

# Tobacco Use among Iowa Adults

## 2011-2014 Trends

findings from the  
Behavioral Risk Factor Surveillance System (BRFSS)

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***Division Mission: To establish a comprehensive partnership among state government, local communities, and the people of Iowa to foster a social and legal climate in which tobacco use becomes undesirable and unacceptable.***



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## Notes

All rates are crude (not age-adjusted) per 100 non-institutionalized adults age 18 years and older (percent of adults).

Median national rate is the middle state rate when states' are ranked by their rates of tobacco use—half of all states' rates are higher and half are lower than the national median. For the BRFSS, there is no one national database, just databases for each state, so a national *mean* rate cannot be computed for BRFSS and the national median rate is used in this report.

CDC BRFSS-based single-year county-level tobacco use rate estimates are to be released during the next 12 months and Iowa county use rates will be added as a table in the appendix of this report when they are available.

Current cigarette use/current smokeless tobacco use is defined as every day or some day use at the time of the interview among adults who have smoked at least 100 cigarettes in their lifetime.

Ever cigarette use is having smoked 100 or more cigarettes or more during one's life.

A 95% confidence interval indicates the range of rates within which, if repeated sample surveys were conducted, the true population rate would fall. A 95% confidence interval has a 95% probability of containing the true Iowa population rate.

Confidence intervals are provided in the basic charts of this report for estimated tobacco use prevalence rates. Confidence intervals are helpful since each rate in this report is an estimate of the true Iowa population rate. That is, rates in this report are based on BRFSS survey *sample* data, not actual counts of the entire Iowa adult population.

The larger the BRFSS sample size, the smaller is the confidence interval and the more certain one can be that the estimated rate reflects the actual rate. Statewide rates provided in this report will have much smaller confidence intervals than will subpopulation rate estimates for which the BRFSS sample size may be very small (e.g., BRFSS sample sizes for Native Americans and multi-race adults). For those subpopulations, the confidence interval for the estimated rate will be wide and less likely to reflect the actual Iowa rate.

If the confidence interval of a tobacco use rate estimate overlaps the confidence interval of another rate, then the two rates are said not to be different statistically.

Multi-year averages: Due to small sample size, for the population breakout groups of race and age and other socio-demographic variables, multi-year average annual rates are provided rather than annual, single-year rates. Using a multi-year average makes for a more stable rate estimate that is also more likely to reflect the true population rate.

For age-specific rates, two-year average annual rates are provided in this report. For race/ethnicity-specific rates, three-year or four-year average annual rates are provided.

## Acronyms

|            |  |
|------------|--|
| BRFSS      | Behavioral Risk Factor Surveillance System           |
| CDC        | Centers for Disease Control and Prevention           |
| ESDs       | Electronic smoking devices (e-cigarettes)            |
| IDPH       | Iowa Department of Public Health                     |
| NHIS       | National Health Interview Survey                     |
| NRT        | Nicotine replacement therapy                         |
| TFK        | Campaign for Tobacco Free Kids                       |
| TUPC/TUPAC | IDPH, Division of Tobacco Use Prevention and Control |

## Introduction

Based on data from the Iowa Behavioral Risk Factor Surveillance System (BRFSS) 2011 through 2014 annual survey, this report examines recent trends in adult tobacco use in Iowa.\*

### Long-Term Trends in Tobacco Use Among Youth in the U.S. and Iowa:

In the past 50 years, cigarette use has declined dramatically among both adults and youth in the U.S. and in Iowa.

When the National Health Interview Survey (NHIS) first began to collect national-level cigarette smoking prevalence data in 1965, the U.S. adult smoking rate was 46%. (USDHHS, 2014) By 2014, the NHIS-based U.S. adult cigarette use rate had fallen to 17%. (USDHHS, 2014) During that same period, 1965 to 2014, the national annual rate of packages of cigarette sold for every man, woman and child (per capita pack-sales) fell from 127 to 49 per capita, an almost two-thirds decline. (Orzechowski and Walker, 2014).

While Iowa smoking rates are not available for 1960s, cigarette pack-sales are and stood at 116 packs per lowan in 1965, somewhat below the national per capita pack-sales rate of 127. By 2014 Iowa per capita cigarette sales had fallen to 47 per capita, a rate comparable to the national per capita pack-sales rate of 49 for that year. (Orzechowski and Walker, 2014).

In 1999, the Iowa adult BRFSS-based cigarette smoking was 21.7% and in 2014 18.5%, a more than three percentage point drop. In 2014, the BRFSS-based national median state rate was 18.1%. (IDPH, BRFSS 1990, 2014)

### Tobacco Use is Still a Major Health Concern in Iowa:

Despite these substantial declines in cigarette use since the mid-1960s, the most recent 2014 BRFSS estimates are that 421,000 or about one in four Iowa adults continues to smoke. Tobacco use remains the leading cause of preventable death in the state: Of the 28,000 to 29,000 deaths among Iowa residents each year, it is estimated that 5,100 or about one in six are caused by tobacco use.

Iowans who smoke experience elevated risk of heart disease, stroke, cancer, chronic lung disease, osteoporosis, physical disability and women who smoke risk giving birth to premature and low birth weight babies. Among Iowans who smoke cigarettes, life expectancy is more than 10 years shorter than that of Iowans who do not smoke. (Smoking cessation reverses much of this decreased life expectancy and much of the increased risk of cancer. If a smoker stops smoking before age 35 years, the risk of developing tobacco-related cancer is reduced by 90%.) (Campaign for Tobacco Free Kids, 2016)

Tobacco use imposes a significant burden not only on the health of tobacco users but on their finances. With the average cost of a pack of cigarettes in Iowa at \$5.79, the average smokers spends about \$1,800 per year on cigarettes. (Orzechowski and Walker, 2014)

At the state level, cigarette use imposes an annual economic burden of \$1.28 billion in health care costs, including \$364.5 million in state Medicaid program expenditures, and \$1.21 billion in smoking-related lost productivity costs. (Campaign for Tobacco Free Kids, 2016)

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\*While the BRFSS has collected data on adult cigarette smoking since 1989, only data from the years 2011 through 2014 are included in this report. This is due the BRFSS relying on a telephone landline-only sampling methodology from its earliest years through 2010. This landline-only sampling methodology worked well up through the mid-1990s when virtually every household in Iowa had at least one landline phone. However, it introduced bias beginning in the late 1990s as growing numbers of Iowa households, especially those headed by adults age 30 years and younger, became cell phone-only households. By 2011, an estimated two-thirds of households which were headed by young adults under age 30 had no home landline. Among all Iowa households that year, about 30% had no landline.

In 2011, to correct this bias, a new BRFSS sampling methodology was implemented that is inclusive of both landline and cellphone-only households. (CDC, U.S. Census, IA Department of Public Health)

## Tobacco Use Prevention and Control Programs , Iowa Department of Public Health:

The Division of Tobacco Use Prevention and Control is charged with establishing a comprehensive partnership among state government, local communities and the people of Iowa to foster a social and legal climate in which tobacco use becomes undesirable and unacceptable.

The Division works to:

- Prevent initiation among youth and young adults;
- Promote quitting among adults and youth;
- Eliminate exposure to secondhand smoke; and
- Identify and eliminate tobacco-related disparities among population groups.

To achieve these goals, the Division follows Centers for Disease Prevention and Control (CDC) guidelines for comprehensive tobacco control programs.

State-level initiatives include:

- Quitline Iowa cessation services;
- Iowa Students for Tobacco Use Education and Prevention (ISTEP);
- Support for adoption tobacco and nicotine-free policies within primary and secondary schools, colleges and universities;
- Support for adoption tobacco and nicotine-free policies in multi-family housing, worksites and recreation areas;
- Enforcement of Iowa's Smokefree Air Act;
- Local Community Partnership tobacco use prevention and control programming;
- Evaluation of Division programs and services; and
- Surveillance of tobacco use among youth and adults in Iowa.

More information is available on TUPC programs and partnerships at: <http://idph.iowa.gov/tupac>.

## BRFSS Background

### Background on the BRFSS:

In existence for more than 30 years, the Behavioral Risk Factor Surveillance System (BRFSS) is a state-level, nationally standardized telephone-based survey of non-institutionalized adults age 18 and older. It is conducted in all 50 states, the District of Columbia and several territories. Each year a set of core questions covering health-related behaviors, attitudes, and awareness, including tobacco-related topics, are asked in every state. States have the freedom to add non-core questions which they can change from year-to-year.

Iowa began full participation in 1988 and data on cigarette use in Iowa has been collected every year since 1989 while smokeless tobacco use data has been collected since 2009.

### Nature and Purpose of the BRFSS:

The Centers for Disease Control and Prevention (CDC) developed the BRFSS to help state and local public health departments and others assess health risks and monitor trends, including trends in tobacco use.

With every state using a comparable BRFSS survey design, Iowa tobacco use rates are able to be compared not only within state across subpopulations, but across all 50 states.

### BRFSS Methodology Changes:

In 2011, the BRFSS sampling methodology substantially changed due to two factors, the surge of cell phone-only households and the increased data processing efficiencies that now allow for more complex and accurate estimates of tobacco use and other BRFSS measures to be computed.

The proportion of cell phone-only Iowa households began to grow in the late 1990s, causing the BRFSS landline-only sampling methodology to become biased, as it did not allow for cell phone-only households to be surveyed. The 2011 changes in the BRFSS sampling methodology eliminated this bias by including cell phone-only households. However BRFSS estimates using the old methodology, especially those from the late 1990s through 2010, should not be directly compared with estimates created using the new sampling methodology wherein this bias was corrected. As a result, this trend report covers BRFSS data only from 2011 through 2014.

### BRFSS Tobacco Questions in the Iowa BRFSS:

Between 2011 and 2014, the BRFSS included the same five core tobacco questions. These five core tobacco questions covered: ever and current use of cigarettes; current cigarette users quit attempts in the past 12 months; time since last smoked a cigarette (sustained or successful cessation); and, current smokeless tobacco use. Iowa's responses to all five core questions are covered in this report. As just noted, core BRFSS questions from 2011-14 covered the use of only two forms of tobacco, cigarettes and smokeless, making these two forms of tobacco the focus of this report.

Iowa-added optional tobacco-related questions change from year-to-year. Between 2011 and 2014, among tobacco topics covered in optional BRFSS questions were the use of water pipes and cigars (2012); hours per week of exposure to secondhand smoke (2013-2014); awareness of and use of a quit line/Quitline Iowa; health care provider recommendations to quit (2012-14); provider referrals to a quit line (2012); and, use of e-cigarettes as a substitute for cigarettes (2013-2014).

In the appendix of this report, Table A9 provides Iowans' responses to many of these state-added questions. (An analysis of 2012 state-added questions was previously published as described on the next page).

### Other Publications that have Analyses of Iowa BRFSS Tobacco Questions:

State-added BRFSS questions: In 2012, for the first and only time, the Iowa BRFSS included a large number (28) state-added tobacco questions. (This was done to make up for loss of data from the Iowa Adult Tobacco Survey, which was discontinued after having been completed biennially from 2002 through 2008.)

In 2012, for the first time and only time during the period covered by this report, the Iowa BRFSS included questions about use of cigars and water pipes in addition to the core questions on cigarettes and smokeless tobacco use.

A list of the 28 state-added tobacco questions included in the 2012 BRFSS and a detailed analyses of Iowans' responses to the questions have been previously published and are available here (<http://idph.iowa.gov/tupac/statistics>) under the *Tobacco Use Surveillance: State and Local-level Data* section.

Annual Iowa adult tobacco use reports: Other Iowa tobacco-related BRFSS publications can also be found at the link above including BRFSS data tables with the latest annual adult cigarette and smokeless tobacco use rates. These tables break out adult tobacco use rates by socio-demographic status including age, sex, race, education and income level and are meant to complement this multi-year trend report on adult tobacco use.

CDC BRFSS website: Iowa and other states' annual adult tobacco use rates and other health conditions and behaviors prevalence rates can be queried and downloaded from the CDC BRFSS website: [http://www.cdc.gov/brfss/data\\_tools.htm](http://www.cdc.gov/brfss/data_tools.htm).

County-level adult cigarette use rate estimates are currently published at the *County Health Rankings* website and available at: (<http://idph.iowa.gov/tupac/statistics>).

More detailed information about the BRFSS methodology and annual core questions can be found in the comprehensive annual Iowa BRFSS reports at: <http://idph.iowa.gov/brfss>.

### Publications that have Analyses of Iowa Youth Tobacco Use:

Youth Use: The web site (<http://idph.iowa.gov/tupac/statistics>) also has the most recent youth tobacco use rates taken from the biennial *Iowa Youth Survey (IYS)*. Both state and county level estimates are provided, including trend data.

See the IYS website for comprehensive IYS biennial reports: <http://www.iowayouthsurvey.iowa.gov/>.



## Summary of Findings

### Cumulative Use

-Cumulative use of either cigarettes or smokeless tobacco (any tobacco use rate) among Iowa adults changed little between 2011 and 2014 and was 22.9% in 2011 and 22.4% in 2014. The Iowa tobacco use rate was within one quartile of the national median rate during those years. However, while the national median rate trended steadily downward, the Iowa cumulative tobacco use rate remained stable.

(The national median rate was 23.7% in 2011 and 20.6% in 2014.)

### Cigarette Use

- Between 2011 and 2014, the Iowa adult overall annual cigarette use rate dropped from 20.3% to 18.5%, mirroring the national trend in cigarette use. The 2014 *national* median cigarette use rate was 18.1%.
- Overall during each year 2011 through 2014, men were more likely to smoke cigarettes than were women.
- Not only overall, but within every age group for every year, men were more likely than women to smoke.
- By age, the highest smoking rates were seen among adults who were 25-34 years old.
- For the three younger age groups (adults 18-24, 25-34 and 35-44 years), the two-year average annual cigarette use rate declined between 2011-2012 and 2013-2014 but increased or changed little for the three older age groups reported on (adults 45-54, 55-64, 64+ years).
- The three-year average annual cigarette use rate for Native American adults was 51.3% in 2012-2014. Multi-racial and black adults had the next highest rates during those years. These three racial groups had rates well above the state average annual rate in 2012-2014 of 18.7%. The smoking rates of both multi-race adults and black adults trended downward between 2011-2013 and 2012-2014, while that of Native American adults increased.
- Also found to be at increased risk of cigarette use were adults who were: low income, without a high school education, unemployed, uninsured, gay/lesbian, veterans less than 65 years of age and those who were divorced.
- More than half of current smokers tried to quit smoking in both 2011-2012 (56% quit attempt rate) and 2013-2014 (54% quit attempt rate).
- Among current smokers, the quit attempt rate decreased with age: 66% of adult smokers age 18-24 tried to quit but only 47% of adults age 55 and older tried to quit in 2013-2014 (two-year average annual rate).
- Between 2011 and 2014 of all adults who were *recent* smokers (used cigarettes in the past 12 months) about 60% had tried to quit during the past year. However, only 14% of recent smokers in 2011-2012 and 16% of recent smokers in 2013-2014 were quit on the day they were interviewed for the BRFSS. (two-year average annual rate)
- Of recent smokers, the two-year average annual rate of having sustained cessation (been quit for at least six months) was 5% in 2011-2012 and 6% in 2013-2014. These Iowa rates of sustained cessation are comparable to those of other states across the U.S.

### Smokeless Tobacco Use

- Between 2011 and 2014, the overall smokeless tobacco use rate grew higher, rising from 4.2% to 5.1%, Men accounted for virtually all of the increase in smokeless tobacco use.
- During each of the four years 2011-2014, men were more likely than women to use smokeless tobacco: One in 10 men, but only one in 200 women used smokeless tobacco in 2013-2014 (9.7% of men and 0.5% of women).
- The Iowa use rate for smokeless tobacco was close to the national median rate for all years 2011 through 2014 but consistently trended just above the national median rate from 2012 forward.

# Overall Trends

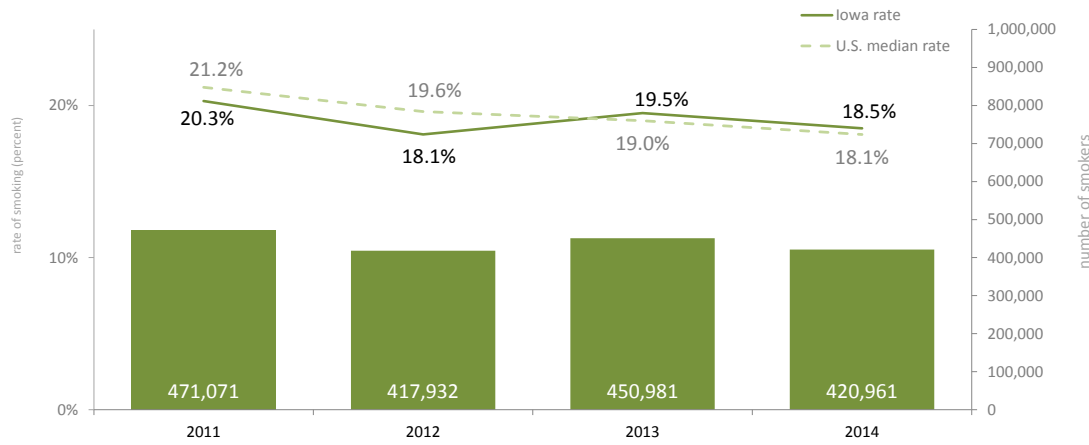
## Cigarette, Smokeless Tobacco Use

Iowa Adults

annual rate, 2011-2014

## Overall Iowa adult current cigarette and smokeless use, annual trend, 2011-2014

### Iowa and U.S. median overall cigarette use rates trend downward



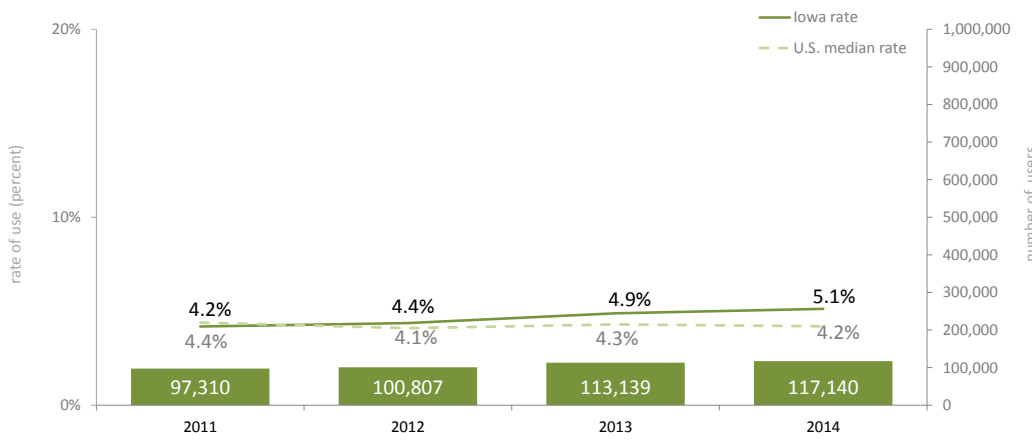
trends in percent of Iowa and U.S. adults who smoke cigarettes and number of Iowa adults who smoke, BRFSS

**2014:** In 2014, the Iowa adult cigarette smoking rate was 18.5%: More than 420,000 or about 1 in 5 adults smoked. That year, 26% of adults formerly smoked, while 56% had never smoked. About 14% of adults were daily smokers, while 5% smoked but less frequently than every day.

Cigarette use trends: Iowa adult cigarette use rates trended downward between 2011 and 2014, dropping overall by 9% from 20.3% to 18.5%.

Iowa cigarette smoking rates generally mirrored the national median rate for all years 2011 through 2014. In 2011 and 2012, the Iowa rate was somewhat below the national rate, while being slightly above the national rate in 2013 and 2014.

### Iowa overall smokeless tobacco use up slightly, national median rate steady



trends in percent of Iowa, U.S. adults who use smokeless tobacco and number of IA adults who use, BRFSS

**2014:** In 2014, smokeless tobacco use rates were much lower than cigarette use rate (5.1% compared to 18.5%— almost three-quarters lower).  
More than 117,000 Iowa adults or 1 in 20 currently used smokeless tobacco in 2014.  
About 3% of adults used smokeless tobacco daily, while 2% used, but less frequently than daily.

Smokeless use trends: Iowa smokeless tobacco use rates increased between 2011 and 2014 from 4.2% to 5.1%. *Men accounted for virtually all of the increase.* (see page 14)

While the Iowa use rate for smokeless tobacco closely mirrored the national median rate for all years 2011 through 2014, for the three years 2012 through 2014, the Iowa smokeless use rate trending slightly, but consistently upward and was just above the national median rate.

# Overall Tobacco Use Trends

## Cumulative Use of Either Cigarette or Smokeless Tobacco

Iowa Adults

annual rate, 2011-2014

## Cumulative Iowa adult current cigarette or smokeless use, annual rate trend, 2011-2014

### Trend in Iowa cumulative use rate of either cigarettes or smokeless tobacco



trends in percent of Iowa and U.S. adults who use tobacco (cigarettes, smokeless), BRFSS

Any use trends: While varying some from year to year between 2011 and 2014, the Iowa cumulative tobacco use rate (use either cigarettes or smokeless) did not trend upward or downward between 2011 and 2014 (22.9% in 2011 and 22.4% in 2014).

During that same time, the U.S. median cumulative tobacco use rate trended downward, declining

2014: In 2014, 18.5% of Iowa adults were current cigarette users and 4.2% were current smokeless tobacco users. Cumulatively 22.4% of adults used either cigarettes or smokeless tobacco (more than 1 in 5 adults).

That year, the median U.S. rate of: cigarette use was 18.2%; smokeless tobacco use was 4.2%; and, the cumulative use rate of either of these two forms of tobacco 20.6%.

Note: Since 2011, the Iowa Behavioral Risk Factor Surveillance System (BRFSS) core tobacco questions have consistently covered the use of cigarette and smokeless tobacco but not the use of other forms of tobacco, so that the trend charts here of cumulative use are based solely on the use of cigarettes and smokeless tobacco.

### Use of other forms of tobacco:

In 2012 (but not in 2011, 2013 or 2014), Iowa added optional questions covering adult use of cigars and water pipes to the core BRFSS prevalence questions that cover the use of cigarettes and smokeless tobacco.

That year, the overall current adult tobacco prevalence rate inclusive of all four of these forms of tobacco was 24% or almost 1 in every 4 adults. (4% reported smoking cigars and 1% reported smoking tobacco in water pipes in 2012.)

In 2013 and 2014, the Iowa BRFSS included the use of electronic smoking devices (ESDs or e-cigarettes) as a substitute for cigarettes as an optional question for the first time. In 2014, 4.3% of all adults reported using ESDs as a substitute for cigarettes. Of those who used ESDs as a substitute for cigarettes, 75% also smoked regular cigarettes, while 25% used ESDs but not regular cigarettes.

# Cigarette Use Trends

by

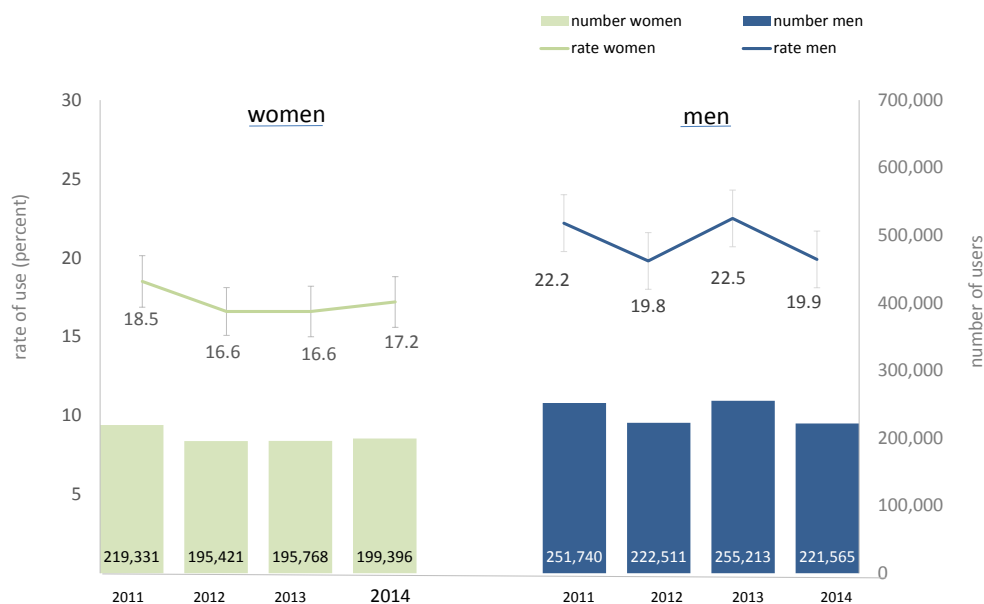
Sex

Iowa Adults

annual rate, 2011-2014

## Iowa adult cigarette use by sex, annual trends, 2011-2014

Cigarette use by sex: Iowa men more likely than women to use;  
rates for men vary from year-to-year, down slightly for women



trends in number and percent of Iowa adults who use cigarettes, by sex and year, 2011-14, BRFSS

**Trends by sex:** For all four years, the Iowa adult cigarette smoking rate among men was higher than that of women.

While the cigarette use rate for men was lower in 2014 than in 2011, across the four years 2011 there was no consistent pattern of their smoking rate increasing or decreasing. The smoking rate for women was slightly lower in 2012, 2013 and 2014 compared to 2011.

**2014:** One in five men and one in six women smoked cigarettes in 2014: The smoking rate for men was 19.9% compared to 17.2% for women. Of all smokers 57% (221,565) were men and 43% (199,396) were women. Among men, 31% had formerly while 50% had never smoked. Among women, 21% had formerly while 62% never smoked.

While men were more likely to smoke than women, 75% of both women and men who used cigarettes smoked every day in 2014.

While women were less likely to be smokers, those who did smoke were more likely to use a pack or more per day than were men: 37% of women smokers compared to 27% of men smokers used a pack or more a day in 2012 (data from one-time optional question in 2012 BRFSS).

**Men more likely to use not only cigarettes but other forms of tobacco:** BRFSS annual data from 2011 through 2014 show that not only were men more likely than women to use cigarettes but substantially more likely to use smokeless tobacco. (In 2014, the smokeless tobacco use rate for men was 9.9% compared to 0.5% for women and the cigarette or smokeless tobacco use rate combined for men was 27.7% compared to 17.4% for women. (See the smokeless tobacco use and cumulative tobacco use sections of this report.)

BRFSS optional questions from 2012 covering cigars and water pipes (hookahs) found that men were also more likely than women to use these forms of tobacco.

In 2014, men also were slightly more likely than women to use electronic smoking devices (ESDs) as a cigarette substitute as well (4.6% vs. 4.0%).

# Cigarette Use Trends

by

Age

Iowa Adults

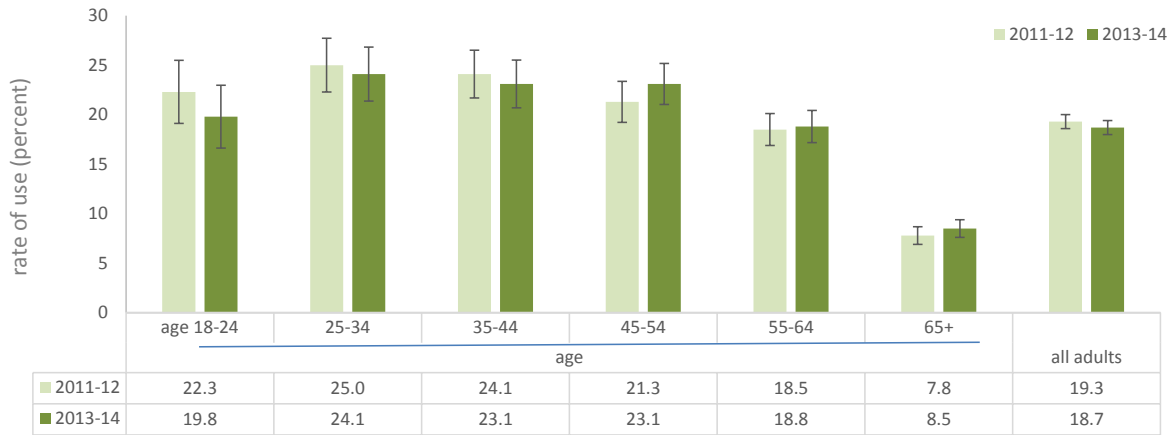
two-year average annual rate

2011-2012, 2013-2014



Iowa adult cigarette use by age, two-year average annual rate trends, 2011-2012 to 2013-2014

Cigarettes use by age: Adults younger than 45 years see their rates decline, rates stable or up slightly among adults age 45 and older



**Trends by age:**  
Between 2011-2012 and 2013-2014, the three oldest age groups of adults saw their rates trend upward or remain stable.

In contrast, rates trended downward for the three youngest age groups (18-14, 25-34 and 35-44 years).

The largest drop in smoking rates was among the youngest group of adults (18-24 year olds) whose rate dropped from 22.3% in 2011-2012 to 19.8% in 2013-2014.

During both 2011-2012 and 2013-2014, the cigarette use rate among adults age 18-24 was less than the use rate among adults age 25-34.

The latter age group had the highest age-specific smoking rate during of the both time periods.

**2013-2014 average annual rates:** Adults age 18-24 years had a smoking rate (19.8%) that was lower than that the next older age group (25-34 year-olds, 24.1%). Breaking down the 18-24 year-old age group, the smoking rate among 18-19 year-old adults was 17.8% and among 20-24 year olds 22.7% in 2013-2014.

These increasing age-specific rates may indicate that young adults are delaying the uptake of smoking until well into their thirties. The youngest adults may also be more likely to use e-cigarettes as a substitute for cigarettes. E-cigarettes have become the most commonly used form of tobacco among middle and high students in Iowa. (Iowa adult e-cigarette use prevalence information was collected in the 2015 BRFSS for the first time and stood at 10.5% among adults 18 –24 years of age that year.)

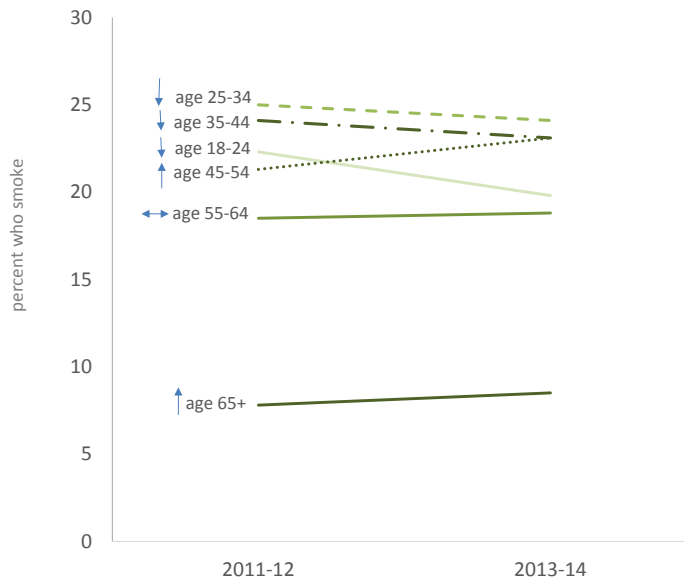
After age 25-34, the age group with the highest smoking rate, cigarette use rates declined.

Adults age 65 and older had by far the lowest smoking prevalence rate (8.5%), more than 50% lower than the smoking rate among 55-64 year olds (18.9%).

**Cigarette use among older and middle-aged Iowans:**

The rate estimate for adults 45-54 years increased by several percentage points between 2011-2012 and 2013-2014.

Among adults age 55 and older, smoking rates changed little between 2011-2012 and 2013-2014.



trends in percent of Iowa adults who smoke cigarettes, by age and year, average annual rate, 2011-12, 2013-14, BRFSS

|         | Smoking rate by age and year |       |       |       |       |     |
|---------|------------------------------|-------|-------|-------|-------|-----|
|         | age 18-24                    | 25-34 | 35-44 | 45-54 | 55-64 | 65+ |
| 2011-12 | 22.3                         | 25.0  | 24.1  | 21.3  | 18.5  | 7.8 |
| 2013-14 | 19.8                         | 24.1  | 23.1  | 23.1  | 18.8  | 8.5 |

## Iowa adult cigarette use initiation by age, 2012

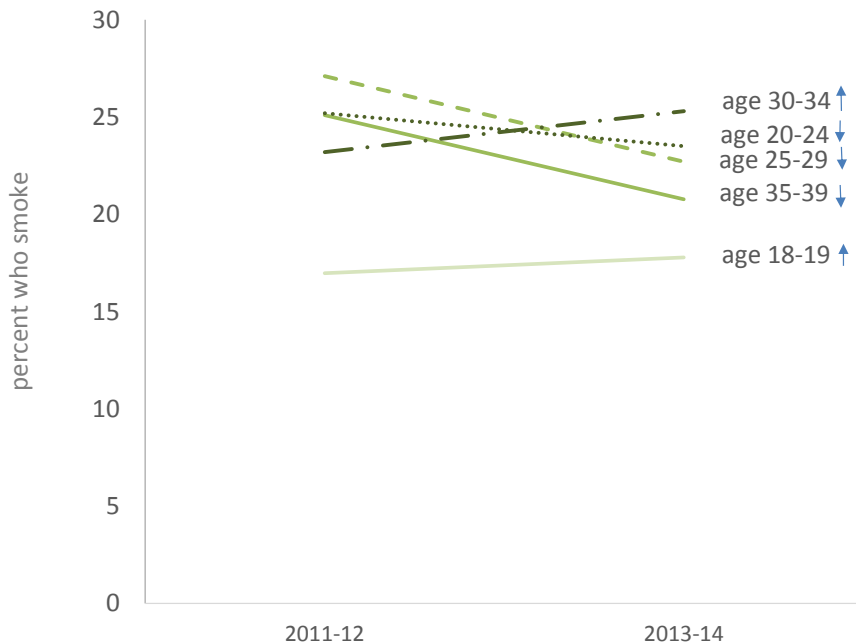
Previous data gathered through optional questions in the 2012 BRFSS found that of adults who smoked, **75% started before age 18 while and another 23% started between the ages of 18 and 24 years.**—98% of current smokers had begun to smoke by age 25 in 2012. (Data on age adults first started to smoke cigarettes was not collected in the 2011, 2013 or 2014 BRFSS.)

## Percent distribution of Iowa adult smokers, by age, two-year average annual rate, 2013-2014

Of the 434,000 adults smokers in Iowa in 2013-2014:

- 15% were 18-24 years;
- 21% were 25-34 years;
- 18% were 35-44 for 18%;
- 21% were 45-54 years;
- 17% were 55- 64 years; and,
- 9% were 65 and older.

## Young adult 18-39 years of age: Two-year average annual cigarette use rate trends for adults less than 39 years of age mixed, 2011-2012 to 2013-2014



trends in percent of Iowa adults who smoke cigarettes, by age and year, average annual rate, 2011-12, 2013-14, BRFSS

Smoking rate by age and year

|         | age 18-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 |
|---------|-----------|-------|-------|-------|-------|-------|
| 2011-12 | 17.0      | 25.1  | 27.1  | 23.2  | 25.2  | 23.2  |
| 2013-14 | 17.8      | 20.8  | 22.7  | 25.3  | 23.5  | 22.8  |

### Trends among adults 18-39 years of age:

Among Iowa adults age 39 years and younger, those age 18-19 years of age had by far the lowest smoking rate for both periods 2011-2012 (17.0%) and 2013-2014 (17.8%).

Between the two periods 2011-2012 and 2013-2014, cigarette smoking rates trended upward slightly for adults age 18-19 years and more substantially upward for adults age 30-34 years. Other age groups of young adults saw their smoking rates decline.

### 2013-2014 smoking rates among young adults:

Among young adults, those age 30-34 years had the highest age-specific smoking rate in 2013-2014 (25.3%) and those age 18-19 years the lowest rate (17.8%).

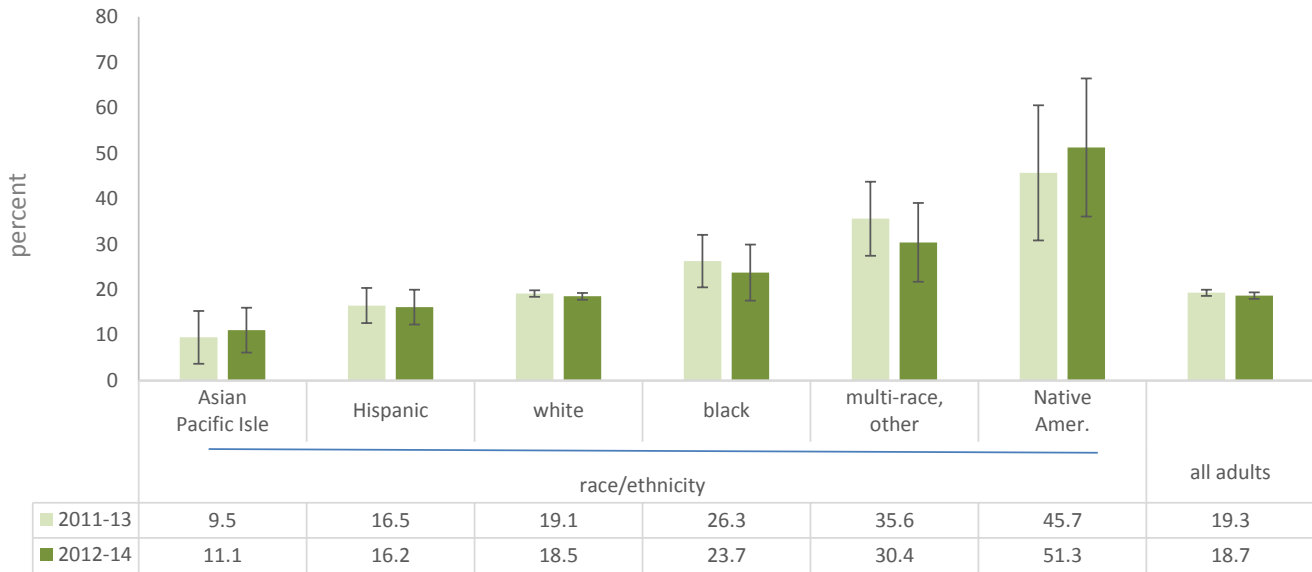
# Cigarette Use Trends by Race/Ethnicity

Iowa Adults

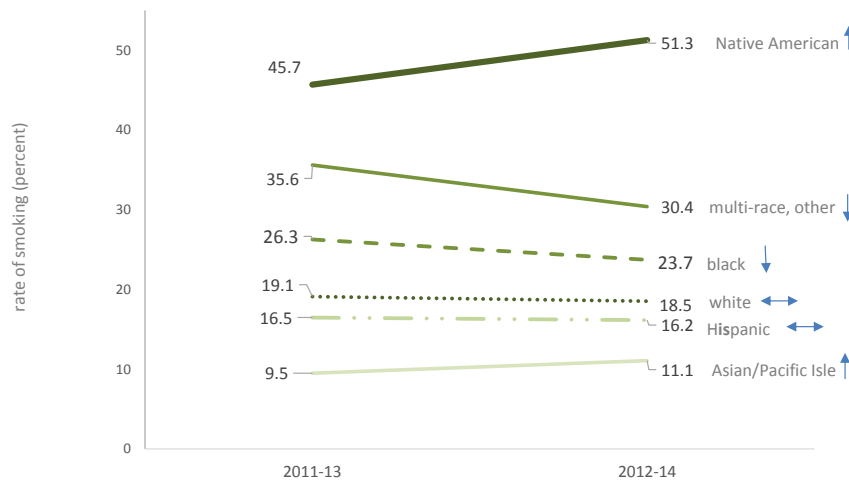
three-year average annual rate  
2011-2013, 2012-2014

## Iowa adult cigarette use trends by *race/ethnicity*, three-year average annual rate trends, 2011-2013 to 2012-2014

Cigarette use by race: Black, multi-race, Native American rates consistently higher than state average



Cigarette use rate changes from 2011-2013 to 2012-14—  
Native American and Asian rates increase;  
other racial/ethnic group rates' hold steady or decline



percent of IA adults who smoke cigarettes, by race/ethnicity, 3-year aver., 2011-13, 2012-14, BRFSS

### Three-year average annual smoking rate trends within racial groups:

Between 2011-2013 and 2012-2014, the smoking rate for white and Hispanic adults remained essentially unchanged, while the smoking rate for black and multi-race adults declined. *Native American adults saw an increase in their smoking rate with more than 50% of Native American adults in Iowa reported smoking cigarettes in 2012-2014.*

### Smoking rate trends between racial groups:

For both time periods, 2011-2012 and 2013-2014, Native American, multi-race/other and black adults in Iowa had rates of smoking above that of adults overall and above those of white, Hispanic and Asian adults.

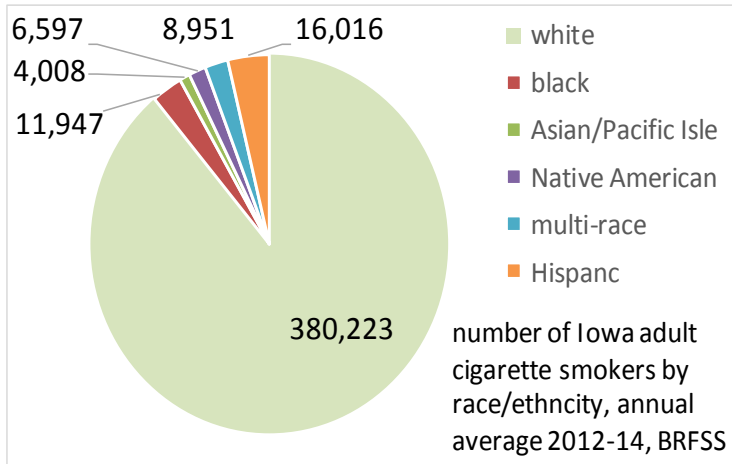
The smoking rate among Native Americans was more than double the overall state rate during both time periods.

In 2012-2014, the smoking rate among multi-race adults was 62% above the state rate, and the rate for black adults, 27% above the state rate.

During both periods, Asian/Pacific Island adults had the lowest smoking rate and Hispanic and white adults the next lowest smoking rates.

## Iowa adult cigarette use by race/ethnicity, three-year average annual number, 2012-2014

Number of cigarette smokers by race/ethnicity



Percent distribution of smokers in Iowa—89% of cigarette smokers are white

During 2012-2014, Iowa cigarette smokers were:

- 4% Hispanic;
- 3% black;
- 2% Native American;
- 2% multi-race;
- 1% Asian/Pacific Isle; and
- 89% white.

# Annual Smokeless Tobacco Use Rate Trends by Sex

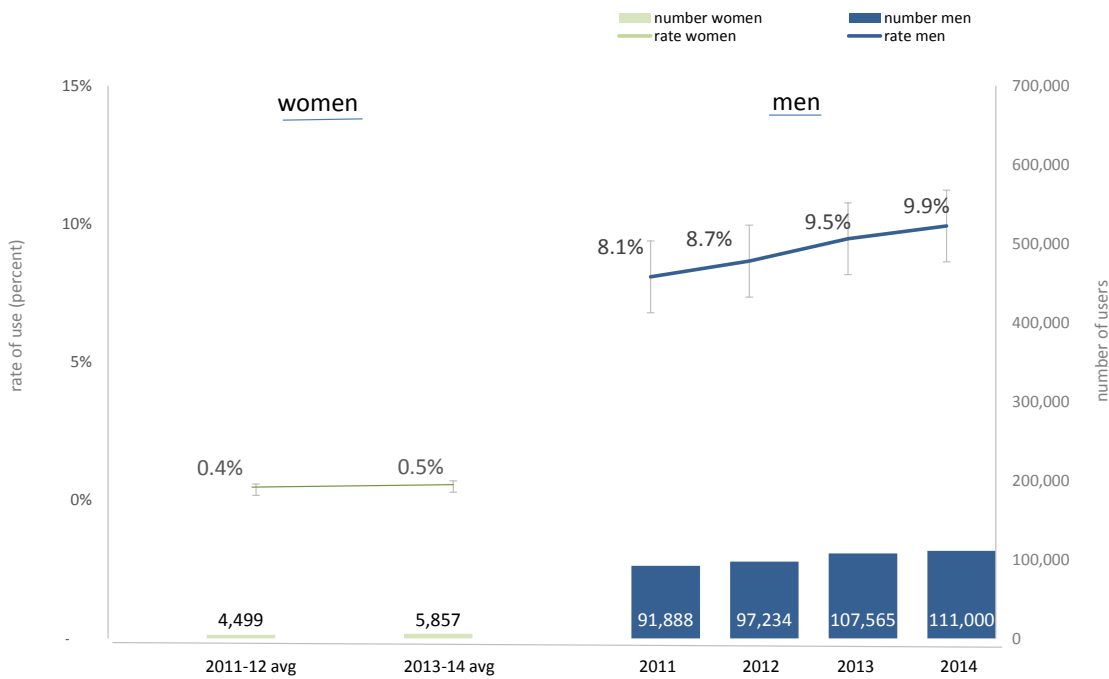
Iowa Adults

annual rate for men, 2011-2014

two-year average annual rate for women  
2011-2012, 2013-2014

## Iowa adult smokeless tobacco use overall and by sex, annual rate trends, 2011 - 2014

Smokeless tobacco use among men overall increased between 2011 and 2014.



**Annual smokeless use trends among men:** The smokeless tobacco use rate among men increased steadily between 2011 and 2014, rising by 22% from 8.1% to 9.9% (about two percentage points).

**Two-year average annual smokeless use trends among women:** The smokeless tobacco use rate changed little among women between 2011-2012 and 2013-2014. And, for both periods, their smokeless tobacco use rate was a small fraction of the use rate among men. In 2011-2012, their use rate was 0.4% and 2013-14, 0.5%.

(Sample size and smokeless use rates were too small to report annual smokeless use rates for women.)

trends in number and percent of Iowa adults who use smokeless tobacco, by sex and year, women two-year average, men annual rate, 2011-14, BRFSS

**2013 through 2014 smokeless use rates:** One in 10 men and one in 200 women used smokeless tobacco in 2013 through 2014. The smokeless tobacco use rate was 9.5% among men in 2013 and 9.9% among men in 2014. Among women, the two-year average annual smokeless tobacco use rate was 0.5% in 2013-2014. (The rate of smokeless tobacco use among women during 2011 to 2014 was too low to accurately report single-year use rates. The two-year average annual smokeless tobacco use rate among men in 2013-2014 was 9.7%.)

# Smokeless Tobacco Use among Men

by Age and Race/Ethnicity

Iowa

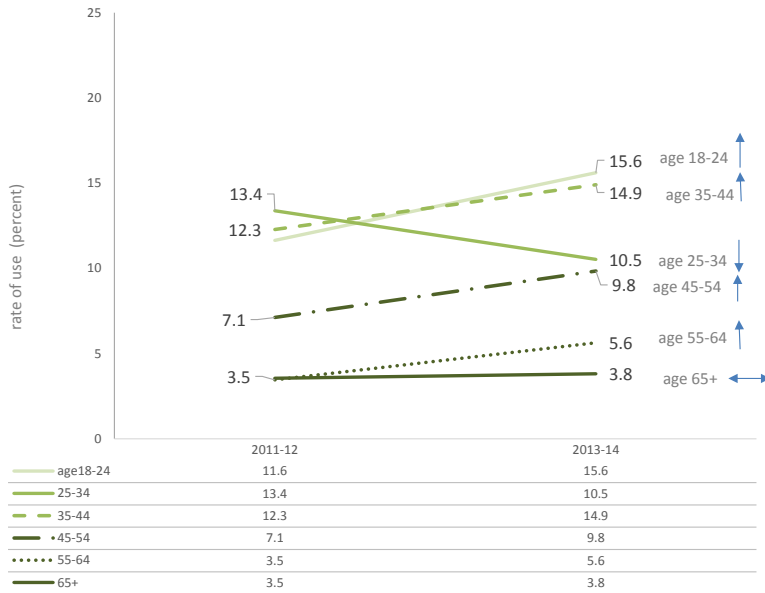
two-year average annual rate

2011-2012, 2013-2014



## Smokeless tobacco use among Iowa men by age two-year average annual rate trends, 2011-2012 to 2013-2014

For most age groups of men, smokeless use rates increased between 2011-2012 and 2013-2014



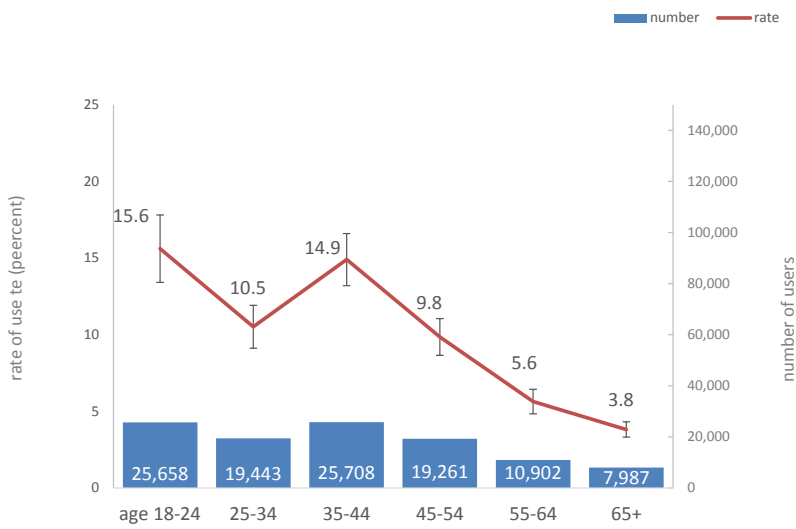
### Trends in smokeless use among men, by age:

Smokeless tobacco use rates held steady among men ages 65 and older, and decreased among men ages 25-34 years.

For all other age groups of men, smokeless tobacco use rates increased between 2011-2012 and 2013-2014.

trends average annual percent of Iowa adult men who use smokeless tobacco, by age, 2011-12, 2013-14, BRFSS

Average annual smokeless use rate among men generally decreased with age in 2013-2014



number and percent of Iowa men who use smokeless tobacco, by age annual average 2013-14, BRFSS

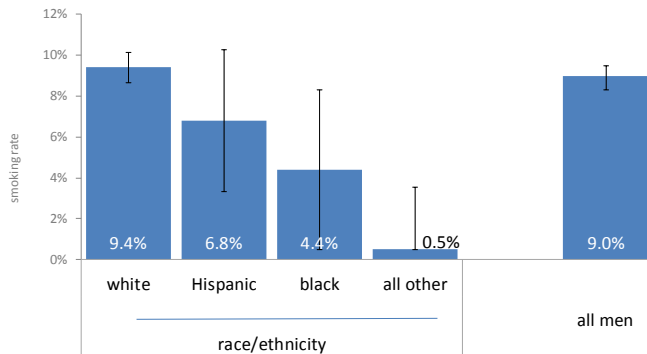
### 2013-2014 Smokeless use among men by age:

The smokeless tobacco use rate was highest among men ages 18-24 years (15.6%) and lowest among men age 65 years and older (3.8%). (The use rate among men 65 and older was 75% lower than that of the men age 18-24 years.)

One exception to this trend of lower use rates with increasing age was among men ages 35-44 years whose smokeless tobacco use rates was higher than that of men age 25-34 (14.3% compared to 10.5%).

## By race/ethnicity, smokeless tobacco use among men Iowa four-year average annual rate, 2011-2014

In 2011-14 among men, the four-year average annual smokeless use rate was highest for white and lowest for black adults and the group of adults of all other races



percent of Iowa men who use smokeless tobacco, by race/ethnicity, average annual rate 2012-2014, BRFSS

(all other includes: Native American, Asian/Pacific Islander, multi-race and unspecified)

### 2011-2014 average annual smokeless tobacco use rate among men, by race/ethnicity:

The smokeless tobacco use rate was highest among white men (9.4%) and lowest among men in the all other racial/ethnic group (0.5%).

The smokeless tobacco use rate among black men (4.4%) was less than half of that of white men.

Note: Due to small sample size in some racial/ethnic groups, only average annual smokeless tobacco use rates among men in four racial/ethnic groups (Hispanic, black, white and all other) for the period 2011-2014 are able to be reported.

# Trends in Cumulative Cigarette or Smokeless Tobacco Use

## By Sex and Age

### Iowa Adults

two-year average annual rate

2011-2012, 2013-2014

## Cumulative use of cigarettes or smokeless tobacco, two-year average annual rate 2011-2012, 2013-2014

Percent of Iowa adults who currently smoke cigarettes, use smokeless tobacco  
by age and sex, BRFSS, 2011-12 average annual rate

|                | cigarettes  |                    |             | smokeless          |             |                    | cigarettes or smokeless |                    |             |                    |             |                    |
|----------------|-------------|--------------------|-------------|--------------------|-------------|--------------------|-------------------------|--------------------|-------------|--------------------|-------------|--------------------|
|                | men         |                    | women       |                    | men         |                    | women                   |                    | men         |                    | women       |                    |
|                | percent     | 95% conf. interval | percent     | 95% conf. interval | percent     | 95% conf. interval | percent                 | 95% conf. interval | percent     | 95% conf. interval | percent     | 95% conf. interval |
| <b>Overall</b> | <b>21.0</b> | 19.7 22.3          | <b>17.5</b> | 16.4 18.7          | <b>8.4</b>  | 7.4 9.3            | <b>0.4</b>              | 0.2 0.6            | <b>27.1</b> | 25.7 28.5          | <b>17.7</b> | 16.5 18.8          |
| <b>Age</b>     |             |                    |             |                    |             |                    |                         |                    |             |                    |             |                    |
| 18-24 years    | <b>23.1</b> | 18.5 27.8          | <b>21.3</b> | 17.0 25.7          | <b>11.6</b> | 7.9 15.4           | na                      |                    | <b>29.9</b> | 24.8 35.1          | <b>21.7</b> | 17.3 26.1          |
| 25-34          | <b>26.8</b> | 23.1 30.6          | <b>23.2</b> | 19.5 26.9          | <b>13.4</b> | 10.5 16.3          | na                      |                    | <b>36.0</b> | 32.0 40.1          | <b>23.3</b> | 19.6 27.0          |
| 35-44          | <b>25.5</b> | 21.7 29.2          | <b>22.7</b> | 19.5 25.8          | <b>12.3</b> | 9.6 14.9           | na                      |                    | <b>34.9</b> | 30.9 38.8          | <b>22.7</b> | 19.5 25.8          |
| 45-54          | <b>21.6</b> | 18.8 24.4          | <b>21.0</b> | 18.5 23.5          | <b>7.1</b>  | 5.4 8.8            | na                      |                    | <b>27.4</b> | 24.4 30.5          | <b>21.1</b> | 18.6 23.6          |
| 55-64          | <b>21.4</b> | 18.8 24.0          | <b>15.6</b> | 13.6 17.7          | <b>3.5</b>  | 2.3 4.6            | na                      |                    | <b>24.0</b> | 21.3 26.7          | <b>15.7</b> | 13.7 17.7          |
| >=65 years     | <b>9.1</b>  | 7.4 10.8           | <b>6.8</b>  | 5.8 7.8            | <b>3.5</b>  | 2.5 4.6            | na                      |                    | <b>12.2</b> | 10.3 14.1          | <b>6.8</b>  | 5.8 7.9            |

Percent of Iowa adults who currently smoke cigarettes, use smokeless tobacco  
by age and sex, 2013-14 average annual rate, BRFSS

|                | cigarettes  |                    |             | smokeless          |             |                    | cigarettes or smokeless |                    |             |                    |             |                    |
|----------------|-------------|--------------------|-------------|--------------------|-------------|--------------------|-------------------------|--------------------|-------------|--------------------|-------------|--------------------|
|                | men         |                    | women       |                    | men         |                    | women                   |                    | men         |                    | women       |                    |
|                | percent     | 95% conf. interval | percent     | 95% conf. interval | percent     | 95% conf. interval | percent                 | 95% conf. interval | percent     | 95% conf. interval | percent     | 95% conf. interval |
| <b>Overall</b> | <b>21.2</b> | 19.9 22.5          | <b>16.9</b> | 15.7 18.0          | <b>9.7</b>  | 8.7 10.7           | <b>0.1</b>              | 0.3 0.7            | <b>28.5</b> | 27.0 29.9          | <b>17.1</b> | 16.0 18.3          |
| <b>Age</b>     |             |                    |             |                    |             |                    |                         |                    |             |                    |             |                    |
| 18-24 years    | <b>21.6</b> | 17.3 25.8          | <b>18.0</b> | 13.2 22.7          | <b>15.6</b> | 11.6 19.7          | na                      |                    | <b>31.5</b> | 26.6 36.4          | <b>18.0</b> | 13.2 22.7          |
| 25-34          | <b>25.2</b> | 21.3 29.2          | <b>23.0</b> | 19.3 26.7          | <b>10.5</b> | 7.8 13.2           | na                      |                    | <b>33.1</b> | 28.8 37.3          | <b>23.4</b> | 19.7 27.2          |
| 35-44          | <b>25.6</b> | 21.8 29.3          | <b>20.7</b> | 17.7 23.8          | <b>14.9</b> | 11.7 18.1          | na                      |                    | <b>36.7</b> | 32.6 40.8          | <b>21.0</b> | 17.9 24.0          |
| 45-54          | <b>25.7</b> | 22.4 28.9          | <b>20.5</b> | 18.0 23.0          | <b>9.8</b>  | 7.6 12.0           | na                      |                    | <b>33.9</b> | 30.4 37.4          | <b>20.8</b> | 18.3 23.4          |
| 55-64          | <b>21.5</b> | 18.9 24.0          | <b>16.2</b> | 14.2 18.2          | <b>5.6</b>  | 4.2 7.1            | na                      |                    | <b>26.0</b> | 23.3 28.7          | <b>16.5</b> | 14.5 18.5          |
| >=65 years     | <b>9.7</b>  | 8.1 11.2           | <b>7.7</b>  | 6.6 8.7            | <b>3.8</b>  | 2.8 4.8            | na                      |                    | <b>13.0</b> | 11.3 14.7          | <b>7.7</b>  | 6.7 8.8            |

**Men most at risk to use any tobacco; their use rates remained high through age 64 years.**

**Trends:** For both time periods 2011-2012 and 2013-2014, about 30% of men ages 18-24 used tobacco and *more than one-third* of men between the ages of 25 and 44 used tobacco (cigarettes or smokeless tobacco).

During the two time periods, tobacco use rates among men fell with age after age 35-44 years. About one-quarter of men age 55-65 years and 12%-13% of men age 65 and older used tobacco during the two time periods shown.

Women's overall same-age tobacco use rates were lower than men's for all age groups during both 2011-2012 and 2013-2014. Women's tobacco use rates ranged from between 5 and 16 percentage points lower than men's of the same age and period grouping. In 2013-2014, overall, men were 67% more likely than women to use tobacco (27.1% vs. 17.7%).

Overall use rates were slightly higher for men in 2013-2014 than in 2011-2012, while women's rates were slightly higher in 2011-2012 than in 2013-2014. The same held true for most age-specific rates for men and women during the two time periods.

# Current Cigarette Users who Want to Quit

Cessation attempts among

Current Cigarette Users

Quit Rates among

Recent Cigarette Users

Overall and by Sex and Age

Iowa Adults

two-year average annual rate

2011-2012, 2013-2014

## Percent of current cigarette smokers by cessation and demographic status

adults 18 and older, Iowa BRFSS, 2011-14

| socio-demographic status         | currently use                       |  |         |
|----------------------------------|-------------------------------------|--|---------|
|                                  | percent want to quit<br>(n=288,000) | percent who have tried to quit in past 12 months |         |
|                                  |                                     | 2012 only  | 2011-12 |
|                                  | percent                             | percent  | percent |
| <b>Overall</b>                   | 69                                  | 56   | 54      |
| <b>Sex</b>                       |                                     |  |         |
| women                            | 71                                  | 59   | 57      |
| men                              | 65                                  | 53   | 51      |
| <b>Age</b>                       |                                     |  |         |
| 18-24 years                      | 59                                  | 68   | 66      |
| 25-34                            | 69                                  | 61   | 59      |
| 35-44                            | 78                                  | 55   | 59      |
| 45-54                            | 71                                  | 49   | 46      |
| 55-64                            | 68                                  | 51   | 47      |
| 65+ years                        | 55                                  | 49   | 47      |
| <b>Race</b>                      |                                     |  |         |
| white, non-Hispanic              | 65                                  | 55   | 53      |
| all non-white                    | 63                                  | 63   | 60      |
| breakout of all non-white        |                                     |  |         |
| black, non-Hispanic              | na                                  | 67   | 76      |
| Asian/Pacific Isle, non-Hispanic | na                                  | 83   | 61      |
| other, multi-race non-Hispanic   | na                                  | 56   | 48      |
| Hispanic                         | na                                  | 64   | 57      |

Percent of current cigarette users who are want to quit or tried to quit in the past 12 months (rate per 100 smokers), adults age 18+, Iowa Behavioral Risk Factor Surveillance System (BRFSS), 2011-14 (All measures from BRFSS core questionnaire except for 'want to quit' which was an optional question asked only in 2012.)

Current smokers who want to quit (2012 only, no trend data): More than two-thirds of current cigarette smokers wanted to quit in 2012. Women were somewhat more likely than men and adults age 35-44 the most likely to want to quit.

Trends in current smokers who tried to quit:

Overall and by sex, race and age, adults who currently smoke were somewhat less likely to have tried to quit in 2013-2014 than in 2011-2012.

The exception was black adults and adults ages 35-44 years who were more likely to have tried to quit in 2013-2014 than in 2011-2012.

2013-2014: Current smokers who tried to quit:

Women were more likely than men and younger adults were more likely than middle aged and older adults to have tried to quit cigarettes.

White and multi-race/other adults were the least likely to have tried to quit among racial/ethnic groups and black, Asian/Pacific Islander and Hispanic adults the most likely to have tried to quit.

Percent of recent cigarette smokers by cessation status

adults 18 and older, Iowa BRFSS core questions, 2011-14

recent users (used in the past 12 months)

| socio-demographic status  | tried to quit in the past 12 months (quit for at least one day, may/may not now smoke) |                 | now quit (quit at time of interview) |                 | have been quit for 1 month or longer |                 | have been quit for 6 months or longer (successfully quit) |                 |
|---------------------------|--|-----------------|--------------------------------------|-----------------|--------------------------------------|-----------------|---|-----------------|
|                           | (n=322,000)  | (n=300,000)     | (n=322,000)                          | (n=300,000)     | (n=56,000)                           | (n=50,000)      | (n=25,000)  | (n=20,000)      |
|                           | 2011-12 percent  | 2013-14 percent | 2011-12 percent                      | 2013-14 percent | 2011-12 percent                      | 2013-14 percent | 2011-12 percent   | 2013-14 percent |
| <b>Overall</b>            | 62   | 60              | 14                                   | 16              | 11                                   | 13              | 5   | 6               |
| <b>Sex</b>                |  |                 |                                      |                 |                                      |                 |   |                 |
| women                     | 60   | 58              | 13                                   | 15              | 9                                    | 12              | 4   | 6               |
| men                       | 55   | 54              | 15                                   | 18              | 12                                   | 13              | 5   | 6               |
| <b>Age</b>                |  |                 |                                      |                 |                                      |                 |   |                 |
| 18-24 years               | 69   | 65              | 15                                   | 23              | 11                                   | 17              | 4   | 7               |
| 25-34                     | 62   | 61              | 20                                   | 22              | 14                                   | 18              | 7   | 7               |
| 35-44                     | 56   | 59              | 14                                   | 15              | 13                                   | 11              | 6   | 6               |
| 45-54                     | 52   | 50              | 11                                   | 12              | 8                                    | 9               | 4   | 5               |
| 55-64                     | 51   | 48              | 9                                    | 11              | 7                                    | 9               | 6   | 3               |
| 65+ years                 | 51   | 49              | 14                                   | 13              | 12                                   | 10              | 5   | 5               |
| <b>Race</b>               |  |                 |                                      |                 |                                      |                 |   |                 |
| white, non-Hispanic       | 57   | 55              | 14                                   | 16              | 11                                   | 12              | 5   | 5               |
| all non-white             | 62   | 61              | 12                                   | 19              | 11                                   | 12              | 6   | 6               |
| breakout of all non-white |  |                 |                                      |                 |                                      |                 |   |                 |
| black, non-Hispanic       | 62   | 74              | 9                                    | 7               | 10                                   | 5               | 8   | 4               |
| other, non-Hispanic       | 62   | 51              | 10                                   | 13              | 10                                   | 11              | 3   | 6               |
| Hispanic                  | 63   | 63              | 16                                   | 32              | 13                                   | 18              | 7   | 8               |

Recent smokers: Trends in two-year average annual quit attempt and sustained (successful) cessation rates:

In both 2011-2012 and 2013-2014, six in 10 adult recent smokers tried to quit.

However, in line with national quit rates, only 5% to 6% of smokers had sustained cessation (stayed quit for six months or longer).

Two-year average annual trends in quit attempts (tried to quit) among recent cigarette smokers:

Between 2011-2012 and 2013-2014, recent smokers (used in the past 12 months) quit attempt rates, overall and by sex, race and age, were higher in 2011-2012 than in 2013-2014. The exception was black adults and adults ages 35-44 year who were more likely to have tried to quit in 2013-2014 than in 2011-2012. Among recent smokers, younger adults were more likely than older adults and women were more likely than men to have tried to quit. In 2011-2012, 62%, and, in 2013-2014, 60% of recent smokers reported having tried to quit in the past 12 months.

Recent smoker trends: Quit on day interviewed:

Among recent smokers, younger adults were more likely than older adults and men more likely than women to be quit on the day interviewed. In 2011-2012, 14%, and, in 2013-2014, 16% of recent smokers reported being quit on the day that they were interviewed. Overall and by sex, race and age, adults who recently smoked cigarettes were somewhat more likely to have been quit at the time they were surveyed for the BRFSS in 2013-2014 than in 2011-2012. The exception being black adults and adults who were 65 years and older, who were slightly less likely to have quit in 2013-2014 than in 2011-2012.

Recent smoker trends: Quit for at least one month:

In 2011-2012, 11% and in 2013-2014, 13% of recent smokers reported having been quit for one month or longer. Overall and by sex and race, adults who recently smoked cigarettes were somewhat more likely to have been quit for one month or longer in 2013-2014 than in 2011-2012. The exception being black adults who were less likely to have been quit for a month or longer. Among recent smokers, younger adults were more likely than older adults and men more likely than women to have been quit for a month or longer.

Recent smoker trends: Quit for at least six months (successful/sustained cessation):

In 2011-2012, 5% and in 2013-2014, 6% of all recent adult smokers had sustained cessation. Sustained cessation rates were similar for men and women. Among racial/ethnic groups, adults who were Hispanic were the only group with a sustained quit rate above the state-average for both 2011-2012 and 2013-2014. Overall only about one in 10 adult smokers who tried to quit were still quit six months later.

## Appendix

### Supplementary Data Tables: 2011-2014 Iowa BRFSS tobacco-related questions

Annual (core) Iowa BRFSS question tables:

Overall use of cigarettes, smokeless tobacco-prevalence use rates, 2011-2014:

A1. Iowa Overall tobacco use prevalence rates by type of tobacco and year, 2011-2014

Iowa prevalence use rates compared to the U.S.:

A2. Cigarette use: Iowa rate rank ordered among the 50 states by year, 2011-2014

A3. Smokeless tobacco use: Iowa rate rank ordered among the 50 states by year, 2011-2014

A4. Charts of cigarette use, Iowa and eight Midwestern state rates compared by year, 2011-2014

Cigarettes: Iowa prevalence use rate trend tables by socio-demographic status:

A5. Cigarettes use prevalence by sex, age and race/ethnicity and year, Iowa adults, 2011-2014

A6. Cigarette use prevalence by other socio-demographic risk factors, Iowa adults, 2011-2014

Smokeless tobacco: Iowa prevalence use rate trend tables by socio-demographic status:

A7. Smokeless tobacco use prevalence by sex, age, race/ethnicity and year, Iowa adults, 2011-2014

A8. Smokeless tobacco use by other socio-demographic risk factors and year, Iowa adults 2011-2014

Periodic (Iowa state-added) BRFSS questions:

A9. Tobacco-related attitudes, beliefs, secondhand smoke exposure,

Quitline Iowa and other cessation services awareness and use, 2011-2014



## 1. Annual trends in tobacco use, by product type, 2011-2014

### Number and percent of adults who currently use tobacco by product type

Iowa BRFSS core and state-added questions, 2011-14

| type of tobacco/nicotine                     | all adult use                     |       |       |       | number<br>2014 |
|--|-----------------------------------|-------|-------|-------|----------------|
|  | prevalence rate (percent who use) |       |       |       |                |
|  | 2011                              | 2012  | 2013  | 2014  |                |
| <u>individual product</u>                    |                                   |       |       |       |                |
| <u>annual (core) question</u>                |                                   |       |       |       |                |
| Cigarettes                                   | 20.3%                             | 18.1% | 19.5% | 18.5% | 421,000        |
| Smokeless tobacco                            | 4.2%                              | 4.4%  | 4.9%  | 5.1%  | 117,000        |
| <u>periodic state-added question</u>         |                                   |       |       |       |                |
| Cigars                                       |                                   | 4.0%  |       |       |                |
| Water pipes                                  |                                   | 1.0%  |       |       |                |
| <u>cumulative use</u>                        |                                   |       |       |       |                |
| <u>annual (core) question</u>                |                                   |       |       |       |                |
| Cigarettes or smokeless                      | 22.9%                             | 21.6% | 22.9% | 22.4% | 511,000        |
| <u>periodic state-added question</u>         |                                   |       |       |       |                |
| Cigarettes, smokeless, cigars or water pipes |                                   | 24.0% |       |       |                |

## 2. Annual trends in cigarette use:

### Iowa compared to U.S. and the Midwest

Percent of Adults who Use Cigarettes:  
Iowa Compared to U.S./Midwestern States, by year, 2011-14, BRFSS

Annual states' rates ranked from highest to lowest

| 2011           |      | 2012                 |      | 2013           |      | 2014           |      |
|----------------|------|----------------------|------|----------------|------|----------------|------|
| U.S. median    | 21.2 | 19.6                 |      | 19.0           |      | 18.1           |      |
| State          | %    | State                | %    | State          | %    | State          | %    |
| Kentucky       | 29.0 | Kentucky             | 28.3 | West Virginia  | 27.3 | West Virginia  | 26.7 |
| West Virginia  | 28.6 | West Virginia        | 28.2 | Kentucky       | 26.5 | Kentucky       | 26.2 |
| Arkansas       | 27.0 | Arkansas             | 25.0 | Arkansas       | 25.9 | Arkansas       | 24.7 |
| Oklahoma       | 26.1 | Tennessee            | 24.9 | Mississippi    | 24.8 | Tennessee      | 24.2 |
| Mississippi    | 26.0 | Louisiana            | 24.8 | Tennessee      | 24.3 | Louisiana      | 24.0 |
| Louisiana      | 25.7 | Indiana              | 24.0 | Oklahoma       | 23.7 | Mississippi    | 23.0 |
| Indiana        | 25.6 | Mississippi          | 24.0 | Louisiana      | 23.5 | Indiana        | 22.9 |
| Ohio           | 25.1 | Missouri             | 23.9 | Ohio           | 23.4 | South Carolina | 21.5 |
| Missouri       | 25.0 | Alabama              | 23.8 | Alaska         | 22.6 | Michigan       | 21.2 |
| Alabama        | 24.3 | Michigan             | 23.3 | Missouri       | 22.1 | Alabama        | 21.1 |
| Michigan       | 23.3 | Ohio                 | 23.3 | S. Carolina    | 22.0 | Oklahoma       | 21.1 |
| S. Carolina    | 23.1 | Oklahoma             | 23.3 | Indiana        | 21.9 | Ohio           | 21.0 |
| Wyoming        | 23.0 | S. Carolina          | 22.5 | Alabama        | 21.5 | Missouri       | 20.6 |
| South Dakota   | 23.0 | South Dakota         | 22.0 | Michigan       | 21.4 | Montana        | 19.9 |
| Tennessee      | 23.0 | Wyoming              | 21.8 | North Dakota   | 21.2 | North Dakota   | 19.9 |
| Alaska         | 22.9 | Pennsylvania         | 21.4 | Pennsylvania   | 21.0 | Pennsylvania   | 19.9 |
| Nevada         | 22.9 | North Dakota         | 21.2 | Wyoming        | 20.6 | Alaska         | 19.9 |
| Maine          | 22.8 | N. Carolina          | 20.9 | North Carolina | 20.3 | Delaware       | 19.9 |
| Pennsylvania   | 22.4 | Alaska               | 20.5 | Maine          | 20.2 | Virginia       | 19.5 |
| Montana        | 22.1 | Wisconsin            | 20.4 | Kansas         | 20.0 | Wyoming        | 19.5 |
| Kansas         | 22.0 | Georgia              | 20.4 | South Dakota   | 19.6 | Maine          | 19.3 |
| North Dakota   | 21.9 | Maine                | 20.3 | Delaware       | 19.6 | New Mexico     | 19.2 |
| N. Carolina    | 21.8 | Delaware             | 19.7 | *Iowa*         | 19.5 | N. Carolina    | 19.1 |
| Delaware       | 21.8 | Nebraska             | 19.7 | Nevada         | 19.4 | South Dakota   | 18.6 |
| New Mexico     | 21.5 | Montana              | 19.7 | New Mexico     | 19.1 | *Iowa*         | 18.5 |
| Georgia        | 21.2 | District of Columbia | 19.6 | Virginia       | 19.0 | Kansas         | 18.1 |
| Illinois       | 20.9 | Kansas               | 19.4 | Montana        | 19.0 | Florida        | 17.7 |
| Virginia       | 20.9 | New Mexico           | 19.3 | Georgia        | 18.8 | New Hampshire  | 17.5 |
| Wisconsin      | 20.9 | Virginia             | 19.0 | Dist. Columbia | 18.8 | Wisconsin      | 17.4 |
| Dist. Columbia | 20.8 | Minnesota            | 18.8 | Wisconsin      | 18.7 | Georgia        | 17.4 |
| *Iowa*         | 20.4 | Illinois             | 18.6 | Nebraska       | 18.5 | Nebraska       | 17.3 |
| Rhode Island   | 20.0 | Texas                | 18.2 | Minnesota      | 18.0 | Oregon         | 17.0 |
| Nebraska       | 20.0 | *Iowa*               | 18.1 | Illinois       | 18.0 | Nevada         | 17.0 |
| Oregon         | 19.7 | Nevada               | 18.1 | Colorado       | 17.7 | Illinois       | 16.5 |
| New Hampshire  | 19.4 | Oregon               | 17.9 | Rhode Island   | 17.4 | Arizona        | 16.5 |
| Florida        | 19.3 | Colorado             | 17.7 | Oregon         | 17.3 | Vermont        | 16.4 |
| Texas          | 19.2 | Florida              | 17.7 | Idaho          | 17.2 | Dist. Columbia | 16.4 |
| Arizona        | 19.2 | Rhode Island         | 17.4 | Florida        | 16.8 | Minnesota      | 16.3 |
| Vermont        | 19.1 | New Jersey           | 17.3 | Massachusetts  | 16.6 | Rhode Island   | 16.3 |
| Maryland       | 19.1 | New Hampshire        | 17.2 | Vermont        | 16.6 | Idaho          | 15.9 |
| Minnesota      | 19.1 | Washington           | 17.2 | New York       | 16.6 | Colorado       | 15.7 |
| Colorado       | 18.3 | Arizona              | 17.1 | Maryland       | 16.4 | Connecticut    | 15.4 |
| Massachusetts  | 18.2 | Vermont              | 16.5 | Arizona        | 16.3 | Washington     | 15.3 |
| New York       | 18.1 | Idaho                | 16.4 | New Hampshire  | 16.2 | New Jersey     | 15.1 |
| Washington     | 17.5 | Massachusetts        | 16.4 | Washington     | 16.1 | Massachusetts  | 14.7 |
| Idaho          | 17.2 | New York             | 16.2 | Texas          | 15.9 | Maryland       | 14.6 |
| Connecticut    | 17.1 | Maryland             | 16.2 | New Jersey     | 15.7 | Texas          | 14.5 |
| Hawaii         | 16.8 | Connecticut          | 16.0 | Connecticut    | 15.5 | New York       | 14.4 |
| New Jersey     | 16.8 | Hawaii               | 14.6 | Hawaii         | 13.3 | Hawaii         | 14.1 |
| California     | 13.7 | California           | 12.6 | California     | 12.5 | California     | 12.9 |
| Utah           | 11.8 | Utah                 | 10.6 | Utah           | 10.3 | Utah           | 9.7  |

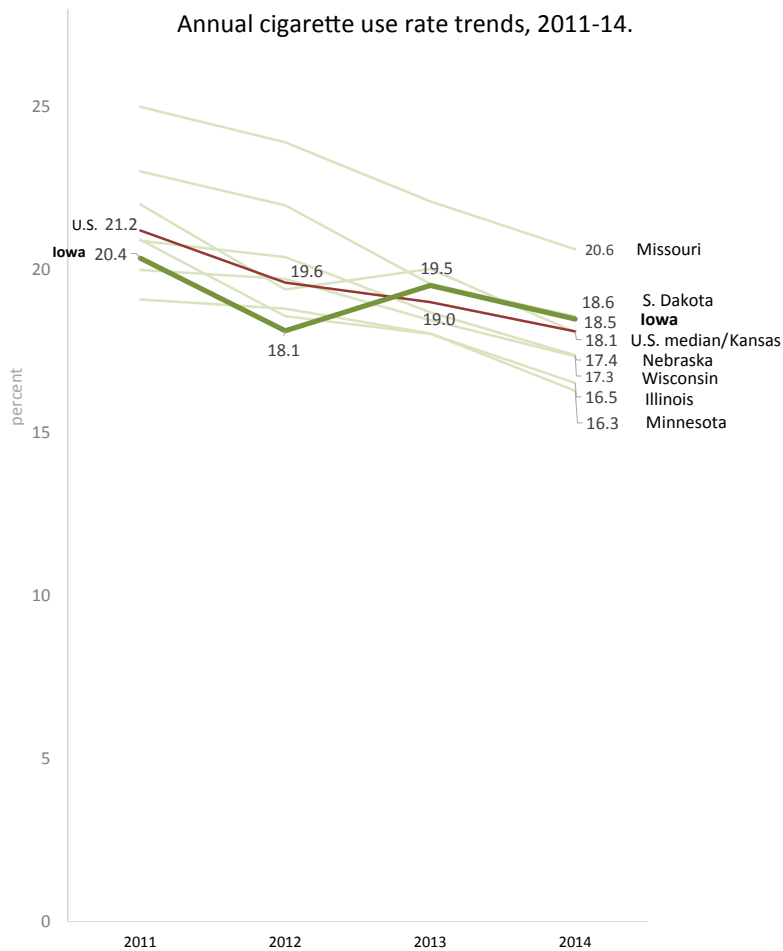
U.S. median

### 3. Annual trends in smokeless tobacco use: Iowa compared to U.S. and the Midwest

Percent of Adults who Use Smokeless Tobacco:  
Iowa Compared to U.S./Midwestern States, by year, 2011-14, BRFSS  
Annual states' rates ranked from highest to lowest (U.S. annual median is vertical red line)

|             | 2011           |     | 2012           |     | 2013           |     | 2014           |     |
|-------------|----------------|-----|----------------|-----|----------------|-----|----------------|-----|
| U.S. median | 4.4            |     | 4.1            |     | 4.3            |     | 4.0            |     |
|             | State          | %   | State          | %   | State          | %   | State          | %   |
|             | Wyoming        | 9.8 | West Virginia  | 8.6 | West Virginia  | 9.4 | Wyoming        | 8.8 |
|             | Mississippi    | 8.1 | Wyoming        | 8.2 | Wyoming        | 8.8 | West Virginia  | 8.5 |
|             | North Dakota   | 7.6 | Montana        | 8.0 | Mississippi    | 8.5 | Montana        | 7.6 |
|             | West Virginia  | 7.5 | Mississippi    | 7.5 | Montana        | 8.0 | Mississippi    | 7.5 |
|             | Montana        | 7.1 | North Dakota   | 7.3 | North Dakota   | 7.6 | Tennessee      | 7.3 |
|             | Arkansas       | 7.1 | Arkansas       | 7.2 | Kentucky       | 7.0 | Kentucky       | 6.8 |
|             | Oklahoma       | 7.0 | Oklahoma       | 6.7 | Arkansas       | 6.9 | Oklahoma       | 6.5 |
|             | South Dakota   | 6.8 | South Dakota   | 6.4 | Alaska         | 6.8 | Arkansas       | 6.5 |
|             | Kentucky       | 6.8 | Kentucky       | 6.1 | South Dakota   | 6.6 | North Dakota   | 6.3 |
|             | Alabama        | 6.5 | Alaska         | 6.1 | Oklahoma       | 6.3 | Alabama        | 5.8 |
|             | Tennessee      | 6.4 | Alabama        | 5.8 | Alabama        | 6.1 | Kansas         | 5.7 |
|             | Alaska         | 5.9 | Louisiana      | 5.6 | Louisiana      | 5.7 | South Dakota   | 5.4 |
|             | Nebraska       | 5.6 | Kansas         | 5.5 | Idaho          | 5.7 | Louisiana      | 5.3 |
|             | Kansas         | 5.3 | Nebraska       | 5.1 | Kansas         | 5.5 | Alaska         | 5.3 |
|             | Missouri       | 5.3 | Missouri       | 5.1 | Nebraska       | 5.3 | <b>*Iowa*</b>  | 5.1 |
|             | North Carolina | 5.2 | Tennessee      | 5.0 | Missouri       | 5.2 | Idaho          | 5.0 |
|             | Indiana        | 5.0 | Idaho          | 4.9 | Georgia        | 5.0 | New Mexico     | 4.9 |
|             | Ohio           | 5.0 | Ohio           | 4.6 | Minnesota      | 5.0 | Missouri       | 4.8 |
|             | Idaho          | 4.8 | <b>*Iowa*</b>  | 4.4 | <b>*Iowa*</b>  | 4.9 | Georgia        | 4.7 |
|             | Minnesota      | 4.8 | Virginia       | 4.3 | Indiana        | 4.9 | Nebraska       | 4.7 |
|             | Colorado       | 4.5 | Wisconsin      | 4.3 | Tennessee      | 4.8 | Ohio           | 4.6 |
|             | Louisiana      | 4.5 | New Mexico     | 4.3 | Oregon         | 4.6 | North Carolina | 4.5 |
|             | Michigan       | 4.4 | Pennsylvania   | 4.2 | South Carolina | 4.4 | Pennsylvania   | 4.3 |
|             | Pennsylvania   | 4.4 | Colorado       | 4.2 | Pennsylvania   | 4.4 | Michigan       | 4.2 |
|             | Georgia        | 4.4 | Minnesota      | 4.2 | New Mexico     | 4.3 | Texas          | 4.2 |
| U.S. median | Oregon         | 4.4 | North Carolina | 4.1 | Wisconsin      | 4.3 | Indiana        | 4.2 |
|             | Virginia       | 4.3 | Georgia        | 4.1 | North Carolina | 4.3 | Colorado       | 4.0 |
|             | <b>*Iowa*</b>  | 4.2 | Indiana        | 4.0 | Colorado       | 4.3 | Minnesota      | 4.0 |
|             | New Mexico     | 4.2 | Texas          | 3.9 | Texas          | 4.3 | Virginia       | 3.9 |
|             | Wisconsin      | 4.0 | Michigan       | 3.9 | Ohio           | 4.2 | S. Carolina    | 3.7 |
|             | Texas          | 3.9 | South Carolina | 3.9 | Michigan       | 4.0 | Oregon         | 3.6 |
|             | South Carolina | 3.6 | Oregon         | 3.8 | Virginia       | 4.0 | Wisconsin      | 3.5 |
|             | Washington     | 3.6 | Washington     | 3.8 | Washington     | 3.7 | Washington     | 3.5 |
|             | Illinois       | 3.4 | Nevada         | 3.7 | Arizona        | 3.2 | Vermont        | 3.4 |
|             | Arizona        | 3.1 | Florida        | 3.2 | Nevada         | 3.2 | Illinois       | 3.2 |
|             | Florida        | 3.0 | Arizona        | 3.1 | Utah           | 2.9 | Nevada         | 3.2 |
|             | Utah           | 3.0 | Vermont        | 3.0 | Vermont        | 2.8 | Arizona        | 3.1 |
|             | New Hampshire  | 3.0 | Utah           | 3.0 | New Hampshire  | 2.6 | Utah           | 3.0 |
|             | Maine          | 2.8 | Delaware       | 2.5 | Florida        | 2.6 | Florida        | 2.7 |
|             | Vermont        | 2.7 | Illinois       | 2.5 | Illinois       | 2.6 | New York       | 2.5 |
|             | Nevada         | 2.3 | Maine          | 2.3 | Maryland       | 2.5 | New Hampshire  | 2.3 |
|             | New York       | 2.3 | New Hampshire  | 2.1 | Delaware       | 2.2 | Maine          | 2.1 |
|             | Delaware       | 2.2 | Hawaii         | 2.0 | New York       | 2.2 | Rhode Island   | 2.0 |
|             | Maryland       | 2.1 | Maryland       | 2.0 | Maine          | 2.1 | New Jersey     | 2.0 |
|             | Hawaii         | 1.9 | New York       | 1.9 | Rhode Island   | 1.9 | Dist Columbia  | 1.8 |
|             | Massachusetts  | 1.7 | Connecticut    | 1.9 | Connecticut    | 1.8 | Connecticut    | 1.8 |
|             | New Jersey     | 1.6 | Dist Columbia  | 1.6 | New Jersey     | 1.7 | Maryland       | 1.7 |
|             | Connecticut    | 1.5 | Massachusetts  | 1.3 | Hawaii         | 1.6 | California     | 1.6 |
|             | California     | 1.4 | California     | 1.3 | California     | 1.6 | Delaware       | 1.6 |
|             | Rhode Island   | 1.4 | New Jersey     | 1.2 | Dist Columbia  | 1.5 | Massachusetts  | 1.5 |
|             | Dist Columbia  | 1.4 | Rhode Island   | 1.0 | Massachusetts  | 1.5 | Hawaii         | 1.4 |

## 4. Annual trends in cigarette and smokeless tobacco use: Iowa compared to seven Midwestern states



### Cigarette use trends:

The national median and all Midwestern states' rates, including Iowa's, trended downward between 2011 and 2014.

Rankings of the eight Midwestern states' cigarette use rates between 2011 to 2014 indicate that Iowa's rank has varied from the lowest (2012) to the third highest (2014).

Between 2011 and 2014, among the 50 states and the District of Columbia, Iowa's smoking rate fluctuated from somewhat below (2011 and 2012) to somewhat above the median (2013, 2014). In 2014, Iowa's smoking rate (18.5%) ranked in the middle—25th highest, just slightly above the national median (18.1%).

In 2014 nationwide, the state with the highest smoking rate was West Virginia (27%) and the state with the lowest rate was Utah (10%). In the Midwest in 2014, Missouri had the highest smoking rate (20.6%) and Minnesota the lowest rate (16.3%).

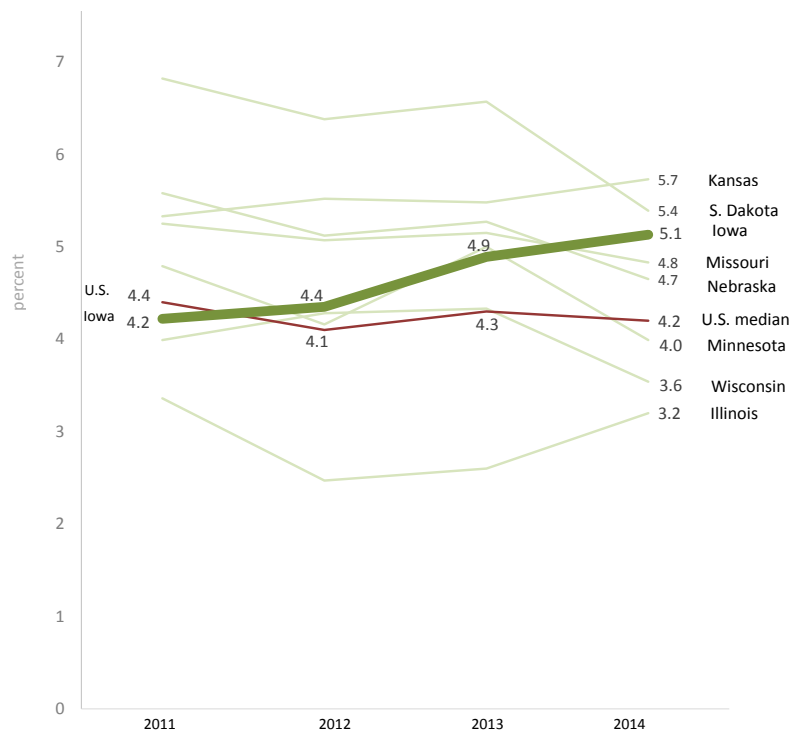
### Smokeless tobacco use trends:

Between 2011 and 2014, among the eight Midwestern states, only the Iowa and Kansas smokeless tobacco use rate trended upward. The Iowa use rate increased with each year between 2011 and 2014.

The national median rate and that of Illinois changed little between 2011 and 2014, while for five of the eight Midwestern states, rates of smokeless tobacco use trended downward.

Among the 50 states and the District of Columbia, Iowa's smokeless tobacco use rate was just below the national median in 2011, but shifted to above the national median by 2014. Iowa's smokeless tobacco use rate in 2014 (5.1%) was third highest among Midwestern states (national median (4.2%). In 2014 nationwide, the state with the highest smokeless use rate was Wyoming (9%), and the state with the lowest rate Hawaii (1%). In the Midwest in 2014, Kansas had the highest and Illinois the lowest smokeless tobacco use rate.

### Annual smokeless tobacco use rate trends, 2011-14



## 5. Cigarette use, by sex, age, race: 2014, and two-year average annual trend 2011-2012, 2013-2014

Percent of Iowa adults who currently smoke cigarettes  
BRFSS, 2011-14

|                                       | 2014    |                    | trends  |                    |         |                    |
|---------------------------------------|---------|--------------------|---------|--------------------|---------|--------------------|
|                                       | percent | 95% conf. interval | 2011-12 |                    | 2013-14 |                    |
|                                       |         |                    | percent | 95% conf. interval | percent | 95% conf. interval |
| <b>Overall</b>                        | 18.5    | 17.3 19.7          | 19.2    | 18.4 20.1          | 19.0    | 18.1 19.9          |
| <b>Sex</b>                            |         |                    |         |                    |         |                    |
| women                                 | 17.2    | 15.5 18.8          | 17.5    | 16.4 18.7          | 16.9    | 15.7 18.0          |
| men                                   | 19.9    | 18.1 21.7          | 21.0    | 19.7 22.3          | 21.2    | 19.9 22.5          |
| <b>Age</b>                            |         |                    |         |                    |         |                    |
| 18-24 years                           | 17.8    | 13.5 22.0          | 22.3    | 19.0 25.5          | 19.8    | 16.7 23.0          |
| 25-34                                 | 25.0    | 21.1 28.9          | 25.0    | 22.4 27.7          | 24.1    | 21.4 26.8          |
| 35-44                                 | 22.7    | 18.4 26.2          | 24.1    | 21.6 26.5          | 23.1    | 20.7 25.5          |
| 45-54                                 | 22.0    | 19.2 24.8          | 21.3    | 19.4 23.1          | 23.1    | 21.0 25.1          |
| 55-64                                 | 17.6    | 15.4 19.7          | 18.5    | 16.9 20.2          | 18.8    | 17.2 20.5          |
| >=65 years                            | 9.1     | 7.8 10.4           | 7.8     | 6.8 8.7            | 8.5     | 7.7 9.4            |
| 18-19 years                           | 16.9    | 9.6 24.3           | 17.0    | 11.8 22.2          | 17.8    | 11.9 23.7          |
| 20-24                                 | 18.2    | 13.0 23.5          | 25.1    | 21.1 29.1          | 20.8    | 17.0 24.5          |
| 25-29                                 | 21.7    | 16.5 26.9          | 27.1    | 23.1 31.1          | 22.7    | 18.8 26.6          |
| 30-34                                 | 28.1    | 22.4 33.9          | 23.2    | 19.7 26.7          | 25.3    | 21.5 29.1          |
| 35-39                                 | 22.8    | 18.1 27.5          | 25.2    | 21.6 28.8          | 23.5    | 20.2 26.9          |
| 40-44                                 | 22.7    | 17.8 27.5          | 23.2    | 19.7 26.4          | 22.8    | 19.5 26.2          |
| 45-49                                 | 21.1    | 16.8 25.3          | 21.6    | 18.8 24.3          | 21.9    | 18.8 25.0          |
| 50-54                                 | 22.7    | 19.0 26.4          | 21.0    | 18.5 23.6          | 24.0    | 21.2 26.8          |
| 55-59                                 | 17.8    | 14.8 20.7          | 20.7    | 18.2 23.1          | 21.0    | 18.6 23.4          |
| 60-64                                 | 17.3    | 14.3 20.4          | 16.3    | 14.0 18.5          | 16.5    | 14.3 18.7          |
| 65-69                                 | 14.3    | 11.5 17.2          | 14.0    | 11.7 16.3          | 13.2    | 11.2 15.1          |
| 70-74                                 | 10.4    | 7.5 13.4           | 8.2     | 6.3 10.1           | 10.4    | 8.3 12.5           |
| 75+                                   | 4.9     | 3.5 6.3            | 4.0     | 3.0 5.0            | 4.7     | 3.7 5.6            |
| <b>Race</b>                           |         |                    | 2011-13 |                    | 2012-14 |                    |
| white, non-Hisp.                      | 18.1    | 16.7 19.3          | 19.1    | 17.9 19.7          | 18.5    | 17.8 19.2          |
| black, non-Hisp.                      | 25.3    | 15.1 35.5          | 26.3    | 20.1 32.4          | 23.7    | 17.9 29.5          |
| Hispanic                              | 17.6    | 10.6 24.5          | 16.5    | 12.7 20.3          | 16.2    | 12.3 20.0          |
| all other race non-Hispanic           | 26.6    | 17.4 35.7          | 26.3    | 21.0 31.5          | 24.9    | 19.7 30.1          |
| breakout of all other race, non-Hisp. |         |                    |         |                    |         |                    |
| Asian/Pacific                         |         |                    |         |                    |         |                    |
| Isle, non-Native American             | na      |                    | 9.5     | 30.5 60.9          | 11.1    | 5.2 16.9           |
| non-Hispanic multi-race               | na      |                    | 45.7    | 30.5 60.9          | 51.3    | 36.4 66.1          |
| non-Hispanic                          | 27.7    | 14.1 41.4          | 35.6    | 26.9 44.3          | 30.4    | 22.2 38.6          |

Percent of adults who currently use smokeless tobacco, age 18+, Iowa Behavioral Risk Factor Surveillance System (BRFSS)



## 6. Cigarette use, by income, education, insurance coverage, marital, veteran and sexual orientation status, 2014 and average annual trend, 2011-2012, 2013-2014

Percent of Iowa adults who currently smoke cigarettes, BRFSS, 2011-14

|                                      | 2014        |                    | trends    |                    |           |                    |           |                    |  |
|--------------------------------------|-------------|--------------------|-----------|--------------------|-----------|--------------------|-----------|--------------------|--|
|                                      | percent     | 95% conf. interval | 2011-12   |                    | 2013-14   |                    | percent   | 95% conf. interval |  |
|                                      |             |                    | percent   | 95% conf. interval | percent   | 95% conf. interval |           |                    |  |
| <b>Overall</b>                       | 18.5        | 17.3 19.7          | 19.2      | 18.4 20.1          | 19.0      | 18.1 19.9          |           |                    |  |
| <b>Income</b>                        |             |                    |           |                    |           |                    |           |                    |  |
| <\$20,000                            | 32.8        | 28.6 37.1          | 32.5      | 29.8 35.2          | 31.5      | 28.7 34.3          |           |                    |  |
| \$20,000-\$49,999                    | 21.2        | 19.0 23.3          | 22.8      | 21.2 24.4          | 22.1      | 20.5 23.7          |           |                    |  |
| \$50,000-\$74,999                    | 16.7        | 14.0 19.4          | 15.2      | 13.3 17.2          | 15.9      | 14.0 17.8          |           |                    |  |
| >\$75,000                            | 10.1        | 8.3 11.9           | 10.3      | 9.0 11.6           | 11.0      | 9.6 12.3           |           |                    |  |
| <b>Education</b>                     |             |                    |           |                    |           |                    |           |                    |  |
| <12 years                            | 29.7        | 24.0 35.5          | 31.9      | 28.0 35.9          | 30.9      | 26.8 35.0          |           |                    |  |
| 12 yrs (high school)                 | 22.4        | 20.3 24.5          | 22.5      | 21.0 24.0          | 23.9      | 22.3 25.4          |           |                    |  |
| some college                         | 19.2        | 17.1 21.4          | 20.0      | 18.5 21.5          | 18.7      | 17.2 20.2          |           |                    |  |
| bachelors+                           | 7.7         | 6.3 9.1            | 7.9       | 6.9 8.8            | 7.9       | 6.9 8.9            |           |                    |  |
| <b>Insurance status &lt;65 years</b> |             |                    |           |                    |           |                    |           |                    |  |
| insured                              | 16.9        | 15.7 18.1          | 16.8      | 15.9 17.6          | 17.1      | 16.2 17.9          |           |                    |  |
| not insured                          | 37.7        | 31.6 43.8          | 39.3      | 35.7 42.9          | 38.4      | 34.3 42.4          |           |                    |  |
| <b>Marital status</b>                |             |                    |           |                    |           |                    |           |                    |  |
| widowed                              | 13.0        | 10.1 16.0          | 10.7      | 9.0 12.4           | 12.3      | 10.4 14.2          |           |                    |  |
| married                              | 13.2        | 12.0 14.5          | 13.3      | 12.4 14.2          | 13.9      | 13.0 14.9          |           |                    |  |
| never married                        | 21.6        | 18.1 25.0          | 24.9      | 22.4 27.3          | 22.7      | 20.2 25.2          |           |                    |  |
| unmarried couple                     | 33.7        | 25.6 41.9          | 36.8      | 30.7 43.0          | 29.1      | 23.4 34.9          |           |                    |  |
| divorced                             | 35.4        | 31.3 39.5          | 38.0      | 35.0 40.9          | 37.3      | 34.4 40.2          |           |                    |  |
| widowed <65 yrs                      | 31.8        | 20.6 43.0          | 29.3      | 22.9 35.8          | 27.4      | 20.5 34.4          |           |                    |  |
| <b>Employment</b>                    |             |                    |           |                    |           |                    |           |                    |  |
| student                              | 13.4        | 7.6 19.2           | 13.5      | 9.8 17.2           | 14.1      | 9.9 18.4           |           |                    |  |
| homemaker                            | 17.0        | 11.0 22.9          | 15.3      | 11.8 18.7          | 14.5      | 11.0 18.1          |           |                    |  |
| retired                              | 9.9         | 8.4 11.3           | 9.1       | 8.0 10.2           | 10.0      | 9.0 11.1           |           |                    |  |
| employed, self-employed              | 19.3        | 17.8 20.9          | 20.0      | 18.8 21.1          | 19.6      | 18.4 20.7          |           |                    |  |
| unemployed                           | 36.4        | 31.2 41.5          | 41.4      | 37.7 45.1          | 40.4      | 36.6 44.1          |           |                    |  |
| <b>Veteran</b>                       |             |                    |           |                    |           |                    |           |                    |  |
| <65                                  | veteran     | 26.9               | 21.1 32.7 | 26.4               | 22.6 30.2 | 31.5               | 27.3 35.8 |                    |  |
|                                      | non-veteran | 20.6               | 19.1 22.1 | 21.9               | 20.8 23.0 | 21.0               | 19.9 22.2 |                    |  |
| any age                              | veteran     | 19.7               | 16.4 23.0 | 18.2               | 15.9 20.5 | 21.5               | 19.0 24.0 |                    |  |
|                                      | non-veteran | 18.3               | 17.0 19.6 | 19.4               | 18.4 20.3 | 18.7               | 17.8 19.6 |                    |  |
| <b>Sexual orientation</b>            |             |                    |           |                    |           |                    |           |                    |  |
| non-gay/bisexual (heterosexual)      | 18.1        | 16.8 19.3          | na        |                    | 17.7      | 15.6 18.7          |           |                    |  |
| gay/bisexual                         | 30.5        | 19.3 41.8          | na        |                    | 34.8      | 24.7 44.8          |           |                    |  |
| gay/bisexual/transgender             | 28.6        | 18.0 39.1          | na        |                    | na        |                    |           |                    |  |

## 7. *Smokeless tobacco* use, by sex, age and race

### 2014 and average annual trend, 2011-2012, 2013-2014

#### Percent of Iowa adults who currently use smokeless tobacco BRFSS, 2011-14

|                             | 2014          |                    | trends |         |                    |      |                 |                    |      |
|-----------------------------|---------------|--------------------|--------|---------|--------------------|------|-----------------|--------------------|------|
|                             | percent       | 95% conf. interval |        | percent | 95% conf. interval |      | percent         | 95% conf. interval |      |
|                             |               |                    |        |         |                    |      |                 |                    |      |
| <b>Overall</b>              | 5.1           | 4.4                | 5.9    | 4.3     | 3.8                | 5.9  | 5.0             | 4.4                | 5.5  |
| <b>Sex</b>                  |               |                    |        |         |                    |      |                 |                    |      |
| women                       | not available |                    |        | 0.4     | 0.2                | 0.6  | 0.5             | 0.3                | 0.7  |
| men                         | 9.9           | 8.4                | 11.4   | 8.4     | 7.4                | 9.3  | 9.7             | 8.7                | 10.7 |
| <b>Age</b>                  |               |                    |        |         |                    |      |                 |                    |      |
| 18-24 years                 | 9.1           | 5.9                | 12.3   | 6.5     | 4.5                | 8.6  | 8.1             | 5.9                | 10.4 |
| 25-34                       | 5.7           | 3.6                | 7.9    | 7.1     | 5.5                | 8.6  | 5.8             | 4.4                | 7.3  |
| 35-44                       | 7.4           | 5.2                | 9.7    | 6.4     | 4.0                | 7.8  | 7.7             | 6.0                | 9.4  |
| 35-54                       | 5.2           | 3.6                | 6.7    | 3.7     | 2.8                | 4.5  | 5.3             | 4.1                | 6.4  |
| 55-64                       | 3.4           | 2.3                | 4.5    | 1.9     | 1.3                | 3.8  | 3.1             | 2.3                | 3.8  |
| >=65 years                  | 1.9           | 1.2                | 2.5    | 1.5     | 1.1                | 2.0  | 1.8             | 1.3                | 2.3  |
| <b>Age-men only</b>         |               |                    |        |         |                    |      |                 |                    |      |
| 18-24 years                 | 17.7          | 11.9               | 23.6   | 11.6    | 7.9                | 15.4 | 10.5            | 7.8                | 13.2 |
| 25-34                       | 10.4          | 6.5                | 14.3   | 13.4    | 10.5               | 16.3 | 14.9            | 11.7               | 18.1 |
| 35-44                       | 14.5          | 10.1               | 18.9   | 12.3    | 9.6                | 14.9 | 9.8             | 7.6                | 12.0 |
| 35-54                       | 9.5           | 6.5                | 12.4   | 7.1     | 5.4                | 8.8  | 5.6             | 4.2                | 7.1  |
| 55-64                       | 6.1           | 4.1                | 8.1    | 3.5     | 2.3                | 4.6  | 3.8             | 2.8                | 4.8  |
| >=65 years                  | 3.8           | 2.4                | 5.1    | 3.5     | 2.5                | 4.6  | 3.5             | 2.5                | 4.6  |
| <b>Race</b>                 |               |                    |        |         |                    |      |                 |                    |      |
| white, non-Hispanic         | 5.3           | 4.1                | 6.9    | 4.4     | 3.9                | 4.9  | 5.2             | 4.6                | 5.7  |
| all non-white, all Hisp.    | not available |                    |        | 3.1     | 1.8                | 4.5  | 3.1             | 1.5                | 4.8  |
| <b>Race</b>                 |               |                    |        |         |                    |      | 2011-14 average |                    |      |
| white, non-Hispanic         |               |                    |        |         |                    |      | 4.8             | 4.4                | 5.2  |
| black, non-Hispanic         |               |                    |        |         |                    |      | 2.4             | 0.3                | 4.4  |
| Hispanic                    |               |                    |        |         |                    |      | 4.2             | 2.2                | 6.2  |
| all other race non-Hispanic |               |                    |        |         |                    |      | 2.7             | 1.1                | 4.2  |
| <b>Race-men only</b>        |               |                    |        |         |                    |      | 2011-14 average |                    |      |
| white, non-Hispanic         |               |                    |        |         |                    |      | 9.4             | 8.7                | 10.2 |
| black, non-Hispanic         |               |                    |        |         |                    |      | 4.4             | 0.5                | 8.3  |
| Hispanic                    |               |                    |        |         |                    |      | 6.8             | 3.3                | 10.2 |
| all other race non-Hispanic |               |                    |        |         |                    |      | 5.0             | 1.9                | 8.0  |

Percent of adults who currently use smokeless tobacco, age 18+, Iowa Behavioral Risk Factor Surveillance System (BRFSS), 2011-14 (not available means sample size or prevalence rate too small to provide accurate rate estimate).

## 8. *Smokeless tobacco* use, by income and educational status 2014 and average annual trend, 2011-2012, 2013-2014

Percent of Iowa adults who use smokeless tobacco, BRFSS, 2011-14

|                             | 2014    |                    | trends  |                    |         |                    |         |                    |
|-----------------------------|---------|--------------------|---------|--------------------|---------|--------------------|---------|--------------------|
|                             | percent | 95% conf. interval | 2011-12 |                    |         | 2013-14            |         |                    |
|                             |         |                    | percent | 95% conf. interval | percent | 95% conf. interval | percent | 95% conf. interval |
| <b>Overall</b>              | 5.1     | 4.4 5.9            | 4.3     | 3.8 5.9            | 5.0     | 4.4 5.5            |         |                    |
| <b>Income-all adults</b>    |         |                    |         |                    |         |                    |         |                    |
| <\$20,000                   | na      | 3.7 6.1            | 3.2     | 2.1 4.3            | 5.0     | 3.5 6.4            |         |                    |
| \$20,000-\$49,999           | 4.9     | 3.7 6.1            | 4.8     | 3.9 5.6            | 5.3     | 4.4 6.2            |         |                    |
| \$50,000-\$74,999           | 5.3     | 3.3 7.3            | 4.9     | 3.6 6.2            | 5.2     | 3.8 6.5            |         |                    |
| >\$75,000                   | 6.1     | 4.5 7.7            | 4.5     | 3.5 5.5            | 5.9     | 4.7 7.0            |         |                    |
| <b>Education-all adults</b> |         |                    |         |                    |         |                    |         |                    |
| <12 years                   | 7.1     | 3.6 10.6           | 5.0     | 2.8 7.1            | 7.9     | 5.2 10.6           |         |                    |
| 12 yrs (high school)        | 7.1     | 5.6 8.5            | 5.7     | 4.8 6.6            | 6.4     | 5.5 7.4            |         |                    |
| some college                | 4.8     | 3.5 6.1            | 4.0     | 3.2 4.7            | 4.4     | 3.5 5.2            |         |                    |
| bachelors+                  | 3.4     | 2.4 4.5            | 2.4     | 1.8 3.0            | 2.8     | 2.2 3.5            |         |                    |
| <b>Income - men only</b>    |         |                    |         |                    |         |                    |         |                    |
| <\$20,000                   | 13.6    | 8.4 18.7           | 6.3     | 4.0 8.7            | 10.1    | 6.9 13.4           |         |                    |
| \$20,000-\$49,999           | 9.3     | 7.0 11.7           | 9.2     | 7.6 10.9           | 9.9     | 8.2 11.6           |         |                    |
| \$50,000-\$74,999           | 9.6     | 6.0 13.2           | 9.6     | 7.1 12.1           | 9.6     | 7.1 12.0           |         |                    |
| >\$75,000                   | 10.8    | 8.0 13.6           | 7.9     | 6.1 9.6            | 10.6    | 8.5 12.7           |         |                    |
| <b>Education-men only</b>   |         |                    |         |                    |         |                    |         |                    |
| <12 years                   | 13.5    | 7.0 20.1           | 8.5     | 4.8 12.2           | 14.4    | 9.6 19.2           |         |                    |
| 12 yrs (high school)        | 12.4    | 9.8 14.9           | 10.6    | 8.9 12.3           | 11.3    | 9.6 13.0           |         |                    |
| some college                | 10.1    | 7.4 12.9           | 8.6     | 6.9 10.3           | 9.4     | 7.6 11.3           |         |                    |
| bachelors+                  | 4.6     | 2.9 6.2            | 4.7     | 3.5 5.8            | 5.7     | 4.3 7.0            |         |                    |



## 9. State-added questions on tobacco attitudes/beliefs about tobacco use; level of secondhand smoke exposure, use of Quitline Iowa, use/availability of NRT cessation services

### Adult tobacco-use related Iowa state-added BRFSS questions

Percent of adults by tobacco-use status, Behavioral Risk Factor Surveillance System, 2012-14

| State-added BRFSS question   | Adults who use: |      |            |      |                   |      |                         |      |                                   |      |      |      |      |      |     |     |      |     |     |     |
|--|-----------------|------|------------|------|-------------------|------|-------------------------|------|-----------------------------------|------|------|------|------|------|-----|-----|------|-----|-----|-----|
|  | All adults      |      | cigarettes |      | smokeless tobacco |      | cigarettes or smokeless |      | Don't use cigarettes or smokeless |      |      |      |      |      |     |     |      |     |     |     |
|  | 2013            | 2014 | 2013       | 2014 | 2013              | 2014 | 2013                    | 2014 | 2013                              | 2014 | 2013 | 2014 | 2013 | 2014 |     |     |      |     |     |     |
| Tobacco use is acceptable in my community  | 58%             | 61%  | 73%        | 73%  | 83%               | 79%  | 74%                     | 74%  | 53%                               | 46%  |      |      |      |      |     |     |      |     |     |     |
| Hours of secondhand smoke exposure/week  | 20+             | 7%   | 6%         | 24%  | 20%               | 16%  | 12%                     | 22%  | 17%                               | 3%   | 3%   |      |      |      |     |     |      |     |     |     |
|  | 1 - 19          | 31%  | 36%        | 40%  | 47%               | 32%  | 48%                     | 39%  | 47%                               | 28%  | 33%  |      |      |      |     |     |      |     |     |     |
|  | 0               | 63%  | 58%        | 36%  | 33%               | 52%  | 41%                     | 39%  | 35%                               | 67%  | 64%  |      |      |      |     |     |      |     |     |     |
| Ever used e-cigarettes instead of regular cigarettes or smokeless tobacco (excludes adults who ever used e-cigarettes but never as a substitute) |                 | 4%   | 7%         | 21%  | 27%               | 12%  | 16%                     | 18%  | 23%                               | 1%   | 2%   |      |      |      |     |     |      |     |     |     |
|  |                 |      |            |      |                   |      |                         |      |                                   |      |      | 99%  |      |      |     |     |      |     |     |     |
| Currently use e-cigarettes as a substitute for regular cigarettes (excludes adults who use e-cigarettes but not as a substitute for cigarettes)  |                 | 3%   | 4%         | 15%  | 17%               | 7%   | 12%                     | 13%  | 16%                               | <1%  | 1.0% |      |      |      |     |     |      |     |     |     |
| Ever heard of Quitline Iowa*   | 2012            | 51%  | 48%        | 45%  | 2012              | 74%  | 71%                     | 68%  | 2012                              | 60%  | 54%  | 41%  | 2012 | 71%  | 68% | 63% | 2012 | 46% | 42% | 40% |
|  | 2013            |      |            |      | 2013              |      |                         |      | 2013                              |      |      |      | 2013 |      |     |     | 2013 |     |     |     |
|  | 2014            |      |            |      | 2014              |      |                         |      | 2014                              |      |      |      | 2014 |      |     |     | 2014 |     |     |     |
| Received provider advice to quit (% of adults by tobacco use status)   |                 |      |            |      |                   | 60%  | 46%                     | 51%  |                                   | 36%  | 24%  | 25%  |      | 55%  | 44% | 47% |      |     |     |     |
|  |                 |      |            |      |                   |      |                         |      |                                   |      |      |      |      |      |     |     |      |     |     |     |
|  |                 |      |            |      |                   |      |                         |      |                                   |      |      |      |      |      |     |     |      |     |     |     |
| Visited a provider in the past 12 months**   |                 | 90%  | 88%        | 94%  |                   | 85%  | 83%                     | 91%  |                                   | 85%  | 77%  | 90%  |      | 85%  | 82% | 90% |      | 90% | 92% | 96% |
|  |                 |      |            |      |                   |      |                         |      |                                   |      |      |      |      |      |     |     |      |     |     |     |
|  |                 |      |            |      |                   |      |                         |      |                                   |      |      |      |      |      |     |     |      |     |     |     |
| advised by provider to quit  |                 |      |            |      |                   |      |                         |      |                                   |      |      |      |      |      |     |     |      |     |     |     |
|  |                 |      |            |      |                   |      |                         |      |                                   |      |      |      |      |      |     |     |      |     |     |     |
|  |                 |      |            |      |                   |      |                         |      |                                   |      |      |      |      |      |     |     |      |     |     |     |
| If adult was advised to quit, cessation method   |                 |      |            |      |                   |      |                         |      |                                   |      |      |      |      |      |     |     |      |     |     |     |
|  |                 |      |            |      |                   |      |                         |      |                                   |      |      |      |      |      |     |     |      |     |     |     |
|  |                 |      |            |      |                   |      |                         |      |                                   |      |      |      |      |      |     |     |      |     |     |     |
| Recent cigarette smokers (smoked in the past 12 months)  |                 |      |            |      |                   |      |                         |      |                                   |      |      |      |      |      |     |     |      |     |     |     |
|  |                 |      |            |      |                   |      |                         |      |                                   |      |      |      |      |      |     |     |      |     |     |     |
| If tried to quit in the past 12 months, used a QL at last quit attempt   |                 |      |            |      |                   |      |                         |      |                                   |      |      |      |      |      |     |     |      |     |     |     |
|  |                 |      |            |      |                   |      |                         |      |                                   |      |      |      |      |      |     |     |      |     |     |     |

Percent of Iowa adults 18 and older. Iowa Behavioral Risk Factor Surveillance System, tobacco state-added questions, 2013, IA DPH

\*In 2012, a state-added question asked all adults if they had ever heard of a quitline (not just heard of Quitline Iowa as was asked in 2013 and 2012). \*\*Between 2012 and 2014, all adults were asked if they had had any provider visit, including dental visits in the past 12 months. In 2012 and 2014, adults were also asked in a separate question about time since last dental visit and this later question was also used in those years to calculate the occurrence of a provider visit.

