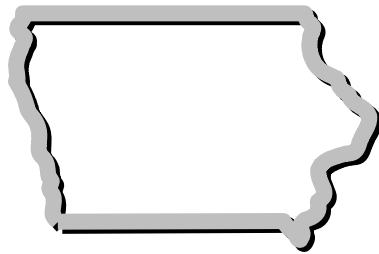


2004 IOWA

Termination Of Pregnancy Report



Iowa Department of Public Health
Center for Health Statistics



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Comparative Summary

Overall, the annual number of pregnancy terminations in Iowa did not have significant change in 2004 from that in 2003, 6,945 vs. 6,999. Total induced pregnancy terminations increased by 106 cases from 5,916 in 2003 to 6,022 in 2004. Spontaneous terminations of pregnancy decreased by 163 cases from 1,074 in 2003 to 911 in 2004, which represents about 15.2 percent decrease. Besides induced and spontaneous termination categories, medically induced terminations were reported this year apart from surgical termination cases. Overall, 1,653 (23.8% of induced termination cases) women used medically induced method.

Pregnancy Terminations by Regions

The numbers, ratios and rates of termination of pregnancy were listed based on the state Maternal and Child contract agency code assigned in 1999.

- **The fertility rate** (see Appendix for formulas of all rates and ratios used) for the state, as a whole in 2004, was 63.6 per 1,000, one percent increase from 62.6 per 1,000 women of childbearing age in 2003. The fertility rate ranged from 45.3 to 78.0 among all regions.
- **The pregnancy rate** In 2004, the overall rate of pregnancy for the state was 74.3 per 1,000 women of childbearing age, no significant change compared to 74.4 in 2003. This rate ranged from 56.1 to 89.7 among all regions.
- **The induced termination rate** This rate varies from year to year. In 2004, 8.8 per 1,000 women of childbearing age had induced terminations, which was a decrease from 9.7 per 1,000 in 2003. The induced termination rate ranged from 0.7 per 1,000 to 14.9 per 1,000 among all regions.
- **The spontaneous termination rate** The statewide rate was 1.5 per 1,000 childbearing age women in 2004, lower than 2003 rate (1.8 per 1,000 15-44 years old women). This rate for all regions varied from 0.1 per 1,000 to 3.2 per 1,000.
- **The induced termination ratio** for the state as a whole decreased from 155.1 per 1,000 live births in 2003 to 138.3 per 1,000 live births in 2004, which represents about an 11 percent decrease. As reported in previous years, this ratio varied dramatically among regions, from 10.1 to 262.6 per 1,000 live births.
- **The spontaneous termination ratio** for the state as a whole decreased from 28.2 per 1,000 live births in 2003 to 22.9 per 1,000 live births in 2004. Like the induced termination ratio, this range varied greatly among regions, from about 2.0 to 62.0 per 1,000 live births.

Pregnancy Terminations (spontaneous and induced) by Month of Occurrence

As reported in 2004, the first half of the year seems to have had more induced termination cases reported than the second half of the year. This variation matched the pattern of the previous years' reports. Spontaneous termination did not show a consistent pattern during all reporting years.

Pregnancy Terminations by Gestational Age of Fetus

As with previous years, more than 99 percent of induced terminations happened during zero to 13 weeks gestation. There were 405 induced termination cases reported after the thirteenth week of gestation. About 94 percent of spontaneous terminations happened during zero to 13 weeks gestation.

Induced Pregnancy Terminations:

By Marital Status

For women whose marital status was reported in 2004, about 19.5 percent were married in the induced termination group.

By Level of Education

For women whose education level was reported, approximately 16.3 percent of induced terminations of pregnancy happened in the group of women who had never entered high school. Thirty-one percent occurred in the group of women with more or less high school education, 27.4 percent in the group with some college level education, and 20.8 percent in the group of women with other kinds of education.

By Women's Race

For women whose race was reported, approximately 78.2 percent of induced terminations of pregnancy were white and 8.9 percent were black. Asian women came next with 2.4 percent and about 1 percent reported as American Indians. The rest, 10.5 percent, either did not answer the question or marked other type of race.

By Women's Age

Higher numbers of induced termination cases clustered around ages 19 to 28.

INTRODUCTION

This report is a compilation of data on reported pregnancy terminations in Iowa. These terminations occurred from January 2004 through December 2004. State law requires the annual reporting of termination of pregnancy events. With this legal requirement, Iowa joins 45 other states, the District of Columbia and New York City in providing information that relates to issues of pregnancy, termination of pregnancy, live births, and fetal deaths (1). This information helps public health officials and policy makers to understand these issues.

The Iowa reporting system is a variation on the model published by the National Center for Health Statistics in 1987 (2). These guidelines describe the criteria and expectations for reporting pregnancy information.

Purpose

One purpose of termination of pregnancy surveillance is to provide state health planners with the information needed to address public health issues related to pregnancy rate and pregnancy loss. Data are collected using the 26 Maternal and Child Health (MCH) regions as geographic identifiers. Most of these 26 regions are composed of multiple counties, although a few, which comprise Metropolitan Statistical Areas (MSAs), are single counties. During analysis, birth data (including pregnancy and fertility data) from these regions are used to achieve proper perspective. Other uses of these data may include issues of family planning, maternal and child health, access to health care, quality of care and sexual education (3). It should be noted, however, that since termination of pregnancy can occur across state boundaries, undercounting of pregnancy terminations is likely possible.

Definitions and Types

A standard definition of the termination of pregnancy is:

“The termination of pregnancy before the fetus is viable. In the medical sense, the terms abortion and miscarriage both refer to the termination of pregnancy before the fetus is capable of survival outside the uterus. In general language, however, abortion most often refers to deliberate interruption of pregnancy, whereas miscarriage connotes a spontaneous or natural loss of the fetus.” (4)

Two types of terminations of pregnancy are examined in this report: spontaneous and induced. Spontaneous termination is “abortion occurring naturally” (4). “It has been estimated that 10 to 12 percent of all pregnancies end in spontaneous abortion” (4). Some research has shown that spontaneous abortions occur commonly, are directly associated with increasing maternal age, and may cluster by chance (5). The same article suggests a possible link between spontaneous termination and nitrate-contaminated water. Hormonal imbalances, emotions and psychological disturbances frequently play an important role in spontaneous termination (4). Some other causes include trauma, stress, and malformation of the fetus, and drug or alcohol use. Hemorrhage, shock, and infection are also involved in spontaneous terminations. Treatment usually consists of dilation and curettage (D&C) to remove tissues that may be retained in the uterus (4).

The difference between a spontaneous termination and a fetal death is that a fetal death is “a birth which fails to show any signs of life after delivery. Reportable fetal deaths in Iowa are those greater than 20 weeks gestation” (6).

Induced termination is “abortion brought on intentionally by medication or instrumentation” (4).

For each year since 1969, the Centers for Disease Control and Prevention (CDC) has collected and compiled data on abortions by state or area of occurrence (1). It makes it possible to compare Iowa data to the nation as a whole or to other states. This report is based on termination data from 2004 provided to the State Center for Health Statistics, Iowa Department of Public Health.

Detail Data

The data for this report are from all hospitals or physician clinics that provided termination services during the period of 2004 calendar year. Non-surgical termination cases are listed out for the first time in this year’s report. Although it’s hard to determine the credibility of the number of non-surgical termination cases because of the inconsistent data entry, we still believe that useful to monitor the usage of this method, as it comprises more than a fourth of induced termination cases.

A total of 6,945 terminations were reported during this time period. Of these, 6,022 were induced (4,369 surgical, 1,653 non-surgical) cases, and 911 are spontaneous cases. The remaining 12 cases do not have the type of termination identified.

Data were analyzed based on key demographic factors such as age, race, marital status and education of the woman. Other variables specified in the *Code of Iowa* include Maternal and Child Health (MCH) region, and gestational age of the fetus. The findings are shown in the tables and figures in this report.

Terminations by Month of Occurrence

Table 1 shows the number of births and terminations by month of occurrence in the state from 2002 to 2004. The 2004 termination data are shown in Figure 1. January and February have relatively lower birth numbers. The number of induced terminations ranges from 430 to 574 per month year around. The highest number of spontaneous terminations is 94 per month and the lowest number of spontaneous terminations is 56 per month.

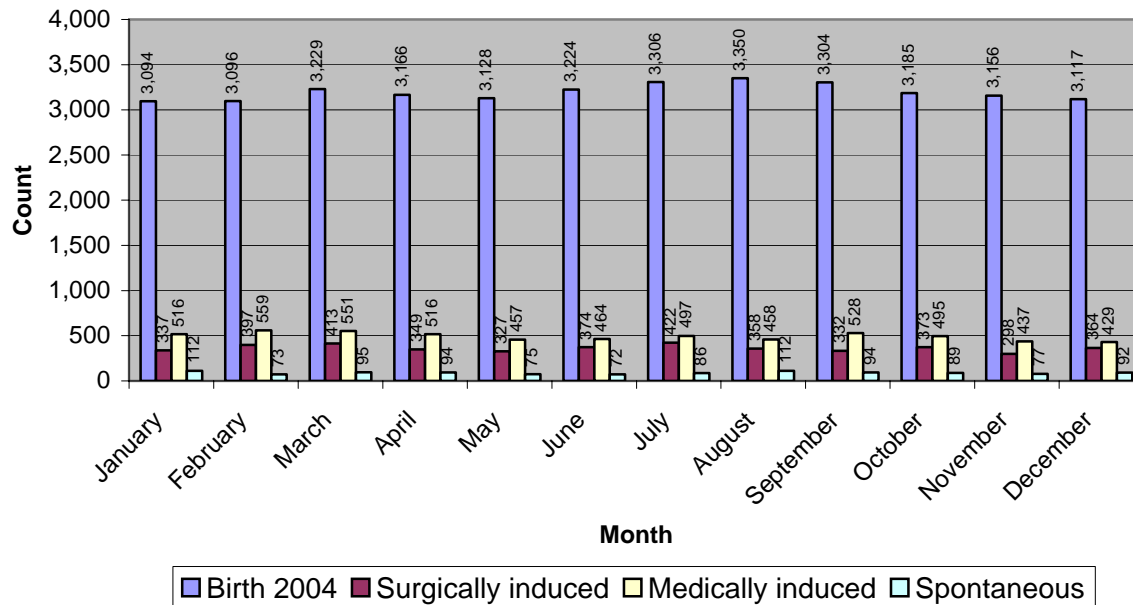
Table 1
Total Births and Pregnancy Terminations by Month of Occurrence

Month	2002				2003				2004				
	Total Births	Induced	Spont.	N/A	Total Births	Induced	Spont.	N/A	Total Births	Surgically Induced	Medically Induced	Spont.	N/A
January	3,048	616	93	0	3,028	516	112	0	3,094	337	123	93	0
February	2,839	582	91	1	2,971	559	73	0	3,096	397	177	79	0
March	3,169	543	95	1	3,206	551	95	0	3,229	413	151	86	1
April	3,055	560	95	0	3,072	516	94	1	3,166	349	172	94	5
May	3,213	531	102	0	3,449	457	75	1	3,128	327	125	56	0
June	3,040	445	82	0	3,084	464	72	1	3,224	374	127	70	1
July	3,476	565	98	0	3,325	497	86	2	3,306	422	125	61	2
August	3,300	485	79	1	3,311	458	112	0	3,350	358	136	80	1
September	3,149	458	95	1	3,332	528	94	1	3,304	332	122	72	1
October	3,279	543	88	1	3,331	495	89	1	3,185	373	139	78	1
November	2,951	416	70	0	2,891	437	77	1	3,156	298	132	77	0
December	3,036	486	55	1	3,139	429	92	1	3,117	364	117	57	0
Unknown	0	0	1	0	0	9	3		0	25	7	8	
Total	37,555	6,230	1,044	6	38,139	5,916	1,074	9	38,355	4,369	1,653	911	12

Spont. = Spontaneous
N/A = Not Available

Figure 1

2004 Birth Counts and Terminations by Month of Occurrence



Terminations by Gestational Age of Fetus

Our report includes both induced and spontaneous terminations occurring under 28 gestation weeks. In 2004, approximately 94 percent of either surgical or spontaneous terminations took place from zero to 13 weeks gestation, while six percent were in the 14-28 week period. More than 98 percent of medically induced cases took place before the ninth week of gestation. (Tables 2)

Table 2
Gestational Age in Weeks of Fetus by Termination Type

Gestational Age	2002				2003				2004					
	Ind.	%	Spont.	%	Ind.	%	Spont.	%	Surgically Induced	%	Medically Induced	%	Spont.	%
0 to 13 Weeks	5,913	94.9%	955	91.5%	5,562	94.0%	981	91.2%	4,041	92.5%	1,640	99.2%	852	93.5%
14 to 28 Weeks	297	4.8%	71	6.8%	324	5.5%	76	7.1%	318	7.3%	9	0.6%	51	5.6%
Over 28 Weeks	0	0.0%	0	0.0%	0	0.0%	0	0.1%	0	0.0%	0	0.0%	0	0.0%
Unknown	20	0.3%	18	1.7%	30	0.5%	17	1.6%	10	0.2%	4	0.2%	8	0.9%
Total	6,230	100.0%	1,044	100.0%	5,916	100.0%	1,074	100.0%	4,369	100.0%	1,653	100.0%	911	100.0%

Terminations by Marital Status

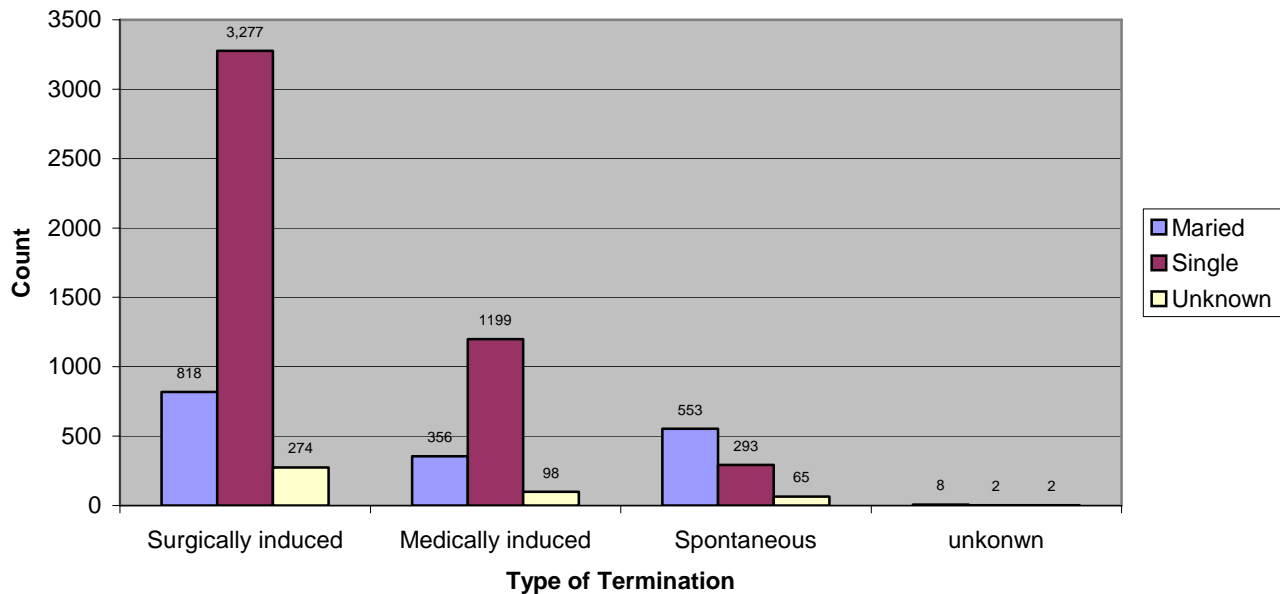
Considerably more unmarried women experienced induced terminations of pregnancy when compared to that of married women during the 2004 reporting period. However, there were fewer spontaneous termination cases reported from unmarried women than from married women (Table 3 and Figure 3).

Table 3
Termination of Pregnancy by Marital Status

Marital Status	2002			2003			2004			
	Induced	Spont.	N/A	Induced	Spont.	N/A	Surgically Induced	Medically Induced	Spont.	NA
Married	1,271	713	2	1,195	739	3	818	356	553	8
Unmarried	4,937	313	3	2,950	151	0	3,277	1,199	293	2
Unknown	22	18	1	1,771	184	6	274	98	65	2
Total	6,230	1,044	6	5,916	1,074	9	4,369	1,653	911	12

Figure 3

Termination Type By Marital Status in 2004



Terminations by Level of Education

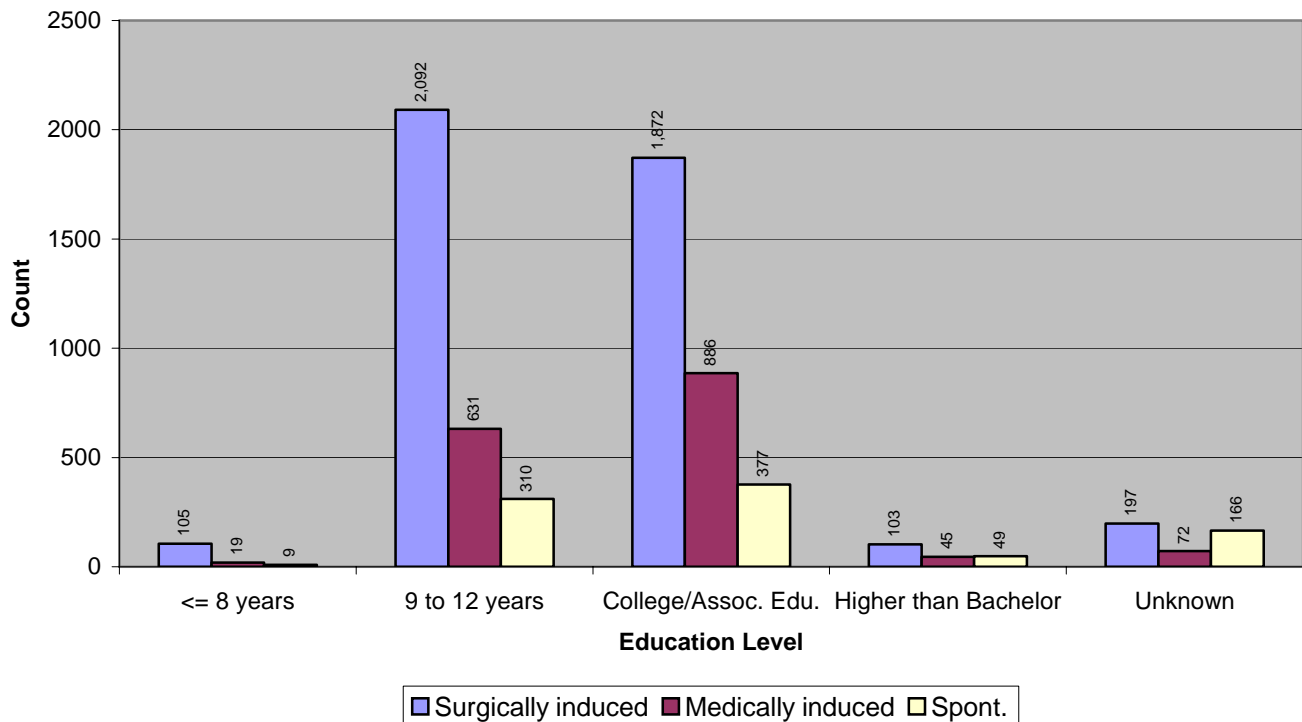
Table 4 and Figure 4 show the number of pregnancy terminations for women with different educational status. In 2004, a higher proportion of women with more than college level education chose medically induced termination while women with less than a high school education tended to use traditional surgical termination methods.

Table 4
Termination of Pregnancy by Education Level

Level of Education	2002			2003			2004			
	Induced	Spont.	N/A	Induced	Spont.	N/A	Surgically Induced	Medically Induced	Spont.	NA
<= 8 years	128	11	0	111	9	0	105	19	9	0
9 to 12 years	3,267	358	3	2,990	403	3	2,092	631	310	3
College/Assoc. Edu.	2,638	376	2	2,137	259	5	1,872	886	377	6
Higher than Bachelor	103	33	0	592	221	1	103	45	49	1
Unknown	94	266	1	86	182	0	197	72	166	2
Total	6,230	1,044	6	5,916	1,074	9	4,369	1,653	911	12

Figure 4

Termination Type by Education Level in 2004



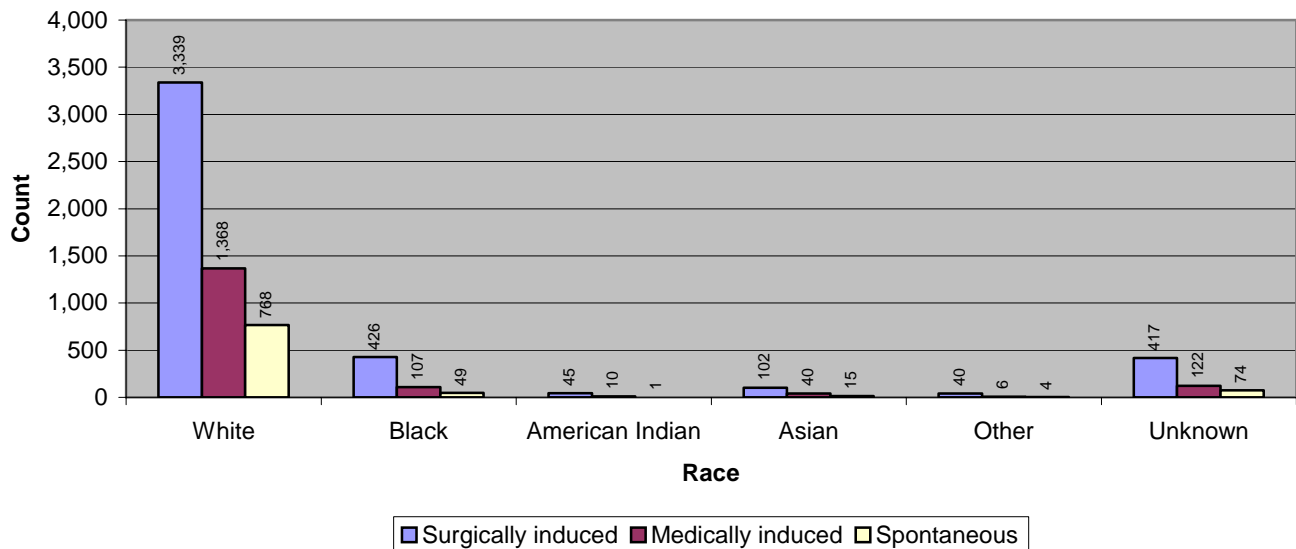
Terminations by Race

Table 5 and Figure 5 show the distribution of pregnancy terminations by race. In 2004, white women had a higher number of medically induced terminations when compared to women of other races. American Indian women are less likely to choose medically induced terminations when compared to women of other races.

Table 5
Terminations of Pregnancy by Race

Race	2002				2003				2004					
	Induced		Spont.		Induced		Spont.		Surgically Induced		Medically Induced		Spont.	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
White	5,034	80.8%	886	84.9%	4,827	81.6%	923	86.0%	3,339	80.8%	1,368	82.8%	768	84.3%
Black	464	7.4%	22	2.1%	433	7.3%	39	3.6%	426	7.4%	107	6.5%	49	5.4%
American Indian	45	0.7%	1	0.1%	36	0.6%	1	0.1%	45	0.7%	10	0.6%	1	0.1%
Asian									102	10.5%	40	2.4%	15	1.6%
Other	654	10.5%	62	5.9%	438	7.4%	71	6.6%	40	0.1%	6	0.4%	4	0.4%
Unknown	33	0.5%	73	7.0%	182	3.1%	40	3.7%	417	0.5%	122	7.4%	74	8.1%
Total	6,230	100.0%	1,044	100.0%	5,916	100.0%	1,074	100.0%	4,369	100.0%	1,653	100.0%	911	100.0%

Figure 5
Termination Type by Race in 2004



Terminations by Women's Age

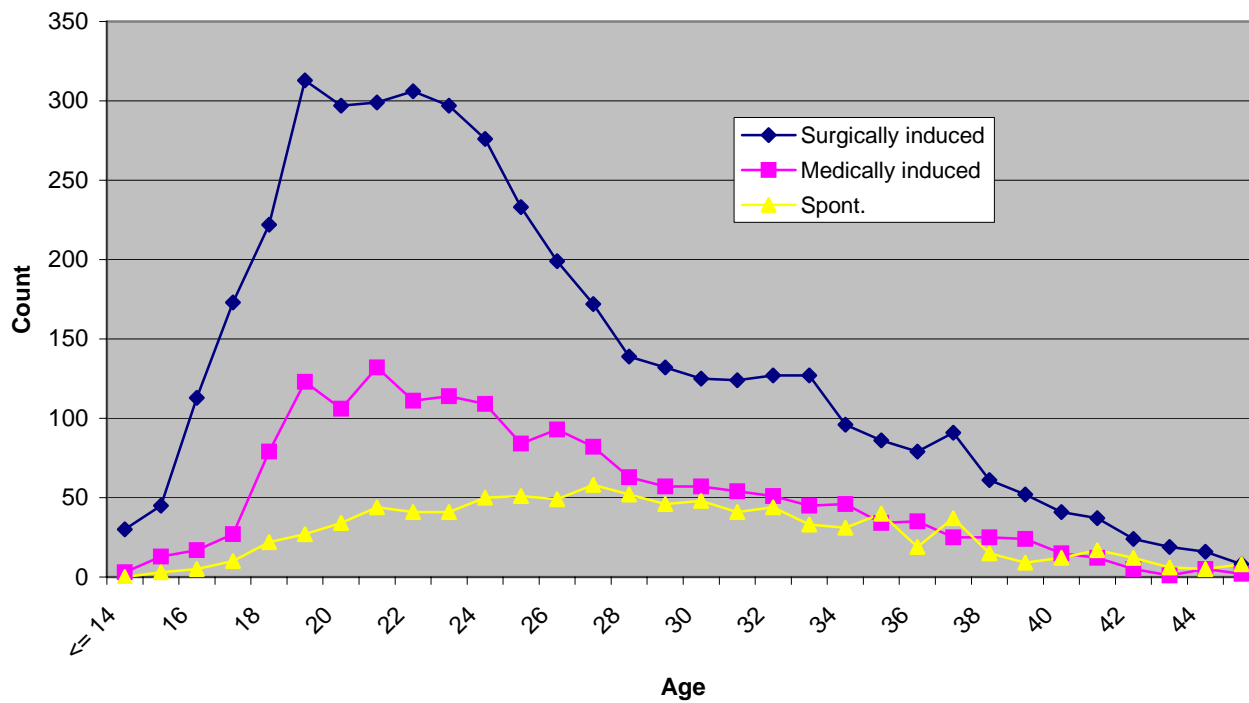
Table 6 and Figure 6 show the number of pregnancy termination by age of women. In 2004, the reported age of women who have induced terminations range from 13 to 48 years old. Higher frequencies for both surgical and non-surgical termination occur with women 18 to 25 years old.

Table 6
Termination of Pregnancy by Age of Women

Age of Mother	2002			2003			2004			
	Induced	Spont.	N/A	Induced	Spont.	N/A	Surgically Induced	Medically Induced	Spont.	N/A
<=14	35	1	0	33	0	0	30	3	0	0
15	86	4	0	66	4	0	45	13	3	0
16	129	8	0	136	11	0	113	17	5	0
17	197	17	0	195	12	0	173	27	10	0
18	383	23	2	307	29	1	222	79	22	1
19	379	28	0	327	34	2	313	123	27	0
20	467	40	1	398	38	0	297	106	34	0
21	507	48	0	490	33	1	299	132	44	1
22	474	52	0	424	56	0	306	111	41	1
23	413	45	0	422	53	0	297	114	41	0
24	359	43	0	383	45	0	276	109	50	1
25	302	58	1	306	66	0	233	84	51	0
26	283	46	1	273	60	1	199	93	49	0
27	262	70	0	246	44	2	172	82	58	3
28	224	71	0	227	49	1	139	63	52	0
29	203	60	0	169	53	0	132	57	46	0
30	196	45	0	191	59	0	125	57	48	2
31	189	55	0	164	55	0	124	54	41	0
32	153	59	0	185	49	0	127	51	44	0
33	164	47	0	154	42	0	127	45	33	0
34	128	34	0	128	48	0	96	46	31	1
35	146	31	1	117	42	0	86	34	40	1
36	99	24	0	103	32	0	79	35	19	0
37	108	25	0	89	26	0	91	25	37	0
38	83	25	0	89	30	0	61	25	15	0
39	65	31	0	68	26	0	52	24	9	0
40	68	14	0	66	26	0	41	15	12	0
41	44	10	0	41	14	0	37	12	17	1
42	37	11	0	39	13	0	24	5	12	0
43	16	6	0	18	10	0	19	1	6	0
44	15	4	0	12	4	0	16	5	5	0
>=45	12	4	0	12	5	0	8	2	8	0
Unknown	4	5	0	38	6	0	9	4	1	0
Total	6,230	1,044	6	5,916	1,074	9	4,369	1,653	911	12

Figure 6

Termination by Age of Women in 2004



ITOP REGIONS

The Iowa Department of Public Health has divided the state into geographic regions for various purposes. This report uses twenty-six Maternal and Child Health (MCH) regions created in 1999, for program planning, intervention and outcome-oriented research.

Figure 7 is the map showing the location of the regions within the state used since 1999. Table 7 shows the number of spontaneous and induced terminations occurring among women residing within each region. Regions 10, 12, 14 and 23 had more than 300 surgical termination cases reported from each region, while regions 6, 19, 20 and 22 had less than 30 cases reported. Medically induced terminations ranged from zero to 355 among the regions. Five regions reported more than 100 medically induced cases and two regions had less than 10 medically induced termination cases.

Table 8a and 8b provide a comparison of live births, fertility rate, pregnancy rate, termination rate and termination ratio by MCH region. These calculations were based on data for the most recent available year.

The fertility rate is the total number of live births per 1,000 women of childbearing age. The fertility rate for the state as a whole was 63.6 per 1,000 women of childbearing age. The rate ranged from 45.3 to 78 among regions. Twelve regions had a rate higher than the state rate.

The pregnancy rate is the total number of live births, fetal deaths and terminations of pregnancy per 1,000 women of childbearing age. The state rate was 74.3 per 1,000 women. The rate ranged from 56.1 to 89.7 among the regions. Nine regions had a rate above the state level.

The termination rate is the total number of terminations of pregnancy per 1,000 women of childbearing age. In 2004, the overall state rate for induced terminations was 8.8 per 1,000 women, ranging from 0.7 to 14.9 among the regions. Nine regions had a rate above the state level. The overall spontaneous termination rate for the state was 1.5 per 1,000 women in 2004, ranging from 0.1 to 4.2 among the regions. Seven regions had a rate higher than the state rate.

Figure 7
ITOP Report Regions 1999-2004

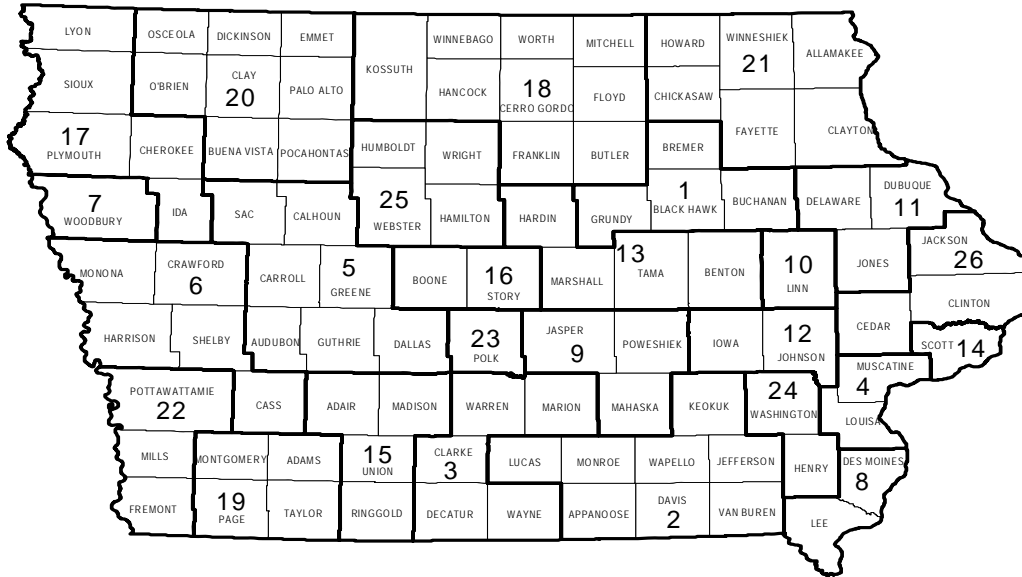


Table 7
Termination of Pregnancy by ITOP Report Region

MCH Region	2002		2003		2004		
	Induced	Spont.	Induced	Spont.	Surgically Induced	Medically Induced	Spont.
1	398	28	355	40	245	138	37
2	132	67	150	64	100	42	38
3	100	21	124	29	90	44	15
4	139	9	127	10	107	32	14
5	132	12	111	22	87	32	17
6	37	1	23	3	15	6	18
7	158	81	175	63	115	53	32
8	149	50	133	46	85	27	27
9	91	37	101	27	75	16	13
10	575	148	519	88	417	123	35
11	173	71	150	71	108	27	82
12	435	26	462	66	331	128	55
13	151	38	152	12	120	30	12
14	455	149	444	121	349	150	142
15	56	3	46	15	41	16	7
16	229	29	231	45	163	73	26
17	32	5	37	14	34	17	6
18	151	79	132	86	119	37	71
19	27	5	7	8	10	5	10
20	66	1	59	6	24	17	7
21	105	1	82	2	80	20	10
22	60	16	4	8	15	0	3
23	1,184	112	1,203	171	832	355	177
24	77	5	80	10	52	19	4
25	117	7	117	15	106	37	7
26	155	11	148	12	104	35	15
Out of State	821	29	687	18	518	161	26
Not Identified	25	3	57	2	27	13	5
Total	6,230	1,044	5,916	1,074	4,369	1,653	911

**Table 8a
Population, Live Births, Fertility Rate, and Pregnancy Rate by ITOP Report Region**

MCH Region	2002				2003				2004			
	Live Births	Female 15-44yrs	Fertility Rate	Pregnancy Rate	Live Births	Female 15-44yrs*	Fertility Rate	Pregnancy Rate	Live Births	Female 15-44yrs	Fertility Rate	Pregnancy Rate
1	2,288	40,326	56.7	67.7	2,204	40,326	54.7	64.9	2,349	39,565	59.4	69.6
2	1,269	20,465	62.0	72.2	1,365	20,465	66.7	77.3	1,283	20,564	62.4	73.1
3	1,191	20,495	58.1	64.2	1,191	20,495	58.1	65.8	1,213	20,492	59.2	67.0
4	831	11,064	75.1	88.7	753	11,064	68.1	80.5	751	10,872	69.1	82.1
5	1,323	22,510	58.8	65.5	1,388	22,510	61.7	67.9	1,405	23,845	58.9	64.9
6	799	12,595	63.4	66.6	783	12,595	62.2	64.7	749	12,366	60.6	62.8
7	1,592	21,641	73.6	85.0	1,624	21,641	75.0	86.6	1,634	20,946	78.0	89.7
8	901	14,701	61.3	75.2	889	14,701	60.5	73.0	908	14,209	63.9	76.7
9	902	15,372	58.7	67.2	912	15,372	59.3	68.0	872	15,266	57.1	65.8
10	2,751	42,301	65.0	82.6	2,754	42,301	65.1	80.0	2,760	41,958	65.8	80.7
11	1,570	25,702	61.1	71.0	1,668	25,702	64.9	73.8	1,610	25,694	62.7	71.8
12	1,622	35,221	46.1	59.4	1,711	35,221	48.6	63.9	1,748	35,418	49.4	64.5
13	1,252	19,501	64.2	74.2	1,357	19,501	69.6	78.4	1,394	19,293	72.3	81.1
14	2,275	34,479	66.0	83.8	2,233	34,479	64.8	81.6	2,292	33,422	68.6	85.9
15	474	7,554	62.7	70.6	482	7,554	63.8	72.5	456	7,596	60.0	68.6
16	1,212	26,566	45.6	55.5	1,232	26,566	46.4	57.0	1,189	26,265	45.3	56.1
17	1,132	17,337	65.3	67.7	1,116	17,337	64.4	67.5	1,125	17,230	65.3	68.5
18	1,545	26,582	58.1	66.9	1,534	26,582	57.7	66.2	1,586	26,114	60.7	69.4
19	432	6,732	64.2	69.5	383	6,732	66.9	59.4	399	6,518	61.2	63.7
20	1,176	19,214	61.2	65.1	1,206	19,214	62.8	66.3	1,214	18,422	65.9	69.9
21	1,004	18,861	53.2	59.2	1,057	18,861	56.0	60.8	1,057	18,425	57.4	62.3
22	1,417	22,786	62.1	65.8	1,519	22,786	66.7	67.7	1,478	22,542	65.6	66.5
23	6,140	87,228	70.4	85.6	6,371	87,228	73.0	89.1	6,320	86,608	73.0	89.3
24	548	8,004	68.5	79.1	509	8,004	63.6	75.2	545	7,943	68.6	80.1
25	920	14,628	62.9	71.7	945	14,628	64.6	73.9	1,021	14,116	72.3	81.8
26	989	17,236	57.4	67.2	953	17,236	55.3	65.0	997	16,999	58.7	68.5
Total*	37,555	609,101	61.7	72.5	38,139	609,101	62.6	74.4	38,355	602,688	63.6	74.3

* 2002 female population was used for rate calculation.

Table 8b
Termination Rates and Termination Ratios by ITOP Report Region

MCH Region	2002						2003						2004					
	Induced			Spont.			Induced			Spont.			Induced			Spont.		
	N	Rate	Ratio	N	Rate	Ratio	N	Rate*	Ratio	N	Rate*	Ratio	N	Rate*	Ratio	N	Rate*	Ratio
1	398	9.7	176.1	28	0.7	12.4	355	8.8	161.1	38	1.0	18.1	383	9.7	163.0	37	0.9	15.8
2	132	6.4	103.8	67	3.2	52.7	150	7.3	109.9	64	3.1	46.9	142	6.9	110.7	38	1.8	29.6
3	100	5.0	83.6	21	1.0	17.6	124	6.1	104.1	29	1.4	24.3	134	6.5	110.5	15	0.7	12.4
4	139	12.5	171.2	9	0.8	11.1	127	11.5	168.7	10	0.9	13.3	139	12.8	185.1	14	1.3	18.6
5	132	6.1	105.2	12	0.6	9.6	111	4.9	80.0	22	1.0	15.9	119	5.0	84.7	17	0.7	12.1
6	37	2.9	48.2	1	0.1	1.3	23	1.8	29.4	3	0.2	3.8	21	1.7	28.0	18	1.5	24.0
7	158	7.2	97.4	81	3.7	49.9	175	8.1	107.8	63	2.9	38.8	168	8.0	102.8	32	1.5	19.6
8	149	9.7	163.2	50	3.3	54.8	133	9.0	149.6	46	3.1	51.7	112	7.9	123.3	27	1.9	29.7
9	91	5.9	95.1	37	2.4	38.7	101	6.6	110.7	27	1.8	29.6	91	6.0	104.4	13	0.9	14.9
10	575	13.5	202.0	148	3.5	52.0	519	12.3	188.5	88	2.1	32.0	540	12.9	195.7	35	0.8	12.7
11	173	6.7	109.5	71	2.7	44.9	150	5.8	89.9	71	2.8	42.6	135	5.3	83.9	82	3.2	50.9
12	435	12.6	280.3	26	0.8	16.8	462	13.1	270.0	66	1.9	38.6	459	13.0	262.6	55	1.6	31.5
13	151	7.8	114.9	38	2.0	28.9	152	7.8	112.0	12	0.6	8.8	150	7.8	107.6	12	0.6	8.6
14	455	13.1	205.5	149	4.3	67.3	444	12.9	198.8	121	3.5	54.2	499	14.9	217.7	142	4.2	62.0
15	56	7.5	129.0	3	0.4	6.9	46	6.1	95.4	15	2.0	31.1	57	7.5	125.0	7	0.9	15.4
16	229	8.6	188.5	29	1.1	23.9	231	8.7	187.5	45	1.7	36.5	236	9.0	198.5	26	1.0	21.9
17	32	1.8	29.3	5	0.3	4.6	37	2.1	33.2	14	0.8	12.5	51	3.0	45.3	6	0.3	5.3
18	151	5.5	95.2	79	2.9	49.8	132	5.0	86.0	85	3.2	56.1	156	6.0	98.4	71	2.7	44.8
19	27	3.8	64.9	5	0.7	12.0	7	1.0	18.3	8	1.2	20.9	15	2.3	37.6	10	1.5	25.1
20	66	3.4	59.2	1	0.1	0.9	59	3.1	48.9	6	0.3	5.0	41	2.2	33.8	7	0.4	5.8
21	105	5.5	100.2	1	0.1	1.0	82	4.3	77.6	2	0.1	1.9	100	5.4	94.6	10	0.5	9.5
22	60	2.6	40.2	16	0.7	10.7	4	0.2	2.6	8	0.4	5.3	15	0.7	10.1	3	0.1	2.0
23	1,184	13.7	193.8	112	1.3	18.3	1,203	13.8	188.8	170	2.0	26.8	1,187	13.7	187.8	177	2.0	28.0
24	77	9.7	141.0	5	0.6	9.2	80	10.0	157.2	10	1.2	19.6	71	8.9	130.3	4	0.5	7.3
25	117	7.8	122.8	7	0.5	7.3	117	8.0	123.8	15	1.0	15.9	143	10.1	140.1	7	0.5	6.9
26	155	8.9	149.2	11	0.6	10.6	148	8.6	155.3	12	0.7	12.6	139	8.2	139.4	15	0.9	15.0
Out of State	821			29			687			18			679			26		
N/A	25			3			57			2			40			5		
Total	6,230	10.2	165.6	1,044	1.7	27.8	5,916	9.7	155.1	1,074	1.8	28.2	6,022	8.8	138.3	911	1.5	22.9

* 2002 population was used.

DISCUSSION

For each year since 1969, CDC has compiled induced termination data by state or area of occurrence. During 1973--1997, data were received from or estimated for 52 reporting areas in the United States: 50 states, the District of Columbia, and New York City. In 1998 and 1999, CDC compiled induced termination information from 48 reporting areas. Alaska, California, New Hampshire, and Oklahoma did not report, and data for these states were not estimated. In 2000 and 2001, Oklahoma again reported these data, increasing the number of reporting areas to 49.

For a long-term perspective, Table 9 provides a review of changes in reported legal terminations, termination rates, and termination ratios for the nation from 1970 to 2001. Induced termination curve line shows upright trend from 1970-1990 then gradually declines.

Table 10 is provided to compare Iowa to other states regarding termination of pregnancy issues. Iowa has all termination ratio or rate lower than national numbers in 2001. For instance, the occurrence data shows that for 2001, Iowa has a ratio of 152 terminations per 1,000 live births (247 per 1,000 nationally) and Iowa has termination rate of 10 per 1,000 (16 per 1,000 nationally). Since there is no more recent years national report, it is not possible to compare these ratio or rate. By reviewing Iowa's own data set can show the decline trend in numbers.

Limitations of Data

Even though the state health department has been trying to standardize the reporting procedure, it may still be some time before health care providers can accurately report every termination case, especially spontaneous cases. Table 8a is a possible evidence for additional research on why some regions have very low numbers reported and some regions have very low rates or ratios.

As mentioned at beginning, the numbers of medicine-induced termination may not be well documented, as some clinics are still not following the guidance of marking the surgical and non-surgical data entering form.

It also should be noted that Iowa has no agreement with Border States on mandatory reporting of terminations in those states; therefore, the current data may be incomplete.

Conclusions

Despite the limitations discussed above, an analysis of the data suggests the following:

1. While most of both types of pregnancy termination (induced and spontaneous) in the state occurred within the thirteen gestation weeks; there were still quite a few terminations happened during 14-28 weeks.
2. Reports of induced termination were much more prevalent than spontaneous termination. Medically induced termination had reached more than 25% of overall induced termination numbers. Higher educated women were more likely to choose medically induced termination process.
3. There were relatively high portion of women not intend to give out their race and marital status when they search for induced termination of pregnancy.
4. Unmarried women experienced more induced terminations than married women did.

5. There were more women under 33 years of age reported induced terminations of pregnancy.
6. Additional observation is needed to standardize the reporting system and process among different regions.
7. Iowa has relative lower rate of pregnancy terminations when compared to other states.

Although little may be determined from these data concerning the factors leading to either induced or spontaneous terminations of pregnancy, our annual report still can provide planners and policymakers a baseline of knowledge about such matters.

Table 9
Reported Number of Legal Induced Abortions, Abortion Ratios, * and Abortion Rates, † United States, Selected Years, 1970-2001

TABLE 2. Number, ratio,* and rate† of legal abortions and source of reporting for all reporting areas and for the 48 areas that reported in 2000, by year — United States, 1970–2001

Year	No. of legal abortions	Ratio*	Rate†	No. of areas reporting	
				Central health agency‡	Hospitals/facilities¶
All reporting areas					
1970	193,491	52	5	18	7
1971	485,816	137	11	19	7
1972	586,760	180	13	21	8
1973	615,831	196	14	26	26
1974	763,476	242	17	37	15
1975	854,853	272	18	39	13
1976	988,267	312	21	41	11
1977	1,079,430	325	22	46	6
1978	1,157,776	347	23	48	4
1979	1,251,921	358	24	47	5
1980	1,297,606	359	25	47	5
1981	1,300,760	358	24	46	6
1982	1,303,980	354	24	46	6
1983	1,268,987	349	23	46	6
1984	1,333,521	364	24	44	8
1985	1,328,570	354	24	44	8
1986	1,328,112	354	23	43	9
1987	1,353,671	356	24	45	7
1988	1,371,285	352	24	45	7
1989	1,396,658	346	24	45	7
1990	1,429,247	344	24	46	6
1991	1,388,937	338	24	47	5
1992	1,359,146	334	23	47	5
1993	1,330,414	333	23	47	5
1994	1,267,415	321	21	47	5
1995	1,210,883	311	20	48	4
1996	1,225,937	315**	21	48	4
1997	1,186,039	306	20	48	4
1998††	884,273	264	17	48	0
1999††	861,789	256	17	48	0
2000§§	857,475	245	16	49	0
2001§§	853,485	246	16	49	0
48 reporting areas¶¶					
1995	908,243	277	18	47	1
1996	934,549	285**	18	47	1
1997	900,171	274	17	46	2
1998	884,273	264	17	48	0
1999	861,789	256	17	48	0
2000	850,293	246	16	48	0
2001	846,447	247	16	48	0

* Number of abortions per 1,000 live births.

† Number of abortions per 1,000 females aged 15–44 years.

‡ State health departments and the health departments of New York City and the District of Columbia.

¶ Hospitals or other medical facilities in state.

** Beginning in 1996, the ratio was based on births reported by the National Center for Health Statistics, CDC.

†† Without estimates for Alaska, California, New Hampshire, and Oklahoma, which did not report number of legal abortions.

§§ Without estimates for Alaska, California, and New Hampshire, which did not report number of legal abortions.

¶¶ Without estimates for Alaska, California, and New Hampshire, which did not report number of legal abortions for 1998–2001, and for Oklahoma, which did not report for 1998–1999.

Table 10
Reported Number, * Ratio, and Rate of Legal Abortions and Percentage of Abortions Obtained
by Out-of-State Residents, † by State of Occurrence – United States, 2001

TABLE 3. Reported number,* ratio,† and rate‡ of legal abortions by residence and occurrence, and percentage of abortions obtained by out-of-state residents,¶ by state of occurrence — United States, 2001

State	Residence			Occurrence			Percentage of legal abortions obtained by out-of-state residents
	No. of legal abortions	Ratio	Rate	No. of legal abortions	Ratio	Rate	
Alabama	11,882	197	12	13,382	221	14	18.1
Alaska**	—††	—	—	—	—	—	—
Arizona§§	8,601	100	8	8,302	97	8	0.9
Arkansas	5,687	154	10	5,924	160	11	15.9
California**	—	—	—	—	—	—	—
Colorado	3,977	59	4	4,633	69	5	16.7
Connecticut	13,251	311	18	13,265	311	19	3.3
Delaware†††	3,690	343	21	4,869	453	28	28.3
Dist. of Columbia	2,947	386	21	5,385	706	37	56.0
Florida***	431	2***	0***	85,589	416	26	—
Georgia	30,190	226	16	33,248	249	17	10.5
Hawaii	4,003	234	16	3,999	234	16	0.3
Idaho	1,491	72	5	738	36	3	3.5
Illinois	42,427	231	15	46,546	253	17	9.8
Indiana	13,607	157	10	11,875	137	9	4.2
Iowa¶¶	6,354	169	10	5,722	152	9	—
Kansas	6,430	165	11	12,284	316	21	48.9
Kentucky	6,266	115	7	3,764	69	4	14.8
Louisiana***	676	10***	1***	10,932	167	11	—
Maine	2,462	179	9	2,515	183	9	2.9
Maryland¶¶	16,397	224	14	13,502	184	11	5.9
Massachusetts§§	25,082	309	18	26,293	324	18	6.3
Michigan	27,534	206	13	28,220	212	13	3.6
Minnesota	13,971	207	13	14,832	220	14	9.3
Mississippi	6,983	165	11	3,566	84	6	4.3
Missouri	15,602	207	13	7,797	103	6	9.1
Montana	2,093	191	11	2,350	214	13	12.2
Nebraska	3,447	139	9	3,982	160	11	15.8
Nevada	9,356	298	21	10,110	322	23	7.3
New Hampshire**	—	—	—	—	—	—	—
New Jersey†††	34,565	299	19	33,606	290	19	3.7
New Mexico	5,692	210	15	5,166	190	13	4.5
New York	122,997	484	29	127,102	500	30	—
City	86,460	723	—	91,792§§§	767	—	6.4††††
State	36,537****	272	—	35,310	263	—	7.7††††
North Carolina	27,199	230	15	30,419	257	17	13.8
North Dakota	847	111	6	1,216	159	9	38.3
Ohio	35,059	231	14	37,464	247	15	8.7
Oklahoma	7,546	151	10	7,038	140	10	4.3
Oregon	12,752	281	18	14,272	315	20	12.6
Pennsylvania	37,498	261	15	36,820	257	14	4.9
Rhode Island	4,170	328	18	5,455	429	23	24.8
South Carolina	10,774	193	12	7,014	126	8	5.3
South Dakota	1,045	100	7	895	85	6	15.2
Tennessee	15,490	198	12	17,405	222	14	19.2
Texas	74,237	203	15	77,409	212	16	3.9
Utah	3,512	73	7	3,594	75	7	6.2
Vermont	1,320	207	10	1,519	239	12	14.2
Virginia	25,649	259	16	24,586	249	15	6.1
Washington	26,028	327	20	25,620	322	20	4.9
West Virginia	2,739	134	7	2,332	114	6	10.9
Wisconsin¶¶	12,279	178	11	10,925	158	9	2.0
Wyoming	737	121	7	4	†††	†††	0
Other residence§§§§	4,414	—	—	NA†††††	NA	NA	NA
Total known	752,283	—	—	853,485	246	16	8.7

REFERENCES

1. Lilo T. Strauss etc. [Abortion Surveillance --- United States, 2001](#), *Division of Reproductive Health National Center for Chronic Disease Prevention and Health Promotion*.
2. Iowa Department of Public Health, Center for Health Statistics. *Vital Statistics of Iowa 2002 to 2004*
3. Census Bureau Estimate.

APPENDIX

Formulas

$$1. \text{ Termination Rate} = \frac{\text{\# of Terminations}}{\text{Female Population (age 15 - 44)}} \times 1,000$$

$$2. \text{ Termination Ratio} = \frac{\text{\# of Terminations}}{\text{\# Total Live Births}} \times 1,000$$

$$3. \text{ Fertility Rate} = \frac{\text{\# Total Live Births}}{\text{Female Population (age 15 - 44)}} \times 1,000$$

$$4. \text{ Pregnancy Rate} = \frac{\text{\# (Live Births + Fetal Deaths + Abortions)}}{\text{Female Population (age 15 - 44)}} \times 1,000$$