health, Child Health Specialty Clinics, and Iowa Department of Human Services action step.)

11–12.2 Action Step

By 2010, maintain Title V representation on the Clinical and Special Needs Advisory Com-

mittees to the hawk-i Board to promote coverage that effectively meets the needs of low-income families, including those who have children with special health care needs. (An Iowa Department of Public Health and Child Health Specialty Clinics action step.)

11–12.3 Action Step

By 2010, provide regular educational opportunities to Title V state and local staff to develop skills in formulating service plans and advocating for children who are found to be ineligible for Medicaid, hawk-i, or private insurance coverage. (An Iowa Department of Public Health and Child Health Specialty Clinics action step.)

11–12.4 Action Step

By 2010, continue to organize local Title V, Title XIX and other providers' participation in outreach activities, focusing on racially and culturally relevant approaches to uninsured and underinsured children. (An Iowa Department of Public Health, Child Health Specialty Clinics, Iowa Department of Human Services, and Iowa Department of Education action step.)

11–13 Goal Statement

Increase to a scale score of 76 out of 96 the degree to which Iowa develops data resources for strategic assessment of the health of women, children and families. Baseline: 66 points out of 96 possible points on the Data Checklist Health Status of Women, Children and Families, 2003 data.

Rationale

Currently, vital records are a key source of information for both needs assessment and performance monitoring, but utilization is not optimal. Efforts must be made to link vital records and programmatic data in order to enhance surveillance, to monitor progress of current initiatives, and to detect emerging issues. The elements to build a more informative statewide data system are present, but are not fully used to measure outcomes, support policy recommendations, and defend accountability.

11–13.1 Action Step

Through 2007, establish ongoing data work groups to investigate the accessibility and utility of internal and external data sources for the purpose of dealing with health problems affecting children and families, including families representing diverse racial and cultural groups. (An Iowa Department of Public Health and Child Health Specialty Clinics action step.)

11–13.2 Action Step

By 2005, collaborate with data work groups from public, private, state, and local agencies to jointly plan data collection and utilization procedures of mutual interest. (An Iowa Department of Public Health and Child Health Specialty Clinics action step.)

11–13.3 Action Step

By 2010, provide technical assistance to community-based Title V agencies to improve local data collection, analysis, interpretation, and presentation capabilities. (An Iowa Department of Public Health and Child Health Specialty Clinics action step.)

11–13.4 Action Step

By 2010, develop state and local skills and capacities to collect and use data to influence policy and legislation related to the health of Iowa families. (An Iowa Department of Public Health and Child Health Specialty Clinics action step.)

11–14 Goal Statement

Increase Iowa's capacity to serve children and families through enhanced pre-service maternal and child health curriculum, teaching and practicum opportunities. Baseline: Iowa will use the Maternal and Child Health (MCH) Bureau National Plan for MCH training to guide our methods in baseline measurement. A baseline will be collected by 2007.

Rationale

As the public health environment changes, it is important that the education of public health

providers also evolves. The content and instructional strategies of pre-service educational experiences provide powerful foundations to the way Iowa's maternal and child health (MCH) professionals will practice. Due to the complexities of institutional bureaucracies, it may be slow and difficult to modify pre-service education. But it is at the pre-service level where formative and focused learning experiences occur. Opportunities for in-service training are felt to be accessible and adequate.

11–14.1 Action Step

By 2010 continue to collaborate with the University of Iowa College of Public Health to plan and deliver the Department of Community and Behavioral Health's MCH Focus Track pre-service curriculum. (An Iowa Department of Public Health, Child Health Specialty Clinics, and University of Iowa College of Public Health action step.)

11–14.2 Action Step

Through 2009, continue to collaborate with the University of Iowa Center for Disabilities and Development ILEND (Iowa Leadership and Education in Neurodevelopmental Disabilities) project to plan and deliver educational opportunities designed to cultivate leadership intentions and skills in pre-professionals training for careers in developmental disabilities. (A Child Health Specialty Clinics and University of Iowa Center for Disabilities and Development action step.)

11–14.3 Action Step

By 2010, consult with resources such as the National Center for Education in Maternal and Child Health and the Des Moines University to obtain and update instructional content and materials useful for maintaining effective and relevant pre-service educational opportunities. (An Iowa Department of Public Health, Child Health Specialty Clinics, University of Iowa College of Public Health, and University of Iowa Center for Disabilities and Development action step.)

11–15 Goal Statement

Increase to 75% the percent of children with special health care needs enrolled in managed care who have a written plan of shared management protocols developed in partnership with primary and specialty care providers, care coordination providers, and families. Baseline: CSHCN 10%. Source: 2000 Iowa Department of Human Services, Medicaid (estimate).

Rationale

Survey and anecdotal data suggest that children with special health care needs enrolled in managed care plans may experience less than optimal outcomes due to services that are not tailored to their more varied and complex health and health-related circumstances. Therefore, the development and use of shared management protocols would be a useful means to improve outcomes through enhanced quality and coordination of care.

11–15.1 Action Step

By 2006, determine availability of published management protocols and standards of care for selected disease conditions. (A Child Health Specialty Clinics action step.)

11–15.2 Action Step

By 2007, survey selected managed care organizations in Iowa for their use of management protocols and standards of care for their pediatric population. (A Child Health Specialty Clinics action step.)

11–15.3 Action Step

By 2010, develop joint recommendations with managed care providers and organizations regarding use of management protocols to optimize health outcomes for children with special health care needs enrolled in plans. (A Child Health Specialty Clinics and Managed Care Providers action step.)

Goal Cross References

Chapter 1: Access to Quality Health Services

- 1-1Reduce to 0 the proportion of children and adults under aged 65 without health care coverage.
- 1-2Develop a plan and engage in activities that encourage providers to follow standardized quality performance measures.
- 1-3Increase by 25% access to primary care for the underserved population.
- 1-4Ensure a competent and diverse health workforce by assessing and forecasting workforce supply and demand and by promoting local strategies to recruit and retain workers.
- 1-11Increase to 100% all Iowa children with special health care needs who have a "medical home."
- 1-12Develop a strategic plan to assess and use telehealth and telemedicine to increase access to health services.

Chapter 2: Cancer

- 2-2Reduce cancer incidence to a rate of no more than 450/100000.
- 2-3Ensure the implementation of HI2010 cancer chapter actions steps and implementation of the priority strategies of the Iowa cancer plan.
- 2-5Reduce female breast cancer deaths to a rate of no more than 19/100000.
- 2-6Reduce cervical cancer deaths to a rate of no more than 1.9/100000 females.

Chapter 3: Diabetes

- 3-1Increase awareness of diabetes in people with pre-diabetes risk and undiagnosed diabetes, and limit the upward trend of diabetes to .2% per year.
- 3-3Offer leadership and education training to health care professionals so they can provide improved medical guidance.
- 3-4Decrease mortality and morbidity from diabetes by preventing or delaying complications.

Chapter 4: Disabilities

- 4-3Assure that each HI2010 chapter assesses the health issues and potential treatment available for people with dis-

abilities and incorporates appropriate goals and action steps.

- 4-5 Test at least 3 health promotion programs for people with disabilities.

Chapter 5: Educational and Community-Based Programs

- 5-2 Have at least 10 schools provide a set of basic health support services for students and at least 81% of school districts to employ a full-time nurse.
- 5-3 Increase to 40% the proportion of children aged 3-4 served statewide in accredited pre-school programs.
- 5-4 Develop policies and guidelines to ensure that school health and physical education are compliant with statutes.
- 5-5 Post-secondary community colleges will provide data on how the college addresses 6 priority risk behavior areas.

Chapter 6: Environmental Health

- 6-1 Determine the prevalence of contaminants in 100% of small town private wells in concentrations exceeding the EPA advisory levels or maximum contaminate levels for drinking water.
- 6-2 Reduce to 20% the number of private drinking water wells tested positive for coliform bacteria.
- 6-3 Ensure safe drinking water by helping 100% public water supply systems meet EPA requirements.
- 6-6 Reduce by 30% unintentional exposures to household hazardous materials.
- 6-7 Eliminate blood-lead levels greater than or equal to 10 micrograms per deciliter in children under aged six.
- 6-10 Establish a core state committee called the Safety and Health Homes Committee with a special focus on children, minorities, and people at-risk.
- 6-15 The Iowa Department of Public Health and the Iowa Department of Natural Resources will issue joint fish consumption advisories where confirmed that contaminant standards are exceeded.

Chapter 7: Family Planning

- 7-1 Increase to 65% the proportion of intended pregnancies among Iowa women aged 13-44.

- 7-2Reduce pregnancies to 12/1000 among females aged 15-17 and to 50 among females aged 12-14
- 7-3Establish a baseline of sexual activity for Iowa adolescents.
- 7-4Obtain data on females aged 15-44 at risk of unintended pregnancy who use contraception.
- 7-5Establish a baseline for male involvement in pregnancy prevention and family planning and increase involvement by 1%.
- 7-6Assure that all abstinence education, teen pregnancy prevention, and adolescent sexual health programs are science-based and medically accurate.

Chapter 10: Immunization and Infectious Disease

- 10-1Reduce by 50% indigenous cases of selected vaccine-preventable disease.
- 10-3Maintain levels of H. influenzae type b immunization to maintain Hib meningitis among children aged 2 months to 5 years at or below 0.4/100000.
- 10-4Reduce hepatitis A cases to no more than 10/100000.
- 10-5Reduce to 0 newly diagnosed hepatitis B rates in persons under aged 25.
- 10-10 ..Reduce by 10% antimicrobial resistance in key reportable invasive antibiotic-resistant organisms.
- 10-12 ..Reduce by 25% invasive pneumococcal infections and invasive penicillin-resistant pneumococcal infections in persons under aged 5 and over aged 64.
- 10-13 ..Achieve or maintain immunization levels of at least 90% among children aged 19-35 months.
- 10-14 ..Maintain at 95% immunization compliance for children in licensed day care centers, kindergarten, and first grade.
- 10-15 ..Maintain at 100% public Vaccine for Children (VFC) providers who measure immunization coverage in their populations and increase to 30% private VFC providers who measure immunization coverage in their populations.
- 10-16 ..Increase to 75% children aged 0-6 enrolled in a fully functional population-based immunization registry.

- 10-18 .. Educate health care providers and the public on the use of antibiotics for ear infections.
- 10-19 .. Educate health care providers on the use of antibiotics for colds.

Chapter 12: Mental Health and Mental Disorders

- 12-1 Develop a statewide campaign to increase public awareness about the need for good mental health through media, community leaders, and schools.
- 12-2 Reduce by 10% the annual suicides among youth aged 15-24 and adults 65 and older.
- 12-3 Increase mental health assessments performed by primary care physicians as part of routine patient care.
- 12-4 Create a shared state level vision for improving the well-being of children from early childhood through adult transition modeled after the Early ACCESS collaborative planning format.
- 12-6 Increase to 100% mental health service agencies that include some form of youth and family input when designing or modifying child and adolescent services.
- 12-7 Identify and serve children and youth in the juvenile justice system by developing an integrated community-based mental health service delivery model.
- 12-9 Provide housing for 100% of known chronically homeless children and adults with mental health disorders.
- 12-11 .. Develop and implement a system of care for children with behavioral and developmental needs.
- 12-12 .. Provide appropriate mental health services to all adults and children seeking services.
- 12-15 .. Ensure universal access to social, emotional and behavioral health services for children 0-5.
- 12-16 .. Identify 100% of pregnant and postpartum women with depression or at higher than average risk for depression.
- 12-19 .. Develop a system for collecting a uniform set of mental health data across all publicly funded services.

Chapter 13: Nutrition and Overweight

- 13-1 Provide educational tools for lowans to make decisions on the reliability of nutrition messages through at least 3 media.
- 13-2 Educate lowans so 75% of infants are breastfed at birth, 35% until the infant 6 months old, and 15% until age 12 months.
- 13-3 Prevent a further rise in the percent of lowans who are overweight.
- 13-4 Prevent further rise of weight gain among children and adolescents under aged 18.
- 13-5 Increase to at least 50% people aged two and older who meet the minimum daily average goal of at least five fruits and vegetables.
- 13-6 Increase by at least 20% people aged two and older who meet the dietary recommendations for calcium.
- 13-7 Provide lowans at higher risk for nutrition-related disease targeted information on reducing such diseases and death risks.
- 13-8 Reduce to 5% the incidence of food insecurity.

Chapter 14: Occupational Safety and Health

- 14-2 Decrease occupational fatal and non-fatal injuries in agricultural populations.
- 14-5 Establish a baseline on the number of children engaged in unhealthy activities in the workplace.

Chapter 15: Oral Health

- 15-1 Reduce cavities in primary and permanent teeth so children who have had one or more cavities, filled or unfilled, is no more than 10% among children aged 3-5, 25% among children aged 7-9, and 50% among adolescents aged 12-14.
- 15-2 Reduce untreated cavities in primary and permanent teeth so that the proportion of low-income children with decayed teeth not filled is no more than 2% among children aged 3-5, 10% among children aged 7-9, and 18% among adolescents aged 12-14.
- 15-4 Implement a statewide oral health surveillance system to annually collect data on the oral health status of lowans.

- 15-6 Increase to at least 50% children in 3rd grade who have received protective sealants in permanent molar teeth.
- 15-8 Increase to at least 93% people served by community water systems with optimally fluoridated water.
- 15-9 Increase to 25% the use of topical fluorides and fluoride toothpaste by at-risk populations.
- 15-10 .. Increase to 25% one-year-olds who receive oral health exams or screenings by a qualified professional.
- 15-11 .. Increase to at least 80% children entering school who have received an oral health screening or exam.
- 15-12 .. Increase to 85% community health centers that have a direct oral health service component.

Chapter 16: Physical Activity and Fitness

- 16-1 Establish funding targeted at sedentary Iowa lifestyles and a plan that supports planning, local efforts, environmental projects, model policy initiatives, and education.
- 16-3 Establish a comprehensive strategy that shares the main physical activity message with as many lowans in as many environments as possible.
- 16-4 Create strategies that share the physical activity message with special and high-risk populations.
- 16-6 Create and disseminate a detailed list of best or expected practices that provide Iowa students an educational environment that teaches and fosters a healthy active lifestyle.
- 16-7 Create an electronic media plan that uses the Internet, ICN, etc.
- 16-8 Work with the Iowa Department of Transportation and all appropriate entities to promote environments that are physically appealing and conducive for regular physical activity.
- 16-10 .. Increase the proportion of school-age children who meet CDCs recommendations for physical activity and education.

Chapter 18: Respiratory Diseases: Asthma

- 18-1 Reduce asthma-related hospitalizations by 10%, emergency department visits by 10%, and urgent care visits by 20%.

- 18-4 Increase the proportion of persons with asthma who receive formal patient education.
- 18-5 Raise community awareness of environmental exposures known to trigger asthma and increase community involvement in primary prevention.
- 18-7 Support public policy at all levels to reduce the incidence and severity of asthma and increase the actions by local, city and state groups that support a reduction in asthma incidence.

Chapter 19: Sexually Transmitted Diseases and Human Immunodeficiency Virus Infection

- 19-1 Reduce Chlamydia trachomatis to no more than 140/100000.
- 19-2 Reduce gonorrhea to no more than 43/100000.
- 19-3 Eliminate transmissions of primary and secondary syphilis.
- 19-5 Establish a baseline for the proportion of sexually active women under aged 25 who are screened annually for Chlamydia and gonorrhea in primary health care settings.
- 19-6 Establish a baseline for the proportion of pregnant women screened for STDs during prenatal health care visits.
- 19-7 Establish a baseline for the number of youth detention facilities and adult city and/or county jails in which screening for common bacterial STDs is conducted within 24 hours of admission.
- 19-8 Reduce new cases of AIDS among adolescents and adults to no more than 2/100000.
- 19-9 Reduce by 50% the annual incidence of HIV infection of the 2001 baseline.
- 19-10 .. Increase to 67% sexually active students who report using a condom during the previous 3 months.
- 19-11 .. Increase to 97% high school students in grades 9-12 who receive age-appropriate classroom education on HIV and other STDs.
- 19-12 .. Increase the proportion of clients of state-funded HIV testing sites who are referred for screening for common bacterial STDs.
- 19-13 .. Increase to 1.0% newly identified, confirmed HIV-positive test results by state-

funded HIV counseling, testing and referral sites.

- 19-14 .. Increase to 75% partner counseling and referral contacts with unknown or negative serostatus who receive an HIV test.
- 19-15 .. Increase to 90% facilities that provide treatment for injecting drug use that offer or refer persons for HIV counseling and voluntary testing.
- 19-22 .. Eliminate HIC acquired perinatally.

Chapter 20: Substance Abuse and Problem Gambling

- 20-1 Establish a systematic process and assess the infrastructure of the alcohol, tobacco and other drugs service system in Iowa and its impact on prevention, early intervention, and treatment.
- 20-2 Increase by 3% youth aged 12-17 who never used alcohol.
- 20-3 Reduce to 15% alcohol and other drug-related death and injury, and chronic disease rates of Iowans.
- 20-8 Increase to 115 and sustain state, county, community, and neighborhood collaborative groups to reduce problems of alcohol, tobacco, other drugs, and problem gambling.

Chapter 21: Tobacco Use

- 21-1 Increase the tax on cigarettes by \$1.00 per pack.
- 21-2 Pass local control legislation that allow communities the option of regulating smoking in public places to protect citizens from the dangers of secondhand smoke.
- 21-3 Enact legislation that requires the Iowa Division of Tobacco Use Prevention and Control to be consistent with the Best Practices for Comprehensive Tobacco Control Programs as outlined by CDC.
- 21-4 Reduce to 10% Iowans' exposure to secondhand smoke in the workplace.
- 21-5 Implement comprehensive tobacco policies in 100% of Iowa school districts.
- 21-6 Increase to 69% adults who report not allowing smoking anywhere in the home and to 65% the number who report not allowing smoking inside vehicles.
- 21-8 Decrease to 12% women who smoked during pregnancy.
- 21-10 .. Decrease current use of any tobacco product in grades 6-12 and increase the

number of students who report wanting to quit.

Chapter 22: Unintentional Injuries

- 22-2Reverse the increasing trend of brain injury hospitalizations from falls.
- 22-3Reduce non-fatal brain injuries from motor vehicle crashes to no more than 20/100000.
- 22-4Reduce non-fatal spinal cord injuries so hospitalizations for this condition are no more than 4.5/100000.
- 22-6Reduce by 5% unintentional firearm-related deaths for ages 1-18.
- 22-7Develop a plan to address childhood injuries on playgrounds.
- 22-8Reduce deaths caused by unintentional poisoning to 30/year and reduce resulting illness and costs.
- 22-9Reduce fire deaths to less than 1/100000.
- 22-10 ..Reduce deaths by motor vehicle crashes to no more than 1.3/100 million miles traveled.
- 22-11 ..Increase to 90% of motor vehicles the use of occupant protection systems such as safety belts and child safety seats.
- 22-12 ..Reverse the current increasing trend of brain injuries due to motorcycles, motorized bicycles, and bicycles.
- 22-13 ..Provide academic instruction in formats for special populations on motor vehicle injury prevention in the public school system's mandated safety education curricula in grades K-12.
- 22-14 ..Reduce the number of fatal water-related injuries to less than 30/year.
- 22-15 ..Develop a plan to address the injury threat of off-road vehicles such as ATVs and snowmobiles.

Chapter 23: Violent and Abusive Behavior

- 23-1Reduce the risk of victimization from violent crime to less than 300/100000 and maintain the risk of homicide at or below 2/100000 annually.
- 23-2Reduce firearm mortality to 5/100000, firearm suicide to less than 4 annually, and violent crimes involving a firearm to 25 annually.
- 23-3Identify the annual rate of physical abuse by current or former intimate

partners, reduce the number of deaths from domestic violence to less than 5 annually, and increase to an average of 66% the statewide conviction rate for domestic abuse.

- 23-4Reduce the incidence of confirmed child abuse by a caretaker to less than 900/100000.
- 23-5Identify the annual rate of sexual abuse, increase the arrest rate for forcible rape to 16/100000, and increase the number of sexual abuse exams.
- 23-7Establish procedures at 100% of hospital emergency departments, family planning agencies, public health clinics, community mental health centers, and substance abuse treatment programs for routinely identifying, treating and referring victims of child abuse, domestic abuse, elder abuse, and sexual assault.
- 23-8Identify the incidence of intentional violence in schools and workplaces and establish a mechanism for reporting it.
- 23-9Create opportunities for adults and youth to develop skills to be able to manage differences by building peaceable communities and schools.

Chapter 24: Vision

- 24-1Establish a reliable Iowa-specific baseline on vision.
- 24-3Develop new or improved educational programs to reduce visual disabilities due to low birth weight or premature births.
- 24-4Build awareness of the importance of maintaining good eye health through prevention and education.
- 24-5Increase the number of preschool children receiving vision screenings and appropriate follow-up care.
- 24-7Educate Iowans on the benefits of certified eye protection when engaged in potentially hazardous activities that have chemical, physical or radiation agents.

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Chapter 12

Mental Health and Mental Disorders**Introduction**

The *Healthy Iowans 2010* vision for mental illness is to prevent its incidence whenever possible and, when this is not possible, to facilitate its early detection and effective treatment, ultimately returning those affected to full participation in personal, family and community life.

The following are obstacles to the realization of this vision:

- The stigma that surrounds mental illness;
- Treatment limitations and financial requirements placed on mental health benefits in private health insurance;
- Fragmentation of the mental health services delivery system; and
- The “science-to-service” gap in which evidence-based practices are not being optimally translated into clinical settings.

According to the National Institute of Mental Health, in any given year over 19 million people in the U.S. suffer from an anxiety disorder (the most common mental illness), just under that number from a depressive illness, and about two million each from schizophrenia, bipolar disorder, and attention disorders.

Globally, approximately 121 million people experience a depressive disorder each year. In fact, depression will be the second greatest cause of premature death and disability worldwide by the year 2020, according to a health study by the World Health Organization.

Often thought of as an “adult” health problem, mental illness is also one of the greatest threats to the health and well being of children and adolescents. One out of every five children and adolescents in the United States has a mental health problem that can be identified and treated. At least 10%, or about six million children, have a serious emotional disorder. Only

33% of all children with mental disorders receive treatment. While suicide is the ninth leading cause of death in the United States, it is the third leading cause of death for people aged 15 to 24 and the sixth for ages 5 to 15. The incidence of suicide among 15- to 24-year-olds has tripled since 1969. These startling statistics become understandable when one realizes that as many as one in 33 children and one in eight adolescents have clinical depression.

The increasing number of youth in the juvenile justice system also has serious mental health implications. Each year, more than one million youths come into contact with this system nationally, and more than 100,000 are placed in some type of correctional facility. Studies consistently show that the proportion of the juvenile justice population with mental disorders is two to three times higher than that found in the general population. Several incidents of extreme school violence have shocked the nation in recent years. In all of these cases, the youthful perpetrators were suffering from some type of mental disorder.

The combined indirect and related costs of mental illness are immense and include the cost of lost productivity, lost earnings due to illness, and societal costs such as increased criminal justice and family caregiver costs. Clinical depression alone costs the United States \$43.7 billion annually; anxiety disorders, \$46.8 billion; and schizophrenia, \$65 billion.

Adequate funding is key to realization of the goals of this *Healthy Iowans 2010* chapter. Lack of fiscal and human resources has impeded progress on the original goals, although stakeholders remain committed to do all that is possible to assure progress toward their accomplishment.

Mental disorders also have a significant impact on the total health care system. Up to half

of all visits to primary care physicians are due to conditions caused or made worse by such disorders. People with depression are at least four times more likely to have a heart attack than those without such a history. Roughly 37% of alcohol abusers and 53% of drug abusers also have at least one form of serious mental illness.

Fortunately, mental illness is treatable in many instances. The treatment success rate is 60% for schizophrenia; 80% for bipolar disorders; and 63% for major depression. In contrast, the treatment success rate for heart disease ranges from 41% to 52%. In spite of these positive treatment rates, more than 41 million Americans lack health insurance, and even those who are insured generally do not have any kind of meaningful parity in insurance coverage for mental health disorders the same as coverage for other ailments. As a result, the average growth in the amount expended for treatment of mental disorders and substance abuse was 7.2% between 1986 and 1996, notably slower than the 8.3% average growth rate for other health care expenditures.

According to federal data, Iowa has close to 108,000 adults (aged 19 and above) with a serious mental illness and an estimated total of 85,000 children (aged 0 to 18) in need of mental health intervention.

Progress

Significant Changes

The Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury (MH/MR/DD/BI) Commission was charged by Iowa's General Assembly to redesign the mental health and disability system. The Commission gave a preliminary report to the Governor and General Assembly in January 2004 recommending changes in the adult system. The reasons for changing the current system were to enhance equity of access to high quality services statewide, to fund basic services for more people, and to address the funding barriers.

Adult disability redesign. The new adult system envisions universal access to information and education, crisis services, and service coordination, including linkages to basic

supports such as housing subsidies, utility subsidies, food assistance, transportation subsidies, and medical and dental care. It also envisions consistent financial and clinical eligibility criteria across the state, as well as a core set of services available statewide. It also recommends elimination of legal settlement and changes in how state funds are allocated to counties.

Recognition that children's mental health services are delivered differently than adult services. Since the mid-1980s, there has been a growing emphasis on school-based services for children. This began with initiatives from the state and continued with a growing commitment from many local school boards. Many new early childhood programs emphasize the importance of the social, emotional and behavioral development of children.

Child welfare redesign. The Iowa Department of Human Services spent more than a year revamping the child welfare system that is being implemented in 2005. One significant change will impact mental health services to children – many children with mental health needs who are currently being served through the child welfare system will instead be served through community resources in the future. This is significant because, historically, Iowa's child welfare system provided treatment services and by default acted as the child mental health service system in Iowa for children with the most serious emotional disorders. The redesigned child welfare system will reduce the volume of children served in that system by referring those without safety needs to community care.

Rise of consumer and family advocacy. Consumers and family members of children with mental health disorders are participating on every level of system design (i.e., local, regional and state). Mental health consumers and families of children with mental health disorders take their role as primary stakeholders seriously and play an important role in the planning and delivery of services. They no longer simply accept lack of parity for mental health services, inadequate funding, inequity of eligibility criteria across the state, and a narrow range of services available in rural areas. As consumers of mental health services continue to

claim their rightful place in the overall spectrum of health care services, it is inevitable that there will be significant changes to the system's public and private components.

Assertive Community Treatment (ACT). ACT is a model of intensive community outreach to facilitate the treatment of severely and persistently mentally ill individuals. Iowa currently has four ACT programs funded primarily by Medicaid's Iowa Plan for Behavioral Health through Magellan Health Services. The need for effective and intensive community-based services for people who had previously been considered too ill to live outside of residential settings requires services with the intensity, accountability and comprehensiveness of ACT. The Mental Health Planning and Advisory Council includes ACT as one of its priorities for the adult system in future planning.

U.S. Supreme Court's Olmstead decision. As a result of this decision, Iowa received \$1.3 million, which has been subcontracted to the Center for Disabilities and Development (CDD) at the University of Iowa's Center on Excellence in Disabilities. Executive Order #27, issued by Governor Tom Vilsack on February 4, 2003, directed 20 state agencies to collaborate with each other and the Olmstead Real Choices Consumer Taskforce to identify barriers to community living for people with disabilities and steps to remove those barriers. Staff for the project at the Center for Disabilities and Development in Iowa City and at the Employment Policy Group, an arm of the CDD in Des Moines, is providing research, support and coordination to all of the efforts mentioned above. These resources support the Iowa Department of Human Services (DHS) as it coordinates and moves forward on the many intersecting activities associated with implementation of Iowa's Olmstead response.

Demographic changes in Iowa's population. The African-American population has seen substantial growth and there also are growing numbers of Latino, Asian, Pacific Islander, and Eastern European people settling in both urban and semi-rural areas. These numbers include immigrants and refugees, as well as persons who are simply choosing to move to Iowa

from other parts of the country for personal reasons. Poverty, economic uncertainty, previous traumatic experiences, and cultural pressures make many of these new residents subject to a variety of mental health-related problems.

Emerging Trends

The dual diagnosis of mental health and substance abuse. The dual diagnosis of mental health and substance abuse is a crosscutting issue being addressed in collaboration with the team working on Chapter 20, Drugs and Alcohol. Funding to expand services for co-occurring disorders and improve accessibility to these services is being sought by the Iowa Department of Public Health. Iowa is also participating in the second National Policy Academy on Co-Occurring Substance Abuse and Mental Health Disorders.

Emphasis on improving mental health services in the adult corrections system. Due to the growing number of adult inmates in the corrections system who have mental or behavioral health issues, the Iowa Department of Corrections researched best practices and is teaching corrections staff new skills and approaches for working with inmates with mental illnesses. The Iowa Department of Human Services, with the support of the Mental Health Planning Council, funded three model programs that implement successful transition services for correctional consumers with serious mental illness, leaving prison, and returning to their home communities. The Iowa Department of Human Services also funded statewide ICN training during SFY2002, "Streets to Cells and Back Again." Over 800 people the training, which focused on mental health issues within the correctional system. Lessons learned from these activities are being shared across the state.

Comprehensive planning for coordinated early childhood system. Iowa Community Empowerment is spearheading a statewide Early Childhood Initiative using technical assistance from North Carolina Smart Start Technical Assistance Center. The project builds on extensive stakeholder input and provides a framework for a single collaborative comprehensive plan for developing Iowa's early child-

hood system. The Iowa Department of Public Health serves as project director and the State Empowerment Team is the coordinating body for the grant. This team is an interagency group from five state departments: Education, Human Services, Public Health, Management, and Human Rights. The project will continue to:

- Develop a single comprehensive plan for early childhood in Iowa;
- Develop strategies to assure inclusion of critical components in a comprehensive system plan; and
- Strengthen leadership to increase support for Iowa’s vision for access to high quality care, health and education beginning early in life.

Increased emphasis on evidence-based practices in mental health. A main conclusion of the surgeon General’s Report on Mental Health (1999) involved the so-called “science-to-service gap.” That is, many practices that have been shown through rigorous research to be effective are being inadequately implemented in community settings. The Substance Abuse and Mental Health Services Administration (SAMHSA) and many other agencies have launched initiatives to broaden the knowledge about and implementation of these practices, and to encourage the adoption of an “evidence-based culture” throughout all mental health delivery systems.

National Goals

The President’s New Freedom Commission Report on Mental Health entitled “Achieving the Promise: Transforming Mental Health Care in America” established six national goals as a guide in establishing state goals. The following six national goals are used throughout this chapter as headings for both the accomplishments and Iowa’s new mental health goals:

1. Americans understand that mental health is essential to overall health.
2. Mental health care is consumer and family-driven.
3. Disparities in mental health services are eliminated.
4. Early mental health screening, assessment and referral to services are common practice.

5. Excellent mental health care is delivered and research is accelerated.
6. Technology is used to collect uniform mental health data.

Accomplishments

National Goal #1. Iowans understand that mental health is essential to overall health.

- Fifteen people were trained by a national trainer to teach the National Alliance for Mentally Ill (NAMI) provider education course, a national curriculum to educate providers of mental health services about the family and consumer’s role in treatment.
- In 2004, public community forums were held across the state by the Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission to share the adult redesign recommendations.
- For the past six years, the Iowa Department of Education’s Success4 has conducted workshops, conferences, in-depth skill training, and Iowa Communication Network (ICN) trainings on mental health-related topics for educators across the state. The Success4 Specialized Services Group created Information-in-a-box kits addressing 14 mental health disorders found in children and adolescents. These kits are located in each Area Education Agency (AEA) Parent Educator Connection library and are available for anyone wanting to learn more about any of these disorders. Each kit contains videos, journal articles, books, and resource lists.
- Meetings bringing together people who work with the schools, including Area Education Agency staff, school nurses, school counselors, mental health agencies, social service agencies, law enforcement, and community college counselors. The meetings were held in Dubuque, Elkader, Emmetsburg, Creston, Cedar Rapids/Iowa City, and Des Moines, with additional meetings proposed for Fort Dodge and the Quad Cities.
- Area Education Agency (AEA) 1 developed a bibliography of its library collection that can be used as a model by other AEA’s.
- The Iowans for the Prevention of Gun Violence (IPGV) collected journal articles about suicide prevention. A bibliography of this col-

lection is available on the organization's web site, www.ipgv.org.

- In 2001, the Iowa Department of Public Health conducted a media campaign consisting of a 60-second suicide prevention public service announcement broadcast on several major television stations around the state. The Department also distributed brochures to 25 counties that were selected because of their high incidence of suicides over the past decade. Iowans for the Prevention of Gun Violence collaborated with the Iowa Department of Public Health to select and distribute these materials. Periodic follow-up activities are recommended.
- Seminars for suicide awareness were conducted in Creston, Council Bluffs, Iowa City, and Cedar Rapids. Staff from Foundation 2 in Cedar Rapids spoke at these programs, which were sponsored by local community colleges, Area Education Agencies, and local schools.
- Magellan Health Services clinical staff, including the medical director, provides ongoing in-service trainings to primary care physicians and mental health service providers.
- Interest has increased among advocacy groups to rejuvenate the Governor's Children's Cabinet, recognizes the unique needs of financing children's services and the difficulty in sharing a vision for Iowa's Children.

National Goal #2. Mental health care is consumer and family-driven.

- Consumer involvement has raised such key issues as transportation, housing, employment, and self-direction in this and other state-level discussions about the needs of adults with mental illness.
- The Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission within the Iowa Department of Human Services is redesigning the system of care for adults with mental health needs. The Commission submitted a report to Governor Tom Vilsack and the Iowa General Assembly in January 2004 and continues to plan for implementation through ongoing work groups. Adults who are consumers of mental health services are represented on the commission and the work groups

- The Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission and the Iowa Department of Human Services launched the kick-off for the Children's System Redesign on October 21, 2004, with a conference, "Touch the Lives of Children." Over 300 people attended, a high percentage of which were parents and family members of children with disabilities attending.
- The Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission also required that parents or family members of children with disabilities represent 50% of the Children's Disability Committee, which is beginning to design the children's system.
- Families and consumers represent 50% of the Iowa Mental Health Planning and Advisory Council, which reviews and monitors the annual federal Community Mental Health Services Performance Partnership Block Grant and State Plan.
- Magellan Health Services established a Children's Mental Health Roundtable, which initiated a 4-year study of the systems currently in place for delivering mental health services to children in Iowa. That work resulted in the publication of a family resource directory in collaboration with the Substance Alliance for Mentally Ill (NAMI) Iowa. Over 10,000 directories were distributed to schools and mental health providers across the state.
- The Iowa Department of Education is involving families in meeting the developmental needs of children with disabilities:
 1. The statewide Parent Education Connection (PEC) employs over 35 parents of children with disabilities to work with parents trying to meet the academic and behavioral needs of their children. Over 500 parents and educators attend a PEC annual conference where they network and discuss issues affecting students with disabilities. PEC and the Parent Training and Information (PTI) Center work closely together to address issues associated with behavior. In recent years, behavior has consistently been among the top five reasons spurring individuals to consult with the AEA. PEC and the PTI Center conducted a Parent Summit that brought together statewide parent groups to network, cre-

ate common goals, and share information. PEC also created a “Parents as Presenters” directory which lists parents who can present at Institutes of Higher Education, community agencies, and civic groups on issues for children with disabilities.

2. Parents of children with disabilities represent 50% of the Special Education Advisory Panel (SEAP). SEAP reviews and monitors state government activities related to implementation of the Individuals with Disabilities Education Act (IDEA).

3. The Iowa Behavioral Alliance is responsible for three domains: mental health, dropout prevention, and positive behavioral supports. Each domain includes parent participation and leadership. Parents represent 90% of a Family Assistance Team, which was formed to assist schools across the state with including parents in school-wide behavioral assistance teams and to support the work of the Iowa Behavioral Alliance.

- The Iowa Collaboration for Youth Development (ICYD) coalition was formed to focus on positive youth development and youth involvement. This collaboration involves the Iowa Department of Human Services, the Iowa Department of Public Health, the Iowa Department of Education, Workforce Development, the Office of Drug Control Policy (ODCP), and community partners that work with youth. The Coalition funded projects in several communities that focus on developing youth involvement.
- The Iowa Department of Human Services created an advisory board of current and former foster care youth.

National Goal #3. Disparities in mental health services are eliminated.

- Peer counseling and phone support hotlines has proven to be an effective way of linking older adults to assistance during crises. These services may also prolong the tenure of older adults in communities.
- A statewide study of homelessness was conducted in 1999 by Iowa State University and reported a total of 26,298 homeless people in Iowa. Applying the prevalence of psychiatric disorders to this population, the estimated number of homeless persons with mental or emo-

tional disorders requiring professional help ranges from 6,600 to 14,650. According to the study regarding homeless persons: 72% are located in the large metropolitan counties, 50% are male, and 50% are female; 55% are under aged 18; 70% are white; and 90% are non-Hispanic. Another statewide study of homelessness is being completed in 2005.

- The case management system for older Iowans facilitated the efficient use of community-based resources for the treatment of the physical and mental health problems in this population.
- The safety and treatment capacity in the Iowa prison system was increased by adding beds for mental health inmates at the Fort Madison Penitentiary and a female unit at the Mount Pleasant Correctional Facility. These projects provide 300 special-needs beds for inmates.

National Goal #4. Early mental health screening, assessment and referral to services are common practices.

- The Early Child Care and Education Network witnessed an increasing focus and interest in the area of child care and early education. Governor Vilsack turned his focus to promoting the recommendations of the Iowa Learns Council on early care and education. The Early Child Care and Education Network consists of Child Care Resource and Referral of Iowa, Iowa Program for Infant and Toddler Caregivers, the Iowa Family Resource Network (IFRN), Iowa Respite and Crisis Care Coalition, Prevent Child Abuse Iowa, and Parents Anonymous of Iowa Inc. Early childhood stakeholders, including the Network and a broad cross section of professionals in the early care, health and education fields, are working to build a comprehensive early childhood system by expanding programming and advocacy on behalf of young children.
- Early ACCESS is a partnership between families with young children, birth to age three, and providers from the Iowa Departments of [Education](#), [Public Health](#), [Human Services](#), and [Child Health Specialty Clinics](#). The purpose of this program is for families and staff to work together to identify, coordinate and provide needed services and resources that will help the family assist their infant or toddler to grow and

develop. The family and providers work together to identify and address specific family concerns and priorities as they relate to the child's overall growth and development. In addition, broader family needs and concerns can be addressed by locating other supportive and resources services in the local community for the family and/or child. All services to the child are provided in the child's natural environment, including the home and other community settings where children of the same age without disabilities participate.

- A statewide committee, Assuring Better Child Health and Development II (ABCD II), was formed to support the Medicaid Early and Periodic Screening, Diagnosis and Treatment program (EPSTD) under the direction of the Iowa Department of Public Health. The committee's purpose is to make behavioral health services available to all children from birth through age three. Committee members meet monthly and are in a planning phase. An implementation phase is expected to begin in 2005.

National Goal #5. Excellent mental health care is delivered and research is accelerated.

- A Technical Assistance Center for Evidence-Based Practices in Mental Health is developing through a partnership of the Iowa Consortium for Mental Health and Magellan Health Services, contractor for Iowa's Medicaid behavioral health services and the Iowa Department of Human Services. The technical assistance center focused on two evidence-based practices: a Wellness and Recovery Center and Assertive Community Treatment Centers. It has developed capabilities to increase training regarding these practices across the state.
- Technology improved in Iowa's 12 Child Health Specialty Clinics that allows access of "best practices" in the most rural clinics. This partnership is between the Iowa Department of Human Services, the Iowa Department of Public Health, and Magellan Health Services.
- The Center for Development and Disabilities of the University of Iowa received research funding for partnering with the Iowa Department of Education to conduct a statewide project for

children aged birth to six with developmental disabilities. The project teaches parents and primary caregivers specific strategies on how to effectively manage their child's aggressive and self-injurious behavior. The treatment is delivered in the child's home, and the data indicates not only a high level of satisfaction by parents but also a reduction in out-of-home placements.

- Legislation passed in the 2004 session (SF2288) mandates that monies from the Community Mental Health Block Grant program be used for "evidence-based practices." This spurred the development of a new process of soliciting, distributing and monitoring the use of block grant funds, with an increased emphasis on ensuring that programs funded through this mechanism are delivered in a manner consistent with an evidence-based culture.

National Goal #6. Technology is used to collect uniform mental health data.

- Funding increased for early childhood programs through the Empowerment Initiative, Early ACCESS, and ABCD II grants, all of which provide resources to support uniformity across all data sources.
- The Iowa Department of Human Services received the Data Infrastructure Grant (DIG) to enhance collection of uniform data about mental health services across the state.

Goals & Action Statements

Cultural competence is a fundamental component of each goal in this chapter. Achieving cultural competence is presumed essential to the successful completion of each goal and action step. Therefore, there will not be a continual reference made to cultural competence in the narrative of the goals and action steps.

National Goal #1. Iowans understand that mental health is essential to overall health.

12–1 Goal Statement

Develop a statewide campaign to increase public awareness about the need for good mental health through media, community leaders, and schools. Baseline: See Rationale.

Rationale

Iowa has 99 counties and 948 incorporated municipalities ranging in size from [Beaconsfield](#) (population 11) to [Des Moines](#) (population 198,652). Persons experiencing mental health problems may seek assistance from a variety of public and private organizations in these communities, all of which need to be kept up-to-date on new practices and interventions.

Human services agencies, law enforcement organizations, families, and others need to be aware of current trends in mental health services, including the national focus on family-centered and self-directed services in order to promote a high level of community responsiveness to mental health needs. The local Central Point of Coordination position for adult services is a “gate-keeper” for funding resources but is not necessarily a mental health information specialist about symptoms, best practice treatments, and local services that are available.

12–1.1 Action Step

By 2007, disseminate written materials about mental health disorders of adults and children to each Iowa State University Extension office. The extension offices will distribute these materials to community health providers, schools and faith communities. (A National Alliance for Mentally Ill Iowa and Iowa State University Extension Service action step.)

12–1.2 Action Step

By 2007, identify an in-service module for cross-training different licensed professionals and staff about mental health disorders, including symptoms and treatments. This training module will be appropriate for in-services and conference workshops held by professional associations, judges, law enforcement personnel, educators, and policymakers. (A National Alli-

ance of Mentally Ill Iowa and professional associations’ action step.)

12–1.3 Action Step

By 2010, identify five pre-service education programs in institutes of higher education in the areas of social work, psychology, public health, elementary education, and special education. Review the core curricula requirements for each program with the curriculum director and encourage integration of mental health awareness, including symptoms and treatments. (A Specialized Services Group, Iowa Department of Education, Iowa Association of Independent Colleges and Universities, state universities, and National Association of Social Workers action step.)

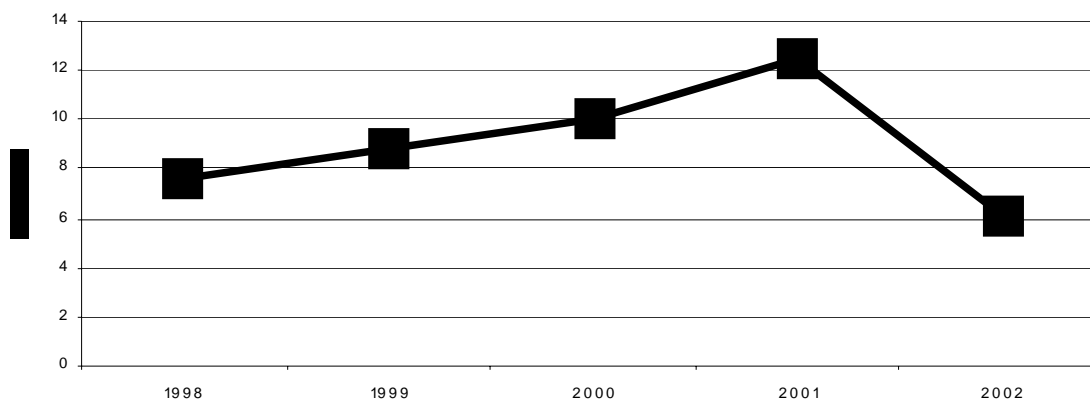
12–2 Goal Statement

Reduce by 10% the annual incidence of suicides among youth aged 15 to 24 and adults over aged 65. Baseline: See 2001 rates.

Rationale

In 2001, 30,622 suicides were committed in the United States. Of those, 17.6% were over aged 65 and 13.0% were aged 15 to 24. The greatest need for suicide prevention is among teenagers and young adults, for whom suicide is the second leading cause of death in Iowa. Males committed 86% of suicides in this age group. Suicide rates are also high among the elderly, but ranks behind many other causes of death for this group. In Iowa, the percent of suicides committed by 15 to 24-year-olds has been greater than the national average in recent years. For instance, 15 to 24-year-olds committed 19.4% of the 304 total Iowa suicides in 2001, and those over aged 65 committed 16.4%. Of the 312 total Iowa suicides in 2002, the 15 to 24 age group committed 17% and those over aged 65 committed 14.4%. The literature on suicide indicates that depression and substance abuse are the two main risk factors for suicide, while firearms are the leading lethal means of carrying out the act.

Youth Suicide Deaths as a Percent of Total Suicide Deaths



Source: Vital Statistics of Iowa

12–2.1 Action Step

By 2006, regularly disseminate suicide awareness materials to community members in collaboration with schools and community agencies. (An Iowa Department of Public Health and National Alliance for Mentally Ill Iowa action step.)

12–2.2 Action Step

By 2010, increase public awareness of suicide risk factors and prevention strategies by preparing a list of books and other resources on these topics for public, private and school libraries. (An Iowa Department of Public Health and National Alliance for Mentally Ill Iowa action step.)

12–2.3 Action Step

Beginning in 2005, work with television, radio and newspaper media to regularly inform the public about the risk factors associated with suicide. (An Iowa Department of Public Health action step.)

12–2.4 Action Step

By 2010, conduct education and awareness forums for the geographic areas having the highest incidence of suicide during the most recent years for which data are available. (An Iowa Department of Public Health and Magellan Health Services action step.)

12–2.5 Action Step

By 2007, strengthen the state's resources for preventing suicide by increasing the number of those qualified to train service providers on suicide intervention topics, including education and mental health. (An Iowa Department of Public Health and Magellan Health Services action step.)

12–2.6 Action Step

By 2009, identify a program to train employers to recognize signs of suicide in young adults, especially in males outside higher educational systems, and identify a model employee assistance program to meet the needs of young adults. (An Iowa Department of Public Health action step.)

12–3 Goal Statement

Increase the number of mental health assessments performed by primary care physicians as part of routine patient care.

Baseline: To be established through an upcoming survey, along with a specific improvement target.

Rationale

Persons experiencing mental health problems or problems with emotional well-being frequently have physical health problems as well. They often seek and receive treatment for physical illnesses from a primary care provider. In many cases, only the physical ailment is treated and the mental and/or emotional illness may not be dealt with or even recognized. The result is that appropriate mental health treatment within the primary care setting or referral to a mental health professional for further evaluation and treatment is not made. National data indicates that one-half to two-thirds of those who commit suicide have visited a physician within one month prior to the suicide.

According to the National Institute of Health Epidemiology Catchment Area Study, recent psychiatric illness was 41% higher, and lifetime psychiatric disorder was 28% higher, in patients who also were medically ill. As cited in the 2003 Institute of Medicine publication entitled *Priority Areas for National Action* (pp. 74-75), only 50% of depressed patients in the community and in primary medical settings are correctly diagnosed, and less than one-third of them receive adequate therapy for their depression. Both rates of treatment and national health expenditures for depression are substantially lower than corresponding levels for many other chronic and disabling disorders.

Patients with unrecognized depression constitute up to 30% of those seen by primary care providers. The result is unnecessary treatment of secondary medical illnesses, use of unnecessary prescription medication, and unnecessary continued use of primary care services. By providing primary care providers with training on the detection and treatment of mental health issues and the development of collaborative relationships with mental health care professionals,

patients can be appropriately treated, allowing for elimination of wasted health care dollars.

As safer and more easily prescribed families of antidepressants become available, treatment for depression within the primary care setting is becoming increasingly widespread, along with the expectation that only the more unusual or difficult cases will be referred to mental health specialists. In those situations that do require referral to a specialist, primary care providers are faced with two fundamental problems: 1) not correctly identifying when a patient is in need of further mental health evaluation and treatment; and 2) not correctly connecting such a patient to specialized mental health services that are both appropriate and accessible.

Inadequate training of other support persons on issues surrounding mental health treatment also adds to the problem. By training these groups on the issues surrounding mental health evaluation and referral, consumers will have the opportunity to obtain quality mental health care in a timely fashion. There will also be substantial savings in other areas of health care.

12–3.1 Action Step

By 2008, conduct and publish a statewide survey of primary care physicians that identifies barriers to the integration of behavioral health and primary care. (An American Academy of Family Physicians action step.)

12–3.2 Action Step

By 2009, ensure that primary care physicians, nurse practitioners, and physician assistants receive special training and reference information that addresses the need for appropriate mental health referrals and the need to incorporate a collaborative consumer/family perspective into the mental health diagnosis, treatment and referral process. (An Iowa Consortium for Mental Health Services Training and Research and the associations of primary care providers action step.)

12–3.3 Action Step

By 2007, develop and distribute “toolkits” for primary care physicians, nurse practitioners, and physician assistants that include the Medicaid-approved mental health screening tool for

young children (through Iowa’s Early, Periodic Screening, Diagnostic and Treatment program) and the functional assessment tool identified by the Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission and a directory of community mental health service providers. (A Magellan Health Services, Iowa Department of Public Health, and Iowa Department of Human Services action step.)

12–4 Goal Statement

Improve the overall efficiency of child-serving state agencies by creating a shared state level vision for improving the well-being of children from early childhood through adult transition modeled after the Early ACCESS collaborative planning format. Baseline: A state-level shared vision does not exist at this time among state agencies.

Rationale

Many children diagnosed with a Severe Emotional Disorder (SED) and their families receive services from a variety of public and private agencies. No single public or private agency has the financial or technical resources to provide all components of care on its own. Due to the variety of systems that provide care for children, the various levels of involvement of families, and the variety of definitions and scopes of practice for “case-management” among providers, collaborative agreements among state agencies is essential to begin uniformity among systems. Agencies must braid their financial and personnel resources to avoid duplication of effort, gaps in service, and other detriments to the effective and efficient use of the scarce mental health resources available to children and their families.

12–4.1 Action Step

By 2006, each state agency will endorse one statewide standard functional assessment tool for children with Serious Emotional Disorder (SED) to be used at all points of entry, regardless of setting. (An Iowa Department of Public Health,

Iowa Department of Education, and Iowa Department of Human Services, EPSDT, and Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission action step.)

12–4.2 Action Step

In 2005, continue to facilitate shared staffing and financial resources to meet the complex needs of children and their families by reestablishing the Governor’s Children’s Cabinet. (A Governor’s Children’s Cabinet action step.)

12–4.3 Action Step

By 2006, endorse an interagency collaborative that addresses the mental health needs of children aged 5 through 18 modeled after the Early Childhood Collaborative Planning for Birth to age five. (A Governor’s Children’s Cabinet action step.)

12–4.4 Action Step

By 2005, create an inventory of all state initiatives affecting mental health services for children and how they interface. (A Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission action step.)

National Goal #2. Mental health care is consumer and family-driven.

12–5 Goal Statement

Increase to 100% the number of mental health service agencies that include some form of consumer and family input when designing or modifying the services they deliver. Baseline: The percentage of these agencies that currently incorporate customer input is unknown, but presumed to be very low.

Rationale

Through the involvement of those who directly benefit from mental health services, Iowa creates a responsive system for the recruitment, training and relevant input from consumer participants. Strengthening the role of consumers

further provides a forum to advocate for an improved array of services, including case management, outpatient therapy, residential services, enhanced treatment options, cultural competency training, and ongoing staff development. While consumers may or may not promote a specific model or product, they are sure to advocate for age-appropriate opportunities such as comprehensive wrap-around services and community linkages with other services, including client education and community support.

12–5.1 Action Step

By 2005, form a statewide mental health consumer, family and youth council to identify barriers and concerns within the adult and children’s mental health systems and inform policy makers of best practice service alternatives available to address them. (A Magellan Health Services and Medicaid Waiver Advisory Councils [Ill and Handicapped, Personal Assistance Services, etc.] action step.)

12–5.2 Action Step

By 2007, using a train-the-trainer model, educate consumers about the management of their mental health conditions, including the importance of proper medication, diet, exercise, and other aspects of wellness. (A Wellness Management and Recovery Technical Assistance Center action step.)

12–5.3 Action Step

By 2008, develop and support an infrastructure for training peer support specialists, which includes adopting a curriculum and core competencies for a peer support specialist, as well as a credentialing and quality assurance process. (A Wellness Management and Recovery Technical Assistance Center action step.)

12–5.4 Action Step

By 2010, certify at least one peer support specialist in every community mental health center or other mental health service provider who can provide age-appropriate information and referral to link consumers to services and follow-up activities such as: job training, affordable housing, food and pharmacy assistance, healthy leisure time events, and substance abuse

free events. (A Wellness Management and Recovery Technical Assistance Center action step.)

12–6 Goal Statement

Increase to 100% the number of mental health service agencies that include some form of youth and family input when designing or modifying child and adolescent services. Baseline: The percentage of these agencies that currently incorporate youth and family input is unknown, but presumed to be very low.

Rationale

A framework for an extended array of roles for youth and family members in relation to legislators, planners, those who fund programs, private and public child-serving systems, and direct-care staff must take into account the strengths, resources and stresses of youth and their families. Parents and family members have an acute knowledge and awareness of service needs associated with the stresses and rewards of living with a child with special needs. This unique perspective can lead to development of supportive services such as counseling and parent-lead support groups, as well as more concrete services such as respite care, recreational opportunities, and financial assistance.

12–6.1 Action Step

By 2007, increase parent and family leadership by 20% to expand opportunities for family choice of what, how and where services will be delivered in the designing and implementation of a system of care at the local, state and regional levels. (A Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission and Magellan Health Services action step)

12–6.2 Action Step

By 2007, identify training curricula for parents and families of children and youth with serious emotional disorders. (A Children’s Disability Committee of the Mental Health, Mental Retardation, Developmental Disabilities, and

Brain Injury Commission and state agencies action step.)

12–6.3 Action Step

By 2008, develop curricula and provide training to over 400 direct line staff and youth workers that address the creation of strength-based environments where youth and families are given the opportunities to have a voice in the services affecting their lives. (An Iowa Collaboration for Youth Development action step.)

12–7 Goal Statement

Identify and serve children and youth in the juvenile justice system by developing an integrated community-based mental health service delivery model and examine the effectiveness of that model.

Baseline: Such a model has not been implemented on a statewide basis.

Rationale

Criminal careers usually begin during the juvenile years. Most chronic offenders have multiple contacts with the juvenile justice system. Approximately 30% to 40% of all youth growing up in urban areas in the United States will be arrested before their 18th birthday. Each successive arrest will place them at higher risk. After five or six arrests, they will have a better than 90% chance of being arrested again.

Some youth advocates assert that all but a handful of youths are best served by placing them in small, community-based programs. A number of studies have demonstrated that appropriate community-based interventions work considerably better than regular probation or short-term detention.

12–7.1 Action Step

By 2007, establish assessment centers for youth in the juvenile justice system to provide community-based intake, screening, assessment, case management, and wrap-around services. (An Iowa Department of Human Services, Iowa Department of Education, Iowa Department of Human Rights, Iowa Department of Public

Health, community mental health centers, court services, and families action step.)

12–7.2 Action Step

By 2010, create a training program for parents, court services personnel, juvenile probation officers, and judges to develop and implement permanency plans for children at risk for delinquency and their families. (An Iowa Department of Human Services, court services, and consortium of Iowa family-support organizations action step.)

12–7.3 Action Step

By 2010, assign a juvenile justice community liaison for each child re-entering his or her community who would focus on integration and positive transition. To be determined upon completion of the children's system redesign. (A Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission action step.)

12–7.4 Action Step

By 2008, train juvenile court judges and officers on the rationale for keeping child and adolescent offenders with mental health disorders in their own communities, and on how to use the array of court orders available to them to accomplish this. (A local Department of Human Services and juvenile court judges action step.)

12-8 Goal Statement

Expand by 30% the capacity to serve adult offenders in Iowa state correctional facilities and under community supervision. Baseline: See Rationale.

Rationale

Iowa has experienced a tremendous increase in its prison inmate population in recent years. Approximately 15% of those inmates have co-occurring substance abuse and mental health disorders. Due to the rising number of offenders and the diminishing number of community mental health care placement options, it is vital that the Iowa Department of Corrections, community-based corrections, and communities act in

the short-term to expand services statewide for offenders with mental health disorders and developmental disabilities.

12–8.1 Action Step

By 2007, increase the bed capacity by 170 to treat offenders with mental disorders within the correctional system. Additional beds are being added at the Iowa Medical and Classification Center at Oakdale. At this time, the statewide system is capable of providing adequate mental health services to approximately 544 of the 8,500 inmates. (An Iowa Department of Corrections and Iowa Department of Human Services action step.)

12–8.2 Action Step

By 2007, address the lack of funding for offenders moving to community-based correctional programs. There are 76 offenders in community-based correctional programs who receive mental health services out of a total of 1,515 in the state. (A Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission; Iowa Department of Corrections; community-based corrections, and Iowa Department of Human Services action step.)

12–8.3 Action Step

By 2010, at intake and with each institution transfer, prepare inmates with mental health needs for a successful transition into community-based correctional programs. (An Iowa Department of Corrections, Iowa Department of Human Services, and central point of coordination action step.)

12–8.4 Action Step

By 2005, increase state appropriations for the Iowa Department of Corrections and community-based corrections to effectively and constitutionally manage the mental health needs of offenders. (A legislative action step.)

12–9 Goal Statement

Provide housing for 100% of known chronically homeless children and adults with mental health disorders. Baseline: See Rationale.

Rationale

Although homelessness is not a new phenomenon, recent demographic and economic changes have interacted with the effects of deinstitutionalization of the mentally ill in the country to produce a numerically significant population with serious and persistent mental illnesses and highly specialized service needs. Data show that: 1) the number of homeless people is growing steadily; 2) the average age of homeless people is dropping sharply; and 3) the percentage of those who are chronically mentally ill, by any definition, is increasing rapidly.

There are serious problems associated with services to the homeless who are mentally ill. These individuals require an intricate array of coordinated housing, psychiatric, medical, social, rehabilitative, vocational, and transportation services. These needs must be met in a comprehensive manner and through a single entity responsible for coordinating the needed services and supports in the community. Currently, services are extremely fragmented and there is no clear delineation of responsibility.

Programs for the homeless who are mentally ill must include an effective goal setting process. Goals must be precise, reasonable and consistent with their needs and resources. Community resources must be allocated through interagency planning and coordination of services and in a manner that recognizes the diverse individual needs of those being served with respect to their age, gender, rural and urban differentiation, race, culture, ethnicity, and belief system.

12–9.1 Action Step

By 2008, create 1,000 new housing opportunities in community settings and expand community living opportunities for people with disabilities throughout the state. (An Iowa Finance Authority and Iowa Department of Human Services action step.)

12–9.2 Action Step

By 2006, create permanent or transitional housing opportunities for a minimum of 50 homeless families having a child with a serious emotional disorder. (An Iowa Department of Human Services and Iowa Finance Authority action step.)

12–10 Goal Statement**Design and implement a system of care for adults with mental health needs.**

Baseline: This system is currently in the design phase; see Rationale.

Rationale

The current system of care for adults is both fragmented and uncoordinated. To remedy this, the state must empower and provide adequate staff and administrative capabilities for a centralized focus of responsibility within state government that would be responsible for identifying and unifying all available mental health-related services and supports. There is a need to for inter-state agency collaboration to qualify for federal funds (e.g., co-occurring, mental health and substance abuse issues).

12–10.1 Action Step

By 2008, establish within state government a clear focal point for administration of adult mental health services, including county services, Medicaid disability services, and Medicaid behavioral health services, with adequate staffing for interagency planning and coordination of mental health services for adults. (A Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission and Iowa Department of Human Services action step.)

12–10.2 Action Step

By 2010, establish a system of interagency planning and care coordination among multiple agencies by expanding the research base of services and by establishing a uniform management information system. (A Mental Health, Mental Retardation, Developmental Disabilities, and

Brain Injury Commission and Iowa Department of Human Services action step.)

12–10.3 Action Step

By 2008, identify the specific roles that each of the following play in state mental health planning: Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission; Mental Health Planning and Advisory Council; Medicaid Waiver Advisory Committees; Medicaid Behavioral Health Advisory Committees; Iowa Department of Public Health Substance Abuse Advisory Committees; and Iowa State Association of Counties. (A Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission action step.)

12–10.4 Action Step

By 2008, develop a comprehensive emergency preparedness plan to be incorporated into the state emergency response plan. Educate behavioral health providers and facilities on their role and responsibilities in the event of a natural or man-made disaster. (An Iowa Department of Human Services, Iowa Department of Public Health, Iowa Homeland Security and Emergency Management Division, and behavioral health providers action step.)

12–11 Goal Statement**Develop and implement a system of care for children with behavioral and developmental needs, including support for their families.**

Baseline: This system is currently in the design stage; see Rationale.

Rationale

Responsibilities for planning, funding, regulating, and administering developmental and behavioral services for children and adolescents are not vested in a single entity. Instead, they are diffused throughout a number of state agencies, including:

- Iowa Department of Human Services: child welfare, community mental health centers, de-categorization boards, innovation zones, empowerment zones, and the Division of Medical

Services which serves as the State Medicaid Authority including Medicaid Home and Community Based Services Waivers and behavioral health.

- Iowa Department of Education: public and private school districts, local educational agencies (LEAs), area education agencies (AEAs), and Division of Vocational Rehabilitation.
- Iowa Department of Public Health: Child Health Specialty Clinics housed within the University of Iowa, ABCDII Program; as outlined in Chapter 11, Division of Behavioral Health and Professional Licensure’s prevention and licensing authority.
- Iowa Department of Inspections and Appeals: Psychiatric Medical Institutes for Children (PMIC).
- Iowa Department of Human Rights: Criminal and Juvenile Justice Planning (CJJP).

These entities, including the Governor's Developmental Disabilities Council, are involved in planning, funding, administering, and regulating children's services in Iowa. However, these functions are not well integrated, but instead are vaguely diffused across state agencies, departments, divisions, bureaus, and commissions, with some overlap in responsibilities.

It is the state's responsibility to spearhead the process of engaging family members, public and private agencies, advocates, providers, and state and local officials to collaboratively establish and implement an integrated system of care. To help realize such a vision, the state must establish and adequately staff a centralized focus of responsibility within state government to blend all available services and supports for children, adolescents and their families who receive services from publicly funded systems.

12–11.1 Action Step

By 2006, propose a focal point for the administration of children's mental health services within state government with responsibility and adequate staffing for interagency planning and coordination of mental health wrap-around services for children, youth, and their families. (A Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission action step.)

12–11.2 Action Step

By 2010, implement a system of care by bringing together families, community organizations, juvenile justice system representatives, mental health education providers, vocational rehabilitation services, child welfare organizations, public health and health care providers, and substance abuse programs, along with county and state resources, in an effort to create a system of care that can be financially sustained. Evaluate outcomes of this system and use the evaluation to shape future program direction. (An Iowa Department of Human Services; consumers and families; juvenile justice system; vocational rehabilitation system; educators; private and public service organizations; state, county, city, and neighborhood resources; and public and local de-categorization projects action step.)

12–11.3 Action Step

By 2010, identify local community infrastructures across the state that support local family-centered service delivery. (A Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission action step.)

National Goal #3. Disparities in mental health services are eliminated.

12–12 Goal Statement

In accordance with culturally sensitive practices, provide appropriate mental health services to all adults and children seeking services. Baseline: See Rationale.

Rationale

Providing culturally competent services is a major challenge facing mental health service providers. To address this disparity, the action steps related to this goal involve creating a minority advisory group, convening an interagency committee, and recruiting, training and retaining psychiatrists and behavioral health professionals from diverse cultures and backgrounds.

12–12.1 Action Step

In 2005, form a minority advisory group to develop a training track for the 2006 annual mental health training conference. (An Iowa Community Association of Providers; Magellan Health Services; Iowa Department of Human Services; Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission; Iowa Department of Human Rights; and Iowa Refugee Services action step.)

12–12.2 Action Step

In 2005, begin to recruit, train and retain psychiatrists and mental health professionals of diverse cultures, backgrounds and specialties including child, adolescent and geriatric. (A College of Public Health action step.)

12–12.3 Action Step

By 2008, convene an inter-agency committee to identify unmet needs of populations with mental health needs and develop strategies to meet these needs. (An Iowa Mental Health Planning and Advisory Council action step.)

12–13 Goal Statement

Provide affordable public transportation that is frequent enough to support an independent lifestyle for all persons with mental health disorders who are transit dependent. Baseline: Although some level of public transit service is currently provided in all counties, the schedule and/or geographic coverage may not be sufficient for persons with mental disabilities, especially in rural counties. Eligibility restrictions of the transit systems are also problem in some areas.

Rationale

Iowa's urban and regional public transit systems are required to be open to the public, although many of the rural systems continue to be perceived as serving only persons with developmental disabilities or older persons, but not those with mental illness. Also, in most rural areas the limited public and private transportation services run only on certain days, and then only during daytime hours. Individuals needing

transportation are, therefore, stranded during much of the week, creating a feeling of isolation and limiting the following activities: 1) getting to work; 2) attending religious services; 3) shopping; 4) getting to doctor appointments; 5) participating in social or recreational activities; and 6) utilizing drop-in centers or club houses.

Transportation continues to be an obstacle to the delivery of mental health services, particularly for those suffering from serious and persistent conditions. Both inter- and intra-city public transportation continues to disappear, which has a heavy impact on low-income consumers who find it difficult or impossible to access key services because of the lack of reliable and affordable transportation.

There are many people with serious mental illness who are in desperate need of dependable transportation. Not being able to drive makes them dependent on others or, worse yet, prevents them from venturing out at all. As is true for most people, having adequate transportation provides this population with a feeling of independence and contributes to overall mental and physical health and well-being.

12–13.1 Action Step

By 2005, prepare a report documenting additional sources of funding that public transit systems can use to expand services for all persons and to underwrite services for persons with mental health disorders. (A state-level Transportation Coordination Council, Iowa Department of Public Health, and Iowa Department of Transportation action step.)

12–13.2 Action Step

By 2006, provide training and technical assistance to public transit system personnel on accessing mental health funding programs for the transportation of persons with mental health disorders. (A state-level Transportation Coordination Council, Iowa Department of Public Health, and Iowa Department of Transportation action step.)

12–13.3 Action Step

By 2005, establish a monitoring and reporting system to assure compliance with "open to the public" requirements for public transit ser-

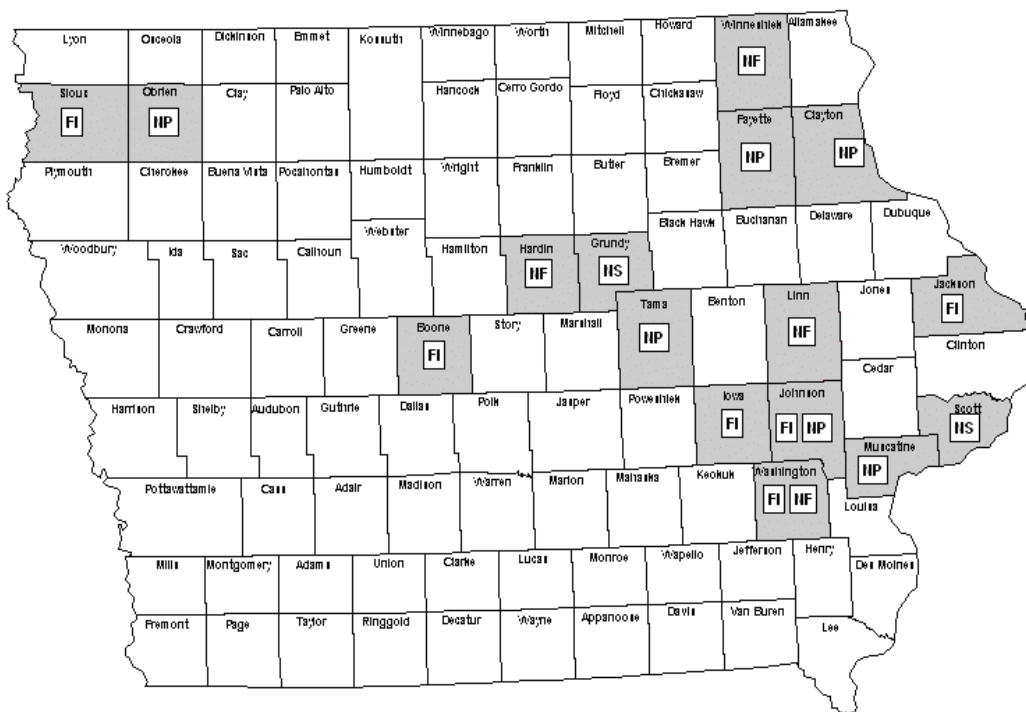
vices in Iowa. (A state-level Transportation Coordination Council, Iowa Department of Public Health, and Iowa Department of Transportation action step.)

12–14 Goal Statement

Increase use of the mental health outreach service of the Medicaid Elderly Waiver among Iowans aged 65 or older and educate the community about the mental health needs of this population.

Baseline: Currently 83 counties have adequate service providers to make this mental health outreach service available.

SFY 2004 – Mental Health Outreach, Unmet Needs Report, Iowa Department of Elder Affairs



Grayed Area Codes: NP – No Provider Available NF – No Funding Source NS – Unable to Staff Number of Hours FI Funding Source Inadequate Cover Costs

Rationale

More than 20% of the Iowa population is currently over aged 60. Four percent is aged 85 and older, with 50% of this group housed in congregate living environments. Older adults often have special mental health needs. This population has traditionally been underserved or completely without access to services due to: geographic isolation; the stigma associated with mental illness and the subsequent reluctance to seek treatment; the allocation of mental health resources to other age groups; the lack of appro-

priately trained professionals to meet unique needs of older patients; a lack of appropriate funding for alternative services delivery systems; and over reliance on institutionalization, rather than community based services, for treatment. Case management services covered by the Medicaid Elderly Waiver are available in 99 counties, with 12,500 Iowans over aged 65 receiving such services in 2004.

There are currently few medical and psychiatric professionals in Iowa with geriatric training. Educational opportunities are essential to

the development of a cadre of professionals appropriately trained to identify and treat late-life mental disorders. Increasing the number of health and mental health professionals with such training fosters easier access to appropriate diagnosis and treatment for older adults and promotes continuation of appropriate treatments in the least-restrictive level of care. Whether used alongside or in lieu of professional services, peer counseling and support systems comprise an effective treatment and support strategy for older persons with chronic mental conditions.

12–14.1 Action Step

By 2008, make available the Medicaid Elderly Waiver mental health outreach service to the 16 remaining counties in Iowa. (An Iowa Department of Public Health, Iowa Department of Human Services, Iowa Department of Elder Affairs, and University of Iowa Center on Aging action step.)



12–14.2 Action Step

By 2007, increase education and awareness of mental health problems in the elderly population by offering educational presentations to health care providers, nursing home personnel, public health nurses, and home health care agencies, and in supportive community care settings such as churches, congregate meal sites, and other community settings that are used by this age group. (An Iowa Department of Public Health, Iowa Department of Human Services, Iowa Department of Elder Affairs, and University of Iowa Center on Aging action step.)

12–14.3 Action Step

By 2007, provide training to expand the system of peer support for older Iowans with mental health needs within each of the 13 local area agencies on aging. (An Iowa legislature and Iowa Department of Elder Affairs action step.)

12–14.4 Action Step

By 2009, expand the delivery of mental health outreach services statewide. (An Iowa Department of Public Health, Iowa Department of Human Services, Iowa Department of Elder Affairs, and University of Iowa Center on Aging action step.)

National Goal #4. Early mental health screening, assessment and referral to services are common practice.

12–15 Goal Statement

Ensure universal access to social, emotional and behavioral health services for children aged birth to five. Baseline: Universal access is not currently available in every Iowa community.

Rationale

The commitment to young children in Iowa is that “Every child, beginning at birth, will be healthy and successful.” In order to accomplish this goal, a comprehensive systems approach will be required. Iowa’s mental health care system for children is fragmented, with scarce resources and no point of accountability to serve children and their families in need. Family support and parent education services vary in comprehensiveness and accessibility. For mental health, there is a need to facilitate linking initiatives, potential partners, and resources for a coordinated, comprehensive system of care. There is a need to establish a single point of access through cultivating key champions, developing advocacy skills, disseminating best practices, and formulating a sustainability plan for implementing Iowa’s plan for early childhood.

12–15.1 Action Step

By 2006, identify or establish linkages and coordination among research and practitioners / school personnel to address social/emotional development of young children. (An Iowa Consortium for Mental Health and Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission action step.)

12–15.2 Action Step

By 2007, encourage the integration of social and emotional health care principles of early childhood development into all mental health provider practices. (A Community Mental Health Centers, Iowa Association of Community Providers, and Early ACCESS action step.)

12–15.3 Action Step

By 2010, implement the recommendations and products developed through Iowa's ABCD II project regarding developmental screening for young children. (A Community Mental Health Centers, Iowa Association of Community Providers, and medical professional associations action step.)

12–15.4 Action Step

By 2009, conduct a public awareness campaign on the importance of early social and emotional child development to train community mental health providers in conjunction with agencies identified in Chapter 11. (A Community Mental Health Centers, Iowa Association of Community Providers, Coalition of Children and Families Services membership, and Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission action step.)

12–15.5 Action Step

By 2008, revitalize the student assistance team concept using models developed by exemplary Iowa school systems as identified by the Iowa Department of Education. (A local education agencies, Area Education Agencies, and Iowa Department of Education action step.)

12–16 Goal Statement

Identify 100% of pregnant and postpartum women with depression or at higher than average risk for depression. Baseline: Data and a specific improvement target will be established using the results of a forthcoming survey.

Rationale

Maternal mental health difficulties are a significant public health problem that negatively impacts the individual woman, as well as her children and partner. The full range of mental illnesses affects women during pregnancy and the postpartum period, from psychosis to anxiety and depression. Depression, especially in child-bearing women, is common and affects 10% to 15% of women during pregnancy and the postpartum period. Previous surveys indicate that pregnant and postpartum women in Iowa experience depressive symptoms at least as often and that these symptoms are more common in lower income women. Lower income women also have more difficulties accessing treatment.

Mental illness, more specifically depression, can have an effect on the full range of spheres of life of these women. Depression during pregnancy is associated with increased risk for lower birth weight and preterm delivery; poorer maternal health practices such as smoking, alcohol and drug use; and decreased prenatal care. Postpartum depression is known to have a negative impact on parenting and subsequent behavioral and cognitive development in the infant/child.

12–16.1 Action Step

By 2007, in collaboration with health institutions, identify opportunities to survey participants in other programs to establish a set of baseline data for maternal depression. (An Iowa Department of Public Health and Iowa Department of Human Service action step.)

12–16.2 Action Step

By 2010, increase access to needed services through the use of telemedicine and telepsychiatry in 50 rural counties by networking with stakeholders and utilizing findings from related research initiatives in Iowa and surrounding states. (A University of Iowa, Iowa Department

of Public Health, and providers associations action step.)

12–16.3 Action Step

By 2010, decrease the stigma attached to perinatal depression through educational media campaigns that present emotional changes occurring during the postpartum period as normal and as varying in intensity from woman to woman. (An Iowa Department of Public Health, Iowa Department of Human Services, and University of Iowa Depression and Clinical Research Center action step.)

12–16.4 Action Step

By 2008, promote postpartum home visits by health care providers in or before the sixth week after childbirth. This visit will include an assessment of mental and emotional health status and any necessary referrals. (An Iowa Department of Public Health, Iowa Department of Human Services, and University of Iowa Depression and Clinical Research Center action step.)

12–16.5 Action Step

By 2010, increase the statewide capacity to offer culturally appropriate and accessible mental health services to all women, including women with disabilities. (An Iowa Department of Public Health, Iowa Department of Human Services, and University of Iowa Depression and Clinical Research Center action step.)

National Goal #5. Excellent mental health care is delivered and research is accelerated.

12–17 Goal Statement

In accordance with established best practices, provide excellent mental health services in rural and urban settings. Baseline: See Rationale.

Rationale

Making comprehensive and high quality mental health services available is an ongoing

process. Limited levels of accessibility are a major challenge facing persons seeking mental health services. Recognizing the need for improving or adding mental health coverage to private health insurance policies would help equalize the quality and availability of mental health services.

12–17.1 Action Step

By 2005, enact full mental health insurance parity legislation no later than the 2005 session of the Iowa General Assembly. (An Iowa state legislature action step.)

12–17.2 Action Step

By 2007, enhance understanding of evidence-based practices among stakeholders in Iowa's mental health community through ongoing and accessible educational efforts. (A Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission and Iowa Consortium for Mental Health action step.)

12–17.3 Action Step

By 2010, incorporate fidelity measures for evidence-based practices into existing credentialing processes and establish an ongoing inter-agency process by which barriers to the further implementation of evidence-based practices can be monitored and addressed. (An Iowa Department of Human Services, Magellan Health Services, and Iowa Consortium for Mental Health action step.)

12–17.4 Action Step

By 2007, expand access to needed services through the use of telemedicine and telepsychiatry in 50 rural counties in the state by networking with identified stakeholders and utilizing findings from related research initiatives in Iowa and surrounding states. (A Center for Disabilities and Development, Iowa Consortium for Mental Health, University of Iowa, Iowa Department of Education, Iowa Department of Public Health, Magellan Health Services, and provider associations action step.)

12–18 Goal Statement

Develop a process to influence state public policy development, planning and clinical response using the latest and most applicable evidence-based practice research. Baseline: This process would build on the existing training efforts of the Iowa Consortium for Mental Health.

Rationale

There is a need to identify research in mental health services. Evidence-based practice research must assess clinical outcomes, cost effectiveness, and functional improvement of consumers and families within the context of their daily activities. Research findings such as the Technical Assistance Collaborative Inc. (TAC) report to the State of Iowa increases awareness of the needs in the field and the ability of the service system to respond to such needs in an effective and cost-efficient manner.

The TAC report contains excellent insights into, and analysis of, approaches for Iowa's major mental health challenges. Initiatives that maintain a systems perspective must utilize a data system capable of supporting administrative efficiencies and tracking outcomes through data analysis. Data elements must be consistent and uniform across various service and payment systems to allow coherent, analysis-based policy improvements among all public and private mental health systems.

12–18.1 Action Step

By 2006, identify research that will increase children's mental health services by focusing on improvements to the overall service delivery system, such as defining evidence-based and consensus-based best practices for children. (An Iowa Consortium for Mental Health and Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission action step.)

12–18.2 Action Step

By 2006, identify research that will improve adult consumer mental health services by focusing on the overall service delivery system, such as defining evidence-based and consensus-based best practices for adults. (An Iowa Consortium

for Mental Health and Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission action step.)

12–18.3 Action Step

By 2005, support and expand a process by which Community Mental Health Block Grant funds are increasingly used to support evidence-based practices. This will entail ongoing support for an infrastructure to provide direct technical assistance on evidence-based practices to community mental health centers and other community providers, as well as monitoring and oversight capacity. (An Iowa Consortium for Mental Health action step.)

National Goal #6. Technology is used to access mental health care and information.

12–19 Goal Statement

Develop a system for collecting a uniform set of mental health data across all publicly funded services for adults and children (e.g., counties, rehabilitative treatment services, community mental health centers, Medicaid). Baseline: This process would build on the system design efforts of the Mental Health, Mental Retardation, Developmental Disabilities, and Brain Injury Commission.

Rationale

Most private health insurance policies provide little or no coverage for mental health services. This forces many adults with mental illnesses and children with a psychiatric diagnosis with private insurance to seek public funding or go without treatment. Iowa's public system for mental health services is not uniformly available or delivered, so data cannot be uniformly collected. There are many ways to access public mental health services, including Medicaid programs, the 99 individual county plans, Hawk-I programs, school programs, early childhood programs, child welfare and juvenile justice programs, and transition-to-adult services programs.

All of these programs have different ways to collect mental health data.

Private insurance companies have highly developed data collection systems to justify rate changes, modify coverage options, and provide better service for their customers. To improve Iowa's public mental health service system, the Iowa Department of Human Services must, as the lead agency in this area, provide leadership both within its many departments and to other state agencies including the Iowa Department of Public Health, the Iowa Department of Education, Administration, and so forth by first collecting uniform data across the many publicly funded programs for adults and children. This would lead to the establishment of statewide standard mental health services for all Iowans, while also allowing development of enhanced services funded by local jurisdictions.

12–19.1 Action Step

By 2006, post a request for proposals to award a contract for the purpose of collecting usable data on children with serious emotional disorders and recommend uniform data sets needed to improve services from the following sources:

- Early Childhood (ages 0-5) programs, (Empowerment, Early ACCESS);
- Early Periodic Screening, Diagnosis & Treatment (EPSDT);
- Medicaid's behavioral health contractor's data for under aged 18 enrollees;
- Community Mental Health Centers data on children;
- Area Education Agencies behavioral health data;
- Rehabilitative Treatment Services behavioral health data;
- Psychiatric Medical Institutes for Children data;
- Mental Health Institutes data; and
- Juvenile Justice mental health data.

(An Iowa Department of Human Services action step.)

12–19.2 Action Step

By 2006, issue a request for proposals to award a contract to collect usable data on adults with serious mental illness and recommend uni-

form data sets needed to improve services from the following sources:

- Medicaid's behavioral health contractor's data for over aged 18 enrollees;
- County Plans mental health data on adults;
- Mental Health Institutes data; and
- Community Mental Health Centers data on adults.

(An Iowa Department of Human Services action step.)

Goal Cross References

Chapter 1: Access to Quality Health Services

- 1–1 Reduce to 0 the proportion of children and adults under aged 65 without health care coverage.
- 1–2 Develop a plan and engage in activities that encourage providers to follow standardized quality performance measures.
- 1–3 Increase by 25% access to primary care for the underserved population.
- 1–4 Ensure a competent and diverse health workforce by assessing and forecasting workforce supply and demand and promoting local strategies to recruit and retain workers.
- 1–12 Develop a strategic plan to assess and use telehealth and telemedicine to increase access to health services.

Chapter 4: Disabilities

- 4–3 Assure that each HI2010 chapter assesses the health issues and potential treatment available for people with disabilities and incorporates appropriate goals and action steps.
- 4–26 Include innovative models for the delivery of cost effective, community-based services in rural and urban areas that meet the medical psychological, behavioral, employment, and housing needs of all persons with disabilities.
- 4–27 Eliminate the county of legal settlement as a criterion for receiving services.

Chapter 5: Educational and Community-Based Programs

5-5Post-secondary community colleges will provide data on how the college addresses 6 priority risk behavior areas.

Chapter 11: Maternal, Infant and Child Health

11-7Increase to 70% children aged 0-3 served under Title V and Title XIX who receive regular developmental screenings for mental and behavioral health issues from their primary care provider.

11-9Increase the number of accessible professionals who provide mental health services for women of reproductive age and their families.

Chapter 13: Nutrition and Overweight

13-4Prevent further rise of weight gain among children and adolescents under aged 18.

13-9Provide nutrition screening and education to 90% of older adults who participate in health and nutrition programs.

Chapter 20: Substance Abuse and Problem Gambling

20-1Establish a systematic process and assess the infrastructure of the alcohol, tobacco and other drugs service system in Iowa and its impact on prevention, early intervention, and treatment.

20-3Reduce to 15% alcohol and other drug-related death and injury, and chronic disease rates of Iowans.

20-4Increase to 425 adults aged 65 and older who receive screening, prevention, referral, and/or treatment for risk factors.

20-5Increase to 542 beds the availability of 240hour residential treatment and support for Iowans addicted to alcohol, tobacco, and other drugs.

20-6Enact legislation requiring insurers to provide coverage for mental illness and addiction.

20-7Assure that the proportion of Iowans experiencing problems with gambling does not increase above the BRFSS baseline.

20-8Increase to 115 and sustain state, county, community, and neighborhood collaborative groups to reduce problems

of alcohol, tobacco, other drugs, and problem gambling.

Chapter 23: Violent and Abusive Behavior

23-1Reduce the risk of victimization from violent crime to less than 300/100000 and maintain the risk of homicide at or below 2/100000 annually.

23-2Reduce firearm mortality to 5/100000, firearm suicide to less than 4 annually, and violent crimes involving a firearm to 25 annually.

23-3Identify the annual rate of physical abuse by current or former intimate partners, reduce deaths from domestic violence to less than 5 annually, and increase to an average of 66% the statewide conviction rate for domestic abuse.

23-4Reduce the incidence of confirmed child abuse by a caretaker to less than 900/100000.

23-5Identify the annual rate of sexual abuse, increase the arrest rate for forcible rape to 16/100000, and increase the number of sexual abuse exams.

23-6Identify the incidence of elder and dependent adult abuse.

23-7Establish procedures at 100% of hospital emergency departments, family planning agencies, public health clinics, community mental health centers, and substance abuse treatment programs for routinely identifying, treating and referring victims of child abuse, domestic abuse, elder abuse, and sexual assault.

23-8Identify the incidence of intentional violence in schools and workplaces and establish a mechanism for reporting it.

23-9Create opportunities for adults and youth to develop skills to be able to manage differences.

Chapter 25: Emergency Preparedness and Response

25-1Increase overall by 20% the public health workforce infrastructure to ensure adequate emergency response coordination workforce at the local, regional and state level.

25-2At least every 3 years, conduct a comprehensive needs assessment of public health, laboratories, and health care emergency preparedness and response.

- 25-3 Enhance disaster preparedness plans in each county and at the state level to include an all-hazards approach using the National Incident Management System.
- 25-4 Develop a comprehensive plan to increase surge capacity for health care.
- 25-6 Develop a plan to address the impact of mental health concerns on 5,000 adult and pediatric clients and health care workers per 1,000,000 population exposed to a biological, chemical, radiological, or explosive terrorist incident.
- 25-7 Develop a secure web-based reporting and notification system for disease outbreaks and other acute health events that might suggest bioterrorism.
- 25-8 Exercise, assess and implement needed change in plans annually to demonstrate proficiency in responding to terrorism attacks, natural disasters, infectious disease outbreaks, and other public health threats and emergencies.
- 25-9 Develop a self-sustaining payment system and user network to assure that emergency responders have ongoing access to the Health Alert Network.

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Chapter 13

Nutrition and Overweight**Introduction**

Many dietary components are involved in nutrition and health relationships. The federal government identified 20 goals and action steps to address the nutrition issues in this country. This chapter will focus on eight areas of concern.

Healthful eating must start with children and be maintained throughout adulthood. The family and other channels, such as schools, work-sites and institutional food services, play a key role in this process. Food-related businesses can also be important vehicles for nutrition information for foods bought in supermarkets, fast food outlets, restaurants, and carry-out operations.

Public, private and voluntary organizations must work together to educate the consumer, present accurate and consistent messages, and use social marketing to particular groups to motivate Iowans to change behaviors and adopt healthy eating plans.

Iowans receive nutrition information and education from a variety of sources. However, they continue to be confused about nutrition messages. Nutrition educators believe that using recognized and creditable nutrition tools (food guide pyramid and the Dietary Guidelines for Americans) should be the foundation of nutrition messages. Educational materials and/or tools must also include the cultural food of various ethnic groups.

To encourage health professionals to discuss nutrition with patients, PACE (Provider-based Assessment training and Counseling for Exercise and Nutrition) training was provided to 40 people in June of 2001, including three physicians from Polk County.

Social scientists have theories for behavior changes that are useful to nutrition educators.

Understanding the causes for dietary behaviors helps nutrition educators plan social marketing campaigns that target the underlying factors to behavior choices. This approach means discovering the target audiences' perceptions about motivation, benefits, barriers, and information sources.

Iowa's social marketing campaign, Pick a Better Snack™ (PABS), was established in 2000 to increase consumption of fruits and vegetables. Surveys indicate that low-income audiences most often recall messages on billboards, from school, on television, in grocery stores, and in WIC offices. Survey participants say they were starting to eat more fruits and vegetables (25%) and were thinking about eating more fruits and vegetables (36%) because of PABS.

Breastfeeding has well-documented benefits for infants and mothers, as well as employers. Benefits include lower absenteeism because infants are sick less often and breastfeeding mothers have higher morale. According to a 1997 survey, 61.7% of Iowa mothers breastfed their babies at the hospital, with 23% still breastfeeding at five to six months. Low breastfeeding duration rates are due in part to lack of support at work. Women are often unable to overcome the various barriers to breastfeeding or breast pumping at work and choose either not to start breastfeeding or discontinue it once they return to work.

To encourage worksite lactation support, local *Healthy Polk 2010* developed a breastfeeding worksite support kit that is distributed by the Iowa Department of Public Health. Training was conducted with child care providers and a 1-day conference was held in Polk County.

In general, excesses and imbalances of some food components in the diet today have replaced once prevalent nutrient deficiencies. In particu-

lar, the prevalence of overweight has increased at an alarming rate. More than one-third of American adults are now considered overweight based on body mass index (BMI) measurements. In Iowa, the incidence of obesity increased every year since 1989 for adults over age 18 (BMI of 25.3% to 32.7%).

In 2003, a team-based weight management program titled Lighten Up Iowa (LUI) reported 1,400 teams with 11,700 participants in all 99 counties. The program resulted in a dramatic improvement in physical activity and consumption of fruits and vegetables and a total loss of 47,000 pounds.

In 1997, the average BMI for the populations of only five states was greater than the percentage in Iowa. This indicates that Iowans are at increased health risk of chronic disease compared to residents of a majority of other states. Current nutrition education and initiatives have failed to promote healthy body weights. The first five years of the decade saw a dramatic rise in adult and child overweight and obesity in the nation and in Iowa. The best way to address this critical issue, the work group determined, was to raise the visibility of the issue by including “overweight” in the chapter title.

Childhood obesity is increasing at an alarming rate nationally. Surveys by the National Center for Health Statistics in the early 1990s found that 22% of children aged 12 to 17 were overweight at the 85th percentile compared to 15% from similar surveys conducted in the 1960s. The Pediatric Nutrition Surveillance System reports that 9.5% of children aged 0 to 5 participating in Iowa's Supplemental Food Program for Women, Infants and Children (WIC) were overweight at the 95th percentile in 1998, an increase from 7.6% in 1985. Data for older Iowa children and adolescents are not currently available.

A youth component of Lighten Up Iowa, Go the Distance, was added in 2004 with 2,866 participants. Another program, the Iowa's Partners for Healthy Kids Coalition, was established to address health and weight-management problems for children.

Statistics indicate that Americans chronically lack fruits and vegetables in their diets. In

1996, Iowa ranked 50th in the U.S. in percentage of adults reportedly eating at least five servings of fruits and vegetables per day. Fruits and vegetables are good for the human body, outstanding sources of essential vitamins and minerals, and vital for good health.

Fruits and vegetables provide other dietary compounds with powerful chronic disease risk-reduction potential. Eating more fruits and vegetables help prevent cancer. Based on growing evidence, the incidence of other chronic diseases, such as coronary heart disease, arteriosclerosis and stroke, can be reduced through increased fruit and vegetable consumption. Fruits and vegetables may also play a preventive role in birth defects, cataract formation, hypertension, asthma, diverticulosis, obesity, and diabetes.

Iowa is one of eight states to participate in the U.S. Department of Agriculture (USDA) fruit and vegetable snack program. Pick a Better Snack™ (PABS) trained nutrition educators representing team nutrition schools, fruit and vegetable pilot schools, Child and Adult Care Food Programs, and Food Stamp Nutrition Education coalitions. The Iowa Department of Education, Iowa Department of Public Health, and Iowa State University Extension received the USDA's Leadership, Innovation and Nutrition Collaboration (LINC) award for collaboration with the PABS Campaign.

Calcium is essential for formation and maintenance of healthy bones and teeth. Dairy products, including milk, yogurt and hard and soft cheeses, are important sources of calcium in Iowans' diets. U.S. estimates indicate that as many as nine out of 10 women and six out of 10 men are not getting enough calcium. Studies have found that people who meet their needs for calcium are more likely to meet their needs for other key nutrients important for good health.

Osteoporosis, one of the most prevalent diseases in America, fractures lives as well as bones. Costs associated with the disease in Iowa in 1995 were \$76 million, and the projected cost is \$229 million for 2015. Currently, there is no funding for an osteoporosis program. However, the Iowa Osteoporosis coalition has established non-profit status and will maintain this status for potential funding opportunities.

Nutritional or dietary factors contribute substantially to preventable illnesses and premature death in the United States. Improvements in diet are critical to ensure a reduction of major chronic disease risks. The benefits from desirable dietary habits can be enormous.

Heart disease, cancer, stroke, and diabetes – the four leading causes of death in the United States – along with obesity, hypertension and osteoporosis, are all linked to diet. Together, these seven conditions account for an estimated \$250 billion each year in medical costs and lost productivity – a significant portion of which might be saved by improved nutrition.

Eating disorders can be a concern to many families. While food is the assumed focus of the disorder, food is, in fact, only the symptom. Nutrition professionals may assist with such concerns, but it must be understood that mental health professionals will take the lead in treatment.

Food security is defined as "access by all people at all times to enough food for an active, healthy life, and includes at minimum: a) the ready availability of nutritionally adequate and safe foods, and b) the assured ability to acquire acceptable foods in socially acceptable ways (e.g. without resorting to emergency food supplies, scavenging, stealing, and other coping strategies" (Live Sciences Research Office, 1990).

Food insecurity occurs when a limited or uncertain availability of nutritionally adequate and safe foods are available or limited, or there is an uncertain ability to acquire acceptable foods in socially acceptable ways. Data from 1995 on food insecurity from the U.S. Department of Agriculture show that 11.9 million households experience food insecurity at some level. In 1997, approximately 242,000 Iowans indicated some degree of food insecurity, according to the Food Research and Action Center. This means that many have had to use emergency food sources, scavenge or steal to get food. In 1998, U.S. cities reported a 14% increase in the demand for emergency food. This may be due in part to welfare reform that has cut the availability of food stamps for many people.

Food security is achieved when people have access at all times to enough food for an active, healthy lifestyle. Iowa has a few local grass-roots agriculture-based, anti-hunger groups, but lacks a statewide network strong enough to get more state funding for food assistance. The Iowa Alliance to End Hunger was formed in October 2003 to address food insecurity.

In 2003, approximately 561,069 people aged 60 and older lived in the state. Iowa ranks second in the nation for having the largest percentage of people aged 85 and older (2.6%). This segment is growing faster than the rest of the population. The state ranks sixth in the nation for people aged 75 and older (7.87%), and fifth for people aged 65 and older (14.7%).

Projections for Iowa indicate that the number of elderly will continue to increase while the number of youth will decline. During the 1990s, the number of babies born in Iowa fell below the death rate. The percentage of people 60 years and older is expected to grow to 635,890 by 2010, according to the Iowa Department of Elder Affairs. In 1992 through 1994, nutrition screening was conducted in the Home Care Aide Program with participants aged 60 and older. The screening tool was developed by the American Academy of Family Physicians, the National Council on the Aging, and the American Dietetic Association. This tool is now incorporated into the registration for all Older American Act funded services, including home delivered and congregate meals. The Senior Farmer's Market Nutrition Program continues to grow, serving 20,997 older adults in 2004. A co-funded nutrition position is maintained by the Iowa Department of Public Health and the Iowa Department of Elder Affairs.

Goal Statements & Action Steps

13–1 Goal Statement

Provide educational tools for Iowans to make decisions on the reliability of nutrition messages through at least three media. Baseline: See Rationale.

Rationale

Consumers seek nutrition information and education from a variety of sources, yet remain confused about the message. According to the 1997 American Dietetic Association Media Survey, consumers used television (57%), magazines (44%), newspapers (23%), family or friends, and books.

Although television is the major source of nutrition information, it is judged as "very valuable" by only 24% of people. Americans rank as valued sources of nutrition information: dietitians and/or nutritionists (52%), doctors (52%), specialty magazines (39%), and women's magazines (36%). However, a 1995 article in the American Journal of Preventive Medicine reported that only 21% of physicians agreed that they find counseling patients about dietary issues professionally gratifying.

A big increase in the awareness of the Food Guide Pyramid (67%) has occurred since 1993 (58%) when it was introduced. Of Americans who are aware of the pyramid, 43% rate it high in helping select a balanced diet. The next step is to get Iowans to use it to adopt healthy eating.

Public, private and voluntary organizations must work together to educate the consumer, provide accurate and consistent messages, and use social marketing to motivate dietary behavior change.

13–1.1 Action Step

By 2005 and ongoing thereafter, aim for 50% of those surveyed by the Iowa Department of Public Health to recognize the updated Food Guide Pyramid and use it to make at least one food choice decision daily. (An Iowa State University, Iowa Department of Public Health, corporate grocery store dietitians, and Iowa Dietetics Association action step.)

13–1.2 Action Step

By 2010, provide nutrition information for consumers and the media on the Iowa Department of Public Health web site. By 2005 and ongoing thereafter, encourage Iowans to look at the web site, with 4,000 people annually accessing it, to learn how to evaluate nutrition informa-

tion in the media. (An Iowa Department of Public Health action step.)

13–1.3 Action Step

By 2010, provide materials and/or trainings to clinicians and health-care providers to help patients eat healthy foods and increase physical activity. (An Iowa Department of Public Health, Iowa Cancer Consortium, Iowa Dietetic Association, and Iowa Medical Society action step.)

13–1.4 Action Step

Through 2010, educate health and nutrition professionals on recognition and understanding of the dietary guidelines released in 2005. (An Iowa Department of Public Health, Iowa State University Extension, and Iowa Dietetic Association action step.)

13–1.5 Action Step

By 2010, investigate development of a link on the Iowa web site for nutrition books and resources for children and adults, and develop a nutrition resources list for public libraries to use in selecting nutrition books, and distribute the resource list via the web site and the Iowa State University Extension. (An Iowa Department of Public Health action step.)

13–1.6 Action Step

Through 2010, continue to increase exposure of nutrition messages via the broadcast media through a planned educational campaign. (An Iowa Nutrition Network, Iowa Department of Public Health, and corporate grocery store dietitians' action step.)

13–2 Goal Statement

Educate Iowans so that 75% of infants are breastfed at birth, 35% until the infant 6 months old, and 15% until age 12 months. Baseline: See Rationale.

Rationale

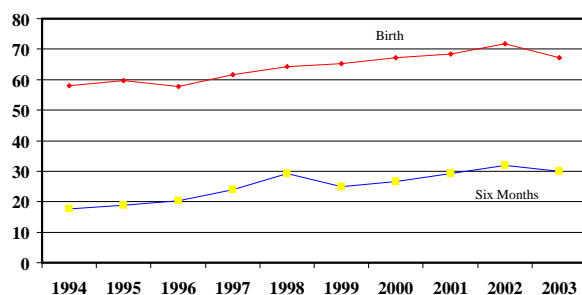
According to a 1997 survey of Iowa mothers by Ross Products, a division of Abbott Laboratories, the *Healthy Iowans 2000* goal that 61.7% of infants be breastfed at birth was close to being

met. However, duration rates have fallen, with only 23% of infants still being breastfed at six months.

Low breastfeeding duration is due in part to the lack of support at work. Women are often unable to overcome barriers to breastfeeding or breast pumping at work and choose to not start breastfeeding or discontinue it once they return to work. Several sources have indicated the following barriers:

- Rigid break times and/or insufficient time to express breast milk;
- Employers not allowing a woman to express breast milk at work;
- Not having a place to express breast milk;
- Length of maternity leave; and
- Lack of information about breastfeeding and working.

Iowa Breastfeeding Rates 1994-2003



Source: Ross Products Division – Mothers Survey



Photo provided by Le Leche League International

13–2.1 Action Step

By July 2008, disseminate a breastfeeding worksite support kit using the following schedule:

- By July 2005, identify companies in Iowa that have human-resource contacts;
- By December 2005, explore the option of making a worksite kit through state human resource associations;
- By July 2006, contact corporate wellness councils in the state to communicate the availability of the worksite kit;
- By July 2006, submit an article about the worksite kit to state corporate wellness councils and human resource associations,
- Beginning in 2004, submit an article about the Iowa Lactation Task Force every two years to the Human Resource Association Newsletter;
- By December 2007, disseminate the kit and/or information on how to download the kit; and
- By July 2008, charge an organization or group with keeping the worksite support kit current and available for dissemination.

(An Iowa Department of Public Health action step.)

13–2.2 Action Step

By 2005, increase by 50% the participation of health-care providers and employers of women of childbearing years in the Iowa Lactation Task Force using the following schedule. Baseline: Current health-care provider membership is 27.

- Began in 2002 and to continue every two years thereafter, submit an article about the Iowa Lactation Task Force to the following Iowa affiliate organizations for inclusion in their newsletters: Iowa Dietetic Association, Iowa Chapter of the American Academy of Pediatrics, Iowa Nursing Association, Iowa Academy of Family Physicians, Iowa Association of Nurse Practitioners, the Special Supplemental Nutrition Program for Women, Infants and Children (WIC), and others as identified.
- By 2002 and annually thereafter, review Iowa Lactation Task Force materials to ensure that they are current.
- Begun by 2003 and to continue annually, provide a display at statewide professional con-

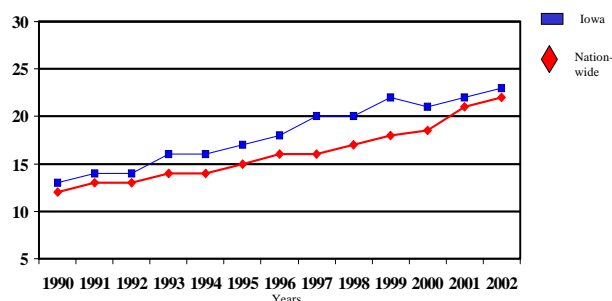
ferences such as the Women, Infants and Children (WIC) Conference, Annual Breastfeeding Conference, State Perinatal Conference, Iowa Dietetic Association Annual Meeting, Iowa Nursing Association State Convention, Iowa Academy of Family Physicians Conference, and others as identified.

(An Iowa Lactation Task Force action step.)

13–3 Goal Statement

Prevent a further rise in the percent of Iowans who are overweight. Baseline: Obesity – 18.7%, 1996; 22.9%, 2002; Overweight – 35.2%, 1996; 38.3%, 2002; Behavioral Risk Factor Surveillance Survey (BRFSS).

**Obesity: By Body Mass Index
Nationwide vs. Iowa**



Source: Behavioral Risk Factor Surveillance System

Rationale

More Iowans are becoming overweight each year. Weight reduction programs have been studied intensively and, without exception, have not produced lasting healthy weights. Therefore, prevention of overweight is of primary importance. The principal health risk is weight gain regardless of the body mass index (BMI). Small losses of approximately 5% of body weight have been shown to decrease morbidity from hypertension and prevent the conversion of impaired glucose tolerance to overt Type 2 diabetes in some people.

Small weight losses would result in maintenance of the prevalence rate. Most primary health providers are aware of the possible complications of obesity and are concerned with its increasing rate. Yet, they are unmotivated or

unprepared to provide counseling or treatment referrals.

13–3.1 Action Step

By 2007, promote worksite programs and incorporate healthy weight management. Assure that 20,000 Iowans will participate in Lighten Up Iowa and use the data from Lighten Up Iowa to determine business and worksite involvement in weight management. Assure availability of culturally sensitive wellness materials to support weight management programming. (An Iowa Department of Public Health, Iowa Games, Iowa State University Extension, Wellness Council of Iowa, and Iowa Cardiovascular Health Council action step.)

13–3.2 Action Step

By 2010, promote policy change in the public and private sectors to support healthy lifestyles for adults by increasing the number of local recreational opportunities and facilities and by increasing funding for communities to develop the availability and/or accessibility of recreation facilities. (An Iowa Dietetic Association, Iowa Department of Public Health Harkin Wellness Grant, and Iowa Nutrition Education Network action step.)

13–3.3 Action Step

By 2010, promote the development of multi-disciplinary health-care centers to provide research opportunities, training for health providers, and direct services for all overweight people. Establish criteria to describe the ideal multi-disciplinary program, and establish and promote best practices for the multi-disciplinary approach, including nutrition counseling for bariatric surgery. (A University of Iowa Hospitals and Clinics Center for Development and Disability and University of Northern Iowa Childhood Center for Physical Activity and Nutrition Across Rural Iowa action step.)

13–3.4 Action Step

By 2010, develop and implement a state plan to address overweight and obesity. (An Iowa Department of Public Health, Center for Disease Control and Prevention, and Iowa Medical Society action step.)

13–3.5 Action Step

By 2010, investigate inclusion of nutrition messages on healthy weight through a variety of media channels. (An Iowa Department of Public Health partners such as insurance company foundations, Mid-Iowa Health Foundation, and Wellness Councils action step.)

13–4 Goal Statement

Prevent further rise of weight gain among children and adolescents under aged 18 in Iowa. Baseline: 8.5% of 2-5 year olds > 95% weight for height, 1999 Pediatric Nutrition Surveillance System.

Rationale

Childhood obesity is a complex disorder involving genetic and environmental factors. The consequences of childhood obesity range from great health risks, such as hypertension, hyperlipidemia and diabetes, to physical impairment. Psychological concerns include pre-occupation with body image, disordered eating, lack of self-confidence, lowered self-concept, depression, and peer rejection. Unfortunately, treatment has shown few positive, long-term results. Also, dieting in children is highly discouraged due to the nutritional needs of growing children. Given the extent and seriousness of the disorder and the difficulty in attaining good treatment outcomes, an emphasis on prevention is needed. Prevention of overweight in childhood should be given the highest priority.

13–4.1 Action Step

By 2010, promote policy change in public and private schools to support healthy lifestyles with such strategies as fruit and vegetable programs to provide healthy snacks and school wellness policies that include goals for nutrition education and physical activity. (An Iowa Association for Physical Activity, Recreation and Dance, American Health Association, Iowa Partners for Healthy Kids, and Iowa Department of Public Health action step.)

13–4.2 Action Step

By the end of 2010, promote healthy life-style education and development of a healthy environment in public and private schools using the following schedule:

- By 2007, establish body mass index base-lines for Iowa children and youth;
- By 2007, pilot an after-school program that promotes healthy eating and activity; and
- Through 2010, partner with the Iowa Department of Education on nutrition and physical activity interventions in schools.

(An Iowa Department of Public Health, Iowa Headstart Association, and Iowa Coalition for Comprehensive School Health action step.)

13–4.3 Action Step

During 2005, develop and implement a state plan to train staff to work with parents on healthy eating for children. Provide training for parents on a healthy environment that promotes nutrition and physical activity. (An Iowa State University Extension partnering with parents, Child Care Resource and Referral, Iowa Partners for Healthy Kids, and Iowa Fit Kids Coalition action step.)

13–4.4 Action Step

By 2010, develop and implement a state plan on overweight and obesity in children. (An Iowa Department of Public Health, Center for Disease Control and Prevention, and Iowa Medical Society action step.)

13–5 Goal Statement

Increase to at least 50% the proportion of people aged two and older who meet the minimum daily average goal of at least five fruits and vegetables as recommended in the Dietary Guidelines for Americans. Baseline, 1996 Behavioral Risk Factor Surveillance Survey: 15.1%.

Rationale

Growing evidence links fruit and vegetable consumption with disease prevention and control. Year 2000 Dietary Guidelines: The Case for Fruits and Vegetables First includes:

- More than 500,000 Americans die from cancer each year. Eating five or more servings of fruits and vegetables a day can help prevent one-third of these deaths.
- The fiber in fruits and vegetables may help in the management of diabetes.
- Obesity and overweight now affect 10 million U.S. children and has doubled in the last 20 years. Almost a quarter of all vegetables consumed by U.S. children are French fries, with only one in five children eating the five or more recommended servings of fruits and vegetables per day.
- High-fiber diets are known to provide the best defense against the development of diverticulosis.
- Data suggest that a high intake of fruits and vegetables enhances ventilatory function, reducing the risk of chronic obstructive pulmonary disease.
- Scientists estimate that half of all neural tube defects could be prevented if women consumed the recommended intake of folic acid shortly before they conceive. Fruits and vegetables containing folic acid along with fortified grain products can play a vital role in meeting folic acid recommendations to prevent these defects.
- Epidemiological evidence suggests a strong protective role for fruits and vegetables in coronary heart disease.
- Although the evidence is still limited, the risk reduction for high fruit and vegetable intake on stroke may be up to 25%.

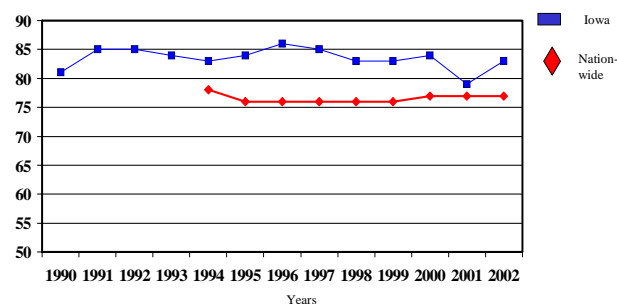
The 5 A Day For Better Health program is a nationwide nutrition campaign to encourage Americans to eat five or more servings of fruits and vegetables every day for better health. A state coalition has been formed and includes representatives from major grocery store chains, produce brokers, the Iowa Grocery Industry Association, the Iowa Fruit and Vegetable Growers Association, the American Cancer Society, the Food Bank of Iowa, the Iowa State University Extension, the Iowa Nutrition Education Network, the Iowa Department of Agriculture and Land Stewardship, and the Iowa Department of Public Health.

The purpose of the coalition is to promote and increase consumption of fruits and vegeta-

bles by Iowans through partnerships with organizations that can 1) increase public awareness of the importance of eating at least five servings of fruits and vegetables every day; and 2) provide consumers with specific information about how to include more such servings into daily eating.

Coalitions such as the Iowa 5 A Day Coalition and the Iowa Nutrition Education Network need to join with the nationwide nutrition campaign to communicate the importance of eating fruits and vegetables to lower the risk of heart disease, cancer, diabetes and high blood pressure. (Behavioral Risk Factor Surveillance System).

Not Enough Fruits and Vegetables Nationwide vs. Iowa



Source: Behavioral Risk Factor Surveillance System

13–5.1 Action Step

By 2005 and ongoing thereafter, increase by 10% the proportion of preschools and schools that have a curriculum or program that supports the 5 A Day message (Team Nutrition, Dole/5 A Day) through the coordination and support of the Iowa Department of Education, the Iowa Education Network, and the Iowa 5 A Day Coalition. (An Iowa Department of Public Health and Iowa Nutrition Education Network action step.)

13–5.2 Action Step

By 2005 and ongoing thereafter, increase awareness of the 5 A Day and/or fruit and vegetable messages to people aged 18 and over by 25% through campaigns conducted by the Iowa 5 A Day Coalition, the Bureau of Health Promotion, and the Iowa Nutrition Education Network. Continue implementation of Pick a Better

Snack™ social marketing campaign through community coalitions and state initiatives. Integrate fruit and vegetable messages with other programs, such as chronic disease, senior nutrition, WIC, Farmers Market, and Lighten Up Iowa. (An Iowa 5 A Day Coalition, Iowa Department of Public Health, and Iowa Nutrition Education Network action step.)

13–5.3 Action Step

Through 2010, promote a policy, such as that in USDA's Fruit and Vegetables Snack Program, in public and private schools to increase fruit and vegetable consumption. (An Iowa Department of Public Health, Iowa Department of Education, Iowa State University Extension, Iowa Partners for Healthy Kids, and Iowa Dietetic Association action step.)

13–5.4 Action Step

Through 2010, encourage partnerships and collaborative interventions among nutrition assistance programs and other related groups such as public health programs, health-care providers, schools, faith-based groups, and other community organizations to promote daily consumption of at least five fruits and vegetables, and:

- Adopt increased fruit and vegetable consumption as the focus of the State Nutrition Action Plan (SNAP). Continue discussion of partnerships and collaboration in conjunction with quarterly Iowa Nutrition Network meetings.
- Invite additional partners, such as American Cancer Societies, Iowa affiliate of American Heart Association, Practical Farmers of Iowa, Retail Grocery Partners, and Iowa Network for Community Agriculture.
- Monitor the results of a research grant that focuses on effective strategies to promote the intake of vegetables to children on the WIC program.
- Promote the intake of fruits and vegetables through Team Nutrition activities.
- Encourage partners to provide a link on their web sites to the 5 A Day for Better Health program and Pick a Better Snack™ campaign.
- Provide a template for local agencies to produce a brochure listing all food assistance programs in local areas.

- Explore ways to increase consumption of locally grown produce among all Iowans. (An Iowa Department of Public Health and Iowa Department of Education action step.)

13–6 Goal Statement

Increase by at least 20% the proportion of people aged two and older who meet the dietary recommendations for calcium. Baseline: 1999 Behavioral Risk Factor Surveillance System and the Youth Risk Behavior Survey.

Rationale

In the fall of 1997, the National Academy of Sciences increased the recommended level of calcium intake. Children and teens aged 9 to 18 need 1,300-mg of calcium daily, which is equal to four servings of a milk food group. Failure to maximize intake will increase the risk teens face for stress fractures now and osteoporosis and other diseases later. It is estimated that nearly 40% of post-menopausal women will suffer an osteoporosis fracture during their remaining lifetime.

According to the year 2000 U.S. Census Bureau, the median age of Iowa's women is 39.1 years. Iowa is ranked number two nationally in the percentage of population over aged 85, number six in the percentage of population over aged 75, and number five in the percentage of population over aged 65. Population projections show the number of women aged 65 and over will increase by 36% over the next 20 years.

The Iowa Osteoporosis Coalition, comprised of about 100 people, began as a task force in July 1998. The coalition is committed to raising awareness and providing education on the prevention, screening and treatment of osteoporosis. Its goal is to establish, coordinate and promote osteoporosis prevention and treatment education, raise public awareness, and educate consumers, health professionals, teachers, other stakeholders, and public policy makers. It is, therefore, appropriate for the coalition to assume responsibility for the completion of objectives whose aim is to increase calcium in diets.

13–6.1 Action Step

Through 2010, maintain the Iowa Osteoporosis Coalition non-profit status for program funding. Establish a system for providing reliable information to the media and policy makers and develop a statewide speakers' bureau. (An Iowa Department of Public Health and Iowa Osteoporosis Task Force action step.)

13–6.2 Action Step

By 2010, increase by 10% the number of educational opportunities that stress calcium as a necessary nutrient in promoting bone growth and development. Education will target groups that are at risk or potential risk for osteoporosis (a baseline survey was conducted in 1999) by providing information and resources on osteoporosis prevention, detection, treatment, and support for health professionals and consumers on the Iowa Department of Public Health's web site on an on-going basis. Also:

- Identify existing toll-free hotlines for consumers;
- Identify education materials for consumers that accurately translate the latest scientific information on osteoporosis into easy-to-understand terms that are culturally and linguistically inclusive;
- Identify educational materials that translate the latest scientific and medical information into clinical applications;
- Identify available curricula for training health and human service providers and community leaders on osteoporosis prevention, detection and treatment;
- Investigate providing a downloadable, interactive computer program for adolescents to use in science and health programs throughout the state;
- Sponsor a speaker on osteoporosis at a statewide conference;
- Provide a link to information on bone-density screening sites on the Iowa Department of Public Health web site; and
- Inform health professionals, physicians and consumers of the importance of bone density screening and the location of screening sites and reimbursement procedures.

(An Iowa Department of Public Health and Iowa Osteoporosis Task Force action step.)



13–7 Goal Statement

Provide Iowans at higher risk for nutrition-related disease because of family history, genetics, disabilities, and/or lifestyle choices targeted information on reducing such diseases and death risks.

Baseline: See Rationale.

Rationale

Three leading health indicators related to nutrition are key factors in the prevention of chronic diseases: healthy eating, physical activity, and obesity. Coronary heart disease is the leading cause of death in the United States, accounting for nearly 500,000 deaths annually. Experts recommend that physicians emphasize ways to prevent coronary heart disease, such as counseling their patients to exercise more and eat a healthy diet. Also, a number of studies show that regular physical activity can significantly reduce the risk of developing Type 2 diabetes, which also appears to be associated with obesity.

Dietary modifications, together with maintenance of physical activity and appropriate body mass, can reduce cancer incidence and death between 30% and 40% over time. Based on current Iowa rates, dietary changes could, in time, prevent between 4,000 and 5,500 cases of cancer every year.

Evidence of dietary protection against cancer is strongest and most consistent for diets high in vegetables and fruits, and, therefore, in fiber, antioxidants and other bioactive phytochemicals.

Phytochemicals are the vast array of chemical substances found naturally in fruits, vegetables and grains. These substances, with names such as beta-carotene, lycopene and isoflavones, show tremendous potential to fight disease on several fronts. An important finding in recent years is that diets high in vegetables and fruits are associated with a reduced risk of cancers of the prostate, mouth, pharynx, esophagus, stomach, cervix, colon, and rectum.

The training and expertise of nutrition professionals in treatment and keeping people healthy are crucial to achieving the goals of *Healthy Iowans 2010*. That's especially true when diagnosis for a chronic disease has been made. Medical nutrition therapy (MNT) refers to the comprehensive services provided by a registered dietitian or other nutrition professional as part of a patient's health-care team.

Medical nutrition therapy in a variety of health-care settings reflects the complexities of changing diet and behavior, especially for patients with serious chronic illnesses. The therapy has been proven effective in treating and controlling cancer, heart disease, stroke, diabetes, high cholesterol, cancer, and other life-threatening conditions. Studies also show that patients receiving medical nutrition therapy require less hospitalizations and medications and experience fewer complications.

13–7.1 Action Step

By 2010, provide Iowans information on how to access a licensed dietitian for nutrition counseling. (An Iowa Department of Public Health and Iowa Dietetics Association action step.)

13–7.2 Action Step

By 2010, ensure that licensed dietitians are members of all known chronic disease task forces and/or coalitions and advisory councils on chronic disease, and that they are also represented on insurance-benefit task forces. (An Iowa Department of Public Health and Iowa Dietetic Association action step.)

13–7.3 Action Step

By 2010, support the Iowa Dietetic Association in promoting evidence-based practices that

deal with nutrition-related diseases, and provide nutrition services and disseminate nutrition messages. (An Iowa Dietetic Association, Iowa Department of Public Health, and Iowa Nutrition Education Network action step.)

13–7.4 Action Step

By 2010, create links for consumers on the Iowa Department of Public Health web site to nutrition and physical activity information that can promote healthy aging and reduce the risk for developing cancer, heart disease, neurotube defects, diabetes, osteoporosis, obesity, and dental cavities. Coordinate the dissemination of nutrition messages on prevention through existing programs and the Iowa Dietetic Association and assure that messages are culturally and linguistically appropriate. (An Iowa Dietetic Association and Iowa Department of Public Health action step.)

13–7.5 Action Step

By 2010, advocate reimbursement for licensed dietitians to provide medical nutrition therapy and counseling to the population to foster healthier lifestyles. (An Iowa Dietetic Association action step.)

13–8 Goal Statement

Reduce to 5% the incidence of food insecurity. Baseline, 1997: 8.6%.

Rationale

Food insecurity means that families have had to use strategies such as emergency food sources, scavenging, or stealing to meet their basic food needs. It's opposite – food security – is achieved when people have access at all times to enough food for an active, healthy lifestyle.

Food insecurity is affected by many uncontrollable social and economic variables. States that have organized anti-hunger networks or coalitions have affected state policy, and many have allocated state funds to fill monetary gaps from decreasing or stagnant federal funding.

	Iowa 2003	Iowa 2004	U.S. 2004
Percent of Households food insecure	7.6%	9.1%	10.8%
Poverty rate	7%	9.2%	12.1%
Unemployment rate	3%	4.2%	6.0%
Percent of eligible people participating in food-stamp program	52-68%	55-67%	59-61%
Students receiving free or reduced-price breakfast per 100 receiving free or reduce-price lunch 2002-2003	91%	88.7%	42.35%
RANK	36	36	
	Iowa 2003	Iowa 2004	U.S.
Ratio of students receiving summer nutrition lunch per 100 receiving free or reduce-price lunch 2001-2002	7.2%	7.5%	20.9%
RANK	48	48	

Iowa law requires allocation of state funds to the breakfast program to combat hunger. With an anti-hunger network, state policy could be affected and additional funding obtained. Besides affecting state policy, it can increase awareness of governmental programs and other assistance available to individuals and families in need of food resources.

Food stamps are often very limited for many families, and some subgroups are at an even greater risk of need. The welfare reform act required recipients to go to work. As a result, they were no longer eligible for food stamps. However, low wages have resulted in a shortage of money for food. The following subgroups experience food shortages most often.

- African-Americans: 22%
- Hispanics: 21.7%
- Households < 130% poverty: 21.6%
- Single-parent families: 30.0%
- Elderly living alone: 7.4%

Children are at particular risk due to lack of proper food because inadequate nutrition leads to poor cognitive development and lower levels of school readiness.

In 1995, one in seven children in Iowa lived in poverty, according to the U.S. Census Bureau. The Family Investment Program (FIP) average monthly caseload for 2003 was 19,843. The number of recipients has dropped by more than 50% since welfare reform began. Research shows that families leaving the welfare system are at an even higher risk of food insecurity.

Families going from welfare to work make an average of \$6 per hour, but they need \$11 per hour to pay for basic needs.

13–8.1 Action Step

Through 2010, build on the Iowa Alliance to End Hunger that was formed in October 2003. Through 2004, organizational meetings were held that worked on recruitment, membership, structure, and so forth. In 2005, a mission statement will be developed and activity will begin on a work plan that will be developed annually thereafter. The Iowa Legal Aid and the Food Bank of Iowa worked to create an Iowa Food Pantry Directory that will be posted on Legal Aid’s web site. The Food Bank will distribute booklets to organizations needing to know about emergency food distribution. During 2005, Iowa Food Banks will conduct Hunger Study 2005, a nationwide study that will also produce an Iowa report. The study will interview food providers and clients and be ready for distribution in the fall of 2005. (A Food Bank of Iowa action step.)

13–8.2 Action Step

Through 2010, the Women, Infants and Children (WIC) program will conduct food security surveys on a regular basis. A survey was conducted in 2003 and others will be conducted in 2006 and 2009. (An Iowa Department of Public Health, Bureau of Nutrition action step.)

13–9 Goal Statement

Provide nutrition screening and education to 90% of older adults who participate in health and nutrition programs, which include home health services to older adults and case management for the frail elderly. Baseline: See Rationale.

Rationale

As previously mentioned, Iowa has a high proportion of older residents, and that proportion is expected to grow significantly. A nutrition-screening tool developed by the American Academy of Family Physicians, the National Council on the Aging, and the American Dietetic Association was used to screen older Iowans. The results were reported to the Iowa 75th General Assembly.

13–9.1 Action Step

By 2010, provide ongoing nutrition screening and follow-up to Iowans over age 65, increasing from 10% to 12% the proportion of Iowans participating in nutrition programs funded by the Older American Act Title III, Senior Living Trust, and Iowa Medicaid Elderly Waiver and receiving nutrition education and counseling. (An Iowa Department of Public Health, Iowa Department of Elder Affairs, Iowa Department of Human Services, Iowa Dietetic Association, and Iowa Nutrition Network action step.)

13–9.2 Action Step

Through 2010, provide appropriate nutrition services to Iowans over age 60 that have been screened and determined by a referral system to be at risk. (An Iowa Department of Public Health, Iowa Department of Elder Affairs, Iowa State University Extension, and Iowa Department of Human Services action step.)

13–9.3 Action Step

By 2010, investigate the possibility of expanding supplementary food and nutrition programs through the U.S. Department of Agriculture for Iowans over aged 60. (An Iowa Department of Public Health, Iowa Department of Elder Affairs, Iowa Department of Human Services, Iowa Department of Agriculture and Land Stewardship, Iowa Dietetic Association, and Iowa Nutrition Network action step.)

13–9.4 Action Step

By 2010, institute an ongoing education program for adult health-care and service providers and caregivers covering health aging, screening and referral for nutritional problems,

and availability of food and nutrition programs. These include congregate meals and home-delivered meals, Senior Farmer's Market Nutrition Program, and the food assistance program. (An Iowa Department of Public Health, Iowa Department of Elder Affairs, Iowa Department of Human Services, Iowa Department of Agriculture and Land Stewardship, Iowa Dietetic Association, and Iowa Nutrition Education Network action step.)

13–9.5 Action Step

By 2010, expand participation in the food assistance program by Iowans aged 60 and older at 185% poverty from 8% to 16%. (An Iowa Department of Public Health, Iowa Department of Elder Affairs, Iowa Department of Human Services, and Iowa Nutrition Network action step.)

13–9.6 Action Step

By 2010, seek funding to expand Senior Farmer Market Nutrition Program participation from 23,000 in 2004 to 50,000. (An Iowa Department of Public Health, Iowa Department of Elder Affairs, Iowa Department of Human Services, Iowa Department of Agriculture and Land Stewardship, Iowa Dietetic Association, and Iowa Nutrition Network action step.)

Goal Cross References

Chapter 1: Access to Quality Health Services

- 1–1 Reduce to 0 the proportion of children and adults under aged 65 without health care coverage.
- 1–2 Develop a plan and engage in activities that encourage providers to follow standardized quality performance measures.
- 1–3 Increase by 25% access to primary care for the underserved population.
- 1–4 Ensure a competent and diverse health workforce by assessing and forecasting supply and demand and promoting local strategies to recruit and retain workers.
- 1–12 Develop a strategic plan to assess and use telehealth and telemedicine to increase access to health services.

Chapter 2: Cancer

2-2Reduce cancer incidence to a rate of no more than 450/100000.

Chapter 3: Diabetes

3-1Increase awareness of diabetes in people with pre-diabetes risk and undiagnosed diabetes, and limit the upward trend of diabetes to 0.2% per year.

3-2Decrease disparities in diabetes prevalence and increase access to health care.

3-3Offer leadership and education opportunities to health care professionals to enable them to provide improved medical guidance to people with diabetes.

3-4Decrease mortality and morbidity from diabetes by preventing or delaying complications.

Chapter 4: Disabilities

4-3Assure that each HI2010 chapter assesses the health issues and potential treatment available for people with disabilities and incorporates appropriate goals and action steps.

Chapter 5: Educational and Community-Based Programs

5-2Ensure that at least 10 schools provide a set of basic health support services for students and 81% of school districts employ a full-time nurse.

5-4Provide policies and guidelines to ensure that school health and physical education are compliant with statutory education program requirements.

5-5Ensure that all post-secondary community colleges provide data on how the college addresses the six priority health risk behavior areas.

Chapter 9: Heart Disease and Stroke

9-1Reduce by 13% heart disease deaths among all Iowans.

9-2Reduce by 16% stroke deaths among all Iowans.

9-3Identify and control high blood pressure through health care, worksite, and community systems.

9-4Reduce by 10% adults with high blood cholesterol through policy, environmental and systems supports, and

communication to improve detection, awareness, evaluation, treatment, and control.

Chapter 11: Maternal, Infant and Child Health

11-1 Reduce overall infant mortality rate to no more than 5/1000 live births.

11-2 Reduce overall low birth weight to no more than 5% of live births and overall very low birth weight to no more than 1% of live births.

Chapter 15: Oral Health

15-1 Reduce cavities in primary and permanent teeth so the proportion of children who have had one or more, filled or unfilled, is no more than 10% for children aged 3-5, 25% for children aged 7-9, and 50% for adolescents aged 12-14.

15-2 Reduce untreated cavities in primary and permanent teeth so that the proportion of low-income children with decayed teeth not filled is no more than 2% for children aged 3-5, 10% for children aged 7-9, and 18% for adolescents aged 12-14.

15-3 Reduce to no more than 20% people aged 65 and older who have lost all of their natural teeth.

15-4 Implement a statewide oral health surveillance system that will annually collect data on oral health status.

Chapter 16: Physical Activity and Fitness

16-1 Establish funding targeted at sedentary lifestyles and a plan that supports planning, local efforts, environmental projects, model policy initiatives, and education.

16-2 Certify 500 Physician-based Assessment and Counseling for Exercise (PACE) clinicians or similar programs.

16-3 Establish a comprehensive strategy that shares the main physical activity message with as many Iowans in as many environments as possible.

16-4 Create strategies that share the physical activity message with special and high-risk populations.

16-5 Continue to recruit and improve worksite wellness programs.

- 16-6Create and disseminate a detailed list of best or expected practices that provide students an educational environment that teaches and fosters a healthy active lifestyle.
- 16-7Create an electronic media plan that uses the Internet, ICN, etc.
- 16-8Work with the Iowa Department of Transportation and appropriate entities to promote environments that are physically appealing and conducive for regular physical activity.
- 16-9Create consistent survey items to deal with the surgeon general's *Report on Physical Activity and Health* recommendations through measurements of the BRFSS.
- 16-10 ..Increase the proportion of school-age children who meet the Centers for Disease Control and Prevention recommendations for physical activity and education.

Chapter 20: Substance Abuse and Problem Gambling

- 20-4Increase to 425 the number of Iowans aged 65 and older who receive screening, prevention, referral, and/or treatment for risk factors.

Chapter 21: Tobacco Use

- 21-8Decrease to 12% the number of women who smoked during pregnancy.

Chapter 24: Vision

- 24-3Develop new or improved educational programs to reduce visual disabilities due to low birth weight or premature births.

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Chapter 14

Occupational Safety and Health**Introduction**

Iowa's workforce has changed in a number of ways since *Healthy Iowans 2000* was written. Unfortunately, some changes make assuring worker safety and health more challenging. For example, the number of workers who speak English as a second language has greatly increased. Safety materials and training are normally in English, making it difficult for employers to convey critical information about workplace dangers and methods of protection such as material safety data sheets that employers must make available to employees to warn of hazards of certain chemicals.

A dramatic increase in outsourcing and short-term employment has also occurred. Many temporary, subcontracted and contingent workers have not been adequately trained for the jobs they are performing. Determining who is responsible for protecting and training these workers can be difficult. In many industries, it is the inexperienced worker who runs the greatest risk of injury.

Disorders resulting from repetitive movements are becoming more common and are likely to become more prominent as the percentage of older workers increases. The U.S. Department of Labor has not adopted a specific standard for protecting workers from these disorders. Iowa cannot adopt a standard of its own without state legislative action. For the same reason, the Iowa Division of Labor Services cannot act on workplace violence, which disproportionately affects women.

A total of 23,032 occupational injuries and illnesses that required recuperation away from work beyond the day of the incident were reported in private industry in Iowa during 1997. The number was 30,800 for 1990, indicating a

23% decrease. Fatalities, however, did not change significantly. In 1997, there were 92 work-related fatalities in Iowa, including 57 who were employees and 35 who were not employees. In 1990, there were 93 fatalities, including 60 who were employees and 33 who were not.

In 2004, Iowa's labor force averaged 1,623,800. Of that labor force, 78,400 people were unemployed for a 4.8% unemployment rate. Historical labor force and unemployment statistics were revised in March 2005. Thus, in 1997, Iowa's labor force averaged 1,606,600, of which 50,700 were unemployed for a 3.2% unemployment rate. In 1990, the labor force averaged 1,458,900; of which 65,600 were unemployed for a 4.5% unemployment rate.

Farming continues to be the most hazardous occupation in Iowa. The death rate in agriculture is nearly 10 times the average for all workers. Yet, Congress has prohibited the expenditure of federal matching funds for occupational safety and health education, consultation and enforcement in farming operations with 10 or fewer employees. Additionally, agricultural facilities employ many recent immigrants, raising concerns about such conditions as tuberculosis.

Although the challenges of assuring worker safety and health are great, resources to help employers have increased. For example, Iowa provides free consultation, advice and education on creating safer workplaces to employers through the Consultation and Education Bureau in the Iowa Division of Labor Services. The amount of training and outreach by the bureau increased through the past decade, along with the size of its staff. Nonetheless, many Iowa businesses are not yet aware of those services.

The emotional, physical and financial toll of workplace fatalities, injuries and illnesses is substantial. Assuring the safety and health of work-

ers provides benefits across the board. Workers benefit directly from fewer fatalities, injuries and illnesses. Families of workers benefit from more stable incomes, avoidance of medical and rehabilitation costs, and less emotional trauma. Businesses benefit from improved employee morale and reduced worker compensation and other costs. Society benefits when more people are healthy enough to continue working to support themselves and their families rather than becoming beneficiaries of public services.

Many Iowa workers are exposed to dangerous situations every workday. With proper knowledge, equipment, caution, and precautions, these sources of harm can be removed or limited, and injuries, illnesses and deaths prevented.

Progress

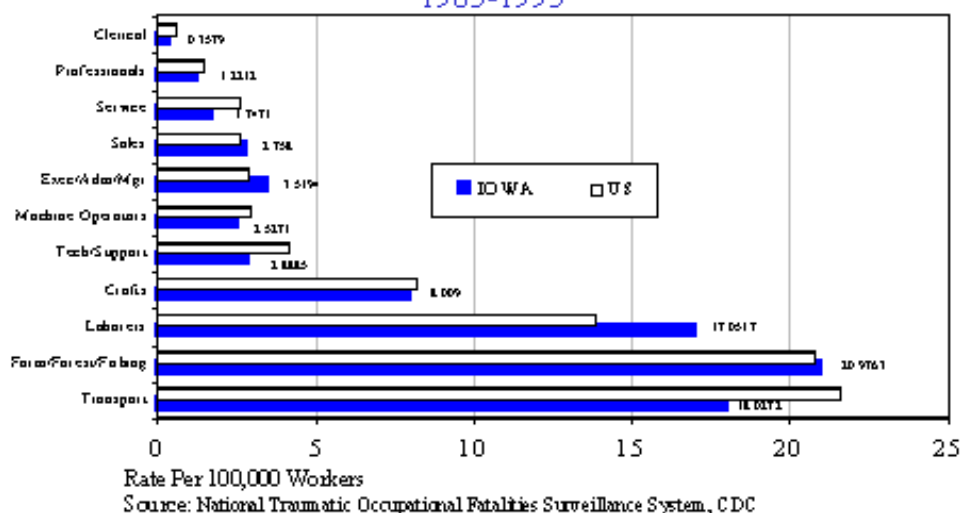
The mid-course review process identified a number of advances in occupational safety and health. Overall occupational injury and illness rates fell 20.4%, 5.4% more than the original goal for 2010. The Iowa Division of Labor Services reported that it has focused on voluntary protection programs such as the Safety and Health Achievement Recognition program, which was staffed, implemented, promoted, and expanded. Safer Workplaces 2000 has been de-

leted from *Healthy Iowans 2010*, but remains part of the Iowa Occupational Safety and Health strategic plan.

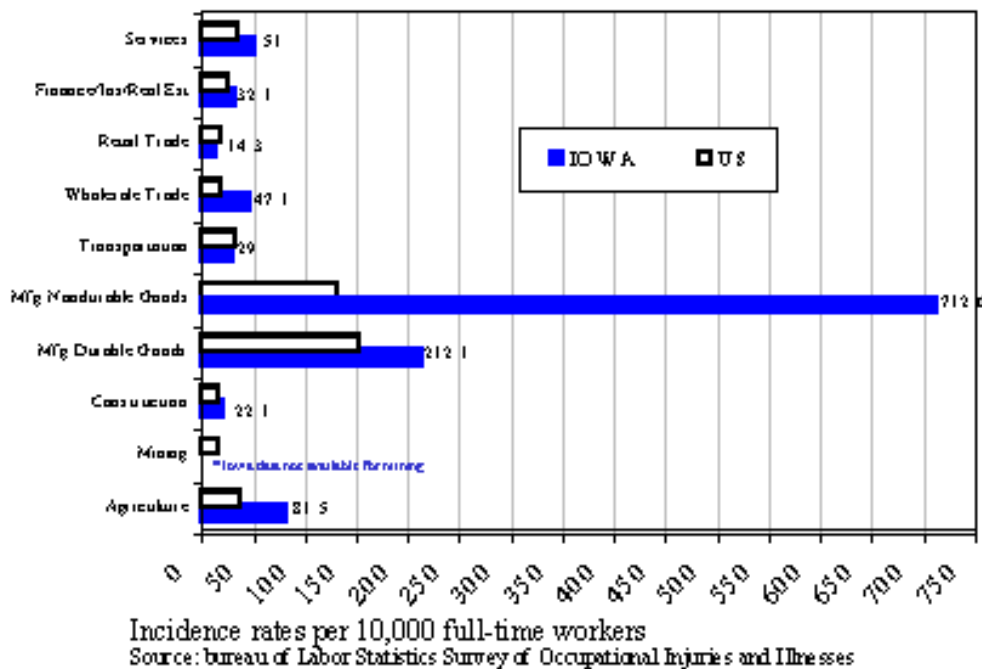
When *Healthy Iowans 2010* was originally developed, one goal focused on occupational injuries and illnesses in agriculture. This goal was revised to focus on injuries only, specifically due to changes in the agricultural injury registry. The change resulted in an assumed underreporting due to changes in how data was collected and reported. Current data cannot be used to compare data collected in 2000 and earlier because of the different reporting systems used; thus, new baseline data has been set.

Many action steps in the agricultural focus have progressed and some are highlighted here. Progress includes the completion of a Certified Safe Farm pilot research project in northwest Iowa that included approximately 150 farmers who received program services. The program ran from early 1998 through July 31, 2004. Enrolled farmers reported a reduction in certain respiratory conditions, an increased awareness of farm health and safety hazards, and an increase in the use of respiratory personal protective equipment. Satisfaction with the education and services was high.

Traumatic Occupational Fatalities By Occupational Division Iowa And United States 1983-1993



Occupational Illnesses: Rates by Industry Division Iowa and United States 1996



The Certified Safe Farm (CSF) program has since begun enrollment for a greatly expanded program in Iowa by targeting 600 farmers, four times the size of the initial program. It also involves more financial and in-kind partnerships with the Iowa Farm Bureau Federation; Wellmark, Inc. health insurance; Monsanto; and Pioneer Hi-Bred International.

The CSF gained greater visibility through these partnerships. With the help of Wellmark, Inc., CSF is now able to analyze health insurance claims data from farmers in the program and compare them to claims from farmers not enrolled in the program (control farmers) to determine if CSF reduces farm-related illnesses and injuries as reflected in health insurance claims. The goal is to be able to provide CSF to farmers throughout the U.S. through support from health, property/casualty, and liability insurance companies and agribusinesses that see

benefit in providing incentives to farmers who voluntarily enroll.

In another agricultural initiative, increasing health and safety education for farm youth was a priority. In 2003, the Farm Safety 4 Just Kids chapter network and membership in Iowa was reported to have grown by nine chapters, though total membership showed a slight decline. In yet another initiative, enhancement of web sites to increase access to knowledge of agricultural health and safety is complete. Organizations now have links to each other; and the Iowa Center for Agricultural Safety and Health (I-CASH) is in the process re-designing its web site. A “What’s New?” section will be added and all organizations will be encouraged to submit news releases for posting.

In its mission and vision for the Iowa Occupational Safety and Health Act (IOSHA) 2004 through 2008, the Iowa Division of Labor Services reported that the construction culture in

Iowa has been very receptive to promotional and collaborative efforts for job site safety and health. The IOSHA consultation program attributes its success in promoting to the construction industry to partnership and alliance within the construction trade, building a trusting relationship with several companies that have promoted their services to others, and an increase in construction.

The focus on the construction industry resulted in major increases in inspections and success in obtaining requests from contractors for on-site technical assistance. The Consultation and Education Bureau projected 102 construction visits during 2003, but actually performed more (209). A targeted focus has been on increasing the number of people receiving the 10-hour occupational safety and health general industry training course. In 2003, more than a 28% increase occurred in the number of people taking the classes compared to the 2000 baseline. Contractors are showing much voluntary compliance and willingness to adopt safer work habits. The Iowa Division of Labor Services reported that all IOSHA inspection staff has had some construction training and all have had peer training.

The overall goal for the construction industry has been expanded from an initial focus on falls to a broader focus on general fatalities. The main reason is the broad impact of each action step. Since the implementation of the action steps, Iowa has had a 21% decrease in construction fatalities. The new goal establishes a targeted 25% total reduction in employee work-related deaths in the Iowa construction industry.

The last goal for this chapter focuses on blood-lead levels. The Iowa Department of Public Health reports that it continues to send information to adults with blood-lead levels greater than or equal to 25 micrograms per deciliter ($\mu\text{g}/\text{dl}$). As of 2003, a 21% decrease in the number of Iowans aged 16 years and older with such blood-lead concentrations was reported. The program receives \$25,000 per year from the National Institute for Occupational Safety and Health (NIOSH).

The Department originally planned to begin providing information in 2002 about the health effects of lead exposure and methods to reduce

exposure to adults reporting blood-lead levels greater than or equal to 10 $\mu\text{g}/\text{dl}$. However, given the significant number of adults who continue to have blood-lead concentrations greater than or equal to 25 $\mu\text{g}/\text{dl}$, the Department will delay implementation until more significant improvement has been made in this population with higher blood-lead concentrations. The Department applied for a NIOSH grant to conduct more occupational health surveillance and intervention, but does not currently have funding to take additional action.

Goal Statements & Action Steps

14–1 Goal Statement

Reduce the overall occupational injury and illness rate in Iowa to 7 cases per 100 full-time workers. Baseline: 1997, 9.3 cases; 2005, 7.4 cases (Iowa Workforce Development, Division of Labor Services, in cooperation with the U.S. Bureau of Labor Statistics).

Rationale

Reducing the frequency of workplace injury and illness benefits everyone. Workers, families, businesses, and society benefit from a reduction in the emotional and financial losses that result, especially from more serious, disabling conditions and deaths. The original goal for 2010 was to reduce the overall occupational injury and illness rates by at least 15% by 2010. In 2002, the occupational injury and illness rate had fallen to 7.4 cases per 100 full-time workers, a 20.4% reduction. In its 2003 annual report, the Iowa Workforce Development reported that Iowa OSHA is redesigning procedures with the goal of lowering the rate even further by 2008.

Additionally, data from 2001 and 2002 identified falls, crushing injuries, being struck by or against an object, and exposure to harmful substances as the top causes of death in Iowa. In 2001, crushing injuries were the most frequent with nine of the total 29 fatalities. In 2002, being struck by or against an object was the most frequent cause with 11 of the total 30 fatalities. The action steps below help focus resources for worker safety and health on the most hazardous

workplaces and expand available resources by bringing employers into partnership with the Iowa Division of Labor Services.

14–1.1 Action Step

Through 2010, staff, implement, promote, and expand voluntary protection programs such as the Safety and Health Achievement Recognition program. (An Iowa Division of Labor Services action step.)

14–1.2 Action Step

Through 2010, annually collect and analyze data on the most common work-related fatalities by cause of death. Based upon this analysis, identify and use additional resources on the most hazardous workplaces, the most dangerous industries, and the most common causes of injury and illness. (An Iowa Division of Labor Services action step.)

14–2 Goal Statement

Decrease occupational fatal and nonfatal injuries in agricultural populations as follows:

- **Decrease by 25% overall fatal and nonfatal injuries in the farm population.** Baseline, 2003: 840 fatal and nonfatal injuries, including 40 fatalities (Iowa Department of Public Health and Iowa State University Extension).
- **Decrease by 50% occupational-related fatal injuries in farm youth.** Baseline, 2003: 8 fatalities among children aged 18 and under (Iowa Department of Public Health and Iowa State University Extension).
- **Certify 2,000 Iowa farms in the Certified Safe Farm program to generally reduce hazardous exposures on farms.** Baseline, 2004: 170 farms (Certified Safe Farm program).

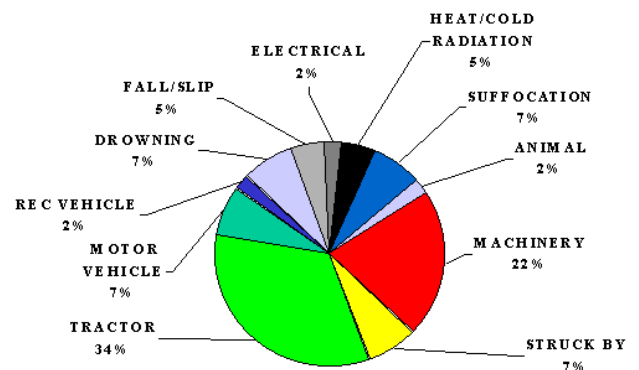
Rationale

Agriculture remains one of the most hazardous industries in Iowa. Occupational death rates have not changed significantly over the past decade. Children, women and minority workers are special-risk populations. The majority of agricultural operations are not covered by the

Iowa Occupational Safety and Health Act (IOSHA) because they have fewer than 10 employees, so the action steps below focus on programs other than IOSHA.

For example, the Certified Safe Farm program provides extra economic incentives to farmers for making a variety of safety and health improvements. Farm Safety 4 Just Kids is an Iowa-based international organization that encourages grassroots activity to prevent farm-related childhood injuries, health risks, and fatalities. The Sharing Health Awareness United Network (SHAUN) recognizes the increased risk to families of those who have suffered farm-related accidents. It provides counselors and other mental health services for families to reduce the odds the family will suffer a second stress-induced accident. Given current budget

Agricultural-related Fatalities by Cause, 1998



TOTAL # OF FATALITIES = 42

Source: Iowa Department of Public Health

restraints, SHAUN decided to change its action step to maintaining its current volunteer level instead of expanding it.

14–2.1 Action Step

By 2010, increase health and safety education for farm youth by expanding the Farm Safety 4 Just Kids chapter network to 30 chapters and 750 membership in Iowa. Baseline, 1999: 13 chapters and 470 members. (A Farm Safety 4 Just Kids action step.)

14–2.2 Action Step

Through 2010, maintain the Sharing Health Awareness United Network. Baseline, 1999: 20 volunteers were trained statewide. (An Iowa Department of Public Health action step.)

14–2.3 Action Step

Through 2010, increase hands-on training for farmers, agricultural safety educators, and emergency medical personnel as follows:

- Annually train 2,000 firefighters and emergency medical services personnel on agricultural trauma and/or rescue;
- Annually train 2,500 Iowa teens aged 14 to 15 on tractor safety; and
- Annually train 50 high school vocational agriculture teachers in tractor safety.

(A National Education Center For Agricultural Safety action step.)

14–2.4 Action Step

Through 2010, enhance federally funded programs on agricultural health and safety, such as the Great Plains Center for Agricultural Health and the fatality assessment and control evaluation program. (A University of Iowa and Iowa Department of Public Health action step.)

14–2.5 Action Step

Through 2010, continue planning and coordination among the agencies to provide public service announcements and other community information on farm health and safety that is also culturally sensitive and language appropriate. (An Iowa Department of Agriculture and Land Stewardship, Iowa Center for Agricultural Safety and Health, Iowa Department of Public Health, Iowa State University, and University of Iowa action step.)

14–2.6 Action Step

Through 2010, continue to enhance relevant web sites to increase access to knowledge of agricultural health and safety. (An Iowa Department of Public Health, Iowa Department of Agriculture and Land Stewardship, University of Iowa, Iowa State University, and Iowa Center for Agricultural Safety and Health action step.)

14–2.7 Action Step

Through 2010, continue to endorse, promote and enact the educational, incentive-based and regulatory aspects of "Tractor Risk Abatement and Control: The Policy Conference" (TRAC conference, September 10-12, 1997, the Institute for Rural and Environmental Health, University of Iowa) with the Iowa Department of Public Health monitoring tractor injuries. The Iowa Department of Transportation should promote lighting and marking standards for tractors on the roadway; the Iowa Department of Education and the Iowa Department of Transportation should assure that schools include tractor safety and roadway safety (regarding tractors on roads) in driver's education courses, and the Iowa Department of Transportation should assure that driver's training and driver's license tests include questions on safe operation of vehicles on roadways where farm machinery operates; and the Iowa legislature should enact model legislation listed elsewhere in this plan. Baseline: Average annual tractor-related fatalities totaled 22 from 1990 to 1997; it is estimated that successful implementation of these measures will reduce annual Iowa tractor-related fatalities to no more than an average of 7 by 2010. (An I-CASH action step.)

14–3 Goal Statement**Decrease by 25% employee work-related deaths in the Iowa construction industry.**

Baseline, 1998: 14 work-related deaths (Iowa Workforce Development, Division of Labor Services, Bureau of Labor Statistics, in cooperation with the U.S. Bureau of Labor Statistics).

Rationale

The construction industry is very hazardous and a significant source of workplace fatalities in Iowa. Crushing and falling are two of the most common causes of construction fatalities and among the most preventable. Reducing crushing and falling rates could have a significant impact on construction workers, their families, their employers, and workplace injury and illness statistics overall.

The original goal targeted falls in the construction industry, but widening the focus to general fatalities seems right at the mid-course review given the potential for broad impact of the action steps. The mid-course review also discovered that the Iowa Division of Labor Services reported in its 2003 annual report that of the 379 total inspections conducted, 45.4% (172) were construction inspections. This was 20.4% higher than the projected objective of 25%, thus the related action step has been updated. Lastly, the Iowa Division of Labor Services reported that all Iowa Occupational Safety and Health Act inspection staff has had some construction hazard training, meeting the related *Healthy Iowans 2010* action step.

14–3.1 Action Step

Through 2010, maintain construction inspections at a minimum of 25% of overall inspection time. (An Iowa Division of Labor Services action step.)

14–3.2 Action Step

Through 2010, annually complete a minimum of 200 construction visits focused on reducing injury and death in the industry. (An Iowa Division of Labor Services action step.)

14–4 Goal Statement

Expand and promote safety and health training opportunities for employers, employees and medical professionals. Baseline: See Rationale.

Rationale

Many injuries and illnesses in the workplace are preventable if proper work practices are followed and only proper equipment is used. Neither employees nor employers want injuries and illnesses to occur; however, often they simply do not know how to prevent them. In some instances, medical personnel do not know how to perform certain procedures, which limits proper reporting and correct treatment and prevention. Medical personnel and providers are often unaware of Iowa's work-related reporting require-

ments. This results in underreporting, which hinders and delays prompt prevention.

14–4.1 Action Step

Through 2010, annually provide a minimum of ten 10-hour occupational safety and health general industry training courses. (An Iowa Division of Labor Services action step.)

14–4.2 Action Step

Through 2010, continue to educate medical personnel about tests needed for certain afflictions, especially afflictions of chemical overexposure, and on reporting requirements of work-related conditions. (An Iowa Department of Public Health and University of Iowa/College of Public Health action step.)

14–5 Goal Statement

Establish a baseline on the number of children engaged in unhealthy activities in the workplace. Baseline: See Rationale.

Rationale

Although current law prohibits children aged 17 and younger from engaging in many unhealthy work activities, children still perform these tasks and suffer injuries and illnesses. The resources available for public education and enforcement are minimal, and the law has not been updated to reflect current economic, social and technological conditions. At mid-course review, the Iowa Workforce Development reported that it had developed and implemented a system to count the number of children who suffer an injury or illness reimbursable under the Iowa workers' compensation laws, their ages at the time of reimbursable injury or illness, and the kind of work in which they were engaged. This was an original *Healthy Iowans 2010* action step.

14–5.1 Action Step

By 2005 and until passage, request legislation to update and strengthen Iowa's child labor law. (An Iowa Division of Labor Services action step.)

14–5.2 Action Step

Through 2010, annually request additional staff and resources for public education and enforcement of the child labor law until this need is met. (An Iowa Division of Labor Services action step.)

14–6 Goal Statement

Reduce to zero the number of Iowa adults who have blood-lead concentrations greater than or equal to 25 micrograms per deciliter ($\mu\text{g}/\text{dl}$) of whole blood. Baseline, 1998: 309 Iowans aged 16 years and older had such blood-lead concentrations. However; the actual number is expected to be higher because it is based on laboratory reports from adults who were tested; many adults who work in small businesses and construction do not have blood-lead testing as recommended and/or required.

Rationale

Further information on the health effects of lead and current activities are included in the chapter on environmental health. While goal 14–6 has not been met, improvement has been documented. In 1998, 309 Iowans aged 16 and older had blood-lead concentrations greater than or equal to 25 $\mu\text{g}/\text{dl}$. At mid-course review, this number had dropped by 21% to 243 in 2003.

While deteriorated lead-based paint is the major concern for lead poisoning of Iowa children, take-home lead exposure and prenatal lead exposure are also contributors. Thus, lowering adult blood-lead concentrations greater than or equal to 25 $\mu\text{g}/\text{dl}$ has the potential to impact exposure of children. Iowa's baseline data reflected that 14% of children under aged 6 had blood-lead levels greater than or equal to 10 $\mu\text{g}/\text{dl}$; this is three times the national average. At mid-course review Iowa saw improvement, reporting that 10% of children under aged 6 had blood-lead levels greater than or equal to 10 $\mu\text{g}/\text{dl}$. While this reduction is positive, Iowa has not improved as well as other states and now is at four times the national average of 2.2%.

14–6.1 Action Step

Through 2008, provide culturally sensitive and language appropriate information about the health effects of lead and methods to reduce exposure to all adults reported as having blood-lead levels greater than or equal to 25 $\mu\text{g}/\text{dl}$. (An Iowa Department of Public Health action step.)

14–6.2 Action Step

By 2010, reduce exposures that result in workers having blood-lead concentrations greater than or equal to 10 $\mu\text{g}/\text{dl}$ of whole blood. Baseline: In 1998 in Iowa, 639 people aged 16 and older had such blood-lead concentrations. Mid-course review note: In 2003, the Iowa Department of Public Health reported an increase from the 1998 baseline with 835 adults identified with blood-lead levels greater than or equal to 10 $\mu\text{g}/\text{dl}$. This increase may be partially due to the previously mentioned 21% decrease in Iowans aged 16 and older who had blood-lead concentrations greater than or equal to 25 $\mu\text{g}/\text{dl}$; that is, those in the higher group may have moved into the lower group, causing the increase in documented incidence. (An Iowa Department of Public Health action step.)

14–6.3 Action Step

Through 2008 to 2010, provide information on the health effects of lead exposure and the methods to reduce it to adults reporting blood-lead levels greater than or equal to 10 $\mu\text{g}/\text{dl}$. (An Iowa Department of Public Health action step.)

Goal Cross References**Chapter 4: Disabilities**

- 4–3 Assure that each HI2010 chapter assesses the health issues and potential treatment for people with disabilities and incorporates appropriate goals and action steps.
- 4–14 Perform accessibility checks on new facilities leased by state agencies within 20 working days of the request.

4-21 Expanded assistive strategies for lowans with disabilities to enable them to contribute in the workplace.

Chapter 5: Educational and Community-Based Programs

5-5 Ensure that post-secondary community colleges provide data on how the college addresses the six priority health risk behavior areas.

5-6 Ensure that all counties complete at least two updates to their Community Health Needs Assessment/Health Improvement Plan.

Chapter 6: Environmental Health

6-8 Reduce to 0 deaths from unintentional non-fire carbon monoxide poisonings, and reduce CO exposures and subsequent health problems.

Chapter 10: Immunization and Infectious Disease

10-17 .. Increase by 20% the number of health care workers who annually receive influenza vaccine.

Chapter 13: Nutrition and Overweight

13-2 Educate lowans so that 75% of infants are breastfed at birth, 35% until age 6 months, and 15% until age 12 months.

13-3 Prevent a further rise in the percent of lowans who are overweight.

Chapter 16: Physical Activity and Fitness

16-5 Continue to recruit and improve worksite wellness programs.

Chapter 18: Respiratory Diseases: Asthma

18-4 Increase the proportion of persons with asthma who receive formal patient education, information and resources as an essential part of their management.

18-5 Raise community awareness of environmental exposures known to trigger asthma and increase community involvement in primary prevention.

18-7 Support public policy to reduce the incidence and severity of asthma and in-

crease actions by local, city and state groups.

Chapter 20: Substance Abuse and Problem Gambling

20-3 Reduce to 15% alcohol and other drug-related death and injury, and chronic disease rates.

Chapter 21: Tobacco Use

21-4 Reduce to 10% lowans' exposure to secondhand smoke in the workplace.

Chapter 22: Unintentional Injuries

22-1 Enhance Iowa's EMS system by implementing an integrated data system, linking with 75% of Iowa EMS systems, and maintaining Iowa's trauma care delivery system.

22-2 Reverse the increasing trend of brain injury hospitalizations from falls.

22-4 Reduce nonfatal spinal cord injuries so hospitalizations for this condition are no more than 4.5/100000.

22-15 .. Develop a plan to address the injury threat of off-road vehicles such as ATVs and snowmobiles.

Chapter 23: Violent and Abusive Behavior

23-1 Reduce the risk of victimization from violent crime to less than 300/100000 and maintain the risk of homicide at or below 2.0/100000.

23-2 Reduce firearm mortality to 5.0/100000, firearm suicide to fewer than 4 annually, and violent crime using a firearm to 25 annually.

23-8 Identify the incidence of intentional violence in schools and workplaces and establish a mechanism for reporting it.

23-9 Create opportunities for adults and youth to develop skills to be able to manage differences by building peaceable communities and schools.

Chapter 24: Vision

24-2 Build awareness of the importance of early intervention and rehabilitation to increase positive outcomes for adults who are visually impaired or blind.

24-7Educate lowans on the benefits of certified eye protection when engaged in potentially hazardous activities that have chemical, physical or radiation agents.

Chapter 25: Emergency Preparedness and Response

25-2At least every 3 years, conduct a comprehensive needs assessment of public health, laboratories, and health care emergency preparedness and response.

25-3Enhance disaster preparedness plans in each county and at the state level to include an all-hazards approach using the National Incident Management System.

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Chapter 15

Oral Health

Introduction

The primary oral health problem facing Iowans for the next five years is access, especially for certain populations.

The chapter committee identified categories of underserved people who may have varying degrees of difficulty in accessing dental care. They are low-income children and adults; nursing home residents and the elderly; children under age 3; children and adults with developmental disabilities; rural residents; racial, cultural and ethnic groups; and children and adults who either lack dental insurance or who are underinsured. For these special populations, there is a higher level of unmet need and an increased prevalence of oral disease.

Based on available data, the most commonly identified obstacles to better utilization include lack of financial resources; lack of a perceived need or value for dental care, which affects motivation to seek care; perceived lack of availability of providers; and lack of trained specialists and/or facilities.

Considerable attention must be given to the infrastructure of the dental service delivery system. Doing so requires a reorganization of human, organizational, informational, and financial oral health resources in the state. This includes building links between providers and organizations and agencies that work with people at-risk, such as nursing homes, public health agencies, schools, social service agencies, and other community-based resources. Existing services, such as care-coordination services for children and case management for the elderly and other populations at risk, must be strengthened to assist people to overcome these barriers.

Providers need to redefine how services are delivered and financed by integrating their ser-

vices into the community network of services. Other activities to build infrastructure include partnering with organizations and institutions to promote programs for oral health education and services. Finally, strong leadership within and across organizations is needed to assess and deal with critical issues and needs in communities.

This chapter is organized into goals and action steps for the targeted at-risk populations. For example, most goals for improving dental utilization and oral health status pertain to the two populations that team members identified as most at-risk for access to care. They are low-income children and people over aged 65, especially those in long-term care facilities. Another goal is to increase the use of topical fluoride by at-risk populations and maintain fluoride programs in areas currently fluoridated. This is the traditional public health approach of targeting populations most in need.

A targeted approach also is necessary because of the resources and labor required for such activities as data collection and evaluating progress toward goals. Currently, little oral health data is available at the state level. Therefore, much of the data tracking will require new data collection systems that should be realistic in scope.

A number of crosscutting issues are related to other *Healthy Iowans 2010* chapters. These include nutrition, tobacco use, educational and community-based programs, environmental health, injury and/or violence prevention, maternal and child health, cancer, and diabetes.

Current research, for example, has reported significant links between type II diabetes and periodontal disease. One study found that people with severe periodontal disease were six times more likely to have poor glycemic control. Another study showed that treatment of patients

with periodontal disease also led to improved glycemic control. Links between tobacco use, cardiovascular diseases, and periodontitis are also important subjects for researchers and will provide significant insight for interventions and therapies for at-risk populations in the future.

Two original goal statements have been deleted. However, the goals and action steps are either continued or addressed in other goal statements. Original goal 15–3, focusing on untreated root caries in elderly, and original goal 15–8, focusing on school-aged children receiving dental exams and treatment, are addressed in revised goals 15–2, 15–3, 15–7, 15–9, 15–11, and 15–13.

Several of the original action steps from *Healthy Iowans 2010* are complete and have impacted the oral health of many Iowans, including:

- A law was signed that requires coverage of anesthesia and hospital charges for dental treatment for Medicaid-enrolled children;
- Increased to seven school-based dental sealant programs funded by the Iowa Department of Public Health covering 14 Iowan counties;
- A multi-language oral health brochure was created that also includes information on hawk-i dental insurance;
- A Medicaid policy change was made that now considers payment from Medicaid for dental screenings and fluoride varnish applications by dental hygienists as standard of care for EPSDT screening centers;
- A statewide marketing campaign promoted the benefit of dental sealants;
- Awareness of the school dental card increased resulting from a survey mailed to all Iowa schools; and
- Continuing education programs on geriatric dentistry were developed.

The first decade of the 21st century has been a challenging and exciting time for oral health. The team hopes this chapter challenges all primary care providers to work cooperatively to identify, evaluate and implement the best strategies to improve the oral health of those most at-risk now and in years to come.

Goal Statements & Action Steps

15–1 Goal Statement

Reduce cavities in primary and permanent teeth so the proportion of children who have had one or more cavities, filled or unfilled, is no more than 10% among children aged 3 to 5, 25% among children aged 7 to 9, and 50% among adolescents aged 12 to 14. Baseline: 1994 Iowa Oral Health Survey of school children and Head Start data.

Rationale

Tooth decay is the single most common chronic childhood disease and affects a child's ability to speak, eat and learn. It is an infectious disease that can be prevented. Much of the focus of this goal is on prevention of caries in children, particularly through school-based dental sealant programs. School-based sealant programs have been strongly recommended to prevent or control caries by the Task Force on Community Preventive Services of the Centers for Disease Control and Prevention. Focus is also now placed on targeting children under age five to prevent tooth decay in early childhood.

15–1.1 Action Step

By 2010, advocate for increased state and federal appropriations to allow more counties to have school-based sealant programs, increasing the number to 10. (An Iowa Department of Public Health and other interested oral health groups action step.)

15–1.2 Action Step

By 2010, encourage more providers to participate in school-based sealant programs on an ongoing basis. (An Iowa Department of Public Health, Iowa Dental Association, and Iowa Dental Hygienists' Association action step.)

15–1.3 Action Step

By 2010, increase or maintain the number of dentists participating in the Dental Care for Persons with Disabilities program. (An Iowa Department of Public Health and University of Iowa College of Dentistry action step.)

15–1.4 Action Step

By 2006, develop a parent education program by child care providers on the importance of good oral health, regular care, and dental visits by the first birthday. (A Head Start/Early Head Start Oral Health Workgroup action step.)

15–2 Goal Statement

Reduce untreated cavities in primary and permanent teeth so that the proportion of low-income children with decayed teeth not filled is no more than 2% among children aged 3 to 5, 10% among children aged 7 to 9, and 18% among adolescents aged 12 to 14. Baseline: 1994 Iowa Oral Health Survey of school children and Head Start data.

Rationale

This goal aims to improve access to dental care and increase use of dental services to restore teeth already infected with cavities. Vulnerable populations, including low-income families, have the most difficulty accessing dental services. The problem is multi-faceted, with changes needed in reimbursement rates for Medicaid, recruitment of dental professionals to rural areas, recruitment of dentists to provide care for children under age 5, special needs children, and outreach to immigrant, minority and refugee families.

15–2.1 Action Step

By 2010, advocate for Medicaid dental reimbursement that is 90% of the usual and customary fees in Iowa to increase the number of dentists participating in the dental Medicaid program. (An Iowa Department of Public Health, Iowa Department of Human Services, University of Iowa College of Dentistry, Iowa Dental Hygienists' Association, and Iowa Dental Association action step.)

15–2.2 Action Step

Through 2010, continue to educate dentists and dental hygienists around the state about improvements and updates in Medicaid on an ongoing basis. (An Iowa Department of Public

Health, Iowa Department of Human Services, Iowa Dental Association, and Iowa Dental Hygienists' Association action step.)

15–2.3 Action Step

Through 2010, monitor the adequacy of the dental workforce and ensure that there are enough dentists and dental hygienists to assure access to dental care. (A University of Iowa College of Dentistry, Iowa Dental Association, Iowa Department of Public Health, Iowa Dental Hygienists' Association, and Iowa Dental Tracking System action step.)

15–2.4 Action Step

Through 2010, place additional focus on reaching immigrant and/or refugee and minority students with dental services. (An Iowa Department of Public Health action step.)

15–2.5 Action Step

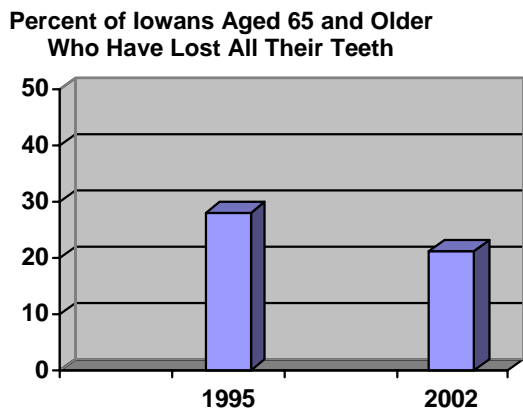
By 2010, develop education materials that cover the infectious nature of tooth decay and the passage of bacteria from mothers to infants, and distribute the materials through the Women, Infants and Children (WIC) program, maternal and child health (MCH) programs, and physicians' offices. (An Iowa Department of Public Health and University of Iowa College of Dentistry action step.)

15–3 Goal Statement

Reduce to no more than 20% the proportion of people aged 65 and older who have lost all of their natural teeth. Baseline, 1995 Behavioral Risk Factor Surveillance System: 28.1% of Iowans 65 and older lost all teeth.

Rationale

Among older people, loss of natural teeth can contribute to psychological, social and physical impairment. Even when missing teeth are replaced with well-constructed dentures, there may be limitations in speech, chewing ability, and quality of life. Tooth loss can be prevented through education, early diagnosis, and regular dental care.



Source: Behavioral Risk Factor Surveillance System

15–3.1 Action Step

Through 2010, advocate for Medicaid dental reimbursement that is 90% of the usual and customary fees in Iowa. (An Iowa Department of Public Health, Iowa Department of Human Services, University of Iowa College of Dentistry, Iowa Dental Hygienists’ Association, and Iowa Dental Association action step.)

15–3.2 Action Step

Through 2010, explore options for increasing reimbursement for dental care in long-term care facilities. (An Iowa Department of Human Services action step.)

15–3.3 Action Step

Through 2010, educate dentists and dental hygienists around the state about improvements and updates to Medicaid. (An Iowa Dental Association, Iowa Dental Hygienists’ Association, and Iowa Department of Human Services action step.)

15–3.4 Action Step

Through 2010, advocate before the Iowa Board of Dental Examiners to amend the public health supervision rule for dental hygienists so it includes long-term care facilities and nursing homes as public health settings. (An Iowa Department of Public Health, University of Iowa College of Dentistry, and Iowa Dental Hygienists’ Association action step.)

15–3.5 Action Step

By 2005, implement a program to assist nursing homes in identifying dentists to be dental directors for the homes and provide treatment for residents and education for nursing home staff. (An Iowa Department of Public Health, University of Iowa College of Dentistry, and Iowa Dental Association action step.)

15–3.6 Action Step

Through 2010, educate dental workforce and paraprofessionals on oral health needs and care of elderly. (A University of Iowa College of Dentistry, Iowa Dental Association, and Iowa Dental Hygienists’ Association action step.)

15–4 Goal Statement

Implement a statewide oral health surveillance system that will annually collect information on the oral health status of Iowans. Baseline: Current system includes the Iowa Department of Public Health annual sealant survey and the Behavioral Risk Factor Surveillance System.

Rationale

Identification of those at highest risk for oral disease and conditions with appropriate targeting of resources to treat these groups is essential for state and local programs. An oral health surveillance system would help fulfill this goal.

15–4.1 Action Step

By 2005, develop a system for oral health screenings of at-risk and other population groups. Screenings should take into account the resources of the University of Iowa College of Dentistry, the Iowa Dental Association, and the Iowa Dental Hygienists’ Association. (An Iowa Department of Public Health, University of Iowa College of Dentistry, Iowa Dental Association, and Iowa Dental Hygienists’ Association action step.)

15–4.2 Action Step

Through 2010, advocate for state and federal funding to support an annual oral screening survey. (An Iowa Department of Public Health,

University of Iowa College of Dentistry, Iowa Dental Hygienists' Association, and Iowa Dental Association action step.)

15–4.3 Action Step

Through 2010, implement an annual oral health surveillance system to assess the oral health of at-risk groups on a 5-year rotating basis per population. They include low-income children aged 3 to 5, children aged 7 to 9 and 12 to 14, children with special health needs, ambulatory elderly and long-term care residents, and other population groups. (An Iowa Department of Public Health, University of Iowa College of Dentistry, Iowa Dental Association, and Iowa Dental Hygienists' Association action step.)

15–5 Goal Statement

Reduce deaths due to cancer of the oral cavity and pharynx in adults aged 45 to 74 to no more than 5.3 per 100,000 for men and 2.2 per 100,000 for women.

Baseline, 1997: For men, aged 45 to 74, 7.9 deaths per 100,000; for women of the same age range, 3.3.

Rationale

As with most cancers, the earlier oropharyngeal cancers are detected, the greater the success in treatment. The highest risk group for oral and pharyngeal cancer is the aged 45 to 74. The goal is to increase the proportion of oropharyngeal cancer lesions diagnosed at stage one. This would indicate that strategies for increasing appropriate screening with comprehensive oropharyngeal cancer examinations have been successful.

15–5.1 Action Step

By 2006, develop a plan to educate primary care providers on the importance of, and the protocol for, oral cancer examinations, especially for those at high risk for oral cancer. (An Iowa Department of Public Health, American Cancer Society, Delta Dental Plan of Iowa, Iowa Dental Association, and Iowa Dental Hygienists' Association action step.)

15–5.2 Action Step

By 2007, explore instituting a tobacco-use prevention education message in organized youth sports groups using specific components of the sports initiative by the Center for Disease Control and Prevention. (An Iowa Department of Public Health action step.)

15–5.3 Action Step

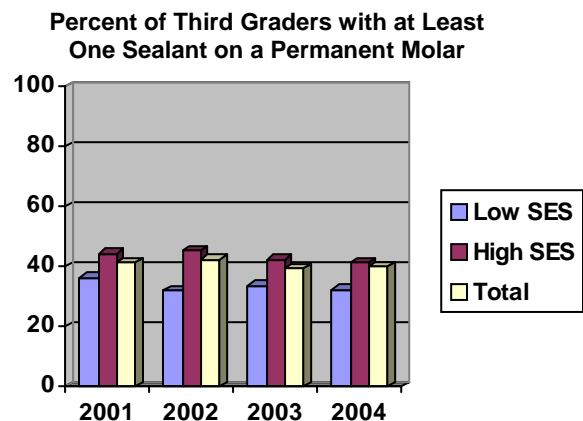
By 2007, assess smoking cessation curriculum of dental, dental hygiene, and dental assistant schools in the state. (An Iowa Department of Public Health and University of Iowa College of Dentistry action step.)

15–5.4 Action Step

Through 2010, implement courses for dentists, dental hygienists, and dental assistants on tobacco-use cessation methods for patients. (Iowa Department of Public Health, University of Iowa College of Dentistry, Delta Dental Plan of Iowa, Iowa Dental Association, Iowa Dental Hygienists' Association, and Iowa Dental Assistants' Association action step.)

15–6 Goal Statement

Increase to at least 50% the proportion of children in the third grade who have received protective sealants in permanent molar teeth. Baseline: A 1994 survey found that 30% of third graders in Iowa had sealants.



Source: 2001, 2002, 2003, 2004 IDPH sealant surveys

Rationale

Ninety percent of tooth decay is in the pit and fissures of molar teeth. When applied soon after eruption, dental sealants can prevent tooth decay in these surfaces, eliminating dental disease and limiting treatment costs.

15–6.1 Action Step

By 2010, advocate for increased state and federal appropriations to allow more counties to have school-based sealant programs, increasing the number of programs to 10. (An Iowa Department of Public Health and other interested oral health groups action step.)

15–6.2 Action Step

Through 2010, encourage more providers to participate in school-based sealant programs. (An Iowa Department of Public Health, Iowa Dental Association and Iowa Dental Hygienists' Association action step.)

15–6.3 Action Step

By 2010, encourage more providers to apply dental sealants to their patients' teeth. (An Iowa Department of Public Health, Iowa Dental Association, Iowa Dental Hygienists' Association, and University of Iowa College of Dentistry action step.)

15–6.4 Action Step

Through 2010, promote collaborative agreements between dentists and dental hygienists to include sealant application. (An Iowa Department of Public Health and Iowa Dental Hygienists' Association action step.)

15–7 Goal Statement

Increase to at least 75% the proportion of people aged 65 and older who have had a dental examination in the previous year. Baseline, 1999, Behavioral Risk Factor Surveillance System: 63.5% of Iowans aged 65 and older had a dental visit in the previous year.

Rationale

Because many elderly people lack resources for dental care, routine dental visits are rare. An additional barrier is that dental professionals are not adequately trained to handle the special oral health needs of this population. For the elderly, medical care often takes precedence over dental care, yet evidence of the link between oral disease and cardiovascular and other diseases continues to mount. Also, prescription drugs often cause xerostomia (dry mouth), which can lead to increased incidence of decay and overall mouth discomfort. Regular dental visits provide an opportunity for oral hygiene education and early diagnosis, prevention and treatment.

15–7.1 Action Step

Through 2010, increase the number of dentists participating in dental Medicaid by advocating for reimbursement rates that are 90% of the usual and customary fees in Iowa; by educating dentists around the state about improvements and updates to Medicaid; and by educating dentists about the dental services covered by Medicare and how to properly code them for reimbursement. (An Iowa Department of Public Health, Iowa Department of Human Services, University of Iowa College of Dentistry, and Iowa Dental Association action step.)

15–7.2 Action Step

By 2005, work on an ongoing basis with the Iowa Department of Elder Affairs on the importance of oral health initiatives for seniors. (An Iowa Department of Public Health, University of Iowa College of Dentistry, Iowa Dental Association, and Department of Inspections and Appeals action step.)

15–7.3 Action Step

By 2010, develop continuing education for dentists on geriatric dentistry and the tremendous oral health care needs of residents of nursing facilities. (A University of Iowa College of Dentistry action step.)

15–7.4 Action Step

Through 2010, provide continuing education for dentists and dental hygienists on geriatric dentistry and the tremendous oral health care

needs of residents of nursing facilities. (A University of Iowa College of Dentistry action step.)

15–7.5 Action Step

By 2005, implement a program to assist nursing homes in identifying dentists to be dental directors for the homes and provide treatment for residents and education for nursing home staff. (An Iowa Department of Public Health, University of Iowa College of Dentistry, and Iowa Dental Association action step.)

15–7.6 Action Step

Through 2010, advocate before the Iowa Board of Dental Examiners to amend the public health supervision rule for dental hygienists so it includes long-term care facilities and nursing homes as public health settings. (An Iowa Department of Public Health, University of Iowa College of Dentistry, and Iowa Dental Hygienists' Association action step.)

15–8 Goal Statement

Increase to at least 93% the proportion of the population served by community water systems with optimally fluoridated water. Baseline, 2004: 90% of community public water supplies were optimally fluoridated.

Rationale

Community water fluoridation is the single most effective and efficient means of preventing dental caries in children and adults regardless of education or income level. This objective will be challenging. Because communities in Iowa with fluoride-deficient water have an average population of about 500, it will require implementing fluoridation in 60 communities, or six communities annually. Current federal preventive health services block grant funds are sufficient to fluoridate about two to three communities each year. If this goal is to be reached, additional sources of funds to assist communities will need to be identified.

15–8.1 Action Step

By 2010, advocate for increased funding for water fluoridation equipment. (An Iowa Department of Public Health action step.)

15–8.2 Action Step

By 2006, develop a program to educate the public on the importance of maintaining fluoridation, and especially about promoting water fluoridation in communities with fluoride-deficient water supplies. (An Iowa Department of Public Health action step.)

15–9 Goal Statement

Increase to 25% the use of topical fluorides, in addition to fluoride toothpaste, by at-risk populations. Baseline, 2003 Medicaid-paid claims data: 11.4% of Medicaid-enrolled people received a topical fluoride application.

Rationale

This goal has been broadened to include additional forms of topical fluoride. Topical fluorides applied professionally and fluoride dentifrice and fluoride mouth rinses can prevent initial decay and promote the repair of early stage cavities. For people at higher risk of tooth decay, frequent exposure to topical fluoride is particularly important. Public health settings provide an excellent opportunity for at-risk populations to receive topical fluoride applications.

15–9.1 Action Step

By 2010, advocate for increased funding for topical fluoride programs. (An Iowa Department of Public Health, University of Iowa College of Dentistry, Department of Human Services, Iowa Dental Association, and Iowa Dental Hygienists' Association action step.)

15–9.2 Action Step

By 2006, develop a plan to have fluoride varnishes applied on the teeth of long-term care residents who have been identified by a health care professional as at-risk for root caries. (A University of Iowa College of Dentistry, Iowa Dental Association, Iowa Dental Hygienists'

Association, and Iowa Department of Public Health action step.)

15–9.3 Action Step

Through 2010, promote education for dentists and dental hygienists on use of fluoride varnishes, prescription fluoride toothpastes, and other fluoride applications to prevent caries in at-risk populations. (An Iowa Dental Association, Iowa Dental Hygienists' Association, and University of Iowa College of Dentistry action step.)

15–10 Goal Statement

Increase to 25% the proportion of 1-year-olds, especially those from low-income families, who receive exams or screenings by a qualified health professional (e.g., dentist, dental hygienist, pediatrician, nurse practitioner, nurse). Exams or screenings would be for moderate to high-risk decay conditions (existing or recent decay, demineralization, visible plaque on anterior teeth). The professionals would also counsel patients on the need to increase sources of fluoride or decrease potentially excessive sources of fluoride (such as in unsupervised tooth brushing). Baseline, 2003 Medicaid dental services data: 5% of Medicaid-enrolled aged one and under received a dental service.



Rationale

Evidence of early childhood cavities can appear shortly after the primary teeth erupt between the age of six and 12 months. Because of this, it is recommended that children have a dental exam by the age of one. However, those at greatest risk of decay are the least likely to receive regular and early care. This goal focuses on reaching low-income families to prevent decay in the very young.

15–10.1 Action Step

Through 2010, increase the number of public health clinics that can be reimbursed by Medicaid and the hawk-i program for dental screenings and referrals conducted by dental hygienists. (An Iowa Department of Human Services action step.)

15–10.2 Action Step

By 2006, develop a parent education program to be implemented by child care providers on the importance of good oral health, regular care, and dental visits by the first birthday. (A Head Start/Early Head Start Oral Health Workgroup action step.)

15–11 Goal Statement

Increase to at least 80% the proportion of children age 5 (entering school) who have received an oral health screening or examination. Baseline: See Rationale.

Rationale

More than 51 million school hours are lost each year to dental-related illness. Despite dramatic success in the reduction of cavities in children over the past 20 years, many young children still suffer from oral diseases because they do not receive the full benefit of primary prevention. Many dental providers are not comfortable treating children under age three and many parents are not aware of the need for early care. Preventive services, including early diagnosis and prompt treatment, can eliminate pain, infection and progressive oral diseases.

15–11.1 Action Step

By 2010, advocate for Medicaid dental reimbursement that is 90% of the usual and customary fees in Iowa to increase the number of dentists participating in dental Medicaid. (An Iowa Department of Public Health, Iowa Department of Human Services, University of Iowa College of Dentistry, Iowa Dental Hygienists' Association, and Iowa Dental Association action step.)

15–11.2 Action Step

Through 2010, continue to educate dentists and dental hygienists around the state on improvements and updates to Medicaid. (An Iowa Department of Public Health, Iowa Department of Human Services, Iowa Dental Association, and Iowa Dental Hygienists' Association action step.)

15–11.3 Action Step

Through 2010, monitor the adequacy of the dental workforce and make sure there are enough dentists and dental hygienists to assure access to dental care. (A University of Iowa College of Dentistry, Iowa Dental Association, Iowa Department of Public Health, Iowa Dental Hygienists' Association, and Iowa Dentist Tracking System action step.)

15–11.4 Action Step

By 2008, place additional focus on highly populated areas with diverse population groups in promoting use of the school dental card. (An Iowa Department of Public Health and Iowa Department of Education action step.)

15–11.5 Action Step

By 2006, develop a parent education program to be implemented by child care providers on the importance of good oral health, regular care, and dental visits by the first birthday. (A Head Start/Early Head Start Oral Health Workgroup action step.)

15–11.6 Action Step

Through 2010, place additional focus on reaching immigrant, refugee, minority, and special needs children with dental services. (An Iowa Department of Public Health action step.)

15–12 Goal Statement

Increase to 85% the proportion of community health centers, including Community Migrant Health Centers, that have a direct oral health service component.

Baseline, 1999: 67%, or four of the six, Community and Migrant Health Centers in Iowa had a dental component.

Rationale

Access to care for children and adults continues to be a problem for many, particularly low-income people. To eliminate disparities, more opportunities for dental services are needed in areas where the need is demonstrated. Community health centers can provide gap-filling dental services in underserved areas and play an important role in improving oral health.

15–12.2 Action Step

By 2006, assist community health centers to develop direct oral health education and service components that are culturally and language-sensitive. (An Iowa Department of Public Health action step.)

15–12.2 Action Step

Through 2010, work with the Iowa/Nebraska Primary Care Association to introduce or sustain direct oral health services in community health centers. (An Iowa Department of Public Health and University of Iowa College of Dentistry action step.)

15–13 Goal Statement

Increase to 80% the proportion of long-term care facilities that provide residents oral examinations or screenings by a dental professional and initiate necessary prevention, education and oral health treatment services no later than 60 days after entry into the facilities.

Baseline: No data available; see Rationale.

Rationale

Residents of institutions face several barriers to obtaining needed dental services. A decline in physical and oral health, use of one or more of

the many medications that can cause xerostomia (dry mouth), and inadequate access to dental care increases the risk of oral diseases. A dental examination soon after admission and the prompt initiation of treatment could greatly enhance the oral health and quality of life of the residents.

15–13.1 Action Step

By 2006, begin an oral health training program for evaluators so they can: 1) identify oral, medical, physical, and cognitive risk factors of poor oral health and 2) better understand the specific oral assessment required by the minimum data set when conducting surveys of long-term care facilities. (A University of Iowa College of Dentistry action step.)

15–13.2 Action Step

Through 2010, explore options for increasing reimbursement for dental care provided in long-term care facilities. (An Iowa Department of Human Services action step.)

15–13.3 Action Step

Through 2010, provide continuing education for dentists and dental hygienists on geriatric dentistry and on the tremendous oral health care needs of residents of nursing facilities. (A University of Iowa College of Dentistry action step.)

15–13.4 Action Step

By 2005, implement a program to assist nursing homes in identifying local dentists to be dental directors for the homes and provide treatment for residents and education for nursing home staff. (An Iowa Department of Public Health, University of Iowa College of Dentistry, and Iowa Dental Association action step.)

Goal Cross References

Chapter 1: Access to Quality Health Services

1–1Reduce to 0 the proportion of children and adults under age 65 without health care coverage.

1–2 Drive quality improvement of health care through Iowa’s Critical Access Hospitals by developing a plan and engaging in activities that promote and encourage providers to follow standardized quality performance measures.

1–3 Increase by 25% access to primary care for the underserved population.

1–4 Ensure a competent and diverse health workforce by assessing and forecasting workforce supply and demand and by promoting local strategies to recruit and retain workers through the inclusion of 99 counties in a nurse tracking project.

1–12 Develop a strategic plan to assess and employ telehealth and telemedicine that can increase access to quality health services in Iowa.

Chapter 2: Cancer

2–8 Reduce oral cavity and pharyngeal cancer deaths to no more than 1.8/100000.

Chapter 4: Disabilities

4–3 Assure that each HI2010 chapter assesses the health issues and potential treatment for people with disabilities and incorporates appropriate goals and action steps.

Chapter 5: Educational and Community-Based Programs

5–4 Implement policies and guidelines to ensure that school health education and physical education are compliant with statutory education program requirements.

5–5 Ensure that post-secondary community colleges provide data on how the college addresses the six priority health risk behavior areas.

Chapter 13: Nutrition and Overweight

13–6 Increase by at least 20% the proportion of people aged two and older who meet the dietary recommendations for calcium.

Chapter 21: Tobacco Use

21–1 Increase the tax on cigarettes by \$1.00 per pack.

21–2 Pass local control legislation that will allow communities the option to regulate

- smoking in public places to protect citizens from the dangers of secondhand smoke.
- 21-3Enact legislation that requires the Iowa Division of Tobacco Use Prevention and Control to be consistent with the Best Practices for Comprehensive Tobacco Control Programs as outlined by the Centers for Disease Control and Prevention.
- 21-5Implement comprehensive tobacco policies in 100% of Iowa school districts.
- 21-6Increase to 69% the number of adults who report not allowing smoking anywhere in the home and to 65% the number who report not allowing smoking inside vehicles.
- 21-7Decrease to 18% adults aged 18 and older who smoke cigarettes, decrease to 28% adults aged 18-24 who smoke cigarettes, decrease to 25% adults in households with incomes less than \$25,000 who smoke cigarettes, and increase to 75% adult tobacco-use cessation attempts.
- 21-10 ..Decrease current use of any tobacco product in grades 6-12 and increase number of high school students who want to quit.
- 21-11 ..Increase to 94% retail compliance with existing tobacco statutes to reduce youth access to tobacco products through retail sources and with Iowa's youth access laws.

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Chapter 16

Physical Activity and Fitness**Introduction**

Not enough money or attention was given to the fitness of our population in 2000. In 2005, hardly a day goes by without an “obesity epidemic” article, news story, or opinion piece in the media.

Currently, the documentary “Supersize Me” is playing in theatres, and McDonalds has added a promotion encouraging healthier choices that include use of a pedometer. Ronald McDonald himself, now dubbed “chief happiness officer,” has become the company’s “ambassador for an active, balanced lifestyle,” according to his Chief Creative Officer Marlena Peleo-Lazar. Ronald now is willing to go into schools under the guise of a “fitness trainer.”

Things have changed, but generating funds remains the most significant problem in promoting physical activity. That primary goal is now joined by some new challenges. Those include, but are not limited to, the term assigned to the epidemic and the plethora of activities being generated, and the corresponding need to coordinate those efforts.

The new top five focus areas are:

- Funding (as in 2000);
- Quality school physical education;
- Coordination of all efforts aimed at sedentary lifestyle and poor nutrition;
- Continued engagement of partners to promote active lifestyles; and
- Promotion of environmental and policy efforts to encourage activity.

The ultimate goal of this chapter and the above areas is at least 30 minutes of physical activity for all Iowans. The epidemic is one of poor nutrition and inactivity or sedentary lifestyle. It is recognized that many in these categories

are not overweight, and many overweight people are fit.

The measurements include, but are not limited to:

- A baseline with 30 minutes of activity;
- Progress in minutes of school programs;
- Miles, weight and behavioral changes resulting from various programs; and
- Policy changes and impact.

Dramatic progress occurred in the American lifespan addition in the 20th century. During the next century, the goal is to be equally successful in adding even more years of functional life. The spirit of this chapter is to foster more activity for youth, the elderly, rural Iowans, all minorities, and temporarily or permanently disabled residents – in short, all Iowans.

As the Olmstead decision, a U.S. Supreme Court decision prohibiting discrimination against persons with disabilities, is implemented, more Iowans with disabilities will be living in communities around the state. Barriers to their participation must be identified and reasonable accommodation to physical activity initiated. Current efforts to make it easier to walk in communities will also accommodate wheel chairs, crutches and walkers. Programs that are recognized and funded will need to reflect this effort.

Today, more than ever, physical activity offers great potential for increasing a wide range of factors that contribute to better health and additional years of functional living. Few, if any, initiatives combine the preventive potential and relative low cost of increased physical activity.

In the United States, approximately 250,000 deaths per year have been attributed to physical inactivity. In 1994, sports specialists Powell and

Blair of the American College of Sports Medicine reported that approximately one-third of deaths from coronary heart disease, colon cancer, and diabetes were due to physical inactivity.

The release of the surgeon general's report, *Physical Activity and Health*, as well as other significant research, continues to point out the broad range of beneficial effects of regular physical activity.

The programs included in this chapter have the potential for reducing cardiovascular disease, preventing various cancers, preventing and decreasing injuries, improving mental health, and slowing disease development in Iowa's aging population.

Physical activity provides a rare opportunity. The more recreation is available and the more that Iowa communities encourage walking, the more attractive Iowa becomes for tourists. Improvement in these areas can also help improve neighborhood safety, and reduce crime and even drug use. The cost is low, while the potential health benefits are in the billions of dollars. Related social benefits are nearly endless.

According to experts, no drug is as useful for sustained health as a lifetime program of physical exercise. This is as important to planning in the next century as it was in the 20th century.

The incidence of coronary heart disease (CHD) is approximately twice as high among sedentary men as among those who exercise regularly. The risk of inactivity is only slightly less than that of smoking, high blood pressure, or high blood cholesterol. The benefit to prevent chronic heart disease alone is sufficient for an increased investment in the promotion of physical activity among all Iowans.

Combined with good nutrition, physical activity can help stem the growing number of overweight and obese Iowans. Reducing obesity alone will impact a wide variety of conditions, including arthritis, cancer and stroke. Obesity combined with its demographics makes this a very crucial issue for Iowa.

The most noteworthy demographic for Iowa is its rapidly aging population. One Iowa county already has the highest national percentage of people over aged 65 (20%) and the entire

state will reach that level by 2020. More active seniors are apt to need less care, require less medical resources, and be more productive.

Physical activity will be a major factor in maintaining the vitality of Iowa's elderly. It may also foster the vitality of the state, as reflected in its physical and fiscal condition. The benefits of physical activity can be realized at age 8 or 80 and the activity level of 80-year-olds will impact the quality of life of 8-year-olds.

Some ethnic minority and low-income populations are less physically active than the general population (U.S. Department of Health and Human Services, 1996). The physical activity initiative covered in this chapter promotes regular activity among such diverse groups as the elderly, low-income Iowans, women, the overweight, persons with disabilities, all of Iowa's ethnic populations, and rural and urban residents.

This chapter includes details of a multifaceted approach to all populations. On the community level, efforts will be made to impact the environment and encourage policies to promote "walkable" communities that encourage walking and development of accessible recreational resources.

Broad-based efforts to promote physical activity via the physical education (including adaptive P.E. courses) of children and youth, wellness programs, community initiatives to promote physical activity, and media campaigns will reinforce the message that life-long activity is crucial for all Iowans. On another level, support for user-based strategies, such as marked routes for neighborhoods, will be developed and applied at the neighborhood level.

A "spectrum-of-prevention" – a term developed by the California Department of Health Services – will be followed. This spectrum includes use of individual knowledge and skills; education of community members and health-care providers, such as doctors, nurses, and pharmacists; development of groups interested in effecting beneficial, political action, and organizational change.

Such efforts will include messages to businesses to develop healthy work environments and worker-wellness programs. They include

techniques like those detailed in the 5+5 Program, a national program encouraging people to eat five servings daily of fruits and vegetables and be active for at least 30 minutes most, if not all, days of the week.

A profile of Iowa shows that employers could save over \$700 million a year by developing physical activity programs, according to formulas by the Centers for Disease Control and Prevention (CDC) and statistics from the U.S. Census.

The following observations from *Promoting Physical Activity among Adults*, a CDC handbook published by the U.S. Department of Health and Human Services, are noteworthy.

- The physical work capacity of an individual can be improved by regular physical activity.
- Work performance is improved with enhanced strength, flexibility and endurance.
- Regular exercise results in improved mood, a better self-concept, an increased feeling of well being, and diminished anxiety.
- Employers can benefit economically from improving the physical fitness of employees.
- Evidence is accumulating that regular and habitual physical activity extends life.
- Those who are sedentary are about twice as likely to develop coronary heart disease (CHD) as those who are active. People who are sedentary have a 40% higher chance of dying of coronary heart disease than those who are active.
- In general, the higher the level of habitual physical activity, the lower the risk for coronary heart disease; but physical activity must be regular, frequent and long-term.
- Adults with a sedentary lifestyle have approximately a 50% higher risk of developing hypertension compared to physically active people.
- Increased activity can help prevent hypertension, be useful in treating hypertension, and may prevent the development of coronary heart disease and other hypertension-related diseases.
- Preliminary evidence suggests that being sedentary may increase the risk of some types of cancer, such as those of the colon and female reproductive system.

- Osteoporosis is favorably influenced by physical activity, which may decrease the likelihood of developing bone fractures and losing bone density.
- Physical activity can, in many people, improve the course of several health problems, including coronary heart disease, diabetes mellitus, hypertension, obesity, peripheral vascular disease, and mental depression.

The goals of this chapter will be achieved by gains in the quality and quantity of physical education, better work-site wellness programs, greater collaboration between community programs and resources, more local efforts targeted to specific populations, more environmental and policy initiatives, and more comprehensive statewide campaigns. These efforts also will increase awareness of the quality of the infrastructure for pedestrians, the terms of a model insurance contract, and state media messages.

The rational and achievable goal of encouraging all Iowans to become aware of these physical-activity goals will mean making 1% of Iowa's sedentary population more active during each year of the decade.

This translates roughly to 20,000 people each year. It is achievable, but before it can be reached, support – primarily financial – must be allocated.

The physical activity chapter team believes that proper funding is crucial to reach this goal. Budgeting 33 cents per Iowan per year would create a one million dollar campaign to help stamp out the medical consequences of physical inactivity. The chapter goals proposed here can recover that dollar investment many times over.

Goal Statements & Action Steps

16–1 Goal Statement

Establish funding targeted at sedentary Iowa lifestyles and a plan that supports planning, local efforts, environmental projects, model policy initiatives, and education. Baseline: See Rationale.

Rationale

The Centers for Disease Control and Prevention (CDC) developed a formula that calculates the annual savings of \$643 per adult in a physical activity program. Therefore, in Iowa, the annual cost for a sedentary lifestyle is over one billion dollars. Combined with the related conditions of overweight and obesity, the financial and human cost to Iowa is staggering and getting worse. The need for a goal to reduce these totals is crucial and becoming more so. Funds received will be used to foster partnerships, recognize outstanding efforts, and convene a multi-disciplinary conference and other initiatives.

Although the message for all Iowans is that regular physical activity is recommended, the rate of diabetes has tripled in the African-American population in the past 30 years. That target audience, then, has a greater need to hear about the advantages of physical activity in preventing and controlling diabetes.

Physical fitness programs are not the province of one organization. For example, in Illinois, the Supplemental Program for Women, Infants and Children (WIC) clinics promote physical activity. Also, more nutrition materials are treating physical activity as a daily requirement. And, substance abuse programs have used healthy sports programs for years to promote a substance-free and active lifestyle.

One million dollars a year translates to 33 cents per Iowan, or \$50 per targeted person. Given the impact on public health, a million dollars would be an appropriate and symbolic sum to apply to the risk of sedentary lifestyles. The chapter team believes that all the goals detailed in this chapter require a significant and systematic change in attitude, approach, support, and most importantly, funding, for physical activity.

When compared to current costs of all factors resulting from a sedentary lifestyle, a prevention budget of one million dollars is about equal to what Iowa currently loses in 12 hours in medical costs and lost business. Today, the majority of Iowa deaths are from lifestyle-related illnesses.

Chronic diseases have replaced communicable diseases as the most significant public health problem. The death rate from coronary heart

disease in Iowa is 112.7 per 100,000 and from stroke 24.2 per 100,000. These, as well as other chronic diseases, can be significantly reduced by regular physical activity. The prevention of just 10 heart attacks could save more than one million dollars. These 10 people represent .0005% of Iowa's yearly target population.

More states, from North Carolina to Michigan to California, are equipping themselves to promote physical activity and increase the public's health by creating physical activity foundations. They are funding those organizations and supporting resulting campaigns. The American Heart Association, American Lung Association, and American Cancer Society have all had victories in their efforts to change behavior, and the risks of leading a sedentary lifestyle warrant a similar campaign.

A proper financial package could unite efforts in schools, churches, work sites, and communities. These expenditures have the potential of saving thousands of lives and billions of dollars by 2010.

16–1.1 Action Step

By 2010, aggressively seek funding annually from all local, state and federal sources to fund physical activity programs in Iowa for all populations. Continue to support the role of the Iowa Health and Fitness Foundation and explore grants and the possibility of fundraisers. Continue to work for collaboration among all revenue sources for a coordinated effort. (An Iowa Department of Public Health action step.)

16–1.2 Action Step

By 2006, meet with key department personnel to discuss a 5-year budget for supporting existing program goals to reduce sedentary lifestyles and to decide how to incorporate new initiatives. (An Iowa Department of Public Health action step.)

16–1.3 Action Step

By 2006, create a mini-grant funded by grant or foundation monies to develop diverse grass-roots initiatives to create a campaign that reaches a wide range of targeted population groups. (An Iowa Department of Public Health and Iowa Health action step.)

16–1.4 Action Step

By 2005, continue to develop or locate a variety of materials that are culturally sensitive and reflect the importance of an active lifestyle, and distribute them to various organizations to ensure the message is echoed in a variety of "voices" to all Iowans. These messages will be monitored and evaluated to determine their effectiveness. (An Iowa Department of Public Health action step.)

16–2 Goal Statement

Certify 500 Physician-based Assessment and Counseling for Exercise (PACE) clinicians – 50 of whom are doctors – or similar programs. Baseline: See Rationale.

Rationale

Any successful campaign to encourage more physical activity will be greatly enhanced by the support of primary care physicians and other clinical staff that counsels patients and/or clients.

The Physician-based Assessment and Counseling for Exercise (PACE) is a professionally developed and evaluated effort to facilitate behavior change. The traditional trust in primary care physicians and counselors, combined with specific information and recommendations, should result in significant returns from the cost of training current and future physicians, their staff, and other counselors.

This two-pronged approach covers current and future practitioners. Offering this training to those currently practicing in Iowa will ensure that the PACE principals have a direct impact. Institutionalizing PACE in the training programs of future doctors and counselors reaches more people and gains stature as an expected procedure (protocol). Initiatives by the Iowa Medical Society and Wellmark to encourage similar counseling shall also be encouraged and supported, as will all efforts to encourage healthy choices.

16–2.1 Action Step

By 2005, develop a training program for current practitioners that will include professional education credit via continuing medical education units (CMEUs) to be offered at convenient times and be financially appealing. (A Des Moines University, Iowa Medical Society, and University of Iowa action step.)

16–2.2 Action Step

By 2006, work with Iowa education facilities to make physical activity counseling part of the curriculum for clinical staff (e.g., nurses, dietitians, physician assistants, etc.). (An Iowa Department of Public Health and University of Iowa Health Sciences action step.)

16–2.3 Action Step

By 2005, work with the Iowa Medical Society, its Youth Obesity Advisory Committee, and Consensus Panel to create effective protocols for practitioners. This is designed to develop cultural competence for Latino/Hispanic or African-American families. (An Iowa Department of Public Health and Iowa Medical Society action step.)

16–3 Goal Statement

Establish an enhanced comprehensive strategy that shares the main physical activity message with as many Iowans in as many environments as possible. This includes a wide spectrum of resources from such areas as the Internet, neighborhood groups, and religious groups, and includes an attempt to develop partnerships and promotions geared toward Iowans of all ages and backgrounds, with special attention to seniors, minorities and other special populations. Baseline: See Rationale.

Rationale

The main physical activity message will be based on the recommendations of the surgeon general's *Report on Physical Activity and Health* and other current research. Iowans who hear a consistent message from the media, the Iowa

Department of Public Health, their doctors, at school, in their work environment, at senior citizen centers, their places of worship, and other sources will be more likely to embrace that message.

Creating versions of the message for places of worship and other neighborhood sites will allow a core message to be tailored to each specific population. The physical activity message must be heard loudly, clearly and often by all of Iowa's diverse populations.

The process of developing a community profile has been well documented in the 5+5 Program guide that was developed by the Iowa Department of Public Health. This process has already proven effective in promoting partnerships and encouraging more physical activity, but much more work is needed to deliver this basic message to all Iowans.

Behavioral Risk Factor Surveillance System (BRFSS) data were reviewed in the April 21, 1999, *Journal of the American Medical Association* (Vol. 281, No. 15 p. 1373). The purpose was to determine if or how much the prevalence of physical activity was associated with the perceived safety of a neighborhood. This association proved to be true for women and the elderly.

Conversely, perceived neighborhood safety can be increased by more outdoor activity. "Eyes on the street" can impact a wide range of behavior from watching for traffic speeders to more serious offences. By creating and promoting walking communities, people can create neighborhoods that are victorious and vibrant. More walkers can equal less crime; in turn, less crime can promote more physical activity.

16–3.1 Action Step

By 2010, establish a series of meetings with Iowa clergy and other community and special interest groups such as ethnic organizations, groups of varying ages, neighborhood organizations, and people with disabilities. The meetings should:

- By 2006, determine what the groups are doing toward physical fitness and seek their input;
- Through 2010, share proposed literature and programs; and

- Through 2010, evaluate the effectiveness of current efforts and determine if other support or meetings are needed.

(An Iowa Department of Public Health and Active Iowa Movement Foundation action step.)

16–3.2 Action Step

By 2006, after receipt of funding, create a mini-grant program to provide \$1,000 to \$2,000 to various, diverse organizations to create physical activity combined with neighborhood efforts. The grants will be offered to churches, neighborhood organizations, and others and be designed to create awareness of the need for regular physical activity for all Iowans. (An Iowa Department of Public Health action step.)

16–3.3 Action Step

By 2006, create materials that include articles, brochures and program items that deal with the relationship between safety and physical activity. The materials will be designed to encourage organizations interested in promoting neighborhood environments to address the relationship between physical activity and safety. (An Iowa Department of Public Health action step.)

16–4 Goal Statement

Create strategies that share the physical activity message with special populations, especially people with disabilities, and with high-risk populations. Baseline: See Rationale.

Rationale

The traditional image of a fitness center is one filled with trim young bodies, those least in need of the offered activities. This image must change in order to take into account all Iowans, including the elderly, disabled and minorities. The possibility of increased memberships should make clubs interested in promoting physical fitness among these special groups.

The link between premature death and lack of physical fitness (as verified in a study by Kenneth Cooper's Aerobic Center in Dallas) applies to all Iowans and is the primary health ra-

tionale for increased physical fitness. In an article for the *Research Digest of the President's Council on Physical Fitness and Sports* (March 1999), Dr. Janet A. Seaman writes, "People with disabilities can enhance the functioning and health of their heart, lungs, muscles and bones in most cases through regular physical activity. Flexibility, mobility and coordination can be improved, lessening the negative impact of some conditions or slowing the progression of others." Such positive social, mental and economic benefits exist for all Iowans and thus need to be encouraged and facilitated for all Iowans.

16–4.1 Action Step

Through 2010, continue regular communication with fitness providers that examines programs on their accessibility to persons with disabilities. (An Iowa Department of Public Health action step.)

16–4.2 Action Step

By 2005, create targeted physical activity promotion for low-income populations and high-risk groups who have limited access to recreation, highlighting available resources. (An Iowa Department of Public Health action step.)

16–4.3 Action Step

By 2006, disseminate physical activity materials to consumers through rehabilitation facilities, school programs, Special Olympics, physicians, and other programs to provide encouragement and information to Iowans with disabilities. (An Iowa Department of Public Health action step.)

16–5 Goal Statement

Continue to recruit and improve worksite wellness programs. Baseline: See Rationale.

Rationale

The Iowa Wellness Council is working to make Iowa the healthiest state in the nation. By developing more and better worksite wellness programs that complement efforts in the schools, communities, and other intuitions, the council is

a vital ally in the promotion of physical activity. This comprehensive community model includes environmental conditions, policy and other aspects to create well communities that encourage and support physical activity. Worksites are one of the three most crucial components to creating a dynamic environment that results in healthier communities and provides models for other Iowa communities on the means to, and value of, healthy communities.

16–5.1 Action Step

By 2006, develop a marketing plan that defines benefits and aggressively market wellness and the Wellness Council of Central Iowa via the Internet and other avenues. The Council currently has 141 members. The goal is to recruit 40 new members annually. (A Wellness Council of Central Iowa action step.)

16–5.2 Action Step

By 2006, initiate efforts to partner more effectively with insurance providers and assist with their efforts to promote wellness to their clients. (A Wellness Council of Central Iowa action step.)

16–6 Goal Statement

Create and disseminate a detailed list of best or expected practices that provide Iowa students an educational environment that teaches and fosters a healthy active lifestyle. Baseline: See Rationale.

Rationale

In the report of the National Centers for Chronic Disease Prevention and Health Promotion (CDCP) entitled *Unrealized Prevention Opportunities: Reducing the Health and Economic Burden of Chronic Diseases*, the following statement was perhaps the most significant: "Because ingrained behaviors are difficult to change, the greatest return on investment lies in reaching people early, before unhealthy behaviors are adopted."

By national norms, Iowa boys and girls are slightly heavier and possess more body fat than those in other states. Furthermore, only 56% of

Iowa boys and 61% of Iowa girls have attained the recommended health standards for cardio-respiratory fitness.

For immediate and future returns, it is imperative that physical activity be a regular component in Iowa schools. Healthy, active children not only perform better as students but also develop habits that will affect the quality and quantity of their lives. Physical inactivity is a major health hazard that for many begins during the school years.

The immediate benefit of physical activity is an increased supply of oxygen to the brain. Such activity also facilitates the development of blood vessels that, besides oxygen, carry other essentials – such as water and nutrients – needed for learning.

Physical activity also facilitates nerve development and maximum development of healthy hearts and lungs. According to the Iowa Department of Education, 13 studies on exercise and brainpower indicate that physical activity is beneficial for developing brains and preventing deterioration of older brains.

According to the National Health and Nutrition Examination Survey III, 21% of adolescents aged 12 to 19 are overweight. As sedentary options increase, efforts to encourage physical activity need to keep up.

16–6.1 Action Step

By 2005, develop and distribute a database on physical activity and Iowa youth that will include a new Iowa survey of physical education programs and any unique or successful programs. (An Iowa Department of Public Health and Iowa Association for Health, Physical Education, Recreation and Dance action step.)

16–6.2 Action Step

By 2005, provide educators with strategies and opportunities to facilitate a shift toward wellness within their own schools and communities. (A Regents Institutions, Iowa Association for Physical Education, Recreation and Dance, and Iowa Department of Education action step.)

16–6.3 Action Step

By 2006, provide ongoing support for the Iowa Department of Education and the Iowa Association for Health, Physical Education, Recreation and Dance to recognize and reward outstanding physical education programs with participation on a physical education task force in the Active Iowa Movement Foundation and by other means. (An Iowa Association for Health, Physical Education, Recreation and Dance action step.)

16–6.4 Action Step

By 2006, locate communities that are forging partnerships among businesses, schools, hospitals, parks, and recreation offices; and facilitate that trend in other communities. (An Iowa Department of Health action step.)

16–6.5 Action Step

By 2005, create five new physical activity consultant positions at area education agencies to advocate and use the Healthy Iowa Lifestyle curriculum. Facilitate the development of School-Wide Activity Team (SWAT) resources to provide technical assistance based on assessment outcomes to peers for the general development of comprehensive, quality physical education. (An Iowa Department of Education action step.)

16–6.6 Action Step

By 2005, develop strategies that urge school districts to implement coordinated school health programs and that help overcome existing barriers, such as inadequate funding. (An Iowa Department of Education, Iowa Department of Public Health, Iowa Institutes of Higher Education, and Iowa Coalition for Comprehensive School Health action step.)

16–7 Goal Statement

Create an electronic media plan that takes full advantage of the Internet, the Iowa Communications Network, and other technologies that includes development of a comprehensive web site, provides an array of physical activity op-

tions for most days of the year, and allows the continued growth and refinement of e-mail FITNET and physical activity support chat rooms. Baseline: See Rationale.

Rationale

In 1997, the Iowa Department of Public Health created FITNET, a daily e-mail service promoting regular physical activity and the national 5-A-Day program. It was initially delivered to a list of 18 entities, but now goes to over 50,000. The only expense is for writing the messages – just pennies per day.

16–7.1 Action Step

By 2007, refine FITNET to include an "Iowa only" list to be used to target and refine messages, and share other Iowa web sites willing to redistribute the information. (An Iowa Department of Public Health action step.)

16–7.2 Action Step

By 2005, pull together a group of public and private resources to design an Active Iowan web site. (An Iowa Department of Public Health; Iowa Department of Education; Iowa Association for Health, Physical Education, Recreation and Dance; Central Iowa Wellness Council; Governor's Council on Physical Fitness and Sports; Register's Annual Great Bike Ride Across Iowa [RAGBRAI]; and IOWA GAMES action step.)

16–8 Goal Statement

Work with the Iowa Department of Transportation and all appropriate entities to promote environments that are physically appealing and conducive for regular physical activity. Baseline: See Rationale.

Rationale

On June 9, 1998, President Clinton signed into law the Transportation Equity Act for the 21st century (TEA-21) that authorized highway, highway safety, transit, and other surface-transportation programs for the next six years.

TEA-21 builds on initiatives established in the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, the last major authorizing legislation for surface transportation.

This legislation provides significant funding for the development of alternative transportation projects that can focus on pedestrians instead of cars. The money provides Iowa with a significant opportunity. The challenge is to make sure Iowa uses the money to encourage walking, cycling and recreation in general.

Freeways and other transportation projects have discouraged pedestrian traffic. An increasing number of people are seeing the negative impact of such planning and are encouraging more comprehensive planning. In this, Iowa can look to the city of Cedar Falls, Iowa, as a model of what can be done with highways and recreational trails.

16–8.1 Action Step

Through 2010, continue regular communication with the Statewide Transportation Enhancement Program Advisory Committee to promote cycling and pedestrian options. (An Iowa Department of Public Health action step.)

16–9 Goal Statement

Create consistent survey items to deal with the surgeon general's Report on Physical Activity and Health recommendations through measurements of the Iowa Behavioral Risk Factor Surveillance System (BRFSS) in order to formalize the measurements, increase the efforts that are measured, and publicize broadly. Baseline: See Rationale.

Rationale

"Sedentarism," according to the June 1999 issue of the *American Journal of Public Health*, is an independent risk factor currently lacking a consensual definition. The writers of this chapter agree that a uniform definition is needed at the state, national and international levels.

The Iowa Behavioral Risk Factor Surveillance System (BRFSS) measures activity on a

scale developed prior to the release of the surgeon general's report. Although the BRFSS is valuable in providing trend data, it would be more valuable if questions were crafted to reflect the 30-minutes-per-day physical activity benchmark. In addition to BRFSS measurements, increased funding will allow target measurements to better define who is inactive and the degree of success that various initiatives have produced.

16–9.1 Action Step

By 2005, work with the Iowa Department of Public Health's statistics bureau, the Iowa Behavioral Risk Factor Surveillance System, and the Youth Behavior Risk Factor Survey personnel to identify and eliminate hurdles to consistent measurement. (An Iowa Department of Public Health action step.)

16–10 Goal Statement

Increase the proportion of school-age children who meet the Centers for Disease Control and Prevention recommendations for physical activity and physical education. Baseline: See Rationale.

Rationale

Youth Behavior Risk Factor Survey 2001 Iowa data show that children fall far short of the recommendations for vigorous physical activity (26%), moderate physical activity (71%), physical education (20%), daily physical education (86%), and moderate-to-vigorous physical activity (22%). From 1986 to 2000, only 23% of all Iowans met the recommendations for physical activity. Adults who are physically active had critical experience during childhood, including learning motor skills (competence), developing confidence in their ability to learn and perform motor skills, trying a variety of physical activities, and learning the value of physically activity to a healthy lifestyle. School physical education programs fill a vital role in developing a physically active population. They contribute to, but do not fill all needs for, physical activity during childhood.

In the best case scenario, elementary school students would have 30 of their 60 minutes of

daily activity in physical education class five days of the week. The other 30 minutes would need to be provided in other programs (e.g., extracurricular, recess). On weekends and vacations, all 60 minutes of activity would be out-of-school.

16–10.1 Action Step

By fall 2005, educate superintendents, principals, and school-board members about the recommendations for 150 and 225 minutes per week of physical education at the elementary and secondary levels from the National Association of State Boards of Education (NASBE), the National Association of School Boards (NSBA), the Council of Chief State School Officers (CCSSO), and the CDC's Division of Adolescent and School Health. (An Iowa Department of Public Health, Iowa Partners for Healthy Kids, and Iowa Fit Kids Coalition action step.)

16–10.2 Action Step

By 2006, educate physical education teachers about the recommendations on physical education curriculum and goals from the American Academy of Pediatrics, the Centers for Disease Control and Prevention (CDC), the U.S. Department of Health and Human Services, and the National Association of State Boards of Education. (An IAHPERD action step.)

16–10.3 Action Step

Through 2010, advocate for model programs and best practices based on CDC's strategies for promoting physical activity, recommendations from the American Academy of Pediatrics and the model policies from the National Association of State Boards of Education. Specifically, these policies address daily physical education, specialist teachers, adequate facilities and equipment, elimination of exemptions, and appropriate student-teacher ratios. (An Iowa Department of Public Health and American Heart Association action step.)

16–10.4 Action Step

By 2007, increase the number of schools with physical education programs meeting the recommendations from the National Association of State Boards of Education (150 and 225 min-

utes per week at elementary and secondary respectively, with specialist teacher, appropriate student teacher ratios, and no exemptions). (An Iowa Association for Health, Physical Education, Recreation and Dance action step.)

16–10.5 Action Step

By 2007, institute a policy change in licensing physical education teachers consistent with the “Teacher Quality Act” so that such teachers cannot be licensed by meeting state minimums. This includes elementary classroom teachers who are currently endorsed to teach physical education through grade eight. They may not have had a single physical education course yet are licensed to teach physical education in grades K-6, and with the two-up and two-down rule can teach in the middle school through grade eight. (An Iowa Department of Education and Iowa Association for Health, Physical Education, Recreation and Dance action step.)

16–10.6 Action Step

By 2010, increase the number of extracurricular opportunities for children and educate parents about the importance of physical activity consistent with the CDC’s strategies for promoting physical activity. Specifically, include non-competitive physical activities in after-school and extracurricular programs. To increase their levels of physical activity and fitness, young people can benefit from: families who model and support participation in enjoyable physical activity; school programs – including quality, daily physical education; health education; recess; and extracurricular activities. These programs will help students develop the knowledge, attitudes, skills, behaviors, and confidence to adopt and maintain physically active lifestyles, while providing opportunities for enjoyable physical activity.

Also, after-school care programs provide regular opportunities for active, physical play; and youth sports and recreation programs offer a range of developmentally appropriate activities that are accessible and attractive to all young people. (An Iowa Department of Public Health, Iowa Department of Education, Iowa Parks and Recreation Association, and Iowa Association

for Health, Physical Education, Recreation, and Dance action step.)

16–10.7 Action Step

By 2006, work with the Iowa Department of Education to help schools implement quality, daily physical education and other physical activity programs using the three CDC strategies: 1) With a full-time state coordinator for school physical activity programs; 2) As part of a coordinated school health program; and 3) With support from relevant governmental and nongovernmental organizations. (An Iowa Department of Public Health and Iowa Department of Education action step.)

Goal Cross References

Chapter 2: Cancer

2–2 Reduce cancer incidence to no more than 450/100000.

Chapter 3: Diabetes

3–1 Increase awareness of diabetes in people with pre-diabetes risk and those with undiagnosed diabetes, and limit the upward trend of diabetes to 0.2% per year.

3–2 Decrease disparities in diabetes prevalence and increase access to health care, including detection, quality diabetes education, treatment, and management for all Iowans.

3–3 Offer leadership and education opportunities to health care professionals to enable them to provide improved medical guidance to people with diabetes.

3–4 Decrease mortality and morbidity from diabetes by preventing or delaying complications.

Chapter 4: Disabilities

4–3 Assure that each HI2010 chapter assesses the health issues and potential treatment for people with disabilities and incorporates appropriate goals and action steps.

4–6 Establish a network of at least 10 community-based physical activity resource centers around the state for use by people with disabilities.

4-8Maintain and expand the Iowa arthritis program to include surveillance, public awareness, health care provider and consumer education, and programs to decrease disability and improve quality of life.

Chapter 5: Educational and Community-Based Programs

5-2Ensure that at least 10 schools provide a set of basic health support services for students and 81% of school districts employ a full-time nurse.

5-4Implement policies and guidelines to ensure that school health education and physical education are compliant with statutory education program requirements.

5-5Ensure that post-secondary community colleges provide data on how the college addresses the six priority health risk behavior areas.

Chapter 9: Heart Disease and Stroke

9-1Reduce by 13% heart disease deaths among all Iowans.

9-2Reduce by 16% stroke deaths among all Iowans.

9-3Identify and control high blood pressure in Iowans through health care, worksite, and community systems with policy, environmental and systems supports, and communication strategies.

9-4Reduce by 10% adults with high blood cholesterol through policy, environmental and systems supports, and communication to improve detection, awareness, evaluation, treatment, and control.

Chapter 11: Maternal, Infant and Child Health

11-4Reduce child mortality for ages 1-14 to 17/100000.

Chapter 13: Nutrition and Overweight

13-3Prevent a further rise in the percent of Iowans who are overweight.

13-4Prevent further rise of weight gain among children and adolescents under aged 18.

13-5Increase to at least 50% the proportion of people aged two and older who meet

the minimum daily average goal of at least five fruits and vegetables as recommended in the Dietary Guidelines for Americans.

13-6 Increase by at least 20% the proportion of people aged two and older who meet the dietary recommendations for calcium.

13-7 Provide Iowans at higher risk for nutrition-related disease with targeted nutrition education.

Chapter 15: Oral Health

15-1 Reduce cavities in primary and permanent teeth so that proportion of children who have had one or more cavities, filled or unfilled, is no more than 10% among children aged 3-5, 25% among children aged 7-9, and 50% among adolescents aged 12-14.

15-2 Reduce untreated cavities in primary and permanent teeth so that the proportion of low-income children with decayed teeth not filled is no more than 2% among children aged 3-5, 10% among children aged 7-9, and 18% among adolescents aged 12-14.

Chapter 22: Unintentional Injuries

22-2 Reverse the increasing trend of brain injury hospitalizations from falls.

22-4 Reduce nonfatal spinal cord injuries so hospitalizations for this condition are no more than 4.5/100000.

22-5 Establish a program in all Iowa counties for progressive resistance training to prevent falls among the elderly.

22-7 Develop a plan to address childhood injuries on playgrounds.

22-12 .. Reverse the increasing trend of brain injuries due to motorcycles, motorized bicycles, and bicycles.

22-14 .. Reduce the number of fatal water-related injuries in Iowa to less than 30/year.

22-15 .. Develop a plan to address the injury threat of off-road vehicles such as ATVs and snowmobiles.

Chapter 24: Vision

24-7 Educate Iowans on the benefits of certified eye protection when engaged in potentially hazardous activities that have chemical, physical or radiation agents.

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Chapter 17

Public Health Infrastructure**Introduction**

In its 1988 landmark report, *The Future of Public Health*, the Institute of Medicine (IOM) defined public health as “what we as a society do collectively to assure the conditions in which people can be healthy” (*The Future of the Public’s Health in the 21st Century*). This report focused on what was required to strengthen the performance of governmental public health – local, state, and federal agencies. Much emphasis was placed on the need for critical infrastructure to support delivery of public health services.

In 2003, the IOM issued a follow-up report, *The Future of the Public’s Health in the 21st Century*. Fifteen years removed from the original, it again examined the state of the public health system in the United States and what was required to strengthen performance. The authors broadened their definition of the public health system to include individuals and organizations beyond governmental public health. The follow-up report lists the following six specific changes the authors believed were necessary to achieve the vision of “healthy people in healthy communities” identified in *Healthy People 2010*.

1. *Adopt a population-based approach that builds on evidence of the multiple determinants of health;*
2. *Strengthen the governmental public health infrastructure – the backbone of any public health system;*
3. *Create a new generation of partnerships to build consensus on health priorities and support community and individual health actions;*
4. *Develop appropriate systems of accountability at all levels to ensure that population health goals are met;*

5. *Assure that action is based on evidence; and*
6. *Acknowledge communication as the key to forging partnerships, assuring accountability, and utilizing evidence for decision-making and action (*The Future of the Public’s Health in the 21st Century*).*

For years, public health programs in Iowa have operated in silos at the state and local levels, with little incentive for communication among the different disciplines. The result has been a fragmented system in which professionals have limited knowledge and understanding of the services provided and activities performed by their colleagues in different programmatic areas. Consequently, Iowa’s public health system has functioned as multiple systems, including environmental health, communicable disease, substance abuse, public health nursing, EMS, and laboratories.

The structure of public health in Iowa comprises the Iowa Department of Public Health (IDPH), 101 local boards of health (99 counties and 2 cities), and many local public health providers (nongovernmental), delivering services to a population of 2.9 million. The local public health agencies (governmental and nongovernmental) provide a variety of direct services, while the state provides funding, technical assistance, training, and consultation.

Many challenges face the state’s public health system, including new or re-emerging diseases, an aging population and public health workforce, decreased and categorical funding, an increasing immigrant population, a new role in planning for and responding to public health emergencies, inconsistent delivery of services statewide, and a lack of performance standards or benchmarks. These and other challenges need to be addressed if Iowa’s public health sys-

tem is to continue to protect the health of all Iowans.

Redefining and Rebuilding Iowa's Public Health System

During the summer of 2004, the Iowa Department of Public Health, under the leadership of Director Mary Mincer Hansen, commissioned a work group of public health professionals to assess the condition of the state's public health system and provide recommendations for improvements in efficiency and effectiveness. The work group has been meeting on a monthly basis. Membership consists of representatives from the following entities:

- Iowa Public Health Association
- Iowa Environmental Health Association
- Iowa Association of Substance-Abuse Service Centers Directors
- Mental Health Association
- Local Boards of Health
- Iowa Department of Public Health
- State Board of Health

Work Group Activities

Understanding the magnitude of its task, the work group decided early to limit initial discussion to governmental public health – local departments, the state department, local boards of health, and the State Board of Health. Hospitals that are lead public health entities for counties through contractual agreements with local boards of health would fall under the category of local departments.

The decision to focus initially on governmental public health was intended to shore-up the nucleus of the system before including the other entities that play a critical role in delivering public health services to Iowans. The analogy of building a spider web from the inside out was used to describe the process. The work, which could take 5-7 years, will occur in three-phases.

Phase 1

- Formal establishment of work group through legislation, 2005 session.
- Assessment of the current public health system.
- Development of a broad-based plan for redefining and rebuilding Iowa's governmental public health system.

Phase 2

- Engage additional partners beyond governmental public health.
- Establish subcommittees to further develop specific components of a "broad based" plan.
- Identify detailed performance standards and/or benchmarks to ensure minimum services are provided to all Iowans.

Phase 3

- Pursue necessary legislation.
- Begin implementation of the plan – a phased-in approach that allows providers to adjust to new expectations.

Activities of the work group have focused on identifying the building blocks for redefining and rebuilding Iowa's governmental public health system. The building blocks will ensure the availability of critical services (public health responsibilities) to which each Iowan should expect to have access. In addition, the building blocks and public health responsibilities are the framework for the "broad based" plan under development.

After much deliberation and discussion, the work group identified the following:

Building Blocks (modified from *North Carolina Public Health Improvement Plan: Interim Report* North Carolina Public Health Task Force, 2004):

- Structure (Infrastructure) and Organization
- Assessment, Planning, and Outcomes
- Workforce Development
- Accreditation
- Accountability

- Finance

Public Health Responsibilities (modified from the Public Health Functions Steering Committee, 1994):

- Prevent epidemics and the spread of disease
- Protect against environmental hazards
- Promote healthy communities and healthy behaviors
- Prepare for and respond to public health threats, emergencies and disasters and assist in recovery process
- Prevent injuries
- Assure the quality and accessibility of health services

Similar Initiatives

This is not the first time the improvement of the Iowa public health system has been discussed. Ron Eckoff, MD, Dallas County Board of Health and work-group member, says reports created in 1972 and 1974 by the Comprehensive Health Planning Council addressed many of the same issues. Additionally, redefining and rebuilding are an extension of the department's "transformation of public health" initiative in 2001 and 2003. Documents and reports created through previous initiatives are being used to help guide the process.

Iowa is not unique in its effort to redefine and rebuild the public health system. Many states are engaging in similar activities, while others have already completed system-improvement plans. Additionally, the Centers for Disease Control and Prevention recently assembled a Governmental Public Health Implementation Team to look at rebuilding the public health infrastructure as part of its "Futures" initiative. The work group is reviewing each of these initiatives and drawing upon components that can be applied to an Iowa-specific plan.

Links to some of the initiatives are listed below.

- <http://www.health.state.mn.us/phsystem.html#essential>

- <http://www.ncpublichealth.com/taskforce/taskforce.htm>
- <http://www.health.state.ny.us/press/reports/century/>
- <http://www.odh.state.oh.us/lhd/hlthdep1.htm>
- <http://www.moalpha.org/docs/resources/resdocs/Intro.doc>
- <http://www.doh.wa.gov/PHIP/default.htm>
- <http://www.state.nj.us/health/lh/olh.htm>

IDPH anticipates that a broad-based plan for redefining and rebuilding Iowa's public health system will be completed by January 2006. The goals and action steps originally identified in *Healthy Iowans 2010*, Chapter 17: Public Health Infrastructure, are being discussed and addressed by the work group, including workforce development, public health data, performance standards and accountability, community needs assessments, and planning. Once completed, the plan to redefine and rebuild Iowa's public health system will be incorporated into Chapter 17 of *Healthy Iowans 2010*.

Goal Cross References

Chapter 1: Access to Quality Health Services

- 1-1 Reduce to 0 the proportion of children and adults under age 65 without health care coverage.
- 1-2 Drive quality improvement of health care through Iowa's Critical Access Hospitals by developing a plan and engaging in activities that promote and encourage providers to follow standardized quality performance measures.
- 1-3 Increase by 25% access to primary care for the underserved population.
- 1-4 Ensure a competent and diverse health workforce by assessing and forecasting workforce supply and demand and by promoting local strategies to recruit and retain workers through the inclusion of 99 counties in a nurse tracking project.
- 1-5 Minimize barriers to entry into the health workforce to increase its diversity and access to health occupations education

- through at least one collaborative state project.
- 1-6Develop a cost-effective state mechanism to ensure the quality of language interpreters in medical facilities.
 - 1-7Complete the development of and begin implementing a long-range plan for rebalancing long-term care for Iowa's aging population and those with disabilities.
 - 1-8Reduce the proportion of people unable to access long-term care in Iowa.
 - 1-9Assess the health workforce and develop training to enhance sensitivity and skills in providing care to people with disabilities, and develop incentives to encourage workforce and local public health participation and support.
 - 1-10Establish a baseline on the number of people served through coordinated transportation systems and develop strategies to increase the number served and the number of rides provided for increased access to health care and other services in Iowa.
 - 1-11Increase to 100% all children in Iowa with special health care needs who have a "medical home."
 - 1-12Develop a strategic plan to assess and employ telehealth and telemedicine that can increase access to quality health services in Iowa.

Chapter 2: Cancer

- 2-1Reduce cancer deaths to no more than 173/100000.
- 2-2Reduce cancer incidence to no more than 450/100000.
- 2-3Ensure implementation of HI2010 cancer chapter action steps and the priority strategies of the Iowa cancer plan.
- 2-5Reduce female breast cancer deaths to no more than 19/100000.
- 2-6Reduce female cervical cancer deaths to no more than 1.9/100000.
- 2-7Reduce colorectal cancer deaths to no more than 15.5/100000.
- 2-8Reduce oral cavity and pharyngeal cancer deaths to no more than 1.8/100000.
- 2-9Reduce prostate cancer deaths to no more than 26/100000.
- 2-10Reduce skin melanoma deaths to no more than 1.9/100000.

- 2-11 Increase to at least 68% the relative 5-year survival rate for all invasive cancers.

Chapter 3: Diabetes

- 3-1 Increase awareness of diabetes in people with pre-diabetes risk and those with undiagnosed diabetes, and limit the upward trend of diabetes to 0.2% per year.
- 3-2 Decrease disparities in diabetes prevalence and increase access to health care, including detection, quality diabetes education, treatment, and management for all Iowans.
- 3-3 Offer leadership and education opportunities to health care professionals to enable them to provide improved medical guidance to people with diabetes.
- 3-4 Decrease mortality and morbidity from diabetes by preventing or delaying complications.

Chapter 4: Disabilities

- 4-1 Improve consumer access to appropriate information about their health care needs through provider education and coordination of consumer health information resources.
- 4-2 Develop and distribute a comparison of health care plans and initiate a curriculum that helps people with disabilities select the best health insurance plan.
- 4-3 Assure that each HI2010 chapter assesses the health issues and potential treatment for people with disabilities and incorporates appropriate goals and action steps.
- 4-4 Collect statewide data to better identify, describe and analyze information on health disparities, secondary conditions, and participation for people with disabilities.
- 4-5 Test at least 3 health promotion programs designed for people with disabilities.
- 4-6 Establish a network of at least 10 community-based physical activity resource centers around the state for use by people with disabilities.
- 4-7 Identify new funding and develop collaborative applications that will expand health promotion and prevention for Iowans with disabilities.

- 4-8 Maintain and expand the Iowa arthritis program to include surveillance, public awareness, health care provider and consumer education, and programs to decrease disability and improve quality of life.
- 4-9 Plan and conduct 4 arthritis self-help course leader workshops annually.
- 4-10 Plan and conduct at least 3 arthritis presentations annually for providers who deliver direct care to people with arthritis.
- 4-11 Collect and analyze data every odd year through 2009 and report on the impact of arthritis in Iowa every even year.
- 4-12 Establish and maintain an Office of Disability and Health within the Iowa Department of Public Health.
- 4-13 Develop a disability curriculum and initiate other mechanism to provide up-to-date information to providers and pre-service health education programs.
- 4-14 Perform accessibility checks on new facilities leased by state agencies within 20 days of the request.
- 4-15 Train city and county employees on the Americans with Disabilities Act and provide information to city and county governments on making their services physically accessible to residents with disabilities.
- 4-16 Create access to additional housing for Iowans with disabilities.
- 4-19 Improve the interface between private health insurers and other systems.
- 4-20 Create a viable infrastructure of employment and workplace services and supports for Iowans with disabilities.
- 4-21 Create an expanded array of assistive strategies for Iowans with disabilities to enable them to contribute in the workplace.
- 4-22 Expand the role of the State Level Transportation Coordination Council to coordinate among publicly funded programs that provide transportation.
- 4-23 Expand availability of publicly funded transportation for persons with disabilities and others throughout Iowa.
- 4-24 Establish a central repository for information on availability of public transit and human service transportation throughout Iowa.
- 4-25 Provide consumer training on requirements of the Americans with Disabilities Act for public transit.
- 4-26 Refocus the service system to include innovative models for the delivery of cost effective, community-based services in rural and urban areas that meet the medical, psychological, behavioral, employment, and housing needs of all persons with disabilities.
- 4-27 Eliminate the county of legal settlement as a criterion for receiving services.
- 4-28 Assure that persons with disabilities understand the health and other benefits of assistive technology, how to select and obtain assistive technology, and have access to information on health-related funding sources for assistive technology.
- 4-29 Assure that health care providers recognize the benefits of assistive technology, provide information about assistive technology to their clients, make appropriate referrals for assistive technology, provide direct assistive technology services, and facilitate their client's access to third-party funding.
- 4-30 Increase access to assistive technology through policy changes and increased funding options.
- 4-31 Establish local disability peer support groups to provide a mechanism for mutual support and to advocate and mobilize for change.
- 4-32 Establish a unified, cross-disability presence within Iowa to articulate the demand for change.
- 4-33 Include people with disabilities in all local emergency preparedness.
- 4-34 Provide for people with disabilities to develop personal preparedness plans for home, work, school, or other places they frequent.
- Chapter 5: Educational and Community-Based Programs**
- 5-2 Ensure that at least 20 schools provide a set of basic health support services for students and 81% of school districts employ a full-time nurse.
- 5-3 Increase to 40% the proportion of 3-4-year-old children served statewide accredited pre-school programs.
- 5-4 Implement policies and guidelines to ensure that school health education and

physical education are compliant with statutory education program requirements.

- 5-5 Ensure that post-secondary community colleges provide data on how the college addresses the six priority health risk behavior areas.
- 5-6 Ensure that all counties complete at least 2 updates to their Community Health Needs Assessment/Health Improvement Plan.

Chapter 6: Environmental Health

- 6-1 Determine the prevalence of contaminants of health concern in 100% of small town private wells in concentrations exceeding the EPA health advisory levels or maximum contaminant levels for drinking water.
- 6-2 Reduce to 20% the number of private drinking water wells testing positive for coliform bacteria.
- 6-3 Ensure safe drinking water for Iowans by helping 100% of public water supply systems meet EPA requirements.
- 6-4 Reduce to 10 the number of annual notifications received by the Iowa Department of Public Health from the Iowa Department of Natural Resources on “acute” bacterial contamination in community water systems.
- 6-5 Increase to 40% the number of homes in non-incorporated areas with acceptable wastewater treatment.
- 6-6 Reduce by 30% the number of unintentional exposures to household hazardous materials.
- 6-7 Eliminate blood-lead levels greater than or equal to 10 micrograms per deciliter in children under aged 6.
- 6-8 Reduce to 0 deaths from unintentional non-fire carbon monoxide poisonings and reduce CO exposures and subsequent health problems.
- 6-9 Decrease the number of emergency visits for respiratory distress on days in which outdoor air quality is considered impaired using the EPA’s air quality index.
- 6-10 Establish a core state committee named the Safe and Healthy Homes Committee with a special focus on children, minorities and people at-risk.

- 6-11 Increase the capacity of local boards of health to take on core environmental health programs.
- 6-12 Reduce pesticide poisonings through collection and analysis of pesticide poisoning reports and use of data in training programs for pesticide handlers and applicators.
- 6-13 Designate a government agency to be a central repository of environmental data from participating entities.
- 6-14 Ensure that 100% of schools for grades 1-12 provide information on environmental health in their health curricula.
- 6-15 Ensure that the Iowa Department of Public Health and the Iowa Department of Natural Resources issue joint fish consumption advisories wherever it is confirmed that contaminant standards have been exceeded.

Chapter 7: Family Planning

- 7-1 Increase to 65% the proportion of intended pregnancies among Iowa women aged 13-44.
- 7-2 Reduce pregnancies to 12/1000 among females aged 15-17 and to 50 annually among females aged 12-14.
- 7-3 Establish a baseline of sexual activity for Iowa adolescents.
- 7-4 Obtain data regarding the proportion of females aged 15-44 at risk of unintended pregnancy who use contraception.
- 7-5 Establish a baseline for male involvement in pregnancy prevention and family planning and increase that involvement by 1%.
- 7-6 Ensure that all abstinence education, teen pregnancy prevention, and adolescent sexual health programs are science-based and medically accurate as defined by CDC standards.

Chapter 8: Food and Drug Safety

- 8-1 Reduce food-borne infections by major bacterial pathogens to no more than 6.9 for Salmonella, 11.5 for Campylobacter, and 1.0 for E. coli O157:H7.
- 8-2 Reduce by 20% food-borne outbreaks in retail food establishments.
- 8-3 Provide 2 consumer food safety education programs annually.

8-4Improve surveillance of food-borne diseases to ensure early recognition and prompt reporting to public health officials so causes of disease are determined in 90% of recognized cases.

8-5Ensure the safest and most effective use of pharmaceutical products.

Chapter 9: Heart Disease and Stroke

9-1Reduce by 13% heart disease deaths among all Iowans.

9-2Reduce by 16% stroke deaths among all Iowans.

9-3Identify and control high blood pressure in Iowans through health care, worksite, and community systems with policy, environmental and systems supports, and communication strategies.

9-4Reduce by 10% adults with high blood cholesterol through policy, environmental and systems supports, and communication to improve detection, awareness, evaluation, treatment, and control.

Chapter 10: Immunizations and Infectious Diseases

10-1Reduce by 50% indigenous cases of selected vaccine-preventable disease.

10-2Increase to 90% the rate of immunization among adults aged 65 and older.

10-3Maintain levels of H. influenzae type b (Hib) immunization to keep in incidence of Hib meningitis among children aged 2 months to 5 years at or below 0.4/100000.

10-4Reduce hepatitis A cases to no more than 10/100000.

10-5Reduce to 0 newly diagnosed hepatitis B rates in persons under aged 25.

10-6Reduce to 50% hepatitis B among adults aged 25 and older.

10-7Provide information on hepatitis C to health care providers.

10-8Reduce tuberculosis to no more than 1/100000.

10-9Provide technical support to providers and local health departments for potential rabies exposure.

10-10 ..Reduce by 10% the statewide incidence of antimicrobial resistance in key reportable invasive antibiotic-resistant organisms.

10-11 ..Maintain 100% of hospital participation in reporting specific isolates as required by Iowa law.

10-12 ..Reduce by 25% invasive pneumococcal infections and invasive penicillin-resistant pneumococcal infections for children under aged 5 and adults over aged 64

10-13 ..Achieve or maintain immunization levels of at least 90% among children aged 19-35 months.

10-14 ..Maintain at 95% immunization compliance for children in licensed day care centers, kindergarten, and first grade.

10-15 ..Maintain at 100% the public Vaccine for Children (VFC) providers who systematically measure immunization coverage in their populations and increase to 30% the number of private VFC providers who do the same.

10-16 ..Increase to 75% the proportion of children aged 0-6 enrolled in a fully functional population-based immunization registry.

10-17 ..Increase by 20% the number of health care workers who annually receive influenza vaccine.

10-18 ..Educate health care providers and the public on the use of antibiotics for ear infections.

10-19 ..Educate health care providers on the use of antibiotics for colds.

Chapter 11: Maternal, Infant and Child Health

11-1 Reduce overall infant mortality to no more than 5/1000 of live births.

11-2 Reduce overall low birth weight to no more than 5% of live births and overall very low birth weight to no more than 1% of live births.

11-3 Increase to 98% newborns who are screened for hearing impairment before hospital discharge.

11-4 Reduce child mortality for ages 1-14 to 17/100000.

11-5 Increase to 75% all Iowa children who have a "medical home" as defined by the American Academy of Pediatrics.

11-6 Maintain at 98% Medicaid-eligible children aged 1-21 who have received a service paid for by the Medicaid program.

- 11-7Increase to 70% children aged 0-3 served under Title V and Title XIX who receive regular developmental screenings for mental and behavioral health issues from their primary care provider.
- 11-9Increase the number of accessible professionals who provide mental health services for women of reproductive age and their families.
- 11-10 ..Increase to at least 90% all pregnant women who receive early and adequate prenatal care as measured by the Kotelchuk Index.
- 11-11 ..Develop Iowa as a state that has a service system for Children with Special Health Needs that is community-based, family-centered, coordinated, comprehensive, and culturally competent.
- 11-12 ..Increase to 98% children with a source of health care insurance for primary and specialty care.
- 11-13 ..Increase to a scale score of 76 out of 96 the degree to which Iowa develops data resources for strategic assessment of health of women, children and families.
- 11-14 ..Increase Iowa's capacity to serve children and families through enhanced pre-service maternal and child health curriculum, teaching and practicum opportunities.
- 11-15 ..Increase to 75% children with special health care needs enrolled in managed care who have a written plan of shared management protocols developed in partnership with primary and specialty care providers, care coordination providers, and families.

Chapter 12: Mental Health and Mental Disorders

- 12-1Develop a statewide campaign to increase public awareness about the need for good mental health through media, community leaders, and schools.
- 12-2Reduce by 10% the annual incidence of suicides among youth aged 15-24 and adults 65 and older.
- 12-3Increase the number of mental health assessments performed by primary care physicians as part of routine patient care.
- 12-4Improve the overall efficiency of child-serving agencies by creating a shared state level vision for improving the well-

- being of children from early childhood through adult transition modeled after the Early ACCESS collaborative planning format.
- 12-5Increase to 100% the number of mental health service agencies that include some form of consumer and family input when designing or modifying the services they deliver.
- 12-6Increase to 100% the number of mental health services agencies that include some form of youth and family input when designing or modifying child and adolescent services.
- 12-7Identify and serve children and youth in the juvenile justice system by developing an integrated community-based mental health service delivery model.
- 12-8Expand by 30% the capacity to serve adult offenders in Iowa state correctional facilities and under community supervision.
- 12-9Provide housing for 100% of known chronically homeless children and adults with mental health disorders.
- 12-10 ..Design and implement a system of care for adults with mental health needs.
- 12-11 ..Develop and implement a system of care for children with behavioral and developmental needs.
- 12-12 ..Provide appropriate mental health services to all adults and children seeking service.
- 12-13 ..Provide affordable public transportation that is frequent enough to support an independent lifestyle for all persons with mental health disorders who are transit dependent.
- 12-14 ..Increase use of the mental health outreach service of the Medicaid Elderly Waiver among Iowans aged 65 and older and educate the community about the mental health needs of this population.
- 12-15 ..Ensure universal access to social, emotional and behavioral health services for children aged 0-5.
- 12-16 ..Identify 100% of pregnant and postpartum women with depression or at high risk for depression.
- 12-17 ..Provide excellent mental health services in rural and urban settings in accordance with established best practices.
- 12-18 ..Develop a process to influence state public policy development, planning and

clinical response using the latest and most applicable evidence-based practice research.

- 12-19 ..Develop a system for collecting a uniform set of mental health data across all publicly funded services for adults and children.

Chapter 13: Nutrition and Overweight

- 13-1Provide educational tools for lowans to make decisions on the reliability of nutrition messages through at least 3 media.
- 13-2Educate lowans so that 75% of infants are breastfed at birth, 35% until age 6 months, and 15% until age 12 months.
- 13-3Prevent a further rise in the percent of lowans who are overweight.
- 13-4Prevent further rise of weight gain among children and adolescents under aged 18.
- 13-5Increase to at least 50% people aged 2 and older who meet the minimum daily average goal of at least five fruits and vegetables as recommended in the Dietary Guidelines for Americans.
- 13-6Increase by at least 20% the proportion of people aged two and older who meet the dietary recommendations for calcium.
- 13-7Provide lowans at higher risk for nutrition-related disease with nutrition information.
- 13-8Reduce to 5% the incidence of food insecurity.
- 13-9Provide nutrition screening and education to 90% of older adults who participate in health and nutrition programs.

Chapter 14: Occupational Safety and Health

- 14-1Reduce overall occupational injury and illness to 7/100 full-time workers.
- 14-2Decrease occupational fatal and nonfatal injuries in agricultural populations.
- 14-4Expand and promote safety and health training opportunities for employers, employees, and medical professionals.
- 14-5Establish a baseline on the number of children engaged in unhealthy activities in the workplace.
- 14-6Reduce to 0 the number of adults who have blood-lead concentrations greater than or equal to 25 micrograms per deciliter of whole blood.

Chapter 15: Oral Health

- 15-1Reduce cavities in primary and permanent teeth so that proportion of children who have had one or more cavities, filled or unfilled, is no more than 10% among children aged 3-5, 25% among children aged 7-9, and 50% among adolescents aged 12-14.
- 15-2Reduce untreated cavities in primary and permanent teeth so that the proportion of low-income children with decayed teeth not filled is no more than 2% among children aged 3-5, 10% among children aged 7-9, and 18% among adolescents aged 12-14.
- 15-3Reduce to no more than 20% people aged 65 and older who have lost all their natural teeth.
- 15-4Implement a statewide oral health surveillance system that will annually collect information on the oral health status of lowans.
- 15-5Reduce deaths due to cancer of the oral cavity and pharynx in adults aged 45-74 to no more than 5.3/100000 for men and 2.2/100000 for women.
- 15-6Increase to at least 50% children in the 3rd grade who have received protective sealants in permanent molar teeth.
- 15-7Increase to at least 75% adults aged 65 and older who have had a dental exam in the previous year.
- 15-8Increase to at least 93% the population served by community water systems with optimally fluoridated water.
- 15-9Increase to 25% the use of topical fluorides and fluoride toothpaste by at-risk populations.
- 15-10 ..Increase to 25% 1-year-olds who receive exams or screenings by a qualified health professional.
- 15-11 ..Increase to at least 80% children entering school who have received an oral health screening or exam.
- 15-12 ..Increase to 85% community health centers that have a direct oral health service component.
- 15-13 ..Increase to 80% long-term care facilities that provide residents oral screenings or exams by a dental professional and initiate necessary prevention, education and treatment within 60 days of admission.

Chapter 16: Physical Activity and Fitness

- 16-1Establish funding targeted at sedentary Iowa lifestyles and a plan that supports planning, local efforts, environmental projects, model policy initiatives, and education.
- 16-2Certify 500 Physician-based Assessment and Counseling for Exercise (PACE) clinicians or similar programs.
- 16-3Established a comprehensive strategy that shares the main physical activity message with as many Iowans in as many environments as possible.
- 16-4Create strategies that share the physical activity message with special and high-risk populations.
- 16-5Continue to recruit and improve worksite wellness programs.
- 16-6Create and disseminate a detailed list of best or expected practices that provide students an educational environment that teaches and fosters a healthy active lifestyle.
- 16-7Create an electronic media plan that uses the Internet, ICN, etc.
- 16-8Collaborate with the Iowa Department of Transportation and all appropriate entities to promote environments that are physically appealing and conducive for regular physical activity.
- 16-9Create consistent survey items to deal with the surgeon general's *Report on Physical Activity and Health* recommendations through measurements of the BRFSS.
- 16-10 ..Increase the proportion of school-age children who meet the CDC's recommendations for physical activity and education.

Chapter 18: Respiratory Diseases: Asthma

- 18-1Reduce asthma-related hospitalizations by 10%, emergency department visits by 10%, and urgent care visits by 20%.
- 18-2Maintain an operation state asthma coalition.
- 18-3Maintain a surveillance system to define and monitor the burden of asthma in Iowa.
- 18-4Increase the proportion of persons with asthma who receive formal patient edu-

cation as an essential part of the management of their condition.

- 18-6 Educate health care workers and other helping professional to work toward enhancing the overall health and well-being of people who have asthma.
- 18-7 Support public policy at all levels to reduce the incidence and severity of asthma and increase the actions by local, city and state groups that support a reduction in asthma incidence.

Chapter 19: Sexually Transmitted Diseases and HIV Infections

- 19-1 Reduce Chlamydia trachomatis to no more than 140/100000.
- 19-2 Reduce gonorrhea to no more than 43/100000.
- 19-3 Eliminate transmission of primary and secondary syphilis.
- 19-4 Maintain the number of public health jurisdictions with populations of 50,000 or more that have at least one dedicated sexually transmitted disease clinic.
- 19-5 Establish a baseline for the proportion of sexually active women under aged 25 who are screened annually for Chlamydia and gonorrhea.
- 19-6 Establish a baseline for the proportion of pregnant women screened for sexually transmitted diseases during prenatal health care visits.
- 19-7 Establish a baseline for the number of youth detention facilities and adult city and/or county jails in which screening for common bacterial sexually transmitted diseases is conducted within 24 hours of admission.
- 19-8 Reduce new cases of AIDS among adolescents and adults to no more than 2/100000.
- 19-9 Reduce by 50% the annual incidence of HIV infection.
- 19-10 .. Increase to 67% sexually active students who report using a condom during the previous 3 months.
- 19-11 .. Increase to 97% high school students in grades 9-12 who receive age-appropriate classroom education on HIV and other STDs.
- 19-12 .. Increase the proportion of clients of state-funded HIV testing sites who are referred for screening for common bacterial STDs.

- 19–13 ..Increase to 1.0% newly identified, confirmed HIV-positive test results by state-funded HIV counseling, testing and referral sites.
- 19–14 ..Increase to 75% partner counseling and referral contacts with unknown or negative serostatus who receive an HIV test.
- 19–15 ..Increase to 90% facilities providing treatment for injecting drug use that offer or provide referrals for HIV counseling and voluntary testing.
- 19–16 ..Maintain at 100% state prison inmates who receive HIV testing and counseling.
- 19–17 ..Increase to 90% county jails in counties with populations over 50,000 that regularly screen for HIV.
- 19–18 ..Increase to 100% new TB cases aged 24-44 who have their HIV status reported.
- 19–19 ..Increase the percentage of HIV-infected persons who regularly receive primary HIV medical care.
- 19–20 ..Reduce HIV mortality to no more than 0.4/100000.
- 19–21 ..Decrease the percentage of persons diagnosed with AIDS within one year of their HIV diagnosis.
- 19–22 ..Eliminate HIV acquired perinatally.

Chapter 20: Substance Abuse and Problem Gambling

- 20–1 Establish a systematic process and begin to access the infrastructure of the alcohol, tobacco and other drugs service system and its impact on prevention, early intervention, and treatment.
- 20–2 Increase by 3% youth aged 12-17 who never used alcohol and annually monitor and evaluate the increase.
- 20–3 Reduce to 15% alcohol and other drug-related death and injury, and chronic disease rates.
- 20–4 Increase to 425 (from 325) the number of lowans aged 65 and older who receive screening, prevention, referral, and/or treatment for risk factors.
- 20–5 Increase availability of 24-hour residential treatment from 517 beds to 542 beds for lowans addicted to alcohol, tobacco and other drugs.
- 20–6 Enact legislation requiring insurers to provide coverage for mental illness and addiction.

- 20–7 Maintain the percentage of lowans engaging in problem gambling.
- 20–8 Increase to 115 and sustain state, county, community, and neighborhood collaborative groups to reduce problems of alcohol, tobacco, other drugs, and problem gambling.

Chapter 21: Tobacco Use

- 21–1 Increase the tax on cigarettes by \$1.00 per pack.
- 21–2 Pass local control legislation that will allow communities the option to regulate smoking in public places to protect citizens from the dangers of secondhand smoke.
- 21–3 Enact legislation requiring the Iowa Division of Tobacco Use Prevention and Control to be consistent with the CDC's Best Practices for Comprehensive Tobacco Control programs.
- 21–4 Reduce to 10% lowans' exposure to secondhand smoke in the workplace.
- 21–5 Implement comprehensive tobacco policies in all Iowa school districts.
- 21–6 Increase to 69% adults who report not allowing smoking anywhere in the home and to 65% the number who report not allowing smoking inside vehicles.
- 21–7 Decrease to 18% adults aged 18 and older who smoke cigarettes, decrease to 28% adults aged 18-24 who smoke cigarettes, decrease to 25% adults in households with incomes less than \$25,000 who smoke cigarettes, and increase to 75% adult tobacco-use cessation attempts.
- 21–8 Decrease to 12% the number of women who smoked during pregnancy.
- 21–9 Establish comprehensive coverage by Medicaid for FDA-approved pharmacotherapies and behavioral therapies.
- 21–10 .. Decrease current use of any tobacco product in grades 6-12 and increase number of high school students who want to quit.
- 21–11 .. Increase to 94% retail compliance with existing tobacco statutes to reduce youth access to tobacco products through retail sources and with Iowa's youth access laws.

Chapter 22: Unintentional Injuries

- 22-1 Enhance the Emergency Medical Services system by implementing an integrated data system, linking with 75% of Iowa EMS systems, and maintaining the trauma care delivery system at 100%.
- 22-2 Reverse the increasing trend of brain injury hospitalizations from falls.
- 22-3 Reduce nonfatal brain injuries from motor vehicle crashes to no more than 20/100000.
- 22-4 Reduce nonfatal spinal cord injuries so hospitalizations for this condition are no more than 4.5/100000.
- 22-5 Establish a program for progressive resistance training to prevent falls among the elderly in all Iowa counties.
- 22-6 Reduce by 5% unintentional firearm-related deaths for ages 1-18.
- 22-7 Develop a plan to address childhood injuries on playgrounds.
- 22-8 Reduce deaths caused by unintentional poisoning to 30/year, and reduce resulting illness and costs.
- 22-9 Reduce the fire death rate to less than 1/100000.
- 22-10 .. Reduce deaths by motor vehicle crashes to no more than 1.3/100 million vehicle miles traveled
- 22-11 .. Increase to 90% of motor vehicles the use of occupant protection systems such as safety belts and child safety seats.
- 22-12 .. Reverse the current increasing trend of brain injuries due to motorcycles, motorized bicycles, and bicycles.
- 22-13 .. Provide academic instruction in formats for special populations on motor vehicle injury prevention in the public school system's mandated safety education curricula in grades K-12.
- 22-14 .. Reduce the number of fatal water-related injuries to less than 30/year.
- 22-15 .. Develop a plan to address the injury threat of off-road vehicles such as ATVs and snowmobiles.

Chapter 23: Violent and Abusive Behavior

- 23-1 Reduce the risk of victimization from violent crime to less than 300/100000 and maintain the risk of homicide at or below 2.0/100000.

- 23-2 Reduce firearm mortality to 5.0/100000, firearm suicide to fewer than 4 annually, and violent crime using a firearm to 25 annually.
- 23-3 identify the annual rate of physical abuse by current or former intimate partners, reduce the number of deaths from domestic violence to less than 5 annually, and increase the statewide conviction rate for domestic abuse cases to an average of 66%.
- 23-4 Reduce the incidence of confirmed child abuse by a caretaker to less than 900/100000.
- 23-5 Identify the annual rate of sexual abuse, increase the arrest rate for forcible rape to 16/100000, and increase the number of sexual abuse exams.
- 23-6 Identify the incidence of elder and dependent adult abuse.
- 23-7 Establish procedures at 100% of hospital emergency departments, family planning agencies, public health clinics, community mental health centers, and substance abuse treatment programs for routinely identifying, treating and properly referring victims of child abuse, domestic abuse, elder abuse, and sexual assault.
- 23-8 Identify the incidence of intentional violence in schools and workplaces and establish a mechanism for reporting it.
- 23-9 Create opportunities for adults and youth to develop skills to be able to manage differences by building peaceable communities and schools.

Chapter 24: Vision

- 24-1 Establish a reliable Iowa-specific baseline on vision.
- 24-2 Build awareness of the importance of early intervention and rehabilitation to increase positive outcomes for adults who are visually impaired or blind.
- 24-3 Develop new or improved educational programs to reduce visual disabilities due to low birth weight or premature births.
- 24-4 Build awareness of the importance of maintaining good eye health through prevention and education.
- 24-5 Increase the number of preschool children receiving vision screenings and appropriate follow-up care as determined by an eye-care professional.

- 24-6Encourage Iowa health insurance carriers and employer groups to include vision benefits in their policies.
- 24-7Educate Iowans on the benefits of certified eye protection when engaged in potentially hazardous activities that have chemical, physical or radiation agents.

Chapter 25: Emergency Preparedness and Response

- 25-1Increase overall by 20% the public health workforce infrastructure to ensure adequate emergency response coordination workforce at the local, regional and state level.
- 25-2At least every 3 years, conduct a comprehensive needs assessment of public health, laboratories, and health care emergency preparedness and response.
- 25-3Enhance disaster preparedness plans in each county and at the state level to include an all-hazards approach using the National Incident Management System.
- 25-4Develop a comprehensive plan to increase surge capacity for health care.
- 25-5Maintain plans for and implement additional training and exercising for the Strategic National Stockpile program at the local, regional and state level.
- 25-6Develop a plan to address the impact of mental health concerns on 5,000 adult and pediatric clients and health care workers per 1,000,000 population exposed to a biological, chemical, radiological, or explosive terrorist incident.
- 25-7Develop a secure, web-based reporting and notification system that provides for rapid and accurate receipt of reports of disease outbreaks and other acute health events that might suggest bioterrorism.
- 25-8Exercise, assess and implement needed change in plans annually to demonstrate proficiency in responding to terrorism attacks, natural disasters, infectious disease outbreaks, and other public health threats and emergencies.
- 25-9Develop a self-sustaining payment system and user network to assure that emergency responders have ongoing access to the Health Alert Network.
- 25-10 ..Ensure that at least 90% of local public health agencies use the Learning Management System to education, evaluate

and document education competency of their staff in their assigned roles for emergency response, to access available training listings, and to track trainings taken.

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Chapter 18

Respiratory Diseases: Asthma**Introduction**

The purpose of the *Healthy Iowans 2010* asthma chapter is to maintain a coordinated, sustainable and effective state infrastructure to support public health efforts to reduce the burden of asthma and, ultimately, improve the overall quality of life for persons with asthma.

The result of Iowa's inclusion of an asthma chapter in *Healthy Iowans 2010* is funding, through a competitive process by the Iowa Department of Public Health in 2000, from the Centers for Disease Control and Prevention to establish a statewide asthma coalition and asthma control program. The *Healthy Iowans 2010* asthma chapter, composed in 1999, included establishment of a statewide asthma coalition and creation of a statewide asthma program. The Iowa Department of Public Health will maintain adequate funding to continue a statewide, integrated asthma control program.

In coordination with the Iowa Asthma Task Force and the Iowa Asthma Coalition, the department in 2003 published three documents that are the basis for this mid-course revision of *Healthy Iowans 2010* chapter 18, Respiratory Diseases: Asthma.

- Asthma in Iowa, the Plan for Improving the Health of Iowans with Asthma;
- Asthma in Iowa, Surveillance Report 1995-2000; and
- Iowa Asthma Surveillance Plan.

These documents are available at:

www.idph.state.ia.us/hpcdp/asthma_content.

The goals in this chapter are modified from the originals, but continue to seek strengthening:

- The Iowa Asthma Coalition;
- The Iowa Asthma Control Program and asthma surveillance; and

- Environmental, clinical and community-based asthma management interventions across the state.

In 2003, the Iowa Department of Public Health, Center for Health Statistics, published a surveillance report with detailed estimates of state and, in some cases, county-specific rates of asthma: prevalence, deaths, hospitalizations, and direct and indirect costs. Much of the surveillance data which follow are taken from that report.

The Problem

Globally, asthma is a growing problem. Prevalence (the count of all people who currently have asthma) doubled in the United States between 1980 and 1999. More than 20 million Americans, including 200,000 Iowans, have asthma. It is the most prevalent chronic condition of the overall U.S. population.

In 2001, 7.3% of the population, including 6.9% of adults and 8.7% of children, had asthma (National Health Interview Survey [NHIS], 2003). In addition, the estimated adult asthma prevalence was 7.2% nationally and 6.9% in Iowa (Behavioral Risk Factor Surveillance System [BRFSS], 2001).

The Behavioral Risk Factor Surveillance System (BRFSS) provides Iowa-specific statewide estimates of asthma prevalence from 1999 for adults and from 2001 for children. Adult prevalence in Iowa has ranged from 7.7% in 1999 to 6.2% in 2003. This accounts for approximately 145,000 adult Iowans reporting that their asthma was diagnosed by a doctor. The BRFSS estimate of asthma prevalence in children in Iowa was 5.4% in 2003, or approximately 40,000 children.

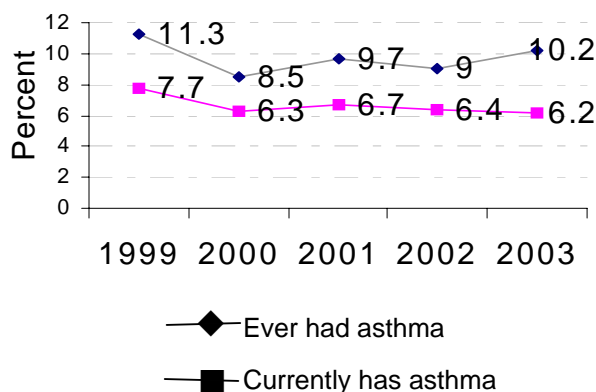
In 2002, BRFSS data shows that the prevalence of adult asthma among Midwestern states ranged from 5.9% to 8.8%, placing Iowa’s prevalence rate of 6.6% at mid-range (MMWR, 2004).

Iowa BRFSS data show that asthma prevalence is highest in adults who:

- Are less than 35 years of age;
- Have less than a high school education;
- Have household incomes under \$25,000 per year;
- Are female;
- Are African-American;
- Are uninsured;
- Are obese; or
- Are smokers.

Several studies suggest that the actual prevalence of asthma is much higher than the rates cited here because the rates given are of doctor-diagnosed asthma. A recent study in North Carolina found 35% of children with asthma-like symptoms were not diagnosed with asthma (Arch. Ped. and Adolescent Med., 2003).

Prevalence of Asthma, per 100 Iowa Adults(Percent) , 1999-2003, Behavioral Risk Factor Surveillance System



Each year Iowa has:

- 12,000 asthma-related hospitalizations, with asthma listed as any one of 10 admitting or discharge diagnoses from an Iowa hospital and about half of which have asthma listed as a primary diagnosis;
- 15,000 to 30,000 asthma-related emergency

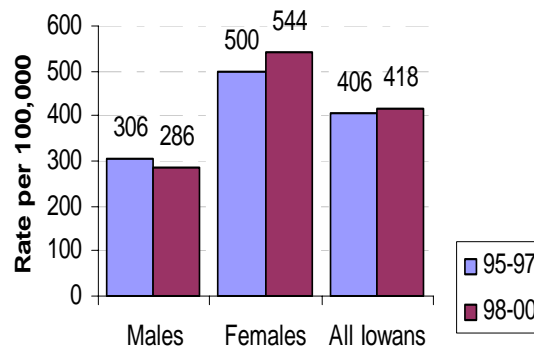
room visits; and

- 1.3 million days of restricted activity, including lost days of work and school (extrapolations based on national rates).

According to one national study of children, one-third of the cost of asthma could be prevented with better control of environmental allergens and irritants, as well as better management of the disease by patients and their health care providers. Such changes would yield not only cost savings but a higher quality of life for those with asthma and their families.

As indicated in the table below, hospitalization rates for asthma (asthma listed as either a primary or secondary discharge diagnosis) overall increased slightly between 1995 and 1997 and from 1998 to 2000, while decreasing slightly for men and increasing slightly for women (Iowa Department of Public Health, 2003). Females had higher rates of hospitalization for asthma than males for both periods.

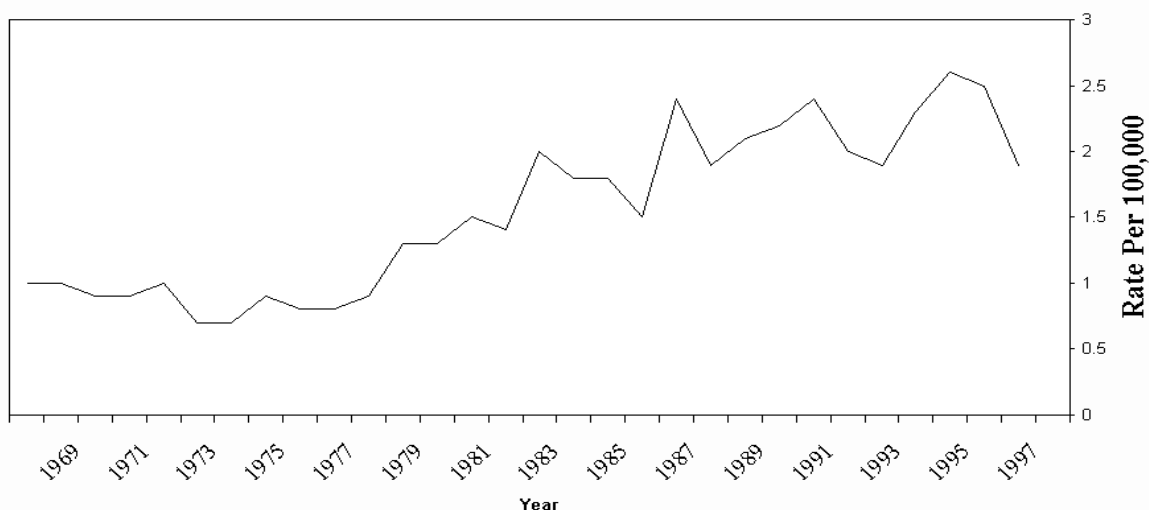
Hospitalizations in Iowa with Asthma as Primary or Secondary Discharge Diagnosis, 1995-2000



Death certificates may list asthma as the underlying (primary) or a contributing (secondary) cause of death. In the United States and globally, a well-recognized increase in deaths for which asthma was the primary cause occurred during the two decades 1975 to 1995. Since the mid-1990s, deaths from asthma have declined slightly in the U.S. and Iowa.

Rates of death for Iowans in which asthma was listed as a primary cause of death were 0.9 per 100,000 in 1970, 1.3 in 1980, 2.2 in 1990, and 1.4 in 1999 to 2000. The number of deaths

Death Rates Asthma as Underlying Cause



among Iowans in which asthma is the primary cause is small. An annual average of only 138 Iowans died from or with asthma in 1999-2000. Of those, 133 were Caucasians and five were African-Americans.

The Wellmark Report, a private-sector initiative published disease-specific prevalence rates based on its insurance claims to use for health planning by public health. The 1997 report showed wide variations in pediatric asthma across Iowa by treatment catchment areas, ranging from 7.4 to 79.7 cases per 1,000 population. The report cited a national rate of 42.5, using data from the MEDSTAT Group, a national research firm in Ann Arbor, Michigan.

Based on national and state data, minority and low-income populations appear to be especially vulnerable. In Iowa, despite the fact that asthma is only slightly more prevalent in non-whites than in whites, African-Americans appear much more likely than Caucasian non-Hispanics to die from asthma. Nationally, the rate of asthma fatalities among African-American children is four times that of their white counterparts. The rate is six times higher among young adults. In Iowa in 1999 to 2000, the death rate from or with asthma was 55% higher in African-Americans than in Caucasians (5.1 vs. 1.4 per 100,000 population).

To adequately address asthma, messages and programs targeting high-risk populations must be planned, tested and implemented. Also, low-income and rural families may have less access to health care and public health than urban and higher-income populations. Therefore, efforts must be made to reach these populations.

Nationally, an estimated 6% to 9% of people with asthma are hospitalized each year (900,000 to 1,350,000); 23% (3.5 million) go to the emergency department at least once; and 20% (3 million) make at least one unscheduled asthma-related clinic visit each year. Of those with asthma, 32% report having lost a work or school day due to asthma, including 49% of children with asthma (4.8 million).

In 2002, the Asthma and Allergy Foundation of America (AAFA) published *Cost of Asthma*, which estimates that direct and indirect costs of the disease in the U.S. each year are \$759 per person with asthma. Direct costs are associated with health care services, while indirect costs are associated with premature death and lost days of work or school.

Based on \$759 per person with asthma and Behavioral Risk Factor Surveillance System prevalence rates, the annual costs of asthma in Iowa are provided in the following table.

Age Group	Annual Costs of Asthma in Iowa		
	Direct	Indirect	Total
Adults	\$65,759,000	\$49,608,000	\$115,367,000
Children (<18)	19,468,000	14,687,000	34,155,000
All Iowans	\$85,227,000	\$64,295,000	\$149,522,000

Goal Statements & Action Steps

18–1 Goal Statement

Reduce Iowan’s asthma-related hospitalizations by 10%, emergency department visits by 10%, and urgent care visits by 20%. Baseline: Hospitalizations in which asthma is listed as a primary or secondary discharge diagnosis from 418 per 100,000 (1999 to 2000 annual average rate) to 375; hospitalizations of Iowans under aged 18 in which asthma is listed as the primary discharge diagnosis from 115 per 100,000 (in 1999) to 104; the proportion of adult who have made asthma-related emergency department and urgent care visits in the previous year from 14% (2001 to 2002 average annual rate); and the proportion of children aged 17 and younger who have made asthma-related visits to an emergency department or urgent care center in the previous year from 32% (in 2003) to 28% (State Inpatient Database, Asthma in Iowa Surveillance Report, 1995 – 2000, 2003; National Healthcare Cost Utilization Project, Agency for Healthcare Quality Research, Healthy People 2010, 2004; Iowa Behavioral Risk Factor Surveillance System database).

Rationale

Most of the problems caused by asthma could be averted if people with asthma and their health care providers managed the disease according to established guidelines. Effective management comprises four major components:

1. control exposure to factors that trigger asthma episodes;
2. adequately manage asthma with medicine;
3. monitor the disease by objective measures of lung function; and
4. educate asthma patients to become partners in their own care.

18–1.1 Action Step

By 2010, raise community awareness through education on controlling exposure to environmental factors (e.g., open-air burning, tobacco smoke, etc.) that trigger asthma episodes. (An Iowa Department of Public Health, American Lung Association of Illinois-Iowa, Iowa Department of Natural Resources, and Iowa Asthma Coalition action step.)

18–1.2 Action Step

By 2010, effectively manage the disease through use of asthma action plans and asthma medicines, and educate patients, health care providers, and primary caregivers on the importance of such plans in effectively managing the disease. (An Iowa Department of Public Health, American Lung Association of Illinois-Iowa, Visiting Nurse Services, and Iowa Asthma Coalition action plan.)

18–1.3 Action Step

By 2010, educate asthma patients through community awareness campaigns and education to become partners in their own care. (An Iowa Department of Public Health, American Lung Association of Illinois-Iowa, Visiting Nurse Services, and Iowa Asthma Coalition action step.)

18–2 Goal Statement

Maintain an operational state asthma coalition. Baseline: See Rationale.

Rationale

Coalitions at the state and local levels can be effective in controlling asthma. Through a coalition, an alliance of organizations can work together to achieve a common purpose. Also, because resources of one agency alone are insufficient to reduce the burden of asthma in Iowa, resources from partner organizations can be combined to strengthen intervention and reduce duplication. Coalitions can establish new activities or enhance and expand current ones. Coalitions also can more effectively provide assessment, implementation and evaluation of asthma programming.

18–2.1 Action Step

Through 2010, maintain the Iowa Asthma Coalition with active membership comprised of citizens, leaders, organizations, and institutions to work to reduce the burden of asthma in Iowa. Continue to help identify and contact agencies, organizations, health disciplines, and others that should be represented on such a coalition. The coalition will meet at least four times per year. (An Iowa Department of Public Health, American Lung Association of Illinois-Iowa, and Iowa Asthma Coalition action step.)

18–2.2 Action Step

Through 2010, subcommittees will address public awareness (provider and patient education), environmental awareness, and surveillance. The subcommittees will meet at least twice per year. (An Iowa Asthma Coalition action step.)

18–3 Goal Statement

Maintain a surveillance system to define and monitor the burden of asthma in Iowa. Baseline: See Rationale.

Rationale

The Centers for Disease Control and Prevention (CDC) noted that despite its importance, few comprehensive surveillance systems have been established that measure asthma trends at the state or local levels. Population-based studies are needed to more accurately understand the extent of this problem in Iowa. Valid data sources must be identified and tested, and referent databases are needed to track incidence and prevalence on an ongoing basis. The database will support analytical studies that assess the association of asthma events with environmental contaminants and other exposures.

18–3.1 Action Step

By 2005, identify baseline prevalence by analyzing the results of the 1999 to 2003 Behavioral Risk Factor Surveillance System asthma module. (An Iowa Department of Public Health and Iowa Asthma Coalition Surveillance Committee action step.)

18–3.2 Action Step

Through 2010, use Behavioral Risk Factor Surveillance System results to measure trends in asthma prevalence. (An Iowa Department of Public Health and Iowa Asthma Coalition Surveillance Committee action step.)

18–3.3 Action Step

Through 2010, analyze data from Iowa's Medicaid database. (An Iowa Department of Public Health and Iowa Asthma Coalition Surveillance Committee action step.)

18–3.4 Action Step

Through 2010, analyze hospital discharge and vital record death data to update the Iowa Asthma Surveillance Report. (An Iowa Department of Public Health and Iowa Asthma Coalition Surveillance Committee action step.)

18–3.5 Action Step

By 2010, provide an analysis of environmental exposure and asthma prevalence. (An Iowa Department of Public Health, University of Iowa, Iowa Department of Natural Resources, and Iowa Asthma Coalition action step.)

18–3.6 Action Step

Through 2010, continually monitor particulate matter and other toxic exposures, considering seasonal shifts and other environmental factors. (An Iowa Department of Natural Resources and local health departments with monitoring capabilities action step.)

18–3.7 Action Step

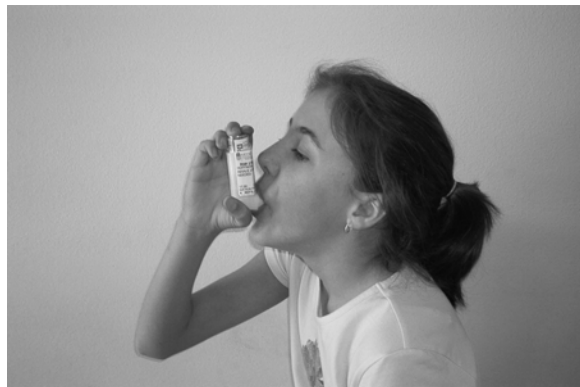
During 2005, determine the association of particulate matter and toxic exposures with asthma mortality, morbidity, emergency room visits, and hospitalizations in Iowa. (An Iowa Department of Public Health, University of Iowa, Iowa Department of Natural Resources, and Iowa Asthma Coalition action step.)

18–3.8 Action Step

By 2005, include asthma-related questions in the state Youth Risk Behavior and Youth Tobacco Surveys. (An Iowa Department of Public Health action step.)

18–3.9 Action Step

Through 2010, continually provide data and technical support to communities as they monitor and evaluate the impact of interventions to reduce asthma. (An Iowa Department of Public Health and Iowa Asthma Coalition action step.)

**18–4 Goal Statement**

Increase the proportion of persons with asthma who receive formal patient education, including information about community and self-help resources, as an essential part of the management of their condition. Baseline: See Rationale.

Rationale

The goal of all patient education is to help patients take the actions needed to control their asthma. These actions include taking daily medications for long-term control as prescribed, using delivery devices effectively, identifying and controlling factors that make asthma worse, monitoring peak flow and/or symptoms, and following a written action plan when symptoms or episodes occur. Therefore, it is important that persons with asthma have access to quality outpatient education programs. When providing asthma education, health professionals need to focus on 1) giving information in simple language and 2) teaching and demonstrating skills. Although asthma cannot be cured, children and adults can be taught the skills needed to control it and thereby reduce the frequency and severity of attacks.

18–4.1 Action Step

By 2010, establish at least one school-based asthma program in six school districts. Conduct ongoing education for school administrators and staff on the importance of school-based programs in controlling asthma. Collaborate with the Iowa Department of Education to identify and provide education to school districts. (An American Lung Association of Illinois-Iowa, Iowa Department of Public Health, Visiting Nurse Services, Iowa Asthma Coalition, and Iowa Department of Education action step.)

18–4.2 Action Step

By 2010, establish a child care-based asthma training program in at least two regions of the state. Collaborate with Visiting Nurse Services, Child Care Resource and Referral, and the Iowa Department of Human Services to identify and educate child care providers. (A Visiting Nurse Services, Iowa Department of Public Health, Iowa Department of Human Services, and American Lung Association of Illinois-Iowa action step.)

18–4.3 Action Step

By 2010, establish an adult-based asthma program in at least one region of the state. (An Iowa Department of Public Health, Visiting Nurse Services, Iowa Asthma Coalition, and American Lung Association of Illinois-Iowa action step.)

18–4.4 Action Step

By 2010, establish an occupational-based asthma program in at least five workplaces considered at-risk for exposure to environmental triggers. (An Iowa Department of Public Health action step.)

18–4.5 Action Step

Through 2010, include information on indoor asthma triggers and trigger reduction methods in educational materials for consumers, caregivers and providers. (An Iowa Department of Public Health, Visiting Nurse Services, Iowa Asthma Coalition, and American Lung Association of Illinois-Iowa action step.)

18–4.6 Action Step

By 2010, reduce activity limitations among persons with asthma through education. (An Iowa Department of Public Health, American Lung Association of Illinois-Iowa, and Iowa Asthma Coalition action step.)

18–4.7 Action Step

By 2010, include information on the use of asthma action plans in supporting management of the disease in educational materials. Increase use of such plans by 25% in at least one region of the state. (An Iowa Department of Public Health, American Lung Association of Illinois-Iowa, Visiting Nurse Services, and Iowa Asthma Coalition action step.)

18–5 Goal Statement

Raise community awareness of environmental exposures known to trigger asthma and increase community involvement in primary prevention by 1) increasing the number of communities that ban open-air burning (a known trigger of asthma) to at least 75, 2) reducing second-hand smoke through support of the tobacco chapter's goals and other educational activities; and, 3) increasing by 3% the number of workplaces that implement smoke-free policies. Baseline: See Rationale.

Rationale

While the exact cause of asthma is not completely understood, nationally commissioned asthma panels note that episodes are often precipitated by triggers such as leaf and garbage smoke, tobacco smoke, unvented gas heaters, gas cooking stoves (oven doors left open to heat a room), dust and/or dust mites, mold and/or mildew, pollen, animal dander, and cockroach droppings. Higher prevalence has also been found among low-income populations that lack understanding of exposures or the means to remedy them.

18–5.1 Action Step

By 2010, increase community awareness of environmental conditions that may trigger asthma episodes by:

1. Developing and distributing information in English, Spanish and large print about indoor air triggers and reduction of triggers;
2. Educating communities on indoor air triggers, including moisture and mold problems, tobacco smoke, dust mites, indoor wood burning stoves, cockroach droppings, and other known triggers;
3. Educating communities on outdoor triggers, including open burning, outdoor air pollutants, weather changes, and other known triggers;
4. Presenting asthma management information to organizations, schools, child care facilities, workplaces, and other community agencies; and
5. Targeting high-risk populations (e.g., people with disabilities, elderly, women, minorities) with asthma prevention information in languages other than English and in large print.

(An Iowa Department of Public Health, American Lung Association of Illinois-Iowa, and Iowa Asthma Coalition action step.)

18–5.2 Action Step

By 2010, increase the number of communities that ban open-air burning, a known trigger of asthma, to at least 75 by 1) increasing community awareness that open-air burning triggers asthma attacks; 2) increasing community involvement in banning open-air burning; 3) surveying communities to determine the number that ban year-round, open-air burning; and 4) developing and distributing a model ordinance for communities to use. (An Iowa Department of Public Health, American Lung Association of Illinois-Iowa, Iowa Department of Natural Resources, and Iowa Asthma Coalition action step.)

18–5.3 Action Step

Through 2010, reduce second-hand smoke contaminants through support of the tobacco chapter's goals and other educational activities. (An Iowa Department of Public Health, American Lung Association of Illinois-Iowa, and Iowa Asthma Coalition action step.)

18–6 Goal Statement

Educate health care workers and other helping professions to work toward enhancing the overall health and well-being of people who have asthma by 1) promoting use of National Institutes of Health guidelines for the diagnosis and management of the disease, 2) including information on indoor triggers and reduction methods in educational materials for health care professionals, and 3) targeting homes, schools, child care providers, and workplaces. Baseline: See Rationale.

Rationale

The goal of health care workers and other helping professions is to help patients learn how to manage their asthma. Health care professions should work toward enhancing the overall health and well-being of people with asthma. It is important that they have access to quality care. Although asthma cannot be cured, health care professionals can assist children and adults by providing the skills needed to control their disease, thereby enhancing their overall health and well-being.

18–6.1 Action Step

By 2010, promote use of National Institutes of Health guidelines for the diagnosis and management of asthma, increasing by 10% the number of health care professionals in at least one region of the state who use the guidelines. (An Iowa Department of Public Health and Iowa Asthma Coalition action step.)

18–6.2 Action Step

By 2010, include information on indoor triggers and reduction methods in educational materials for health care professionals. Include homes, schools, child care providers, and workplaces. (An Iowa Department of Public Health and Iowa Asthma Coalition step.)

18–7 Goal Statement

Support public policy at all levels to reduce the incidence and severity of asthma and increase the actions by local, city and state groups that support a reduction in asthma incidence (e.g., school inhaler legislation, open-air burning ordinances and bans, smoke-free workplace policies, reimbursement for asthma education and services, etc.).

Baseline: See Rationale.

Rationale

Unfortunately, some bias and discrimination continues in the diagnosis of asthma. For instance, insurance companies continue to look at asthma as a pre-existing condition. Also, many community policies, such as banning open-air burning, are initiated by local and regional public policy makers. Although asthma cannot be cured, public policy makers can assist Iowans with asthma in the management of their disease through the public policy being initiated.

18–7.1 Action Step

By 2010, increase actions by local, regional or state public policy makers (e.g., city councils, school boards, boards of supervisors) to address indoor air problems in schools, workplaces and public places. (An Iowa Department of Public Health, American Lung Association of Illinois-Iowa, and an Iowa Asthma Coalition step.)

18–7.2 Action Step

By 2010, increase actions by local, regional or state public policy makers (e.g., city councils, boards of supervisors) to address open-air burning, a known asthma trigger. (An Iowa Department of Natural Resources, Iowa Department of Public Health, American Lung Association of Illinois-Iowa, and Iowa Asthma Coalition action step.)

18–7.3 Action Step

By 2010, increase by 50 the number of businesses in one region of the state that adopt smoke-free ordinances. (An Iowa Department of Public Health, American Lung Association of Illinois-Iowa, and Iowa Asthma Coalition action step.)

18–7.4 Action Step

By 2010, assist in the implementation of protocols for treatment and insurance coverage of persons with asthma. Eliminate bias and discrimination associated with the diagnosis of asthma. (An Iowa Department of Public Health, Iowa Asthma Coalition, and American Lung Association of Illinois-Iowa action step.)

18–7.5 Action Step

Through 2010, maintain the Iowa asthma plan, “Asthma in Iowa, the Iowa Plan for Improving the Health of Iowans with Asthma,” as a guide for the Iowa asthma control program and all Iowans working to reduce the burden of asthma across the state. Periodically update Iowa’s priorities and strategies for asthma control. (An Iowa Department of Public Health and Iowa Asthma Coalition action step.)

Goal Cross References**Chapter 1: Access to Quality Health Services**

- 1–1Reduce to 0 the proportion of children and adults under age 65 without health care coverage.
- 1–2Drive quality improvement of health care through Iowa’s Critical Access Hospitals by developing a plan and engaging in activities that promote and encourage providers to follow standardized quality performance measures.
- 1–3Increase by 25% access to primary care for the underserved population.
- 1–4Ensure a competent and diverse health workforce by assessing and forecasting workforce supply and demand and by promoting local strategies to recruit and retain workers through the inclusion of 99 counties in a nurse tracking project.
- 1–11Increase to 100% all children in Iowa with special health care needs who have a “medical home.”
- 1–12Develop a strategic plan to assess and employ telehealth and telemedicine that can increase access to quality health services in Iowa.

Chapter 4: Disabilities

- 4–3Assure that each HI2010 chapter assesses the health issues and potential treatment for people with disabilities and incorporates appropriate goals and action steps.

Chapter 6: Environmental Health

- 6–9Decrease the number of emergency visits for respiratory distress on days in which outdoor air quality is considered impaired using the EPA’s air quality index.
- 6–10Establish a core state committee named the Safe and Healthy Homes Committee with a special focus on children, minorities and people at-risk.

Chapter 11: Maternal, Infant and Child Health

- 11–4Reduce child mortality for ages 1-14 to 17/100000.

Chapter 21: Tobacco Use

- 21–1 Increase the tax on cigarettes by \$1.00 per pack.
- 21–2 Pass local control legislation that will allow communities the option to regulate smoking in public places to protect citizens from the dangers of secondhand smoke.
- 21–3 Enact legislation that requires the Iowa Division of Tobacco Use Prevention and Control to be consistent with the Best Practices for Comprehensive Tobacco Control Programs as outlined by the Centers for Disease Control and Prevention.
- 21–5 Implement comprehensive tobacco policies in 100% of Iowa school districts.
- 21–6 Increase to 69% the number of adults who report not allowing smoking anywhere in the home and to 65% the number who report not allowing smoking inside vehicles.
- 21–7 Decrease to 18% adults aged 18 and older who smoke cigarettes, decrease to 28% adults aged 18-24 who smoke cigarettes, decrease to 25% adults in households with incomes less than \$25,000 who smoke cigarettes, and increase to 75% adult tobacco-use cessation attempts.

- 21-8Decrease to 12% the number of women who smoked during pregnancy.
- 21-9Establish comprehensive coverage by Medicaid for FDA-approved pharmacotherapies and behavioral therapies.
- 21-10 ..Decrease current use of any tobacco product in grades 6-12 and increase number of high school students who want to quit.

- 21-11 .. Increase to 94% retail compliance with existing tobacco statutes to reduce youth access to tobacco products through retail sources and with Iowa's youth access laws.

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Chapter 19

Sexually Transmitted Diseases and Human Immunodeficiency Virus Infection

Introduction

This chapter was updated in 2004 to include new information about trends for sexually transmitted disease (STD) and human immunodeficiency virus (HIV) and to reflect progress on earlier goals. Specifically included was information on increasing rates of unsafe behaviors among men who have sex with men, a discussion of Hepatitis C as a sexually transmitted disease, and more detailed information on Iowa-specific trends.

Several goals were adjusted in Section 1, Sexually Transmitted Diseases. Goals on partner counseling and referral services were combined to reduce redundancy. Other goals were adjusted or removed if they involved direct surveying of health care providers. The chapter team decided to either collect the information in other ways (e.g., managed care databases) or remove the goal entirely if no other means to the information were available. Surveys of busy health care professionals are difficult and rarely yield response rates high enough to support proper analysis and interpretation.

In Section 2, Human Immunodeficiency Virus Infection, goals were adjusted to focus on diagnoses of HIV rather than AIDS. Because reporting of HIV diagnoses began in 1998, these data were not available when the chapter was last edited. Also, new goals were added or adjusted to reflect performance goals for the HIV/AIDS program at the Iowa Department of Public Health. These goals measure targets for HIV prevention, surveillance and care programs.

Section 1: Sexually Transmitted Diseases

Sexually transmitted diseases (STDs) refer to more than 25 infectious organisms primarily transmitted through sexual activity. STD prevention is an essential primary care strategy that is integral to improving reproductive health. Despite the burden, costs and preventable nature of STDs and their complications, they remain an under-recognized health problem by the American public, policymakers, and public health and health care professionals.

The proposed objectives for 2010 reflect extensive problem analysis and recommendations published in 1997 by the National Academy of Sciences' Institute of Medicine in a report entitled *The Hidden Epidemic: Confronting Sexually Transmitted Diseases*.

"STDs are hidden epidemics of tremendous health and economic consequence in the United States. They are hidden from public view because many Americans are reluctant to deal with sexual health issues in an open way and because of the biological and social factors associated with these diseases. STDs represent a growing threat to the nation's health and national action is urgently needed...."

The principal conclusion is that the United States needs to establish a much more effective national system for STD prevention.

Before proceeding, some sexually transmitted disease terms are defined.

Bacterial and protozoal sexually transmitted diseases (STDs) refer to curable sexually transmitted infections caused by such microorganisms as *Chlamydia trachomatis* (Chlamydia), *Neisseria gonorrhoeae* (gonorrhea), *Treponema pallidum* (syphilis), *Haemophilus ducreyi* (chan-

croid), *Trichomonas vaginalis* (trichomoniasis), and other organisms. Chlamydia and gonorrhea cause an inflammatory reaction in the host.

In women, these organisms can ascend into the upper reproductive tract where inflammatory reactions (pelvic inflammatory disease) can cause irreparable damage to the reproductive organs. In its early stages, syphilis causes genital ulcers and other infectious lesions (tissue wounds). Left untreated, it enters a stage that damages internal organs over a prolonged period. Acute bacterial STDs in a pregnant woman can cause potentially fatal congenital infections or perinatal complications such as eye and lung infections in the newborn. There are effective, single-dose antimicrobials that can cure Chlamydia, gonorrhea and syphilis.

The clinical presentation of syphilis varies during several distinct stages of the disease. Primary syphilis is characterized by a painless open sore or lesion at the site of infection three to six weeks after exposure. The sore may not be visible, but it may be found in the rectum or on the cervix.

Secondary syphilis occurs in approximately one-third of untreated cases two to eight weeks after the appearance of the lesion. It represents the most contagious stage of the disease. The most common symptom is a skin rash, most frequently on the palms and soles, but also in the mouth or vagina, or on the penis. Other symptoms may include fever, malaise, loss of appetite, and swollen lymph glands.

Secondary manifestations resolve spontaneously and the disease may enter a latent period that lasts for weeks to years. Latent syphilis that was acquired within the preceding year is referred to as early latent syphilis; all other latent cases are referred to as late latent syphilis. Tertiary syphilis may occur 3 to 20 years after infection, with lesions in various tissues, such as the bones, skin, heart, nervous system, and arteries.

Partner counseling and referral services (PCRS), previously called contact tracing or provider referral, are services whereby health department personnel directly and confidentially notify the sexual partners of infected individuals of their exposure to a sexually transmitted dis-

ease for the purposes of testing, education, counseling, and referral to health care services.

STD complications refer to serious health problems following an acute bacterial or viral STD. Among the most serious are:

- Pelvic inflammatory disease (PID), which can cause permanent damage to the female reproductive tract and lead to ectopic (located away from the normal position) pregnancy, infertility or chronic pelvic pain;
- Pregnancy complications, including ectopic pregnancy, direct infection of the fetus or newborn, and pre-term birth (prior to 37 weeks gestation);
- Cancers, such as cervical cancer (due to some strains of human papilloma virus) and liver cancer that can result from chronic infection with hepatitis B or hepatitis C viruses; and
- HIV infection transmission, which if acquired sexually, is facilitated by the presence of an inflammatory or ulcerative STD in one or both sex partners.

Viral STDs refer to sexually transmitted viral infections: human immunodeficiency virus (HIV) infection, herpes simplex virus type 2 (genital herpes), human papilloma virus (HPV), hepatitis B (HBV), and hepatitis C (HCV). Initial infections with these organisms may be asymptomatic (i.e., no symptoms) or cause only mild symptoms. There are treatments but no cures for these infections, although a small percentage of people will spontaneously “clear” HBV and HCV. HIV infection is the virus that causes AIDS.

Herpes can cause periodic outbreaks of painful genital lesions. Some strains of HPV cause genital warts, while others are important risk factors for cervical dysplasia (abnormal cells) and invasive cervical cancer. Although Hepatitis B virus is generally blood-borne, it can be transmitted through sexual activity. Most people who acquire it recover and have no complications, but sometimes it becomes a chronic health problem and can potentially lead to cirrhosis or liver cancer.

Hepatitis C is the most common chronic blood-borne infection in the United States, with an estimated 2.7 million persons chronically in-

ected. Most infected persons are not aware of their infection because they are not clinically ill. However, infected persons are a source of transmission to others and are at risk for chronic liver disease or other HCV-related chronic diseases for at least two decades after infection.

The role of sexual activity in the transmission of Hepatitis C virus is not fully determined. Several studies reported that infection with HCV is associated with exposure to an infected sex partner, increasing numbers of partners, failure to use a condom, history of STD, heterosexual sex with a male injecting drug user (IDU), sexual activities involving trauma, and male-to-male sex. However, studies of long-term serodiscordant couples (i.e., only one partner is positive for HCV) show very low rates of sexual transmission between partners (0% to 4%) when no other risk factor is present.

The generally recognized symptomatic STDs that may cause only mild initial illnesses are only part of a very large public health problem. These organisms also cause many other harmful, often irreversible and costly, clinical complications such as reproductive health problems, fetal and perinatal health problems, and cancer. Also, studies of the Human Immunodeficiency Virus (HIV) pandemic from around the world link other STDs to a causal chain of events in the sexual transmission of HIV infection.

STDs are behaviorally linked diseases that result from unprotected sex with infected partners. Transmission of STDs is sustained by the complex interaction between biological and social factors. Biological factors include the lack of symptoms of the majority of STDs, the long period between infection and STD complications, and anatomical factors that make adolescent females and men who engage in unprotected receptive anal intercourse with other men particularly vulnerable.

Most STDs either do not produce symptoms or only mild symptoms. People who have asymptomatic or mild infection often are unaware of it. They need, but often do not seek, medical care. As many as 75% of women and up to 50% of men with Chlamydia have no symptoms. Most people are not aware of how frequently STDs are asymptomatic. Many falsely believe

that they can tell if a potential sex partner is infected. Likewise, many infected persons fail to recognize their infections and fail to take precautions that would prevent disease transmission to their sex partners.

There is often a long interval (sometimes years) between acquiring a sexually transmitted infection and the recognition of a clinically significant health problem. Examples are cervical cancer caused by the human papillomavirus, liver cancer caused by hepatitis B virus infection, and infertility and ectopic pregnancy resulting from unrecognized or undiagnosed Chlamydia or gonorrhea. The original infection is often asymptomatic and, as a result, there is frequently no perceived connection between the original sexually acquired infection and the resulting health problem.

Gender and age are associated with an increased risk for STDs. Women are at higher risk of acquiring most STDs, as are men who have unprotected anal intercourse with other men. For some STDs, young women are more susceptible than older women. Cervical ectopy (vulnerability), in which the cervix is covered with cells that are especially susceptible to STDs (e.g., Chlamydia), is common in adolescent females. The cervixes of older women have fewer of these cells. Also, traumatic sexual practices predispose one to STDs. This has been well documented for receptive partners during rectal intercourse in men and women. In the case of many young women who report their first intercourse as involuntary, sexual trauma to the external and internal genitalia may also predispose one to an STD.

Social and cultural factors may also directly affect the spread of STDs, especially in populations in which high-risk sexual behavior is common, access to health care is limited, and/or healthy behavior is compromised. Disproportionately affected populations may include certain minority groups; people who exchange sex for money, drugs or favors; adolescents; persons in jails; and migrant workers. Substance abuse, racism, distrust of medical care, sexual norms, stigma, access to drug treatment or clean needles, and cultural views of sexuality, gender roles, homosexuality, and bisexuality are major

social and cultural factors that may promote the spread of STDs.

Increasing rates of primary and secondary syphilis have been reported among men who have sex with men in New York City, Seattle, San Francisco, Los Angeles, Chicago, Miami, and a number of other cities nationally and internationally since 1997. Investigations of these outbreaks indicate that an increasing number of men who have sex with men are participating in high-risk sexual behaviors that place them at risk for HIV and other STDs. Rates of HIV co-infection among these men ranged from 20% to 73%. Factors cited in the increase in unsafe behaviors include the availability of highly effective treatments for HIV infection that have decreased the perceived threat of HIV to men who have sex with men.

Access to high quality health care is essential for early STD detection and treatment, as well as for receiving counseling about behavior changes to reduce contracting or transferring STDs. Frequently, groups with the highest rates have limited access to health services. High quality STD services need to be provided in health care programs that serve poor people and those with marginal health care.

Many studies document the association of STDs with substance abuse, especially alcohol and drug use. The appearance of new illicit substances in communities can often dramatically alter sexual behavior in high-risk sexual networks, leading to the epidemic spread of STDs. Other substances, including alcohol, may affect people's judgment before and during sex, lowering the likelihood they will protect themselves against STDs and pregnancy.

Biological studies demonstrate that when other STDs are present, a person's susceptibility to HIV infection is increased. Also, the risk that a person would contract both HIV and another STD and infect other people with HIV is increased. Conversely, effective STD treatment can slow the spread of HIV. The early detection and treatment of other STDs can substantially reduce HIV transmission.

Trends

STDs are among the most frequently reported infectious diseases and are a significant health problem in Iowa.

The quality of STD data is limited. It is dependent upon which provider or facility is reporting. Race is not reported for a large number of cases. Also, the reported incidence of STDs may reflect the demographics of people seeking care at a particular facility or may reflect the practices of certain providers. Only cases with laboratory confirmation of disease may be reported, which may not necessarily reflect the characteristics of all infected people.

More women than men are more reported to have STDs. Because of the nature of specimen collection, women are often tested for STDs as a routine part of a pelvic exam, while men are generally tested only if they have symptoms or are a partner of someone who tested positive. This often results in a higher number of cases diagnosed and reported among females, particularly for those diseases in which men are likely to be asymptomatic (e.g., Chlamydia).

Federally funded screening has occurred in Iowa since 1994 as part of the Region VII Infertility Prevention Project (IIPP). Its main purpose is to implement prevention, including screening, that will reduce the complications caused by *Chlamydia trachomatis*. The project targeting women from the beginning because the complications associated with women are more costly, women access services more readily, and by screening women, partners can be treated.

Approximately 88% of those tested in Iowa are female. Screening for Chlamydia is offered to all sexually active women under aged 25. Women over aged 25 can receive the test if they have certain risk factors, such as new or multiple partners in the last 90 days, contact with an infected partner, or symptoms of disease.

Currently, 70 clinics are enrolled in the project. Most are family planning clinics, but STD clinics, student health centers, correctional facilities, community health centers, and non-Title X women's health centers are also enrolled. Late in 2002, two alternative high school clinics, the Indian Health Service, and the Scott and Muscatine County jails, were added. Family

planning clinics perform 76% of the testing for the Infertility Prevention Project.. The project reported 3,372 persons with Chlamydia in 2003, or 52% of all reported cases of Chlamydia in Iowa.

Chlamydia: Chlamydia is the most reported STD in the U.S. and in Iowa. In 2003, 6,462 cases (219.0 cases per 100,000 population) were reported to the STD prevention program. Since 1996, reported cases increased by over 55%. The increase extends to both males and females, but the largest increase was among females. Females account for the majority of Chlamydia cases, with the ratio of males to females has been consistent since 1996 at one male for every three females reported.

Chlamydia cases are disproportionately distributed among minority groups. When standardized for population size, black, non-Hispanic males have an incidence rate of reported cases that is more than 33 times that of white, non-Hispanic males. Black, non-Hispanic females have a rate that is 12 times that of white, non-Hispanic females. The rate among Hispanics is more than four times that of white, non-Hispanic persons.

Gonorrhea: In 2003, 1,544 cases of gonorrhea (52.4 cases per 100,000 population) were reported. Numbers have increased for four consecutive years, although levels are still below those before 1996. Nearly all of the increase in cases since 1999 are among females.

Black, non-Hispanic males and white, non-Hispanic females account for the largest proportions of gonorrhea cases. Black males have consistently outnumbered black females. This is the reverse of what is generally expected and of what is seen with Chlamydia. Overall, Black, non-Hispanic persons account for the largest proportion of gonorrhea cases (40%) despite comprising only 2% of the population.

Syphilis: Syphilis, like other sexually transmitted diseases, reflects an overrepresentation in minority populations. Those diagnosed with early syphilis tend to be older than those diagnosed with gonorrhea and Chlamydia.

In 2003, 12 primary and secondary and 5 early latent cases of syphilis (0.6 cases per 100,000 population) were reported to the STD prevention program in Iowa.

Early syphilis morbidity in Iowa is now at its lowest level since the disease became reportable in the late 1940s. Iowa has the opportunity to eliminate endemic syphilis, which is one of the program's most important objectives before 2010.

Goal statements and action steps in this section are aimed at reducing illness and death by preventing cases and complications of STDs such as syphilis, gonorrhea (including resistant strains of gonorrhea), Chlamydia trachomatis, and the severe complications of pelvic inflammatory disease. Since both inflammatory and ulcerative STDs facilitate the transmission of HIV, treating these conditions lowers the risks of HIV and is also a chapter objective.

Goal Statements & Action Steps

19–1 Goal Statement

Reduce the incidence of Chlamydia trachomatis to no more than 140 per 100,000 population. Baseline: 1998, 178.2 per 100,000; 2003, 219.0 per 100,000.

Rationale

This action step can be achieved by the expansion of screening programs to reach people at higher risk. They include people aged 15 to 24, minority populations, those in the juvenile justice system, and other high-risk youth.

19–1.1 Action Step

By 2010, conduct case interview and contact 50% follow-up rate for all reported Chlamydia cases, an increase from 32% in 2003. (An Iowa Department of Public Health action step.)

19–1.2 Action Step

Through 2010, maintain Chlamydia screening at 70 infertility prevention project provider sites and screen up to 60,000 people annually.

(An Iowa Department of Public Health action step.)

19–2 Goal Statement

Reduce the incidence of gonorrhea to no more than 43 cases per 100,000 people.

Baseline: 1998, 58.2 per 100,000; 2003, 52.4 per 100,000.

Rationale

Reduction in gonorrhea can be achieved by improving access to health care by minority populations and education to help people recognize symptoms and seek treatment quickly when symptoms appear.

19–2.1 Action Step

By 2010, ensure that 80% of all reported gonorrhea cases receive an interview and follow-up, an increase from 59% in 2003. (An Iowa Department of Public Health action step.)

19–2.2 Action Step

Through 2010, maintain gonorrhea screening at 70 infertility prevention project provider sites and screen 60,000 people annually. (An Iowa Department of Public Health action step.)

19–3 Goal Statement

Eliminate transmission of primary and secondary syphilis. Baseline: 1998, 0.9 per 100,000; 2003, 0.4 per 100,000.

Rationale

The early stages of syphilis cause recognizable genital ulcers and other infectious lesions. Left untreated, syphilis enters a latent phase that damages the internal organs over a prolonged period. Detecting and treating syphilis in its early stages prevents the patient's illness and transmission to others.

19–3.1 Action Step

Through 2010, continue to conduct interviews and follow-ups on 100% of locatable pri-

mary, secondary and early latent syphilis cases, the same as in 2003. (An Iowa Department of Public Health action step.)

19–4 Goal Statement

Maintain the number of public health jurisdictions with populations of 50,000 or more that have at least one dedicated sexually transmitted disease clinic that provides comprehensive, sexually transmitted disease care. Baseline: See Rationale.

Rationale

Many people will not seek STD/HIV diagnosis from their primary physician. By maintaining the number of public health jurisdictions with populations of 50,000 or more that have at least one dedicated STD clinic, most people statewide will have access to confidential diagnosis and treatment.

19–4.1 Action Step

By 2010, maintain the STD Prevention Program to support local STD testing and treatment at local public health clinics in jurisdictions with populations of 50,000 or more. The clinics must have laboratory supplies, laboratory services, and treatment drugs. When partner notifications are not maintained by local jurisdictions, they should be provided by the Iowa Department of Public Health disease prevention specialists. (An Iowa Department of Public Health action step.)

19–5 Goal Statement

Establish a baseline for the proportion of sexually active women under aged 25 who are screened annually for Chlamydia and gonorrhea in primary health care settings. Baseline: See Rationale.

Rationale

For curable STDs, screening and treatment can be cost-effective, and even cost-saving, by altering the period during which infected per-

sons can infect others. Screening for STDs clearly meets the criteria for effective prevention. For frequently asymptomatic STDs, screening and treatment also benefit those likely to suffer the severe complications (especially women) resulting from undetected infections and late treatment.

For example, Chlamydia screening in a large metropolitan managed-care organization reduced the incidence of subsequent pelvic inflammatory diseases in the Pacific Northwest. The disease was reduced by 60% in five years. When combined with a new generation of sensitive and rapid diagnostic tests, some of which can be performed on a urine specimen, STD screening of specific high-risk populations in nontraditional settings appears to hold promise into the next decade.

Chlamydia rates among men are highest in those aged 20 to 24. While there is insufficient evidence to recommend for or against routine screening in all sexually active men, in situations where asymptomatic Chlamydia infection is high, urine-based screening may be recommended to prevent spread of the infection (U.S. Preventive Services Task Force, 1996).

19–5.1 Action Step

By 2005, contact two managed-care organizations in Iowa to collect baseline data on the proportion of women aged 15 to 25 who are being screened for Chlamydia in accordance with the HEDIS measure for managed care. (An Iowa Department of Public Health action step.)

19–5.2 Action Step

By 2007, distribute infertility prevention project brochures and fact sheets about the importance of screening, partner referral, and treatment for Chlamydia to providers in two managed care organizations. (An Iowa Department of Public Health action step.)

19–6 Goal Statement

Establish a baseline for the proportion of pregnant women screened for STDs during prenatal health care visits. Baseline: See Rationale.

Rationale

Early diagnosis and treatment of STDs can prevent future and present complications for mother and child.

19–6.1 Action Step

By 2006, develop a question on the Women's Health Information System's (WHIS) maternal health survey asking whether the mother was screened for STDs during her pregnancy. (An Iowa Department of Public Health action step.)

19–6.2 Action Step

By 2007, establish a baseline for the number of pregnant women screened for STDs during pregnancy, as measured by the Women's Health Information System's (WHIS) maternal health survey. (An Iowa Department of Public Health action step.)

19–6.3 Action Step

By 2010, publicize and disseminate results of the Women's Health Information System's (WHIS) maternal health survey. (An Iowa Department of Public Health action step.)

19–7 Goal Statement

Establish a baseline for the number of youth detention facilities and adult city and/or county jails in which screening for common bacterial STDs is conducted within 24 hours of admission. Baseline: See Rationale.

Rationale

Youth and adults in detention and correction facilities have some of the highest rates of STDs in Iowa. Screening, treatment and counseling for this population will have the greatest impact on disease if done in a timely fashion so that clients receive counseling and treatment prior to release.

19–7.1 Action Step

By 2010, survey all youth detention facilities and adult city and county jails for routine

screening of common STDs upon entry. (An Iowa Department of Public Health action step.)

Section 2: Human Immunodeficiency Virus

The overall goal for HIV is to prevent its transmission and associated illness and death by ensuring that: 1) all persons at risk for HIV infection know their serostatus; 2) those not infected with HIV remain uninfected; 3) those infected with HIV do not transmit HIV to others; and (4) those infected with HIV are accessing the most effective therapies possible.

Before proceeding further, some definitions are needed.

- **AIDS:** Acquired immune deficiency syndrome is the most severe phase of infection with the HIV. People infected with HIV are said to have AIDS when they get one or more of 26 AIDS indicator diseases (opportunistic infections and certain cancers) or when their CD4+ cell count drops below 200 cells/microliter or 14% of total lymphocytes.
- **Antiretroviral drugs:** Medications used to kill or inhibit the multiplication of retroviruses (viruses that store their genetic information on a single-stranded RNA molecule instead of the more usual double-stranded DNA). General classes of drugs include nucleoside reverse transcriptase inhibitors (NRTI), non-nucleoside reverse transcriptase inhibitors (NNRTI), protease inhibitors (PI), and a new class called entry inhibitors (EI).
- **CARE Act:** The Ryan White Comprehensive AIDS Resources Emergency (CARE) act, the primary federal legislation that addresses the health and support needs of people living with HIV/AIDS, and their families. Enacted in 1990, the CARE act was reauthorized in 1996 and amended in 2000.
- **CD4+ cell count:** A type of T cell (also known as T4 or T helper cells) that protects against viral, fungal and protozoal infections. These cells normally orchestrate the immune response, signaling other cells in the immune

system to perform their functions. Because HIV infection kills these cells, their numbers provide a good way to track the progress of an HIV infection. A higher number usually means better health. The CD4+ cell count is an indicator of which opportunistic infections a patient is at risk for developing. CD4+ cell counts for healthy adults range from 401 to 1,532 cells/microliter.

- **HAART:** Highly Active, AntiRetroviral Therapy is a combination of protease inhibitors and reverse transcriptase inhibitors used in treating AIDS and HIV infection. It is also referred to as combination therapy.
- **High-risk behavior:** A behavior in a high prevalence setting that places an individual at risk for HIV or STDs or in any setting in which either partner is infected.
- **HIV:** Human immunodeficiency virus is the virus that causes AIDS.
- **HIV Disease:** A term used to encompass all stages of HIV infection, including AIDS. The term, “Persons with HIV disease,” includes people with HIV infection who have not developed AIDS, as well as people with AIDS.
- **HIV prevention counseling:** An interactive process between client and counselor aimed at identifying concrete, acceptable and appropriate ways to reduce risky sex and needle-sharing behaviors related to HIV acquisition (for HIV-uninfected clients) or transmission (for HIV-infected clients).
- **HIV primary medical care:** Evaluation and clinical care that is consistent with U.S. Public Health Service guidelines for the treatment of HIV/AIDS. Such care must include access to antiretrovirals and other drugs, prophylaxis and treatment of opportunistic infections, and combination antiretroviral therapies.
- **Opportunistic infections:** Infections that are either bacterial, fungal or viral and take the opportunity offered when a person’s immune system has been weakened by HIV infection.
- **Serostatus:** The result of a test for the antibodies that the immune system creates to fight specific diseases.
- **Seropositive:** Indicates that a person’s blood contains antibodies to HIV. It’s diagnostic for HIV infection in persons older than aged

18 months. Maternal antibodies may persist in newborn infants for up to 18 months; however, they do not indicate HIV infection in the infant.

- **Transmission:** HIV is spread most commonly by sexual contact with an infected partner. The virus can enter the body through the mucosal lining of the vagina, vulva, penis, rectum, or, rarely, the mouth during sex. The likelihood of transmission is increased by factors that may damage these linings, especially other sexually transmitted diseases that cause ulcers or inflammation. HIV also is spread through contact with infected blood, most often by the sharing of drug needles or syringes contaminated with minute quantities of blood containing the virus. Children can contract HIV from infected mothers during pregnancy or birth, or after birth, through breastfeeding. In developed countries, HIV is now rarely transmitted by transfusion of blood or blood products because of screening.

- **Unmet need for health services:** The need for HIV-related health services of people with HIV who are aware of their HIV status but are not receiving HIV primary medical care.

- **Viral load (or viral burden):** Refers to a measurement of HIV particles in the blood. Viral load tests are reported as the number of HIV copies in a milliliter of blood. A high viral load indicates that HIV is reproducing and that the disease will likely progress faster than if the viral load were low. A high viral load ranges from 5,000 copies to one million or more. A low viral load is usually between 50 to 500 copies, depending on the type of test. This result indicates that HIV is not reproducing and that the risk of disease progression is low. Undetectable viral loads mean that the HIV virus in the blood is below the level needed for detection by this test. It does not indicate absence of the virus.

It may also be helpful to focus on the effect HIV/AIDS has on the United States in the context of terms that are common to other *Healthy Iowans 2010* chapters.

- **Cost effective:** Means that dollar cost of an intervention compare favorably to life-saving interventions of other diseases, usually less than \$50,000 per quality-adjusted life year saved.

- **Cost saving:** An intervention that saves more in averted health care expenditures than it costs to implement.

- **Culturally appropriate:** Conforming to a culture's acceptable expressions and standards of behavior and thoughts. Interventions and educational materials are more likely to be culturally appropriate when representatives of the intended audience are involved in planning, developing and testing them.

- **Disability:** An indicator of the extent to which people are forced to cut back on their activities. Although people with asymptomatic HIV can go about their business routinely, the degree of HIV-associated disability can range from slight to severe.

- **Diversity:** Differences in race, ethnicity, gender, sexual orientation, socio-economic status, age, physical abilities, religious beliefs, political beliefs, health or disease status, or other ideologies. The concept of diversity encompasses acceptance, respect, and the understanding that each person is unique.

- **Evidenced-based:** A description of behavioral, social and structural risk-reduction strategies that have been tested and shown to have a methodologically rigorous design and to be effective. Also called science-based, the strategies have been evaluated using behavioral or health outcomes and have been compared to a control/comparison group (or pre-post data without a comparison group if a policy study). They have not been biased in assigning people to intervention or control groups or adjusted for any apparent assignment bias. They have also produced significantly greater positive results when compared to the control/comparison group(s), while producing no negative results.

- **Incidence:** A measure of the number of new cases reported in a given period, usually within a year. Because HIV infection often is without clear early symptoms, most people fail to recognize their infection for some time, often years. For that reason, incidence is often used to indicate new infections rather than new diagnoses or cases reported. It is estimated that approximately 40,000 new HIV infections occur each year in the United States.

- **Intervention:** A specific activity (or set of related activities) intended to change the knowledge, attitudes, beliefs, behaviors, or practices of individuals and populations to reduce their health risk. An intervention has distinct process and outcome objectives and a protocol outlining steps for implementation.
- **Morbidity:** The term often used in place of “illness” or “disease.” In HIV, it is usually measured in illnesses that are part of a group referred to as AIDS-indicator diseases.
- **Mortality:** The number of deaths of persons with AIDS or with HIV disease. There has been a marked decline in the number of deaths among people with AIDS nationally since 1996. The data suggest that new therapies, along with the success of comprehensive prevention begun in the 1980s, not only are delaying progression from diagnosis to death but, with early diagnosis and treatment are also helping delay progression from HIV infection to AIDS for many people.
- **Prevalence:** The number of people who are infected at any point in time and living with HIV disease. Because HIV infection is not reportable by name in all states, the number of persons with HIV in the United States can only be estimated, ranging from 850,000 to 950,000. In Iowa, the number with HIV infection or AIDS is estimated to be between 1,425 and 1,545. Approximately one-fourth of them don’t know they are infected. As the number of new AIDS cases has stabilized and the number of deaths began to decrease, the number of people living with HIV in Iowa rose nearly 50% between 1998 and 2003. Increased prevalence underscores the increasing need for medical and other services for people with AIDS, and the importance of continued prevention to reduce new HIV/AIDS infections.
- **Priority population:** A population identified through an epidemiological profile and community services assessment that requires prevention because of high infection rates and risky behavior.
- **Referral:** A process by which immediate client needs for prevention, care and supportive services are assessed and prioritized. Clients are helped to identify and access services.
- **Survival rates:** The time that elapses between a person’s infection with HIV and death.

The HIV or AIDS survival rate has been of interest to researchers from the earliest days of the AIDS epidemic. Much is thought to contribute to a person’s ability to survive after infection, and the ability among people to stay alive seems to vary considerably. Some appear to get sick quickly and die quickly while others have remained symptom-free for nearly 20 years. Many researchers believe that receiving good medical care and treatment with the new combination therapies may extend a person’s time and quality of life after infection.

The HIV/AIDS epidemic is a relatively recent public health phenomenon in the United States and globally. The disease was first recognized in the United States in 1981 and in Iowa in 1983.

In the early years, a majority of AIDS cases occurred in men, with only 5% occurring in females in 1982. In late 1982, cases of AIDS traceable to blood transfusions were first reported in the United States. Very soon thereafter, interagency recommendations to prevent AIDS were published, with specific guidance for blood donations. As the nation continued to learn more about AIDS and HIV disease, precautions and guidelines continued to be developed. Recommendations were designed to protect health care workers and to test donated blood. In late 1985, recommendations for the prevention of AIDS in the workplace and in perinatal transmission were published.

By the early 1990s, many changes in the epidemic were apparent. AIDS was being reported from every state and most large cities. Nationally, the proportion of AIDS cases in white homosexual men declined, while the proportion in minority men and women began to increase. It also appeared to be increasing among injecting drug users and their partners.

In the late 1990’s, an international increase in syphilis among men who have sex with men indicated that increasing numbers of homosexual and bisexual men were engaging in high-risk behaviors that place them at risk of acquiring or transmitting HIV.

In Iowa, AIDS cases have been reported from 93 of 99 counties. The ten most populous counties (>50,000) account for 70% of the cases,

even though they account for less than 50% of the population.

On July 1, 1998, Iowa began reporting persons with HIV by name, including those without AIDS, and reporting laboratory results indicative of HIV infection or AIDS. Before, only persons with AIDS were required to be reported. HIV reporting by name in Iowa helps: 1) improve the ability to track the epidemic; 2) provide data to design targeted prevention and/or intervention and care programs; and 3) identifies sexual and needle-sharing partners who may have been exposed to HIV and helps them get counseling, testing and treatment.

Since the early 1980s, it has become clear that there are at least four distinct HIV/AIDS epidemics of public health significance:

1. An epidemic among men who have sex with men, facilitated by frequent changes of sex partners in highly infected sexual networks and high-risk sexual practices;
2. An epidemic among injecting drug users and their sexual partners, facilitated by people sharing needles that are contaminated with HIV-infected blood;
3. An epidemic among heterosexual persons, facilitated by: 1) high rates of other STDs that can increase susceptibility to, and transmissibility of, HIV; and 2) high-risk sexual practices, mainly unprotected sex, associated with addictive substances such as crack cocaine; and
4. A perinatal epidemic among infants caused by undetected and untreated HIV infection in pregnant women.

According to the MMWR, Feb. 28, 1997: "In 1996, for the first time, deaths among persons with AIDS decreased substantially in the U.S. This decrease in AIDS deaths reflects both the leveling of AIDS opportunistic infection (OI) incidence and improved clinical survival among persons with AIDS. This decline reflects the combined impact of the comprehensive prevention efforts instituted in the 1980s, which have helped slow the epidemic in recent years, and the success of new therapies in lengthening the healthy life span of people with HIV. At the same time, there has been a substantial increase in AIDS prevalence.

"Prevalence is a function of both the rate of new infections and the duration of illness. The

increase in AIDS prevalence reflects declines in AIDS deaths and stable AIDS incidence. The increased prevalence of AIDS indicates the need for medical and other services for persons with HIV infection and for prevention programs to reduce the number of persons becoming infected with HIV."

HIV disease, like other STDs, affects minority populations disproportionately. It underscores the importance of implementing and sustaining effective prevention for communities of color. HIV prevention must take into account the multiracial and multicultural nature of society and other social and economic factors that impact health, such as underemployment, poverty, mental and physical disabilities, and poor access to the health care system.

As people live longer due to recent advances in HIV diagnostics and therapeutics, the lifetime costs of health care for HIV have grown from \$55,000 to \$155,000 or more per person. HIV prevention can be cost-effective and even result in a cost savings to society. Prevention includes 1) counseling, testing, referral, and partner counseling and referral; 2) health education and/or risk reduction; and 3) information for clients at high risk.

Interventions to combat HIV are biomedical and behavioral. Recent advances in antiretroviral therapy have been credited with dramatic declines in death due to HIV and AIDS. However, declines in AIDS incidence and prevalence, particularly in early centers of the epidemic such as San Francisco and New York, predate antiretroviral therapies and support the view that behavior-based prevention is effective. In San Francisco, for example, AIDS among men who have sex with men began dropping in 1992, suggesting that sustained, comprehensive prevention started in the 1980s succeeded in reducing HIV transmission.

Behavioral interventions vary nationwide, depending on the audience, the designer and funding. The most successful strategies of the Iowa HIV Community Planning Group include individual and group counseling and testing, street and community outreach, and use of opinion leaders. Interventions most often recommended are those that are highly interactive, approach people where they congregate, are rein-

forced over time, and focus on behavior change or changes in group social norms.

Following the 1994 finding that perinatal HIV transmission could be substantially reduced with zidovudine (AZT), the Public Health Service issued guidelines making HIV counseling and voluntary testing part of routine prenatal care for all pregnant women. This policy ensures that HIV-infected women have access to important health care for themselves and the opportunity to reduce the risk of transmission to their infants.

Subsequent declines in diagnoses of AIDS among children offer hope that these strategies are being successful in reducing mother-to-infant transmission. From 2000 to 2004, there were 30 births to HIV-infected women in Iowa. Two of these infants tested positive, five remain indeterminate pending further testing, and 23 were HIV negative. The two HIV-positive infants represent failures in prenatal HIV testing for the mother. Among HIV-positive women who were on antiretroviral therapy, there have been no HIV-positive infants born in Iowa.

Trends

Diagnoses of HIV in Iowa among U.S.-born persons have been steadily decreasing since 1996. In 2003, just over 60 U.S.-born Iowa residents were diagnosed with HIV.

Diagnoses of HIV among non-U.S. born persons have increased 250% since 1999, and accounted for 31% of all diagnoses in 2003. In 1996, that proportion was only 5%. Foreign-born persons with HIV are more likely than U.S.-born persons with HIV to be female, minority (black or Hispanic), and heterosexual or with an unidentified risk.

Most HIV diagnoses in Iowa occur in males and people aged 25 to 44. However, data indicate that most people are not being diagnosed early in the course of infections. Half of people diagnosed with HIV in 2001 were subsequently diagnosed with AIDS within a year. Age at diagnosis, therefore, may not indicate age at infection.

Over half of people diagnosed with HIV in 2003 were white and non-Hispanic. However, African-American, non-Hispanic males; Afri-

can-American, non-Hispanic females; and Hispanic males are much more severely impacted by HIV. African-American, non-Hispanic persons in Iowa have a 10-fold higher prevalence of HIV AIDS than white, non-Hispanic persons. Hispanic people have a 4-fold higher prevalence than white, non-Hispanic people.

Fifty percent of people with HIV or AIDS as of December 31, 2003, reported male-to-male sexual contact (MSM) as their primary risk. Fifteen percent reported heterosexual contact; 12% were injection drug users (IDU), and 7% reported both IDU and MSM. Another 2% were transfusion or transplant recipients; 1% reported hemophilia, and 1% had pediatric exposures. Twelve percent had no risk identified.

Diagnoses of AIDS declined from 1992 through 1998, but rose to approximately 80 diagnoses in 1999 and have been steady since then. The increase after 1998 can be attributed to diagnoses among foreign-born persons, mostly Hispanic males and African females. AIDS deaths reached a low in 1998 and have leveled off near 30 deaths per year.

The most significant feature of Iowa's HIV epidemic is the substantial increase in the number of persons with HIV and AIDS. Steady diagnoses of HIV infection, combined with widespread use of highly active, antiretroviral therapies that have delayed the onset of AIDS and deaths, have increased the numbers with HIV to unprecedented levels.

19–8 Goal Statement

Reduce new cases of AIDS among adolescents and adults to no more than 2 per 100,000 persons. Baseline: 1998, 2.5 cases; 2003, 2.5 cases.

Rationale

Diagnoses of AIDS include those who are receiving their first HIV diagnosis late in the course of their infection, and, therefore, represent late testing and missed prevention opportunities. New AIDS diagnoses also include those with previous HIV diagnoses for whom treatment has not been adequate or has failed. Moni-

toring these numbers can help target prevention and treatment to those most in need. Reducing new cases of AIDS is an indicator that behavioral prevention is working and/or that HIV drugs are being effective in stopping or slowing development of AIDS.

19–8.1 Action Step

By 2010, monitor the incidence of diagnosed AIDS cases. (An Iowa Department of Public Health action step.)

19–8.2 Action Step

By 2010, implement evidence-based prevention that targets at-risk populations, including HIV-positive persons and high-risk seronegative persons, as designated in the Iowa HIV Comprehensive Plan and as developed by the HIV Community Planning Group. (An Iowa Department of Public Health action step.)

19–8.3 Action Step

By 2010, target people not in care and ensure access to HIV primary medical care. (An Iowa Department of Public Health action step.)

19–9 Goal Statement

Reduce by 50% the annual incidence of HIV infection. Baseline: 3.4 cases per 100,000 persons in 2001; 3.1 cases per 100,000 persons in 2003.

Rationale

The number of new diagnoses of HIV is the best measure of the progression of the epidemic in Iowa and nationally. The Centers for Disease Control and Prevention have set a national goal of reducing the number of new infections by 50% by the year 2005 through increasing the proportion of at-risk persons who consistently engage in behaviors that reduce risk of HIV acquisition or transmission.

19–9.1 Action Step

By 2010, monitor trends in diagnoses so prevention and treatment can be targeted at those most in need. (An Iowa Department of Public Health action step.)

19–9.2 Action Step

By 2010, implement evidence-based prevention that targets at-risk populations, including HIV-positive persons and high-risk seronegative persons, as designated in the Iowa HIV Comprehensive Plan and as developed by the HIV Community Planning Group. (An Iowa Department of Public Health action step.)

19–10 Goal Statement

Increase to 67% the proportion of sexually active students who report using a condom during the previous three months. Baseline: In 1998, 48% of students who had sexual intercourse during the previous three months used a condom, according to the Youth Risk Behavioral Survey. In 2003, the proportion had risen to 64%.

Rationale

Data on the effectiveness of latex condoms in preventing HIV are clear. They are highly effective barriers to HIV when used consistently and correctly. Carefully designed studies among heterosexual couples in which one partner is HIV-positive and the other is not demonstrate that latex condoms provide a high level of protection against HIV. Increased condom use is essential for slowing the spread of HIV infection.

19–10.1 Action Step

By 2010, seek input from young adults in roundtable sessions on condom knowledge, attitudes and behavior. (An Iowa Department of Education and Iowa Department of Public Health action step.)

19–10.2 Action Step

By 2010, increase annually the number of health teachers who teach how to correctly use a condom. According to the School Health Education Profile (SHEP), 49% of health teachers taught correct condom use in 2000, while the rate fell to 44% in 2003. (An Iowa Department of Education and Iowa Department of Public Health action step.)

19–10.3 Action Step

By 2010, monitor results of the Youth Risk Behavior Survey. (An Iowa Department of Education and Iowa Department of Public Health action step.)

19–11 Goal Statement

Increase to 97% the proportion of high school students in grades 9 through 12 who receive age-appropriate classroom education on HIV and other STDs. Baseline, Iowa Youth Risk Behavior Survey (YRBS) and School Health Education Profile (SHEP): 1997, 93%; 2003, 87%.

Rationale

AIDS education in grades 1 through 12 is required under Iowa Department of Education, Chapter 12, General Accreditation Standards, 281-12.5 (356) 10 (5). However, school districts and/or school boards decide how to implement the education.

According to the School Health Education Profile (SHEP), 92% of the lead health education teachers surveyed in 1998 indicated that they taught about HIV/AIDS in their required health education classes. In the same survey, principals indicated that HIV and/or AIDS education is primarily taught in 7th and 8th grades (middle school), 7th to 10th grades (junior and senior high), and 9th and 10th grades (senior high). Less than 50% indicated that information about HIV/AIDS was given in 12th grade.

19–11.1 Action Step

By 2010, monitor the results of the Iowa Youth Risk Behavior Survey and the School Health Education Profile (SHEP) survey. (An Iowa Department of Education action step.)

19–12 Goal Statement

Increase the proportion of clients of state-funded HIV testing sites who are referred for screening for common bacterial STDs such as Chlamydia, gonorrhea and syphilis. Baseline: See Rationale.

Rationale

Recent data indicate that other STDs substantially increase the risk of HIV transmission. Treating them reduces HIV transmission. In the United States, STD rates are high and STD clinical services are inadequate in the face of a changing HIV epidemic. Closely coordinating or integrating HIV prevention and STD prevention is a necessary and cost-effective way to reduce transmission of both, according to the recommendations of the CDC's Advisory Committee for HIV and STD Prevention.

Early detection and treatment of curable STDs should become a major, explicit component of comprehensive HIV prevention programs at the national, state and local levels.

19–12.1 Action Step

By 2006, implement a newly developed data management tool to collect information on referrals at state-funded HIV test sites. (An Iowa Department of Public Health action step.)

19–12.2 Action Step

By 2008, establish a baseline for the percentage of clients who are referred for STD screening. (An Iowa Department of Public Health action step.)

19–12.3 Action Step

By 2010, increase the capacity of counselors to refer clients for STD screening when appropriate. (An Iowa Department of Public Health action step.)

19–13 Goal Statement

Increase to 1.0% the percentage of newly identified, confirmed HIV-positive test results by state-funded HIV counseling, testing and referral sites (CTR). Baseline: In 1998 and 2003, 0.4% of tests were positive.

Rationale

Knowledge of serostatus has been correlated with a person's willingness to change high-risk behavior and, therefore, has received significant attention in both programming and research.

Providers need to ensure that HIV testing is readily available to at-risk populations. Strategies include using rapid HIV tests, offering outreach testing by community-based organizations, and routine voluntary testing in high prevalence medical settings, such as emergency rooms.

19–13.1 Action Step

Through 2010, monitor HIV-positive test results at counseling, testing and referral sites. (An Iowa Department of Public Health action step.)

19–13.2 Action Step

By 2010, re-evaluate the abilities of counseling, testing and referral sites to screen populations for HIV in high prevalence settings. (An Iowa Department of Public Health action step.)

19–13.3 Action Step

By 2010, increase the capacity of counseling, testing and referral sites to reach higher risk populations, using new technologies such as rapid testing. (An Iowa Department of Public Health actions step.)

19–13.4 Action Step

By 2010, secure state funding to expand counseling and testing, and to implement new technologies. (An Iowa Department of Public Health action step.)

19–14 Goal Statement

Increase to 75% the percentage of partner counseling and referral contacts with unknown or negative serostatus who receive an HIV test. Baseline: To be established; see action steps.

Rationale

The goal of the Partner Counseling and Referral Services (PCRS) is to stop the unintentional spread of HIV through risk-reduction education to people who are infected and to their partners who may have been exposed to HIV. The service helps partners gain earlier access to counseling, HIV testing, medical evaluation, treatment, and other prevention services.

19–14.1 Action Step

By 2006, implement a newly developed data management tool to collect partner serostatus measurements. (An Iowa Department of Public Health action step.)

19–14.2 Action Step

By 2008, establish a baseline for the percentage of Partner Counseling and Referral Services contacts with unknown or negative serostatus who receive an HIV test. (An Iowa Department of Public Health action step.)

19–14.3 Action Step

By 2010, devise ways to improve acceptance of HIV testing among sex and needle-sharing partners identified by Iowa Department of Public Health disease prevention staff. (An Iowa Department of Public Health action step.)

19–15 Goal Statement

Increase to 90% the proportion of facilities that provide treatment for injecting drug use that also offer or refer persons for HIV counseling and voluntary testing. Baseline: To be established; see action steps.

Rationale

As of December 31, 2003, injecting drug use was directly or indirectly involved in HIV transmission for 24% of Iowans with HIV. Of these cases, 78% were injecting drug users (including the risk category men who have sex with men/injecting drug user) while the remaining 22% were sex partners of injecting drug users or newborns infected by their mothers who were injecting drugs or partners of injecting drug users.

Drug treatment and risk reduction programs should be offered to reduce the risk of HIV in injecting drug users. Specifically, access to sterile syringes, which is the most cost-effective way to reduce HIV among injecting drug users, should be increased. HIV counseling and voluntary testing of injecting drug users should also be promoted so they are aware of their status.

19–15.1 Action Step

By 2006, establish a baseline for the proportion of facilities providing treatment for injecting drug use that offer HIV counseling and volunteer counseling. (An Iowa Department of Public Health action step.)

19–15.2 Action Step

Through 2010, continue to offer training to all counselors who work with injecting drug users. (An Iowa Department of Public Health action step.)

19–15.3 Action Step

By 2007, secure state funding for expanded HIV testing in substance abuse facilities. (An Iowa Department of Public Health action step.)

19–15.4 Action Step

By 2007, secure state funding for a pilot syringe exchange program in Iowa to be evaluated for feasibility and cost effectiveness. (An Iowa Department of Public Health action step.)

19–16 Goal Statement

Maintain at 100% the proportion of state prison inmates who receive HIV testing and appropriate counseling. Baseline: Current law mandates HIV testing on intake to the correctional system.

Rationale

Incarceration provides an environment in which early intervention and risk reduction behaviors can be taught and reinforced over time. It also provides an opportunity to provide the support and continuity of care when inmates are released. Early access to care reduces immediate and long-term health care costs for correctional institutions and the community. State prison systems provide access to treatment and care to people with HIV.

19–16.1 Action Step

Through 2010, monitor legislation to maintain testing requirements in prison systems. (An Iowa Department of Corrections and Iowa Department of Public Health action step.)

19–17 Goal Statement

Increase to 90% the proportion of county jails in counties with populations over 50,000 that regularly screen all inmates for HIV. Baseline, 2004: Of the 8 jails located in high population counties, 2 provided routine screening and 6 allowed testing upon physician or inmate request.

Rationale

County jails provide an environment in which at-risk populations can be easily accessed for testing, early intervention, and reinforcement of risk reduction behaviors. Routine screening would identify people earlier who may not admit to risks and/or who may not have developed symptoms.

19–17.1 Action Step

By 2010, work with county partners to promote regular screening of all inmates at county jails in counties with populations over 50,000 in order to control the spread of HIV among county jail inmates. (An Iowa Department of Public Health action step.)

19–17.1 Action Step

By 2010, secure state funding for expanded HIV testing in county jails in counties with populations over 50,000. (An Iowa Department of Public Health action step.)

19–18 Goal Statement

Increase to 100% the proportion of new tuberculosis (TB) cases in people aged 25 to 44 who have their HIV status reported. Baseline, 2003: 100% of the 13 persons aged 25 to 44 had their HIV status reported to the Iowa Department of Public Health.

Rationale

The rate of progression from latent tuberculosis (TB) to active TB disease among HIV-positive patients is greatly accelerated over that seen for non-HIV infected persons. A national TB-AIDS case registry match for 1993 – 1994 showed that 22% of TB cases in the 25 to 44 age

group also had HIV infection. (This is likely a minimum due to matching methodologies.)

Since 1982, Iowa has had 22 cases of HIV-TB co-infection. Early detection of HIV in TB patients also allows early intervention and treatment that may prevent or delay the development of other HIV-related illnesses and AIDS. In fact, many people who are diagnosed with TB-related to compromised immunity caused by HIV are unaware of their HIV status. Tuberculosis patients receive HIV testing only after counseling and informed consent from the patient. Because testing is voluntary, some patients may decline HIV testing. The Iowa Department of Public Health and the Centers for Disease Control and Prevention (CDC) collect data on reported TB cases that have information on HIV status.

19–18.1 Action Step

By 2010, monitor clients who have tuberculosis and offer them an HIV test. (An Iowa Department of Public Health action step.)

19–19 Goal Statement
Increase the percentage of HIV-infected persons who are receiving regular primary HIV medical care. Baseline: To be established; see action step.

Rationale

The Centers for Disease Control and Prevention estimate that approximately one-third of persons diagnosed with HIV are not receiving HIV primary medical care. Primary medical care includes access to antiretroviral and other drug therapies, prophylaxis and treatment of opportunistic infections, and regular medical evaluation. The year 2000 amendments to the Ryan White CARE Act require states to determine the size and needs of the population of people who know their HIV status but who are not receiving HIV-related medical care so that national resources can be better targeted.

HIV-infected persons are considered to have an unmet need for care (or to be out-of-care) when there is no evidence they received any of the following three components during a defined

12-month period: viral load testing, CD4+ cell count, or antiretroviral therapy.

19–19.1 Action Step

By 2005, estimate the number of people who know they are infected but are not in care by surveillance data and through contact with health care providers. (An Iowa Department of Public Health action step.)

19–19.2 Action Step

By 2006, identify correlates of being out-of-care, specific subpopulations most at risk, and geographical regions of the state that are most affected. (An Iowa Department of Public Health action step.)

19–19.3 Action Step

By 2006, develop a plan to address the needs of those persons not in care and to target resources to them. (An Iowa Department of Public Health action step.)

19–19.4 Action Step

By 2010, increase the percentage of HIV-infected persons who are receiving regular primary HIV medical care. (An Iowa Department of Public Health action step.)

19–20 Goal Statement
Reduce HIV mortality to no more than 0.4 per 100,000 persons. Baseline: 1998, 0.6 per 100,000; 2003, 1.0 per 100,000.

Rationale

In 1998, mortality among persons with HIV disease in Iowa was the lowest since 1986. Since then, deaths have risen to approximately 30 per year (1.0 per 100,000) but have held steady since 2000. The relatively low mortality rate, despite continuous increases in the number of persons with HIV, reflects access to antiretroviral therapies before 2004. In May 2004, the AIDS Drug Assistance Program, payer of last resort for antiretroviral therapies, was forced to close to new enrollees. Iowa is one of a few states that have no earmarked funding from the state for the program. Mortality may increase as

more persons are added to the waiting list for medications.

19–20.1 Action Step

By 2010, monitor the annual mortality rate among persons with HIV. (An Iowa Department of Public Health action step.)

19–20.2 Action Step

By 2010, secure state funding for the Iowa AIDS Drug Assistance Program so that all HIV-infected Iowans have access to the Highly Active, AntiRetroviral Therapy (HAART). (An Iowa Department of Public Health action step.)

19–21 Goal Statement

Decrease the percentage of persons diagnosed with AIDS within a year of their HIV diagnosis. Baseline: 1998, 41%; 2002, 46%.

Rationale

Data on the time between HIV diagnosis and AIDS can be used to give a general idea of the status of the disease at first HIV diagnosis. This is often used as a measure of late or delayed testing, but may also reflect poor access to care. A short period between HIV diagnosis and AIDS suggests that a person may have been infected for some time. People with early HIV diagnoses (i.e., soon after infection) generally have longer spans between HIV diagnosis and AIDS. People who get into treatment quickly, respond well to therapy, and/or adhere to treatment regimens also have a longer period between HIV diagnosis and AIDS.

19–21.1 Action Step

By 2010, monitor the interval between an initial diagnosis of HIV infection and AIDS diagnosis to affect a decrease in late diagnoses of HIV. (An Iowa Department of Public Health action step.)

19–21.2 Action Step

By 2010, increase the capacity of counseling, testing and referral sites in order to reach higher risk populations, using new testing tech-

nologies like rapid testing, to affect a decrease in late diagnoses of HIV. (An Iowa Department of Public Health action step.)

19–21.3 Action Step

By 2010, promote rapid access to HIV primary care clinics for newly diagnosed persons through partner counseling and referral services (PCRS) to affect a decrease in late diagnoses of HIV. (An Iowa Department of Public Health action step.)

19–21.4 Action Step

By 2010, secure state funding to expand counseling and testing, and implement new technologies. (An Iowa Department of Public Health action step.)

19–22 Goal Statement

Eliminate HIV acquired perinatally. Baseline: 1998, 1 case; 2003, 2 cases.

Rationale

The National Institutes of Health sponsored an AIDS clinical trial, ACTG-076, that was stopped early in 1994 after it showed that the risk of perinatal HIV transmission could be reduced by as much as two-thirds with the use of zidovudine (AZT). It was given to women during pregnancy and childbirth and to the newborn for six weeks after birth. Additional research confirmed that routine and universal counseling and voluntary testing, combined with antiretroviral therapy, are highly effective in preventing perinatally acquired HIV. In 1996, an Iowa Department of Public Health task force recommended that all pregnant women receive education on HIV prevention and risk reduction as early as possible in the prenatal period. Also, that voluntary testing is offered if there are risk factors or if women request the test.

Although the incidence of perinatally-acquired HIV infection in Iowa is low, continuing the following strategies are necessary to ensure that HIV-infected women don't pass the disease to their children. The strategies are: 1) adequate prenatal care and timely HIV counseling and voluntary testing; 2) ready access to

HIV-related care and services; 3) chemoprophylaxis to reduce perinatal transmission; and 4) avoidance of breastfeeding.

19–22.1 Action Step

By 2010, monitor the annual incidence of perinatally-acquired HIV. (An Iowa Department of Public Health action step.)

19–22.2 Action Step

By 2010, increase the proportion of women who receive an HIV test during pregnancy as measured by the Women’s Health Information System’s (WHIS) maternal health survey and the Barriers to Prenatal Care Survey. In 2003, 50% of 5,526 respondents to the WHIS survey indicated they had been tested for HIV. (An Iowa Department of Public Health action step.)

19–22.3 Action Step

By 2010, collaborate with partners to promote routine, voluntary prenatal testing with a right of refusal. (An Iowa Department of Public Health action step.)

Goal Cross References

Chapter 1: Access to Quality Health Services

- 1–1 Reduce to 0 the proportion of children and adults under age 65 without health care coverage.
- 1–2 Drive quality improvement of health care through Iowa’s Critical Access Hospitals by developing a plan and engaging in activities that promote and encourage providers to follow standardized quality performance measures.
- 1–3 Increase by 25% access to primary care for the underserved population.
- 1–4 Ensure a competent and diverse health workforce by assessing and forecasting workforce supply and demand and by promoting local strategies to recruit and retain workers through the inclusion of 99 counties in a nurse tracking project.

- 1–12 Develop a strategic plan to assess and employ telehealth and telemedicine that can increase access to quality health services in Iowa.

Chapter 2: Cancer

- 2–6 Reduce female cervical cancer deaths to no more than 1.9/100000.

Chapter 4: Disabilities

- 4–3 Assure that each HI2010 chapter assesses the health issues and potential treatment for people with disabilities and incorporates appropriate goals and action steps.

Chapter 5: Educational and Community-Based Programs

- 5–5 Ensure that post-secondary community colleges provide data on how the college addresses the six priority health risk behavior areas.

Chapter 7: Family Planning

- 7–1 Increase to 65% the proportion of intended pregnancies among Iowa women aged 13-44.
- 7–2 Reduce pregnancies to 12/1000 among females aged 15-17 and to 50 annually among females aged 12-14.
- 7–3 Establish a baseline of sexual activity for Iowa adolescents.

Chapter 10: Immunizations and Infectious Diseases

- 10–4 Reduce hepatitis A cases to no more than 10/100000.
- 10–5 Reduce to 0 newly diagnosed hepatitis B rates in persons under aged 25.
- 10–6 Reduce to 50% hepatitis B among adults aged 25 and older.
- 10–8 Reduce tuberculosis to no more than 1/100000.

Chapter 11: Maternal, Infant and Child Health

- 11–1 Reduce overall infant mortality to no more than 5/1000 of live births.
- 11–2 Reduce overall low birth weight to no more than 5% of live births and overall very low birth weight to no more than 1% of live births.

11-4Reduce child mortality for ages 1-14 to 17/100000.

Chapter 20: Substance Abuse and Problem Gambling

20-1Establish a systematic process and begin to access the infrastructure of the alcohol, tobacco and other drugs service system and its impact on prevention, early intervention, and treatment.

20-8Increase to 115 and sustain state, county, community, and neighborhood collaborative groups to reduce problems of alcohol, tobacco, other drugs, and problem gambling.

Chapter 21: Tobacco Use

21-4Reduce to 10% lowans' exposure to secondhand smoke in the workplace.

Chapter 23: Violent and Abusive Behavior

23-5Identify the annual rate of sexual abuse, increase the arrest rate for forcible rape to 16/100000, and increase the number of sexual abuse exams.

23-7Establish procedures at 100% of hospital emergency departments, family planning agencies, public health clinics, community mental health centers, and substance abuse treatment programs for routinely identifying, treating and properly referring victims of child abuse, domestic abuse, elder abuse, and sexual assault.

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Chapter 20

Substance Abuse and Problem Gambling**Introduction**

Substance abuse and abuse-related problems continue to be among society's most pervasive health problems. Some 100,000 people die each year in the United States as a result of alcohol and illicit drug use, and related acquired immunodeficiency syndrome (AIDS) account for at least another 12,000 deaths. Also, nearly 14 million Americans, or one in every 13 adults, abuse or have been diagnosed with substance dependence or abuse.

Several million more adults practice risky drinking that could lead to problems with alcohol or other substances. Such behaviors include binge drinking and heavy drinking. A reported 53% of Americans say that one or more of their close relatives have a drinking problem.

Substance abuse, alcohol abuse, and dependency are significant public health problems that have high economic costs. It costs every man, woman and child in the United States nearly \$1,000 annually to pay for health care, law enforcement, motor vehicle crashes, crime, and lost productivity due to substance abuse. The estimated societal cost of drug abuse in this country in 1998 was \$148 billion for productivity losses, related particularly to incarceration, crime, drug abuse-related illnesses, and premature death.

Substance abuse, including tobacco use and nicotine addiction, is associated with a variety of other serious health and social problems. Epidemiological evidence reveals that 72 conditions requiring hospitalization are wholly or partially attributable to substance abuse.

Not everyone chooses to drink alcohol. Of those who do, most have little or no trouble limiting their intake to amounts that produce no serious health or social consequences. Millions of

other Americans, however, consume alcohol in quantities and frequencies that place them and others at risk for alcohol-related disease, crime and unintentional injuries. People who drink even relatively low amounts of alcohol contribute to alcohol-related death and injury in occupational incidents and operating vehicles.

Alcohol use is associated with more than 45% of all motor vehicle deaths. Available data indicate that roughly one-third of victims of homicide and suicide, and 22% of victims of fatal boating accidents, were intoxicated at the time of death. In addition, the triggering effect of alcohol consumption in sexual assault and victimization has been documented by both experimental and population-based research since the late 1970s.

People aged 60 and older also face risks for alcohol-related problems, although this population generally consumes comparatively low amounts of alcohol. However, "adverse alcohol-drug interaction can be a major problem that causes hospital admissions among older patients, since many older patients take multiple medications. In addition, many cases of memory deficits and dementia now are understood to result from the effects of alcoholism...." (*Healthy People 2010*).

In 1997, the Iowa Department of Public Health conducted the Iowa Substance Abuse Prevention Needs Assessment: Public Survey and in 1999 published the *Iowa State Plan for Substance Abuse Prevention* (state plan). According to the survey, risks at the individual level, such as attitudes favorable to the use of alcohol, tobacco and other drugs, as well as peer use, were directly associated with actual substance use behaviors for adults and children.

Other variables not included in the risk and protective areas are also associated with sub-

stance use behaviors, such as job stress and money worries.

Iowa's Drug Control Strategy and Plan, the first of its kind, was the collaborative work of the following state agencies:

- Office of Drug Control Policy (ODCP)
- Iowa Department of Corrections (IDOC)
- Iowa Department of Economic Development (IDED)
- Iowa Department of Education (IDOE)
- Iowa Department of Human Rights – Criminal and Juvenile Justice Planning (IDHR – CJJP)
- Iowa Department of Human Services (IDHS)
- Iowa Department of Public Defense – Iowa National Guard (the National Guard)
- Iowa Department of Public Safety – Governor's Traffic Safety Bureau (IDPS)
- Iowa Department of Public Health (IDPH)
- Iowa Department of Transportation (IDOT)
- Workforce Development (WD)

The strategy and plan, along with the Iowa Youth Survey, form the basis for many of the goals and objectives of this chapter.

Since the *Healthy Iowa 2000* process began, a disparity of services for Iowans with different risks of addiction has been recognized. As a result, specific treatment programs increased for women with children, young girls, and youth. Culturally specific programs continued and are a continuing focus. Special population and ethics training also continue to be certification requirements for prevention specialists and treatment counselors. In addition, treatment and prevention expanded due to the steady increase of methamphetamine use and abuse.

Materials in many languages are also more available, such as in Spanish, Asian languages, and Braille. The Iowa Substance Abuse Information Center (ISAIC), a clearinghouse for information materials, is working with immigration services to make translation more available. For example, the Iowa Gambling Treatment Program has brochures in Spanish and 11 Asian languages, and its media campaign is designed to appeal to multiple cultures and socioeconomic groups. Other media campaigns by ISAIC are

designed to reach multiple cultural groups and are adaptable to local needs.

Disparity still exists, however, and will require diligence and collaborative efforts to be successfully recognized and addressed. Funding must continue in order to expand ISAIC's culturally specific information and other resources, and to make those materials available to the public. Interpreters are also needed at the point of service; however, there is currently no funding to pay for their use.

Chapter 20 team members recognize the importance of cultural competency in the provision and administration of services to substance abuse and problem gambling patients. Chapter 12: Mental Health and Mental Disorders also reflects significant changes in Iowa's population. Steady growth occurred during the past five years in the Latino/Hispanic, African-American, Asian, Pacific Islander, and Eastern European communities. The needs of these populations are specific and varied, and substance abuse and problem gambling require ongoing, systematic cultural competency.

The *Iowa State Plan for Substance Abuse Prevention* determined other disparity-specific targets for increased prevention. These include women of childbearing age and senior citizens, as well many of the K-12 substance abuse curricula such as Drug Abuse Resistance Education (D.A.R.E.) that is developed outside Iowa but implemented extensively here and geared for Caucasians.

It is not yet cost-effective for publishers of these materials to develop materials geared for other groups. Funding for their development has moved from the substance abuse field to those involved with violence prevention, mental health treatment, and criminal justice.

Problem gambling was not addressed in *Healthy People 2000* or *Healthy Iowans 2000* – or the original draft of *Healthy People 2010*. However, with the growth of legalized gambling across the country and the wide variety of gambling available to Iowans, a pattern showing the relationship between gambling and substance abuse is developing.

The Iowa Behavioral Risk Factor Surveillance System (BRFSS) annually surveys about

5,000 households by telephone. The survey is designed to collect information on health risk behaviors to monitor prevalence among Iowa residents aged 18 and over. Three gambling questions were added in 1998:

- Have you gambled in the last 12 months?
- Has the money you spent gambling led to financial problems?
- Has the time you spent gambling led to problems in your family, work or personal life?

Approximately one-third of respondents admitted to gambling in the previous year. Around 1% experienced problems in finances or relationships, a consistent percentage since 1998. In 2003, however, 1.6% of respondents who had gambled in the past 12 months said the money they spent gambling led to financial problems; and 1.7% reported the time spent gambling led to problems in family, work or personal life.

The BRFSS data reflect the results of an Iowa prevalence study (Volberg, Rachel A., *Gambling and Problem Gambling in Iowa: A Replication Survey*, Des Moines, Iowa, Iowa Department of Human Services, 1995). This survey of Iowans aged 18 and older indicated more than two-thirds had gambled in the previous 12 months. Iowa estimations align with prevalence rates throughout the world and show 1% of Iowans to be current probable pathological gamblers, while 2.3% are current problem gamblers. This 3.3% total amounts to about 72,600 adult Iowans (2000 census) who exhibit signs of problem gambling. "Current" means meeting the criteria in the past 12 months.

The essential features of pathological gambling include 1) a continuous or periodic loss of control over gambling; 2) a progression in gambling frequency, amounts wagered, preoccupation with gambling, and obtaining money with which to gamble; and 3) a continuation of gambling involvement despite adverse consequences (DSM-IV, American Psychiatric Association, 1994). The term "problem gambling" refers to people who fall short of the diagnostic criteria for pathological gambling but are assumed to be in a preliminary stage in the development of such pathology.

Indeed, the essential feature of pathological gambling is recurrent behavior that disrupts personal, family and/or vocational activities. Problem gamblers may be preoccupied with gambling and continue to gamble despite efforts to control or stop it. They may "chase" losses, make increasingly larger bets, or take greater risks to undo earlier losses. They may lie to conceal the extent of gambling and resort to antisocial behavior such as forgery, fraud, theft, or embezzlement.

Problem gamblers may also engage in "bail-out" behavior, turning to family or others for help with a desperate financial situation caused by gambling (See 312.31 Pathological Gambling Criteria in the American Psychiatric Association: *Diagnostic and Statistical Manual of Mental Disorders*, 4th Edition, Washington, D.C. American Psychiatric Association, 1994). The *Diagnostic and Statistical Manual Medical Disorders*, 4th Edition (DSM IV), estimates the prevalence of pathological gambling range to be from 1% to 3% of the adult population.

In the 2002 Iowa Youth Survey, 1% of respondents said that money spent gambling led to financial problems; and 1% said that the time spent gambling led to problems in family, work, school, or personal life. The data indicate a need to inform youth about the risks of gambling too much. Growing up in a state where gambling is so accessible makes prevention key to avoiding the costs of excessive gambling.

According to Iowa Gambling Treatment Program data for 1998-2001, 23% of clients in gambling treatment reported they had received treatment for a drinking and/or drug problem, and 61% reported using tobacco. Thus, the title of this chapter now includes problem gambling.

People affected by problem gambling may lose excessive amounts of money and engage in behavior that damages personal, family and vocational pursuits.

Identifying the hidden nature of problem gambling is a necessary part of *Healthy Iowans 2010*. To assess people correctly, more awareness is needed of problem gambling and its signs and symptoms. In counseling, for example, problems at first glance may appear to be marital or related to alcohol, anxiety or depression, but

excessive gambling may be the most significant contributing factor. Assessing problem gambling can be difficult without sufficient knowledge of the financial and health risks of a life filled with gambling and its stress.

Hidden problems include mental health problems, violent and abusive actions, family abuse, inadequate screening, vehicle injuries and deaths, crime, suicide, and low work productivity.

The prevention and treatment of abuse of alcohol, other drugs, and problem gambling require that all abused substances, including tobacco and marijuana, be discovered and addressed. Prevention and treatment of tobacco addiction, for example, is equally important to a comprehensive substance abuse program because research recognizes tobacco as a gateway to other drugs.

Almost all long-term studies show a pattern of going from tobacco and alcohol to marijuana, and, as children get older, to other drugs. However, smoking and drinking at young ages are not seen as the cause of later drug use, and going to other drug use is not inevitable.

In an analysis of 1991-1993 data from the National Household Survey on Drug Abuse for people who have ever smoked or drank, "...the risk of moving on to marijuana is 65 times higher than for a person who has never smoked or drank. The risk for moving on to cocaine is 104 times higher for someone who smoked marijuana at least once in his or her lifetime than a person who never did" (Preventing Drug Use among Children and Adolescents: A Research-Based Guide, National Institute on Drug Abuse).

Although all goals and action steps for tobacco are listed in the tobacco chapter, this chapter will include recommendations for alcohol, tobacco and other drugs.

Abuse does not occur in a vacuum. Prevention and treatment are necessary in order to reduce abuse of alcohol, tobacco, other drugs, and problem gambling. Efforts must be maintained and strengthened, especially in light of the emergence of methamphetamine (meth). It is also necessary to provide cultural, linguistic and age appropriate approaches. In many situations (e.g., job training, employment, parent training,

general education) elements of physical health are necessary for successful living.

Based on population, Iowa is the 30th state, yet ranks 6th in meth use, according to preliminary data from the 2001 Arrestee Drug Abuse Monitoring (ADAM) project. No other Midwest or eastern state ranks as high or higher. The question frequently asked is, "Why Iowa?"

Meth traffickers discovered that Iowa is a relatively new market where they do not face a lot of competition. Iowa covers 55,875 square miles of Midwest landscape, with 56% of Iowans living in urban areas and 44% in rural, non-metropolitan areas. Of the 99 counties, only 20 have U.S. Office of Management and Budget designation as Metropolitan Statistical Areas. The remaining 79 counties are primarily agricultural. Iowa has three interstate highways, multiple U.S. and state highways, and numerous county roads. Its wide open spaces, accessibility to anhydrous ammonia (an agricultural fertilizer) for manufacture, and network of roadways for delivery may explain the high rate of meth use.

The 2002 Iowa Youth Survey indicated that amphetamine and/or methamphetamine was the second most prominent illicit drug of choice among adolescents. Of students in grades 6, 8, and 11 responding to the survey, 1% reported current use of meth and 4% had used it at some point. Special populations (students enrolled in alternative schools) reported that 52% were current users and as many as 82% had tried it.

Data submitted by treatment programs to the Iowa Department of Public Health's Substance Abuse Reporting System (SARS) indicate that prior to 1994, methamphetamine was listed as the primary substance of abuse less than 3% of the time. Since 1999, SARS data shows a steady increase in the primary use of meth, from 8.3% to 13.2%. Of those, 65% are men and 45% are women. In 2002, 39% of people in treatment programs who listed meth as their primary substance of abuse were under aged 25. Only alcohol and marijuana are reported more frequently than meth.

Examination of SARS data for client screenings and admissions also indicate that the second most prevalent primary substance of abuse, excluding alcohol, is amphetamine and/or

methamphetamine. After a significant reduction in 1999, the percentage of youth and adults screened or admitted to substance abuse treatment programs with amphetamine and/or methamphetamine as the primary drug of abuse increased in each of the past three years. That proportion was 15.8% in 2002; 17.3% in 2003; and 18.7% in 2004.

The Des Moines site of the Arrestee Drug Abuse Monitoring (ADAM) project saw an increase in the number of arrestees testing positive for meth, from 5.3% in the second quarter of 2000, to 38.5% in the third quarter of 2001. Additional findings include:

- Female arrestees are beginning to test positive for meth at a consistently higher rate than males;
- Males of all ages are using meth;
- Two years ago, meth use by women was greater among those aged 36 or older. In 2002, the trend switched to include more women, more usage, and younger ages;
- Des Moines has had an increase in meth-related drug and property charges among male arrestees, with property being used more often as an exchange for drugs. Unlike the male arrestees, women using meth are arrested more frequently on drug charges than on property charges. Women combine meth, alcohol and driving at a higher rate than men; and
- An average of 72.8% of male and 74.5% of female arrestees reported previous treatment, including inpatient and outpatient substance abuse and mental health treatment.

The Iowa Division of Narcotics Enforcement documented a 37.31% increase in the number of grams of methamphetamine seized between 1994 and 2004. State and local law enforcement seized 1,155 meth labs in 2003, and the number was expected to increase in 2004. Through September 2004, 964 labs were seized. The amounts of meth seized in Iowa during 2003 increased to over 157,000 grams, or 352 pounds, more than twice the previous record quantity of 73,365 grams seized in 2001, and 39,863 in 2000.

Statistics from the Iowa Department of Public Safety and Corrections include:

- 90% of offenders in drug court are meth addicts.
- A 33% increase in the number of indictable misdemeanor and felony drug charges were adjudicated from 1998 to 2000, with a 17% increase in convictions.
- An 81% increase in the number of reported drug offenses involving meth manufacture or distribution occurred between 1995 and 2000.
- New prison admissions for drug offenses increased by 164% between 1995 and 2001; and admissions for meth-related drug offenses grew by 416%.

Since 2000, the Iowa Department of Public Health received funding and implemented programs and services to address Iowa's methamphetamine problems. The grants included: Meth Awareness (education programs for retailers, staff and public); TCE Meth Treatment (jail-based treatment) and TCE Prevention (expand prevention programs statewide); and Behavioral Health Data Infrastructure (WITS and I-SMART systems). Also, the State Treatment Needs Assessment Program (STNAP, household drug survey, Woodbury County ADAM, IDPH/CJJP data comparisons) and the State Incentive Grant have expanded prevention programs statewide.

In addition, more behavioral research for sustained behavior change, and more programs for women and clients who also have mental problems, is needed. To ensure that multiple service needs are met, increased cooperation and coordination are required from government, faith communities, community-based services, organizations in the private and non-profit sectors, and community members.

In February 2003, Governor Vilsack signed Executive Order 27, which urges Iowa to "move purposefully to swiftly implement the Olmstead Decision." This order says that discrimination can occur when people with disabilities cannot obtain needed services unless they live in an institution or when a state's disability services do not offer consumers real choices. The decision imposes a legal mandate to initiate many of the concepts in Chapter 4: Disabilities. For those seeking recovery from substance abuse and/or problem gambling, every effort should be made to administer programs, services and activities in

the most integrated setting appropriate to the needs of people with disabilities and long-term illnesses.

Chapter 4, Disabilities, requires a commitment, which Chapter 20 Substance Abuse and Problem Gambling supports, to provide programs, services and activities in the most integrated setting appropriate to the needs of people with disabilities and long-term illnesses, and to reduce barriers to community living for such persons. Such a commitment should assure that:

- Local public health partners have the knowledge and resources to provide information about federal, state and local resources that support community living for persons with disabilities;
- Community services staff receive adequate and appropriate training that focuses on how to meet the needs of persons with disabilities and improves staff sensitivity to the needs of all Iowans;
- Persons with disabilities have access to all public health facilities;
- Programs recognize and act on the fact that persons with disabilities are part of their customer base;
- Procedures and programs support and promote community living for persons with disabilities; and
- Funding of community-based services prevents unnecessary institutionalization.

To implement the Olmstead Decision in Iowa, institutional biases in policies and regulations must be identified and overcome. Barriers to real choice must be identified and modified to improve services for people with disabilities who are affected by substance abuse and/or problem gambling.

In 2002, the Iowa legislature reduced the maximum legal blood-alcohol concentration (BAC) level to .08% for drivers aged 21 and older. By then, increased access to the state-approved Driving While Under the Influence program for Iowans arrested for OWI was provided by the Iowa Substance Abuse Program Directors Association, the Iowa Department of Public Health, the Iowa Department of Transportation, and the Iowa Department of Education. Licensed substance abuse treatment agen-

cies were able to conduct the program independently of community colleges.

The Iowa Department of Public Health evaluated client lengths of stay in treatment and modified them based upon their impact on outcomes. Evidence based, best practice models were used (e.g., motivational interviewing) to improve outcomes. The Department will continue this process through 2010.

Goal Statements & Action Steps

20–1 Goal Statement

Establish a systematic process and begin to assess the infrastructure of the alcohol, tobacco and other drugs service system in Iowa and its impact on quality prevention, early intervention, and treatment. Baseline: Data from program money spent and services provided from the Iowa Substance Abuse Program Directors Association, Substance Abuse Reporting System, and Iowa's Drug Control Strategy and Plan.

Rationale

The alcohol, tobacco and other drugs prevention and treatment agencies in Iowa are in financial trouble. No significant increase in funding in years has made it difficult for agencies to maintain infrastructure, recruit and retain qualified staff, and to implement new research-based programming that meets the needs of underserved and high risk clients.

In 1991, the Iowa Department of Public Health's Division of Behavioral Health and Professional Licensure provided \$13.6 million in state and federal funds to subsidize alcohol, tobacco and other drugs treatment for low-income Iowans. With that money, 15,273 clients received subsidized services, accounting for 58.6% of clients who received similar treatment statewide during that year.

In 1998, \$15.4 million became available from state and federal sources to subsidize treatment for low-income Iowans for alcohol, tobacco and other drugs. Of the total available, \$1.1 million, or 7%, was paid to a state con-

tracted managed care company to oversee the state treatment program. This resulted in \$14.3 million for client treatment, from which 24,396 clients received subsidized services, accounting for 63.6% of the total clients served statewide that year.

In 1991, the average funding per public-pay client was \$888. In 1998, the same average funding was \$585 per client. Had the average funding per client been adjusted according to the Consumer Price Index, \$1,055 per client would have been provided in 1998 just to maintain the 1991 funding level.

In 2003, the Iowa Department of Public Health's Division of Behavioral Health and Professional Licensure provided \$19.2 million for substance treatment from federal and state funding to help low-income Iowans or those with no source of income or insurance. The number of clients receiving such treatment for alcohol, tobacco and other drugs was 23,335, with an average funding of \$823 per client.

Alcohol, tobacco and other drug abuse prevention and treatment in Iowa have been further burdened by the methamphetamine (meth) crisis. An influx of meth clients merged into a system already stretched beyond its limits. Additionally, treatment for meth takes longer and requires more intense case management than for non-meth treatment.

To develop a baseline for this goal, the following areas must be assessed:

- Client waiting lists for services;
- Available funding, including federal, state and local money;
- Average cost of service per client, per service level (including outpatient and residential services);
- Personnel issues, including salary ranges and available benefit packages;
- Staff retention;
- Educational levels of substance abuse treatment and prevention professionals; and
- Cultural issues, including urban versus rural issues in each area.

20–1.1 Action Step

By 2007, develop an infrastructure plan to evaluate, identify and develop a mechanism to

measure capacity of public and private providers. (An Iowa Department of Public Health action step.)

20–1.2 Action Step

By 2007, develop a plan to identify, evaluate and address the ability of providers to recruit and retain qualified professional staff. (An Iowa Department of Public Health, Iowa Substance Abuse Program Directors Association, and Iowa Department of Education action step.)

20–1.3 Action Step

By 2007, identify and leverage additional funding to increase alcohol, tobacco and other drugs prevention and treatment to underserved and high risk populations, including women, youth, the elderly, minorities, adults in the criminal justice system, and other multi-problem clients. (An Iowa Department of Public Health, Iowa Substance Abuse Program Directors Association, and Iowa Department of Correctional Services action step.)

20–1.4 Action Step

By 2007, enhance the Iowa Drug Control Strategy published by the Governor's Office of Drug Control Policy to be the state plan for substance abuse. Consolidate substance abuse prevention, treatment and law enforcement goals from the various existing plans. (A Governor's Office of Drug Control Policy and Iowa Department of Public Health action step.)

20–1.5 Action Step

By 2006, empower and enhance Iowa's substance abuse prevention and treatment system to meet the needs of culturally diverse populations. Establish a statewide committee to develop strategies and best practices that address the needs of diverse and minority populations. (An Iowa Department of Public Health action step.)

20–2 Goal Statement

Increase by 3% youth aged 12 to 17 who never used alcohol and annually monitor and evaluate the increase. Baseline, 2002:

84% of 6th graders, 63% 8th graders, and 29% of 11th graders reported never using alcohol.

Rationale

Statistics show that delaying use of all drugs reduces the likelihood of drugs becoming a problem at a later age. Reducing high-risk use before addiction further reduces physical, social, emotional, legal, and intellectual problems for the moment and a lifetime. (National Longitudinal Alcohol Epidemiologic Survey, Journal of Substance Abuse; and Hawkins, et al, Journal of Studies on Alcohol, 1997.)

**Iowa Youth Survey on Substance Abuse
Grades 6, 8, 10, 11: 1990-2002 (Selected Years)**

	1990	1993	1999	2002
6 th Grade Responses				
Never used alcohol	57%	78%	81%	84%
Never used tobacco	88%	89%	92%	95%
Never used marijuana	98%	98%	98%	99%
Never used other drugs	98%	96%	99%	99%
8 th Grade Responses				
Never used alcohol	30%	51%	58%	63%
Never used tobacco	67%	67%	74%	83%
Never used marijuana	93%	93%	89%	91%
Never used other drugs	95%	92%	97%	98%
10 th Grade Responses			11 th Grade Responses	
Never used alcohol	14%	28%	25%	29%
Never used tobacco	47%	49%	46%	58%
Never used marijuana	80%	83%	65%	66%
Never used other drugs	89%	89%	93%	94%

Source: Iowa Department of Human Rights, Division of Criminal and Juvenile Justice Planning. Note: 1996 data is not available due to sampling problems in some counties and the requirement of active parental consent. Note: Eleventh grade replaced tenth grade on the 1999 and 2002 surveys.

Youth receive mixed messages from the media, parents, school, church, law enforcement, and the community. They currently take many courses on substance abuse. A consistent, culturally appropriate, research-based course on alcohol, tobacco and other drugs (supported by multiple resources within the community) would increase the use of a common terminology and age-appropriate expectations.

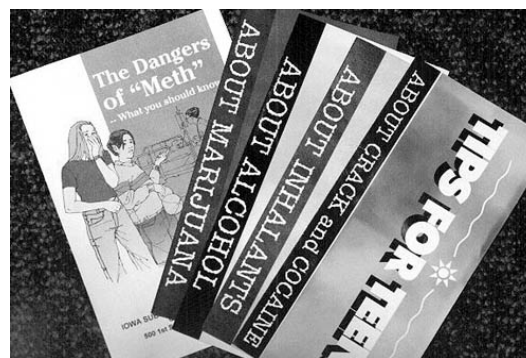
Drug and alcohol use of Iowa youth in grades 6th through 12th has self-reportedly declined, according to the Iowa Youth Survey. Based on these trends, additional improvements can be anticipated. Analysis of statewide data identify gaps, provide a comparison of results by districts, and indicate the scope of prevention.

Substance use among Iowa children relates closely with family problems. Data from the Iowa Youth Survey links many family-related risk indicators to substance use among children. These include adults and other family members with substance abuse problems, abuse and neglect, teen pregnancy, violence, and low socioeconomic status. Without help, children in substance abusing families are likely to have problems with substance abuse themselves. To break the cycle, their needs must be recognized and handled.

Iowa’s demographics are changing; therefore, professionals must be continuously sensitive and responsive to the needs of youth specific to their race, religion, ethnicity, gender, age, sexual preference, or disability.

20–2.1 Action Step

By 2008, help Iowa institutions of higher learning develop and implement courses on alcohol, tobacco and other drugs for students who plan careers working with youth. In particular, target future counselors, teachers, social workers, law enforcement officers, and other students. (A Prairielands Addiction Technology Transfer Center, Iowa Law Enforcement Academy, and Iowa universities action step.)



20–2.2 Action Step

Beginning in 2006 and through 2010, help school districts implement a revised health course for grades K-12 that is culturally and language sensitive and that covers alcohol, tobacco and other drugs, including methamphetamine. (An Iowa Department of Education and Iowa Department of Public Health action step.)

20–2.3 Action Step

Through 2010, annually review sources of funding and recommend to the governor appropriate administrative avenues for disbursement of substance abuse money that is consistent with the state plan. (A state plan agencies action step.)

20–2.4 Action Step

By 2007, promote and refine community planning models that emphasize positive youth development and are culturally competent. (An Iowa Department of Public Health, Iowa Department of Human Rights/Criminal and Juvenile Justice Planning, and Iowa Department of Education action step.)

20–2.5 Action Step

By 2007, develop and maintain a baseline of the number of children and youth who have substance abuse problems or who live where there is substance abuse. (An Iowa Department of Public Health, Consortium for Substance Abuse Research and Evaluation, and Iowa Department of Education action step.)

20–2.6 Action Step

By 2007, develop and maintain a baseline to determine the number of children and youth in the target population who receive each of the following substance abuse services: screening, prevention, referral, and treatment. Assure that these programs are culturally and language sensitive. (An Iowa Department of Public Health, Iowa Department of Education, Consortium for Substance Abuse Research and Evaluation, and Iowa Department of Human Services action step.)

20–2.7 Action Step

By 2007, determine if research and outcome-based programs and services are available to meet the level of need, including culture and language, in the target population. (An Iowa Department of Public Health action step.)

20–2.8 Action Step

By 2010, improve alcohol, tobacco and other drugs assistance through the following:

- By 2005, establish, and through 2010 provide updates, a user-friendly state directory that includes various technologies to help Iowans access programs and services;
- Make research and outcome-based services more accessible to the target population; and
- Identify and implement goals to increase services currently unavailable to the targeted population.

(An Iowa Department of Public Health action step.)

20–2.9 Action Step

By 2010, evaluate results of other action steps of goal 20–2 to successfully increase the percent of youth aged 12 to 17 who have never used alcohol. (An Iowa Department of Public Health action step.)

20–3 Goal Statement

Reduce to 15% alcohol and other drug-related death and injury, and chronic disease rates of Iowans. Baseline, 2005: 20%.

Rationale

Drinking and driving fatalities have continued to decline, from 29.9% in 1995 to 25.4% in 2000. According to the Iowa Department of Transportation, alcohol impairs the driver's ability to brake, steer, change lanes, use one's judgment, and adjust to road conditions. The Department supports a continual decline in the incidence of driving after the consumption of alcohol.

Iowa requires drivers who have been cited for Operating while Intoxicated (OWI) to attend

a 12-hour, risk reduction class. Research by the Iowa Consortium for Substance Abuse Research and Evaluation shows that this initial class for first-time offenders is effective, and that second-time offenders are likely to re-offend.

As previously cited, the cooperating agencies involved in the Iowa State Plan for Substance Abuse Prevention (state plan) need a common language to deal with prevention, intervention and treatment in order to encourage low-risk alcohol quantity and frequency choices consistent with the law.

The alcohol beverage industry wants to reduce the risk for liability lawsuits and protect its viability ("Does Server Intervention Training Make a Difference?" Alcohol Health and Research World, summer 1987; and "Training Bar Personnel to Prevent Drunken Driving: A Field Evaluation," American Journal of Public Health, August 1987).

The sale of alcohol and other drugs on the Internet concerns some health, law enforcement, and federal drug enforcement agency officials, as well as parents.

Adults and youth need help to reduce risks. Participants in the 1997 Iowa Substance Abuse Prevention Household Survey reported they would like to be better informed and receive information through the media.

Prevention and treatment professionals must be sensitive and responsive to the needs of the people they serve. Service outcome is impacted depending on how race, religion, ethnicity, gender, age, sexual preference, and disability are taken into account.



Source: Iowa Department of Transportation

20–3.1 Action Step

By 2010, reduce multiple driving offenses from drinking and/or drug use by developing graduated sanctions for first and second offenses of Operating while Intoxicated (OWI). This includes components of the current OWI educational class, assessment and treatment. (An Iowa Department of Public Health and Iowa Department of Education action step.)

20–3.2 Action Step

By 2010, implement a cross-discipline training program with the cooperating agencies in the state plan that includes a minimum 6-hour substance abuse course. The course will use a lifestyle risk reduction curriculum and work with developers to assure that it is culturally and language appropriate. (An Iowa Department of Public Health action step.)

20–3.3 Action Step

By 2010, implement a mandatory minimum 6-hour Training Intervention Procedures for Servers (TIPS) curriculum for management and employees of establishments with Iowa liquor licenses in cooperation with the alcohol beverage distribution industry. Work with developers to assure that the TIPS curriculum and/or trainers are language appropriate for participants. (An Iowa Commerce Department/ Alcohol and Beverage Division and beverage industry action step.)

20–3.4 Action Step

By 2010, enact into legislation a minimum of six hours of lifestyle risk reduction substance abuse training for commercial drivers. (An Iowa Department of Transportation, Iowa Department of Public Safety, and Iowa legislature action step.)

20–3.5 Action Step

By 2010, evaluate resources to deal with the impact of Internet sales of alcohol, tobacco, prescription drugs, and other drugs. (An Iowa Department of Public Health action step.)

20–3.6 Action Step

By 2010, develop, implement and evaluate a statewide media campaign to encourage and re-

inforce lifestyle risk reduction to support the lifestyle risk reduction course. Work with developers to assure the media campaign is culturally and language appropriate. (An Iowa Department of Public Health action step.)

20–3.7 Action Step

By 2007, establish a baseline and increase by 10% the number of workplaces in Iowa using work site alcohol and drug policies and programs. (An Iowa Department of Public Health and Workforce Development action step.)

20–4 Goal Statement

Increase to 425 the number of Iowans aged 65 and older who receive screening, prevention, referral, and /or treatment for risks such as poverty, deficient nutrition, social isolation, alcohol, tobacco, prescription drugs, and other drugs abuse, problem gambling, and violence. Through early intervention for “late onset,” include prescription drug abuse in “substance abuse.” Baseline: 325 current.

Rationale

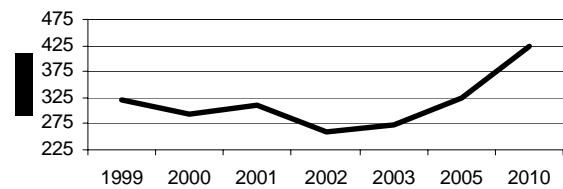
Iowa’s population is aging. Consequently, the pervasiveness of substance abuse among people aged 60 and older from many ethnic backgrounds is only beginning to show itself. Alcohol and prescription misuse affects 17% of older adults. However, health care providers overlook substance abuse and misuse among older people, mistaking symptoms for dementia, depression or other problems common to older adults. Also, older adults are more likely to hide their substance abuse and less likely to seek professional help.

Many relatives of older people with substance abuse problems are ashamed and choose not to recognize and address it. Lack of English fluency may also keep some from seeking help. The result is thousands of older adults who need services and do not receive them. Many older Iowa residents are isolated and only have contact with the service providers coming into their homes. Therefore, providers need to be trained

to recognize this type of abuse and make appropriate referrals.

It is also important for the community to understand the problems that older residents face. Such problems include loneliness, depression, isolation, and substance abuse. Given the opportunity, many older residents want to be and can be productive.

The Number of Persons 65 and Older Receiving Substance Abuse Treatment 1999-2003, 2005 and 2010 Targets



Source: Iowa Department of Public Health
Note: Scale is adjusted to highlight data.

20–4.1 Action Step

By 2007, train health care professionals who have access to the older population on diversity and identification of alcohol, tobacco and other drug problems, and continue this training for new employees (based on Substance Abuse among Older Adults – Choosing to Change: A Client-Centered Approach...for Older Adults). (An Iowa Department of Public Health, Iowa Department of Elder Affairs, and area agencies on aging action step.)

20–4.2 Action Step

By 2007, in partnership with the Iowa Department of Elder Affairs, identify and train staff of volunteer pilot agencies (e.g., Meals on Wheels) and staff at complexes for elderly people about identification of problems and diversity. Provide referral information and ensure that training is ongoing for new volunteers and/or new employees. (An Iowa Department of Public Health, Iowa Department of Elder Affairs, and local treatment providers action step.)

20–4.3 Action Step

By 2006 and through 2010, implement ongoing strategies to raise community awareness of the complexity of health issues, including al-

cohol, tobacco, prescription drugs, and other drug abuse by Iowa's elderly. Use evidence-based best prevention practices and measure the extent of increased awareness. (An Iowa Department of Public Health action step.)

20–5 Goal Statement

Increase the availability of 24-hour residential treatment from 517 beds to 542 beds for quality treatment and support for lowans addicted to alcohol, tobacco and other drugs. Baseline, 2004: Substance Abuse Reporting System, Iowa Department of Public Health, 25,972 clients received subsidized services from state and federal funding an average of 20.6 days for primary residential care. Of the number of lowans needing treatment, "...slightly more than 9% are dependent on some substances, using the DSM-III-R criteria for dependency. The estimated total of persons who are dependent on any drug except tobacco, by the DSM-III-R criteria, is 191,500. This figure represents about 9.3% of the adult population of Iowa. In other words, about one out of every 11 adult lowans has some form of substance dependence, usually alcohol. Another 18.3% fell into the potentially dependent category, meaning that an estimated 377,200 additional adult lowans consume alcohol in a way that puts them at some risk for developing dependency" (Iowa Adult Household Survey of Substance Use and Treatment Needs).

Rationale

A general consensus of Iowa substance abuse treatment professionals is that a treatment gap exists. A "treatment gap" is the difference between the number of people who need treatment because of illicit drugs and alcohol abuse and the capacity of the system to provide that treatment. The number of people receiving treatment yearly in Iowa is reported to the Substance Abuse Reporting System of the Iowa Department of Public Health, Division of Substance Abuse. However, the number of persons who need drug and alcohol treatment can only be estimated through household surveys and reviews of client waiting lists for services and trends in treatment lengths of stay.

Given the financial, infrastructure and staffing problems of treatment agencies, it is difficult for them to expand services in order to reduce the treatment gap and implement appropriate research-based models for treatment of multi-problem clients. Successful outcomes are further hampered by the lack of supportive rehabilitative services, including employment and safe, drug-free living environments.

A number of activities are needed, such as: annual tracking of demographics by ethnicity, race, gender, primary language, and success rates; a systematic developmental plan to meet the needs of Iowa's diverse population; program assistance to become culturally competent and acquire training and consultation to successfully recruit, hire and retain professionals from diverse populations; and program assistance to provide their professionals and staff with ongoing training on working with people of racial and ethnic cultures.

20–5.1 Action Step

Through 2010, maintain and implement a statewide plan for substance abuse treatment to assure that all Iowa populations have access to appropriate research-based treatment. Since 2004, community reinvestment training activities have been provided to ensure appropriate treatment for multi-problem clients and persons with emotional and physical challenges, including evidence-based best practices such as motivational interviewing and screening and assessment services consistently based on ASAM PPC-2R and DSM IV criteria for substance abuse and dependency. (An Iowa Department of Public Health, Governor's Office of Drug Control Policy, and Iowa Substance Abuse Program Directors Association action step.)

20–5.2 Action Step

Through 2010, continue to develop and implement appropriate research-based models of substance abuse treatment for multi-problem clients, including all people with disabilities and those who are incarcerated. Also, implement best practices models for substance abuse, including exploration of nutrition and healthy lifestyle development. Ensure cultural competency in services provided to ethnic minority groups

system-wide. (An Iowa Department of Public Health and Iowa Department of Corrections action step.)

20–5.3 Action Step

By 2009, establish two additional drug court programs in Iowa, including a model that applies drug court principles to rural counties. (An Iowa Department of Public Health and Iowa Department of Corrections action step.)

20–5.4 Action Step

By 2010, increase the availability of vocational rehabilitation for unemployed substance abusers to eliminate relapse and re-arrest at follow up, to 51% and 88% respectively, as reflected in Iowa's outcomes monitoring system. (An Iowa Department of Education action step.)

20–5.5 Action Step

By 2010, establish two safe living environments for substance abuse clients who do not meet the criteria for 24-hour primary residential care but who need appropriate housing for the recovery process. (An Iowa Department of Public Health, Iowa Department of Corrections, and Iowa Department of Human Services action step.)

20–5.6 Action Step

By 2006, establish a minority advisory committee/group within the Iowa Department of Public Health to track annual demographics by ethnicity, race, gender, primary language, and treatment outcome and success rates. (An Iowa Department of Public Health action step.)

20–5.7 Action Step

By 2010, develop and implement a systematic plan to meet the needs of Iowa's diverse population. Assist programs to become culturally competent through training and consultation to successfully recruit, hire and retain professionals and to provide their professionals and staff with ongoing training on working with people of racial and ethnic cultures. (An Iowa Department of Public Health action step.)

20–6 Goal Statement

Enact legislation requiring insurers to provide coverage for mental illness and addiction as is done for any other chronic illness. Baseline: See Rationale.

Rationale

A recent national study reveals that public expenditures nationally for mental health services and substance abuse treatment over a 10-year period (1991-2001) totaled \$67.4 billion in 2001, while private spending came to only \$36.6 billion. The percentage of public funding continues to increase, with a smaller percentage provided by private sources (including private health insurance). Substance abuse treatment costs paid by private insurance fell by an average rate of 1.1% annually over the 10-year period, declining from 24% in 1991 to 13% of expenditures in 2001.

In FY2003, 55% of the cost for substance abuse treatment in Iowa was from public sources, while 28% was from self-pay; 15% from private insurance; and 3% from other sources. In FY 2004, the cost of treatment borne by public funding and self-pay increased to 56% and 31% respectively. However, private insurance expenditure decreased to 13% and other sources decreased to 2%.

The federally legislated Mental Health Parity Act of 1996 requires insurers to provide the same annual and lifetime spending limits for mental health as for other health care benefits. However, it is up to states to address coverage minimums. Mental health and substance abuse parity laws vary greatly among the states.

A recent Substance Abuse and Mental Health Services Administration (SAMHSA) report suggested the cost of parity could be minimal. The impact on premiums can be controlled by limiting the scope of the parity law to biological-based illnesses, limiting the number of providers covered by the law, and using aggressive managed care practices. Most studies that suggest low costs (e.g., less than 1%) assume aggressive managed care, according to an Iowa Insurance Division and Iowa Department of Public Health briefing paper. Eventually, other

information will be available from the Governor's Enterprise Plan on Health.

Access to needed substance abuse and mental health treatment has been a concern for some time and parity would increase access to treatment statewide if those 23,000 plus Iowans who access needed treatment annually had health insurance coverage.

20–6.1 Action Step

By 2010, promote the HAWK-I expansion of mental health and substance abuse treatment to achieve parity. (An Iowa Department of Public Health and Iowa Department of Human Services action step.)

20–6.2 Action Step

By 2010, establish as an alternative to parity mental health standards that insurers would be required to demonstrate prior to discharging or denying admission to the severely mentally ill or addicted. (An Iowa Department of Public Health and Iowa Department of Human Services action step.)

20–6.3 Action Step

Through 2010, monitor parity legislation in other states and its impact on costs. (An Iowa Department of Public Health, Iowa Department of Human Services, and Iowa Insurance Division action step.)

20–7 Goal Statement

Assure that the proportion of Iowans experiencing problems with gambling does not increase above the Behavioral Risk Factor Surveillance Survey (BRFSS)

baseline. Baseline, BRFSS: 1.6% of respondents who had gambled in the past 12 months said the money they spent gambling led to financial problems; 1.7% reported the time spent gambling led to problems in family, work or personal life.

Rationale

Iowa legal gambling includes use of slot machines; casino table games such as blackjack, craps and roulette; video blackjack, poker and

keno; pari-mutuel betting; sports betting; cards; scratch tickets and pull tabs; lottery; stocks; and commodities. Iowa also regulates bingo, raffles and pools; games of skill and chance; social gambling; contests, casino nights and commercial promotions.

Iowa has three racetracks and 10 casinos, with the strong likelihood that more facilities will open well before 2010. Three Native American casinos also are located in Iowa. Illegal sports wagering and Internet gambling also occur. Access to Internet gambling by young and old alike adds a new dimension to gambling and problem gambling.

The Iowa Gambling Treatment Program (IGTP) in the Iowa Department of Public Health provides services for people affected directly or indirectly by problem gambling. Its mission is to promote and protect the health of Iowans by reducing the effects of problem gambling through education, awareness and treatment.

The IGTP program is funded through the gambling treatment fund that, effective July 1, 2004, received 0.5% of the gross lottery revenue and 0.5% of the adjusted gross receipts from the riverboat casinos and the racetracks, an increase from 0.3% in previous years. The Iowa Lottery portion is estimated at \$1 million and the gaming industry portion at \$5 million. Up to \$6 million is appropriated to the department. As in past years, money from this fund has been diverted for other purposes. Just under \$1.7 million was diverted from addictive disorders programs in 2005.

The availability of about \$4.3 million is expected for gambling treatment, prevention, awareness of problem gambling, and services for more Iowans. The existing outpatient structure has proven to be an effective safety net and needs to continue as the basic approach for counseling families and gamblers affected by excessive gambling. Additional funding will be used to increase treatment and crisis services as more gamblers and family members seek help.

Little federal money has been devoted to problem gambling. However, recent success was achieved when the Midwest Conference on Problem Gambling and Substance Abuse was held in August 2004. Four states (Iowa, Kansas,

Missouri, and Nebraska) applied for and received a \$50,000 federal grant from the Center for Substance Abuse Treatment under the Substance Abuse and Mental Health Services Administration, U.S. Department of Health and Human Services.

The Iowa Racing and Gaming Commission, its licensees, and the Iowa Lottery cooperate with the Iowa Gambling Treatment Program to address problem gambling. An annual Responsible Gaming Education Week is sponsored by the gaming industry. The industry also supports National Problem Gambling Awareness Week in March, which has been sponsored in part by the Association of Problem Gambling Service Administrators.

The Iowa Lottery developed Iowa-specific public service announcements when budgets were tight. The gaming industry promotes the 1-800-BETS OFF helpline in its advertisements and signs. It also provides links to the www.1800betsoff.org web site. Effective July 1, 2004, state law required a process to allow a person to be voluntarily excluded for life from all state licensed casinos. Also, any money or thing of value that has been obtained by, or is owed to, a voluntarily excluded person by a licensee as a result of wagers made by the person after the he or she has been voluntarily excluded shall not be paid to the person but shall be deposited into the gambling treatment fund.

The Iowa Gambling Treatment Program and its 1-800-BETS OFF Helpline are excellent resources for Iowans to find help with problem gambling. The helpline links callers to treatment and education from providers throughout the state 24 hours a day.

Of those who seek help through the Iowa Gambling Treatment Program, about 800 gamblers annually receive counseling for their problem. Assessment, screening and counseling hours for gamblers and concerned persons total almost 16,000 annually. In addition, about 1,000 crisis counseling hours are provided annually to others faced with desperate situations. Some are admitted for treatment.

Gamblers’ activities affect their families, friends, employers, and others – and these persons must also be considered. The Iowa Gam-

bling Treatment Program annually provides counseling to over 100 concerned persons on how to handle the consequences of problem gambling. Even if other Iowans consult with clergy, family counselors, and social workers, only a fraction gets help.

Clients Receiving Counseling Services from Agencies Contracting with the Program

Fiscal Year	Gamblers	Concerned Persons	Total Clients Served
2004	821	117	938
2003	790	129	919
2002	742	100	842
2001	802	142	944
2000	933	120	1053
1999	781	142	923
1998	826	190	1016
1997	741	229	970
1996	675	209	884
1995	412	150	562
1994	284	99	383
1993	216	66	282
1992	238	104	342
1991	233	129	362
1990	236	115	351
1989	202	90	292
1988	202	75	277

Public awareness and prevention became limited when program funding was substantially decreased. Television spots about excessive gambling declined markedly and resulted in a dramatic decrease in 1-800-BETS OFF helpline calls. The following chart, “Media Expenditures, Calls and Clients,” portrays how much advertising, especially television, increases calls to the helpline. Over 4,000 calls were handled in 1998 compared to fewer than 1,400 in FY2004.

A 1998 evaluation of the advertising program for the 1-800-BETS OFF helpline showed overwhelming support for the messages.

- 97% of Iowans agreed that a clear message was provided.
- 93% agreed messages were a valuable resource.

- 94% agreed that advertising the 1-800-BETS OFF helpline should continue.

The effective statewide purchase of multi-media messages, especially on television, increases calls to the 1-800-BETS OFF helpline. An advertising agency coordinates the creation and placement of messages for television, billboards, print, and radio. Client numbers would likely increase to above 900 if more television messages aired to stimulate calls and connections to treatment providers. Direct services are assisted when funding is provided to supportive services such as multi-media marketing, information and training. Iowa must continue to use technology and improve education on problem gambling and its effects on gamblers, family members, and friends.

The Department contracted with the Harvard Medical School to review 1998-2001 participant data. “The Iowa Department of Public Health Gambling Treatment Services: Four Years of Evidence” (2002) reported that among gamblers who completed the program and for whom records were available, 74% were abstaining from gambling six months later. Also, 49% of those who received “substantial” treatment were abstaining from gambling, as were 36% who received some treatment. Among the small sample studied from admission to follow-up, 85% of treatment completers, 88% of partial treatment completers, and 65% of others significantly reduced the amount of money they lost per week.

Iowa Gambling Treatment Program (Iowa Department of Public Health)
Media Expenditures, Calls, and Clients by Fiscal Year

The chart shows Expenditures for Educational Messages about Problem Gambling and the 1-800-BETS OFF Helpline, Helpline Calls from Gamblers and Concerned Persons, and Clients Receiving Counseling Services

	Expenditures for Educational Messages				TOTAL	Helpline Calls	Clients Served
	Television	Radio	Print	Billboards			
Fiscal Year 2004	\$120,708	\$-	\$-	\$112,384	\$233,092	1357	938
Fiscal Year 2003	\$151,639	\$-	\$-	\$135,470	\$287,109	1587	919
Fiscal Year 2002	\$162,157	\$-	\$-	\$130,960	\$293,117	1557	842
Fiscal Year 2001	\$389,689	\$-	\$-	\$142,187	\$531,876	2189	944
Fiscal Year 2000	\$494,758	\$117,094	\$253,930	\$99,022	\$964,804	2470	1053
Fiscal Year 1999	\$499,585	\$148,576	\$233,594	\$95,160	\$976,915	2355	923
Fiscal Year 1998	\$905,458	\$248,411	\$219,813	\$98,175	\$1,471,857	4156	1016
Fiscal Year 1997	\$277,505	\$158,250	\$62,545	\$111,241	\$609,541	4336	970
Fiscal Year 1996	\$1,045,474	\$175,816	\$120,374	\$108,128	\$1,449,792	4496	884
Fiscal Year 1995	\$82,360	\$44,200	\$-	\$88,046	\$214,606	1304	562
Fiscal Year 1994	\$-	\$-	\$-	\$-	\$-	140	383
Fiscal Year 1993	\$-	\$-	\$-	\$-	\$-	243	282
Fiscal Year 1992	\$-	\$-	\$-	\$-	\$-	228	342
Fiscal Year 1991	\$-	\$-	\$-	\$-	\$-	172	362
Fiscal Year 1990	\$146,163	\$-	\$26,000	\$29,000	\$201,163	323	351
Fiscal Year 1989	\$253,429	\$38,684	\$44,743	\$53,921	\$390,777	343	292
Fiscal Year 1988	\$-	\$-	\$-	\$34,480	\$34,480	337	277

The study described the adverse consequences identified by clients at the time of screening/admission to treatment services:

1. Economic Factors

- Declaring bankruptcy, 23.7%
- Credit card debt, \$7,726
- Total debt, \$34,639
- Gambling debt, \$14,084
- Amount lost weekly \$522
- Most lost in one week (last 6 months), \$1,929
- % of money lost legally (weekly), 94%
- % of money lost illegally (weekly), 4%
- Work days missed due to gambling (last 6 months), 2.10
- Jobs lost due to gambling (last 5 years), 0.22

2. Social Factors (%)

- Arrested in lifetime, 40.5%
- Arrested for gambling, 8.9%
- Arrested in past 12 months, 14.1%
- Attend gamblers anonymous meetings, 17.2%
- Treated for substance abuse, 22.8%

3. Health Risk Behaviors (at least daily, %)

- Tobacco use, 60.8%
- Compulsive work, 5.9%
- Food abuse, 4.0%
- Alcohol use, 3.7%
- Compulsive sex, 2.1%
- Illicit drug use, 1.7%
- Compulsive spending, 1.3%
- Prescription drug use, 1.1%
- Physical harm to self, 0.3%

Slot machines accounted for 58% of losses; casino table games for 14%, and video poker for 10%. No other game accounted for more than a small fraction of losses.

The Harvard Medical School Division on Addictions contracted to perform more client follow-up analysis to provide an outside, objective review of what works best in preventing and treating problem gambling. As mentioned earlier, crises annually account for hundreds more service hours to many Iowans. “The Iowa Department of Public Health Gambling Treatment Services: Four Years of Evidence” data shows a

relationship between crisis contacts related to problem gambling and exposure to a casino. Crisis contacts are via telephone calls or office visits by persons in need of urgent help who are not admitted as a client.

Areas of higher crisis contacts related to problem gambling tend to cluster around gambling venues. For example, the northern region of Iowa, which is devoid of gambling establishments, had the lowest concentration of crisis contacts. Counties with the highest concentrations of crisis contacts (Woodbury, Dubuque, Polk, and Ringgold) are located within 50 miles of at least one gambling establishment, and most are in areas of exposure to multiple venues. Counties within a 50-mile radius of a casino had a statistically significant higher rate of population-adjusted crisis contacts than counties outside that radius.

When additional gambling facilities open, preparations must be in place for more client services. Additional funding must first go toward providing direct client services prior to launching any new initiative. Preventing unhealthy gambling should be a top priority because it is key to avoiding future costs. Promoting healthy gambling should be a major focus, along with providing accurate information about the nature of gambling for those choosing to gamble.

In addition to outpatient counseling (individual, group and family), providers offer education on problem gambling and prevention to at-risk groups (senior, underage, cultural) at no charge. Sessions have been held for banking, finance, insurance, school, human service, and health care organizations. Mental health, chemical dependency, medical fields, and the criminal justice system benefit as well. See a following table for a listing of annual education hours.

Priorities are to reduce health disparities by people with disabilities, minorities, migrants, immigrants, refugees, and their families. They also include providing infrastructure that focuses on prevention and awareness of problem gambling within these populations, as well as appropriate and effective education and outreach.

Education and Public Awareness Hours Provided by Agencies

Fiscal Year	Hours	Fiscal Year	Hours
2004	1925	1996	1692
2003	1922	1995	2084
2002	1717	1994	642
2001	1657	1993	720
2000	2853	1992	944
1999	3000	1991	4072
1998	3233	1990	2473
1997	2201	1989	2365

The educational component of gambling services informs families, employers, churches, community groups, and others affected by the hidden nature of excessive gambling. Local presentations combined with multi-media messages designed for an array of demographic, multi-cultural, racial, and age groups encourage people to seek help in the early stages, prior to needing more intensive counseling. A statewide multi-media effort must continue with funding at or above the current level, and include outreach by treatment providers and local educational presentations.

Presentations focus on such topics as:

- Screening for problem gamblers by counselors, clergy, health care providers, and financial and credit entities can better identify people who hide their problem gambling behind alcohol and other drug use. For example, a good screening question is, "Have you ever borrowed money or borrowed on a credit card to gamble or pay off gambling debts?"
- The Lie-Bet Screening Instrument has been deemed valid and reliable for ruling out pathological gambling. Questions include 1) Have you ever felt the need to bet more and more money? and 2) Have you ever had to lie to people important to you about how much you gambled? A "Yes" to either item indicates a need for further assessment. (Johnson, E.E., Hamer, R., Nora, R.M., Tan, B., Eistenstein, N., & Englehart, C. 1988. The lie/bet questionnaire for screening pathological gamblers. *Psychological Reports*, 80, 83-88.)
- Suicides and suicide attempts are often related to problem gambling. Some motor vehicle

injuries and deaths may result from people facing insurmountable gambling debts. Driving while in a drowsy state due to long hours of gambling may also cause accidents.

- Violent and abusive actions may result from losses, debts and time spent gambling.
 - Family problems also often result from gambling. Families need answers to questions, such as "What steps should be taken when someone close has a gambling problem? How does one intervene? How does a person get help?"
 - Crimes to support problem gambling include embezzlement, theft and fraud. The Iowa Division of Criminal Investigation must continue its deterrence of illegal gambling, including illegal sports betting, illegal slot machines, and other criminal activities.
 - Information provided to the judicial and correctional system needs to be more focused on problem gambling, which can be well hidden. Gamblers sometimes use secret post office boxes for bills or forge signatures on second mortgages and loans.
 - Employers experience lower productivity from workers with gambling problems. Information on problem gambling should be provided at the workplace because it alerts key people to this behavior and to the time and money spent by those with a gambling problem.
 - Prevention designed to give students an alternative to drinking should be careful about using "casino nights." Since a portion of the population is susceptible to developing problem gambling, there should be alternative activities other than gambling to interest young people. Caution should be taken in substituting one problem behavior for another. Young people must also be informed about problem gambling and the negative results on educational and career opportunities, as well as relationships.
- Also, community education needs to cover problem gambling and its effect on the community by helping answer questions such as:
- What are the criteria for responsible gambling? Is it a percentage of take-home pay?
 - What are the limits of social gambling? How does one know if one's gambling is okay?

- Regarding seniors and gambling, how much gambling is okay? Do seniors know where to get help?
- How can people be assured they're not gambling too much? Are there factors that predispose someone to gamble excessively? Are young people more at-risk than adults or senior citizens?
- Is gambling on credit okay? Easy access to money, particularly, at casinos, can trigger an impulse to gamble to win back previous losses.

One form of measuring success is by beneficial changes in health or reductions in risk factors; another is to assess improvement in providing services. Progress reviews should be periodically conducted on problem gambling and affected populations, including women, adolescents and racial and/or ethnic groups. It is important to recognize and address emerging issues such as changing demographics, advances in preventive therapies, and new technologies.

Establishing state health goals and monitoring progress on problem gambling could motivate action to improve Iowans' health in this area as well as in other affected areas. There are so many unanswered questions in the field of problem gambling that an evaluation team or other entity should be established.

There is a continuing need to:

- Determine if the whole population is being reached. The reality is that the message will not matter for some who will continue have a gambling problem.
- Determine if more outreach and/or local messages are necessary to get more people into programs and other services.
- Determine if more funding should be invested in education to keep a message in front of potential clients and to prevent them from ever needing more intensive counseling.
- Determine alternative educational methods to reach young people, the elderly, and the general public with the message of preventing excessive gambling.
- Examine the best methods to do more prevention among high-risk groups.
- Examine the best methods to teach no-risk or low-risk gambling guidelines to the public.

- Examine the need for law enforcement and probation when appropriate. Unlike substance abuse, gambling clients are usually self-referrals with no outside force keeping them attending.
- Explore the development of a mentoring program for counselors to staff hard-to-reach cases and share best practices in gambling treatment. Follow up with clients who received gambling services and can assist in learning what works best.
- Explore the need for gambling-specific counselor certification and gambling-specific program certification.
- Continue to provide statewide conferences and other training events.

Training over the Iowa Communications Network features experts in problem gambling. Sessions reach a variety of interested people, including counselors, clergy, human resource personnel, mental health clinicians, social workers, and health care professionals. Specialists have made presentations during the Governor's Conference on Substance Abuse.

The Iowa Gambling Treatment Program web site, <http://www.1800betsoff.org>, provides Internet users with statistics, reports and resources for gamblers and persons affected by problem gambling. Materials such as billboards, posters and brochures are posted, some in collaboration with other entities. For example:

- The link "Niagara Multilingual Prevention and Education Problem Gambling Program" contains information in 11 languages.
- An article in the *Journal of the American Medical Association* covers pathological gambling.
- The Association of Problem Gambling Service Administrators link provides excellent information on services in other states.
- National Problem Gambling Awareness Week materials are posted at www.npgaw.org.
- The Iowa Lottery developed Iowa-specific public service announcements.
- "Your First Step to Change" (2002) is a guide compiled by the Massachusetts Council on Compulsive Gambling and the Harvard Medical School Division on Addictions. The guide has three sections: Facts About Gambling, Understanding Your Gambling, and Thinking About

Change. An interactive version of the guide is also available on the web site.

The web site www.1800betsoff.org and other technological improvements facilitate access to care, provide general health promotion and prevention guidance, and help keep up with the fast pace of gambling. Support and recovery groups also provide peer support.

The Iowa Substance Abuse Information Center maintains a gambling treatment library and distributes problem gambling videotapes, brochures, curriculum guides, and other materials. Brochures are available in 11 Asian languages and Spanish.

Public awareness, training, education, and counseling are essential components to manage the effects of gambling. Providers are prepared to answer statewide calls with counselors and staff. By attending ongoing training specific to gambling treatment and prevention, providers are qualified to present the most current information on problem gambling and prevention.

The Iowa Gambling Treatment Program in the Iowa Department of Public Health is the primary entity to coordinate efforts and address challenges. An advisory committee provides guidance on the program structure and services.

20–7.1 Action Step

By 2010, increase by 10% over fiscal year 1998 education and public awareness time spent on problem gambling. Education declined to 1,925 hours in 2004 as a result of a decrease in funding. Using a minimum 0.5% tax on the proceeds of legalized gambling in Iowa, hours should begin to increase and go beyond the 1998 level of 3,233 hours. (An Iowa Department of Public Health action step.)

20–7.2 Action Step

By 2010, increase by 10% from the 1998 level of 1,016 the number of clients receiving counseling. (An Iowa Department of Public Health action step.)

20–7.3 Action Step

Through 2010, increase 1-800-BETS OFF helpline calls by buying more multi-media messages. Increase calls to the 1998 level of 4,156

and use a portion of the minimum 0.5% tax for this step. (An Iowa Department of Public Health action step.)

20–7.4 Action Step

Through 2010, conduct follow-up on clients to show results and calculate client recidivism. (An Iowa Department of Public Health action step.)

20–7.5 Action Step

Through 2010, using a minimum 0.5% tax, adequately fund the full continuum of services, including education, prevention, early intervention, and treatment. (An Iowa Department of Public Health action step.)

20–7.6 Action Step

Through 2010, monitor the following established process, including the number excluded and the wagers deposited: Effective July 1, 2004, state law requires a process to allow a person to be voluntarily excluded for life from all state licensed casinos, and any money or thing of value that has been obtained by, or is owed to, a voluntarily excluded person by a licensee as a result of wagers made by the person after the person has been voluntarily excluded shall not be paid to the person but shall be deposited into the gambling treatment fund. (An Iowa Gaming Association and Iowa Department of Public Health action step.)

20–8 Goal Statement

Increase to 115 and sustain state, county, community, and neighborhood collaborative groups to reduce problems of alcohol, tobacco, other drugs, and problem gambling. Baseline, 2004: 85.

Rationale

Collaborations are essential to ensure the highest and most successful prevention and treatment. Some government collaborations exist, but too often services overlap or the same programs are funded through several agencies. To simplify funding and share information, collaborations must expand.

Substance abuse prevention specialists and community leaders continue to collaborate to form or maintain SAFE community coalitions. There were 106 active SAFE community coalitions in 2005. Many of them mentor nearby communities in the process of organizing and mobilizing to broaden substance abuse prevention efforts statewide.

In November 2004, Governor Vilsack declared Iowa a State of Promise and a member of the American's Promise Program founded after the Presidents' Summit for America's future, April 27-29, 1997. At that conference, the president challenged the nation to make youth a national priority. The call to action included a commitment by the nation to fulfill Five Promises. America's Promise created a diverse and growing alliance of more than 400 national organizations called Partners that make large-scale national commitments to fulfill one or more of the Five Promises. These groups span all sectors of society and include higher education, corporations, non-profits, faith-based groups, associations, federal agencies, and arts and cultural organizations.

The SAFE community coalitions will be working with the America's Promises. Substance abuse prevention may be integrated within each of the Five Promises of 1) Caring Adults, 2) Safe Places, 3) Healthy Start, 4) Marketable Skills, and 5) Opportunities to Serve. Over time, the intention and goal is for individual SAFE community coalitions to blend with larger "community of promise" coalitions.

20–8.1 Action Step

By 2006, establish a sub-group (continue the State Incentive Grant Advisory Subcommittee) of the Office Of Drug Control Policy's Drug Policy Advisory Council to coordinate policy development, planning and resources for increasing and sustaining alcohol, tobacco and other drugs coalitions. (An Office of Drug Control Policy action step.)

20–8.2 Action Step

By 2006, identify and facilitate common initiatives for the Drug Policy Advisory Council's sub-group and the interagency youth-development group. (An Office of Drug Control

Policy and Iowa Department of Human Rights/Criminal and Juvenile Justice Planning action step.)

20–8.3 Action Step

By 2006, establish a mechanism for community coalitions to interact with one another at least twice annually on assessment, sustainability and evaluation. (An Office of Drug Control Policy and Iowa Department of Public Health action step.)

Goal Cross References

Chapter 1: Access to Quality Health Services

- 1–1 Reduce to 0 the proportion of children and adults under age 65 without health care coverage.
- 1–2 Drive quality improvement of health care through Iowa's Critical Access Hospitals by developing a plan and engaging in activities that promote and encourage providers to follow standardized quality performance measures.
- 1–3 Increase by 25% access to primary care for the underserved population.
- 1–4 Ensure a competent and diverse health workforce by assessing and forecasting workforce supply and demand and by promoting local strategies to recruit and retain workers through the inclusion of 99 counties in a nurse tracking project.
- 1–12 Develop a strategic plan to assess and employ telehealth and telemedicine that can increase access to quality health services in Iowa.

Chapter 2: Cancer

- 2–8 Reduce oral cavity and pharyngeal cancer deaths to no more than 1.8/100000.

Chapter 3: Diabetes

- 3–3 Offer leadership and education opportunities to health care professionals to enable them to provide improved medical guidance to people with diabetes.
- 3–4 Decrease mortality and morbidity from diabetes by preventing or delaying complications.

Chapter 4: Disabilities

4-3Assure that each HI2010 chapter assesses the health issues and potential treatment for people with disabilities and incorporates appropriate goals and action steps.

Chapter 5: Educational and Community-Based Programs

5-2Ensure that at least 20 schools provide a set of basic health support services for students and 81% of school districts employ a full-time nurse.

5-4Implement policies and guidelines to ensure that school health education and physical education are compliant with statutory education program requirements.

5-5Ensure that post-secondary community colleges provide data on how the college addresses the six priority health risk behavior areas.

Chapter 7: Family Planning

7-1Increase to 65% the proportion of intended pregnancies among Iowa women aged 13-44.

7-2Reduce pregnancies to 12/1000 among females aged 15-17 and to 50 annually among females aged 12-14.

7-3Establish a baseline of sexual activity for Iowa adolescents.

Chapter 10: Immunizations and Infectious Diseases

10-4Reduce hepatitis A cases to no more than 10/100000.

10-5Reduce to 0 newly diagnosed hepatitis B rates in persons under aged 25.

10-6Reduce to 50% hepatitis B among adults aged 25 and older.

Chapter 11: Maternal, Infant and Child Health

11-1Reduce overall infant mortality to no more than 5/1000 of live births.

11-2Reduce overall low birth weight to no more than 5% of live births and overall very low birth weight to no more than 1% of live births.

11-4Reduce child mortality for ages 1-14 to 17/100000.

11-8 Reduce overall perinatal mortality to no more than 7.1/1000 live births.

Chapter 12: Mental Health and Mental Disorders

12-7 Identify and serve children and youth in the juvenile justice system by developing an integrated community-based mental health service delivery model.

12-8 Expand by 30% the capacity to serve adult offenders in Iowa state correctional facilities and under community supervision.

12-10 .. Design and implement a system of care for adults with mental health needs.

12-12 .. Provide appropriate mental health services to all adults and children seeking service.

12-16 .. Identify 100% of pregnant and postpartum women with depression or at high risk for depression.

12-19 .. Develop a system for collecting a uniform set of mental health data across all publicly funded services for adults and children.

Chapter 13: Nutrition and Overweight

13-6 Increase by at least 20% people aged two and older who meet the dietary recommendations for calcium.

Chapter 15: Oral Health

15-5 Reduce deaths due to cancer of the oral cavity and pharynx in adults aged 45-74 to no more than 5.3/100000 for men and 2.2/100000 for women.

Chapter 19: Sexually Transmitted Diseases and HIV Infections

19-1 Reduce Chlamydia trachomatis to no more than 140/100000.

19-2 Reduce gonorrhea to no more than 43/100000.

19-8 Reduce new cases of AIDS among adolescents and adults to no more than 2/100000.

19-9 Reduce by 50% the annual incidence of HIV infection.

19-10 .. Increase to 67% sexually active students who report using a condom during the previous 3 months.

19-13 .. Increase to 1.0% newly identified, confirmed HIV-positive test results by state-

funded HIV counseling, testing and referral sites.

- 19–14 ..Increase to 75% partner counseling and referral contacts with unknown or negative serostatus who receive an HIV test.
- 19–15 ..Increase to 90% facilities providing treatment for injecting drug use that offer or provide referrals for HIV counseling and voluntary testing.

Chapter 21: Tobacco Use

- 21–1Increase the tax on cigarettes by \$1.00 per pack.
- 21–2Pass local control legislation that will allow communities the option to regulate smoking in public places to protect citizens from the dangers of secondhand smoke.
- 21–3Enact legislation that requires the Iowa Division of Tobacco Use Prevention and Control to be consistent with CDC's Best Practices for Comprehensive Tobacco Control programs.
- 21–4Reduce to 10% Iowans' exposure to secondhand smoke in the workplace.
- 21–5Implement comprehensive tobacco policies in 100% of Iowa school districts.
- 21–6Increase to 69% adults who report not allowing smoking anywhere in the home and to 65% adults who report not allowing smoking inside vehicles.
- 21–7Decrease to 18% adults aged 18 and older who smoke cigarettes, decrease to 28% adults aged 18-24 who smoke cigarettes, decrease to 25% adults in households with incomes less than \$25,000 who smoke cigarettes, and increase to 75% adult tobacco-use cessation attempts.
- 21–8Decrease to 12% the number of women who smoked during pregnancy.
- 21–9Establish comprehensive coverage by Medicaid for FDA-approved pharmacotherapies and behavioral therapies.
- 21–10 ..Decrease current use of any tobacco product in grades 6-12 and increase number of high school students who want to quit.
- 21–11 ..Increase to 94% retail compliance with existing tobacco statutes to reduce youth access to tobacco products through retail sources and with Iowa's youth access laws.

Chapter 22: Unintentional Injuries

- 22–6Reduce by 5% unintentional firearm-related deaths for ages 1-18.
- 22–9Reduce the fire death rate to less than 1/100000.
- 22–10 ..Reduce deaths by motor vehicle crashes to no more than 1.3/100 million vehicle miles traveled
- 22–11 ..Increase to 90% of motor vehicles the use of occupant protection systems such as safety belts and child safety seats.
- 22–12 ..Reverse the increasing trend of brain injuries due to motorcycles, motorized bicycles, and bicycles.
- 22–13 ..Provide academic instruction in formats for special populations on motor vehicle injury prevention in the public school system's mandated safety education curricula in grades K-12.
- 22–14 ..Reduce the number of fatal water-related injuries to less than 30/year.
- 22–15 ..Develop a plan to address the injury threat of off-road vehicles such as ATVs and snowmobiles.

Chapter 23: Violent and Abusive Behavior

- 23–1Reduce the risk of victimization from violent crime to less than 300/100000 and maintain the risk of homicide at or below 2.0/100000.
- 23–2Reduce firearm mortality to 5.0/100000, firearm suicide to fewer than 4 annually, and violent crime using a firearm to 25 annually.
- 23–3Identify the annual rate of physical abuse by current or former intimate partners, reduce the number of deaths from domestic violence to less than 5 annually, and increase the statewide conviction rate for domestic abuse cases to an average of 66%.
- 23–4Reduce the incidence of confirmed child abuse by a caretaker to less than 900/100000.
- 23–5Identify the annual rate of sexual abuse, increase the arrest rate for forcible rape to 16/100000, and increase the number of sexual abuse exams.
- 23–6Identify the incidence of elder and dependent adult abuse.
- 23–7Establish procedures at 100% of hospital emergency departments, family

planning agencies, public health clinics, community mental health centers, and substance abuse treatment programs for routinely identifying, treating and properly referring victims of child abuse, domestic abuse, elder abuse, and sexual assault.

23–8Identify the incidence of intentional violence in schools and workplaces and establish a mechanism for reporting it.

23–9Create opportunities for adults and youth to develop skills to be able to manage differences by building peaceable communities and schools.

Chapter 24: Vision

24–3Develop new or improved educational programs to reduce visual disabilities due to low birth weight or premature births.

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Chapter 21

Tobacco Use**Introduction**

This chapter provides strategies to alter social norms and environments that support tobacco use, and, as a result, reduce tobacco-related disease, disability and death in Iowa. The Centers for Disease Control and Prevention (CDC) recommends the following goals for a comprehensive tobacco control program:

- Prevent the initiation of tobacco use among young people;
- Promote cessation among young people and adults;
- Eliminate exposure to secondhand smoke; and
- Identify and eliminate disparities related to tobacco.

There have been a number of changes and developments in tobacco control since the first edition of *Healthy Iowans 2010* was released. The majority of the goal statements and action steps from the original version have either been modified or eliminated. Additionally, the chapter now includes new goals and action steps to reflect the many changes in the tobacco control landscape in Iowa. The order of the goals has been changed to reflect the priorities and most effective tobacco control practices. Research and recent experience of state tobacco control programs demonstrate that there are crucial components of tobacco use prevention and control measures:

- Increase the tax on tobacco products;
- Reduce exposure to secondhand smoke by changing social norms and environments that support tobacco use;
- Promote adult cessation of tobacco use;

- Promote prevention and cessation of tobacco among youth; and
- Restrict minors' access to tobacco.

Each of these components must be continually monitored and evaluated to determine if desired outcomes are being achieved to improve the overall effectiveness of implemented strategies. No single factor determines patterns of tobacco use. Instead, they are the result of complex interactions of factors such as socioeconomic status, cultural characteristics, acculturation, stress, individual physiological and genetic characteristics, the impact of targeted advertising, the price of tobacco products and the extent of restriction on their use, and the varying capacity of communities to mount effective tobacco control initiatives.

To achieve the individual behavioral change that supports the non-use of tobacco requires whole communities to change the way tobacco is promoted, sold and used while also changing the knowledge, attitudes and practices of young people, tobacco-users and non-users. Effective community programs involve people in their homes, work sites, schools, places of worship and entertainment, and other public places, and in civic organizations.

Community-based research has shown that comprehensive programs are effective in reducing per-capita tobacco consumption. Elements for building capacity to implement and support tobacco use prevention and cessation include a focus on change in social norms and environments that support tobacco use, policy and regulatory strategies, community mobilization, development of local tobacco control programs, and coordination of statewide and local activities. They also include linkage of school-based activities to community activities; use of surveillance and evaluation techniques to monitor pro-

gram impact; and strategic use of the media to build public support for tobacco control programs and policies, reinforce social norms supporting the non-use of tobacco, and counteract the pro-use messages and images of tobacco marketing and public relations campaigns.



Tobacco use appears to be susceptible to changes in the social environment. Federal, state and local government agencies and numerous health organizations have joined to develop and implement prevention activities to reduce tobacco use in the United States. They focus primarily on population-based strategies that emphasize prevention of initiation and reduction of exposure to environmental tobacco smoke.

A few definitions for easier understanding follow. As used in this chapter (unless otherwise noted), tobacco and tobacco products mean cigarettes, cigars, little cigars, cheroots, stogies, periques, granulated, plug cut, crimp cut, ready rubbed, and other smoking tobacco; snuff and snuff flour; cavendish; plug and twist tobacco; fine-cut and other chewing tobaccos; shorts, refuse scraps, clippings, cuttings, and sweepings of tobacco; other kinds and forms of tobacco prepared to be suitable for chewing or smoking in a pipe or otherwise; and other kinds and forms of tobacco for either chewing and smoking.

Tobacco use means employing any of these tobacco products in such a manner that nicotine and other chemicals are absorbed into the user's body. Secondhand smoke (SHS) (referred to as Environmental Tobacco Smoke or ETS in the first version of this chapter) is a combination of smoke exhaled by the smoker and side-stream smoke (that which is emitted from a burning tobacco product). Inhaling this is known as involuntary or passive smoking.

Cigarette smoking is the leading preventable cause of disease and death in the United States. Tobacco control is designated as one of the top ten public health measures in the United States. Scientific knowledge about the health consequences of tobacco use has increased greatly since the release of the first Surgeon General's Report on Tobacco in 1964. It is now well documented that smoking cigarettes causes heart disease, peripheral vascular disease, chronic lung disease, and cancers of the lung and larynx.

Tobacco is the most addicting psychoactive drug and the effects of nicotine, the addictive agent in tobacco, are very similar to those of cocaine and amphetamines. The user experiences a "high," a sense of release from stress or sense of euphoria. More than three times as many people are addicted to cigarettes as are addicted to alcohol.

Consequences of smoking during pregnancy may include spontaneous abortions, low birth weight babies, and sudden infant death syndrome (SIDS). Cigar use causes cancer of the larynx, mouth, esophagus, and lung. Use of smokeless tobacco causes a number of serious oral health problems including periodontitis, tooth loss, and cancer of the mouth.

Exposure to secondhand smoke is detrimental to health and can result in disease, disability and death. Significant exposure to secondhand smoke occurs both in the home and at work. At least 43 of the more than 4,000 chemical compounds that have been identified in tobacco smoke cause cancer in humans and animals.

The Burden of Tobacco-Related Disease in Iowa

Every year over 4,600 deaths in Iowa are attributable to tobacco-related diseases and \$794 million in medical expenditures are attributable to cigarette smoking. (The State of Iowa Medicaid program incurs approximately \$235 million of these smoking-related medical expenditures.) If current trends continue, 80,000 Iowa youth alive today will eventually die from smoking.

Since 1998, the prevalence of smoking among those aged 18 and older in Iowa has remained relatively stable, with 21.7% of adults surveyed in the 2003 Behavioral Risk Factor

Surveillance System being current smokers. ‘Current’ was defined as smoking either some days or every day during the past 30 days and smoking at least 100 cigarettes in a lifetime.

Percent of Current and Former Smokers in Iowa, 2003 Iowa Behavioral Risk Factor Surveillance System (BRFSS)

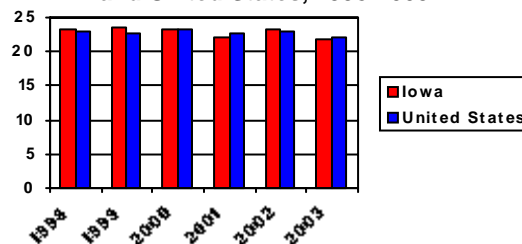
Demographic	Current Smoker		Former Smoker	
	%	C.I. (95%)	%	C.I. (95%)
TOTAL	21.7	20.2-23.1	24.5	23.1-25.9
SEX				
Male	22.8	20.5-25.0	29.5	27.2-31.8
Female	20.6	18.7-22.5	19.9	18.2-21.5
AGE				
18-24	36.0	29.6-42.3	11.3	7.5-15.2
25-34	24.1	20.6-27.7	16.3	13.0-19.5
35-44	25.4	22.2-28.5	16.8	14.2-19.4
45-54	23.8	20.9-26.8	24.8	21.7-27.9
55-64	17.1	14.2-20.1	37.9	34.0-41.9
65+	7.7	6.0-9.4	38.5	35.4-41.6
EDUCATION				
Less than H.S.	34.3	27.9-40.7	20.5	16.0-25.1
H.S. or G.E.D.	26.5	23.9-29.1	27.1	24.7-29.5
Some Post-H.S.	21.9	19.2-24.7	23.6	20.9-26.2
College Graduate	11.5	9.5-13.5	23.4	20.8-25.9
HOUSEHOLD INCOME				
Less than \$15,000	32.1	25.7-38.5	22.2	17.6-26.9
\$15,000- 24,999	27.5	23.4-31.5	25.8	22.2-29.5
\$25,000- 34,999	24.9	21.1-28.8	23.1	19.6-26.6
\$35,000- 49,999	23.4	20.1-26.7	24.8	21.5-28.0
\$50,000- 74,999	17.5	14.5-20.4	26.3	22.8-29.9
\$75,000+	11.2	8.5-13.9	25.3	21.7-28.9
RACE/ETHNICITY				
White/Non-Hisp	21.3	19.8-22.7	25.1	23.6-26.5
Black/Non-Hisp	25.8	10.7-40.8	22.0	9.8-34.2
Other/Non-Hisp.	31.6	19.7-43.5	17.0	8.5-25.5
Hispanic	28.7	15.1-42.4	11.0	4.4-17.6

* Race/Ethnicity categories added to original table. Many of these have insufficient size for sound analysis.

According to the 2003 BRFSS, the proportion of current smokers is higher for males than for females. Smoking generally declined with increasing age, education and income. The highest category in each of these dimensions had a considerably lower proportion of current smokers than the rest. Young adults aged 18 to 24 report the highest proportion of current

smokers (36%). Only 7.7% of respondent’s aged 65 and older were current smokers.

Trend in percent of current adult smokers in Iowa and United States, 1998-2003.



Source: Behavioral Risk Factor Surveillance System (BRFSS).

Cigarette smoking is a major cause of disease and death among African-Americans, Native American Indians and Alaska Natives, Asian Americans and Pacific Islanders, and Hispanics, according to the 1998 Report of the Surgeon General, Tobacco Use Among U.S. Racial/Ethnic Minority Groups. The report concluded that African-Americans currently bear the greatest health burden among those groups studied. Among adults, Native American Indians and Alaska Natives have the highest prevalence of tobacco use. African-American and Southeast Asian men also have a high prevalence of smoking. Furthermore, smoking among African-American youth increased substantially during the 1990s following a dramatic decline during the 1970s and 1980s.

Political instability around the world and an extraordinarily high demand for entry-level laborers (especially within agricultural product processing industries) has resulted in a substantial immigration of people from diverse cultures into Iowa during recent years. According to the 2000 Iowa census, 98.9% of the state’s 2.9 million residents were Caucasian (white), 61,853 were African-American, 82,473 were Hispanic/Latino, 8,989 were Native American Indian, and 36,635 were Asian. In Iowa, smoking prevalence among ethnic minorities is at much higher rates in comparison to Caucasians. These numbers underscore the need for targeted tobacco control programs aimed at these population groups.

Nationwide, persons with disabilities aged 18 and older have a 33% smoking prevalence rate, compared to 23% for persons without disabilities (*Healthy People 2010*). In Iowa, however, the smoking prevalence rate of persons aged 18 and over with disabilities is much lower than the nationwide rate (22.9%), and comparable to the prevalence rate of persons without disabilities (21.5%), according to the 2003 BRFSS.

Survey estimates of current use of chewing tobacco and snuff are somewhat varied and do not suggest any large changes over time. Approximately 16 to 20% of adults report ever using smokeless tobacco products and 3% to 5% report their current use (Iowa Tobacco Control Program Evaluation, 2003). In 2002, current (within the past 30 days) use of smokeless tobacco was reported by 8% of Iowa's high school students (an estimated 13,184 students). This is less than half (33%) of the high school students who reported ever using smokeless tobacco (Iowa Youth Tobacco Survey).

Approximately 500 Iowans die every year as a result of exposure to secondhand smoke. An estimated 231,000 children in Iowa are exposed to secondhand smoke at home. Attempts by two Iowa communities to introduce smoke-free restaurant ordinances were nullified in May 2003 when the Iowa Supreme Court ruled against the city of Ames' smoke-free restaurant ordinance that was passed in March 2001. This decision countered a formal opinion from the Iowa Attorney General in November 2000 and overturned a district court ruling supporting the ability of Iowa communities to restrict smoking in public places more stringently than the state code. This decision also nullified another smoke-free ordinance in the city of Iowa City.

Tobacco Control Initiatives in Iowa

Tobacco control initiatives in Iowa have greatly increased in the past since the original version of *Healthy Iowans 2010* was published. In 1998, Iowa and 45 other states agreed to a master settlement agreement (MSA) with the tobacco industry worth over \$206 billion to settle the states' attorneys general lawsuits against the tobacco companies and their research asso-

ciations. The suit filed by Iowa alleged that the defendants violated Iowa's Consumer Fraud Act by "repeatedly and systematically misleading the public" about the health dangers of smoking and by failing to disclose the addictive qualities of nicotine.

In 2000, the Iowa legislature allocated \$9.3 million of the master settlement agreement for a statewide, comprehensive tobacco control program. However, this was still significantly less than the Centers for Disease Control and Prevention (CDC) recommended funding levels for Iowa (between \$19.3 and \$48.7 million). The following is a progress summary of Iowa's tobacco control efforts since 2000:

- In 2000, established the Iowa Commission on Tobacco Use Prevention and Control, as well as the Division of Tobacco Use Prevention and Control.
- Since FY2001, made funding available to all 99 counties, to create local "community partnerships" that address tobacco prevention and control issues at the local level.
- In 2000, established Just Eliminate Lies (JEL), a youth-led movement with a mission to expose the lies of the tobacco industry and make tobacco use socially unacceptable in our society.
- In 2001, established Quitline Iowa, a statewide smoking cessation hotline.
- Since FY2001, the legislature allocated funding for smoking cessation programs in free medical clinics. In FY2005, three free medical clinics in Iowa received funding to provide cessation counseling and nicotine replacement therapy to low-income and underinsured individuals.
- In 2003, 89% of Iowa's tobacco retailers were found compliant during compliance checks, compared to 67% in 1999.
- Currently, the Iowa Department of Public Health facilitates the Iowa Youth and Adult Tobacco Surveys in even-numbered years.

According to the 2002 Iowa Youth Tobacco Survey, 34% of all high school students and 11% of all middle school students reported having used tobacco products within the past 30 days. This represented a 13% reduction in usage of tobacco products among high school students

and a 31% reduction among middle school students from 2000 to 2002.

After only two years from the initiation of the program, the state legislature reduced funding for the Division of Tobacco Use Prevention and Control to \$5.1 million. As a result, funding for programs that provided smoking cessation counseling to pregnant women and their family members, as well as school-based tobacco prevention programs, were eliminated. Allocation of a portion of the disbursements provided for in this historic agreement is essential to produce substantial reductions in tobacco use.

In Iowa, there are four statewide coalitions dedicated to tobacco prevention and control.

1. Tobacco Free Iowa (TFI) is a statewide coalition of state organizations, local groups, and individuals working together to coordinate efforts to control and prevent tobacco use in Iowa.
2. Iowa's Health Initiative (IHI) is a coalition comprised of over 50 organizations advocating for an increase in the state tax on tobacco products.
3. Clean Air For Everyone Iowa (CAFÉ Iowa) is a grassroots coalition that supports restoring local tobacco control to Iowa communities.
4. The Iowa Consortium for Comprehensive Cancer Control's Tobacco Control Implementation workgroup is a statewide coalition that actively supports the previous three coalitions, as well as the planning and implementation of additional unique tobacco control activities (see chapter two for additional information).

Goal Statements & Action Steps

21–1 Goal Statement

Increase the tax on cigarettes by \$1.00 per pack. Baseline: The current tax on cigarettes in Iowa (as of FY 2004) is 36 cents.

Rationale

The tobacco tax in Iowa was last raised in 1991 by one cent. Iowa ranks 42nd of all states in their tax status. The average tax of all states is 79.2 cents per pack. Raising the tax on to-

bacco products is one of the most effective ways to reduce smoking among both youth and adults. Research shows that a price increase of \$1.00 per pack of cigarettes can be expected to produce a 19.5% decrease in consumption by youth. A substantial part of the decline is a result of children who will not initiate smoking at higher prices. Approximately 26,000 current adult smokers in Iowa would quit as a result of a \$1.00 tax increase, and 5,700 people would be saved from a smoking-caused death.

Tobacco taxation is also an efficient means to offset the enormous costs caused by tobacco. An Iowa tobacco tax will reduce the number of residents who smoke and reduce the substantial cost of smoking to Iowa's state economy and annual budget. According to the Campaign for Tobacco Free Kids, a \$1.00 tax increase would raise more than \$163 million in new revenues each year. The 5-year health care savings from fewer smoking-caused heart attacks and strokes alone would total \$10.3 million.

21–1.1 Action Step

By 2005, develop and implement a legislative strategy that includes regular communication with elected officials and educates them on all aspects of the tax issue. (An Iowa's Health Initiative action step.)

21–1.2 Action Step

By 2005, develop and implement a statewide public awareness and education campaign to build a base for grassroots support. (An Iowa's Health Initiative action step.)

21–1.3 Action Step

Through 2006, continue to build the Iowa's Health Initiative coalition to work for and pass a cigarette tax increase for health care programs in Iowa. (An Iowa's Health Initiative action step.)

21–1.4 Action Step

By 2005, develop and implement a comprehensive grassroots strategy to support the initiative. (An Iowa's Health Initiative action step.)

21–1.5 Action Step

Through 2006, utilize the media to educate advocates, legislators and the public about the

need to increase the tax. (An Iowa's Health Initiative action step.)

21–1.6 Action Step

Through 2006, include a proposal for increased funding for the Division of Tobacco Use Prevention and Control within any proposal to increase the tobacco tax. (A Tobacco Free Iowa and Iowa's Health Initiative action step.)

21–1.7 Action Step

Through 2006, meet with key legislators and legislative leadership to discuss the need for an increase in the cigarette tax. (An Iowa's Health Initiative action step.)

21–1.8 Action Step

Through 2010, continue to advocate for appropriate regular increases in the price of cigarettes and other tobacco products that will continue to reduce tobacco use. (An Iowa's Health Initiative, Tobacco Free Iowa, and Iowa Department of Public Health action step.)

21–2 Goal Statement

Pass local control legislation that will allow communities the option to regulate smoking in public places to protect citizens from the dangers of secondhand smoke. Baseline: According to a 2003 Iowa Supreme Court ruling, local governing bodies do not have the authority to regulate smoking in public places, pursuant to Iowa Code Section 142B. The cities of Ames and Iowa City passed local ordinances in 2001 and 2002 respectively. Iowa City repealed their ordinance after the court's ruling and Ames has retained theirs on the city books.

Rationale

Diseases caused by exposure to secondhand smoke take the lives of 53,000 Americans each year, 500 of whom are Iowans. Secondhand smoke is the third leading cause of preventable death in the U.S and contains more than 50 known cancer-causing carcinogens. According to the 2002 Iowa Adult Tobacco Survey conducted by the Gallup Organization, 84% of Iowans

agreed that people should be protected from secondhand smoke.

21–2.1 Action Step

By 2005, develop and implement a legislative strategy to pass legislation that restores a community's ability to pass clean indoor air ordinances. (A Clean Air For Everyone Iowa action step.)

21–2.2 Action Step

By 2005, develop and implement a state-wide public awareness and education campaign that reaches every county in Iowa. (A Clean Air For Everyone Iowa and community partnership action step.)

21–2.3 Action Step

Through 2010, provide educational materials and technical assistance to communities so they can implement a plan to pass local ordinances. (A Clean Air For Everyone Iowa action step.)

21–2.4 Action Step

Through 2010, increase the number of communities who are actively working on passing local clean indoor air ordinances and other smoke-free policies. (A Clean Air For Everyone Iowa, community partnerships, and Iowa Department of Public Health action step.)

21–2.5 Action Step

Through 2010, build and sustain a coalition that can work together to pass the legislation. (A Clean Air For Everyone Iowa action step.)

21–3 Goal Statement

Enact legislation that requires the Iowa Division of Tobacco Use Prevention and Control to be consistent with the Best Practices for Comprehensive Tobacco Control programs as outlined by the Centers for Disease Control and Prevention (CDC). Baseline: The Division of Tobacco Use Prevention and Control currently receives a \$5 million appropriation by the Iowa legislature from the Healthy Iowan's Tobacco Trust. The

program provides minimal funding for community programs, enforcement, cessation, counter-marketing, evaluation and administration; however, the programs are severely under-funded and far from meeting CDC's minimum guidelines.

Rationale

The CDC's annual funding recommendations for Iowa are \$19.35 to \$48.71 million in order to have an effective, comprehensive tobacco prevention program. When the Division was established in FY2000, the legislature appropriated \$9.3 million, then reduced it to \$5 million in FY2003. Iowa's current program is not comprehensive in nature and does not provide funding for school programs or chronic disease programs. The CDC recommends that states establish tobacco control programs that are comprehensive, sustainable and accountable. To achieve this, the state must allocate funding within CDC's recommended guidelines.

21–3.1 Action Step

Through 2010, develop and implement a public awareness and education campaign to recruit and educate advocates and the general public about CDC's best practices and guidelines and the need to secure ongoing funding for the Division of Tobacco Use Prevention and Control. (An Iowa Department of Public Health and Tobacco Free Iowa action step.)

21–3.2 Action Step

Through 2010, continue to educate legislators, advocates and the public through the media and other means on the toll of tobacco in Iowa and the need to meet CDC's suggested guidelines. (An Iowa Department of Public Health and Tobacco Free Iowa action step.)

21–3.3 Action Step

Through 2010, the director of the Iowa Department of Public Health and the Commission on Tobacco Use Prevention and Control shall include a request for increased funding in the Department's annual budget request to the Governor to be consistent with the minimum guidelines set forth by the CDC. (An Iowa Department of Public Health action step.)

21–3.4 Action Step

Through 2010, mobilize advocates to participate in the Governor's annual budget hearings to provide education on CDC's best practices and guidelines for Iowa. (A Tobacco Free Iowa action step.)

21–3.5 Action Step

Annually through 2010, host a day at the capitol for community partnerships to build relationships and communicate the work of the local tobacco control coalitions with legislators. (An Iowa Department of Public Health and American Cancer Society action step.)

21–3.6 Action Step

Through 2010, supporting organizations shall educate their members on CDC's guidelines for Iowa and implement a grassroots campaign to support meeting those guidelines. (A Tobacco Free Iowa action step.)

21–3.7 Action Step

Through 2010, provide an annual update and evaluation of the Division of Tobacco Use Prevention and Control's accomplishments to the legislature, community partnerships, the commission, and other statewide tobacco partners. (An Iowa Department of Public Health action step.)

21–3.8 Action Step

Through 2010, the director of the Division of Tobacco Use Prevention and Control, the chair of the Commission on Tobacco Use Prevention and Control, and the director of the Iowa Department of Public Health shall meet annually with legislative leadership and appropriations members to educate them about CDC's guidelines for Iowa and justify the need for an increase in funding for the program. (An Iowa Department of Public Health and the Commission on Tobacco Use Prevention and Control action step.)

21–3.9 Action Step

Through 2010, the Iowa Department of Public Health shall work with all collaborating tobacco partners to develop and sustain a compre-

hensive program. (An Iowa Department of Public Health action step.)

21–3.10 Action Step

Through 2010, the Iowa Department of Public Health shall uphold and sustain the role of the Commission on Tobacco Use Prevention and Control, the division director, and the staff positions in accordance with the guidelines set forth by the CDC and the Iowa General Assembly. (An Iowa Department of Public Health action step.)

21–3.11 Action Step

By 2010, work with the state legislature to eliminate section 142.A11 from the Iowa Code, which would repeal chapter 142A on June 30, 2010. This chapter, among other things, establishes the existence of the Iowa Commission on Tobacco Use Prevention and Control, as well as the Division of Tobacco Use Prevention and Control, within the Iowa Department of Public Health.

21–4 Goal Statement

Reduce to 10% Iowans' exposure to secondhand smoke in the workplace. Baseline, 2002 Iowa Adult Tobacco Survey: 25.8% of those surveyed reported being exposed to secondhand smoke in the workplace one or more days a week.

Rationale

Secondhand smoke (SHS) is the third leading cause of preventable death in this country. Approximately 500 Iowans die every year as a result of exposure to secondhand smoke. Workers in smoke-filled environments face an even higher risk of secondhand smoke-related death and disease. Research has shown secondhand smoke to cause heart disease and stroke, as well as lung, nasal and sinus, uterus, liver, and kidney cancers. Workplace exposure to SHS causes more death and disease than all other regulated occupational substances combined. Secondhand smoke is harmful in even very small quantities, and Iowans are exposed to high levels of it everyday in their workplace.

21–4.1 Action Step

By 2006, obtain list of all Iowa employers and survey employers to establish baseline data on the percentage of employers with smoke-free policies. (An Iowa Department of Public Health action step.)

21–4.2 Action Step

Through 2010, conduct the Iowa Adult Tobacco Survey and Iowa Youth Tobacco Survey in even-numbered years and include questions regarding exposure to secondhand smoke in the workplace. Attempts will be made to obtain statistically significant sample sizes of ethnic populations and persons with disabilities. (An Iowa Department of Public Health action step.)

21–4.3 Action Step

By 2006, develop and disseminate a comprehensive smoke-free worksite packet that is language-appropriate for Iowa businesses or worksites with 1,000 or more employees and that includes the following information:

- How to move toward a smoke-free environment;
- On-site cessation;
- Free or reduced rates for pharmaceuticals;
- Health benefits of a smoke-free environment;
- Reduced insurance rates for tobacco-free employees; and
- A model policy to employers.

(An Iowa Department of Public Health action step.)

21–4.4 Action Step

Through 2010, continue to work with local communities to provide smoke-free worksite resources to small business owners. (An Iowa Department of Public Health and community partnership action step.)

21–4.5 Action Step

Through 2010, work with state and local health departments to establish a system to handle complaints and violations of Iowa clean indoor air laws and local ordinances. (An Iowa Department of Public Health and Iowa Attorney Generals Office action step.)

21–5 Goal Statement

Implement comprehensive tobacco policies in 100% of Iowa school districts that include bans on 1) tobacco anywhere on school property, in school-affiliated vehicles, or at school sponsored events and 2) the promotion of tobacco products on clothing or related accessory items by students or staff while on school property or at school sponsored events. The policies should 1) be clearly stated in the student handbook, 2) be supported by the use of adequate signage on school property and regular announcements of the policy, and 3) include an established action plan for enforcement. Baseline: Currently under assessment.

Rationale

Schools are important venues in the battle against tobacco disease and death because students are at an age where they are particularly vulnerable to experimentation with tobacco. According to the 2002 Iowa Youth Tobacco Survey Report, 17% of Iowa's 8th graders and 37% of Iowa's 12th graders have used tobacco within the past 30 days. Interventions at school are crucial to stemming this experimentation, which can lead to addiction, disease and death.

Student attitudes further reflect the need for strong school tobacco policies and interventions. Although a majority of middle and high school students polled agreed that smoking (both passive and aggressive) does damage to a person's physical health, 13% of middle school students and 17% of high school students believed that smoking for one to two years and quitting would be a safe choice. At the same time, 20% of all students believed that students who smoke cigarettes have more friends. This discrepancy may describe why 70% to 73% of all students claim to have spent one or more of the last seven days exposed to secondhand smoke.

Young people form many of their attitudes and shape many of their behaviors at school. School tobacco policies are important in informing students about the risks of tobacco and shaping attitudes toward tobacco, as well as in protecting students from the dangers of secondhand

smoke. School policies are, in effect, "role models" in this regard and say that using tobacco is either a "harmful and destructive decision" or "no big deal."

In addition, Iowans have a particular interest in school policies because most school buildings and grounds are publicly owned. Public debate is needed about the role of public institutions in stemming behavior that has such important health and economic consequences.

Iowans agree that schools should be safe places. Local debates are needed to persuade policymakers that the concept of safety should include safety from exposure to tobacco products, messages and secondhand smoke. These debates will also further awareness of the dangers of tobacco throughout the community.

Some additional considerations apply to post-secondary schools. Smoking rates among college-age youth are particularly high – the highest for any single age group. Risk of exposure to secondhand smoke is considerable in college dormitories and recreational facilities that do not ban smoking. In addition, college-age young people are role models for younger students as they consider whether to engage in tobacco use.

Comprehensive policies in post-secondary schools should include a ban on secondhand smoke anywhere on school property, in school-affiliated vehicles, or at school sponsored events. A comprehensive policy should (1) be clearly stated in the student handbook, (2) be supported by the use of adequate signage on school property and regular announcements of the policy, and (3) include an established action plan for enforcement.

21–5.1 Action Step

By 2005, conduct a comprehensive survey of school policies to determine how many schools currently have comprehensive tobacco policies. Survey results will provide a baseline for future measurement of the success of this strategy. (An Iowa Department of Public Health action step.)

21–5.2 Action Step

Through 2010, provide educational materials and technical assistance on comprehensive school tobacco policies to Iowa school authorities, including school boards, administrators, staff, and students. This assistance will include information on the need for comprehensive school policies as well as assistance in drafting and adoption of such policies. (An Iowa Department of Public Health action step.)

21–5.3 Action Step

Through 2010, provide financial and technical support to local anti-tobacco advocates, community partnerships, and student organizations to build broad-based community support for comprehensive school tobacco policies. (An Iowa Department of Public Health action step.)

21–5.4 Action Step

Through 2010, provide continued support to schools that have adopted comprehensive tobacco policies to sustain that policy through the use of ongoing education, signage and enforcement. (An Iowa Department of Public Health action step.)

21–5.5 Action Step

By 2009, conduct a second comprehensive survey of school policies to determine the success in the adoption of new comprehensive policies in comparison to the baseline study. In addition, assess recipients of school tobacco policy assistance to determine the usefulness of the services they received and the support provided. (An Iowa Department of Public Health action step.)

21–5.6 Action Step

By 2005, establish a baseline of post-secondary institutions in Iowa with comprehensive tobacco policies. (An American Cancer Society action step.)

21–6 Goal Statement

Increase to 69% the number of adults aged 18 and older who report not allowing smoking anywhere in the home and increase to 65% the number of adults aged 18 and older who report not allowing smoking inside vehicles. Baseline, 2002 Adult Tobacco Survey: 59.7% of all adults reported that smoking was not allowed anywhere in their home and 55.1% of all adults reported that smoking was banned in the family car.

Rationale

Secondhand smoke (SHS) is a major source of indoor air contaminants. Tobacco smoke is a dynamic, complex mixture of more than 4,000 chemicals found in both vapor and particle phases. Many of these chemicals are known toxic or carcinogenic agents. Nonsmoker's exposure to SHS-related toxic and carcinogenic substances would occur in indoor spaces where there is smoking, such as in homes, cars and other vehicles. The Environmental Protection Agency (EPA) has classified secondhand smoke as a "Class A" carcinogen containing asbestos and benzene.

Breathing secondhand smoke can make children suffer serious health risks. Approximately 43% of American children aged 2 to 11 are exposed to secondhand smoke at home. Studies show that children of parents who smoke are more susceptible to lung illnesses such as pneumonia and bronchitis. This is true especially with infants. And, because smoking parents are more likely to cough and spread germs, their children are more likely to develop chest illnesses.

Secondhand smoke is a major cause of cardiovascular disease and death. Inhaling secondhand smoke from just one cigarette actually increases the growth rate of plaque, which is the buildup of fatty substances on artery walls that leads to arterial hardening and blockages. Women who are exposed to SHS at home have a 23% to 24% increased risk of cardiovascular disease. (Sources from the American Heart Association and U.S. environmental Protection Agency.)

GENERAL INFORMATION

- 5 minutes of secondhand smoke exposure is equal to smoking one cigarette.
- 20 minutes of secondhand smoke exposure does as much damage as smoking a pack a day.
- 20 minutes of secondhand smoke exposure activates clot-forming platelets in non-smokers as much as smoking a pack a day would, increasing the chances of a heart attack or stroke.
- 30 minutes of secondhand smoke exposure results in stiffened, clogged arteries.
- 30 minutes of breathing secondhand smoke stiffens non-smokers arteries as much as smoking a pack a day would. Thirty minutes of breathing secondhand smoke also reduces the body's ability to manage low density lipoprotein cholesterol for several hours after exposure.
- Two hours of secondhand smoke exposure produces a greater risk of irregular heart-beat.
- Two hours of secondhand smoke exposure results in increased heart rate as well as increased chances of developing an irregular heartbeat (arrhythmia) that could be fatal or could trigger a heart attack.

(University of California & U.S. Environmental Protection Agency. www.tobaccoscams.com)

21–6.1 Action Step

By 2005, conduct five regional educational workshops on “Fighting Secondhand Smoke at the Community Level.” (An Iowa Comprehensive Cancer Control Consortium action step.)

21–6.2 Action Step

By 2008, conduct ten (two per year) community forums on the health effects of secondhand smoke. (A Clean Air For Everyone Iowa action step.)

21–6.3 Action Step

By 2010, convene one statewide major conference on secondhand smoke. (An Iowa De-

partment of Public Health, Clean Air For Everyone Iowa, and Tobacco Free Iowa action step.)

21–6.4 Action Step

Through 2010, conduct an ongoing “letter to the editor campaign” aimed at educating the general public and policy makers. (A Clean Air For Everyone Iowa action step.)

21–6.5 Action Step

Through 2010, conduct an ongoing public relations campaign on secondhand smoke through Just Eliminate Lies (JEL) ads, public service announcements distributed to radio stations in Iowa, TV ads, billboards, clean air window decals for home and car, and bumper stickers. (An Iowa Department of Public Health and Just Eliminate Lies action step.)

21–6.6 Action Step

By 2007, develop and distribute materials to health care providers encouraging them to ask all clients if they allow smoking in their home or car. (An Iowa Department of Public Health action step.)

21–6.7 Action Step

Through 2010, provide ongoing education on secondhand smoke to public health officials by presenting and/or exhibiting at the Governor’s Barn Raising conference. (An Iowa Department of Public Health, Clean Air For Everyone Iowa, and Tobacco Free Iowa action step.)



21–7 Goal Statement

Decrease to 18% the proportion of adults aged 18 and older who smoke cigarettes, decrease to 28% the proportion of adults aged 18 to 24 who smoke cigarettes, decrease to 25% the proportion of adults in households with incomes less than \$25,000 per year who smoke cigarettes, and increase to 75% the proportion of adult tobacco-use cessation attempts.

Baseline, 2003 Iowa Behavioral Risk Factor Surveillance System: 21.7% of adults in Iowa reported smoking cigarettes, 36% of adults aged 18 to 24 reported smoking cigarettes, 28.9% of adults in households with incomes less than \$25,000 per year reported being current smokers, and 50.5% of adults in Iowa reported that they attempted to quit smoking.

Rationale

Tobacco use continues to plague our nation. According to the Center for Disease Control and Prevention (CDC), an estimated 46.2 million adults in the United States smoke cigarettes even though this single behavior will result in death or disability for half of all regular smokers. More than 8.6 million people in the United States have at least one serious illness caused by smoking. If current patterns of smoking continue, 6.4 million people currently younger than age 18 will die prematurely from a tobacco-related disease.

According to the 2003 Iowa Behavioral Risk Factor Surveillance System (BRFSS), 21.7% of respondents surveyed reported being a current smoker. This number is down slightly from the 23.2% reported in the 2002 Iowa BRFSS. Historically, there has been a level trend in adult tobacco use in Iowa over the past seven years. Recognizing that this trend has continued for more than five years, the goal of 13% stated in the original version of *Healthy Iowans 2010* has been revised to 18% to create a goal that is both challenging yet realistic.

In this same report, 24.5% who were surveyed were former smokers or someone who has smoked 100 cigarettes in their lifetime but no longer smoke. Approximately 59% of smokers aged 18 to 24 made an attempt to quit during the past year, compared to 41.3% of persons aged

55 to 64 (Iowa BRFSS, 2003). In addition, the percentage of adults who smoke that live in households with annual incomes of less than \$25,000 remains higher than the state average at 28.9%. This trend has remained fairly constant since the year 2000.

Year	Percent
2000	27.6%
2001	27.8%
2002	28.0%
2003	28.9%

Source: Iowa Behavioral Risk Factor Surveillance System.

Tobacco dependence is a chronic disease with identifiable etiology and pathophysiology. It demonstrates symptoms characterized by addiction, relapses and remissions. However, effective treatments are available. The availability of evidence based/best practices cessation opportunities, along with nicotine replacement products, has proven to be a successful combination in adult tobacco cessation. It is crucial that cessation opportunities are increased throughout the state, especially among clinicians. Brief interventions using the 5 A's (ask, advise, assess, assist, arrange) and the well-planned use of nicotine replacement products, provide the tools for success when attempting tobacco cessation.

Cessation counseling can be provided through various avenues. “Quitline Iowa” is a pro-active tobacco cessation counseling hotline available free of charge to all Iowans. The quit line is operated by the Iowa Tobacco Research Center in the Department of Community and Behavioral Health at the University of Iowa, and is funded through master settlement funds by the Division of Tobacco Use Prevention and Control, Iowa Department of Public Health.

Counselors are currently available from 8:00 a.m. to midnight, seven days a week, with voicemail and website accessibility 24 hours a day. Services are provided in English or Spanish, with other language translation services and TDD services also available. Quitline Iowa offers three programs tailored to the specific needs of the populations being served. Counseling

protocols are based on the transtheoretical model (“stages of change”) and motivational interviewing.

21–7.1 Action Step

Through 2010, maintain and promote Quitline Iowa. (A Quitline Iowa and Iowa Department of Public Health action step.)

21–7.2 Action Step

Through 2010, maintain and annually update a directory of cessation programs offered across the state. (A Quitline Iowa and Iowa Department of Public Health action step.)

21–7.3 Action Step

By 2008, expand Quitline Iowa’s reach to diverse cultural and ethnic groups by promoting availability of culturally appropriate services, including English and Spanish counselors on-site; translation services covering 150 languages; printed materials targeting specific populations, including Braille print for the sight impaired; and TDD availability for deaf/hearing impaired. (A Quitline Iowa and Iowa Department of Public Health action step.)

21–7.4 Action Step

By 2010, increase the number of Iowa counties that make nicotine replacement products available through Quitline Iowa cessation counseling. (An Iowa Department of Public Health, community partnership, and Quitline Iowa action step.)

21–7.5 Action Step

By 2007, expand public awareness on the accessibility of Quitline Iowa’s tobacco-related services by tracking the number of requests for information and tracking website hits. (A Quitline Iowa action step.)

21–7.6 Action Step

By 2008, establish a baseline for the number of smoking cessation programs available through Iowa colleges. (An Iowa Department of Public Health and community partnership action step.)

21–7.7 Action Step

Through 2010, expand initiatives to provide tobacco cessation education and services through programs that serve low-income populations. (A community partnership and Iowa Department of Public Health action step.)

21–7.8 Action Step

Through 2010, educate clinicians on providing brief cessation interventions with patients who use tobacco. (An Iowa Department of Public Health and community partnership action step.)

21–8 Goal Statement

Decrease to 12% the number of women who smoked during pregnancy. Baseline, 2003, Iowa Department of Public Health, Bureau of Vital Statistics: 15.8% of women who gave birth reported smoking during pregnancy.

Rationale

In the United States, more than 20% of all women smoke cigarettes. Many of these women smoke while they are pregnant. Pregnant women who smoke subject both themselves and their fetuses to increased health risk, including spontaneous abortion (natural expulsion of embryo or nonviable fetus); placental abruption (detachment of the placenta); placenta praevia (placenta developing in lower uterine segment with possible partial premature separation); preterm labor and delivery (before 37th week of gestation); decreased birth weight; and premature and prolonged rupture of the amnion (membrane that produces amniotic fluid and covers the baby). The more a pregnant woman smokes, the greater the risk to her baby.

Statistics from the United States are compelling. According to the U.S. Public Health Service, if all pregnant women in the United States stopped smoking, there would be an estimated 11% reduction in stillbirths and a 5% reduction in newborn deaths. In 2002, 19% of Iowa women reported smoking during pregnancy (Iowa Department of Public Health, Bureau of Vital Statistics).

Recent studies show that the levels of serum cotinine was about eight times higher in bottle-fed infants of smoking mothers than in bottle-fed infants of non-smoking mothers. But among children of smoking mothers, infants who were breast-fed had cotinine levels 10 times higher than those of bottle-fed infants. Researchers have found significantly higher cotinine levels in infants of non-smoking mothers who were exposed to tobacco through smoking by another household member, with no difference related to feeding (*Healthy Iowans 2010*).

In the comprehensive program offered by Quitline Iowa, counselors determine a tobacco-use pattern and readiness to quit, discuss the health effects of tobacco, help formulate an individualized quit plan, and ask permission to place up to three pro-active follow-up calls and send supporting materials. The intensive program gives tobacco users who are ready to quit within 30 days an opportunity to work one-on-one with the same counselor throughout the process and to receive up to ten “relapse sensitive” follow-up calls clustered around the quit date and then scheduled out to six weeks after the original call date.

The relapse prevention program helps pregnant women who quit smoking because of their pregnancy to avoid relapse and remain smoke free after the birth of their baby. Women are assigned to one counselor who works with them for up to four sessions, focusing on areas such as coping strategies to deal with cravings, support systems, and concerns regarding role transitions and interpersonal relationships.

21–8.1 Action Step

By 2007, increase the number of individuals enrolled in the relapse prevention program for pregnant women through Quitline Iowa. (A Quitline Iowa action step.)

21–8.2 Action Step

By 2008, establish a baseline for the number of Women, Infants and Children (WIC) clinics that participate in the fax referral program with Quitline Iowa. (A Quitline Iowa action step.)

21–8.3 Action Step

By 2010, expand the number of Women, Infants and Children (WIC) clinics that participate in the fax referral program with Quitline Iowa. (A Quitline Iowa action step.)

21–9 Goal Statement

Establish comprehensive coverage by Medicaid for FDA-approved pharmacotherapies and behavioral therapies.

Baseline: As of December 2004, the Medicaid program in Iowa did not cover any of the tobacco dependence treatments recommended in the 2000 Public Health Service Clinical Practice Guideline, Treating Tobacco Use and Dependence.

Rationale

In Iowa, the availability of cessation services for individuals dependent on Medicaid insurance is non-existent. Presently, Iowa's Medicaid system does not provide total coverage of approved nicotine replacement products or behavioral therapies. Eliminating this barrier to health services can potentially increase the number of individuals who seek assistance in quitting tobacco use.

Smoking exacts a substantial toll on Iowa. As of FY2004, tobacco-related disease and deaths drained approximately \$794 million in annual health care costs. An estimated \$235 million in Iowa taxpayer dollars were spent on Medicaid payments alone for residents with smoking-related illnesses.

To eliminate the disparity that is created by not funding cessation services through Medicaid, key legislators must be identified and educated on this health care issue. Special efforts by key individuals and agencies throughout the state will be necessary to move this issue forward.

21–9.1 Action Step

By 2006, identify key stakeholders to promote Medicaid reimbursement for Food and Drug Administration (FDA)-approved pharmacotherapies. (An Iowa Department of Public Health and Tobacco Free Iowa action step.)

21–9.2 Action Step

By 2008, educate key legislators about Medicaid reimbursement for Food and Drug Administration (FDA)-approved pharmacotherapies. (An Iowa Department of Public Health and Tobacco Free Iowa action step.)

21–10 Goal Statement

Decrease to 5% the current (within the past 30 days) use of any tobacco product in grades 6 to 8, decrease to 24% the current (within the past 30 days) use of any tobacco product in grades 9 to 12, increase to 75% the number of current high school students who smoke and report wanting to quit, reduce to 30% the current cigarette use of Native American youth, decrease to 10% the percent of high school students who think smoking cigarettes makes young people look cool and/or fit in, and decrease to 10% the percent of middle school students who think smoking cigarettes makes young people look cool and/or fit in. Baseline, 2002 Iowa Youth Tobacco Survey: 11% current (within the past 30 days) use of any tobacco products in grades 6 to 8, 34% current (within the past 30 days) use of any tobacco products in grades 9 to 12, 63% of high school students who smoke report wanting to quit, 39.8% of Native American youth in 11th grade were current smokers, 15% of high school students thought that smoking cigarettes makes young people look cool and/or fit in, and 16% of middle school students thought that smoking cigarettes makes young people look cool and/or fit in.

Rationale

Research shows that pro-smoking attitudes form in childhood or by early adolescence. The 1994 Surgeon General's Report, *Preventing Tobacco Use Among Young People*, concluded that teens are at risk for tobacco use because they perceive that tobacco use is normal, approved of by their peers and siblings, and beneficial to their lifestyle.

According to the 2002 Iowa Youth Tobacco Survey, 66% of high school students reported having tried tobacco some time during their life,

while 37% of middle school students made the same report. Over half of the high school students who use tobacco (63%) expressed a desire to quit. When 11th grade students from Iowa were asked if they had tried to quit, 10% had attempted once, 4% had attempted twice, and 5% had attempted three times or more (2002 Iowa Youth Survey Report). Research shows that adolescents are unlikely to quit on their own and the longer one uses tobacco, the more difficult it is to quit. Improving availability and access to effective adolescent tobacco cessation programs are needed.

1999 Iowa Youth Survey

11 th grade	Percent	Total Sample
White	33.0%	23,658
African American	31.6%	471
Native American	51.1%	141
Asian/Pacific Islander	24.9%	470
Spanish/Hispanic	33.6%	426
Other/Mixed	38.7%	622
Total	33.1%	25,788

2002 Iowa Youth Survey

11 th grade	Percent	Total Sample
White	23.6%	26,964
African American	23.7%	636
Native American	39.8%	211
Asian/Pacific Islander	23.1%	567
Spanish/Hispanic	24.4%	804
Other/Mixed	36.7%	999
Total	24.1%	30,181

Source: 1999 and 2002 Iowa Youth Survey, Current Cigarette Use.

Changing attitudes in teens and limiting the appeal of tobacco products to young people involves restricting advertising and promotions as well as countering pro-tobacco messages. The Native American youth population presents a unique challenge because tobacco holds a place in their history and culture. Data taken from the 1999 and 2002 Iowa Youth Survey indicate that current cigarette use among Native American youth in Iowa is substantially higher than any other ethnicity. Once young people shift their perception to an attitude that tobacco use is not

acceptable, preventing initiation comes more readily.

Tobacco prevention for Iowa's youth works through multiple influences in the life of a young person; therefore, a multi-faceted approach to prevention works best. The Iowa Department of Public Health, Just Eliminate Lies (JEL), the Center for Disease Control and Prevention (CDC), the Iowa Department of Justice, the Iowa Department of Education, Area Education Associations, Iowa State Extension, and other state and local organizations must coordinate efforts at every level to reduce tobacco use in the state's youth.

21–10.1 Action Step

By 2010, develop and encourage implementation of CDC's recommended anti-tobacco curriculum that is comprehensive, language appropriate, and culturally, ethnically and disability sensitive. (An Iowa Department of Public Health, State Area Education Agencies, Iowa Department of Education, and community partnership action step.)

21–10.2 Action Step

By 2010, obtain baseline data on tobacco use prevalence of youth with disabilities by adding questions to the Iowa Youth Survey. (An Iowa Department of Public Health and Iowa Department of Education action step.)

21–10.3 Action Step

Through 2010, maintain and sustain community-based programs in all counties that provide youth-oriented prevention activities. (An Iowa Department of Public Health, Just Eliminate Lies, Iowa State University Extension, and community partnership action step.)

21–10.4 Action Step

Through 2010, sustain the Just Eliminate Lies (JEL) program. (An Iowa Department of Public Health and Just Eliminate Lies action step.)

21–10.5 Action Step

By 2010, survey post-secondary students for tobacco use. (An Iowa Department of Public Health and community partnership action step.)

21–10.6 Action Step

Through 2010, provide education on the importance of 100% tobacco-free post-secondary campus housing. (An Iowa Department of Public Health and community partnership action step.)

21–10.7 Action Step

Through 2010, sustain counter-marketing and mass media campaigns geared to youth. (An Iowa Department of Public Health and Just Eliminate Lies action step.)

21–10.8 Action Step

By 2007, ensure the Just Eliminate Lies website is more accessible to people with disabilities (e.g., visually impaired and learning disabled) by forming a committee to review content contained on the website. (An Iowa Department of Public Health action step.)

21–10.9 Action Step

Through 2010, monitor adolescents' opinion of smoking or tobacco use during even-numbered years through the Iowa Youth Tobacco Survey. (An Iowa Department of Public Health action step.)

21–10.10 Action Step

By 2006, obtain baseline data to determine the age of initiation of tobacco use among middle and high school students. (An Iowa Department of Public Health action step.)

21–10.11 Action Step

By 2007, establish a Native American tobacco education network in Iowa. (An Iowa Department of Public Health action step.)

21–10.12 Action Step

By 2007, establish an African-American tobacco education network in Iowa. (An Iowa Department of Public Health action step.)

21–11 Goal Statement

Increase to 94% retail compliance with existing tobacco statutes to reduce youth access to tobacco products through retail sources and with Iowa’s youth access laws as reported by the Iowa Alcoholic Beverages. Baseline, FY2004, Alcoholic Beverages Division: 89% of Iowa’s retailers were compliant with youth access laws reported by the Iowa Alcoholic Beverages.

Rationale

Because the majority of tobacco use initiation occurs in adolescence, direct measures limiting tobacco use in adolescence are imperative to the health of all Iowans. The 2002 Iowa Youth Tobacco Survey reported a 31% decrease in middle school-aged tobacco use, and a corresponding 13% reduction among high school youth – a sign that the Iowa Tobacco Control Initiative is headed in the right direction.

The Code of Iowa states that a person under aged 18 shall not smoke, use, possess, purchase, or attempt to purchase any tobacco products. It also states that a person shall not sell, give or otherwise supply any tobacco products to any person less than 18 years of age. However, the deterrent effects of these statutes are less effective when they are not enforced equally and at all times. In order to hold retailers accountable for illegal sales, compliance checks conducted at each retail establishment must continue.

According to the 2002 Iowa Youth Tobacco Survey, most middle school students obtain cigarettes by borrowing them, followed by others purchasing the cigarettes for them. The majority of high school students that currently smoke (approximately 10%) reported that they obtain cigarettes by having others buy for them.

In order to hold youth who illegally attempt to purchase tobacco accountable, the “Cops in Shops” program must move from an annual event to an ongoing initiative. “Cops in Shops” consists of a plain-clothed law enforcement officer working behind the counter of a retail establishment, citing youth who illegally attempt to purchase or possess tobacco products. During a “Cops in Shops” operation, officers also keep an eye out for adults furnishing tobacco to youth.

Enforcement of illegal tobacco sales to minors and retail license suspension for sales to minors is a vital tool in limiting youth access to tobacco products.

Increased compliance with existing tobacco statutes in order to reduce youth access to tobacco products through retail sources is a step in the right direction. The goal can best be reached through maintaining and expanding existing partnerships among stakeholders that both identify effective, responsible retailing practices to reduce the incidence of tobacco sales to minors, and that work at the community level to prevent youth access to tobacco through non-retail sources.

21–11.1 Action Step

Through 2010, maintain and expand existing partnerships between law enforcement, retail, public health, substance abuse, and youth interest groups to identify effective, responsible retailing practices that will keep tobacco out of the hands of Iowa youth. (An Iowa Alcoholic Beverages Division action step.)

21–11.2 Action Step

By 2010, increase the number of compliance checks conducted in Iowa’s tobacco retail establishments from one per year to two in order to reduce youth access to tobacco products through commercial sources. (An Iowa Alcoholic Beverages Division action step.)

21–11.3 Action Step

By 2010, expand “Cops in Shops” to be an ongoing program, rather than one time per year. (An Iowa Alcoholic Beverages Division action step.)

21–11.4 Action Step

By 2010, expand the application of retail permits from cigarettes only to all tobacco products. (An Iowa Department of Public Health, Tobacco Free Iowa, and Iowa Alcoholic Beverages Division action step.)

21–11.5 Action Step

By 2010, expand tobacco statutes to encompass all tobacco products as opposed to only

cigarettes. (An Iowa Department of Public Health and Tobacco Free Iowa action step.)

21–11.6 Action Step

By 2010, establish a statewide database of youth tobacco offenses that will be accessible by local law enforcement agencies to ensure that youth are cited with the appropriate offense under the graduated penalty system. (Iowa Alcoholic Beverages Division action step.)

Goal Cross References

Chapter 1: Access to Quality Health Services

- 1–1Reduce to 0 the proportion of children and adults under age 65 without health care coverage.
- 1–2Drive quality improvement of health care through Iowa’s Critical Access Hospitals by developing a plan and engaging in activities that promote and encourage providers to follow standardized quality performance measures.
- 1–3Increase by 25% access to primary care for the underserved population.
- 1–4Ensure a competent and diverse health workforce by assessing and forecasting workforce supply and demand and by promoting local strategies to recruit and retain workers through the inclusion of 99 counties in a nurse tracking project.
- 1–12Develop a strategic plan to assess and employ telehealth and telemedicine that can increase access to quality health services in Iowa.

Chapter 2: Cancer

- 2–2Reduce cancer incidence to no more than 450/100000.
- 2–3Ensure implementation of HI2010 cancer chapter action steps and the priority strategies of the Iowa cancer plan.
- 2–4Reduce lung cancer deaths to no more than 46/100000.
- 2–8Reduce oral cavity and pharyngeal cancer deaths to no more than 1.8/100000.

Chapter 3: Diabetes

- 3–3 Offer leadership and education opportunities to health care professionals to enable them to provide improved medical guidance to people with diabetes.
- 3–4 Decrease mortality and morbidity from diabetes by preventing or delaying complications.

Chapter 4: Disabilities

- 4–3 Assure that each HI2010 chapter assesses the health issues and potential treatment for people with disabilities and incorporates appropriate goals and action steps.

Chapter 5: Educational and Community-Based Programs

- 5–2 Ensure that at least 20 schools provide a set of basic health support services for students and 81% of school districts employ a full-time nurse.
- 5–4 Implement policies and guidelines to ensure that school health education and physical education are compliant with statutory education program requirements.
- 5–5 Ensure that post-secondary community colleges provide data on how the college addresses the six priority health risk behavior areas.

Chapter 6: Environmental Health

- 6–8 Reduce to 0 deaths from unintentional non-fire carbon monoxide poisonings and reduce CO exposures and subsequent health problems.

Chapter 9: Heart Disease and Stroke

- 9–1 Reduce by 13% heart disease deaths among all Iowans.
- 9–2 Reduce by 16% stroke deaths among all Iowans.

Chapter 11: Maternal, Infant and Child Health

- 11–1 Reduce overall infant mortality to no more than 5/1000 of live births.
- 11–2 Reduce overall low birth weight to no more than 5% of live births and overall very low birth weight to no more than 1% of live births.

11-4Reduce child mortality for ages 1-14 to 17/100000.

11-8Reduce overall perinatal mortality to no more than 7.1/1000 live births.

Chapter 15: Oral Health

15-5Reduce deaths due to cancer of the oral cavity and pharynx in adults aged 45-74 to no more than 5.3/100000 for men and 2.2/100000 for women.

Chapter 18: Respiratory Diseases: Asthma

18-1Reduce asthma-related hospitalizations by 10%, emergency department visits by 10%, and urgent care visits by 20%.

18-5Raise community awareness of environmental exposures known to trigger asthma and increase community involvement in primary prevention.

18-7Support public policy at all levels to reduce the incidence and severity of asthma and increase the actions by local, city and state groups that support a reduction in asthma incidence.

Chapter 20: Substance Abuse and Problem Gambling

20-1Establish a systematic process and begin to access the infrastructure of the alcohol, tobacco and other drugs service system and its impact on prevention, early intervention, and treatment.

20-2Increase by 3% youth aged 12-17 who never used alcohol and annually monitor and evaluate the increase.

20-3Reduce to 15% alcohol and other drug-related death and injury, and chronic disease rates.

20-4Increase to 425 the number of lowans aged 65 and older who receive screening, prevention, referral, and/or treatment for risk factors.

20-8Increase to 115 and sustain state, county, community, and neighborhood collaborative groups to reduce problems of alcohol, tobacco, other drugs, and problem gambling.

Chapter 22: Unintentional Injuries

22-9Reduce the fire death rate to less than 1/100000.

Chapter 24: Vision

24-3Develop new or improved educational programs to reduce visual disabilities due to low birth weight or premature births.

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Chapter 22

Unintentional Injuries**Introduction**

Unintentional injuries represent a serious public health problem in Iowa. Injuries are one of the state's leading causes of death. Also, many Iowans are incapacitated by injuries and suffer lifelong disabilities. Injuries occur disproportionately among younger and older people. During this century, trauma has replaced infectious disease as the greatest threat to children. In older Iowans, injuries such as hip fractures are often catastrophic and costly to the health care system. Injuries to older persons frequently leads to loss of independence or even death.

As from 1993 to 1995, unintentional injuries remain the leading cause of death for persons aged 1 through 34. Data from the Centers for Disease Control and Prevention indicate that injuries were the leading cause of death in years of potential life lost before age 65 during 1999 to 2001.

Many strides, such as implementation of strong occupant and child safety restraint laws and the decrease to .08 for the legal blood alcohol limit, have resulted from awareness of *Healthy Iowans 2010*. Strong cadres of injury prevention advocates have helped to assure the continued growth of child-passenger safety seat technology, increased use of the poison control center's support, and public information and education outlets for the state of Iowa. This mid-course review shows that many action steps have been completed, new ones established, and old ones restructured to meet changing needs.

People in predominately rural states such as Iowa are at higher risk for injury than those of more urban states. Farm workers and their families are exposed to greater hazards than those who live in cities and towns. A study by James Merchant et al in 1994 from the University of

Iowa found that death rates were higher in rural Iowa counties than in urban counties for firearm injuries, motor vehicle injuries, burns, suicides, drownings, and farm injuries. Obviously, in a rural state such as Iowa, agricultural-related injuries are prevalent. Farmers have many fatal and nonfatal injuries caused by agricultural machinery or farm animals.

Ten Leading Causes of Death in Years of Potential Life Lost Before Age 65 – IOWA 1999-2001

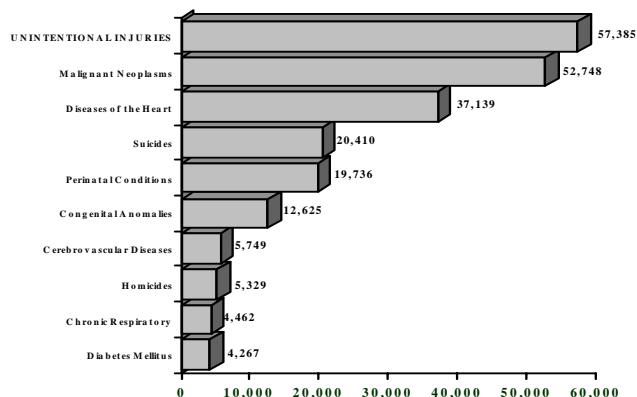


Figure 22-1 Source: CDC/NCIPC.

As displayed in Figure 22-2, motor vehicle collisions are the leading cause of unintentional death, more than double that of the next leading cause, which are falls. Crashes resulted in over 1,300 fatalities in Iowa during 1999 to 2001. The good news as described further in this chapter is that Iowa has had a steady decrease in the number of crash-related deaths. This has been attributed to increased occupant protection. Initiatives such as enforcement of .08 and stronger occupant protection laws will be valuable in reducing this cost and human burden.

In recent years, injury began to receive long overdue recognition as a major public health problem. Attention focused primarily on the toll

in lives lost and the resulting economic costs. Although specific injury prevention projects exist, it is difficult to obtain comprehensive injury data.

Leading Causes of Unintentional Injury Death – IOWA 1999-2001

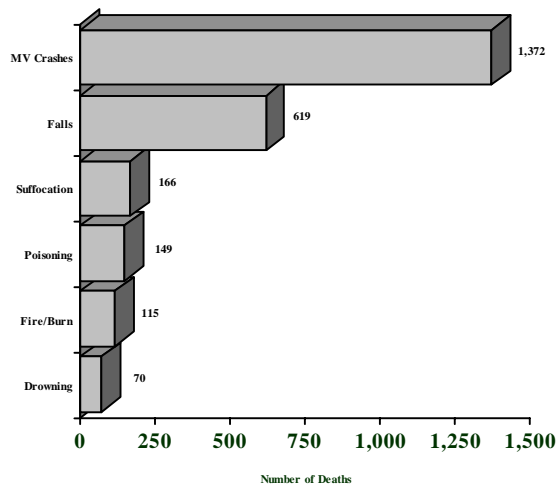
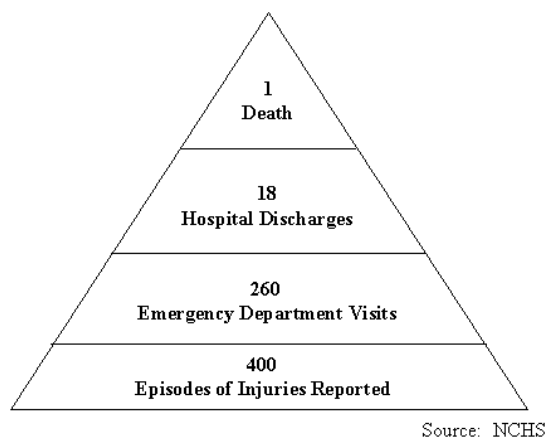


Figure 22-2 Source: CDC/NCIPC.

However, it is clear that deaths from injuries are the tip of the iceberg. National data indicate that for every one injury-related death there are 18 hospital discharges, 260 emergency department visits, and 400 episodes of injuries reported. (See graphics below.)



Falls are the leading cause of nonfatal injuries and often result in head injuries in children and adults. In Iowa, many falls occur to children when they are using playground equipment.

Among the elderly, falls cause broken hips and other fractures, which require a long recovery.

There are far too many causes of injuries to be able to cover them all in this chapter. Several have been selected for emphasis due to their enormous public health impact.

Emergency Medical Services (EMS) in the Iowa Department of Public Health made considerable progress in the last 20 years. Improvements resulted from initiating a systems approach and from the integration of standardized rescue vehicles, communications, medical equipment, training programs, emergency facilities, and critical care hospital capabilities.

Readers can appreciate that injuries cause Iowans significant public health problems. Though tremendous gains have been made in preventing or reducing the severity of some injuries, such as motor vehicle-related injuries, better injury control is still greatly needed in Iowa.

Following is a very brief summary of accomplishments in injury prevention since the year 2000:

- **Legislative, Occupant Protection:** Update of the child passenger restraint law to allow further protection of older children. Introduced in 2002, passed into law in 2004.
- **Legislative, .08 Blood Alcohol Level:** Legislation was passed in 2003 to lower the blood alcohol level to .08.
- **Grassroots Coalition Building:** The Iowa SAFE Kids Coalition successfully implemented a grassroots coalition-building to generate the support of over 450 agencies for occupant protection of children.
- **Child Safety Seat Education:** Over 500 Iowans were certified as child passenger safety seat technicians who provide education to Iowa parents and caregivers on child occupant protection.
- **Data Trends:** The use of child passenger safety seats and adult occupant restraint systems has increased to an all-time high. Iowa leads the National Highway Traffic Safety Administration’s Region 7 for occupant restraint use and decrease in roadway fatalities.
- **Data Trends:** Since World War II, the Iowa death toll has reached an all-time low.

Goal Statements & Action Steps

22–1 Goal Statement

Enhance Iowa’s Emergency Medical Services (EMS) system by implementing an integrated data system with uniform EMS data elements and linkage with 75% of Iowa’s EMS systems and by maintaining Iowa’s trauma care delivery system at 100%. Baseline: EMS system, 2004, 34%; trauma care system, 1999, 0%.

Rationale

An effective Emergency Medical Services (EMS) system with a dedicated trauma system component can improve the survivability of severely injured persons. The minutes directly following traumatic injuries are often critical to save the victim’s life or to reduce the effects of injuries.

Iowa has 900 authorized EMS programs and over 14,000 certified EMS staff that deliver emergency medical care to the ill and injured. Of EMS staff, 78% are volunteers, 15% are career emergency medical personnel, and the remaining 7% are a combination of volunteer and paid systems.

The timeliness and the level of expertise of care are critical. Emergency care scenarios are markedly different in urban, rural and remote settings. Each scenario requires strategies tailored to meet its problems.

As the lead agency for EMS, the Bureau of Emergency Medical Services in the Iowa Department of Public Health provides leadership and resources for EMS system development. This includes attention to trauma and pediatric needs. Emergency Medical Services for Children (EMSC) is the lead program for injury prevention initiatives and projects. Grants for occupant protection and other valuable injury prevention are disseminated statewide. The Bureau of EMS seeks to improve the health of Iowans through prevention of the need for acute care and rehabilitation for the ill and injured.

Creating EMS’ future is not easy. Participation at local, county and regional levels is critical if EMS is to take the lead in providing for the out-of-hospital health care of Iowa’s communi-

ties. Funding to support continued growth and system development is crucial. The weakest link in the health care system is reliance on a volunteer out-of-hospital/facility care provider. Such dependence could lead to the discontinuation of care, increasing illness, and death.

22–1.1 Action Step

Through 2010, continue efforts to secure funding that supports the emergency medical services infrastructure. (An Iowa Department of Public Health action step.)

22–1.2 Action Step

Through 2010, maintain collaborations among emergency medical service agencies, community stakeholders, and health care providers to promote the prevention of illness and injury. (An Iowa Department of Public Health action step.)

22–1.3 Action Step

Through 2010, annually conduct a minimum of four public information programs on emergency medical services. Establish and maintain a central repository and/or website of emergency medical services information for the public and as education resources. (An Iowa Department of Public Health action step.)

22–2 Goal Statement

Reverse the increasing trend of brain injury hospitalizations from falls. Baseline: 2000, 632 cases, 21.6 per 100,000 people; 2001, 837 cases, 28.5; 2002, 738 cases, 25.1. Source: Hospital Discharge Data and Vital Statistics, Iowa Department of Public Health.

Rationale

Falls are the leading cause of nonfatal injuries. They often result in head injuries in children and adults. Among the elderly, falls cause broken hips as well as other fractures, which require long recovery periods. Nationally, falls are the second leading cause of death after motor vehicles. By reducing falls and related injuries, the number of deaths will also decrease.

Few children died from falls in Iowa in 1997 (two males in the 0 to 4 age category). The number was greatest for people in the 85 and above age range (49 men and 106 women). In the 75 to 84 age group, 50 males and 33 females died.

Iowa has a considerably larger older population than most states; the 1990 age-adjusted mortality rate was 3.1 per 100,000, which is above the federal *Healthy People 2000* age-adjusted baseline of 2.7 per 100,000 in 1987. By 1997, Iowa's rate had increased to 11.5 per 100,000.

In addition to being a serious mortality risk for older adults, hip fractures have high financial and psychological costs. They are a public health problem of crisis proportions. An estimated 4,300 persons were hospitalized for hip fractures in 1995, costing \$52 million just for the acute care. White women aged 85 and older are at the highest risk.

Since Iowa has a high percentage of citizens aged 85 and older, the issue of falls and hip fractures is significant. Without successful initiatives to reduce falls and hip fractures, the allocation of health resources in this and the next century could be staggering. The total direct cost of injuries from falls in 1994 among people aged 65 and older was \$20.2 billion.

Though potentially preventable, falls and fall-related injuries are common causes of functional decline and increased health care use among the elderly. Exercise can reduce the risk of falling by at least 10% and more when it includes balance exercises.

22–2.1 Action Step

By 2006, convene a summit on falls to discuss statistics, public awareness, prevention, and laws associated with fall-related hospitalizations. (An Advisory Council on Brain Injuries action step.)

22–2.2 Action Step

By 2007, with information collected at the summit on fall-related injuries, develop a public awareness campaign to prevent falls. Include potential home modifications. (An Advisory Council on Brain Injuries action step.)



22–3 Goal Statement

Reduce nonfatal brain injuries from motor vehicle crashes to no more than 20 per 100,000 people. Baseline: 2000, 622, 21.2 per 100,000 people; 2001, 693, 23.6; 2002, 667, 22.7. Source: Hospital Discharge Data and Vital Statistics, Iowa Department of Public Health.

Rationale

Head injuries are the most common of severe disabling injuries in the United States. People classified with mild head injuries may suffer disabilities ranging from headaches to psychosocial and behavioral problems which prevent them from returning to work. Moderate and severe head injury consequences are better known. They may include psychosocial and cognitive (ability to learn) effects that can cause life-long disability and poorer quality of life. They can also leave a person at greater risk for further injury.

Most likely to be injured are very young children, young persons aged 15 to 24, and those aged 65 and over. In 1997, males experienced 65% of all injuries. Nationally, most head injuries are caused by motor vehicle crashes, followed by falls and assaults, which vary in incidence according to socioeconomic groups. Once a person has had a traumatic brain injury, their risk is higher for another injury or a secondary disability.

22–3.1 Action Step

Through 2010, advocate yearly to maintain current speed limits on all Iowa roadways. (An Iowa Department of Public Safety and Advisory Council on Brain Injuries action step.)

22–3.2 Action Step

By 2008, seek limitations on the number of passengers and driving hours for school-issued permits. (An Iowa Department of Public Safety action step.)

22–3.3 Action Step

Through 2010, annually promote education (with formats for special populations) on distracted and fatigued drivers. (An Iowa Department of Public Safety action step.)

22–3.4 Action Step

By 2008, work toward enhancing Iowa's passenger restraint laws to include all passengers in a vehicle. (An Advisory Council on Brain Injuries action step.)

22–4 Goal Statement

Reduce nonfatal spinal cord injuries so hospitalizations for this condition are no more than 4.5 per 100,000 people. Baseline: 2000, 203, 6.8 per 100,000 people; 2001, 214, 7.9; 2002, 199, 6.3. Source: Hospital Discharge Data and Vital Statistics, Iowa Department of Public Health.

Rationale

In 2002, 70% of spinal cord injuries occurred to males. Of total spinal cord injuries, 54% were aged 25 through 54 and 22% were older than 64. Motor vehicle crashes were the leading cause of spinal cord injury (28%), with falls second (23%) and non-traffic transportation third (5%).

This goal has the same action steps as goals 22–2 and 22–3. Goal 22–2 action steps focus on reducing injuries caused by falls, and goal 22–3 action steps focus on reducing injuries caused by motor vehicle crashes. Reduction in

these injuries is expected to reduce spinal cord injuries.

22–5 Goal Statement

Establish a program in all Iowa counties for progressive resistance training to prevent falls among the elderly. Baseline: See Rationale.

Rationale

Falls remain the leading cause of nonfatal injuries. Reducing their number will also result in a reduction in the number of deaths, hip fractures, and functional decline among the elderly. Falls and fall-related injuries are potentially avoidable. By showing the elderly the benefits of physical fitness and providing them with training, they can improve their quality of life and ability to live independently.

22–5.1 Action Step

By 2010, establish a program of progressive resistance training for the state's elderly. (A University of Iowa Gerontological Nursing Intervention, Iowa State University Extension Program, Iowa Department of Public Health, and Iowa Department of Elder Affairs action step.)

22–6 Goal Statement

Reduce by 5% unintentional firearm-related deaths for ages 1 to 18. Baseline: During 1993-1995, Iowa averaged 7.7 unintentional firearm-related deaths per year.

Rationale

The improper storage of firearms and easy access by minors continues to be an important public health threat in Iowa. Parents and caregivers are responsible for proper storage of firearms and for keeping ammunition out of the reach of children. Educating children on the dangers of firearms and what to do if they find one is important to preventing injuries.

22–6.1 Action Step

Through 2010, annually promote proper storage of firearms and ammunition. (An Iowa Department of Natural Resources, Iowa SAFE Kids Coalition, and Iowa Department of Public Safety action step.)

22–6.2 Action Step

Through 2010, annually obtain data for firearm injuries based on hospital discharge and emergency medical services data. (An Iowa Department of Public Health action step.)

22–6.3 Action Step

Through 2010, use and annually disseminate curricula (with formats for special populations) on firearms in schools. Encourage programs such as Eddy Eagle for children in K-6, and the Iowa hunter education program for students in grades 7-12. Instruction will be provided by community service units of police and sheriff departments, the Iowa Department of Public Safety, and the Iowa Department of Natural Resources. (An Iowa Department of Public Safety and Iowa Department of Natural Resources action step.)

22–7 Goal Statement

Develop a plan to address childhood injuries on playgrounds. Baseline: See Rationale.

Rationale

Iowa must reduce the number of playground injuries. It is estimated that 2,385 children annually are injured on playgrounds seriously enough to require a hospital emergency room visit. To reduce the number, several action steps are needed.

First, a common recording and tracking system that allows officials to better determine the causes of injuries and identify ways to prevent them must be developed. It is critical to assess the condition and safety of all public playgrounds in Iowa. The initial assessment will establish a baseline for measuring progress. The assessment should be done at five-year intervals.

A playground educational program is needed. It would include supervision guidelines, age-appropriate design, surfaces, and equipment maintenance. Training materials that provide appropriate guidance to individuals and agencies on how to increase the safety of playgrounds are also needed. To ensure uniformity and compliance across Iowa, national playground safety guidelines and standards should be adopted for all playgrounds.

22–7.1 Action Step

By 2010, develop a common recording and tracking system for injuries on playground equipment. The current system for tracking injuries in rural areas can be extended to include all children injured on playgrounds and taken to hospitals. (An Iowa Department of Public Health and University of Northern Iowa National Program for Playground Safety action step.)

22–7.2 Action Step

Through 2010, annually assess all public playgrounds (e.g., child care, school, community) in the state for meeting safety guidelines. (An Iowa Department of Public Health, Iowa Department of Education, and University of Northern Iowa National Program for Playground Safety action step.)

22–7.3 Action Step

By 2008, develop educational programs (with formats for special populations) on playground safety in Iowa. (A University of Northern Iowa National Program for Playground Safety action step.)

22–7.4 Action Step

By 2010, develop training materials (with formats for special populations) for people responsible for playgrounds on reducing injuries to children. (A University of Northern Iowa National Program for Playground Safety action step.)

22–7.5 Action Step

Through 2010, annually recommend the adoption of the U.S. Consumer Product Safety Commission Handbook and the American Soci-

ety for Testing and Materials Standards as prerequisites for buying playground equipment for public areas. (An Iowa Department of Public Health and University of Northern Iowa National Program for Playground Safety action step.)

22–8 Goal Statement

Reduce deaths in Iowa caused by unintentional poisoning to 30 per year, and reduce resulting illness and costs. Baseline: In 2001 in Iowa, unintentional poisoning caused 56 deaths. Source: WISQARS (Web-Based Injury Statistics Query and Reporting System).

Rationale

Poisonings are a major cause of injury and death, the majority of which are unintentional. In 2001, more than 2.2 million calls were made to poison control centers in the United States, 85% of which were for unintentional exposures to substances. In the same year, the National Center for Injury Prevention and Control (NCIPC) reported over 22,000 poisoning deaths nationwide, 63% of which were unintentional.

In contrast to NCIPC data, the 2001 Annual Report of the American Association of Poison Control Centers (AAPCC) documented only 1,074 deaths, of which only 339 (32%) would probably fit ICD-10 coding for unintentional poisoning death. The substances most commonly cited in unintentional deaths in 2001 were, in descending frequency: narcotics, acetaminophen, cocaine, amphetamines, carbon monoxide, ethanol, and benzodiazepines. The AAPCC reported 51% of their deaths as suicidal, compared to 23% for the NCIPC. It should be noted that intentional exposures might result in an unintentional death. For example, a person intentionally abusing heroin to get high may unintentionally die from overdose.

Poisoning affects people of all ages. In 2001, 52% of human exposures to substances reported to poison control centers were in children under age six. However, NCIPC death rates for unintentional poisonings are mainly distributed in two age groups. The highest unin-

tentional poisoning death rate is for people in their late 30's to late 40's. A second, smaller increase exists in the rate for people in their 80's and older.

Nearly 90% of poisonings called into poison control centers occur in the home. In 2001, the substances most frequently cited were analgesics, cleaning products, personal care products, foreign bodies, plants, sedatives, and cold/cough preparations.

Poisonings also are a significant economic burden on society. According to the NCIPC, an estimated 743,000 people were seen for poisoning in emergency rooms in 2001. In that year, poison centers received slightly fewer than 500,000 calls from people who were cared for at a health care facility. Facilities include emergency departments, urgent care centers, and physician offices. The costs for treatment of unintentional poisonings in the United States in 1997 were more than \$3 billion. Current annual costs are estimated at \$22 billion.

The original goal statement has been revised to reflect a more realistic, yet still aggressive goal. No mandatory poison exposure reporting exists in Iowa and the Iowa Poison Center is a passive data collection system. This leads to a significant discrepancy between the actual number of poisonings and those that are phoned into the center. This is highlighted by the fact that there were 137 poisoning deaths in Iowa in 2001, yet the Iowa Poison Control Center received only nine fatality-related calls.

22–8.1 Action Step

By 2010, increase to 100% the proportion of Iowa residents with access to a certified regional poison control center 24 hours a day, seven days a week. Currently, over 98% of Iowans have telephone service and all 99 counties are serviced by the Iowa Poison Center. The center applied for certification in 2002 and will become certified when the medical director passes the Medical Toxicology board certification exam. (An Iowa Poison Center action step.)

22–8.2 Action Step

Through 2010, annually work with the Iowa Poison Center and other appropriate state, county and local agencies in providing public

education (with formats for special populations) for "at-risk" populations. It will heighten awareness of the poison center's value while also providing education on poison prevention and first-aid training on poisoning. In 2003, Iowa Poison Center staff provided 102 educational programs. The majority focused on children and/or the parents of young children. (An Iowa Poison Center action step.)

22–8.3 Action Step

By 2010, require that the data collected by the Iowa Poison Center be submitted annually to the Iowa Department of Public Health for surveillance. The center provides the Iowa Department of Public Health with all cases it receives that fit the criteria for reportable diseases as specified in IAC 641-1.3. (An Iowa Department of Public Health action step.)

22–8.4 Action Step

By 2010, perform a thorough annual review of Centers for Disease Control and Prevention mortality data, death certificates on file with the Iowa Department of Public Health Bureau of Vital Statistics, and hospital discharge data to determine the most common causes of poisonings and poisoning fatalities, and determine the proportion of deaths that received medical intervention. (An Iowa Poison Center action step.)

22–8.5 Action Step

By 2010, increase the Iowa Poison Center's penetrance within Iowa to 10.2. Penetrance is defined by the AAPCC as the number of human poison exposure calls handled by poison centers per 1,000 people per year. This is used as a surrogate marker for effectiveness of poison control outreach and education. (An Iowa Poison Center action step.)

22–9 Goal Statement

Reduce Iowa's fire death rate to less than 1 per 100,000 people. Baseline: The rate has averaged slightly over 1.7 per 100,000 people during the 1990s, 29th highest in the nation, according to the National Fire Protection Association.

Rationale

Fire deaths are the fourth leading cause of unintentional injury deaths in the United States. Typically, 75% to 80% of them occur in the home. The very young and the elderly are most likely to die as a result of fire. Early warning and quick response by occupants can prevent most residential fire deaths. When properly installed and maintained, smoke detectors are a very effective means of providing early warning.

To implement effective prevention, it is essential to understand where fire injuries occur and to whom, and to collect other information to target at-risk groups in Iowa. Therefore, accurate data gathering, coupled with educational programs, can do much to improve Iowa's fire death rate.

To produce the desired impact on fire death rates, responsible personnel need the time and resources to develop a focused, statewide fire-prevention program. New materials need to be developed and educational presentations must be provided in schools, at health care facilities, and elsewhere as needed. A position to handle these responsibilities would also include seeking out and making applications for fire safety grants.

22–9.1 Action Step

By 2010, focus public fire safety education on children by providing various educational curricula (with formats for special populations), such as Learn to Not Burn or Risk Watch, in preschools and elementary schools. (An Iowa Department of Education and Department of Public Safety action step.)

22–9.2 Action Step

Through 2010, concentrate fire safety education where most fire deaths occur – in the home – by initiating a training program for fire departments based on informational campaigns using public service announcements, handouts, and other methods. (An Iowa Department of Public Safety and Fire Service Institute action step.)

22–9.3 Action Step

Through 2010, annually increase the use and maintenance of residential smoke detectors in all

inhabited residential dwellings through education. (An Iowa Department of Public Safety and Fire Service Institute action step.)

22–9.4 Action Step

By 2010, mandate reporting of burn injuries. (An Iowa Department of Public Health action step.)

22–10 Goal Statement

Reduce deaths by motor vehicle crashes to no more than 1.3 per 100 million vehicle miles traveled. Give special attention to children aged 14 and younger, to youth aged 15 to 24, and to adults aged 75 and older. Baseline: See following table.

Special Population Targets

Deaths Caused by Motor Vehicle Crashes (per 100,000)	Baseline 1994	2010 Target	% Change
Children aged 14 and younger	6.3	5.6	11%
Youth aged 15-24	33.6	30.0	10%
People aged 75 and older	21.1	18.8	11%

Source: Iowa Department of Transportation

Rationale

Motor vehicle related deaths account for about half of all unintentional injury deaths and are the leading cause of work-related deaths due to injury. Approximately 43,000 people die each year and more than 3.2 million are injured. Society loses nearly \$230 billion in medical costs, lost wages, and loss of productivity annually due to motor vehicle crashes.

In Iowa, nearly 2,200 persons died in automobile crashes during 1999 to 2003, and over 170,000 people were injured. In 2003, the motor vehicle death rate was 1.4 per 100 million vehicle miles traveled. To sustain the goal of 1.3 per 100 million, the number of fatal crashes must be reduced by approximately 10 deaths per year until 2010.

Careful consideration should be given to any proposal to increase the speed limit on Iowa's roadways. Evidence clearly demonstrates that more people are killed and seriously injured as speed increases. Increasing the speed limit in a state such as Iowa with a high number of older drivers can create potentially dangerous situations involving vehicles traveling at significantly different speeds on the same roadways.

22–10.1 Action Step

By 2010, analyze the costs and benefits of requiring driver education for all first-time drivers prior to receiving a license. Analyze the costs and benefits of requiring all drivers to complete a driver improvement program every 12 years and expand safety improvement for drivers aged 75 and older. (An Iowa Department of Transportation action step.)

22–10.2 Action Step

Through 2010, annually seek to reduce injuries from motor vehicle crashes involving drivers under the influence of alcohol and other drugs through strict enforcement and increased public awareness of the 2003 .08 blood alcohol level law. (An Iowa Department of Public Safety action step.)

22–10.3 Action Step

Through 2010, annually advocate to maintain speed limits on all Iowa roadways. (An Iowa Department of Public Safety action step.)

22–10.4 Action Step

By 2008, seek passenger restrictions and limits on driving hours for school permits. (An Iowa Department of Public Safety action step.)

22–10.5 Action Step

Through 2010, annually promote education (with formats for special) on distracted and fatigued drivers. (An Iowa Department of Public Safety action step.)

22–11 Goal Statement

Increase to 90% of motor vehicles the use of occupant protection systems such as safety belts and child safety seats. Baseline, 2004: Iowa data based on occupant observation surveys indicates that 87% were using seatbelts, and 84% of children under the age of 6 were restrained.

Rationale

Iowa's child restraint laws have been in effect since 1985 and the seat belt law since July 1986. In 2004, a grassroots effort was successful in strengthening Iowa's occupant protection law to increase the safety of passengers aged 3 to 11. Money received from the Governor's Traffic Safety Bureau pays for law enforcement and education on occupant protection, seat belt training for law enforcement personnel, child safety seat clinics, and the statewide annual child restraint survey. At 87%, Iowa's seat belt use rate is the highest among all 12 states in the greater Midwest and seventh highest in the nation. Achievement of the 90% use goal will require a number of efforts, including improved design of occupant protection systems, a constant enforcement effort, and continual promotion of awareness programs.

22–11.1 Action Step

Through 2010, annually expand efforts to promote use of seat belts and proper child restraints in all communities by conducting Special Traffic Enforcement Programs, child passenger restraint clinics, and other educational initiatives. (An Iowa Department of Public Safety and Iowa Department of Public Health action step.)

22–11.2 Action Step

By 2010, increase child passenger safety by striving to achieve the goals and objectives in the 2002 occupant protection strategic plan developed by the Iowa Occupant Safety Advisory Committee for Children and Youth. (An Iowa Department of Public Safety and Iowa Department of Public Health action step.)

22–12 Goal Statement

Reverse the current increasing trend of brain injuries due to motorcycles, motorized bicycles, and bicycles. Baseline: 2000, 84, 2.9 per 100,000 people; 2001, 100, 3.4; 2002, 98, 3.3. Source: Hospital Discharge Data and Vital Statistics, Iowa Department of Public Health.

Rationale

Motorcycles are a hazardous mode of transportation. They can travel at high speeds and offer little protection to the rider. The chances of serious injury in a collision are much greater than they are in an automobile. Nationally, the death rate of motorcyclists peaks between ages 18 and 24.

In Iowa, motorcycles comprise less than 3.6% of registered motor vehicles, but account for 8.2% of motor vehicle deaths. According to the Iowa Department of Transportation, approximately 10,500 collisions involving motorcycles occurred from 1989 through 1998. These collisions resulted in 329 fatalities and approximately 10,000 injuries. In 1998, 28 motorcyclists were killed on Iowa roads, 26 (92.9%) of whom were not wearing helmets. The evidence that wearing helmets prevents serious head injury or death is compelling.

In 1995, 40% of injured motorcycle riders were aged 24 or younger. The highest number of injuries in Iowa occurred in the 16-to-24-year age group and the second highest occurred in the 24-to-34-year age group.

The 2000 Crash Outcome Evaluation System (CODES) study found that 86% of hospitalized motorcyclists in Iowa were not wearing helmets. The average hospital charge for non-helmeted trauma brain injury (TBI) motorcyclists was \$32,651, which was significantly higher than those TBI motorcyclists who had worn helmet (\$22,224).

22–12.1 Action Step

By 2006, include a legislative advocacy initiative around use of helmets for riders of motorcycles, motorized bicycles, and bicycles in the Iowa plan for brain injury. (An Advisory Council on Brain Injuries action step.)

22–12.2 Action Step

Through 2010, annually use the Crash Outcome Data Evaluation (CODES) software to analyze injury costs for motorcycle and bicycle crashes. When fully operational, this system will provide valuable information for use in educating policy makers on costs associated with crashes involving non-helmeted bicyclists and motorcyclists. (An Iowa Department of Public Health action step.)

22–13 Goal Statement

Provide academic instruction in formats for special populations on motor vehicle injury prevention in the public school system’s mandated safety education curricula in grades K-12. Baseline: See Rationale.

Rationale

Instruction on the risk components (awareness, acceptance, management) of personal travel and motor vehicle operation is necessary. By providing this information as part of the health, safety and well-being curriculum, students will have the opportunity to acquire survival skills at the onset of their education, which should promote the establishment and development of positive student attitudes. This instruction will be a natural progression because current standards require that elementary traffic safety be taught in grades 1-6 in all Iowa school districts.

22–13.1 Action Step

By 2008, incorporate safety education into the K-12 comprehensive health education model for the state and implement it in all school districts. Also, foster curriculum development and schedule in-service training for teachers and administrators. (An Iowa Department of Education action step.)

22–14 Goal Statement

Reduce the number of fatal water-related injuries in Iowa to less than 30 per year.

Baseline: For 1990-1997, Iowa averaged 38 water-related unintentional deaths per year. They ranged from a high of 56 deaths in 1991 to a low of 21 deaths in 1997. Source: Centers for Disease Control and Prevention.

Rationale

Drownings were the seventh leading cause of unintentional deaths in Iowa from 1993 to 1995. Eighty-five percent of them were among males. Death by drowning was especially prevalent among youth and young adults. It is the third leading cause of unintentional death for ages 1 to 9 and the second leading cause for ages 10 to 24.

These injuries occurred in Iowa’s lakes, rivers, reservoirs, farm ponds, and public and private swimming pools and/or spas. Unfortunately, no single agency is responsible for collecting information on water-related injuries and deaths so it is difficult to identify the circumstances surrounding many of the incidents. However, it is fair to say that the majority of injuries occurred when people were boating, swimming, fishing, and hunting.

From 1990 to 1998, 70 persons were killed while boating. Flotation devices could have prevented most of these fatalities. Many injuries and/or deaths result from failure to observe appropriate precautions or because of poor judgment.

Because Iowa does not have an implied consent law, there is no accurate documentation of the number of cases where judgment was clouded by intoxication from alcohol or other drugs. Iowa is the only state that does not have an implied consent law for boat operators. According to the National Safe Boating Council, approximately 50% of all boating mishaps nationwide are alcohol-related. Studies in two states found that one-third of all people killed in recreational boating incidents had a blood alcohol content of 0.10% or higher.

Personal watercraft, such as jet skis and/or wave-runners, have accounted for almost 50% of all boating mishaps in Iowa since 1996. A total

of 31 personal watercraft incidents occurred in 1998.

22–14.1 Action Step

By 2005, increase the number of people receiving structured education (in formats for special populations) in boating and water safety from 1,000 per year to 5,000 or more by continuing to incorporate boating safety curricula into schools. Also, mandate that all persons aged 12 to 17 complete a certified boating education course before operating a boat and continue adult courses on boating safety. (An Iowa Department of Natural Resources and Iowa Department of Education action step.)

22–14.2 Action Step

Through 2010, annually continue to promote the requirement of tests of boat operators for alcohol or drug use under an implied consent statute. (An Iowa Department of Natural Resources action step.)

22–14.3 Action Step

Through 2010, annually encourage all passengers on a boat in Iowa waters to wear a properly fitted personal flotation device, U.S. Coast Guard Approved Type I, II, or III. (An Iowa Department of Natural Resources action step.)

22–14.4 Action Step

Through 2010, annually report all drownings to a designated state agency. (An Iowa Department of Natural Resources and Iowa Department of Public Health action step.)

22–14.5 Action Step

By 2010, encourage the adoption of county and/or city ordinances that require fencing around backyard swimming pools and spas and effective barriers between houses and pools. (An Iowa Department of Public Health action step.)

22–15 Goal Statement

Develop a plan to address the injury threat of off-road vehicles such as ATVs and snowmobiles. Baseline: An estimated 91 ATV-related incidents occurred in 2002, nearly double the 47 incidents in 1998.

Rationale

Off-road vehicles have increased in popularity over the past decade. Their use is favored not only for entertainment but also as a means of transportation in rural work. According to the U.S. Consumer Product Safety Commission, the number of ATV-related fatalities has nearly doubled in the past five years. The number of such incidents is believed to be unreported.

Nationally, 95% of injured ATV riders are under age 16. The estimated number of children injured in ATV-related incidents increased 94% from 1993 to 2001. This increase in fatalities and injuries is alarming to injury prevention advocates. Public awareness campaigns and initiatives have been implemented nationally.

22–15.1 Action Step

By 2008, identify a data-collection process on injury trends of off-road vehicles. (An Iowa Department of Public Health action step.)

22–15.2 Action Step

By 2010, yearly increase public awareness of off-road vehicle risks. (An Iowa Department of Natural Resources and Iowa Department of Public Health action step.)

22–15.3 Action Step

Through 2010, continue to enforce laws on off-road vehicles. (An Iowa Department of Public Safety action step.)

Goal Cross References

Chapter 1: Access to Quality Health Services

1–1 Reduce to 0 the proportion of children and adults under age 65 without health care coverage.

1-2Drive quality improvement of health care through Iowa's Critical Access Hospitals by developing a plan and engaging in activities that promote and encourage providers to follow standardized quality performance measures.

1-3Increase by 25% access to primary care for the underserved population.

1-4Ensure a competent and diverse health workforce by assessing and forecasting workforce supply and demand and by promoting local strategies to recruit and retain workers through the inclusion of 99 counties in a nurse tracking project.

1-12Develop a strategic plan to assess and employ telehealth and telemedicine that can increase access to quality health services in Iowa.

Chapter 4: Disabilities

4-3Assure that each HI2010 chapter assesses the health issues and potential treatment for people with disabilities and incorporates appropriate goals and action steps.

Chapter 5: Educational and Community-Based Programs

5-4Implement policies and guidelines to ensure that school health education and physical education are compliant with statutory education program requirements.

5-5Ensure that post-secondary community colleges provide data on how the college addresses the six priority health risk behavior areas.

Chapter 6: Environmental Health

6-6Reduce by 30% unintentional exposures to household hazardous materials.

6-10Establish a core state committee named the Safe and Healthy Homes Committee with a special focus on children, minorities and people at-risk.

Chapter 11: Maternal, Infant and Child Health

11-4Reduce child mortality for ages 1-14 to 17/100000.

Chapter 12: Mental Health and Mental Disorders

12-16 .. Identify 100% of pregnant and postpartum women with depression or at high risk for depression.

Chapter 13: Nutrition and Overweight

13-6 Increase by at least 20% people aged two and older who meet the dietary recommendations for calcium.

Chapter 14: Occupational Safety and Health

14-1 Reduce overall occupational injury and illness to 7/100 full-time workers.

14-2 Decrease occupational fatal and nonfatal injuries in agricultural populations.

14-3 Decrease by 25% employee work-related deaths in the Iowa construction industry.

14-4 Expand and promote safety and health training opportunities for employers, employees, and medical professionals.

14-6 Reduce to 0 the number of adults who have blood-lead concentrations greater than or equal to 25 micrograms per deciliter of whole blood.

Chapter 15: Oral Health

15-1 Reduce cavities in primary and permanent teeth so that proportion of children who have had one or more cavities, filled or unfilled, is no more than 10% among children aged 3-5, 25% among children aged 7-9, and 50% among adolescents aged 12-14.

15-2 Reduce untreated cavities in primary and permanent teeth so that the proportion of low-income children with decayed teeth not filled is no more than 2% among children aged 3-5, 10% among children aged 7-9, and 18% among adolescents aged 12-14.

Chapter 16: Physical Activity and Fitness

16-8 Collaborate with the Iowa Department of Transportation and all appropriate entities to promote environments that are physically appealing and conducive for regular physical activity.

16–10 ..Increase the proportion of school-age children who meet the CDC’s recommendations for physical activity and education.

Chapter 20: Substance Abuse and Problem Gambling

20–3Reduce to 15% alcohol and other drug-related death and injury, and chronic disease rates.

20–4Increase to 425 the number of lowans aged 65 and older who receive screening, prevention, referral, and/or treatment for risk factors.

20–5Increase availability of 24-hour residential treatment from 517 beds to 542 beds for lowans addicted to alcohol, tobacco and other drugs.

20–6Enact legislation requiring insurers to provide coverage for mental illness and addiction.

Chapter 23: Violent and Abusive Behavior

23–7Establish procedures at all hospital emergency departments, family planning agencies, public health clinics, community mental health centers, and substance abuse treatment programs for routinely identifying, treating and properly referring victims of child abuse, domestic abuse, elder abuse, and sexual assault.

23–8Identify the incidence of intentional violence in schools and workplaces and establish a mechanism for reporting it.

23–9Create opportunities for adults and youth to develop skills to be able to manage differences by building peaceable communities and schools.

Chapter 24: Vision

24–7Educate lowans on the benefits of certified eye protection when engaged in potentially hazardous activities that have chemical, physical or radiation agents.

Chapter 25: Emergency Preparedness and Response

25–1Increase by 20% the public health workforce infrastructure to ensure adequate emergency response coordination work-

force at the local, regional and state level.

25–2 At least every 3 years, conduct a comprehensive needs assessment of public health, laboratories, and health care emergency preparedness and response.

25–3 Enhance disaster preparedness plans in each county and at the state level to include an all-hazards approach using the National Incident Management System.

25–4 Develop a comprehensive plan to increase surge capacity for health care.

25–6 Develop a plan to address the impact of mental health concerns on 5,000 adult and pediatric clients and health care workers per 1,000,000 population exposed to a biological, chemical, radiological, or explosive terrorist incident.

25–8 Exercise, assess and implement needed change in plans annually to demonstrate proficiency in responding to terrorism attacks, natural disasters, infectious disease outbreaks, and other public health threats and emergencies.

25–9 Develop a self-sustaining payment system and user network to assure that emergency responders have ongoing access to the Health Alert Network.

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Chapter 23

Violent and Abusive Behavior**Introduction**

Within the past five years, research and programming have contributed greatly to a better understanding of the health impact of violence and its direct cost to communities. Through increased resources, public health providers and community leaders have had more opportunity to address violent and abusive behavior in Iowa. Overall, the state's violent crime rate has decreased 8.32% since 1998. During 1998 to 2002, the following trends in violence and abuse occurred:

- The rate of violent crime decreased slightly between 1999 and 2001, but has begun to increase again. Iowa is ranked 36th highest in the nation for its rate of violent crime (Uniform Crime Report 2002).
- Murder rates decreased from 1.9 per 100,000 in 1998 to 1.5 in 2002. Iowa is ranked 46th highest in that category.
- Forcible rape increased from 25.4 per 100,000 in 1998 to 27.1 in 2002. Iowa's national ranking is 35th highest.
- Domestic abuse increased 5.5% since 1998. The 2002 rate was 284 per 100,000 population.
- Suicide and firearm mortality rates decreased slightly from 1996 to 2000 (Iowa Health Fact Book 2003).
- Reports of confirmed child abuse and neglect cases increased dramatically in the past six years, from 13.1 per 1,000 in 1998 to 20.4 in 2003. The increases are attributed to neglect and drug-related abuse. Iowa's rate is much higher than the national rate (12.3 per 1,000 in 2002), but it is difficult to compare because of state variations in child-abuse laws (Iowa Department of Human Services, 2003).

- The number of reported cases of dependent adult abuse increased 68.9% from 1996 to 2003.

The increases in reports of domestic abuse, forcible rape, child abuse, and dependent adult abuse may be more indicative of the public's willingness to report the crimes than actual increases in crime rates.

Progress on goals and action steps included in *Healthy Iowans 2010* Chapter 23 since 1999 include:

- Identifying rates for intimate partner violence and sexual violence in Iowa through data obtained from Iowa's Behavioral Risk Factor Surveillance System (BRFSS) survey.
- Funding for the State Medical Examiner and Division of Criminal Investigation Crime lab, which will improve laboratory facilities and evidence storage capacity.
- Increasing capacity for human service agencies and community professionals to respond to child abuse and domestic abuse through a private "Community Partnerships" project.
- Establishing an Iowa Domestic Abuse Death Review Team that reviews domestic abuse-related deaths in Iowa and recommends action to prevent them.
- Increasing the capacity for public health to respond to domestic abuse and sexual violence through strategic planning, public awareness, and professional capacity building.
- Developing a state elder abuse initiative in 2001 that focused on the prevention, intervention, detection, and reporting of elder abuse, neglect and exploitation. Legislation was introduced in 2003, 2004 and 2005 to make the dependent adult abuse system and the Elder Abuse Initiative more comprehensive to ensure the safety of vulnerable Iowans.

- Obtaining a grant to improve public health’s capacity to decrease risk factors and increase protective factors that prevent youth violence.

During the first half of the *Healthy Iowans 2010* plan, much progress has been made to combat violent and abusive behavior. There is still a need for individuals and communities to develop capacity for alternatives to violence in resolving conflict and to increase collaboration across disciplines for education, prevention, detection, and intervention. According to the World Health Organization, use of a social-ecological model that incorporates strategies at the individual, family, community, social, and institutional level are needed to sufficiently address the complexity of violence. The status of, and changes recommended in, the original goals and action steps for Chapter 23 are discussed below.

Goal Statements & Action Steps

23–1 Goal Statement

Reduce the risk of victimization from violent crime (murder, sexual assault, robbery, and aggravated assault) to fewer than 300 per 100,000 people and maintain the risk of homicide at or below 2.0 per 100,000 people annually. Baseline, Iowa Uniform Crime Report, 1997: 308.5 violent crimes; 2.1 risk of homicide.

Rationale

Iowa’s violent crime rate (e.g., homicides, kidnapping, forcible rape, robbery, aggravated assault) has dropped since the mid 1990’s. The violent crime rate reached a high in 1995 of 339 per 100,000, but reduced to 285.6 by 2002. The homicide rate has been below 2.0 since 1994, and was 1.5 in 2002. Iowa ranks 46th in the nation for the number of homicides, making the state one of the safest places to live (Iowa Uniform Crime Report, 2002).

While the overall crime rate has dropped, distribution of race/cultural background and age has shifted. Table 23-1 illustrates race or cultural ethnicity of homicide victims and perpetrators from 1998 to 2003. In 2000, the percentage of Iowa’s population was: Asian 1.3%, African-American 2.1%, Native American .3%, and White 92.6%. Those identifying with a Hispanic cultural heritage were 2.8%.

There appears to be an increase in the percentage of Hispanics who are homicide victims or offenders; however, African-Americans are still a more disproportionate group. In 2002, 38% of offenders committing homicides were African-American, even though they comprise only 2.1% of Iowa’s population. This huge jump occurred only during 2002, but will be important to monitor over the next few years. Hispanics are becoming a greater proportion of murder victims in Iowa. From 1999 to 2002, 11% of all homicide victims were of Hispanic origin.

The proportion of homicide offenders that are under aged 26 has been increasing since 1999. After a low of 38% in 1999, it was back up to 53% in 2002 – the highest rate since 1998.

Table 23-1. Percentage of homicide victims or offenders by race/cultural ethnicity.

Year	Asian		African American		Hispanic		Native American		White		Unknown	
	V	O	V	O	V	O	V	O	V	O	V	O
1998	5	7	12	23	3	2	0	0	80	68	0	0
1999	6	8	17	13	12	10	2	5	63	64	0	0
2000	5	2	17	20	11	6	0	0	67	73	0	0
2001	4	4	10	21	16	2	0	0	70	73	0	0
2002	2	0	22	38	6	3	2	2	68	56	0	2
2003	0	0	18	27	12	10	2	5	68	58	0	0

It appears that violent offenders have become younger in the past five years.

Criminal justice officials believe that a key in continuing to reduce violent crime is to quickly solve cases and bring perpetrators to justice. This increases the community sense of safety and provides victims with a sense of justice. In 2001, the Iowa legislature appropriated funds for new facilities for the State Medical Examiner and Division of Criminal Investigation. When these facilities open in March 2005, two of Chapter 23's original action steps will be completed. It is expected that the improved laboratory facilities, evidence storage capacity, and morgue will improve the investigation and analysis of cases.

Following the passage of the federal Violence Against Women Act in 1995, funds were appropriated to help develop and expand services to victims of violent crime. In addition, communities received resources to develop multi-disciplinary coordinated response teams. Unfortunately, state funds for victim services were eliminated in 2002. While a small appropriation was reinstated in 2004, programs have had to reduce the level of services, especially to specialized populations. These changes will ultimately reduce specialized training for prosecutors, law enforcement, forensic nurses, community coordinated response teams, and resources for victims of crime to participate in the criminal justice process. Since community prevention is particularly critical to addressing homicide and other violent crime, there is concern about the long-term impact on crime.

23–1.1 Action Step

By 2007, restore \$2 million of state funds for services to victims of violent crime to maintain service when federal funds fluctuate and eliminate the need to transfer money from the crime victim compensation fund. (An Iowa Department of Justice action step.)

23–1.2 Action Step

Through 2010, offer ongoing technical assistance to encourage increased development of community violence prevention coalitions, coordinated response teams, and community policing initiatives. (An Iowa Department of Public

Safety, Iowa Department of Public Health, Iowa Department of Justice, and Office of Drug Control Policy action step.)

23–1.3 Action Step

By 2008, create a statewide authority on violence among African-Americans that would oversee implementation of recommendations to reduce disparities in arrests and violence. (An Iowa Commission on the Status of African-Americans action step.)

23–1.4 Action Step

By 2010, implement recommendations from the strategic plan to prevent youth violence in Iowa, a project of the Iowa Department of Public Health. Determine steps to reduce risk factors and increase the protective factors that will reduce youth violence in Iowa. (An Iowa Department of Public Health and Iowa Collaboration for Youth Development action step.)

23–1.5 Action Step

By 2007, establish an Injury Prevention Community Advisory Group to develop a comprehensive injury prevention plan for Iowa. Increase Iowa Department of Public Health surveillance capability for intentional and unintentional injury. (An Iowa Department of Public Health and University of Iowa Injury Prevention Research Center action step.)

23–1.6 Action Step

By 2008, increase Iowa's capacity to participate in the National Violent Death Reporting System. (An Iowa Department of Public Health action step.)

23–2 Goal Statement

Reduce the following rates in Iowa related to firearms: firearm mortality to 5.0 deaths per 100,000 population annually; firearm suicide rate to fewer than 4.0 annually; and incidence of violent crimes in which a firearm is used to 25 annually.

Baseline: 7.6 firearm deaths per 100,000 occurred in 1996 (The Iowa Health Fact Book); 6.14 firearm suicides per 100,000 occurred in

1996 (Iowa Department of Public Health, Vital Statistics); 39.2 firearms used in the commission of violent crimes per 100,000 in 1997 (Iowa Uniform Crime Report, 1997.)

Rationale

During 1999 to 2000, the firearm mortality rate declined slightly. The average rate for the decade 1990-2000 was 7.4 per 100,000 population. The average rate of suicide mortality decreased by the end of the decade to 11.0 per 100,000 population. The incidence of violent crimes in which a firearm was used decreased to 33.4 per 100,000 in 2002 (2003 Iowa Health Fact Book and 2002 Iowa Uniform Crime Report).

Intentional injury is the 8th leading cause of death in Iowa. In addition, suicides comprise the largest number of intentional injury deaths. Suicide rates are still greater for adolescents than for other population groups, and the risk of suicide is greater in rural areas. Homicide rates are greatest in metropolitan areas. During 2001, the Iowa Department of Public Health developed a limited public awareness campaign on youth suicide prevention. A public/private partnership was initiated in 2002 to develop a strategic plan for suicide prevention. The Iowa Department of Public Health continued to seek funds for such activities and was successful in obtaining a capacity-building grant in 2004 to address risk and protective factors for youth violence, including youth suicide.

Implementation of Iowa's Trauma Injury Registry was delayed, which limited the state's capability to collect firearm injury data. This activity is also tied to the development of the State Medical Examiner database, which is in progress. These two activities, along with the hopeful expansion of a National Violent Death Reporting System, are expected to help Iowa implement better firearm injury surveillance and improve recommendations for prevention of such injuries.

The capacity of law enforcement to increase seizures of firearms from convicted offenders was strengthened with changes in federal law, but safe and accurate storage has continued to be a problem. Efforts such as proposed legislation in Iowa in 2001 to introduce safety mechanisms

on firearms have been unsuccessful. The Centers for Disease Control and Prevention (CDC) found that evidence on the effectiveness of firearm laws to reduce violence is insufficient, but special interest groups continue to advocate for them. More research in this area is needed to determine what type of policy level activities may contribute to firearm safety and injury prevention.

23–2.1 Action Step

By 2007, confiscate and properly store all firearms possessed by or accessible to the perpetrator of any crime of violence in which a firearm is used or displayed, especially when the crime involves acquaintances, intimate partners, or family members. (A local law enforcement action step.)

23–2.2 Action Step

By 2008, establish a surveillance system to record all firearm-related injuries and fatalities, including type of firearm used, circumstances of the shooting, relationship between the parties, and the nature of injuries, using the Trauma Injury Registry, Iowa Department of Public Health Vital Statistics, and data from the office of the State Medical Examiner. Prepare an annual summary for local boards of health. (An Iowa Department of Public Health and Iowa legislature action step.)

23–2.3 Action Step

By 2007, establish an injury prevention community advisory group that would develop a comprehensive injury prevention plan for Iowa, oversee injury surveillance, and implement community strategies for the prevention of intentional and unintentional injuries. (An Iowa Department of Public Health action step.)

23–2.4 Action Step

By 2007, develop a suicide prevention plan that will identify local and statewide partners in suicide prevention, and establish specific action steps to promote individual, family, community, policy, and environmental actions to reduce suicide in Iowa. (An Iowa Department of Public Health action step.)

23–3 Goal Statement

Identify the annual rate of physical abuse by current or former intimate partners, reduce the number of deaths from domestic violence to less than five annually, and increase the statewide conviction rate for domestic abuse cases to an average of 66%. Baseline: Between 1990 and 1999, an average of 8.7 deaths resulting from domestic violence occurred each year (Iowa Department of Justice/Crime Victim Assistance Division).

Rationale

The Iowa Department of Public Health included three questions about intimate partner violence in its 1999 Behavioral Risk Factor Surveillance System (BRFSS) survey. Based on the results, the annual incidence of physical abuse by an intimate partner in Iowa is estimated to be 1,151 per 100,000. In addition, persons with significant disabilities were found to be at higher risk for intimate partner violence than the general population. In 2005, questions about lifetime exposure to intimate partner violence were included in the BRFSS to provide better prevalence data (completion of former action step 23–3.1).

Between 2000 and 2003, an average of 12.2 deaths from domestic violence occurred each year, an increase from the previous decade. The Iowa Domestic Abuse Death Review Team was established in 2000 by legislation (completion of former action step 23–3.3). Its purpose is to review domestic abuse-related homicides and suicides and make recommendations to communities to prevent such deaths. The Iowa Department of Public Health provides administrative support for the team.

Arrests for domestic violence have maintained a steady rate of 73% since 1998, and actually declined to 69% in 2001. A pilot project to profile and target repeat domestic abuse offenders (called the Protective Order Enforcement Team) was instituted in one county but was never evaluated. This project was funded with a one-time discretionary grant and could not be expanded to the rest of the state. (Former action step 23–3.2 was eliminated.)

The Office of Drug Control Policy (formerly the Governor's Alliance on Substance Abuse) participated in a national evaluation of community coordinated response teams. Efforts to expand teams to other parts of the state have continued as a result of community grants through the Violence Against Women Act (completion of former action step 23–3.4).

The Iowa Coalition Against Domestic Violence has had certification requirements for all domestic violence programs in Iowa since 2001. In 2002, the Iowa Legislature eliminated the state appropriation for domestic violence and sexual assault programs, but then it was minimally reinstated in 2004. Services to diverse populations expanded greatly between 1999 and 2002. Since 2001, Deaf Women of Iowa Against Abuse has been funded for deaf and hard-of-hearing women who are victims of sexual or domestic abuse. The state's only domestic abuse/sexual assault program for an exclusively Latina population was established in the same year. Also, the Iowa Coalition Against Domestic Violence established a specialized legal project for immigrant battered women. It received national recognition but was eliminated in September 2004 because of federal budget cuts.

Through the Integrated Services Project at the University of Northern Iowa, three pilot projects to provide cross training between substance abuse and domestic abuse programs were implemented between 1999 and 2003. The project has received more funding to expand to more areas of the state. (Refer to action step 23–1.1.)

23–3.1 Action Step

By 2008, ensure that funded domestic abuse shelters are in compliance with the Olmstead Act. (An Iowa Coalition Against Domestic Violence and Iowa Department of Justice/Crime Victim Assistance Division action step.)

23–3.2 Action Step

By 2008, assure access to domestic violence victim advocacy for people regardless of cultural affiliation, disability or immigration status. (An Iowa Coalition Against Domestic Violence and Iowa Department of Justice/Crime Victim Assistance Division action step.)

23–3.3 Action Step

By 2007, reinstate state funding for the Iowa Domestic Abuse Death Review Team. Expand the team’s capacity to monitor and track implementation of team recommendations. (An Iowa Department of Public Health action step.)

23–3.4 Action Step

By 2008, expand cross training of substance abuse treatment and domestic violence service personnel in four more communities to address the overlap between substance abuse and domestic abuse. (An Iowa Coalition Against Domestic Violence and University of Northern Iowa/Integrated Services Project action step.)

23–3.5 Action Step

By 2007, screen all clients in substance abuse treatment for domestic abuse and screen all clients in domestic violence programs (for batterers and victims) for substance abuse. Ensure that adequate resources for treatment exist. (An Iowa Department of Public Health, Iowa Department of Corrections, and Iowa Coalition against Domestic Violence action step.)

23–4 Goal Statement

Reduce to less than 900 per 100,000 population the incidence of confirmed child abuse by a caretaker. Baseline, 1998, Iowa Department of Human Services: 1,371 cases per 100,000 were confirmed in the under aged 18 population.

Rationale

In 2003, 2,036 cases per 100,000 of child abuse in the under aged 18 population were confirmed. These numbers dramatically increased after 2000. During 1990 to 1999, the average number of confirmed child abuse cases in Iowa had been 9,088 annually, according to the Iowa Department of Human Services. The increases are attributed to increased referrals of children where illegal drugs were found in their bodies. The most common type of confirmed abuse is still denial of critical care (70.1% of all confirmed cases), followed by physical injury (13.9% of all confirmed cases).

By 2003, the Iowa Department of Human Services had provided 57% of its child protection workers with domestic violence training. The Department administers the “Community Partnerships for Protecting Children” program, in which 37 counties participate. The effort was enhanced by the 2-year Family Violence Response Team project funded by the Iowa Department of Justice in 13 Iowa counties.

23–4.1 Action Step

By 2007, expand development of mentor programs, respite care, and other supportive resources for parents who have young children and are inexperienced, isolated from natural support systems, or at high risk for abuse. (A Prevent Child Abuse Iowa and local child abuse prevention councils action step.)

23–4.2 Action Step

By 2006, complete training on domestic violence by 100% of Iowa Department of Human Services child protection workers. (An Iowa Department of Human Services and Iowa Coalition Against Domestic Violence action step.)

23–4.3 Action Step

By 2007, assure community partnerships among Iowa Department of Human Services child protection programs, domestic violence shelters, and other service agencies across the state. (An Iowa Department of Human Services, Iowa Coalition Against Domestic Violence, and Iowa legislature action step.)

23–5 Goal Statement

Identify the annual rate of sexual abuse in Iowa, increase the arrest rate for forcible rape to 16 persons per 100,000, and increase the number of sexual abuse examinations in Iowa. Baseline: 6.2 per 100,000 in 1997 (Iowa Uniform Crime Report); the Sexual Abuse Examination Program reimbursed 1,270 exams in fiscal year 1998 (Iowa Department of Justice/Crime Victim Assistance Division).

Rationale

During 2001, the Iowa Department of Public Health included questions about sexual victimization in its annual Behavioral Risk Factor Surveillance System (BRFSS) survey. The results indicated that one in 10 adult Iowans experience sexual victimization in their lifetimes, a population rate of 10,127 per 100,000 persons. Sixty-five percent of those who are victimized experience it before age 18. Additional questions will be added to the 2005 BRFSS; and other sources of surveillance (e.g., Iowa Youth Survey, Trauma Information System) are being explored.

The arrest rate for forcible rape increased to 12.1 per 100,000 in 2002 (Iowa Uniform Crime Report). The number of sexual abuse examinations billed in FY2003 was 1,486 (Iowa Department of Justice/Crime Victim Assistance Division).

Iowa community coordinated response teams were evaluated as part of a national evaluation of Violence Against Women Act programs in 2001. The Crime Victim Assistance Division of the Iowa Department of Justice took over management of the S.T.O.P. Violence Against Women formula grants from the Office of Drug Control Policy in 2002. The grants fund several sexual assault response teams. Approximately 15 communities established some form of community coordinated response teams by 2003.

The International Association of Forensic Nurses established a national certification for sexual assault nurse examiners (S.A.N.E.). In lieu of developing a duplicative process, Iowa recommends that nurses who wish to specialize in sexual assault exams complete the requirements for national S.A.N.E. certification.

The Iowa Coalition Against Sexual Assault implemented certification requirements for all sexual assault programs in 2001. In 2002, the legislature eliminated the state appropriation for domestic violence and sexual assault programs. It was minimally reinstated in 2004.

Accessibility and availability of services to diverse populations has not been evaluated. Since 2001, Deaf Women of Iowa Against Abuse has been funded for deaf and hard-of-hearing women who are victims of sexual or

domestic abuse. The state's only sexual assault service for an exclusively Latina population was established in the same year.

The Iowa Department of Public Health receives federal funds annually from the Centers for Disease Control and Prevention for rape prevention and education activities. They are contracted to the Iowa Coalition Against Sexual Assault, which subcontracts with local programs to conduct professional education, awareness, and prevention activities. (Refer to action step 23–1.1.)

23–5.1 Action Step

By 2007, identify an annual rate of victimization from sexual assault through the Behavioral and Risk Factor Surveillance System survey. (An Iowa Department of Public Health action step.)

23–5.2 Action Step

By 2006, evaluate the impact of community coordinated, sexual assault response teams on reporting and prosecution rates for sexual assault. Based on results, promote their expansion to more areas of the state. (An Iowa Department of Justice/Crime Victim Assistance Division and Iowa Department of Public Health action step.)

23–5.3 Action Step

By 2008, create an Iowa Chapter of the International Association of Forensic Nurses and promote national certification among sexual assault nurse examiners (S.A.N.E.s). (An Iowa Department of Public Health and sexual assault nurse examiners action step.)

23–5.4 Action Step

By 2008, ensure that funded sexual assault service programs are in compliance with the Olmstead Act. (An Iowa Coalition Against Sexual Assault and Iowa Department of Justice/Crime Victim Assistance Division action step.)

23–5.5 Action Step

By 2008, evaluate rape prevention education programs and recommend strategies for future activities that reflect interventions at multiple levels, including strengthening individual

knowledge and skills, promoting community education, educating community providers, fostering coalitions and networks, changing organizational practices, and shaping policy and legislation. (An Iowa Department of Public Health action step.)

23–6 Goal Statement

Identify the incidence of elder and dependent adult abuse in Iowa. Baseline: See Rationale.

Rationale

In 2003, there were 1,608 reports of dependent adult abuse to the Iowa Department of Human Services, an increase of 48% from 1996. This increase is presumed to be a response to increasing awareness of abuse in the population. While this may be true, the *Journal of the National Academy of Elder Law Attorneys* (Fall 2003) estimates that 84% of elder abuse cases go unreported. Of reports made to the Iowa Department of Human Services in 2003, 359 (or 22.3%) were confirmed abuse cases. The most common types were denial or self-denial of critical care followed by exploitation. The journal also estimates that 40% of all elder abuse cases involve some form of financial exploitation.

In 2001, legislation established a state level position for elder abuse prevention in the Iowa Department of Elder Affairs. Also, \$255,000 was appropriated for the Elder Abuse Initiative, which focuses on prevention, intervention, detection, and reporting of elder abuse, as well as neglect and exploitation. By 2002, four demonstration projects were established. In 2004, the positions of elder abuse prevention coordinator and state elder abuse policy coordinator were combined into one (state elder abuse system coordinator) due to diminished resources.

Legislation was filed during 2002, 2003 and 2004 to make the dependent adult abuse system and the Elder Abuse Initiative more comprehensive and ensure the safety of vulnerable Iowans. This will attempt to bridge the gap between those classified legally as “dependent adults” and those who are elders experiencing abuse.

This is important because many elders live independently and are not classified as dependent adults but are vulnerable to abuse or exploitation, especially by family members. These distinctions may also apply to disabled people who don’t qualify as dependent adults under Iowa law but are vulnerable to exploitation as well. For example, the 1999 Behavioral Risk Factor Surveillance System survey showed that people with disabilities reported physical abuse by an intimate partner at a higher rate than the general population.

After 2001, several changes were made to Iowa law to facilitate the partnership between the Iowa Department of Human Services and the Iowa Department of Elder Affairs. The changes removed barriers to providing help to elders who experience abuse, neglect or exploitation. The Iowa Department of Elder Affairs established a “Train the Trainer Certification” for people interested in conducting mandatory reporter training for dependent adult abuse and who use the Iowa Department of Elder Affairs curriculum. To date, about 300 people have been certified.

Triad is a non-funded project that encourages seniors, senior advocates, and law enforcement officials to work together locally to protect seniors from crime. The Triad State Advisory Council gave presentations at the 2003 and 2004 Elder Rights Conference on the benefits of establishing such groups. They are hard to start in communities because they are not funded and law enforcement budgets, like many others, have been drastically cut in recent years. It is difficult for local law enforcement to find the time and staff to attend meetings, let alone begin a Triad in their community. The State Advisory Council is working to recruit more members and develop goals, action steps, and timelines for activities. (Refer to action steps 23–3.1 and 23–5.4.)

23–6.1 Action Step

By 2007, increase the level of funding for dependent adult and elder abuse services and increase the percentage of reported cases where services are offered, regardless of whether or not the cases prove to be founded. (An Iowa Department of Human Services and Iowa legislature action step.)

23–6.2 Action Step

By 2009, apply a more consistent interpretation to the definition of “dependent adult” and increase the percentage of dependent adult abuse cases that are founded. (An Iowa Department of Human Services, Iowa Department of Inspections and Appeals, and Iowa Department of Justice action step.)

23–6.3 Action Step

By 2009, increase the number of counties that participate in Triad. (An Iowa Department of Elder Affairs, Iowa Department of Justice, Iowa Department of Public Safety, and local law enforcement agencies action step.)

23–7 Goal Statement

Establish procedures at 100% of hospital emergency departments, family planning agencies, public health clinics, community mental health centers, and substance abuse treatment programs for routinely identifying, treating and properly referring victims of child abuse, domestic abuse, elder abuse, and sexual assault. Baseline, 1997, Iowa Department of Public Health: 74% of Iowa emergency departments had protocols for identifying domestic abuse.

Rationale

In 2002, the Iowa Department of Public Health surveyed Iowa hospitals and learned that 33% of emergency departments had implemented policies for routine screening for domestic abuse. In 2003, the Department conducted regional training sessions for hospitals and public health clinics (maternal/child health, family planning, and WIC) to improve the health care response to domestic violence. This was funded through a grant that the Department received from the Family Violence Prevention Fund between 2000 and 2003. Materials with stronger guidance for responding to domestic abuse in adult, pediatric and public health settings were also developed and distributed across the state.

Recent research strengthened the link between adverse childhood experiences and

chronic health conditions. Abuse often occurs across a person’s lifespan, so it is important to integrate the issues of child abuse, domestic abuse, sexual assault, and elder abuse into broader training for health care providers. Professional training has expanded academic and clinical curricula to address these needs.

Other community professionals, such as clergy, school personnel, and youth service workers, need to be included in this training. In addition, more information about special populations, including persons with disabilities or specific cultural groups, needs to be integrated into it. Expanding community capacity to identify and respond to victims of abuse can decrease isolation and further educate the public on the impact of violence and abuse on individuals, families and communities.

23–7.1 Action Step

By 2007, develop and post to the Iowa Department of Public Health web site a variety of training and technical assistance resources for public health providers on routine identification of, and appropriate intervention with, victims of child abuse, domestic abuse, elder abuse, and sexual assault. (An Iowa Department of Public Health, Iowa Department of Human Services, Iowa Department of Elder Affairs, Iowa Coalition Against Domestic Violence, and Iowa Coalition Against Sexual Assault action step.)

23–7.2 Action Step

By 2007, review and propose changes to Iowa administrative rules that would improve health care facilities’ policies for addressing victims of abuse. (An Iowa Department of Public Health action step.)

23–7.3 Action Step

By 2008, offer training on identifying and helping victims of child abuse, domestic abuse, sexual assault, and elder abuse to clergy and schools, youth service professionals, board members of human service organizations, and businesses. Integrate cultural competency into existing curricula. (An Iowa Department of Human Services, Iowa Department of Public Health, Iowa Department of Education, Iowa Department of Elder Affairs, Iowa State Exten-

sion Service, Iowa Coalition Against Domestic Abuse, Iowa Coalition Against Sexual Assault, and local councils on ministry action step.)

23–7.4 Action Step

By 2008, develop training and awareness projects for community professionals on the unique needs of people with disabilities who are at risk for abuse. (An Iowa Department of Human Rights, Iowa Department of Human Services, and Iowa Department of Public Health action step.)

23–8 Goal Statement

Identify the incidence of intentional violence in schools and workplaces and establish a mechanism for reporting it.

Baseline: See Rationale.

Rationale

No specific agency has taken leadership to address workplace violence since this goal was established in *Healthy Iowans 2010*.

Regarding school violence, the Iowa Department of Education has for several years been working on bullying in schools. In 2004, the Governor introduced legislation to promote an anti-bullying initiative. The Department posted model anti-bullying policies for schools on its web site and is planning a conference and train-the-trainer for area educational agencies in 2005. They are also considering including additional questions on the Iowa Youth Survey to identify how extensive the problem is in schools in Iowa.

A disaster and response plan was developed for Iowa through the efforts of the Iowa Department of Public Defense/Division of Homeland Security and Emergency Management, the Iowa Department of Public Health, the Iowa Department of Justice, and the Red Cross. The plan was largely initiated following the September 11, 2001, terrorist attack on the World Trade Center, but crisis response teams have been deployed for natural disasters as well.

23–8.1 Action Step

By 2007, identify funding and staff to track the number and types of intentional violent incidents in schools and workplaces. (An Iowa legislature, Iowa Department of Education, and Workforce Development action step.)

23–8.2 Action Step

By 2009, establish a state level task force on school and workplace violence that will review data, identify model policies, and develop curricula and training materials for employee and supervisory training programs. (An Iowa Department of Public Safety, Workforce Development, Iowa Department of Education, Iowa Coalition Against Domestic Violence, Iowa AFL-CIO [American Federation of Labor and Congress of Industrial Organizations], and the Iowa Association of Business and Industry action step.)

23–8.3 Action Step

By 2007, integrate local and state disaster plans for emergency preparedness to be able to mobilize a response team for large-scale incidents of violence. (An Iowa Department of Public Defense, Iowa Department of Public Safety, Iowa Department of Public Health, and Iowa Department of Education action step.)

23–9 Goal Statement

Create opportunities for adults and youth to develop skills to be able to manage differences by building peaceable communities and schools. Baseline: See Rationale.

Rationale

In January 1999, the Iowa Collaborative for Youth Development (ICYD) was established as an interagency initiative to discuss youth development, build consensus on a youth development framework, and promote use of youth development principles. Its three broad objectives are to:

1. Better coordinate and align state policies and programs on youth, using a positive youth development framework;

2. Identify or develop resources for use in communities to promote youth development and facilitate planning and implementation of effective youth development programs; and
3. Increase youth involvement in state and local policy discussions and decision-making.

The activities of the ICYD have addressed several of the action steps that were initially established under Goal 23–9.

In 2004, the Iowa Department of Public Health initiated a project to enhance Iowa's capacity to address risk and protective factors in youth violence through public health strategies. The project works closely with the ICYD to assess current data, policies and programs in this area. By 2006, a strategic plan to address gaps in these areas will be complete. The Iowa Department of Public Health and its community partners expect to have more impact addressing all forms of youth violence (e.g., suicide, homicide, dating violence) by developing solutions based on a social ecological model, which includes interventions at various levels: individual, community, providers, coalitions and networks, organizational practices, and policy and legislation.

23–9.1 Action Step

By 2005, produce a “report card” on Iowa's capacity to address the risk and protective factors in youth violence in Iowa. (An Iowa Department of Public Health action step.)

23–9.2 Action Step

By 2008, identify solutions at the level of individual, community, providers, organizational, and policy arenas to reduce youth violence in communities, and integrate youth development principles into Iowa Department of Public Health violence prevention strategies. (An Iowa Department of Public Health action step.)

23–9.3 Action Step

By 2007, improve the capacity of schools to address bullying and harassment by providing training, technical assistance, and model policies through area education agencies. (An Iowa Department of Education action step.)

Goal Cross References

Chapter 1: Access to Quality Health Services

- 1–1 Reduce to 0 the proportion of children and adults under age 65 without health care coverage.
- 1–2 Drive quality improvement of health care through Iowa's Critical Access Hospitals by developing a plan and engaging in activities that promote and encourage providers to follow standardized quality performance measures.
- 1–3 Increase by 25% access to primary care for the underserved population.
- 1–4 Ensure a competent and diverse health workforce by assessing and forecasting workforce supply and demand and by promoting local strategies to recruit and retain workers through the inclusion of 99 counties in a nurse tracking project.
- 1–12 Develop a strategic plan to assess and employ telehealth and telemedicine that can increase access to quality health services in Iowa.

Chapter 4: Disabilities

- 4–3 Assure that each HI2010 chapter assesses the health issues and potential treatment for people with disabilities and incorporates appropriate goals and action steps.

Chapter 5: Educational and Community-Based Programs

- 5–4 Implement policies and guidelines to ensure that school health education and physical education are compliant with statutory education program requirements.
- 5–5 Ensure that post-secondary community colleges provide data on how the college addresses the six priority health risk behavior areas.

Chapter 7: Family Planning

- 7–2 Reduce pregnancies to 12/1000 among females aged 15-17 and to 50 annually among females aged 12-14.

Chapter 11: Maternal, Infant and Child Health

- 11-1Reduce overall infant mortality to no more than 5/1000 of live births.
- 11-2Reduce overall low birth weight to no more than 5% of live births and overall very low birth weight to no more than 1% of live births.
- 11-4Reduce child mortality for ages 1-14 to 17/100000.
- 11-8Reduce overall perinatal mortality to no more than 7.1/000 live births.

Chapter 12: Mental Health and Mental Disorders

- 12-2Reduce by 10% the annual incidence of suicides among youth aged 15-24 and adults 65 and older.
- 12-7Identify and serve children and youth in the juvenile justice system by developing an integrated community-based mental health service delivery model.
- 12-8Expand by 30% the capacity to serve adult offenders in Iowa state correctional facilities and under community supervision.
- 12-10 ..Design and implement a system of care for adults with mental health needs.
- 12-11 ..Develop and implement a system of care for children with behavioral and developmental needs.
- 12-12 ..Provide appropriate mental health services to all adults and children seeking service.
- 12-16 ..Identify 100% of pregnant and postpartum women with depression or at high risk for depression.
- 12-19 ..Develop a system for collecting a uniform set of mental health data across all publicly funded services for adults and children.

Chapter 19: Sexually Transmitted Diseases and HIV Infections

- 19-1Reduce Chlamydia trachomatis to no more than 140/100000.
- 19-2Reduce gonorrhea to no more than 43/100000.
- 19-7Establish a baseline for the number of youth detention facilities and adult city and/or county jails in which screening for common bacterial sexually transmitted

ted diseases is conducted within 24 hours of admission.

- 19-15 .. Increase to 90% facilities that provide treatment for injecting drug use that also offer or provide referrals for HIV counseling and voluntary testing.
- 19-16 .. Maintain at 100% state prison inmates who receive HIV testing and counseling.
- 19-17 .. Increase to 90% county jails in counties with populations over 50,000 that regularly screen for HIV.

Chapter 20: Substance Abuse and Problem Gambling

- 20-1 Establish a systematic process and begin to access the infrastructure of the alcohol, tobacco and other drugs service system and its impact on prevention, early intervention, and treatment.
- 20-2 Increase by 3% youth aged 12-17 who never used alcohol and annually monitor and evaluate the increase.
- 20-3 Reduce to 15% alcohol and other drug-related death and injury, and chronic disease rates.
- 20-4 Increase to 425 the number of lowans aged 65 and older who receive screening, prevention, referral, and/or treatment for risk factors.
- 20-5 Increase availability of 24-hour residential treatment from 517 beds to 542 beds for lowans addicted to alcohol, tobacco and other drugs.
- 20-6 Enact legislation requiring insurers to provide coverage for mental illness and addiction.
- 20-7 Maintain the percentage of lowans engaging in problem gambling.
- 20-8 Increase to 115 and sustain state, county, community, and neighborhood collaborative groups to reduce problems of alcohol, tobacco, other drugs, and problem gambling.

Chapter 22: Unintentional Injuries

- 22-1 Enhance the EMS system by implementing an integrated data system, linking with 75% of Iowa EMS systems, and maintaining the trauma care delivery system at 100%.
- 22-2 Reverse the increasing trend of brain injury hospitalizations from falls.

22-4Reduce nonfatal spinal cord injuries so hospitalizations for this condition are no more than 4.5/100000.

22-10 ..Reduce deaths by motor vehicle crashes to no more than 1.3/100 million vehicle miles traveled

Chapter 25: Emergency Preparedness and Response

25-1Increase by 20% the public health workforce infrastructure to ensure adequate emergency response coordination workforce at the local, regional and state level.

25-2At least every 3 years, conduct a comprehensive needs assessment of public health, laboratories, and health care emergency preparedness and response.

25-3Enhance disaster preparedness plans in each county and at the state level to include an all-hazards approach using the National Incident Management System.

25-4Develop a comprehensive plan to increase surge capacity for health care.

25-6Develop a plan to address the impact of mental health concerns on 5,000 adult and pediatric clients and health care workers per 1,000,000 population exposed to a biological, chemical, radiological, or explosive terrorist incident.

25-8Exercise, assess and implement needed change in plans annually to demonstrate proficiency in responding to terrorism attacks, natural disasters, infectious disease outbreaks, and other public health threats and emergencies.

25-9Develop a self-sustaining payment system and user network to assure that emergency responders have ongoing access to the Health Alert Network.

Violent and Abusive Behavior Chapter Team

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Chapter 24

Vision

Introduction

Fifty percent of all blindness is preventable. Vision is an essential part of everyday life. People of all ages continually depend on it. It affects development, learning, communicating, working, health, and the quality of life. Many people do not give vision a second thought and take for granted how heavily they rely on their vision in everyday living.

According to the Lighthouse National Survey on Vision Loss (1995), 24% of people with impaired vision age 45 and older report that a vision problem caused at least some difficulty managing daily household tasks. Another 18% reported some difficulty getting to places outside the home because of their vision problems, and 38% reported at least some interference with their leisure activities. Visual impairment is one of the four most significant contributors to the loss of independence among older Americans.

Vision impairment, as defined in Iowa, is vision that is less than 20/40 in the better eye with corrective lenses. The definition of legal blindness, as defined by the Social Security Administration, is visual acuity, with best correction in the better eye, worse than or equal to 20/200 or a visual field extent of 20 or less degrees in diameter.

A refractive error occurs when the eye does not focus properly due to myopia (near-sightedness) or hyperopia (far-sightedness). Though the exact cause of many refractive errors remains unknown, a common risk factor is heredity. Other environmental risk factors, including nutrition, can affect the development of refractive errors.

Undiagnosed cases can cause problems for children and adults. Many refractive errors can

be effectively treated with prescription eye-glasses or contact lenses prescribed by an eye-care professional. It can also sometimes be treated with surgical procedures such as LASIK eye surgery. Precautions must be taken when considering cosmetic surgery because of strict criteria for becoming a candidate and many potential risks.

The number of Americans at risk for age-related eye diseases is increasing as the baby-boomer generation ages. The number of Americans with age-related eye disease and resulting vision impairment is expected to double within the next three decades.

According to the April 2004 issue of *Archives in Ophthalmology*, the leading causes of vision impairment in the United States, in order, are:

- Cataracts
- Glaucoma
- Macular Degeneration
- Diabetic Retinopathy

A *cataract* is a clouding of the eye's lens. It can result from eye injuries, lifetime exposure to ultraviolet radiation, or age-related chemical changes. Cataracts affect an estimated 20.5 million Americans, including an estimated 257,490 Iowans age 40 and older. This is approximately one in six people in this age range.

Glaucoma is an eye disease that causes progressive optic nerve damage that, if left untreated, leads to blindness. At least half of the people who have glaucoma are not receiving treatment because they are unaware of their condition. Glaucoma affects more than 2.2 million Americans, including an estimated 24,543 Iowans age 40 and older. This is about 1.9% of this population. In general, glaucoma is more

common in African Americans, Hispanics and with increasing age.

Age-related *macular degeneration* (AMD) is a condition that primarily affects the part of the retina responsible for sharp central vision. Besides being a leading cause of blindness in the United States, AMD is a leading cause of poor vision. AMD affects over 1.6 million Americans, including an estimated 23,841 Iowans.

Diabetic retinopathy is a common complication of diabetes. It affects the tiny blood vessels of the retina. In general, the longer a person has diabetes, the greater the risk of developing diabetic retinopathy. It affects about 5.3 million Americans age 18 and older, including an estimated 57,231 Iowans. Diabetes also increases the risk of other eye diseases, such as cataracts and glaucoma. Because it endangers good vision, people with diabetes are urged to receive annual dilated eye exams.

Eye injury is a leading cause of monocular blindness in the United States, and is second only to cataracts as the most common cause of visual impairment. Major causes of eye injuries are blunt objects (31%), sharp objects (18%), and motor vehicle crashes (9%). The remainder are caused by bb/pellet guns (6%), nails (5%), hammer on metal (5%), fireworks (5%), falls (4%), and other (8%) (2000 U.S. Eye Injury Registry).

Currently, over 1 million Americans over 40 are blind. They are among 3.3 million who suffer from some sort of vision loss, and the numbers are projected to reach 5.5 million by 2020. According to the Prevent Blindness Iowa, this equates to 15,682 Iowans in this age demographic who are legally blind. In 1981, the economic impact of visual disorders and disabilities was approximately \$14.1 billion.

By 1995, this figure was estimated to have risen to more than \$38.4 billion, including \$22.3 billion in direct costs and \$16.1 billion in indirect costs each year, according to the National Advisory Eye Council in 1998. The trend has continued to rise and with the advent of the baby-boomer generation; these numbers are predicted to continue to increase.

The Healthy Iowans 2010 Vision Chapter is based on the national Healthy People 2010 Vi-

sion Chapter. The goals and action steps have been expanded to fit Iowa's demographics. One of the most important goals of this chapter is to collect vision data specific to Iowa because there is no repository for such information. The problem areas in Iowa must be identified before they can be addressed. Some data has been extrapolated from national data or calculated by using synthetic estimates. Other data were supplied by the Department for the Blind, Prevent Blindness Iowa, the Department of Education, and local optometrists and ophthalmologists.

Prevent Blindness America and The National Eye Institute's "*Vision Problems in the U.S.*" publication says that at 3.7%, Iowa has the second highest prevalence of vision impairment and blindness in the United States for persons age 40 and older. Iowa also has a large elderly population. It follows the national trend with African Americans, Hispanics and the elderly having the highest rates of visual impairments. National studies show that African Americans are twice as likely to be visually impaired as whites of comparable socioeconomic status. Compared to Caucasians, Hispanics have three times the risk of developing type 2 diabetes. Nationally, more than 2/3 of visually impaired adults are over age 65.

More attention needs to be given to vision problems in Iowa's children. Vision is used at crucial developmental stages in children to learn and read. In fact, 80% of all learning during a child's first 12 years comes through vision. Remedies exist to either correct vision loss or develop effective non-visual techniques to ensure that normal learning and development are not impeded.

Unfortunately, many children do not receive a vision screening until they enter school. For many, this is too late. Half of all children with amblyopia (lazy eye) are diagnosed after the age of five when treatment may be more difficult and less effective. Vision problems in children can also cause developmental delays. It is estimated that as many as 9,000 children in Iowa under the age of four suffer from poor vision in at least one eye.

Education is the first step in the awareness of vision health. Streamlining resources and the networking of agencies in the state is also a step

in the right direction. Common action is important because many great resources in Iowa can help with vision screenings, rehabilitation and education. Iowa has vision screenings in schools but the process is not standardized. It is important that more specific statewide standards for vision care be adopted. Resources have been brought together from Prevent Blindness Iowa, the Iowa Department for the Blind, the Iowa Department of Education, the Iowa Department of Public Health, Proteus, the University of Iowa, Iowa Optometric Association, Coming To Your Senses, and Kemin Health.

Education and rehabilitation are important parts of the continuum of services available to people with serious and progressive eye diseases or disorders. While best efforts can be made to promote prevention, some impairments cannot be prevented. Loss of independence and meaningful employment are real fears for anyone who is beginning to struggle with severe vision loss. Rehabilitation can be used to help people develop skills and gain the confidence necessary to lead active, independent, and productive lives as contributing members of family, work, and the community.

It is essential that the public develop a greater awareness of the benefit and availability of rehabilitation for people who are blind or visually impaired. This will ensure for all Iowans that: 1) people who need rehabilitation will be referred for them and 2) once people receive the services needed to participate in society, doors to education, employment and independence open to them consistent with the mandates of the Americans with Disabilities Act and the Olmstead Act.

According to national data collected by Lighthouse National Survey on Vision Loss (1995), when asked why vision rehabilitation was not used many respondents reported being unfamiliar with its availability. They did not know that low vision clinical services were available, as well as recreational services, rehabilitation training on daily skills, counseling, or job training/placement. Approximately 35% of middle-aged or older adults did not know if there were local public or private agencies that provide vision rehabilitation.

Promotion of quality eye care should be emphasized. Iowans need to understand that early intervention and regular eye exams are important in maintaining good vision. Between 40% and 50% of all blindness can be prevented if effectively treated, resulting in the restoration of sight. Education for those at high risk of eye disease and those who are visually impaired are essential for current and future visual independence.

The vision chapter is a plan to move Iowa toward a better state of vision health. The goals and action steps are meant to improve awareness and promote prevention, rehabilitation and treatment of vision impairments.

Goal Statements & Action Steps

24–1 Goal Statement

Establish a reliable Iowa-specific baseline on vision.

Rationale

In attempting to address vision problems, it was extremely difficult to find baseline data specific to Iowa. Bits and pieces of state-specific information are currently available, but there is no comprehensive or complete source of data. Current data has been extrapolated from national data or has been calculated using synthetic estimates. It is important to understand exactly what the problem areas are in Iowa before addressing them. Since the goals and action steps in this chapter are developmental, Iowa-specific data will allow a better understanding of what is occurring in the state and where the chapter focus needs to be.

24–1.1 Action Step

By 2006, create a repository for Iowa-specific vision data by using responses from the Iowa Behavioral Risk Factor Surveillance System survey. (An Iowa Department of Public Health action step.)

24–1.2 Action Step

By 2006, use such data to edit the vision chapter goals if needed, and continue to include

vision questions in the survey so data can be current. (An Iowa Department of Public Health action step.)

24–1.3 Action Step

By 2007, make available to the public the Iowa-specific data collected. (An Iowa Department of Public Health step.)

24–2 Goal Statement

Build awareness of the importance of early intervention and rehabilitation to increase positive outcomes for adults who are visually impaired or blind. Baseline: See Rationale.

Rationale

Research has shown the effectiveness of early intervention for at-risk children (those with visual impairments). It improves educational outcomes that result in positive adult outcomes. Children with visual impairments must receive quality rehabilitation from highly qualified and specialized teachers and orientation and mobility specialists to reach academic competency and the ability to travel independently.

The Iowa Department for the Blind has estimated that as many as 58,000 Iowans over the age of 40 are blind or visually impaired. Yet, the department as the primary provider – and in much of Iowa the sole provider – of rehabilitation for blind persons or those who are visually impaired has records of just over 14,000 people, and it gets an average of 1,000 referrals annually. This strongly suggests that the rate of referral for rehabilitation, which impacts positive adult outcomes, needs to be increased.

24–2.1 Action Step

By July 2006, build at least one partnership with service providers, medical providers, consumer groups, and educational institutions. (An Department of Education and Iowa Department for the Blind action step.)

24–2.2 Action Step

By July 2005, develop and implement a strategy to market services of potential visually

impaired employees to Iowa employers. (An Iowa Department for the Blind action step.)

24–2.3 Action Step

By July 2006, develop and conduct seminars on assistive technology for beginning, moderately experienced, and advanced technology users. (An Iowa Department for the Blind action step.)

24–3 Goal Statement

Develop new or improved educational programs to reduce visual disabilities due to low birth weight or premature births. Baseline: See Rationale.

Rationale

The national Model Registry of Early Childhood Visual Impairment (Hatton, 2002) reports that the diagnosis of Cortical Visual Impairment (CVI) and Retinopathy of Prematurity (ROP) are the two leading causes of visual impairment in the United States and Canada. In addition, Iowa's Early Childhood Visual Impairment Registry found that the same is true in Iowa. Thirty-six percent of the newly identified babies with visual impairments have been diagnosed with CVI, with ROP the second leading cause. Also, Iowa's Early Childhood Visual Impairment Registry found that the mean birth weight of females was 73 ounces and for males 86 ounces. Females had a mean of 32 weeks gestational age.

Recognizing the importance of early education for pregnant women or women who may become pregnant, this goal strives to educate the public on some of the indicators and predictors of premature births or low birth weight babies. The March of Dimes is in the second year of a 5-year grant cycle to reduce premature births in Iowa.

24–3.1 Action Step

By 2007, assist in creating ongoing collaborative partnerships with the March of Dimes, other health-care providers, the Iowa Department of Public Health, community groups, and educational sites. The partnerships will provide educational material on the indicators and risk

factors for premature births and low birth weight babies, which could include the negative effects of drinking alcohol and poor prenatal nutrition. (A March of Dimes action step.)

24–3.2 Action Step

By 2007, help develop an ongoing collaboration with medical providers to ensure that expecting mothers receive materials on prenatal and nutritional importance. (An Iowa Department of Public Health action step.)

24–4 Goal Statement

Build awareness in Iowa of the importance of maintaining good eye health through prevention and education. Baseline: See Rationale.

Rationale

Many eye diseases and disorders have no symptoms or early warning signs and can be more prevalent in certain ethnic groups, ages and genders. Regular visits to an eye-care professional (optometrist or ophthalmologist) provide opportunities for early diagnosis, prevention and treatment, which can significantly reduce visual impairment. They are also opportunities to increase patients’ awareness of the importance of eye health.

Minimum eye examination frequency for people with the following vision-threatening conditions is:

- Macular degeneration*Annually
- Diabetic retinopathyAnnually
- Cataracts*Annually
- Glaucoma*Every 6 months

**These are guidelines only, agreed upon by the Iowa Optometric Association and the Iowa Academy of Ophthalmology. People with these conditions should receive routine eye examinations from an eye-care professional. The frequency of examinations will be determined by the provider.*

24–4.1 Action Step

By 2006, address the vision disparity among age, gender and ethnicity. (A Proteus, Iowa Department of Public Health and Department of Human Rights action step.)

24–4.2 Action Step

Through 2010, continue to provide access to eye care through free screenings at health fairs, among employer groups, at senior centers, child-care centers, and public health venues such as WIC Clinics and Head Start Programs. (An individual optometrists and ophthalmologists, Coming To Your Senses, Prevent Blindness Iowa, Iowa Optometric Association, Area Education Agencies and the Iowa Academy of Ophthalmology action step.)

24–4.3 Action Step

Through 2010, continue to educate the public about programs for low-income, uninsured Iowans such as Vision USA. (An Iowa Optometric Association, hawk-i EyeCare America, and Prevent Blindness Iowa/VSP through Sight For Students action step.)

24–4.4 Action Step

By 2008, communicate research-based information to key players (e.g., pediatricians, family-practice physicians, and other health-care providers) to encourage standardized procedures for screening and referral of vision conditions. (An Iowa Optometric Association, Iowa Academy of Ophthalmology, Coming to Your Senses, Iowa Medical Society, Iowa Chapter of the American Academy of Pediatrics, and the Iowa Academy of Family Physicians action step.)

24–4.5 Action Step

By 2007, develop and implement a Diabetes Eye Exam Report to enhance communication between primary care physicians and eye-care providers, resulting in improved patient care. (An Iowa Optometric Association, Iowa Academy of Ophthalmology, and local health-care systems action step.)

24–4.6 Action Step

By 2010, collaborate with the Healthy Iowans 2010 Diabetes Chapter to work toward its goal of 80% of persons with diabetes receiving an annual dilated examination. (An Iowa Department of Public Health, Iowa Optometric Association, Iowa Academy of Ophthalmology, Prevent Blindness Iowa, and local health-care systems action step.)

24–4.7 Action Step

Through 2010, create a vision coalition to meet annually, at minimum, to continue efforts throughout the year. (A Healthy Iowans 2010 Vision Chapter Team action step.)

24–5 Goal Statement

Increase the number of preschool children (aged 5 and under) who receive vision screenings and appropriate follow-up care as determined by an eye-care professional. School-aged children (K-12) are also encouraged to receive eye examinations and appropriate follow-up care. Baseline: See Rationale.

Rationale

One elementary school child in four has an undetected vision problem. Early recognition in school-aged children results in more effective treatment that can be sight-saving or even life-saving. Recognizing the importance of vision in learning, it is recommended that children 5 years and younger, who do not show signs of visual defects, receive a scientifically validated vision screening (proven to detect normal vision versus abnormal eye conditions) to rule out undetected vision problems. If vision problem are suspected for persons of any age, they should receive a comprehensive eye examination from an eye-care professional.

24–5.1 Action Step

By 2007, bring together key players (e.g., pediatricians, family-practice physicians, and other health-care providers) to discuss standardized procedures for vision screening and referral of vision conditions. (An Iowa Optometric Association and the Iowa Academy of Ophthalmology action step.)

24–5.2 Action Step

By 2007, to standardize protocol, identify the most effective delivery and use of vision assessment in children ages 18 and younger. (An Iowa Optometric Association, the Iowa Academy of Ophthalmology, and the Iowa Department of Education action step.)

24–5.3 Action Step

By 2007, establish baseline data on the number of children currently receiving appropriate follow-up care after a failed vision screening and track that number. (An Iowa Department of Public Health, area education agencies, school nurses, Coming To Your Senses, and Prevent Blindness Iowa action step.)

24–5.4 Action Step

By 2005, educate new mothers on infant vision with a “what to look for” checklist distributed through the Iowa Hospital Association and WIC Clinics. (An Iowa Optometric Association, Iowa Hospital Association, WIC, Iowa Academy of Ophthalmology, and American College of Obstetrics and Gynecology action step.)

24–6 Goal Statement

Encourage Iowa health insurance carriers and employer groups to include vision benefits in their policies by discussing their importance and advantages. Baseline: See Rationale.

Rationale

Many insurance companies in Iowa offer vision benefits, but as an add-on option for benefit packages and not as a core standard. Therefore, many insured Iowans do not have vision benefits. This can affect how often they receive eye examinations. By covering regularly scheduled eye examinations, which can catch potential visual impairments early on, insurers would not only help in treatment, but potentially lower the health-care costs of late stage disease treatment.

24–6.1 Action Step

By April 2005, develop baseline data of current eye-care benefits. What was the situation 10 years ago? How many policies cover vision as a standard benefit? How many include vision as an add-on benefit? What vision benefits are offered? (A Healthy Iowans 2010 Vision Coalition action step.)

24–6.2 Action Step

By July 2005, write a position paper to be distributed to Iowa health-insurance companies that explains the current state of vision in Iowa and the benefits of including vision as a core benefit. (A Healthy Iowans 2010 Vision Coalition action step.)

24–6.3 Action Step

Through 2010, annually monitor dialog with the insurance industry, employers and unions on changes in vision policies, if any. Educate their members on benefits. (A Healthy Iowans Vision Chapter Team action step.)

24–7 Goal Statement

Educate Iowans on the benefits of certified eye protection when engaged in potentially hazardous activities that have chemical, physical or radiation agents. It should be used at home, in recreation or at work. Baseline: See Rationale.

Rationale

According to Prevent Blindness America, 90% of all eye injuries can be prevented. Many construction unions, occupations engaging in hazardous activities, and contractors already require protective eye wear for all workers. While many eye injuries are occupation-related, such as in construction or agriculture, the majority occur during recreation or at home. In sports such as tennis, racquetball or baseball, balls can hit the eye with enough force to cause retinal detachment or crush an eyeball and cause blindness. This could be prevented by encouraging and educating coaches and parents on the use of protective eye equipment.

Many eye injuries occur in a home workshop or while engaging in home improvement. Workshop grinders, drills and saws are among those most often causing eye injuries. Also, caustic chemicals used for cleaning, painting or polishing cause a significant number of such injuries. Lawn equipment, such as mowers or weed eaters, can throw pebbles or sticks with enough force to injure an eye.

Injuries can occur not only to the person working with the tool or chemical, but also to “helpers” by flying debris and particles or chemicals. Improper use of nail guns, table saws or welding equipment can also injure an eye. Other hazardous activities include firing bb/pellet guns and improper handling of fireworks. Even vehicle crashes can cause eye injuries. Wearing safety eye wear manufactured to industry standards can prevent most eye injuries. Everyone should take eye-safety precautions.

24–7.1 Action Step

By 2005, determine the number and causes of eye injuries in Iowa that are treated in hospitals, emergency rooms, and by health-care professionals. (An Iowa Department of Public Health action step.)

24–7.2 Action Step

By 2005, determine the scope of safety education by lawn- and shop-equipment manufacturers, the media and government agencies. (An Iowa Department of Public Health and Extension Services action step.)

24–7.3 Action Step

By 2005, determine the scope of safety education provided to consumers by businesses selling guns, bb guns, and pellet guns. (An Iowa Department of Public Health and gun-safety organizations action step.)

24–7.4 Action Step

By 2010, annually provide public-safety education on the hazards of fireworks. (An Iowa Department of Public Health and the State Fire Marshall’s office action step.)

24–7.5 Action Step

By 2006, review occupational safety practices of unions and businesses. (An Iowa Department of Public Health, unions, and businesses action step.)

24–7.6 Action Step

By 2009, review data and develop best practices for Iowans at home, work and play in collaboration with other groups. (An Iowa Department of Public Health action step.)

Goal Cross References

Chapter 1: Access to Quality Health Services

- 1-1Reduce to 0 the proportion of children and adults under age 65 without health care coverage.
- 1-2Drive quality improvement of health care through Iowa’s Critical Access Hospitals by developing a plan and engaging in activities that promote and encourage providers to follow standardized quality performance measures.
- 1-3Increase by 25% access to primary care for the underserved population.
- 1-4Ensure a competent and diverse health workforce by assessing and forecasting workforce supply and demand and by promoting local strategies to recruit and retain workers through the inclusion of 99 counties in a nurse tracking project.
- 1-12Develop a strategic plan to assess and employ telehealth and telemedicine that can increase access to quality health services in Iowa.

Chapter 3: Diabetes

- 3-3Offer leadership and education opportunities to health care professionals to enable them to provide improved medical guidance to people with diabetes.
- 3-4Decrease mortality and morbidity from diabetes by preventing or delaying complications.

Chapter 4: Disabilities

- 4-3Assure that each HI2010 chapter assesses the health issues and potential treatment for people with disabilities and incorporates appropriate goals and action steps.

Chapter 5: Educational and Community-Based Programs

- 5-4Implement policies and guidelines to ensure that school health education and physical education are compliant with statutory education program requirements.
- 5-5Ensure that post-secondary community colleges provide data on how the college addresses the six priority health risk behavior areas.

Chapter 22: Unintentional Injuries

- 22-10 .. Reduce deaths by motor vehicle crashes to no more than 1.3/100 million vehicle miles traveled

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Chapter 25

Emergency Preparedness and Response**Introduction**

Since the terrorist attack on the United States, September 11, 2001, and subsequent anthrax incidents, the public, traditional emergency responders and policymakers have gained a heightened awareness and appreciation for the role of public health and health care in preparedness for and response to terrorism. Public health and health care are making significant progress in building capacity in preparedness for and response to bioterrorism, infectious disease outbreaks, and other public health threats and emergencies, including the following:

- 1) preparedness plans and strategies have been developed;
- 2) new planning, epidemiological, and laboratory staff have been hired;
- 3) new emergency communication capabilities have been implemented;
- 4) education and training of the workforce is ongoing; and
- 5) equipment and supplies have been purchased.

The challenges for public health and health care preparedness and response vary greatly from state to state and jurisdiction to jurisdiction. What is most important is that a statewide, effective and sustainable public health and health care “system” of emergency preparedness and response capable of providing services across organizational boundaries is developed, implemented and maintained for all Iowans.

As public health and health care move toward the next phase of progress in development of a strong effective preparedness and response “system” in Iowa, considerations must be given to the following challenges to ensure that the goals and action steps of this chapter will be met:

1. Funding for public health infrastructure development and maintenance must be further developed and sustained over the long term.
2. Terrorism preparedness must not be funded at the expense of other critical public health programs and priority health care activities, or for filling state budget shortfalls.
3. Workforce issues must be addressed on all levels, including the high number of expected retirements in public health, enhancing training, and accessibility for training to public health and health care professionals; and we must address the volunteer issues surrounding our emergency medical service system.
4. Collaboration and coordination among hospitals, emergency medical services, outpatient clinics, poison control centers, and substance abuse and mental health systems must be given the highest priority.
5. Iowa’s public health and health care preparedness and response system must be “tested” and evaluated through regularly scheduled drills and exercises documenting weaknesses and developing corrective action plans. Best practices from actual incidents should be shared with public health and health care partners to improve the system as a whole.
6. A system evaluation and quality improvement program needs to be established by the Preparedness Advisory Committee to ensure efficient and effective achievement of system goals and objectives, as well as achievement of the goals and action steps outlines in this chapter.

In line with the existing emergency management field, public health preparedness and response must encompass an all-hazards approach integrating not only incidents caused by biological pathogens, but also chemical, radio-

logical and mass trauma that threatens the public's health whether these incidents are naturally occurring, accidental or terrorist induced. This approach must be achieved through sustained commitment and support for infrastructure strengthening, workforce development, and building multi-use capacities and capabilities in preparedness for and response to public health threats and emergencies over the long term.

Goal Statements & Action Steps

25–1 Goal Statement

Increase by 20% the overall public health workforce infrastructure to ensure adequate emergency response coordination workforce at the local, regional and state level. Baseline: Unknown number of dedicated local public health staff; 24 dedicated public health regional staff; 12 dedicated health care regional staff; 22.5 dedicated state staff. Source: 2004 Bioterrorism Preparedness Cooperative Agreement Application.

Rationale

A systematic approach to leadership, direction and coordination is imperative for successful preparedness and response system development. The Iowa Department of Public Health shall serve in a leadership capacity for the Public Health and Health Care Preparedness Program. The Preparedness Advisory Committee should actively participate in the development and implementation of local, regional and state public health preparedness and health care response planning. The committee should serve to advise the Department in addressing preparedness and response issues, funding allocations for personnel and other activities, communication and policy, and procedure development and implementation.

To appropriately respond to a public health emergency, there must be trained public health and health care professionals available to respond at the local, regional and state level. Public health and health care workforce continues to decline at a rapid rate due to a number of issues. The declining numbers of public health profes-

sionals, and the increasing educational and competency demands on the workforce, along with regular daily programmatic responsibilities at the county level, makes it imperative to grow the current infrastructure at the county, regional and state level.

At the state and county level, a number of responsibilities were added to the current workforce rather than hiring additional staff. At the state and regional level, minimal staff was hired that increased the infrastructure, but not to an acceptable level that meets the needs and demands. Maintaining or increasing public health and health care infrastructure is a key component to respond to a public health emergency and/or outbreak.

25–1.1 Action Step

Through 2010, annually allocate resources, including personnel, to achieve goals and objectives, implement work plans, and monitor progress for Iowa's public health and health care emergency preparedness and response system at the local, regional and state level. (An Iowa Department of Public Health action step.)

25–1.2 Action Step

Through 2010, every other year review the Preparedness Advisory Committee structure (including membership) and process to advise the state department of public health regarding activities of the United States Department of Health and Human Service's (Centers for Disease Control and Prevention) CDC and (Health Resources and Services Administration) HRSA Cooperative Agreements and other emergency preparedness and response activities. (An Iowa Department of Public Health action step.)

25–1.3 Action Step

Through 2010, annually review the regional steering committee structure (including membership) and process to develop and implement activities as outlined by the cooperative agreements and other emergency preparedness and response activities. (An Iowa Department of Public Health, hospitals, and local public health agencies action step.)

25–1.4 Action Step

Through 2010, annually review that staffing levels at the local, regional and state that supports preparedness activities. This review may be used to assist local, regional and state public health in allocating funds for personnel. (An Iowa Department of Public Health, local public health agencies, and hospitals action step.)

25–2 Goal Statement

At least every three years, conduct a comprehensive needs assessment of public health, laboratories, and health care emergency preparedness and response to determine areas of improvement and capacities related to all hazards (biological, chemical, radiological, mass trauma) and other public health threats and emergencies. Baseline: First assessment conducted Spring 2003; planned re-assessment scheduled for December 2004, 2007, 2010.

Rationale

Current information is necessary to ensure that existing public health and health care systems are prepared to cope with potential disease outbreaks and other public health threats and emergencies. Updated data collected from needs assessments form the basis to effectively improve county, regional and state response plans.

25–2.1 Action Step

Through 2010, coordinate assessments, as necessary, with other assessments conducted by other disciplines to avoid duplication of effort when appropriate. (An Iowa Department of Public Health action step.)

25–2.2 Action Step

Through 2010, at least every three years conduct comprehensive analysis of information and data obtained during needs assessments. (An Iowa Department of Public Health action step.)

25–2.3 Action Step

Through 2010, at least every three years document the findings and corrective actions to be taken and establish timelines, goals and objectives for achieving and refining cooperative agreement requirements. (An Iowa Department of Public Health, hospitals, laboratories, University Hygienic Laboratory, and local public health agencies action step)

25–3 Goal Statement

Enhance disaster preparedness plans in each county and at the state level to include an all-hazards approach using the National Incident Management System (NIMS) to ensure that the needs of special populations are met, and develop six public health regional disaster preparedness plans to ensure that Iowa is prepared to respond to public health threats and emergencies by terrorism, natural disasters and infectious diseases outbreaks. Baseline: 99 county plans; 1 state plan; 0 regional plans. Source: 2004 CDC grant outcome data.

Rationale

The purpose of public health and health care emergency preparedness and response plans is to describe how local and state officials will manage and coordinate an emergency response. Regional response plans made prior to the enactment of state level assistance are an essential component of response preparation to assure that local health care and public health has hands-on assistance in the early hours of an emergency or large outbreak.

The plan also serves as a written basis for agreement among all parties with significant statutory and/or contractual responsibility to take action in the event of such an emergency and identifies emergency response organizations, facilities, and other resources that can be utilized during an emergency. The ultimate objectives of the response efforts in a plan are to minimize morbidity and mortality resulting from bio-emergencies, infectious disease outbreaks, and other public health threats and emergencies to

maintain public health, health care, and other essential community services.

25–3.1 Action Step

Through 2010, at least every two years review and update scalable plans that support local, regional and statewide response to incidents of bio-emergencies; natural disasters; catastrophic infectious diseases such as smallpox, pandemic influenza, SARS, and other infectious disease outbreaks; and other public health threats and emergencies. (An Iowa Department of Public Health, local public health agencies, Iowa Homeland Security and Emergency Management and hospitals action step.)

25–3.2 Action Step

By 2007 and annually thereafter, enhance county, regional and state plans to accommodate the operational and physical needs of special populations such as people with disabilities, pregnant women, children, the elderly, and those with special health care needs. (An Iowa Department of Public Health, local public health agencies, and hospitals action step.)

25–3.3 Action Step

By 2010, develop or enhance plans and protocols that address:

- (a) Clinical specimen transport and handling,
- (b) Worker safety,
- (c) Appropriate Bio-Safety Level (BSL) conditions for working with clinical specimens,
- (d) Staffing and training of personnel,
- (e) Quality control and assurance,
- (f) Internal and external proficiency testing,
- (g) Triage procedures for prioritizing intake and testing of specimens or samples before analysis,
- (h) Secure storage of critical agents and samples of forensic value, and
- (i) Appropriate levels of supplies and equipment needed to respond to chemical terrorism events.

(A University Hygienic Laboratory action step.)

25–3.4 Action Step

By 2010, enhance county, regional and state plans to accommodate the translation needs of major non-English speaking groups, including locally appropriate means for communicating with the hearing impaired. (An Iowa Department of Public Health, local public health agencies, and hospitals action step.)

25–3.5 Action Step

By 2010, enhance county, regional and state plans to include provisions for the decontamination and final disposition of human remains and associated forensic procedures. (An Iowa Department of Public Health, hospitals, and local public health agencies action step.)

25–3.6 Action Step

By 2010, enhance county, regional and state plans for crisis and emergency risk communication (CERC) and information dissemination to educate the media, public, partners, and stakeholders regarding risks associated with the real or apparent threat and an effective public response. (An Iowa Department of Public Health, local public health agencies, and hospitals action step.)

25–4 Goal Statement

Develop a comprehensive plan to increase surge capacity for health care that includes:

- 1. Triage, treatment and initial stabilization of 500 adult and pediatric patients per 1,000,000 above the current daily staffed bed capacity with acute illnesses or trauma requiring hospitalization from a chemical, biological, radiological, nuclear, or explosive incident;**
- 2. Negative pressure isolation capacity;**
- 3. Personnel;**
- 4. Pharmaceutical caches;**
- 5. Personal protective equipment; and**
- 6. Decontamination.**

Baseline: No plan (2004).

Rationale

All hospitals license for a specific number of beds and staff the facility based on those numbers. Plans need to be made and tested to demonstrate how a facility would meet the needs of a sudden, large influx of patients presenting for treatment in an emergency. The facility also needs to be prepared to deal with the numbers of “worried well” that would present, testing the facility’s ability to triage in an emergency situation. Hospitals need to plan for surge capacity in a variety of public health emergencies, each of which would demand a specific and different response. Communicable disease and chemical emergencies would require different responses; dealing with isolation, decontamination, and pharmaceutical caches in different ways. This will require additional training for hospital staff.

25–4.1 Action Step

By 2008, develop an inventory of all available hospital-based isolation facilities, fixed and mobile, together with the operational characteristics of the facilities, throughout Iowa. (An Iowa Department of Public Health and local hospital action step.)

25–4.2 Action Step

By 2010, establish at least one negative pressure, (High Efficiency Particulate Air) HEPA-filtered isolation facility in each of the licensed hospitals. (An Iowa Department of Public Health and local hospitals action step.)

25–4.3 Action Step

By 2010, purchase equipment and/or provide funds for capital improvements to assure safe and effective isolation and decontamination of large number of patients with communicable diseases. (An Iowa Department of Public Health and local hospital action step.)

25–4.4 Action Step

By 2010, create a plan for the recruitment and management of personnel in a surge situation, including those with expertise in adult and/or pediatric health care. (Iowa Department of Public Health and local hospitals action step.)

25–4.5 Action Step

By 2010, purchase adequate personnel protective equipment based on the assessment in 2004 to meet the HRSA Hospital Bioterrorism Preparedness Program guidelines. (An Iowa Department of Public Health and hospitals action step.)

25–4.6 Action Step

By 2010 purchase needed decontamination equipment for hospitals in order to meet the HRSA Hospital Bioterrorism Preparedness Program guidelines. (An Iowa Department of Public Health and hospitals action step.)

25–4.7 Action Step

By 2010, develop a surge pharmaceutical cache system that will take into account shelf-life expiration considerations of medications, vaccines and supplies. These systems will complement the Strategic National Stockpile (SNS). (An Iowa Department of Public Health action step.)

25–4.8 Action Step

By 2010, identify off-site options for increasing bed capacity such as mobile facilities, temporary facilities appropriate to an austere environment, large convention halls, armories, and state fair grounds. (An Iowa Department of Public Health, American Red Cross, and local hospitals action step.)

25–5 Goal Statement

Maintain plans for and implement additional training and exercising for the Strategic National Stockpile (SNS) program at the local, regional and state level that includes 1) Receiving, Staging and Storing (RSS) site, 2) Distribution union nodes and 3) Dispensing and Vaccination Clinics (DVC). Baseline: 1 RSS site; 23 distribution nodes; and 132 dispensing and vaccination clinics. Source: 2004 CDC grant outcome data.

Rationale

In a biological or chemical incident, state, local and private stocks of medical material will deplete quickly. The SNS can ensure the availability and rapid deployment of life-saving pharmaceuticals, antidotes, other medical supplies, and equipment necessary to more rapidly mitigate the results of an incident.

25–5.1 Action Step

Through 2010, annually review funding, human and other resources, to support local, regional and state entities to maintain the dispensing and vaccination clinics. (An Iowa Department of Public Health action plan.)

25–5.2 Action Step

Through 2010, annually collaborate with public information officers at the state and local level to prepare public communication campaigns. (An Iowa Department of Public Health and local public health agencies action step.)

25–5.3 Action Step

By 2010, develop the procedure that will be used to monitor, store and manage large quantities of smallpox vaccine within smallpox response resources (hospitals, health care facilities, public health clinics). (An Iowa Department of Public Health action step.)

25–5.4 Action Step

Through 2010, annually collaborate with the regions to develop plans for pharmaceuticals needed in chemical and radiological terrorism events. (An Iowa Department of Public Health action step.)

25–6 Goal Statement

Develop a plan to address the impact of mental health concerns on 5,000 adult and pediatric clients and health care workers per 1,000,000 population exposed to a biological, chemical, radiological, or explosive terrorist incident.

Baseline: No plan (2004).

Rationale

Victims of and responders to a disaster of any kind can experience a variety of stress reactions. Many develop critical symptoms, which if not addressed can lead to chronic post-traumatic stress syndrome, anxiety and depression. This system can address mental health concerns to reduce the impact on patients, families and health care workers.

25–6.1 Action Step

By 2010, define hospitals, outpatient centers, and other organizations that will provide mental health and substance abuse services appropriate to the aftermath of a terrorist incident or public health emergency. (An Iowa Department of Public Health and Iowa Department of Human Services action step.)

25–6.2 Action Step

By 2010, develop a list of available behavioral health and substance abuse staff trained in incident stress management and substance abuse prevention and intervention. (An Iowa Department of Human Services and Iowa Department of Public Health action step.)

25–6.3 Action Step

By 2010, develop and disseminate mental health and substance abuse messages to the population affected by a terrorist attack or public health emergency. (An Iowa Department of Human Services and Iowa Department of Public Health action step.)

25–6.4 Action Step

By 2007, form a coalition charged with the implementation of a mental health and substance abuse section of the Iowa Emergency Response plan. The coalition will be asked to address mental health and substance abuse activities directed at the care of both first responders and the general population. (An Iowa Department of Human Services and Iowa Department of Public Health action step.)

25–7 Goal Statement

Develop a secure, Web-based reporting and notification system that provides for rapid and accurate receipt of reports of disease outbreaks and other acute health events that might suggest bioterrorism on a 24-hour-per-day, 7 day-per-week basis. Baseline: Paper based system (2004).

Rationale

Early identification of a terrorist event, other infectious disease outbreak, or other public health emergency is essential to protect the health of all Iowans. Timely and complete reporting of diseases will facilitate the early detection of a terrorist event, other infectious disease outbreak, or other public health emergency.

25–7.1 Action Step

By 2006, engage state and local public health agencies, hospitals, and laboratories in requirement gathering sessions to review current business practices as well as the definition of future business practices related to disease reporting and surveillance in Iowa. (An Iowa Department of Public Health action step.)

25–7.2 Action Step

By 2010, create conceptual visual representations of user inputs and outputs, modifying (Pennsylvania National Electronic Disease Surveillance System) PA NEDSS and restructuring existing business practices within Iowa Department of Public Health's (Center for Acute Disease Epidemiology) CADE and across the State of Iowa, using real-life examples and scenarios to ensure all aspects of a disease outbreak are incorporated. (An Iowa Department of Public Health action step.)

25–7.3 Action Step

By 2010, construct actual user inputs, outputs and training tools utilizing the visual representations created as an outcome of the Design phase, enhancing PA NEDSS and existing tools within CADE. (An Iowa Department of Public Health action step.)

25–7.4 Action Step

By 2010, confirm that all identified modifications to PA NEDSS have been made within Iowa's NEDSS-compliant system, meet business needs, and match the restructured business procedures within CADE and across the State of Iowa. (An Iowa Department of Public Health action step.)

25–7.5 Action Step

By 2010, educate state and local public health agencies, hospitals and laboratories about Iowa's NEDSS-compliant system and expected business practices for the State of Iowa through onsite, hands-on trainings. (An Iowa Department of Public Health action step.)

25–7.6 Action Step

By 2010, provide access to Iowa's NEDSS-compliant system utilizing IDPH's token security solution, initially to state public health, then to local public health partners, transitioning ultimately to include laboratories and hospitals. (An Iowa Department of Public Health action step.)

25–7.7 Action Step

By 2010, assess system performance, usage and timeliness of reports on a regular basis, ensuring proactive response to customer support issues. (An Iowa Department of Public Health action step.)

25–7.8 Action Step

By 2010, in coordination with the state public health laboratory (University Hygienic Laboratory), develop and implement a strategy to ensure laboratory testing (in clinical or public health laboratories) for rapid or specific confirmation of urgent case reports. (An Iowa Department of Public Health and University Hygienic Laboratory action step.)

25–7.9 Action Step

By 2010, maintain an epidemiological response coordinator for bioterrorism, other infectious disease outbreaks, and other public health threats and emergencies at the state and/or local levels. (An Iowa Department of Public Health and local public health agencies action step.)

25–7.10 Action Step

By 2010, establish electronic communications and Laboratory Response Network (LRN) electronic laboratory reporting to enable integration with CDC's LRN capacity monitoring efforts, online results reporting, sentinel surveillance, proficiency testing, multi-center validation studies, and support for future LRN site enhancements. (A University Hygienic Laboratory action step.)

25–7.11 Action Step

By 2010, develop a system for electronic reporting of laboratory results to hospitals, local public health, and clinicians that ensures rapid access to critical diagnostic information. (A University Hygienic Laboratory action step.)

25–8 Goal Statement

Exercise, assess and implement needed change in plans annually to demonstrate proficiency in responding to terrorism attacks, natural disasters, infectious disease outbreaks, and other public health threats and emergencies. Baseline: Annual exercises at local, regional and state level.

Rationale

An exercised, comprehensive response plan is necessary to mount an effective response to any actual terrorist event, other infectious disease outbreak, or other public health emergency.

25–8.1 Action Step

Through 2010, conduct one simulation exercise per year, involving at least one threat agent in Category A, that specifically tests laboratory readiness and capability to perform from specimen threat assessment, intake prioritization, testing, confirmation, and results reporting using the LRN website. (A University Hygienic Laboratory action step.)

25–8.2 Action Step

Through 2010, at least annually assess through exercises or after-action reports to actual events, the 24/7 capacity for response to reports of urgent cases, outbreaks, or other pub-

lic health emergencies, including any events that suggest intentional release of a biologic, chemical or radiological agent. (An Iowa Department of Public Health, hospitals and local public health agencies action step.)

25–8.3 Action Step

By 2010, conduct an exercise that specifically tests chemical terrorism laboratory readiness and capability to detect and identify at least one chemical-threat agent. (A University Hygienic Laboratory action step.)

25–9 Goal Statement

Develop a self-sustaining payment system and user network to assure that emergency responders have ongoing access to the Health Alert Network (HAN) and the vital tools it provides. Baseline: System is in place (2004) and has 1700 user licenses (includes but not limited to public health, health care, state agencies, Iowa State Extension, and emergency management).

Rationale

In the event of a public health emergency or other disaster, the exchange of information is crucial to a successful response. If an effective communications system is in place, it will assist response partners to mitigate the situation in an effective manner.

25–9.1 Action Step

By 2010, implement a second method of receiving critical alerts such as pagers, cell phones, voice mailboxes, or other devices to allow public health participants to receive alerts in full redundancy with e-mail. (An Iowa Department of Public Health, local public health agencies and hospitals action step.)

25–9.2 Action Step

By 2010, assess the existing capacity regarding policies and procedures for protecting and granting access to secure systems for the management of secure information, system backups, and systems redundancy. (An Iowa Department of Public Health action step.)

25–9.3 Action Step

By 2010, perform independent validation and verification of Internet security, vulnerability assessment, and security and continuity of operations practices, and rapidly implement recommended remedial activities. (An Iowa Department of Public Health action step.)

25–9.4 Action Step

Through 2010, annually review resources required to operate the HAN system and make recommendations to governing bodies to assure ongoing operation of the system. (An Iowa Department of Public Health, local public health agencies, hospitals, and other licensed users of the system action step.)

25–9.5 Action Step

By 2007 and annually thereafter, test and document at least 90% of the key stakeholders involved in a public health response can receive and send critical health information including alerts and critical event data via the Health Alert Network (HAN). (An Iowa Department of Public Health action step.)

25–10 Goal Statement

Ensure that at least 90% of local public health agencies use the Learning Management System (LMS) to educate, evaluate and document educational competency of their staff in their assigned roles for emergency response, to access available training listings, and to track trainings taken via LMS. Baseline: 7%. Source: LMS 2004 data.

Rationale

The staff of existing health care agencies will be the people who will respond to an emergency. The present workforce needs to have training about bioterrorism, infectious disease outbreaks, and other public health threats and emergencies. This training also needs to be documented and tracked. In many cases, appropriate training programs exist and the challenge is to connect appropriate health care providers to appropriate training.

25–10.1 Action Step

Through 2010, provide ongoing (at least annual) specialized epidemiology investigation and response training for state and local public health and hospital staff who would respond to a bioterrorism event. (An Iowa Department of Public Health action step.)

25–10.2 Action Step

Through 2010, deliver as least one education and training public health emergency preparedness program each quarter to key public health professionals, infectious disease specialists, emergency department personnel, and other health care providers in preparedness and response either directly or through the use of existing curricula and other sources. (An Iowa Department of Public Health action step.)

25–10.3 Action Step

Through 2010, annually evaluate and modify as needed bioterrorism epidemiologic response training for state and local public health agency personnel, health care providers, policy makers, law enforcement officials, and others who would be involved in responding to an event. (An Iowa Department of Public Health action step.)

25–10.4 Action Step

By 2008, implement a learning management system capable of collecting and reporting data on all training and educational activities as well as sharing “best practices” with other public health agencies. (An Iowa Department of Public Health and Upper Midwest Center for Public Health Preparedness action step.)

25–10.5 Action Step

By 2010, develop and initiate a training plan that ensures priority preparedness training is provided across all preparedness areas to the state and local public health workforce, health care professionals, and laboratorians. (An Iowa Department of Public Health, local public health agencies, hospitals, and Upper Midwest Center for Public Health Preparedness action step.)

25–10.6 Action Step

By 2010, develop, deliver and evaluate competency-based training to enhance preparedness for public health professionals. (An Iowa Department of Public Health and Upper Midwest Center for Public Health Preparedness action step.)

Goal Cross References

Chapter 4: Disabilities

- 4–3Assure that each HI2010 chapter assesses the health issues and potential treatment for people with disabilities and incorporates appropriate goals and action steps.
- 4–33Include people with disabilities in all local emergency preparedness.
- 4–34Provide for people with disabilities to develop personal preparedness plans for home, work, school, or other places they frequent.

Chapter 12: Mental Health and Mental Disorders

- 12–10 ..Design and implement a system of care for adults with mental health needs.

Chapter 22: Unintentional Injuries

- 22–1Enhance the Emergency Medical Services system by implementing an integrated data system, linking with 75% of Iowa EMS systems, and maintaining the trauma care delivery system at 100%.

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Appendix A: Healthy People 2010 – Healthy Iowans 2010 Chapter Comparisons

<u>Healthy People 2010</u>	<u>Healthy Iowans 2010</u>
1..... Access to Quality Health Services	1..... Access to Quality Health Services
2..... Arthritis, Osteoporosis & Chronic Back Conditions	4..... Disabilities (Arthritis included in)
	13..... Nutrition & Overweight (Osteoporosis included in)
3..... Cancer	2..... Cancer
4..... Chronic Kidney Disease	-----
5..... Diabetes.....	3..... Diabetes
6..... Disability & Secondary Conditions	4..... Disabilities
7..... Education & Community-Based Programs.....	5..... Educational & Community-Based Programs
8..... Environmental Health	6..... Environmental Health
9..... Family Planning	7..... Family Planning
10..... Food Safety	8..... Food & Drug Safety (includes HP2010 Ch. 17)
11..... Health Communications	23..... Public Health Infrastructure (included in)
	5..... Educational & Community-Based Programs (included in)
12..... Heart Disease & Stroke	9..... Heart Disease & Stroke
13..... HIV	9..... STDs & HIV Infection (included in)
14..... Immunization & Infectious Diseases	10..... Immunization & Infectious Diseases
15..... Injury & Violence Prevention	22..... Unintentional Injuries
	23..... Violent & Abusive Behavior
16..... Maternal, Infant & Child Health.....	11..... Maternal, Infant & Child Health
17..... Medical Product Safety.....	10..... Food & Drug Safety (included in)
18..... Mental Health & Mental Disorders.....	12..... Mental Health & Mental Disorders
19..... Nutrition & Overweight.....	13..... Nutrition & Overweight
20..... Occupational Safety & Health.....	14..... Occupational Safety & Health
21..... Oral Health.....	15..... Oral Health
22..... Physical Activity & Fitness.....	16..... Physical Activity & Fitness
23..... Public Health Infrastructure	17..... Public Health Infrastructure
24..... Respiratory Diseases	18..... Respiratory Diseases: Asthma
25..... Sexually Transmitted Diseases	19..... STDs & HIV Infection
26..... Substance Abuse	20..... Substance Abuse & Problem Gambling
27..... Tobacco Use.....	21..... Tobacco Use
28..... Vision & Hearing.....	24..... Vision
-----	25..... Emergency Preparedness & Response

Appendix B: HI 2010 Acronyms

AAA.....	Area Agency on Aging
AAFA	Allergy Foundation of America
AAFP	American Academy of Family Physicians
AAHSA.....	American Association of Homes and Services for the Aging
AAP.....	American Academy of Pediatrics
AAPCC	American Association of Poison Control Centers
AARP	American Association of Retired Persons
ABCD.....	Assuring Better Child Health and Development
ACIP	Advisory Committee on Immunization Practices
ACT.....	Assertive Community Treatment
ADA	Average Daily Attendance
ADA	American Diabetes Association
ADA	American Disabilities Act
ADAM	Arrestee Drug Abuse Monitoring
ADR	Adverse Drug Reactions
AEA.....	Area Education Agency
AFL-CIO.....	American Federation of Labor – Congress of Industrial Organizations
AHEC.....	Area Health Education Center
AIDS	Acquired Immune Deficiency Syndrome
AMD.....	Age-related Macular Degeneration
AT	Assistive Technology
ATV.....	All-Terrain Vehicle
AUCD.....	Association of University Centers on Disability
AZT	Zidovudine
BAC	Blood-Alcohol Concentration
BMI	Body Mass Index
BRFSS.....	Behavioral Risk Factor Surveillance System
BSL	Bio-Safety Level
CADE	Center for Acute Disease Epidemiology
CAFÉ	Clean Air for Everyone
CAHPS	Consumer Assessment of Health Plans Survey
CARE	Comprehensive AIDS Resource Emergency
CARHI.....	Comprehensive Assessment of Rural Health in Iowa
CCSSO.....	Council of Chief State School Officers
CDC	Centers for Disease Control and Prevention
CDCP.....	Chronic Disease Prevention and Health Promotion
CDD	Center for Disabilities and Development
CERC.....	Crisis and Emergency Risk Communication
CHD	Coronary Heart Disease
CHNA/HIP.....	Community Health Needs Assessment and Health Improvement Plan
CIL	Center for Independent Living
CJJP	Criminal and Juvenile Justice Planning
CMEUs	Continuing Medical Education Units
CMS	Centers for Medicaid and Medicare Services
CO	Carbon Monoxide
CODES.....	Crash Outcome Evaluation System
CPR	Cardiopulmonary Resuscitation

CSF.....Certified State Farm
 CSHCN.....Children with Special Health Care Needs
 CTR.....Counseling, Testing and Referral
 CVD.....Cardiovascular Disease
 CVI.....Cortical Visual Impairment
 CYSHCN.....Children and Youth with Special Health Care Needs
 DARE.....Drug Abuse Resistance Education
 DCCT.....Diabetes Control and Complications Trial
 DD.....Developmental Disability (Disabilities)
 DHHS.....Department of Health and Human Services
 DHS.....Department of Human Services
 DIG.....Data Infrastructure Grant
 DNA.....Deoxyribonucleic Acid
 DNR.....Department of Natural Resources
 DOE.....Department of Education
 DOT.....Department of Transportation
 DOT.....Directly Observed Therapy
 DPCP.....Diabetes Prevention and Control Program
 DRE.....Digital Rectal Examination
 DSM.....Diagnostic and Statistical Manual Medical Disorders
 DTaP.....Diphtheria-Tetanus-Acellular Pertussis
 DVC.....Dispensing and Vaccination Clinics
 EASIER.....Electronic Access for Iowa Education Records
 EI.....Entry Inhibitors
 EIEIO.....Emerging Infections and Epidemiology of Iowa Organisms
 ELC.....Epidemiology and Laboratory Capacity
 EMS.....Emergency Medical Services
 EMSC.....Emergency Medical Services for Children
 EPA.....Environmental Protection Agency
 EPSDT.....Early and Periodic Screening, Diagnosis and Treatment
 ESRD.....End-Stage Renal Disease
 ETS.....Environmental Tobacco Smoke
 FACITS.....Family and Community Information Tracking System
 FAS.....Fetal Alcohol Syndrome
 FDA.....Food and Drug Administration
 FIP.....Family Investment Program
 FMR.....Facility Management Resource
 FOBT.....Fecal Occult Blood Test
 FQHC.....Federally Qualified Health Centers
 FTA.....Federal Transit Administration
 FTEs.....Full-Time Employees
 FY.....Fiscal Year
 GED.....General Equivalency Diploma
 HAART.....Highly Active AntiRetroviral Therapy
 HACCP.....Hazard Analysis Critical Control Point
 HALs.....Health Advisory Levels
 HAN.....Health Alert Network
 HbA1c.....Hemoglobin A1c
 HBIG.....Hepatitis B Immune Globulin
 HBV.....Hepatitis B
 HCAHPS.....Hospital Consumer Assessment of Health Plans Survey
 HCBS.....Home and Community-Based Services
 HCFA.....Health Care Financing Administration
 HCV.....Hepatitis C

HDL.....	High Density Lipoprotein
HEDIS.....	Health Employer Data Information Set
HEPA.....	High Efficiency Particulate Air
HHM.....	Household Hazardous Material
HHS.....	Health and Human Services
HI.....	Healthy Iowans
Hib.....	Haemophilus Influenzae type b
HIV.....	Human Immunodeficiency Virus
HMOs.....	Health Maintenance Organization
HOPES.....	Healthy Opportunities for Parents to Experience Success
HPSAs.....	Health Professional Shortage Areas
HPV.....	Human Papilloma Virus
HRSA.....	Health Resources and Services Administration
HS.....	High School
HVAC.....	Heating, Ventilation and Air Conditioning
IAC.....	Iowa Administrative Code
IAHPERD.....	Iowa Association for Health, Physical Education, Recreation, and Dance
IARTF.....	Iowa Antibiotic Resistance Task Force
IBPE.....	Iowa Board of Pharmacy Examiners
IC.....	Iowa Code
ICASH.....	Iowa Center for Agricultural Safety and Health
ICD.....	International Classification for Disease
ICLA.....	Iowa Commission on Latino Affairs
ICN.....	Iowa Communications Network
ICYD.....	Iowa Collaboration for Youth Development
IDA LISTSERV.....	Iowans with Disabilities in Action
IDALS.....	Iowa Department of Agriculture and Land Stewardship
IDDM.....	Insulin-Dependent Diabetes Mellitus
IDE.....	Iowa Department of Education
IDEA.....	Individuals with Disabilities Education Act
IDEA.....	Iowa Department of Elder Affairs
IDED.....	Iowa Department of Economic Development
IDHR.....	Iowa Department of Human Rights
IDHR/CJJP.....	Iowa Department of Human Rights/Criminal and Juvenile Justice Planning
IDHS.....	Iowa Department of Human Services
IDIA.....	Iowa Department of Inspections and Appeals
IDNR.....	Iowa Department of Natural Resources
IDOC.....	Iowa Department of Corrections
IDOE.....	Iowa Department of Education
IDOT.....	Iowa Department of Transportation
IDPH.....	Iowa Department of Public Health
IDPS.....	Iowa Department of Public Safety
IDU.....	Injecting Drug User
IFMC.....	Iowa Foundation for Medical Care
IFRN.....	Iowa Family Resource Network
IGT.....	Impaired Glucose Tolerance
IGTP.....	Iowa Gambling Treatment Program
IHA.....	Iowa Hospital Association
IHI.....	Iowa's Health Initiative
IIPP.....	Infertility Prevention Project
ILEND.....	Iowa Leadership and Education in Neurodevelopmental Disabilities
IMHI.....	Iowa Medical Home Initiative
IOM.....	Institute of Medicine
IOSHA.....	Iowa Occupational Safety and Health Act

IPGVIowans for the Prevention of Gun Violence
 IRIS.....Immunization Registry Information System
 ISAICIowa Substance Abuse Information Center
 I-SMARTIowa Substance Abuse Management and Reporting Tool
 ISPPC.....Iowa Statewide Poison Control Center
 ISTEAAIntermodal Surface Transportation Efficiency Act
 ISU.....Iowa State University
 IYS.....Iowa Youth Survey
 IYTS.....Iowa Youth Tobacco Survey
 JARCJob Access/Reverse Commute
 JCAHO.....Joint Commission for the Accreditation of Healthcare Organizations
 JEL.....Just Eliminate Lies
 LBWLow Birth Weight
 LDLLow Density Lipoprotein
 LEAsLocal Educational Agencies
 LENDLeadership Education in Neurodevelopment and Related Disabilities
 LEPLimited English Proficient
 LINC.....Leadership, Innovation and Nutrition Collaboration
 LMSLearning Management System
 LRN.....Laboratory Response Network
 MCH.....Maternal and Child Health
 MCLsMaximum Contaminant Levels
 MEPDMedicaid for Employed Persons with Disabilities
 MH/MR/DD/BI.....Mental Health/Mental Retardation/Developmental Disability/Brain Injury
 MMRMeasles, Mumps and Rubella
 MMWR.....Morbidity and Mortality Weekly Report
 MNTMedical Nutrition Therapy
 MRSAMethicillin-Resistant Staphylococcus Aureus
 MSAMaster Settlement Agreement
 MSAMetropolitan Statistical Area
 MSMMale-to-male Sexual Contact
 MUAsMedically Underserved Areas
 NAEYCNational Association for the Education of Young Children
 NAFCCNational Association of Family Child Care
 NAMI.....National Alliance for Mentally Ill
 NASBE.....National Association of State Boards of Education
 NCIPC.....National Center for Injury Prevention and Control
 NCLBNo Child Left Behind
 NCQANational Committee on Quality Assurance
 NDEP.....National Diabetes Education Program
 NEDSSNational Electronic Disease Surveillance System
 NHISNational Health Interview Survey
 NIDDM.....Non-Insulin Dependent Diabetes Mellitus
 NIMS.....National Incident Management System
 NIOSHNational Institute for Occupational Safety and Health
 NNRTANon-Nucleoside Reverse Transcriptase Inhibitors
 NPGAWNational Problem Gambling Awareness Week
 NRTINucleoside Reverse Transcriptase Inhibitors
 NSBANational School Boards Association
 NVAC.....National Vaccine Advisory Committee
 OATOffice for the Advancement of Telehealth
 OBRA '90.....Omnibus Budget Reconciliation Act of 1990
 ODCPOffice of Drug Control Policy
 OI.....Opportunistic Infection

OSCEP	Office of Statewide Clinical Education Health Professionals
OSHA.....	Occupational Safety and Health Act
OTC	Over-the-Counter
OWI.....	Operating While Intoxicated
PA NEDSS.....	Pennsylvania National Electronic Disease Surveillance System
PABS	Pick a Better Snack
PACE	Physician-based Assessment and Counseling for Exercise
PACE	Provider-based Assessment Training and Counseling for Exercise and Nutrition
PAS.....	Personal Assistance Services
PCBs.....	Polychlorinated Biphenyls
PCRS.....	Partner Counseling and Referral Services
PEC	Parent Education Connection
PEP.....	Post Exposure Prophylaxis
PFGE	Pulsed-Field Gel Electrophoresis
PI	Protease Inhibitors
PID.....	Pelvic Inflammatory Disease
PMIC.....	Psychiatric medical Institutes for Children
PR.....	Public Relations
PSA.....	Prostrate-Specific Antigen
PSAs.....	Public Service Announcements
PTI	Parent Training and Information
RAGBRAI.....	Register’s Annual Great Bike Ride Across Iowa
RFP.....	Request for Proposals
RN.....	Registered Nurse
RNA	Ribonucleic Acid
ROP	Retinopathy of Prematurity
RSS	Receiving, Staging and Storing
RVCT	Reportable Verified Case of Tuberculosis
SAMHSA.....	Substance Abuse and Mental Health Services Administration
SANE	Sexual Assault Nurse Examiner
SARS	Severe Acute Respiratory Syndrome
SARS	Substance Abuse Reporting System
SCHIP.....	State Child Health Insurance Program
SCPCI.....	Student Community Primary Care Initiative
SEAP	Special Education Advisory Panel
SED	Severe Emotional Disorder
SFY.....	State Fiscal Year
SHAUN	Sharing Health Awareness United Network
SHEP	School Health Education Profile
SHHAC	Safe and Healthy Homes Advisory Committee
SHS	Secondhand Smoke
SIDS	Sudden Infant Death Syndrome
SLCU	Senior Living Coordinating Unit
SNAP	State Nutrition Action Plan
SNS	Strategic National Stockpile
STDs.....	Sexually Transmitted Diseases
STELLAR.....	Systematic Tracking of Elevated Lead Levels and Remediation
STNAP.....	State Treatment Needs Assessment Program
STOP	Services, Training, Officers, and Prosecutors
SWAT	School-Wide Activity Team
TAC.....	Technical Assistance Collaborative, Inc.
TANF	Temporary Aid to Needy Families
TB	Tuberculosis
TBI	Traumatic Brain Injury

TCE..... Targeted Capacity Expansion
 TDD Telecommunication Device for the Deaf
 TEA-21..... Transportation Equity Act for the 21st Century
 TFI Tobacco Free Iowa
 TIA Transient Ischemic Attack
 TIMS Tuberculosis Information Management System
 TIPS..... Training Intervention Procedures for Servers
 TRAC Tractor Risk Assessment and Control
 TRUS Transrectal Ultrasound
 UHL..... University Hygienic Laboratory
 USA United States of America
 USDA..... U.S. Department of Agriculture
 UV Ultraviolet
 VFC..... Vaccine for Children
 VISA..... Vancomycin Intermediate Staphylococcus Aureus
 VPD Vaccine-Preventable Diseases
 VRE Vancomycin-Resistant Enterococci
 VRSA Vancomycin-Resistant Staphylococcus Aureus
 WD Workforce Development
 WHIS Women’s Health Information System
 WIC..... Women, Infants and Children Program
 WISQARS..... Web-based Injury Statistics Query and Reporting System
 WITS..... Web Infrastructure for Treatment Services
 WNV West Nile Virus
 YRBS Youth Risk Behavior Survey