

# 2003 Iowa Health Fact Book

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## **Welcome to the 2003 Iowa Health Fact Book!**

*This book is the fourth in a series of Iowa Health Fact Book biennial publications and has been produced as a collaborative effort between the The University of Iowa College of Public Health and the Iowa Department of Public Health. In it you will find information related to the current and future health of Iowans, such as data on disease incidence and mortality, health and social behaviors, health resources, and environmental factors. By compiling this type of information into one publication, we present a tool that is useful to Iowa's health care providers, health policy-makers, public health practitioners, and health researchers alike.*

*The Iowa Health Fact Books in 1997, 1999, and 2001 were distributed to registrants at the Governor's Conference on Public Health (Barn Raisings I, II, and III). In 1997 and 1999, it was produced as a printed book, while the 2001 version was distributed in a PDF file format on CD-ROMs. All have been available via the College of Public Health Website. This year, all participants of the Barn Raising IV, to be held in August 2003, will again receive the CD-ROM version free, and this version will also be posted on our college website. A limited number of printed copies of the 2003 edition will be available at a moderate cost for those who prefer a bound book. Note that the pages of the book can be printed from the PDF files or from the website.*

*The format of the 2003 Fact Book follows closely to that of the past editions, allowing users the ability to track changes over time. As we continue this effort over the years, we are in a better position to track changes longitudinally. You will notice a greater number of graphs showing trends over longer periods of time. Like the previous editions, however, we present the data in a descriptive format, without analysis and interpretation of trends. The interested reader is free to use these data in his/her own analyses, and is encouraged to do so with care and attention paid to analytic issues such as small counts and possible changes in the way the data are collected. The data source is given for each type of information presented, and those responsible for collecting the data can address any questions you may have. You will also find a list of other health information resources and their contact information in the Appendix.*

*We are pleased to make this rich source of health information available to the public and hope that you find it useful.*

*Sincerely,*

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## Fact Book Conventions

### Layout

In the 2003 Iowa Health Fact Book, state-wide data relating to health outcomes, social and health behaviors and health care resources are presented, generally at the county level. The data have been compiled in this book, but were collected using different methodologies by different organizations and reporting mechanisms. The time interval covered differs across the data items, mainly due to differences in data availability. Where reasonable and possible, county-specific data are presented. When it is not presented in that format, it is either because the data were too sparse (that is, a relatively small number of counties with non-zero counts) or not available at the county level. Since many of the data items presented would be expected to vary with county population size, the counties have been organized into groups based on their average annual population size between 1992 and 2000 to facilitate comparisons. Both crude and age-adjusted population rates are presented when reasonable, also to facilitate comparisons across counties. For data items in which historical counts earlier than those presented in this book are available, line graphs showing time trends by county grouping are presented as well.

### Four County Groupings

Eighteen counties were grouped as having an average annual population of less than 10,000 (group 1); 45 counties had an average annual population between 10,000 and 20,000 (group 2); 26 counties were non-MSA counties with an average population over 20,000 (group 3); and 10 counties were classified as MSA counties (group 4). An MSA (Metropolitan Statistical Area) county is defined by the Census Bureau as one city with at least 50,000 inhabitants or a Census-defined urbanized area with a total metropolitan population of at least 100,000 (75,000 in New England). There were some changes in these groupings when compared to the 2001 Iowa Health Fact Book.

### Small Numbers

If the number of county-specific events in a health outcome tables was less than five, we mask the count by replacing it with an asterisk (\*) to protect subject confidentiality. This policy marks a change from the 2001 Iowa Health Fact Book, where numbers less than three were not reported. However, all numbers are included in the computations needed for the line graphs and other charts accompanying the health outcomes tables.

## **Population Standard**

The Year 2000 Estimated United States Standard Million Population from the United States Census Bureau has been used for adjustment purposes.

## **Adjustment Calculations**

Both crude and age-adjusted rates have been calculated and presented in many of the data tables. Crude rates for an entity, e.g. county, are the number of events of a health outcome divided by the population at risk in the county. The age-adjusted rates used in this book are a weighted average of the age-specific rates from the targeted population (e.g., county), where the weights are the proportions of persons in the corresponding age groups of a standard population. As stated above, the Year 2000 United States population was used as the standard population.

There are no hard and fast rules as to when one should use either the crude or the adjusted rate for comparisons. A few guidelines can, however, be noted. A crude rate for a county reflects the disease or mortality burden for a county and may be useful to the health policy makers in the county. If a county has a relatively high proportion of elderly and the disease is associated with older individuals, crude rates will reflect that higher burden due to greater numbers of elderly. The age-adjusted rate is also useful as a county comparison index, but after putting both counties on the same playing field with respect to the age distribution in each. These rates have been adjusted to the same standard population, so the effect of differing age distributions in two counties is eliminated before the comparison is made. Hence, both are useful descriptive indices of diseases, but with differences in interpretation.

## **Ranks**

Marking a change from the 2001 Iowa Health Fact Book, county ranks of crude and adjusted rates are presented in this year's edition. The county rank represents the ranking of the county among the 99 counties of Iowa, with a rank of "1" given to the county with the largest rate and "99" to the county with the smallest rate. In general, ranks are presented for a data table when no counts in the table are less than five; i.e. when there are no very small numbers. For the health care provider and health care facility data, ranks are not presented if the state total is less than 1,000 or if more than one county has a zero count.

## Healthy People 2010 Leading Indicators

The Healthy People 2010 Leading Health Indicators have been included in the 2003 Iowa Health Fact Book to help correlate important indicators of health with available data sources and results.

Healthy People 2010 includes 467 objectives that will be tracked to measure progress throughout the decade. However, to help everyone more easily understand the importance of health promotion and disease prevention and to encourage wide participation in improving health, a small set of Leading Health Indicators was selected. These Leading Health Indicators reflect the major public health concerns in the United States and were chosen based on their ability to motivate action, the availability of data to measure their progress, and their relevance as broad public health issues.

Specific Healthy People 2010 objectives will be used to track progress on each of the Leading Health Indicators. The following table lists the specific objectives for each indicator, the national baseline figure and the source of the national rate. It also lists the state baseline figure and source for all except four of the objectives. We are still seeking state level information that is comparable for those four.

### HEALTHY PEOPLE 2010 LEADING HEALTH INDICATORS

- ✓ Physical Activity
- ✓ Overweight and Obesity
- ✓ Tobacco Use
- ✓ Substance Abuse
- ✓ Responsible Sexual Behavior
- ✓ Mental Health
- ✓ Injury and Violence
- ✓ Environmental Health
- ✓ Immunization
- ✓ Access to Health Care

One objective of Healthy People initiative was the development of a consensus set of health status indicators for use at the national, state, and local level. Iowa has been tracking this set of health status indicators for the past decade and will continue in the current decade. Priority in selecting these Health Status Indicators was given to measures for which data was readily available at the local, state, and national level. The Health Status Indicators predominantly reflect outcomes, while many of the Leading Health Indicators reflect behaviors.

## Healthy People 2010 Leading Indicators

National Indicator (Chapter-Section)	State Definition	National Target	National Baseline/ Data Source	State Prevalence Estimate/ Data Source
<b><u>Physical Activity</u></b>				
Increase the proportion of adolescents who engage in vigorous physical activity that promotes cardiorespiratory fitness 3 or more days per week for 20 minutes or more per occasion. (22-7)	YRBS <sup>1</sup> respondents who reported engaging in physical activity 3 or more days per week for 20 minutes per occasion.	85%	65% 2001 YRBS	74% 2001 YRBS
Increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day. (22-2)	BRFSS <sup>2</sup> respondents who reported engaging in physical activity for more than 30 minutes, 5 or more times per week.	50%	32% 2001 NHIS <sup>3</sup>	20% 2002 BRFSS
<b><u>Overweight and Obesity</u></b>				
Reduce the proportion of children and adolescents who are overweight or obese. (19-3c)	YRBS respondents who are overweight based on weight and height.	5%	15% 2000 NHANES <sup>4</sup>	10% 2001 YRBS
Reduce the proportion of adults who are obese. (19-2)	BRFSS respondents with BMI equal to or greater than 30.0.	15%	31% 2000 NHANES	37% 2002 BRFSS
<b><u>Tobacco Use</u></b>				
Reduce cigarette smoking by adolescents. (27-2b)	YRBS respondents who reported smoking cigarettes on one or more of the past 30 days.	16%	28% 2001 YRBS	30% 2001 YRBS
Reduce cigarette smoking by adults. (27-1a)	BRFSS respondents who reported having smoked 100 cigarettes in a lifetime and currently smoke.	12%	23% 2001 NHIS	23% 2002 BRFSS
<b><u>Substance Abuse</u></b>				
Increase the proportion of adolescents not using alcohol or any illicit drugs during the past 30 days. (26-10a)	Two separate measures: YRBS respondents who reported not using any alcohol during the past 30 days; YRBS respondents who reported not using marijuana during the past 30 days.	89%	79% National Household Survey on Drug Abuse	48% 84% 2001 YRBS

<sup>1</sup> Youth Risk Behavior Survey

<sup>2</sup> Behavioral Risk Factor Surveillance System

<sup>3</sup> National Health Interview Survey

<sup>4</sup> National Health and Nutrition Examination Survey

## Healthy People 2010 Leading Indicators (continued)

National Indicator (Chapter-Section)	State Definition	National Target	National Baseline/ Data Source	State Prevalence Estimate/ Data Source
<u>Substance Abuse (continued)</u>				
Reduce the proportion of adults using any illicit drugs during the past 30 days. (26-10c)	Respondents from the National Household Survey who reported any illicit drug use during the past month including marijuana/hashish, cocaine, inhalants, hallucinogens, heroin, or any prescription type psychotherapeutic used non-medically.	2%	6% 1998 National Household Survey on Drug Abuse	Ages 18-25: 14% Ages 26+: 3% 1999 National Household Survey on Drug Abuse
Reduce the proportion of adults engaging in binge drinking of alcoholic beverages during the past month. (26-11c)	BRFSS respondents who reported having 5 or more alcoholic beverages on 1 or more occasions during the past month.	6%	17% 1998 National Household Survey on Drug Abuse	20% 2002 BRFSS
<u>Responsible Sexual Behavior</u>				
Increase the proportion of adolescents who abstain from sexual intercourse or use condoms if currently sexually active. (25-11)	Two separate measures: YRBS respondents who reported not ever having sexual intercourse; YRBS respondents who reported using a condom during their last sexual intercourse, among students who had sexual intercourse during the past 3 months.	95%	54% 58% 2001 YRBS	57% 59% 2001 YRBS
Increase the proportion of sexually active persons who use condoms. (13-6a)	Not available	50%	Not available	Not available
<u>Mental Health</u>				
Increase the proportion of adults with recognized depression who receive treatment. (18-9b)	Not available	50%	23% 1997 National Household Survey on Drug Abuse	Not available
<u>Injury and Violence</u>				
Reduce deaths caused by motor vehicle crashes. (15-15a)	Vital Records- V02-V04, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0, V82.1m V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2	9.2/ 100,000	15.2/ 100,000 2000 Vital Statistics	15.4/100,000 2000 Vital Statistics
Reduce homicides. (15-32)	Vital Records- V85-Y09, Y35, Y87.1, Y89.0	3.0/ 100,000	6.1/100,000 2000 Vital Statistics	2.1/100,000 2000 Vital Statistics

## Healthy People 2010 Leading Indicators (continued)

National Indicator (Chapter-Section)	State Definition	National Target	National Baseline/ Data Source	State Prevalence Estimate/ Data Source
<u>Environmental Quality</u>				
Reduce the proportion of persons exposed to air that does not meet U.S. Environmental Protection Agency's health based standards for ozone. (8-1a)	Not available	0%	41% 2001 Aerometric Information Retrieval System	Not available
Reduce the proportion of nonsmokers exposed to environmental tobacco smoke. (27-10)	Not available	45%	65% 1988-94 NHANES	Not available
<u>Immunization</u>				
Increase the proportion of young children who receive all vaccines that have been recommended for universal administration for at least 5 years. (14-24a)	Not available	80%	74% 2001 National Immunization Survey	79% 2001 National Immunization Survey
Increase the proportion of noninstitutionalized adults over age 65 who are vaccinated annually against influenza and have ever been vaccinated against pneumococcal disease. (14-27a,b)	Two separate measures: BRFSS respondents 65 and older who received a flu shot during the past 12 months; BRFSS respondents 65 and older who have ever received a pneumonia vaccination.	90% 90%	63% 54% 2001 NHIS	73% 66% 2001 BRFSS
<u>Access to Health Care</u>				
Increase the proportion of persons under age 65 with health insurance. (1-1)	BRFSS respondents under age 65 who report having any type of health insurance.	100%	84% 2001 NHIS	90% 2002 BRFSS
Increase the proportion of persons who have a specified source of ongoing care. (1-4a)	BRFSS respondents who report having one person as a personal doctor or physician.	96%	88% 2001 NHIS	76% 2002 BRFSS
Increase the proportion of pregnant women who begin prenatal care in the first trimester of pregnancy. (16-6a)	Birth certificate data file- women who report receiving prenatal care during the first three months of pregnancy.	90%	83% 2000 Vital Statistics	88% 2000 Vital Statistics

## Demographics

Many of the health indicators in the 2003 Iowa Health Fact Book are presented with rates calculated using the population of the county and state. These rates are also stratified into population subgroups based on the average annual size of the county from 1992 to 2000. This not only contrasts the rural and urban aspects of the state but also includes trends in age and ethnic distribution of the population. The Year 2000 US standard population age distribution is used for calculating age-adjusted rates. Population estimates have been obtained from the US Census via the National Cancer Institute's SEER\*Stat software program. Estimates are used for each year and year groupings where appropriate.

### KEY CHANGES IN IOWA DEMOGRAPHICS...

- ✓ Increasing age of the population
- ✓ Increasing urbanization
- ✓ Growing ethnic populations

Using the average annual population from 1992-2000, there were 18 counties with less than 10,000 population, 45 counties with 10,000 to 20,000 residents, 26 counties with 20,000 to 50,000 residents, and 10 Metropolitan Statistical Area (MSA) counties. The distribution of the population by age is different between the county groupings. The larger size counties have a greater percentage of their population as young adults (15-44 years) compared to the small counties. The small counties have a larger percentage of persons 65 years of age or older. These differences in age distribution are standardized through age-adjustment so risk factors other than age can be compared. As shown, the population of the state has become older since 1970. The percent of Iowans age 65 and older increased steadily through the early 1990's, but has slightly decreased since then.

## State Population Distributions

Average Annual Population Distribution by Gender: 1992-2000						Average Annual Population			
	County	Male	% Male	Female	% Female	Total	2000-2002	1998-2001	1998-2002
	Counties with Average Population < 10,000	Adair	4,066	48.7%	4,288	51.3%	8,354	8,086	8,227
Adams		2,239	49.1%	2,320	50.9%	4,559	4,422	4,469	4,452
Audubon		3,334	48.0%	3,619	52.0%	6,953	6,718	6,830	6,793
Clarke		4,196	48.3%	4,493	51.7%	8,689	9,126	9,002	9,013
Davis		4,166	49.2%	4,296	50.8%	8,462	8,584	8,539	8,549
Decatur		4,097	48.6%	4,335	51.4%	8,432	8,660	8,635	8,633
Fremont		3,908	48.2%	4,198	51.8%	8,106	7,876	7,970	7,925
Howard		4,882	49.0%	5,085	51.0%	9,967	9,863	9,937	9,911
Ida		3,923	48.4%	4,182	51.6%	8,105	7,717	7,842	7,804
Lucas		4,488	48.3%	4,812	51.7%	9,300	9,438	9,443	9,443
Monroe		3,946	48.5%	4,186	51.5%	8,132	7,920	8,021	7,984
Osceola		3,475	48.6%	3,669	51.4%	7,144	6,916	7,021	6,981
Pocahontas		4,382	48.7%	4,608	51.3%	8,990	8,476	8,703	8,629
Ringgold		2,608	48.1%	2,815	51.9%	5,423	5,398	5,448	5,418
Taylor		3,369	48.0%	3,647	52.0%	7,016	6,938	6,954	6,943
Van Buren		3,838	49.6%	3,893	50.4%	7,731	7,792	7,781	7,785
Wayne		3,292	47.7%	3,609	52.3%	6,901	6,684	6,739	6,721
Worth		3,898	49.1%	4,045	50.9%	7,943	7,831	7,885	7,861
<b>Total</b>		<b>68,107</b>	<b>48.6%</b>	<b>72,100</b>	<b>51.4%</b>	<b>140,207</b>	<b>138,445</b>	<b>139,446</b>	<b>139,024</b>
Counties with Average Population 10,000 – 20,000		Allamakee	7,154	49.5%	7,288	50.5%	14,442	14,595	14,609
	Appanoose	6,562	47.7%	7,197	52.3%	13,769	13,563	13,693	13,635
	Butler	7,596	49.0%	7,901	51.0%	15,497	15,181	15,290	15,244
	Calhoun	5,593	49.1%	5,795	50.9%	11,388	10,965	11,148	11,082
	Cass	7,190	48.2%	7,740	51.8%	14,930	14,477	14,660	14,575
	Cedar	8,790	49.2%	9,093	50.8%	17,883	18,262	18,159	18,198
	Cherokee	6,598	48.8%	6,910	51.2%	13,508	12,898	13,063	13,003
	Chickasaw	6,606	49.9%	6,629	50.1%	13,235	13,013	13,155	13,102
	Clay	8,448	48.0%	9,137	52.0%	17,585	17,236	17,379	17,316
	Clayton	9,302	49.3%	9,560	50.7%	18,862	18,503	18,729	18,658
	Crawford	8,291	49.3%	8,525	50.7%	16,816	16,956	16,930	16,936
	Delaware	9,075	49.4%	9,286	50.6%	18,361	18,332	18,403	18,387
	Dickinson	7,671	48.4%	8,163	51.6%	15,834	16,505	16,380	16,409
	Emmet	5,498	48.4%	5,859	51.6%	11,357	10,859	11,057	10,991
	Floyd	8,167	48.0%	8,853	52.0%	17,020	16,681	16,864	16,805
	Franklin	5,341	48.7%	5,637	51.3%	10,978	10,690	10,756	10,748
	Greene	4,989	48.3%	5,331	51.7%	10,320	10,209	10,334	10,297
	Grundy	5,947	48.6%	6,295	51.4%	12,242	12,376	12,328	12,346
	Guthrie	5,492	48.8%	5,763	51.2%	11,255	11,320	11,343	11,338
	Hamilton	8,023	49.1%	8,318	50.9%	16,341	16,295	16,366	16,339
	Hancock	5,951	49.0%	6,189	51.0%	12,140	11,960	12,055	12,010
	Hardin	9,203	48.6%	9,725	51.4%	18,928	18,588	18,765	18,689
	Harrison	7,455	48.8%	7,824	51.2%	15,279	15,653	15,604	15,600
	Humboldt	5,103	48.7%	5,370	51.3%	10,473	10,284	10,395	10,348
	Iowa	7,414	48.7%	7,822	51.3%	15,236	15,779	15,630	15,666
	Jefferson	8,037	48.8%	8,420	51.2%	16,457	16,075	16,283	16,216
	Keokuk	5,574	48.6%	5,907	51.4%	11,481	11,412	11,380	11,387
	Kossuth	8,602	48.7%	9,043	51.3%	17,645	16,878	17,144	17,050
	Louisa	5,961	49.8%	6,005	50.2%	11,966	12,213	12,172	12,186
	Lyon	5,835	49.4%	5,986	50.6%	11,821	11,720	11,788	11,770
Madison	6,579	49.1%	6,812	50.9%	13,391	14,257	13,958	14,066	
Mills	6,926	49.9%	6,956	50.1%	13,882	14,620	14,467	14,516	

Source: Population Division, U.S. Census Bureau and SEER STAT



## State Population Distributions (continued)

Average Annual Population Distribution by Gender: 1992-2000							Average Annual Population			
	County	Male	% Male	Female	% Female	Total	2000-2002	1998-2001	1998-2002	
	Counties with Average Population 10,000 – 20,000 (continued)	Mitchell	5,325	48.8%	5,588	51.2%	10,913	10,764	10,842	10,811
Monona		4,841	48.1%	5,223	51.9%	10,064	9,901	9,999	9,964	
Montgomery		5,630	47.3%	6,275	52.7%	11,905	11,597	11,748	11,685	
O'Brien		7,514	48.6%	7,962	51.4%	15,476	14,947	15,174	15,107	
Page		8,450	49.7%	8,548	50.3%	16,998	16,766	17,064	16,958	
Palo Alto		5,011	48.6%	5,310	51.4%	10,321	10,020	10,140	10,089	
Poweshiek		9,089	48.1%	9,819	51.9%	18,908	18,870	18,825	18,840	
Sac		5,815	48.8%	6,096	51.2%	11,911	11,307	11,604	11,502	
Shelby		6,485	48.9%	6,781	51.1%	13,266	13,028	13,160	13,122	
Tama		8,745	48.8%	9,169	51.2%	17,914	18,026	18,085	18,057	
Union		5,898	47.6%	6,494	52.4%	12,392	12,200	12,314	12,275	
Winnebago		5,732	48.6%	6,050	51.4%	11,782	11,647	11,682	11,661	
Wright		6,997	48.3%	7,484	51.7%	14,481	14,161	14,347	14,275	
<b>Total</b>		<b>310,505</b>	<b>48.8%</b>	<b>326,138</b>	<b>51.2%</b>	<b>636,653</b>	<b>631,589</b>	<b>635,271</b>	<b>633,864</b>	
Counties with Average Population > 20,000		Benton	11,998	49.6%	12,169	50.4%	24,167	25,719	25,267	25,432
		Boone	12,447	48.5%	13,230	51.5%	25,677	26,228	26,146	26,150
	Bremer	11,255	48.4%	11,980	51.6%	23,235	23,330	23,365	23,347	
	Buchanan	10,434	49.4%	10,673	50.6%	21,107	20,979	21,078	21,040	
	Buena Vista	10,088	49.3%	10,360	50.7%	20,448	20,329	20,370	20,368	
	Carroll	10,488	48.6%	11,112	51.4%	21,600	21,221	21,485	21,411	
	Cerro Gordo	22,417	47.8%	24,507	52.2%	46,924	45,794	46,437	46,217	
	Clinton	24,590	48.3%	26,294	51.7%	50,884	49,842	50,214	50,101	
	Des Moines	20,585	48.1%	22,204	51.9%	42,789	41,905	42,364	42,183	
	Fayette	10,865	49.1%	11,274	50.9%	22,139	21,820	21,989	21,931	
	Henry	10,125	50.6%	9,891	49.4%	20,016	20,237	20,315	20,277	
	Jackson	9,948	49.2%	10,254	50.8%	20,202	20,270	20,258	20,248	
	Jasper	17,825	49.5%	18,155	50.5%	35,980	37,327	37,141	37,188	
	Jones	10,615	52.4%	9,640	47.6%	20,255	20,291	20,262	20,294	
	Lee	19,087	49.3%	19,627	50.7%	38,714	37,429	38,081	37,845	
	Mahaska	10,890	49.4%	11,169	50.6%	22,059	22,291	22,338	22,315	
	Marion	15,523	49.7%	15,685	50.3%	31,208	32,474	32,041	32,167	
	Marshall	19,139	49.2%	19,726	50.8%	38,865	39,402	39,314	39,347	
	Muscatine	20,391	49.3%	20,941	50.7%	41,332	41,895	41,645	41,724	
	Plymouth	12,068	49.4%	12,363	50.6%	24,431	24,774	24,758	24,731	
	Sioux	15,280	48.8%	16,019	51.2%	31,299	31,744	31,684	31,713	
	Story	39,720	51.4%	37,574	48.6%	77,294	80,347	79,446	79,686	
Wapello	17,430	48.3%	18,640	51.7%	36,070	35,944	36,018	35,972		
Washington	9,805	48.2%	10,536	51.8%	20,341	20,944	20,690	20,773		
Webster	19,439	48.8%	20,424	51.2%	39,863	40,040	40,061	40,013		
Winneshiek	10,390	49.1%	10,771	50.9%	21,161	21,373	21,311	21,332		
<b>Total</b>	<b>402,842</b>	<b>49.2%</b>	<b>415,218</b>	<b>50.8%</b>	<b>818,060</b>	<b>823,949</b>	<b>824,078</b>	<b>823,805</b>		
MSA Counties	Black Hawk	60,929	47.9%	66,339	52.1%	127,268	127,709	127,830	127,742	
	Dallas	17,550	49.1%	18,177	50.9%	35,727	42,624	40,297	41,082	
	Dubuque	43,054	48.5%	45,665	51.5%	88,719	89,228	88,975	89,057	
	Johnson	52,477	49.8%	52,897	50.2%	105,374	112,870	110,399	111,179	
	Linn	89,555	48.9%	93,720	51.1%	183,275	193,673	190,667	191,527	
	Polk	172,301	48.2%	185,197	51.8%	357,498	380,745	372,734	375,325	
	Pottawattamie	41,350	48.5%	43,849	51.5%	85,199	87,977	87,314	87,483	
	Scott	76,447	48.7%	80,383	51.3%	156,830	158,988	158,499	158,688	
	Warren	19,001	48.7%	20,040	51.3%	39,041	41,126	40,497	40,702	
	Woodbury	50,167	48.7%	52,818	51.3%	102,985	103,569	103,710	103,634	
<b>Total</b>	<b>622,831</b>	<b>48.6%</b>	<b>659,085</b>	<b>51.4%</b>	<b>1,281,916</b>	<b>1,338,509</b>	<b>1,320,922</b>	<b>1,326,419</b>		

## State Population Distributions

Average Annual Population Distribution by Gender: 1990-2000							Estimated Average Annual Populations	
Counties with Average Population < 10,000	County	Male	% Male	Female	% Female	Total	2001	2002
	Adair	4,064	48.6%	4,301	51.4%	8,365	8,061	7,987
Adams	2,259	49.1%	2,343	50.9%	4,602	4,404	4,384	
Audubon	3,366	48.0%	3,649	52.0%	7,015	6,699	6,647	
Clarke	4,156	48.2%	4,468	51.8%	8,624	9,125	9,058	
Davis	4,147	49.2%	4,289	50.8%	8,436	8,611	8,592	
Decatur	4,074	48.5%	4,324	51.5%	8,398	8,667	8,623	
Fremont	3,905	48.1%	4,221	51.9%	8,126	7,879	7,748	
Howard	4,868	48.9%	5,079	51.1%	9,947	9,868	9,806	
Ida	3,940	48.4%	4,203	51.6%	8,143	7,687	7,656	
Lucas	4,461	48.1%	4,806	51.9%	9,267	9,466	9,443	
Monroe	3,942	48.5%	4,194	51.5%	8,136	7,926	7,838	
Osceola	3,488	48.6%	3,683	51.4%	7,171	6,943	6,821	
Pocahontas	4,418	48.7%	4,655	51.3%	9,073	8,484	8,331	
Ringgold	2,601	48.0%	2,819	52.0%	5,420	5,432	5,297	
Taylor	3,365	47.9%	3,662	52.1%	7,027	6,924	6,900	
Van Buren	3,831	49.6%	3,895	50.4%	7,726	7,756	7,800	
Wayne	3,302	47.6%	3,629	52.4%	6,931	6,667	6,651	
Worth	3,888	48.9%	4,056	51.1%	7,944	7,816	7,766	
<b>Total</b>	<b>68,075</b>	<b>48.5%</b>	<b>72,276</b>	<b>51.5%</b>	<b>140,351</b>	<b>138,415</b>	<b>137,348</b>	
Counties with Average Population 10,000 – 20,000	Allamakee	7,094	49.4%	7,253	50.6%	14,347	14,497	14,591
	Appanoose	6,560	47.7%	7,199	52.3%	13,759	13,582	13,404
Butler	7,614	49.0%	7,929	51.0%	15,543	15,163	15,062	
Calhoun	5,574	48.9%	5,834	51.1%	11,408	10,990	10,818	
Cass	7,190	48.1%	7,769	51.9%	14,959	14,513	14,234	
Cedar	8,741	49.1%	9,068	50.9%	17,809	18,212	18,357	
Cherokee	6,638	48.8%	6,975	51.2%	13,613	12,916	12,764	
Chickasaw	6,604	49.9%	6,635	50.1%	13,239	13,078	12,890	
Clay	8,441	48.0%	9,155	52.0%	17,596	17,255	17,066	
Clayton	9,307	49.3%	9,577	50.7%	18,884	18,512	18,374	
Crawford	8,267	49.2%	8,534	50.8%	16,801	16,966	16,959	
Delaware	9,043	49.4%	9,269	50.6%	18,312	18,277	18,325	
Dickinson	7,589	48.4%	8,104	51.6%	15,693	16,526	16,524	
Emmet	5,516	48.4%	5,890	51.6%	11,406	10,852	10,728	
Floyd	8,151	47.9%	8,866	52.1%	17,017	16,608	16,572	
Franklin	5,364	48.6%	5,678	51.4%	11,042	10,666	10,714	
Greene	4,957	48.2%	5,318	51.8%	10,275	10,133	10,149	
Grundy	5,913	48.5%	6,283	51.5%	12,196	12,333	12,421	
Guthrie	5,456	48.7%	5,756	51.3%	11,212	11,294	11,318	
Hamilton	7,983	49.0%	8,310	51.0%	16,293	16,232	16,231	
Hancock	5,982	49.0%	6,233	51.0%	12,215	11,942	11,833	
Hardin	9,208	48.6%	9,745	51.4%	18,953	18,553	18,385	
Harrison	7,389	48.7%	7,789	51.3%	15,178	15,671	15,585	
Humboldt	5,120	48.7%	5,398	51.3%	10,518	10,321	10,160	
Iowa	7,358	48.6%	7,777	51.4%	15,135	15,816	15,809	
Jefferson	8,019	48.8%	8,412	51.2%	16,431	16,115	15,947	
Keokuk	5,587	48.6%	5,918	51.4%	11,505	11,396	11,418	
Kossuth	8,662	48.7%	9,118	51.3%	17,782	16,833	16,673	
Louisa	5,935	49.9%	5,970	50.1%	11,905	12,215	12,245	
Lyon	5,840	49.3%	6,003	50.7%	11,843	11,714	11,699	
Madison	6,492	49.1%	6,743	50.9%	13,235	14,211	14,499	
Mills	6,855	49.8%	6,903	50.2%	13,758	14,576	14,714	

*Source: Population Division, U.S. Census Bureau and SEER STAT*

## State Population Distributions (continued)

Average Annual Population Distribution by Gender: 1990-2000							Estimated Average Annual Population	
	County	Male	% Male	Female	% Female	Total	2001	2002
	Counties with Average Population 10,000 – 20,000 (continued)	Mitchell	5,320	48.7%	5,593	51.3%	10,913	10,736
Monona		4,824	48.0%	5,227	52.0%	10,051	9,872	9,827
Montgomery		5,637	47.3%	6,290	52.7%	11,927	11,563	11,434
O'Brien		7,506	48.5%	7,972	51.5%	15,478	14,937	14,837
Page		8,403	49.5%	8,571	50.5%	16,974	16,837	16,533
Palo Alto		5,035	48.5%	5,341	51.5%	10,376	10,032	9,886
Poweshiek		9,097	48.1%	9,826	51.9%	18,923	18,874	18,901
Sac		5,842	48.8%	6,128	51.2%	11,970	11,347	11,098
Shelby		6,484	48.9%	6,784	51.1%	13,268	13,031	12,972
Tama		8,690	48.7%	9,136	51.3%	17,826	18,045	17,946
Union		5,913	47.5%	6,535	52.5%	12,448	12,202	12,117
Winnebago		5,751	48.6%	6,076	51.4%	11,827	11,602	11,580
Wright		6,960	48.2%	7,478	51.8%	14,438	14,169	13,986
<b>Total</b>		<b>309,911</b>	<b>48.7%</b>	<b>326,368</b>	<b>51.3%</b>	<b>636,281</b>	<b>631,215</b>	<b>628,273</b>
Counties with Average Population > 20,000		Benton	11,824	49.6%	12,035	50.4%	23,859	25,721
	Boone	12,383	48.4%	13,220	51.6%	25,603	26,265	26,167
	Bremer	11,228	48.5%	11,945	51.5%	23,173	23,415	23,276
	Buchanan	10,399	49.4%	10,666	50.6%	21,065	20,973	20,886
	Buena Vista	10,024	49.2%	10,348	50.8%	20,372	20,259	20,360
	Carroll	10,465	48.5%	11,103	51.5%	21,568	21,186	21,113
	Cerro Gordo	22,387	47.7%	24,548	52.3%	46,935	45,713	45,339
	Clinton	24,579	48.3%	26,340	51.7%	50,919	49,807	49,650
	Des Moines	20,557	48.0%	22,228	52.0%	42,785	41,968	41,458
	Fayette	10,833	49.0%	11,276	51.0%	22,109	21,759	21,696
	Henry	10,048	50.5%	9,855	49.5%	19,903	20,289	20,122
	Jackson	9,917	49.2%	10,232	50.8%	20,149	20,292	20,208
	Jasper	17,678	49.4%	18,090	50.6%	35,768	37,356	37,375
	Jones	10,528	52.3%	9,597	47.7%	20,125	20,239	20,419
	Lee	19,069	49.2%	19,655	50.8%	38,724	37,446	36,902
	Mahaska	10,820	49.3%	11,145	50.7%	21,965	22,350	22,222
	Marion	15,420	49.7%	15,585	50.3%	31,005	32,630	32,674
	Marshall	19,059	49.2%	19,695	50.8%	38,754	39,393	39,482
	Muscatine	20,271	49.3%	20,865	50.7%	41,136	41,852	42,040
	Plymouth	11,964	49.3%	12,284	50.7%	24,248	24,830	24,626
	Sioux	15,154	48.8%	15,913	51.2%	31,067	31,830	31,829
	Story	39,497	51.4%	37,278	48.6%	76,775	80,209	80,649
	Wapello	17,371	48.2%	18,646	51.8%	36,017	36,032	35,787
	Washington	9,749	48.2%	10,480	51.8%	20,229	21,004	21,106
	Webster	19,409	48.6%	20,541	51.4%	39,950	40,101	39,821
Winneshiek	10,363	49.1%	10,760	50.9%	21,123	21,392	21,416	
<b>Total</b>	<b>400,996</b>	<b>49.2%</b>	<b>414,330</b>	<b>50.8%</b>	<b>815,326</b>	<b>824,311</b>	<b>822,719</b>	
MSA Counties	Black Hawk	60,656	47.8%	66,177	52.2%	126,833	127,777	127,394
	Dallas	17,045	49.1%	17,685	50.9%	34,730	42,594	44,222
	Dubuque	42,855	48.5%	45,502	51.5%	88,357	89,046	89,387
	Johnson	51,686	49.8%	52,173	50.2%	103,859	112,955	114,300
	Linn	88,326	48.8%	92,591	51.2%	180,917	193,825	194,970
	Polk	169,700	48.1%	182,989	51.9%	352,689	380,657	385,691
	Pottawattamie	41,070	48.5%	43,690	51.5%	84,760	87,790	88,157
	Scott	75,967	48.7%	80,033	51.3%	156,000	158,810	159,445
	Warren	18,768	48.7%	19,789	51.3%	38,557	41,064	41,523
	Woodbury	49,730	48.6%	52,532	51.4%	102,262	103,508	103,331
<b>Total</b>	<b>615,803</b>	<b>48.5%</b>	<b>653,161</b>	<b>51.5%</b>	<b>1,268,964</b>	<b>1,338,026</b>	<b>1,348,420</b>	

### Average Annual Population Distribution by Age: 1990-2000

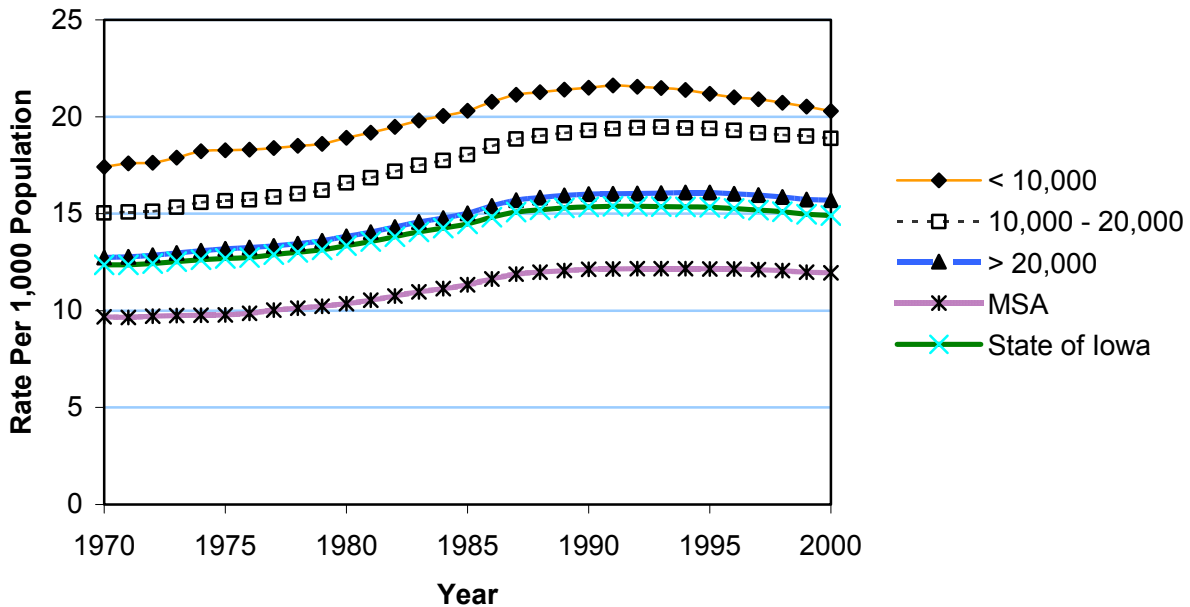
County	% <1	% 1-4	% 5-14	% 15-24	% 25-44	% 45-64	% 65-84	% 85 +	
Counties with Average Population < 10,000	Adair	1.2%	4.7%	14.1%	10.9%	25.1%	21.2%	19.0%	3.8%
	Adams	1.1%	4.9%	13.5%	10.4%	25.2%	22.8%	19.0%	3.0%
	Audubon	1.2%	5.0%	14.8%	9.8%	23.8%	21.9%	19.8%	3.7%
	Clarke	1.3%	5.0%	14.9%	11.7%	27.4%	21.1%	15.6%	3.0%
	Davis	1.2%	5.8%	15.3%	12.0%	26.3%	21.2%	15.3%	3.0%
	Decatur	1.1%	4.6%	13.0%	19.6%	22.7%	19.8%	16.2%	3.1%
	Fremont	1.1%	4.7%	15.1%	10.7%	25.4%	22.2%	18.0%	2.8%
	Howard	1.3%	4.9%	15.4%	10.9%	25.8%	20.2%	18.1%	3.3%
	Ida	1.1%	5.1%	15.3%	10.8%	25.8%	20.6%	18.1%	3.1%
	Lucas	1.0%	5.0%	14.5%	11.3%	25.7%	22.3%	17.0%	3.2%
	Monroe	1.3%	5.0%	14.8%	11.4%	26.3%	21.5%	16.7%	3.0%
	Osceola	1.2%	5.1%	15.4%	11.7%	26.8%	20.5%	16.2%	3.1%
	Pocahontas	1.1%	4.6%	15.2%	9.8%	24.8%	22.6%	18.7%	3.3%
	Ringgold	1.1%	4.6%	13.4%	10.8%	23.0%	22.5%	20.8%	3.8%
	Taylor	1.0%	4.5%	14.4%	11.2%	24.3%	21.1%	19.8%	3.6%
	Van Buren	1.1%	5.2%	14.8%	11.1%	25.7%	22.4%	16.9%	2.9%
	Wayne	1.0%	4.5%	13.7%	10.1%	24.0%	21.4%	21.1%	4.1%
	Worth	1.2%	4.6%	14.2%	10.9%	26.9%	21.8%	17.0%	3.5%
Total	1.1%	4.9%	14.6%	11.5%	25.3%	21.4%	17.8%	3.3%	
Counties with Average Population 10,000 – 20,000	Allamakee	1.1%	5.1%	15.2%	11.4%	26.6%	21.6%	16.2%	2.9%
	Appanoose	1.2%	4.6%	14.2%	11.9%	26.1%	21.3%	17.7%	3.0%
	Butler	1.1%	4.7%	14.7%	11.1%	26.3%	21.6%	17.5%	3.0%
	Calhoun	1.0%	4.5%	13.9%	10.3%	25.8%	21.7%	19.2%	3.7%
	Cass	1.1%	4.7%	14.3%	10.8%	26.2%	21.8%	17.8%	3.3%
	Cedar	1.2%	5.0%	15.1%	11.4%	29.0%	21.5%	14.3%	2.6%
	Cherokee	1.2%	4.8%	14.9%	11.3%	26.0%	22.3%	16.8%	2.8%
	Chickasaw	1.2%	5.0%	15.8%	11.8%	27.0%	21.4%	15.4%	2.5%
	Clay	1.3%	5.2%	15.0%	12.0%	28.6%	20.5%	14.8%	2.6%
	Clayton	1.2%	5.0%	15.4%	11.3%	27.1%	21.5%	15.8%	2.6%
	Crawford	1.2%	5.2%	15.1%	12.9%	26.5%	21.2%	15.2%	2.6%
	Delaware	1.3%	5.6%	17.5%	12.5%	28.3%	20.0%	12.9%	1.9%
	Dickinson	1.1%	4.3%	13.2%	10.3%	26.1%	24.1%	18.2%	2.6%
	Emmet	1.1%	4.4%	14.4%	14.7%	25.2%	20.9%	16.3%	3.0%
	Floyd	1.2%	5.1%	14.6%	11.6%	25.4%	22.4%	16.7%	3.0%
	Franklin	1.1%	4.7%	14.3%	11.3%	26.0%	22.1%	17.7%	2.9%
	Greene	1.0%	4.8%	14.6%	10.5%	25.5%	21.3%	18.8%	3.5%
	Grundy	1.0%	4.7%	14.8%	10.8%	26.4%	22.4%	17.0%	2.8%
	Guthrie	1.1%	4.4%	14.2%	10.4%	25.7%	23.3%	17.9%	3.0%
	Hamilton	1.3%	5.1%	14.4%	11.3%	28.3%	21.2%	15.8%	2.5%
	Hancock	1.3%	5.2%	15.7%	11.4%	27.1%	20.9%	15.9%	2.6%
	Hardin	1.1%	4.6%	13.7%	13.2%	25.3%	20.9%	17.8%	3.4%
	Harrison	1.1%	5.2%	15.4%	11.5%	27.3%	20.9%	15.7%	2.8%
	Humboldt	1.1%	4.7%	14.6%	11.0%	25.8%	21.5%	18.4%	2.9%
	Iowa	1.2%	5.3%	15.2%	10.6%	28.9%	20.9%	15.1%	2.9%
	Jefferson	1.1%	4.8%	14.3%	11.7%	30.3%	23.5%	12.2%	2.1%
	Keokuk	1.2%	4.9%	15.2%	11.3%	26.5%	20.5%	17.2%	3.2%
	Kossuth	1.1%	5.0%	15.5%	11.1%	26.0%	21.7%	16.7%	2.9%
	Louisa	1.4%	5.5%	15.7%	12.8%	29.4%	20.6%	12.6%	2.1%
	Lyon	1.5%	5.7%	16.9%	12.2%	25.8%	19.7%	15.6%	2.7%
Madison	1.3%	5.5%	15.6%	11.7%	28.3%	21.2%	13.7%	2.7%	
Mills	1.1%	5.1%	15.8%	12.0%	30.4%	22.2%	11.6%	1.7%	

Source: Population Division, U.S. Census Bureau and SEER STAT

### Average Annual Population Distribution by Age: 1990-2000 (continued)

		County	% <1	% 1-4	% 5-14	% 15-24	% 25-44	% 45-64	% 65-84	% 85 +
Counties with Average Population 10,000 – 20,000 (continued)	Mitchell	1.2%	5.0%	15.2%	10.9%	24.9%	20.8%	18.1%	3.8%	
	Monona	1.1%	4.3%	13.8%	10.2%	24.2%	22.0%	20.3%	4.0%	
	Montgomery	1.1%	4.9%	14.3%	11.0%	26.7%	20.7%	17.8%	3.5%	
	O'Brien	1.1%	5.0%	14.9%	11.9%	25.5%	20.7%	17.5%	3.4%	
	Page	1.1%	4.5%	13.6%	12.0%	27.0%	21.1%	17.5%	3.1%	
	Palo Alto	1.1%	4.7%	14.6%	13.3%	24.2%	21.0%	17.7%	3.5%	
	Poweshiek	1.1%	4.7%	13.4%	16.8%	26.0%	20.5%	14.8%	2.7%	
	Sac	1.2%	4.8%	14.8%	10.7%	24.9%	21.1%	18.9%	3.6%	
	Shelby	1.2%	5.0%	15.5%	10.9%	26.0%	20.9%	17.6%	3.0%	
	Tama	1.3%	5.2%	14.9%	11.7%	26.1%	21.6%	16.2%	3.0%	
	Union	1.1%	4.8%	14.0%	12.9%	26.9%	21.1%	16.3%	2.9%	
	Winnebago	1.1%	4.8%	14.1%	13.9%	26.0%	20.4%	16.4%	3.2%	
	Wright	1.2%	4.8%	13.9%	10.6%	25.8%	21.5%	18.5%	3.6%	
	Total	1.2%	4.9%	14.8%	11.8%	26.7%	21.4%	16.3%	2.9%	
	Counties with Average Population > 20,000	Benton	1.3%	5.6%	16.1%	11.6%	29.6%	20.0%	13.8%	2.1%
Boone		1.2%	5.0%	14.2%	12.1%	28.9%	21.2%	14.4%	2.9%	
Bremer		1.1%	4.6%	14.3%	16.5%	25.7%	21.7%	13.8%	2.4%	
Buchanan		1.5%	5.7%	17.0%	12.9%	27.5%	20.2%	13.2%	1.8%	
Buena Vista		1.2%	5.0%	14.6%	16.1%	26.1%	19.0%	15.4%	2.7%	
Carroll		1.2%	5.5%	16.4%	12.1%	26.8%	19.4%	15.8%	2.7%	
Cerro Gordo		1.2%	5.0%	13.8%	13.0%	28.6%	21.0%	15.0%	2.4%	
Clinton		1.3%	5.4%	14.9%	12.6%	28.6%	21.3%	14.0%	2.0%	
Des Moines		1.3%	5.1%	14.3%	12.7%	28.3%	22.0%	14.2%	2.3%	
Fayette		1.2%	5.1%	14.6%	13.0%	26.1%	20.9%	16.4%	2.7%	
Henry		1.2%	5.0%	14.2%	13.8%	30.2%	20.2%	13.1%	2.4%	
Jackson		1.2%	5.2%	15.6%	12.1%	27.4%	21.6%	14.6%	2.3%	
Jasper		1.3%	5.0%	14.4%	11.7%	29.3%	22.0%	14.3%	2.0%	
Jones		1.2%	4.7%	14.3%	12.8%	30.3%	20.9%	13.7%	2.1%	
Lee		1.2%	5.0%	14.4%	12.2%	28.7%	22.0%	14.4%	2.2%	
Mahaska		1.3%	5.4%	14.7%	13.6%	28.1%	19.8%	14.7%	2.3%	
Marion		1.2%	5.1%	14.6%	14.9%	27.6%	20.2%	13.9%	2.3%	
Marshall		1.2%	5.0%	14.1%	12.3%	28.0%	22.0%	15.1%	2.3%	
Muscatine		1.4%	5.6%	15.6%	13.4%	30.4%	20.5%	11.3%	1.8%	
Plymouth		1.3%	5.5%	16.5%	13.1%	27.1%	20.2%	14.0%	2.3%	
Sioux		1.3%	5.7%	16.5%	18.6%	24.9%	17.9%	13.0%	2.0%	
Story		1.2%	4.3%	10.8%	31.3%	27.3%	15.3%	8.4%	1.5%	
Wapello		1.3%	4.9%	13.4%	13.2%	27.5%	21.5%	15.8%	2.4%	
Washington	1.4%	5.5%	15.0%	11.4%	28.2%	20.2%	15.3%	3.0%		
Webster	1.3%	5.4%	14.3%	13.7%	27.0%	20.5%	15.1%	2.6%		
Winneshiek	1.0%	4.7%	13.6%	20.9%	25.4%	18.8%	13.4%	2.3%		
Total	1.2%	5.1%	14.4%	15.2%	27.9%	20.2%	13.7%	2.2%		
MSA Counties	Black Hawk	1.2%	5.1%	13.7%	18.7%	27.4%	20.0%	12.1%	1.8%	
	Dallas	1.5%	6.1%	15.7%	11.3%	32.3%	20.1%	11.2%	1.8%	
	Dubuque	1.3%	5.4%	14.9%	15.0%	28.7%	20.3%	12.5%	2.0%	
	Johnson	1.3%	4.7%	11.0%	26.9%	33.1%	15.4%	6.5%	1.0%	
	Linn	1.4%	5.5%	14.1%	14.5%	31.9%	20.4%	10.7%	1.5%	
	Polk	1.5%	5.9%	14.0%	14.0%	33.6%	19.6%	10.0%	1.4%	
	Pottawattamie	1.4%	5.5%	15.0%	13.4%	29.9%	21.1%	12.1%	1.5%	
	Scott	1.4%	5.8%	15.4%	14.0%	31.3%	20.5%	10.3%	1.3%	
	Warren	1.3%	5.6%	15.8%	14.6%	30.1%	21.1%	9.8%	1.6%	
	Woodbury	1.4%	6.0%	15.6%	14.3%	29.4%	19.1%	12.2%	1.8%	
Total	1.4%	5.6%	14.3%	15.6%	31.4%	19.7%	10.6%	1.5%		

## Aging Trend in Iowa: Percent of Iowans Age 65 and Older, by County Group



## Estimated Year 2000 US Standard Population

Age Range	Population	Percent of Total
<1	13,818	1.4%
01-04	55,317	5.5%
05-09	72,533	7.3%
10-14	73,032	7.3%
15-19	72,169	7.2%
20-24	66,478	6.6%
25-29	64,529	6.5%
30-34	71,044	7.1%
35-39	80,762	8.1%
40-44	81,851	8.2%
45-49	72,118	7.2%
50-54	62,716	6.3%
55-59	48,454	4.8%
60-64	38,793	3.9%
65-69	34,264	3.4%
70-74	31,773	3.2%
75-79	26,999	2.7%
80-84	17,842	1.8%
85+	15,508	1.6%
<b>Total</b>	<b>1,000,000</b>	<b>100.0%</b>

Source: Population Division, U.S. Census Bureau and SEER STAT

## Health and Social Behaviors

The health of individuals and their communities is determined by a variety of factors including biologic, environmental, social, and behavioral influences. This section provides an overview of selected surveys and statistics collected in Iowa to track the effects of these various influences on the health of Iowans. Introductions are provided individually for each of the surveys with links to more detailed information on survey methodology and additional data where available. Information on marriages, dissolutions, and crime statistics is included at the end of this section because it characterizes and contrasts the population dynamics that can affect health.

### QUESTIONS TO CONSIDER WHEN USING SURVEY RESULTS...

- ✓ What was the method used to conduct the survey, i.e., telephone, mail, personal interview?
- ✓ What was the response rate of those surveyed and what factors might influence who responds and who doesn't?
- ✓ Are the survey respondents representative of and thus generalizable to a particular population?
- ✓ Because a survey provides only estimates based on the sampled population, what are the variability measures of these estimates?
- ✓ Were the survey questions cross-sectional in that they represent attitudes, behaviors, or disease status of different people, or were the same people surveyed repeatedly over time?

## Behavioral Risk Factor Surveillance System (BRFSS)

The Behavioral Risk Factor Surveillance System (BRFSS) survey is an ongoing telephone survey that is conducted each year in every state, including Iowa, as well as in the District of Columbia, and in Puerto Rico. It is financially and technically supported by the Centers for Disease Control and Prevention (CDC) and is a scientifically-designed and validated method of collecting information.

The Iowa BRFSS collects health risk behavior information from 3,600 household telephone surveys, and is designed to collect information on nationally agreed upon topics and on additional areas of special interest to Iowa. Because the BRFSS is conducted annually, the prevalence of these behaviors may be followed longitudinally. The risk behaviors of those surveyed (Iowa residents age 18 and over) are major contributions to illness, disability, and premature death.

The goal of the Iowa BRFSS is to provide data to initiate and guide health promotion disease prevention programs. The BRFSS program achieves this goal by:

1. determining state specific prevalence of personal health behaviors related to the leading cause of premature death;
2. developing the capacity of the state health department to conduct credible telephone surveys; and
3. advancing the understanding that health-related behaviors are critical indices of health.

The BRFSS results can help inform health professionals as to health behaviors and beliefs of the general population, and can be used as a measure of the effectiveness of various public health strategies.

### BRFSS KEY AREAS...

- ✓ Health Status
- ✓ Health Care Coverage
- ✓ Physical Inactivity
- ✓ Body Weight
- ✓ Smoking
- ✓ Alcohol Consumption
- ✓ Hypertension
- ✓ Cholesterol Awareness
- ✓ Colorectal Cancer Screening
- ✓ Diabetes
- ✓ Adult Immunizations
- ✓ Injury Control
- ✓ Women's Health
- ✓ HIV/AIDS



## Iowa Behavioral Risk Factor Surveillance System 2000-2001

	Definition	Iowa		US Median <sup>1</sup>	
		2000 % (%,%) <sup>2</sup>	2001 % (%,%)	2000 %	2001 %
Binge drinking	All respondents having five or more alcoholic beverages on one or more occasion in the past month.	**	28.9 (26.7,31.1)	**	27.7
Chronic drinking	All respondents averaging two or more drinks per day in the last month.	**	5.1 (31.1,5.9)	**	5.6
Current smoker	All respondents smoking 100 cigarettes in their lifetime and currently smoking every day or some days.	21.0 (19.6,22.5)	22.2 (20.9,23.6)	23.2	23.2
Diabetes	All respondents ever being diagnosed with diabetes, excluding gestational diabetes.	5.9 (5.1,6.7)	5.8 (5.1,6.5)	6.2	6.5
High blood pressure	All respondents being told by a health professional that they had high blood pressure.	**	23.9 (22.5,25.3)	**	25.6
Cholesterol	All respondents having their cholesterol checked in the past five years.	**	94.5 (93.7,95.3)	**	94.9
High cholesterol	All respondents being told by a health professional that they had high cholesterol.	**	29.2 (27.6,30.9)	**	30.3
No insurance coverage	All respondents who currently did not have any kind of health care coverage.	10.7 (9.6,11.8)	10.1 (9.1,11.1)	11.9	12.9
Mammogram	Female respondents age 40 and older having a mammogram in the past two years.	86.3 (84.4,88.2)	**	87	**
Pap smear	Female respondents with a uterine cervix having a pap smear in the past three years.	91.6 (90.3,93.0)	**	91.6	**
Obesity	All respondents who had a calculated body mass index (BMI) of 30.0 or above.	20.8 (19.4,22.2)	21.6 (20.2,23.0)	20.2	21.1
Overweight	All respondents who had a calculated body mass index (BMI) from 25.0 to 29.9, inclusive.	37.9 (36.2,39.7)	35.4 (33.8,37.1)	36.7	37.2
Sigmoidoscopy/ Colonoscopy	All respondents who ever had a sigmoidoscopy or colonoscopy.	**	44.2 (41.7,46.8)	**	46.5
Tested for HIV	Respondents age 18 to 64 who have ever had a HIV test, excluding for blood donations.	41.8 (38.1,45.4)	41.1 (39.2,42.9)	48.8	46.1
Asthma	All respondents who currently have asthma.	72.6 (67.5,77.6)	70.8 (66.3,75.4)	71.1	68.1
Health Status	All respondents who rate their current health as good, very good, or excellent.	87.6 (86.5,88.7)	87.4 (86.3,88.5)	85.6	85.8

\*\* This question was not asked in Iowa in the given year.

<sup>1</sup> In the US, half of the 50 states fall above this point and half fall below.

<sup>2</sup> 95% confidence interval for the Iowa estimate %.

Source: BRFSS, Centers for Disease Control and Prevention and the Iowa Department of Public Health.

## 2002 Iowa Youth Tobacco Survey (IYTS)

The Iowa Youth Tobacco Survey (IYTS) supplies vital information that guides tobacco-use prevention programs. The survey results serve as a guide to help evaluate current efforts to reduce tobacco use among younger Iowans. The Iowa Department of Public Health Division of Tobacco Use Prevention and Control, and the Centers for Disease Control and Prevention in Atlanta, along with many other organizations and school districts

implemented this survey in the spring of 2002. The IYTS used a random sample of 60 schools to participate in the 2002 IYTS: 30 middle schools (grades 6 through 8) and 30 high schools (grades 9 through 12). A multistage sampling design was used. Twenty-seven of the middle schools and 25 of

### LEVEL OF PARTICIPATION

Middle School	77%
High School	77%

### SELECTED RESULTS...

		Weighted Estimates		
		Males	Females	Total
Respondents who reported using any tobacco products during the past 30 days.	Middle School	12%	10%	11%
	High School	38%	29%	34%
Respondents who reported smoking cigarettes during the past 30 days.	Middle School	6%	7%	7%
	High School	27%	27%	27%
Respondents who reported smoking cigarettes during the past 30 days who indicated they tried to quit two or more times.	Middle School	2%	3%	5%
	High School	6%	8%	14%

the high schools provided data (an 87% school response rate).

Within these schools, all students in the second period classrooms were asked to participate. There were 1,848 middle school students selected to participate and 1,633 (88%) completed a useable questionnaire. There were 1,937 high school students selected to participate and 1,697 (88%) completed a useable questionnaire. The overall response rate, including both schools and students, was 77% for the middle school sample and 77% for the high school sample. The questionnaires were

completed between April and May of 2002.

The weighted data account for the number of students in the classrooms and schools and reduce the impact of nonresponse bias. Since the sample was chosen to represent schools in Iowa, the weighted results estimate Iowa students' tobacco use in grades 6 through 12.

### SELECTED RESULTS...

#### Weighted Estimates by Grade Level

Respondents	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	
who reported using any tobacco products during the past 30 days	8%	8%	17%	
	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
	26%	30%	42%	37%

## Iowa Youth Survey

The 2002 Iowa Youth survey was a joint project among the Iowa Department of Public Health Division of Health Promotion, Prevention and Addictive Behaviors; Iowa Department of Human Rights Division of Criminal & Juvenile Justice Planning; Iowa Governor's Office of Drug Control Policy; Iowa Department of Education; Iowa Workforce Development; and The Higher Plain, Inc.

**Survey scope.** The 2002 IYS is the 10<sup>th</sup> in a series of youth surveys that have been completed every three years since 1975. The 1999 and 2002 surveys differ from previous years in both the procedures used to implement the survey and the students who were asked to participate. Previous surveys were given to approximately one-third of Iowa's public school districts and a sample of their 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> grade students. Starting with the 1999 IYS, participation was sought from all public school districts and all students in grades 6, 8 and 11, as well as 14-18 year-old students in alternative programs. These changes make it possible to provide youth development-related data for each participating school, as well as for each county in which participating students reside. They also make it more feasible to use IYS results to assess the outcome of community and school youth development programs. The changes do, however, restrict direct comparisons with surveys prior to 1999 to grades 6 and 8, and to the schools that participated in those surveys.

Starting with the 2002 IYS, participation was also sought from all non-public schools in the state, in addition to all of the public school districts. It was believed that by including all Iowa students in the 6<sup>th</sup>, 8<sup>th</sup> and 11<sup>th</sup> grades, the survey results would more accurately reflect the attitudes and perceptions of all Iowa students in those grades, not just those attending public schools. These non-public school data have been included in this report.

Grade	Number Enrolled	Number Completed IYS	Percent Completed IYS
6	40,033	32,163	80.3
8	40,142	32,919	82.0
11	40,127	30,335	75.5

Some survey questionnaires were completed in 349 of Iowa's 371 public school districts (94.1%) and in a minimum of 49 of 178 private schools (27.5%) with some combination of students enrolled in the 6<sup>th</sup>, 8<sup>th</sup> and/or 11<sup>th</sup> grades. A total of 96,971 public and private school students across the state completed the IYS, with each county represented by at least 170 students, except Wayne County. Due to procedural errors in obtaining the survey forms and distributing the forms to the student-participants, the data from certain non-public schools were irretrievably commingled with the

public school data in four public school districts, thus it is not possible to calculate the actual number of public school students and non-public school students who completed surveys, or the exact number of private schools that submitted surveys.

**Survey content.** The 2002 IYS questionnaire includes questions about the students' behaviors and attitudes/beliefs, as well as their perceptions of their peer, family, school and neighborhood/community environments. Prior research has shown that each of these environments plays a significant role in positive youth development. Selection of specific survey questions was based on a combination of: 1) analysis of data collected in previous Iowa Youth Surveys; 2) a literature review of the established youth development models, especially those that enjoy some acceptance in Iowa; and 3) discussion sessions with youth development professionals (community service providers, school district personnel and academicians).

The general content of the questions included in the 2002 IYS is similar to that of previous surveys. Most of the items are relevant to the constructs on which previous IYS were based. All questions and responses from the 1999 IYS were utilized without modification, and several new questions added. Among the new additions were questions regarding certain prohibited activities on school property, the student's perceived career path upon finishing high school, and job and job seeking skills developed in school.

The appropriateness of any comparison between 1999 and 2002 surveys, and surveys from previous years must be considered on a question-by-question basis. Trend analyses for the most part should be considered exploratory at best. If comparisons are made, the 1999 and 2002 reports may make the state *appear* to be significantly different, for better or worse, from the reports generated by previous surveys. This appearance may be due to differences in question wording between the 1999/2002 reports and all previous reports and the representativeness of the samples rather than to actual changes in Iowa's youth. Further, the 2002 IYS state report contains data from over 2,200 non-public school students who did not participate in the 1999 IYS. These students equate to 2.3% of the usable IYS surveys received, and thus may have some impact on the state level data.

## Iowa Youth Survey (IYS) 2002

Substance Use Behaviors	Definition	% <sup>1</sup>	% <sup>1</sup>	% <sup>1</sup>	% <sup>2</sup>
		6 <sup>th</sup> grade	8 <sup>th</sup> grade	11 <sup>th</sup> grade	State
Tobacco	Percentage of students who reported smoking cigarettes during the past 30 days.	1	9	23	11
	Percentage of students who reported smoking cigars during the past 30 days.	0	2	10	4
	Percentage of students who reported using smokeless tobacco during the past 30 days.	0	1	8	2
Alcohol	Percentage of students who reported having 1 or more alcoholic drinks during the past 30 days.	5	18	43	23
	Percentage of students who reported having 5 or more alcoholic drinks in a row, within a couple of hours, during the past 30 days.	3	13	36	16
Marijuana	Percentage of students who reported using marijuana during the past 30 days.	0	5	16	8
Inhalants	Percentage of students who reported sniffing glue, breathing the contents of gases or sprays in order to get high during the past 30 days.	1	2	2	1
Methamphetamines	Percentage of students who reported using methamphetamines during the past 30 days.	0	0	2	0
Cocaine	Percentage of students who reported using cocaine during the past 30 days.	0	0	2	1
Amphetamines	Percentage of students who reported using amphetamines (other than methamphetamines) during the past 30 days.	0	1	3	1
Steroid Pills/Shots	Percentage of students who reported taking steroid pills or shots without a doctor's prescription during the past 30 days.	0	1	3	1
Other Illegal Drugs	Percentage of students who reported using any other illegal drug during the past 30 days.	0	1	7	3
Other Behaviors	Percentage of students who spent money gambling in the past 12 months.	19	33	36	28
	Percentage of students who have ever tried to kill themselves.	6	11	15	11
	Percentage of students who have ever been involved in any sexually related behavior that they wish would not have happened.	6	12	28	16

%<sup>1</sup> Unweighted Percentage%<sup>2</sup> Weighted Percentage

Source: Iowa Dept. of Public Health, Div. of Health Promotion, Prevention, and Addictive Behaviors

## Iowa Youth Survey 2002 (continued)

	Definition		% <sup>1</sup>	% <sup>1</sup>	% <sup>1</sup>	% <sup>2</sup>
			6 <sup>th</sup> grade	8 <sup>th</sup> grade	11 <sup>th</sup> grade	State
Attitudes about self	I am accepting of those different than me (racially, culturally, socio-economically).	Strongly Agree	57	52	49	53
		Agree	36	41	43	40
		Disagree	5	5	5	5
		Strongly Disagree	2	2	2	2
	I can say "no" when someone wants me to do things I know are wrong or dangerous.	Strongly Agree	77	59	49	61
		Agree	19	33	42	31
Disagree		3	6	7	5	
Strongly Disagree		2	2	2	2	
Violence is the worst way to solve problems	Strongly Agree	63	41	32	45	
	Agree	25	39	42	35	
	Disagree	6	14	20	14	
	Strongly Disagree	5	6	6	6	
It is against my values to have sex as a teenager	Strongly Agree	66	43	19	42	
	Agree	19	29	22	23	
	Disagree	8	18	36	21	
	Strongly Disagree	7	10	23	14	
It is against my values to use alcohol and drugs as a teenager.	Strongly Agree	78	54	25	52	
	Agree	15	27	26	23	
	Disagree	4	13	34	17	
	Strongly Disagree	4	5	15	8	
Attitudes about alcohol						
	People feel more caring and giving after a few drinks of alcohol.	True/mostly true	11	22	43	26
		False/mostly false	89	78	57	74
	Drinking alcohol makes people more friendly.	True/mostly true	6	17	48	24
False/mostly false		94	83	52	76	
Attitudes about school	It's fun to watch others act silly when they are drinking alcohol.	True/mostly true	20	43	71	45
		False/mostly false	80	57	29	55
	Alcoholic beverages make parties more fun.	True/mostly true	11	27	53	31
		False/mostly false	89	73	47	69
	There are clear rules about what students can and cannot do.	Strongly Agree	64	42	28	44
		Agree	31	47	57	45
		Disagree	4	8	12	8
Strongly Disagree		2	3	3	3	
Students caught drinking, smoking, or using an illegal drug are not allowed to participate in any extracurricular activity for some time period.	Strongly Agree	80	64	45	63	
	Agree	15	27	41	28	
	Disagree	3	5	9	6	
	Strongly Disagree	3	3	4	4	
If I skipped school at least one of my parents/guardians would be notified.	Strongly Agree	68	51	34	51	
	Agree	24	38	50	38	
	Disagree	4	8	12	8	
	Strongly Disagree	4	3	3	3	

%<sup>1</sup> Unweighted Percentage%<sup>2</sup> Weighted Percentage

Source: Iowa Dept. of Public Health, Div. of Health Promotion, Prevention, &amp; Addictive Behaviors

## Iowa Youth Survey 2002 (continued)

Definition		% <sup>1</sup>	% <sup>1</sup>	% <sup>1</sup>	% <sup>2</sup>	
		6 <sup>th</sup> grade	8 <sup>th</sup> grade	11 <sup>th</sup> grade	State	
Attitudes about school (continued)	Students in my school treat each other with respect.	Strongly Agree	28	12	6	15
		Agree	42	39	39	40
		Disagree	23	35	41	33
		Strongly Disagree	7	13	14	11
	I feel safe at school.	Strongly Agree	50	27	16	31
		Agree	38	54	65	53
		Disagree	8	14	14	12
		Strongly Disagree	3	6	5	5
	There is at least one adult at school who I could go to for help with a problem.	Strongly Agree	68	46	32	48
		Agree	25	41	52	40
		Disagree	4	8	11	8
		Strongly Disagree	3	5	5	4
Attitudes about family	In my home there are clear rules about what I can and cannot do.	Strongly Agree	65	47	35	48
		Agree	30	43	51	41
		Disagree	4	8	12	8
		Strongly Disagree	1	2	3	2
	I have a happy home.	Strongly Agree	60	44	34	45
		Agree	32	43	50	42
		Disagree	6	10	12	10
		Strongly Disagree	2	3	4	3
	There are people living in my home who have a serious alcohol or drug problem.	Strongly Agree	10	8	6	8
		Agree	8	9	11	9
		Disagree	18	24	27	23
		Strongly Disagree	64	59	57	60
I can get help and support when I need it from someone in my home.	Strongly Agree	69	49	34	50	
	Agree	24	39	49	38	
	Disagree	4	8	11	8	
	Strongly Disagree	3	4	5	4	
A parent/guardian knows where I am and who I am with, especially in the evening and on weekends.	Never	11	9	8	9	
	Sometimes	10	17	25	17	
	Often	12	21	31	22	
	Always	67	53	37	52	
Attitudes about community	My neighborhood is a safe place to live.	Strongly Agree	57	46	42	48
		Agree	34	44	50	43
		Disagree	7	7	6	7
		Strongly Disagree	3	3	2	3

%<sup>1</sup> Unweighted Percentage  
 %<sup>2</sup> Weighted Percentage

Source: Iowa Dept. of Public Health, Div. of Health Promotion, Prevention, and Addictive Behaviors



## Iowa Youth Survey 2002 (continued)

Definition		% <sup>1</sup>	% <sup>1</sup>	% <sup>1</sup>	% <sup>2</sup>	
		6 <sup>th</sup> grade	8 <sup>th</sup> grade	11 <sup>th</sup> grade	State	
Attitudes about community (continued)	Adults in my neighborhood or community help me when I need help.	Strongly Agree	46	26	12	27
		Agree	36	45	48	43
		Disagree	12	21	28	21
		Strongly Disagree	5	8	11	8
	In your neighborhood or community how difficult do you think it would be for a kid your age to get...					
...cigarettes	Very hard	52	26	7	27	
	Hard	20	26	12	19	
	Easy	10	25	38	25	
	Very Easy	5	12	37	19	
	Don't know	13	11	6	10	
...alcoholic beverages (beer, wine, liquor).	Very hard	50	23	7	26	
	Hard	21	23	11	18	
	Easy	12	29	40	28	
	Very Easy	5	15	36	19	
	Don't know	12	10	5	9	
...marijuana (pot, grass, hash, bud, weed).	Very hard	68	43	13	41	
	Hard	12	22	19	18	
	Easy	5	14	33	18	
	Very Easy	3	8	22	12	
	Don't know	13	13	12	13	
...methamphetamine s (crack, ice).	Very hard	70	51	24	47	
	Hard	11	21	29	21	
	Easy	3	8	17	9	
	Very Easy	2	5	9	5	
	Don't know	14	16	21	17	
...amphetamines other than methamphetamines (like stimulants, uppers, speed).	Very hard	70	51	25	48	
	Hard	11	21	28	20	
	Easy	3	8	16	9	
	Very Easy	2	5	8	5	
	Don't know	14	16	22	18	
... any other illegal drug (cocaine, etc.).	Very hard	70	50	26	48	
	Hard	11	21	27	20	
	Easy	4	9	17	10	
	Very Easy	2	5	9	5	
	Don't know	13	15	21	17	
...a handgun.	Very hard	59	41	25	41	
	Hard	16	25	28	23	
	Easy	7	13	17	13	
	Very Easy	4	7	9	7	
	Don't know	14	15	22	17	

%<sup>1</sup> Unweighted Percentage  
 %<sup>2</sup> Weighted Percentage

Source: Iowa Dept. of Public Health, Div. of Health Promotion, Prevention, and Addictive Behaviors

## Substance Abuse Treatment

Substance abuse treatment is provided to all 99 counties in Iowa using funding from the Alcohol and Drug Abuse and Mental Health Services block grant, state substance abuse appropriations, and Medicaid. Iowa operates under a managed care system which is currently administered by Magellan Behavioral Care of Iowa (MBCI). MBCI contracts with a total of 64 service providers in 22 service areas as represented on the map and listing on the next page. The 64 service providers include 32 who receive funding from both IDPH and Medicaid, and 32 who are funded through Medicaid only. Services are available to all Iowans regardless of their ability to pay or financial status through a sliding-fee schedule.

The tables on the following pages represent all admissions to substance abuse treatment programs regardless of source of funding for that specific client. The data for each county is divided by adult (18 and over) and adolescent (17 and under), and by primary substance of abuse.

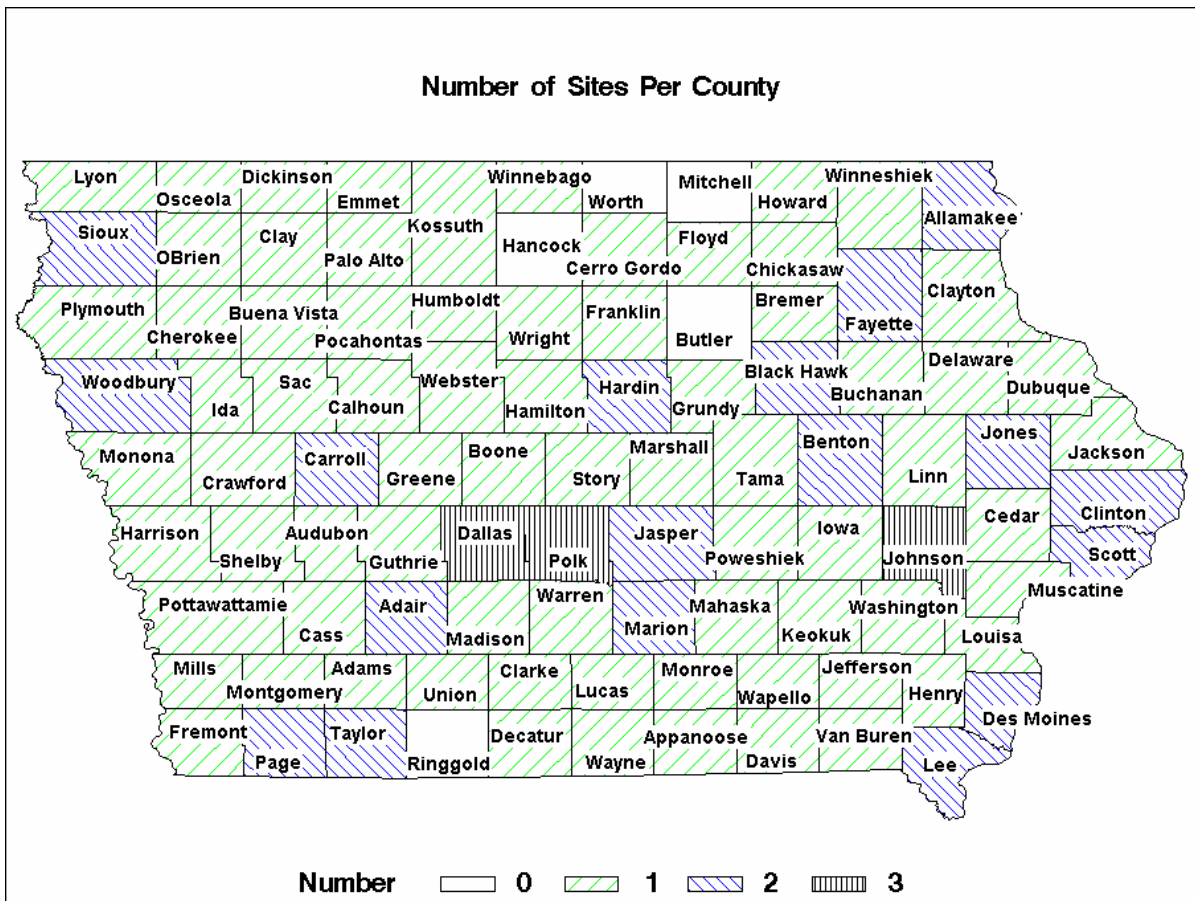
The reporting period was for calendar years 1998, 1999, 2000, 2001, and 2002. The numbers reflect those identifying a county of residence in Iowa. Those identifying their residence outside of Iowa were not counted. The count is unduplicated with the following exceptions: a client was counted twice if their primary substance of abuse changed between admissions or if the client's age changed between admissions.

### STATE OF IOWA ADMISSIONS TOTALS FOR SUBSTANCE ABUSE TREATMENT...

	<u>Alcohol</u>	<u>Marijuana</u>	<u>Other</u>
<b>1998</b>	12,994	5,159	5,175
<b>1999</b>	14,102	5,433	5,129
<b>2000</b>	14,192	6,149	5,690
<b>2001</b>	12,724	4,914	5,077
<b>2002</b>	11,538	5,180	6,227

## Local Sites for Substance Abuse Treatment

Adel	Corning	Guthrie Center	Mason City	Sergeant Bluff
Albia	Corydon	Hampton	Milford	Sheldon
Algona	Council Bluffs	Harlan	Mitchellville	Shenandoah
Ames	Cresco	Hull	Monroe	Sibley
Anamosa	Creston	Humboldt	Monticello	Sidney
Ankeny	Davenport	Ida Grove	Mt. Pleasant	Sigourney
Atlantic	Decorah	Independence	Muscatine	Sioux City
Audubon	Denison	Indianola	New Hampton	Spencer
Bedford	Des Moines	Iowa City	Newton	Storm Lake
Belle Plain	DeWitt	Iowa Falls	Oakdale	Tipton
Bettendorf	Dubuque	Jefferson	Oelwein	Toledo
Boone	Eagle Grove	Keokuk	Orange City	Vinton
Bloomfield	Eldora	Keosauqua	Orient	Wapello
Burlington	Elkader	Knoxville	Osceola	Washington
Carroll	Emmetsburg	Lamoni	Oskaloosa	Waterloo
Cedar Falls	Estherville	LeMars	Ottumwa	Waukon
Cedar Rapids	Fairfield	Lenox	Pella	Waverly
Centerville	Forest City	Logan	Perry	Webster City
Chariton	Fort Dodge	Manning	Pocahontas	West Burlington
Charles City	Ft. Madison	Manchester	Postville	West Union
Cherokee	Glenwood	Mapleton	Red Oak	Winterset
Clarinda	Greenfield	Maquoketa	Rock Rapids	Woodward
Clinton	Grinnell	Marengo	Rockwell City	
Coralville	Grundy Center	Marshalltown	Sac City	



Source: Iowa Department of Public Health, Div. of Promotion, Prevention, and Addictive Behaviors

## Alcohol Admissions: Adult 1998-2002

	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with Average Population < 10,000	Adair	140	34.2 ( 45 )	Lucas	118	25.0 ( 79 )
	Adams	93	41.8 ( 25 )	Monroe	174	43.6 ( 22 )
	Audubon	109	32.1 ( 54 )	Osceola	68	19.5 ( 93 )
	Clarke	225	49.9 ( 16 )	Pocahontas	140	32.4 ( 52 )
	Davis	101	23.6 ( 84 )	Ringgold	58	21.4 ( 90 )
	Decatur	105	24.3 ( 82 )	Taylor	98	28.2 ( 66 )
	Fremont	70	17.7 ( 96 )	Van Buren	111	28.5 ( 64 )
	Howard	255	51.5 ( 15 )	Wayne	88	26.2 ( 74 )
	Ida	119	30.5 ( 59 )	Worth	161	41.0 ( 28 )
				<b>Total</b>	2,233	32.1
Counties with Average Population 10,000 to 20,000	Allamakee	343	47.0 ( 18 )	Humboldt	132	25.5 ( 78 )
	Appanoose	441	64.7 ( 04 )	Iowa	310	39.6 ( 29 )
	Butler	187	24.5 ( 80 )	Jefferson	359	44.3 ( 21 )
	Calhoun	184	33.2 ( 48 )	Keokuk	200	35.1 ( 41 )
	Cass	346	47.5 ( 17 )	Kossuth	220	25.8 ( 76 )
	Cedar	270	29.7 ( 62 )	Louisa	141	23.1 ( 85 )
	Cherokee	208	32.0 ( 55 )	Lyon	182	30.9 ( 57 )
	Chickasaw	190	29.0 ( 63 )	Madison	195	27.7 ( 69 )
	Clay	304	35.1 ( 42 )	Mills	127	17.5 ( 97 )
	Clayton	254	27.2 ( 73 )	Mitchell	100	18.5 ( 94 )
	Crawford	285	33.7 ( 46 )	Monona	181	36.3 ( 38 )
	Delaware	362	39.4 ( 31 )	Montgomery	253	43.3 ( 23 )
	Dickinson	339	41.3 ( 26 )	O'Brien	156	20.7 ( 92 )
	Emmet	155	28.2 ( 67 )	Page	324	38.2 ( 35 )
	Floyd	318	37.8 ( 36 )	Palo Alto	199	39.4 ( 30 )
	Franklin	124	23.1 ( 86 )	Poweshiek	243	25.8 ( 77 )
	Greene	155	30.1 ( 61 )	Sac	141	24.5 ( 81 )
	Grundy	112	18.1 ( 95 )	Shelby	145	22.1 ( 88 )
Guthrie	221	39.0 ( 34 )	Tama	503	55.7 ( 10 )	
Hamilton	253	31.0 ( 56 )	Union	341	55.6 ( 11 )	
Hancock	167	27.8 ( 68 )	Winnebago	196	33.6 ( 47 )	
Hardin	329	35.2 ( 40 )	Wright	195	27.3 ( 72 )	
Harrison	126	16.2 ( 98 )	<b>Total</b>	10,516	33.2	
Counties with Average Population > 20,000	Benton	443	34.8 ( 43 )	Jones	353	34.8 ( 44 )
	Boone	400	30.6 ( 58 )	Lee	625	33.0 ( 49 )
	Bremer	458	39.2 ( 32 )	Mahaska	436	39.1 ( 33 )
	Buchanan	441	41.9 ( 24 )	Marion	382	23.8 ( 83 )
	Buena Vista	418	41.0 ( 27 )	Marshall	637	32.4 ( 53 )
	Carroll	397	37.1 ( 37 )	Muscatine	1,091	52.3 ( 14 )
	Cerro Gordo	1,436	62.1 ( 06 )	Plymouth	403	32.6 ( 51 )
	Clinton	1,550	61.9 ( 07 )	Sioux	346	21.8 ( 89 )
	Des Moines	467	22.1 ( 87 )	Story	1,104	27.7 ( 70 )
	Fayette	962	87.7 ( 01 )	Wapello	1,263	70.2 ( 03 )
	Henry	278	27.4 ( 71 )	Washington	220	21.2 ( 91 )
	Jackson	367	36.3 ( 39 )	Webster	1,047	52.3 ( 13 )
	Jasper	567	30.5 ( 60 )	Winneshiek	497	46.6 ( 19 )
				<b>Total</b>	16,588	40.3
MSA Counties	Black Hawk	3,712	58.1 ( 08 )	Polk	6,196	33.0 ( 50 )
	Dallas	581	28.3 ( 65 )	Pottawattamie	1,132	25.9 ( 75 )
	Dubuque	2,874	64.5 ( 05 )	Scott	5,889	74.2 ( 02 )
	Johnson	3,206	57.7 ( 09 )	Warren	269	13.2 ( 99 )
	Linn	5,027	52.5 ( 12 )	Woodbury	2,340	45.2 ( 20 )
				<b>Total</b>	31,226	47.1
<b>State Totals</b>		60,563	41.4			

<sup>1</sup>Rates per 10,000 population<sup>2</sup>Rank among 99 Iowa counties

Source: Iowa Department of Public Health, Div. of Health  
Promotion, Prevention, and Addictive Behaviors

## Alcohol Admissions: Adolescent 1998-2002

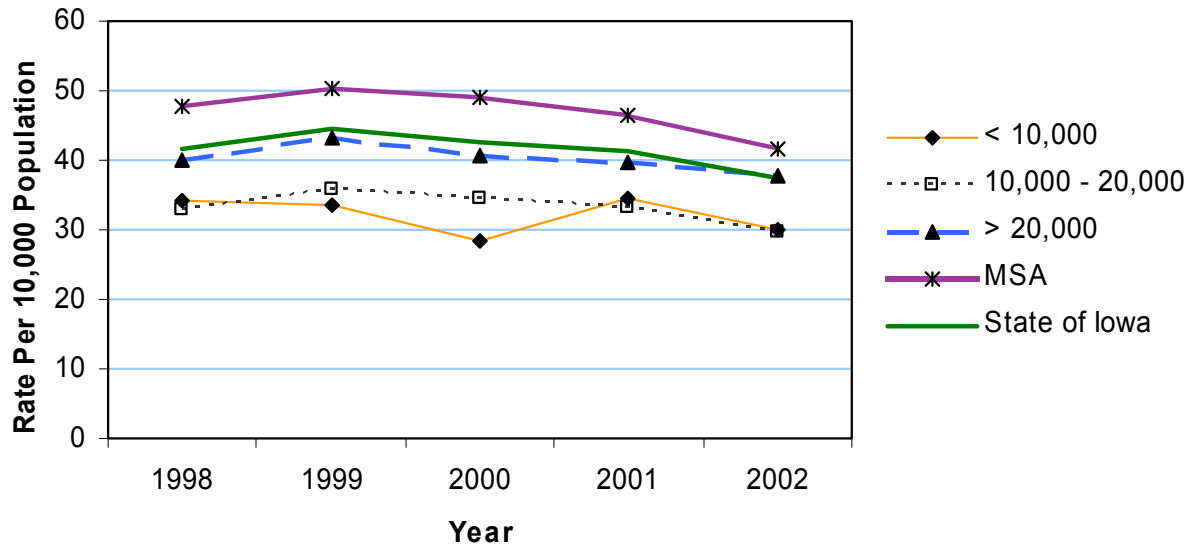
	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Counties with Average Population < 10,000	Adair	32	7.8	Lucas	35	7.4
	Adams	6	2.7	Monroe	9	2.3
	Audubon	8	2.4	Osceola	29	8.3
	Clarke	9	2.0	Pocahontas	8	1.9
	Davis	12	2.8	Ringgold	8	3.0
	Decatur	7	1.6	Taylor	17	4.9
	Fremont	*	*	Van Buren	7	1.8
	Howard	50	10.1	Wayne	9	2.7
	Ida	6	1.5	Worth	11	2.8
				<b>Total</b>	264	3.8
	Counties with Average Population 10,000 to 20,000	Allamakee	37	5.1	Humboldt	7
Appanoose		38	5.6	Iowa	39	5.0
Butler		36	4.7	Jefferson	44	5.4
Calhoun		5	0.9	Keokuk	27	4.7
Cass		35	4.8	Kossuth	21	2.5
Cedar		25	2.7	Louisa	12	2.0
Cherokee		17	2.6	Lyon	56	9.5
Chickasaw		22	3.4	Madison	21	3.0
Clay		37	4.3	Mills	14	1.9
Clayton		26	2.8	Mitchell	12	2.2
Crawford		23	2.7	Monona	10	2.0
Delaware		98	10.7	Montgomery	15	2.6
Dickinson		49	6.0	O'Brien	33	4.4
Emmet		15	2.7	Page	28	3.3
Floyd		62	7.4	Palo Alto	12	2.4
Franklin		15	2.8	Poweshiek	13	1.4
Greene		24	4.7	Sac	14	2.4
Grundy		20	3.2	Shelby	19	2.9
Guthrie		19	3.4	Tama	42	4.7
Hamilton		17	2.1	Union	43	7.0
Hancock	12	2.0	Winnebago	11	1.9	
Hardin	25	2.7	Wright	21	2.9	
Harrison	10	1.3	<b>Total</b>	1,181	3.7	
Counties with Average Population > 20,000	Benton	27	2.1	Jones	37	3.6
	Boone	211	16.1	Lee	73	3.9
	Bremer	71	6.1	Mahaska	25	2.2
	Buchanan	40	3.8	Marion	36	2.2
	Buena Vista	52	5.1	Marshall	50	2.5
	Carroll	40	3.7	Muscatine	68	3.3
	Cerro Gordo	100	4.3	Plymouth	27	2.2
	Clinton	88	3.5	Sioux	68	4.3
	Des Moines	40	1.9	Story	148	3.7
	Fayette	71	6.5	Wapello	92	5.1
	Henry	30	3.0	Washington	21	2.0
	Jackson	47	4.6	Webster	84	4.2
	Jasper	59	3.2	Winneshiek	59	5.5
				<b>Total</b>	1,664	4.0
MSA Counties	Black Hawk	196	3.1	Polk	415	2.2
	Dallas	51	2.5	Pottawattamie	80	1.8
	Dubuque	246	5.5	Scott	320	4.0
	Johnson	133	2.4	Warren	39	1.9
	Linn	271	2.8	Woodbury	127	2.5
			<b>Total</b>	1,878	2.8	
<b>State Totals</b>		4,987	3.4			

<sup>1</sup>Rates per 10,000 population

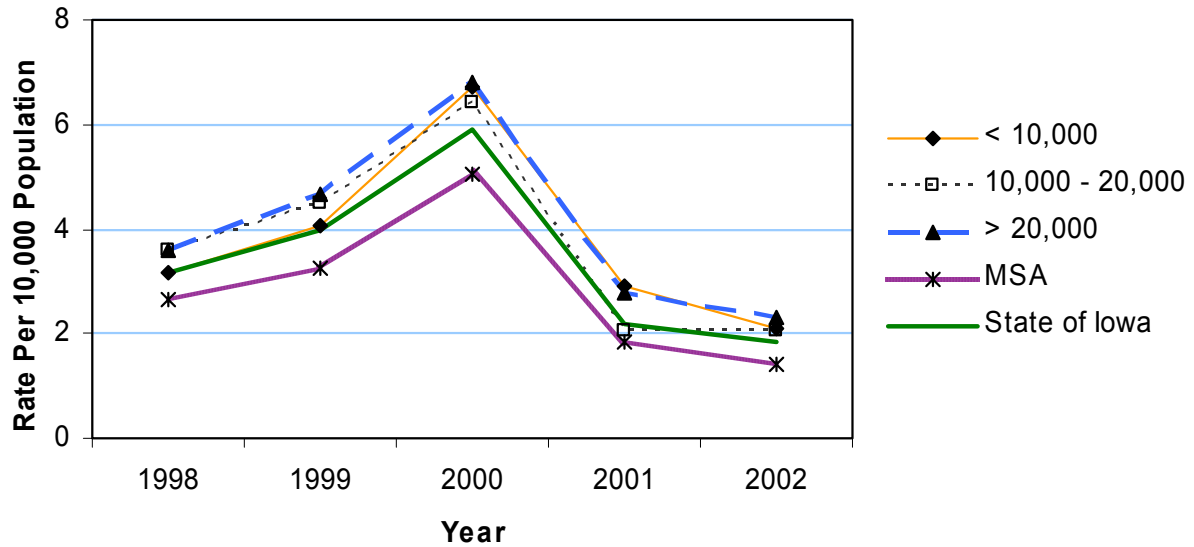
Source: Iowa Department of Public Health, Div. of Health Promotion, Prevention, and Addictive Behaviors

## Alcohol Admissions 1998-2002

### Adult Crude Rates



### Adolescent Crude Rates



## Marijuana Admissions: Adult 1998-2002

	Counties with Average Population < 10,000			Counties with Average Population 10,000 to 20,000			Counties with Average Population > 20,000			MSA Counties		
	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Counties with Average Population < 10,000	Adair	41	10.0	Lucas	53	11.2						
	Adams	20	9.0	Monroe	58	14.5						
	Audubon	24	7.1	Osceola	8	2.3						
	Clarke	62	13.8	Pocahontas	23	5.3						
	Davis	28	6.6	Ringgold	*	*						
	Decatur	37	8.6	Taylor	31	8.9						
	Fremont	33	8.3	Van Buren	16	4.						
	Howard	19	3.8	Wayne	22	6.5						
	Ida	12	3.1	Worth	26	6.6						
				<b>Total</b>	517	7.4						
Counties with Average Population 10,000 to 20,000	Allamakee	28	3.8	Humboldt	21	4.1						
	Appanoose	156	22.9	Iowa	74	9.4						
	Butler	78	10.2	Jefferson	78	9.6						
	Calhoun	31	5.6	Keokuk	44	7.7						
	Cass	110	15.1	Kossuth	93	10.9						
	Cedar	45	4.9	Louisa	35	5.7						
	Cherokee	53	8.2	Lyon	19	3.2						
	Chickasaw	55	8.4	Madison	81	11.5						
	Clay	69	8.0	Mills	43	5.9						
	Clayton	33	3.5	Mitchell	20	3.7						
	Crawford	60	7.1	Monona	42	8.4						
	Delaware	89	9.7	Montgomery	81	13.9						
	Dickinson	57	6.9	O'Brien	36	4.8						
	Emmet	48	8.7	Page	133	15.7						
	Floyd	79	9.4	Palo Alto	25	5.0						
	Franklin	26	4.8	Poweshiek	79	8.4						
	Greene	51	9.9	Sac	38	6.6						
	Grundy	15	2.4	Shelby	54	8.2						
	Guthrie	71	12.5	Tama	75	8.3						
	Hamilton	51	6.2	Union	90	14.7						
Hancock	59	9.8	Winnebago	39	6.7							
Hardin	55	5.9	Wright	46	6.4							
Harrison	36	4.6	<b>Total</b>	2,601	8.2							
Counties with Average Population > 20,000	Benton	109	8.6	Jones	85	8.4						
	Boone	97	7.4	Lee	283	15.0						
	Bremer	111	9.5	Mahaska	171	15.3						
	Buchanan	120	11.4	Marion	105	6.5						
	Buena Vista	76	7.5	Marshall	227	11.5						
	Carroll	95	8.9	Muscatine	248	11.9						
	Cerro Gordo	613	26.5	Plymouth	71	5.7						
	Clinton	300	12.0	Sioux	130	8.2						
	Des Moines	207	9.8	Story	287	7.2						
	Fayette	144	13.1	Wapello	570	31.7						
	Henry	115	11.3	Washington	79	7.6						
	Jackson	69	6.8	Webster	338	16.9						
	Jasper	249	13.4	Winneshiek	62	5.8						
			<b>Total</b>	4,961	12.0							
MSA Counties	Black Hawk	1,149	18.0	Polk	2,881	15.4						
	Dallas	154	7.5	Pottawattamie	483	11.0						
	Dubuque	832	18.7	Scott	1,242	15.7						
	Johnson	658	11.8	Warren	115	5.7						
	Linn	1,542	16.1	Woodbury	830	16.0						
	<b>State Totals</b>	17,965	12.3	<b>Total</b>	9,886	14.9						

<sup>1</sup>Rates per 10,000 population

Source: Iowa Dept. of Public Health, Div. of Health Promotion, Prevention, and Addictive Behaviors

## Marijuana Admissions: Adolescent 1998-2002

	Counties with Average Population < 10,000			Counties with Average Population 10,000 to 20,000			Counties with Average Population > 20,000			MSA Counties		
	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Counties with Average Population < 10,000	Adair	6	1.5	Lucas	27	5.7						
	Adams	*	*	Monroe	12	3.0						
	Audubon	*	*	Osceola	17	4.9						
	Clarke	19	4.2	Pocahontas	9	2.1						
	Davis	8	1.9	Ringgold	*	*						
	Decatur	12	2.8	Taylor	14	4.0						
	Fremont	*	*	Van Buren	11	2.8						
	Howard	12	2.4	Wayne	11	3.3						
	Ida	*	*	Worth	11	2.8						
				<b>Total</b>	184	2.6						
Counties with Average Population 10,000 to 20,000	Allamakee	14	1.9	Humboldt	6	1.2						
	Appanoose	43	6.3	Iowa	26	3.3						
	Butler	35	4.6	Jefferson	56	6.9						
	Calhoun	8	1.4	Keokuk	18	3.2						
	Cass	31	4.3	Kossuth	18	2.1						
	Cedar	47	5.2	Louisa	15	2.5						
	Cherokee	20	3.1	Lyon	20	3.4						
	Chickasaw	34	5.2	Madison	45	6.4						
	Clay	38	4.4	Mills	21	2.9						
	Clayton	9	1.0	Mitchell	12	2.2						
	Crawford	15	1.8	Monona	17	3.4						
	Delaware	34	3.7	Montgomery	29	5.0						
	Dickinson	45	5.5	O'Brien	20	2.6						
	Emmet	18	3.3	Page	16	1.9						
	Floyd	33	3.9	Palo Alto	*	*						
	Franklin	25	4.7	Poweshiek	22	2.3						
	Greene	39	7.6	Sac	8	1.4						
	Grundy	12	1.9	Shelby	11	1.7						
	Guthrie	19	3.4	Tama	24	2.7						
	Hamilton	15	1.8	Union	29	4.7						
Hancock	29	4.8	Winnebago	8	1.4							
Hardin	28	3.0	Wright	22	3.1							
Harrison	28	3.6	<b>Total</b>	1,065	3.4							
Counties with Average Population > 20,000	Benton	28	2.2	Jones	51	5.0						
	Boone	116	8.9	Lee	96	5.1						
	Bremer	149	12.8	Mahaska	49	4.4						
	Buchanan	54	5.1	Marion	51	3.2						
	Buena Vista	24	2.4	Marshall	140	7.1						
	Carroll	23	2.1	Muscatine	201	9.6						
	Cerro Gordo	266	11.5	Plymouth	26	2.1						
	Clinton	223	8.9	Sioux	24	1.5						
	Des Moines	115	5.5	Story	254	6.4						
	Fayette	38	3.5	Wapello	181	10.1						
	Henry	72	7.1	Washington	37	3.6						
	Jackson	53	5.2	Webster	77	3.8						
	Jasper	121	6.5	Winneshiek	23	2.2						
				<b>Total</b>	2,492	6.0						
MSA Counties	Black Hawk	510	8.0	Polk	1,615	8.6						
	Dallas	100	4.9	Pottawattamie	162	3.7						
	Dubuque	457	10.3	Scott	810	10.2						
	Johnson	285	5.1	Warren	98	4.8						
	Linn	720	7.5	Woodbury	372	7.2						
			<b>Total</b>	5,129	7.7							
<b>State Totals</b>		8,870	6.1									

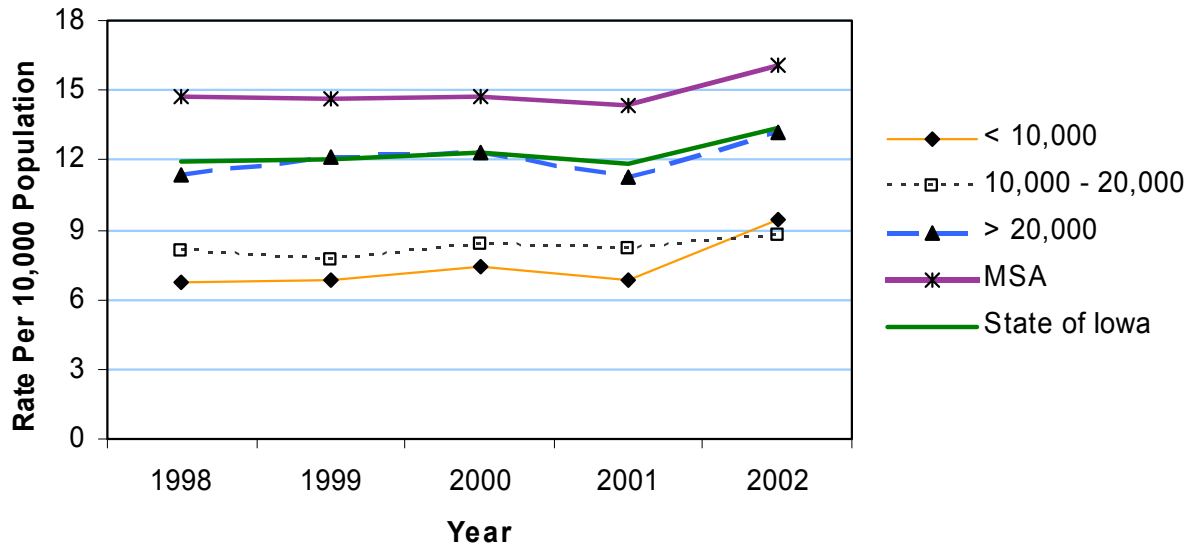
<sup>1</sup>Rates per 10,000 population

Source: Iowa Dept. of Public Health, Div. of Health Promotion, Prevention, and Addictive Behaviors

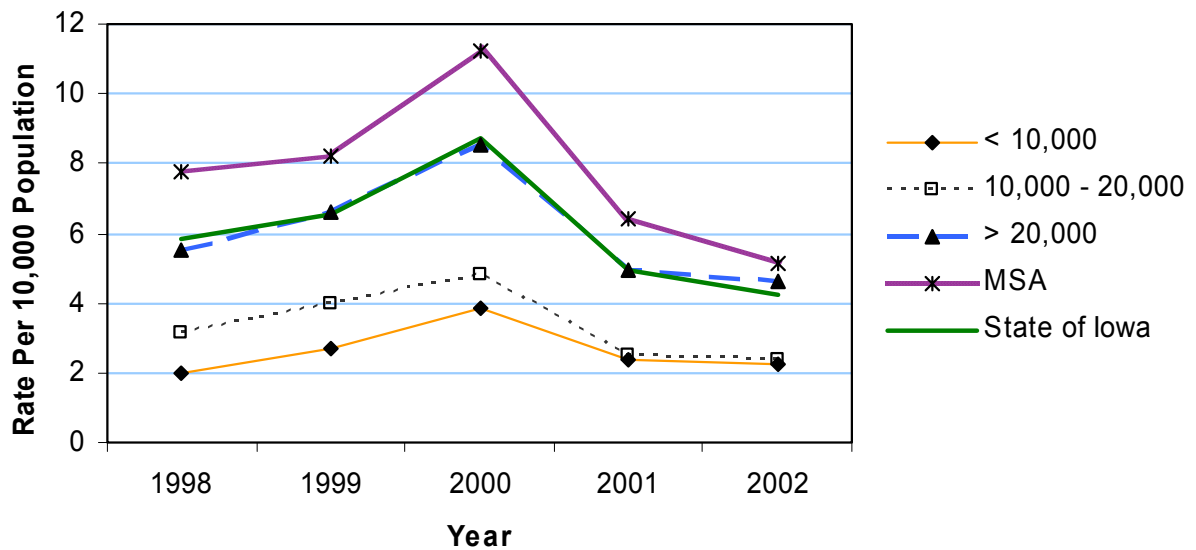


## Marijuana Admissions 1998-2002

### Adult Crude Rates



### Adolescent Crude Rates



## Other Admissions: Adult 1998-2002

	Counties with Average Population < 10,000			Counties with Average Population 10,000 to 20,000			Counties with Average Population > 20,000			MSA Counties		
	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with Average Population < 10,000	Adair	70	17.1 ( 19 )	Lucas	146	30.9 ( 03 )	Lucas	146	30.9 ( 03 )	Polk	6,909	36.8 ( 01 )
	Adams	28	12.6 ( 34 )	Monroe	58	14.5 ( 26 )	Monroe	58	14.5 ( 26 )	Pottawattamie	1,095	25.0 ( 10 )
	Audubon	27	7.9 ( 59 )	Osceola	17	4.9 ( 84 )	Osceola	17	4.9 ( 84 )	Scott	2,400	30.2 ( 04 )
	Clarke	144	32.0 ( 02 )	Pocahontas	29	6.7 ( 74 )	Pocahontas	29	6.7 ( 74 )	Warren	255	12.5 ( 35 )
	Davis	30	7.0 ( 71 )	Ringgold	17	6.3 ( 78 )	Ringgold	17	6.3 ( 78 )	Woodbury	1,521	29.4 ( 06 )
	Decatur	89	20.6 ( 15 )	Taylor	30	8.6 ( 53 )	Taylor	30	8.6 ( 53 )	<b>Total</b>	16,764	25.3
	Fremont	31	7.8 ( 62 )	Van Buren	11	2.8 ( 92 )	Van Buren	11	2.8 ( 92 )			
	Howard	11	2.2 ( 98 )	Wayne	62	18.4 ( 17 )	Wayne	62	18.4 ( 17 )			
	Ida	31	7.9 ( 60 )	Worth	41	10.4 ( 46 )	Worth	41	10.4 ( 46 )			
				<b>Total</b>	872	12.5	<b>Total</b>	872	12.5			
Counties with Average Population 10,000 to 20,000	Allamakee	19	2.6 ( 95 )	Humboldt	14	2.7 ( 93 )	Humboldt	14	2.7 ( 93 )			
	Appanoose	108	15.8 ( 22 )	Iowa	67	8.6 ( 54 )	Iowa	67	8.6 ( 54 )			
	Butler	73	9.6 ( 51 )	Jefferson	99	12.2 ( 38 )	Jefferson	99	12.2 ( 38 )			
	Calhoun	41	7.4 ( 69 )	Keokuk	40	7.0 ( 70 )	Keokuk	40	7.0 ( 70 )			
	Cass	124	17.0 ( 20 )	Kossuth	49	5.7 ( 80 )	Kossuth	49	5.7 ( 80 )			
	Cedar	32	3.5 ( 90 )	Louisa	42	6.9 ( 72 )	Louisa	42	6.9 ( 72 )			
	Cherokee	89	13.7 ( 30 )	Lyon	13	2.2 ( 99 )	Lyon	13	2.2 ( 99 )			
	Chickasaw	50	7.6 ( 67 )	Madison	103	14.6 ( 25 )	Madison	103	14.6 ( 25 )			
	Clay	98	11.3 ( 44 )	Mills	72	9.9 ( 48 )	Mills	72	9.9 ( 48 )			
	Clayton	21	2.3 ( 96 )	Mitchell	12	2.2 ( 97 )	Mitchell	12	2.2 ( 97 )			
	Crawford	151	17.8 ( 18 )	Monona	73	14.7 ( 24 )	Monona	73	14.7 ( 24 )			
	Delaware	29	3.2 ( 91 )	Montgomery	76	13.0 ( 33 )	Montgomery	76	13.0 ( 33 )			
	Dickinson	63	7.7 ( 65 )	O'Brien	46	6.1 ( 79 )	O'Brien	46	6.1 ( 79 )			
	Emmet	20	3.6 ( 88 )	Page	199	23.5 ( 12 )	Page	199	23.5 ( 12 )			
	Floyd	83	9.9 ( 50 )	Palo Alto	25	5.0 ( 83 )	Palo Alto	25	5.0 ( 83 )			
	Franklin	35	6.5 ( 76 )	Poweshiek	117	12.4 ( 36 )	Poweshiek	117	12.4 ( 36 )			
	Greene	67	13.0 ( 32 )	Sac	49	8.5 ( 55 )	Sac	49	8.5 ( 55 )			
	Grundy	23	3.7 ( 87 )	Shelby	79	12.0 ( 40 )	Shelby	79	12.0 ( 40 )			
	Guthrie	109	19.2 ( 16 )	Tama	69	7.6 ( 66 )	Tama	69	7.6 ( 66 )			
	Hamilton	54	6.6 ( 75 )	Union	164	26.7 ( 09 )	Union	164	26.7 ( 09 )			
Hancock	47	7.8 ( 61 )	Winnebago	48	8.2 ( 58 )	Winnebago	48	8.2 ( 58 )				
Hardin	73	7.8 ( 63 )	Wright	88	12.3 ( 37 )	Wright	88	12.3 ( 37 )				
Harrison	71	9.1 ( 52 )	<b>Total</b>	3,024	9.5	<b>Total</b>	3,024	9.5				
Counties with Average Population > 20,000	Benton	46	3.6 ( 89 )	Jones	49	4.8 ( 86 )	Jones	49	4.8 ( 86 )			
	Boone	143	10.9 ( 45 )	Lee	160	8.5 ( 56 )	Lee	160	8.5 ( 56 )			
	Bremer	89	7.6 ( 68 )	Mahaska	182	16.3 ( 21 )	Mahaska	182	16.3 ( 21 )			
	Buchanan	122	11.6 ( 43 )	Marion	228	14.2 ( 28 )	Marion	228	14.2 ( 28 )			
	Buena Vista	54	5.3 ( 82 )	Marshall	450	22.9 ( 13 )	Marshall	450	22.9 ( 13 )			
	Carroll	106	9.9 ( 49 )	Muscatine	319	15.3 ( 23 )	Muscatine	319	15.3 ( 23 )			
	Cerro Gordo	697	30.2 ( 05 )	Plymouth	84	6.8 ( 73 )	Plymouth	84	6.8 ( 73 )			
	Clinton	291	11.6 ( 42 )	Sioux	77	4.9 ( 85 )	Sioux	77	4.9 ( 85 )			
	Des Moines	291	13.8 ( 29 )	Story	307	7.7 ( 64 )	Story	307	7.7 ( 64 )			
	Fayette	145	13.2 ( 31 )	Wapello	521	29.0 ( 08 )	Wapello	521	29.0 ( 08 )			
	Henry	66	6.5 ( 77 )	Washington	57	5.5 ( 81 )	Washington	57	5.5 ( 81 )			
	Jackson	84	8.3 ( 57 )	Webster	476	23.8 ( 11 )	Webster	476	23.8 ( 11 )			
	Jasper	411	22.1 ( 14 )	Winneshiek	28	2.6 ( 94 )	Winneshiek	28	2.6 ( 94 )			
			<b>Total</b>	5,483	13.3	<b>Total</b>	5,483	13.3				
MSA Counties	Black Hawk	1,861	29.1 ( 07 )									
	Dallas	241	11.7 ( 41 )									
	Dubuque	541	12.1 ( 39 )									
	Johnson	555	10.0 ( 47 )									
	Linn	1,386	14.5 ( 27 )									
<b>State Totals</b>		26,143	17.9									

<sup>1</sup>Rates per 10,000 population  
<sup>2</sup>Rank among 99 Iowa counties

Source: Iowa Dept. of Public Health, Div. of Health Promotion, Prevention, and Addictive Behaviors

## Other Admissions: Adolescent 1998-2002

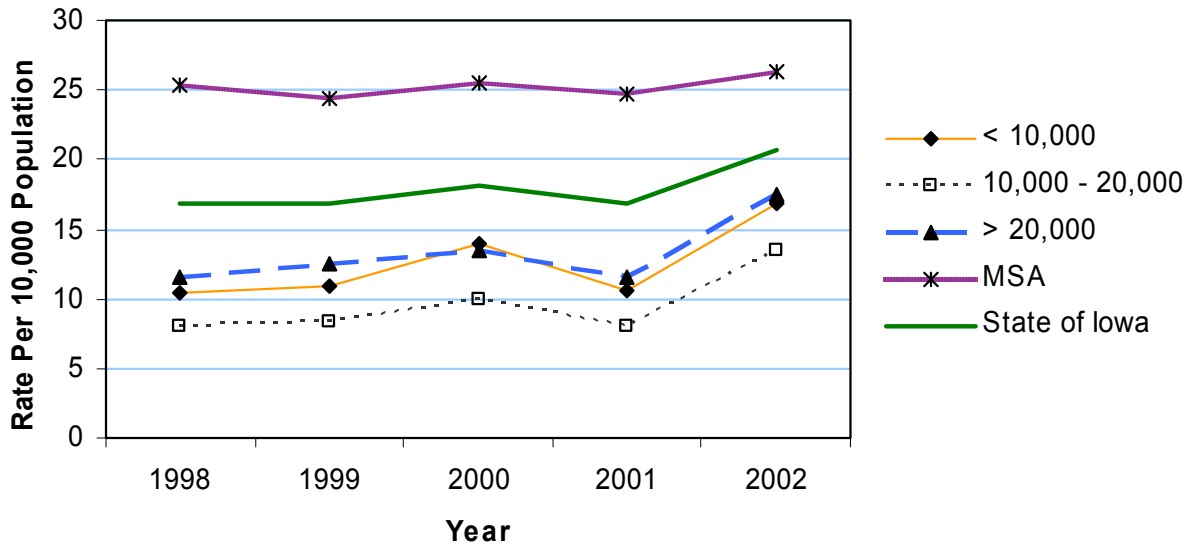
	County			County		
	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Counties with Average Population < 10,000	Adair	*	*	Lucas	7	1.5
	Adams	*	*	Monroe	*	*
	Audubon	*	*	Osceola	*	*
	Clarke	6	1.3	Pocahontas	*	*
	Davis	*	*	Ringgold	*	*
	Decatur	*	*	Taylor	*	*
	Fremont	*	*	Van Buren	*	*
	Howard	*	*	Wayne	*	*
	Ida	*	*	Worth	*	*
				<b>Total</b>	46	0.7
Counties with Average Population 10,000 to 20,000	Allamakee	*	*	Humboldt	*	*
	Appanoose	8	1.2	Iowa	*	*
	Butler	*	*	Jefferson	8	1.0
	Calhoun	*	*	Keokuk	*	*
	Cass	10	1.4	Kossuth	*	*
	Cedar	5	0.5	Louisa	5	0.8
	Cherokee	*	*	Lyon	*	*
	Chickasaw	*	*	Madison	10	1.4
	Clay	5	0.6	Mills	*	*
	Clayton	*	*	Mitchell	*	*
	Crawford	9	1.1	Monona	5	1.0
	Delaware	9	1.0	Montgomery	5	0.9
	Dickinson	*	*	O'Brien	*	*
	Emmet	*	*	Page	*	*
	Floyd	*	*	Palo Alto	*	*
	Franklin	*	*	Poweshiek	6	0.6
	Greene	*	*	Sac	*	*
	Grundy	*	*	Shelby	*	*
	Guthrie	17	3.0	Tama	*	*
	Hamilton	*	*	Union	9	1.5
Hancock	5	0.8	Winnebago	6	1.0	
Hardin	*	*	Wright	*	*	
Harrison	*	*	<b>Total</b>	190	0.6	
Counties with Average Population > 20,000	Benton	5	0.4	Jones	8	0.8
	Boone	24	1.8	Lee	18	1.0
	Bremer	19	1.6	Mahaska	12	1.1
	Buchanan	11	1.0	Marion	7	0.4
	Buena Vista	8	0.8	Marshall	20	1.0
	Carroll	*	*	Muscatine	14	0.7
	Cerro Gordo	45	1.9	Plymouth	*	*
	Clinton	9	0.4	Sioux	6	0.4
	Des Moines	12	0.6	Story	34	0.9
	Fayette	6	0.5	Wapello	25	1.4
	Henry	*	*	Washington	5	0.5
	Jackson	*	*	Webster	32	1.6
	Jasper	35	1.9	Winneshiek	*	*
				<b>Total</b>	370	0.9
MSA Counties	Black Hawk	41	0.6	Polk	225	1.2
	Dallas	14	0.7	Pottawattamie	57	1.3
	Dubuque	32	0.7	Scott	28	0.4
	Johnson	24	0.4	Warren	23	1.1
	Linn	51	0.5	Woodbury	54	1.0
<b>State Totals</b>	1,155	0.8	<b>Total</b>	549	0.8	

<sup>1</sup>Rates per 10,000 population

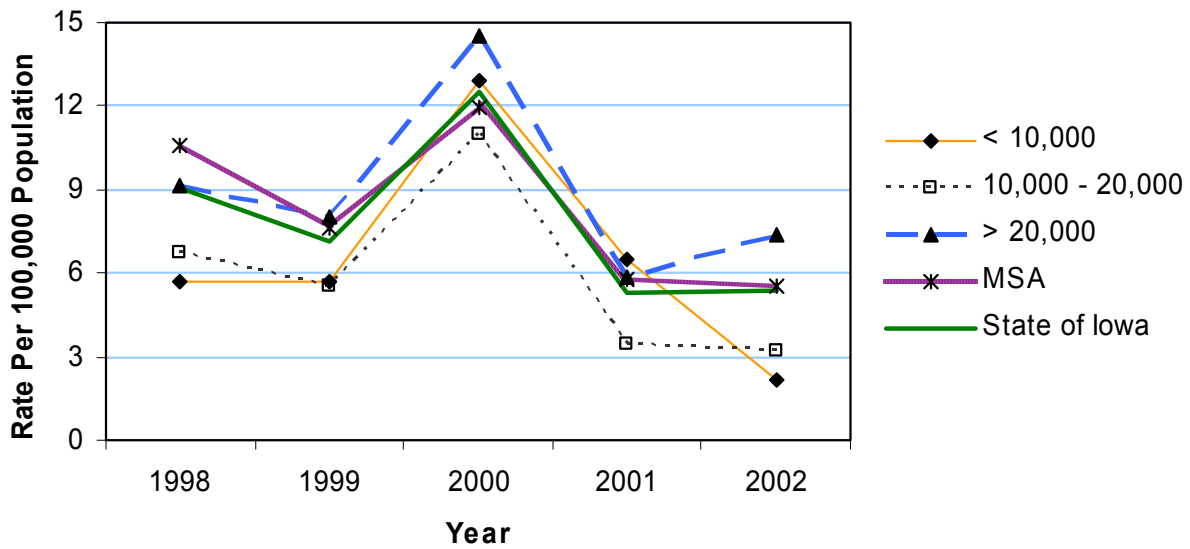
Source: Iowa Dept. of Public Health, Div. of Health Promotion, Prevention, and Addictive Behaviors

## Other Admissions 1998-2002

### Adult Crude Rates



### Adolescent Crude Rates



## Marriages 1998-2001

	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	
	Counties with Average Population < 10,000	Adair	203	6.2 ( 82 )	Lucas	265	7.0 ( 50 )
Adams		108	6.0 ( 87 )	Monroe	206	6.4 ( 75 )	
Audubon		164	6.0 ( 88 )	Osceola	197	7.0 ( 51 )	
Clarke		254	7.1 ( 45 )	Pocahontas	230	6.6 ( 71 )	
Davis		292	8.5 ( 07 )	Ringgold	159	7.3 ( 33 )	
Decatur		233	6.7 ( 64 )	Taylor	204	7.3 ( 32 )	
Fremont		247	7.7 ( 22 )	Van Buren	237	7.6 ( 27 )	
Howard		270	6.8 ( 61 )	Wayne	223	8.3 ( 10 )	
Ida		224	7.1 ( 41 )	Worth	178	5.6 ( 95 )	
				<b>Total</b>	3,894	7.0	
Counties with Average Population 10,000 to 20,000	Allamakee	456	7.8 ( 18 )	Jones	285	6.9 ( 58 )	
	Appanoose	465	8.5 ( 08 )	Lee	422	6.7 ( 62 )	
	Butler	340	5.6 ( 97 )	Mahaska	501	7.7 ( 24 )	
	Calhoun	275	6.2 ( 83 )	Marion	306	6.7 ( 65 )	
	Cass	425	7.2 ( 37 )	Marshall	466	6.8 ( 60 )	
	Cedar	418	5.8 ( 93 )	Muscatine	271	5.6 ( 96 )	
	Cherokee	367	7.0 ( 47 )	Plymouth	331	7.0 ( 49 )	
	Chickasaw	2,172	41.3 ( 01 )	Sioux	530	9.5 ( 02 )	
	Clay	478	6.9 ( 56 )	Story	312	5.4 ( 99 )	
	Clayton	555	7.4 ( 30 )	Wapello	241	5.6 ( 98 )	
	Crawford	466	6.9 ( 55 )	Washington	255	6.4 ( 76 )	
	Delaware	490	6.7 ( 68 )	Webster	330	7.0 ( 48 )	
	Dickinson	610	9.3 ( 04 )	Winneshiek	392	6.5 ( 74 )	
	Emmet	321	7.3 ( 36 )	Jones	428	6.3 ( 80 )	
	Floyd	408	6.0 ( 86 )	Lee	329	8.1 ( 14 )	
	Franklin	262	6.1 ( 85 )	Mahaska	474	6.3 ( 79 )	
	Greene	277	6.7 ( 66 )	Marion	294	6.3 ( 77 )	
	Grundy	311	6.3 ( 78 )	Marshall	391	7.4 ( 29 )	
	Guthrie	322	7.1 ( 44 )	Muscatine	514	7.1 ( 43 )	
	Hamilton	474	7.2 ( 39 )	Plymouth	416	8.4 ( 09 )	
	Hancock	284	5.9 ( 90 )	Sioux	345	7.4 ( 31 )	
	Hardin	523	7.0 ( 53 )	Story	325	5.7 ( 94 )	
	Harrison	390	6.2 ( 81 )	<b>Total</b>	19,247	7.6	
	Counties with Average Population > 20,000	Benton	590	5.8 ( 92 )	Jones	547	6.7 ( 63 )
		Boone	700	6.7 ( 67 )	Lee	1,327	8.7 ( 06 )
		Bremer	726	7.8 ( 21 )	Mahaska	732	8.2 ( 12 )
Buchanan		613	7.3 ( 34 )	Marion	990	7.7 ( 23 )	
Buena Vista		541	6.6 ( 70 )	Marshall	1,224	7.8 ( 20 )	
Carroll		655	7.6 ( 26 )	Muscatine	1,556	9.3 ( 03 )	
Cerro Gordo		1,344	7.2 ( 40 )	Plymouth	579	5.8 ( 91 )	
Clinton		1,566	7.8 ( 19 )	Sioux	920	7.3 ( 35 )	
Des Moines		1,344	7.9 ( 16 )	Story	2,097	6.6 ( 72 )	
Fayette		540	6.1 ( 84 )	Wapello	1,310	9.1 ( 05 )	
Henry		567	7.0 ( 52 )	Washington	582	7.0 ( 46 )	
Jackson		617	7.6 ( 28 )	Webster	1,142	7.1 ( 42 )	
Jasper		963	6.5 ( 73 )	Winneshiek	585	6.9 ( 57 )	
				<b>Total</b>	24,357	7.4	
MSA Counties	Black Hawk	3,703	7.2 ( 38 )	Polk	11,411	7.7 ( 25 )	
	Dallas	1,267	7.9 ( 17 )	Pottawattamie	2,855	8.2 ( 13 )	
	Dubuque	2,940	8.3 ( 11 )	Scott	5,106	8.1 ( 15 )	
	Johnson	2,619	5.9 ( 89 )	Warren	1,076	6.6 ( 69 )	
	Linn	5,258	6.9 ( 54 )	Woodbury	2,824	6.8 ( 59 )	
	<b>State Totals</b>	86,557	7.4	<b>Total</b>	39,059	7.4	

<sup>1</sup>Rates per 1,000 population<sup>2</sup>Rank among 99 Iowa counties

Source: Iowa Department of Public Health, Vital Statistics

## Dissolutions 1998-2001

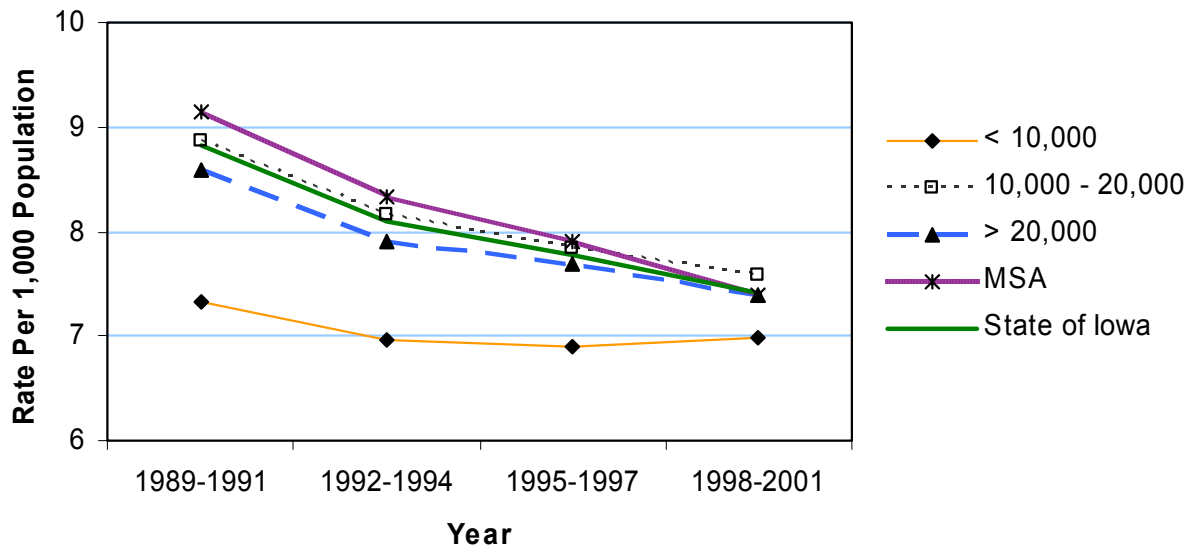
	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
	Counties with Average Population < 10,000	Adair	108	3.3 (42)	Lucas	134
Adams		55	3.1 (53)	Monroe	130	4.1 (08)
Audubon		73	2.7 (74)	Osceola	67	2.4 (84)
Clarke		87	2.4 (82)	Pocahontas	97	2.8 (70)
Davis		128	3.7 (23)	Ringgold	80	3.7 (26)
Decatur		120	3.5 (34)	Taylor	86	3.1 (52)
Fremont		126	4.0 (16)	Van Buren	122	3.9 (17)
Howard		91	2.3 (88)	Wayne	82	3.0 (58)
Ida		91	2.9 (65)	Worth	94	3.0 (60)
				<b>Total</b>	1,771	3.2
Counties with Average Population 10,000 to 20,000		Allamakee	116	2.0 (93)	Humboldt	136
	Appanoose	108	2.0 (94)	Iowa	164	2.6 (76)
	Butler	168	2.7 (72)	Jefferson	295	4.5 (05)
	Calhoun	106	2.4 (85)	Keokuk	61	1.3 (99)
	Cass	219	3.7 (25)	Kossuth	158	2.3 (87)
	Cedar	223	3.1 (54)	Louisa	171	3.5 (32)
	Cherokee	114	2.2 (91)	Lyon	74	1.6 (98)
	Chickasaw	163	3.1 (51)	Madison	203	3.6 (27)
	Clay	219	3.2 (50)	Mills	223	3.9 (21)
	Clayton	176	2.3 (86)	Mitchell	114	2.6 (75)
	Crawford	228	3.4 (39)	Monona	114	2.9 (68)
	Delaware	178	2.4 (81)	Montgomery	226	4.8 (03)
	Dickinson	237	3.6 (29)	O'Brien	155	2.6 (78)
	Emmet	122	2.8 (71)	Page	270	4.0 (15)
	Floyd	236	3.5 (33)	Palo Alto	102	2.5 (80)
	Franklin	136	3.2 (48)	Poweshiek	285	3.8 (22)
	Greene	160	3.9 (19)	Sac	158	3.4 (37)
	Grundy	142	2.9 (66)	Shelby	167	3.2 (47)
	Guthrie	176	3.9 (18)	Tama	210	2.9 (64)
	Hamilton	237	3.6 (28)	Union	222	4.5 (06)
Hancock	90	1.9 (96)	Winnebago	149	3.2 (46)	
Hardin	237	3.2 (49)	Wright	146	2.5 (79)	
Harrison	209	3.3 (41)	<b>Total</b>	7,803	3.1	
Counties with Average Population > 20,000	Benton	297	2.9 (63)	Jones	276	3.4 (36)
	Boone	420	4.0 (12)	Lee	521	3.4 (35)
	Bremer	267	2.9 (67)	Mahaska	356	4.0 (13)
	Buchanan	250	3.0 (61)	Marion	418	3.3 (45)
	Buena Vista	248	3.0 (57)	Marshall	588	3.7 (24)
	Carroll	258	3.0 (59)	Muscatine	875	5.3 (01)
	Cerro Gordo	625	3.4 (40)	Plymouth	303	3.1 (56)
	Clinton	681	3.4 (38)	Sioux	207	1.6 (97)
	Des Moines	776	4.6 (04)	Story	700	2.2 (90)
	Fayette	259	2.9 (62)	Wapello	583	4.0 (09)
	Henry	346	4.3 (07)	Washington	270	3.3 (44)
	Jackson	230	2.8 (69)	Webster	644	4.0 (11)
	Jasper	282	1.9 (95)	Winneshiek	192	2.3 (89)
				<b>Total</b>	10,872	3.3
MSA Counties	Black Hawk	1,111	2.2 (92)	Polk	5,749	3.9 (20)
	Dallas	417	2.6 (77)	Pottawattamie	1,682	4.8 (02)
	Dubuque	1,090	3.1 (55)	Scott	2,517	4.0 (14)
	Johnson	1,054	2.4 (83)	Warren	440	2.7 (73)
	Linn	2,732	3.6 (30)	Woodbury	1,677	4.0 (10)
<b>State Totals</b>	38,915	3.3	<b>Total</b>	18,469	3.5	

<sup>1</sup>Rates per 1,000 population<sup>2</sup>Rank among 99 Iowa counties

Source: Iowa Department of Public Health, Vital Statistics

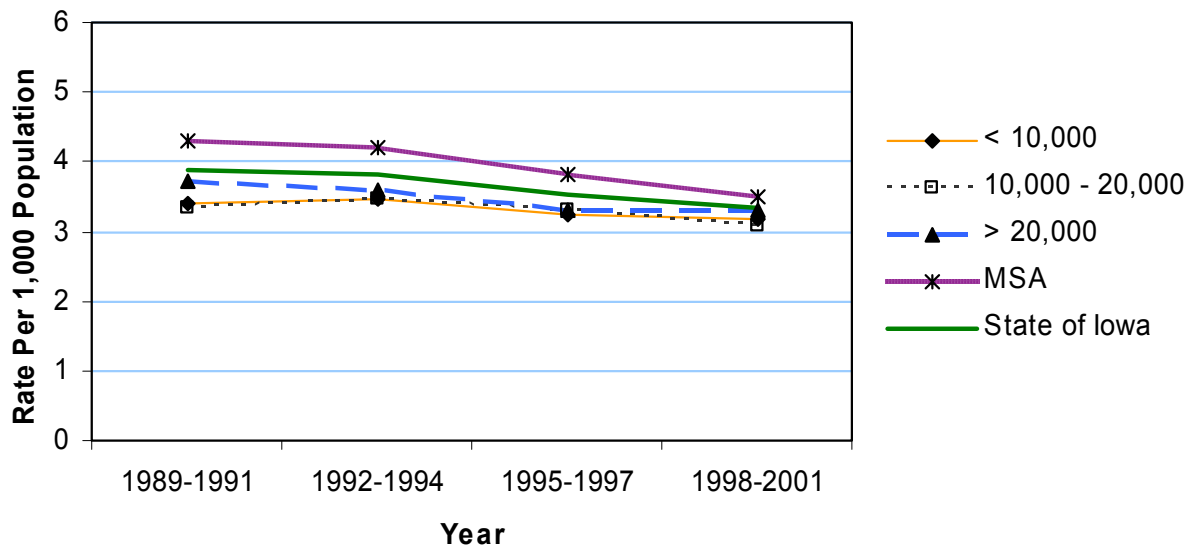
## Marriages 1998-2001

### Crude Rates



## Dissolutions 1998-2001

### Crude Rates



## Domestic Abuse Cases 1999-2001<sup>1</sup>

	Counties with Average Population < 10,000			Counties with Average Population 10,000 to 20,000			Counties with Average Population > 20,000			MSA Counties		
	County	#	Crude <sup>2</sup>	County	#	Crude <sup>2</sup>	County	#	Crude <sup>2</sup>	County	#	Crude <sup>2</sup>
Counties with Average Population < 10,000	Adair	9	3.7	Lucas	17	6.0						
	Adams	9	6.7	Monroe	44	18.3						
	Audubon	*	*	Osceola	25	11.9						
	Clarke	29	10.7	Pocahontas	8	3.1						
	Davis	22	8.6	Ringgold	*	*						
	Decatur	*	*	Taylor	18	8.7						
	Fremont	*	*	Van Buren	8	3.4						
	Howard	34	11.4	Wayne	23	11.4						
	Ida	*	*	Worth	19	8.0						
				<b>Total</b>	268	6.4						
Counties with Average Population 10,000 to 20,000	Allamakee	*	*	Humboldt	29	9.3						
	Appanoose	78	19.0	Iowa	10	2.1						
	Butler	*	*	Jefferson	103	21.2						
	Calhoun	38	11.4	Keokuk	11	3.2						
	Cass	90	20.5	Kossuth	42	8.2						
	Cedar	49	9.0	Louisa	47	12.9						
	Cherokee	56	14.3	Lyon	16	4.5						
	Chickasaw	*	*	Madison	5	1.2						
	Clay	65	12.5	Mills	28	6.4						
	Clayton	*	*	Mitchell	21	6.5						
	Crawford	88	17.3	Monona	67	22.4						
	Delaware	19	3.4	Montgomery	70	19.9						
	Dickinson	*	*	O'Brien	61	13.5						
	Emmet	37	11.2	Page	47	9.2						
	Floyd	42	8.3	Palo Alto	25	8.2						
	Franklin	20	6.2	Poweshiek	32	5.7						
	Greene	6	1.9	Sac	32	9.3						
	Grundy	17	4.6	Shelby	*	*						
	Guthrie	*	*	Tama	71	13.1						
	Hamilton	68	13.9	Union	*	*						
Hancock	34	9.4	Winnebago	31	8.9							
Hardin	58	10.3	Wright	47	11.0							
Harrison	74	15.8	<b>Total</b>	1,640	8.6							
Counties with Average Population > 20,000	Benton	23	3.0	Jones	60	9.9						
	Boone	142	18.1	Lee	388	34.1						
	Bremer	49	7.0	Mahaska	22	3.3						
	Buchanan	13	2.1	Marion	143	14.8						
	Buena Vista	147	24.0	Marshall	420	35.6						
	Carroll	40	6.2	Muscatine	514	41.1						
	Cerro Gordo	401	28.9	Plymouth	80	10.7						
	Clinton	15	1.0	Sioux	23	2.4						
	Des Moines	491	38.7	Story	204	8.5						
	Fayette	20	3.0	Wapello	274	25.3						
	Henry	84	13.8	Washington	12	1.9						
	Jackson	10	1.6	Webster	99	8.2						
	Jasper	59	5.3	Winneshiek	39	6.1						
			<b>Total</b>	3,772	15.2							
MSA Counties	Black Hawk	804	2.0	Polk	2,663	23.7						
	Dallas	77	6.3	Pottawattamie	1,183	45.0						
	Dubuque	537	20.1	Scott	2,096	44.0						
	Johnson	681	20.4	Warren	151	12.4						
	Linn	1,984	34.5	Woodbury	1,486	47.8						
	<b>State Totals</b>	17,342	19.8	<b>Total</b>	11,662	29.3						

<sup>1</sup>Crime data may be incomplete due to selective reporting by counties and jurisdictions.

<sup>2</sup>Rates per 10,000 population

Source: Iowa Department of Public Safety, Uniform Crime Report



# Driving Under the Influence Arrests 1999-2001<sup>1</sup>

	County	#	Crude <sup>2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>2</sup> (Rank <sup>3</sup> )
Counties with Average Population < 10,000	Adair	92	37.4 (48)	Lucas	62	21.9 (75)
	Adams	48	35.9 (50)	Monroe	90	37.5 (47)
	Audubon	19	9.3 (90)	Osceola	108	51.4 (21)
	Clarke	220	81.0 (03)	Pocahontas	57	22.0 (74)
	Davis	76	29.6 (59)	Ringgold	20	12.2 (87)
	Decatur	74	28.5 (64)	Taylor	13	6.3 (96)
	Fremont	30	12.6 (85)	Van Buren	68	29.1 (63)
	Howard	168	56.5 (16)	Wayne	35	17.4 (81)
	Ida	21	9.0 (93)	Worth	129	54.6 (17)
				<b>Total</b>	1,330	31.8
Counties with Average Population 10,000 to 20,000	Allamakee	56	12.8 (84)	Humboldt	106	34.1 (52)
	Appanoose	222	54.1 (19)	Iowa	138	29.3 (62)
	Butler	25	5.5 (97)	Jefferson	226	46.5 (26)
	Calhoun	162	48.7 (24)	Keokuk	46	13.5 (83)
	Cass	217	49.5 (23)	Kossuth	109	21.3 (77)
	Cedar	235	43.1 (34)	Louisa	259	70.8 (06)
	Cherokee	103	26.4 (67)	Lyon	131	37.1 (49)
	Chickasaw	42	10.7 (89)	Madison	35	8.3 (94)
	Clay	350	67.4 (07)	Mills	81	18.6 (79)
	Clayton	66	11.8 (88)	Mitchell	96	29.5 (60)
	Crawford	255	50.2 (22)	Monona	339	113.2 (01)
	Delaware	182	33.0 (54)	Montgomery	158	45.0 (31)
	Dickinson	61	12.4 (86)	O'Brien	174	38.5 (46)
	Emmet	257	77.9 (04)	Page	150	29.5 (61)
	Floyd	91	18.0 (80)	Palo Alto	95	31.3 (56)
	Franklin	155	48.2 (25)	Poweshiek	149	26.4 (68)
	Greene	28	9.1 (91)	Sac	85	24.6 (69)
	Grundy	144	38.9 (44)	Shelby	9	2.3 (99)
	Guthrie	22	6.5 (95)	Tama	315	58.0 (15)
	Hamilton	299	60.9 (14)	Union	60	16.3 (82)
	Hancock	108	29.9 (58)	Winnebago	94	26.9 (65)
	Hardin	222	39.5 (42)	Wright	194	45.2 (28)
	Harrison	289	61.7 (13)	<b>Total</b>	6,640	34.9
Counties with Average Population > 20,000	Benton	183	24.0 (70)	Jones	243	40.0 (39)
	Boone	178	22.6 (73)	Lee	398	35.0 (51)
	Bremer	306	43.6 (33)	Mahaska	306	45.6 (27)
	Buchanan	286	45.2 (29)	Marion	382	39.6 (41)
	Buena Vista	406	66.4 (09)	Marshall	503	42.6 (35)
	Carroll	263	40.9 (38)	Muscatine	804	64.2 (11)
	Cerro Gordo	896	64.6 (10)	Plymouth	162	21.8 (76)
	Clinton	136	9.0 (92)	Sioux	222	23.3 (72)
	Des Moines	785	61.9 (12)	Story	1268	52.9 (20)
	Fayette	220	33.4 (53)	Wapello	725	67.1 (08)
	Henry	196	32.1 (55)	Washington	119	19.1 (78)
	Jackson	143	23.5 (71)	Webster	497	41.2 (37)
	Jasper	297	26.6 (66)	Winneshiek	197	30.8 (57)
				<b>Total</b>	10,121	40.9
MSA Counties	Black Hawk	1460	3.7 (98)	Polk	4480	39.8 (40)
	Dallas	476	38.7 (45)	Pottawattamie	1029	39.2 (43)
	Dubuque	1208	45.2 (30)	Scott	2136	44.9 (32)
	Johnson	3409	102.1 (02)	Warren	512	41.9 (36)
	Linn	3120	54.2 (18)	Woodbury	2259	72.6 (05)
<b>State Totals</b>	38,180	43.5				

<sup>1</sup>Crime data may be incomplete due to selective reporting by counties and jurisdictions.

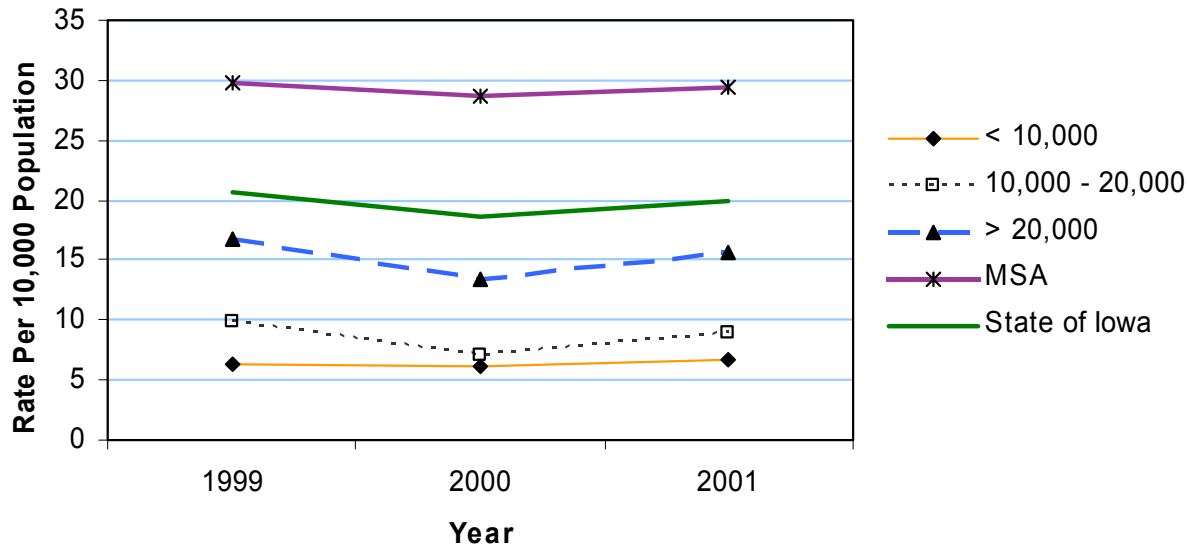
<sup>2</sup>Rates per 10,000 population

<sup>3</sup>Rank among 99 Iowa counties

Source: Iowa Department of Public Safety, Uniform Crime Report

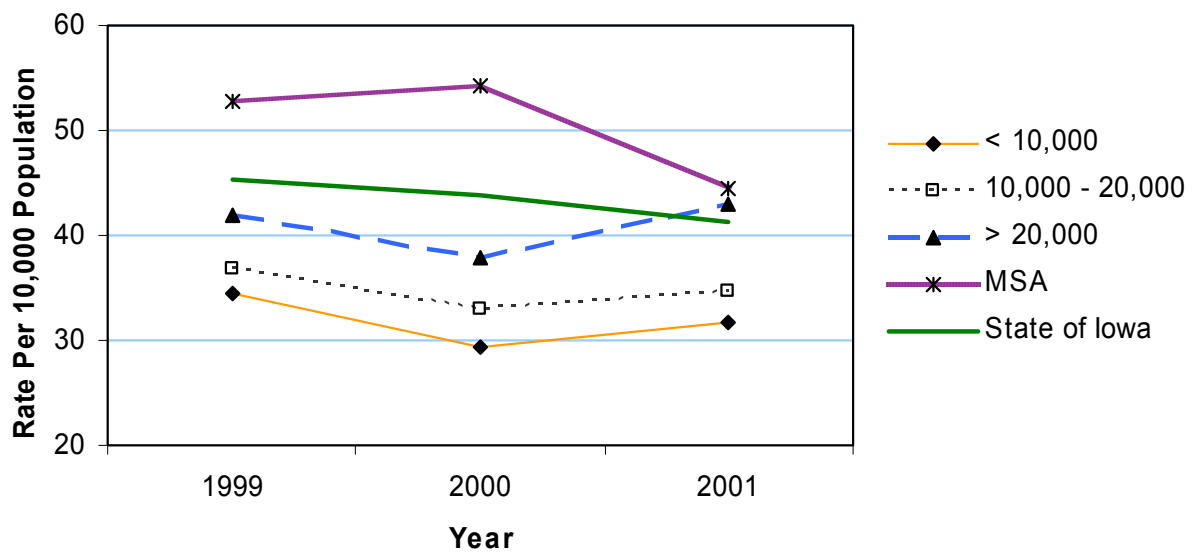
## Domestic Abuse Cases 1999-2001

### Crude Rates



## Driving Under the Influence Arrests 1999-2001

### Crude Rates



# Juvenile Arrests 1999-2001<sup>1</sup>

	County	#	Crude <sup>2</sup>	County	#	Crude <sup>2</sup>
	Counties with Average Population < 10,000	Adair	34	13.8	Lucas	209
Adams		36	26.9	Monroe	136	56.7
Audubon		64	31.3	Osceola	206	98.1
Clarke		138	50.8	Pocahontas	6	2.3
Davis		58	22.6	Ringgold	*	*
Decatur		*	*	Taylor	*	*
Fremont		*	*	Van Buren	17	7.3
Howard		279	93.8	Wayne	25	12.4
Ida		6	2.6	Worth	25	10.6
				<b>Total</b>	1,247	29.8
Counties with Average Population 10,000 to 20,000	Allamakee	21	4.8	Humboldt	82	26.4
	Appanoose	624	152.2	Iowa	56	11.9
	Butler	8	1.7	Jefferson	259	53.3
	Calhoun	22	6.6	Keokuk	*	*
	Cass	307	70.0	Kossuth	437	85.3
	Cedar	254	46.5	Louisa	220	60.2
	Cherokee	289	74.0	Lyon	187	53.0
	Chickasaw	22	5.6	Madison	12	2.8
	Clay	457	87.9	Mills	74	17.0
	Clayton	7	1.2	Mitchell	204	62.8
	Crawford	130	25.6	Monona	279	93.2
	Delaware	403	73.1	Montgomery	230	65.5
	Dickinson	*	*	O'Brien	354	78.3
	Emmet	9	2.7	Page	248	48.7
	Floyd	189	37.5	Palo Alto	77	25.4
	Franklin	145	45.1	Poweshiek	144	25.5
	Greene	24	7.8	Sac	102	29.5
	Grundy	131	35.4	Shelby	5	1.3
	Guthrie	13	3.8	Tama	281	51.8
	Hamilton	302	61.6	Union	46	12.5
Hancock	159	44.0	Winnebago	163	46.6	
Hardin	588	104.7	Wright	136	31.7	
Harrison	141	30.1	<b>Total</b>	7,846	41.2	
Counties with Average Population > 20,000	Benton	100	13.1	Jones	111	18.3
	Boone	480	61.0	Lee	1,340	117.8
	Bremer	312	44.5	Mahaska	656	97.8
	Buchanan	452	71.5	Marion	401	41.5
	Buena Vista	599	97.9	Marshall	1,886	159.8
	Carroll	424	66.0	Muscatine	2,283	182.4
	Cerro Gordo	1,586	114.3	Plymouth	374	50.2
	Clinton	112	7.5	Sioux	211	22.2
	Des Moines	2,000	157.7	Story	1,390	58.0
	Fayette	153	23.3	Wapello	1,636	151.3
	Henry	337	55.3	Washington	*	*
	Jackson	399	65.6	Webster	1,154	95.7
	Jasper	318	28.5	Winneshiek	305	47.7
				<b>Total</b>	19,023	76.9
MSA Counties	Black Hawk	3,614	9.1	Polk	7,819	69.4
	Dallas	581	47.2	Pottawattamie	4,414	168.1
	Dubuque	3,062	114.6	Scott	6,477	136.0
	Johnson	2,769	83.0	Warren	432	35.4
	Linn	4,035	70.1	Woodbury	6,731	216.3
<b>State Totals</b>	68,050	77.5	<b>Total</b>	39,934	100.3	

<sup>1</sup>Crime data may be incomplete due to selective reporting by counties and jurisdictions.

<sup>2</sup>Rates per 10,000 population

Source: Iowa Department of Public Safety, Uniform Crime Report

## Juvenile Vandalism 1999-2001<sup>1</sup>

	Counties with Average Population < 10,000			Counties with Average Population 10,000 to 20,000			Counties with Average Population > 20,000			MSA Counties		
	County	#	Crude <sup>2</sup>	County	#	Crude <sup>2</sup>	County	#	Crude <sup>2</sup>	County	#	Crude <sup>2</sup>
Counties with Average Population < 10,000	Adair	*		Lucas	20	7.1	Lucas	20	7.1	Polk	535	4.8
	Adams	*	*	Monroe	9	3.7	Lee	113	9.9	Pottawattamie	288	11.0
	Audubon	*	*	Osceola	32	15.2	Mahaska	51	7.6	Scott	360	7.6
	Clarke	13	4.8	Pocahontas	*	*	Marion	34	3.5	Warren	30	2.5
	Davis	*	*	Ringgold	*	*	Marshall	66	5.6	Woodbury	349	11.2
	Decatur	*	*	Taylor	*	*	Muscatine	125	10.0	<b>Total</b>	2,315	5.8
	Fremont	*	*	Van Buren	*	*	Plymouth	9	1.2			
	Howard	19	6.4	Wayne	8	4.0	Sioux	36	3.8			
	Ida	*	*	Worth	*	*	Story	101	4.2			
				<b>Total</b>	110	2.6	Wapello	78	7.2			
Counties with Average Population 10,000 to 20,000	Allamakee	*	*	Humboldt	*	*	Washington	*	*			
	Appanoose	35	8.5	Iowa	*	*	Webster	87	7.2			
	Butler	*	*	Jefferson	9	1.9	Winneshiek	18	2.8			
	Calhoun	6	1.8	Keokuk	*	*						
	Cass	9	2.1	Kossuth	37	7.2						
	Cedar	27	4.9	Louisa	15	4.1						
	Cherokee	21	5.4	Lyon	14	4.0						
	Chickasaw	*	*	Madison	*	*						
	Clay	40	7.7	Mills	15	3.4						
	Clayton	*	*	Mitchell	30	9.2						
	Crawford	*	*	Monona	13	4.3						
	Delaware	34	6.2	Montgomery	17	4.8						
	Dickinson	*	*	O'Brien	40	8.8						
	Emmet	*	*	Page	12	2.4						
	Floyd	9	1.8	Palo Alto	*	*						
	Franklin	6	1.9	Poweshiek	6	1.1						
	Greene	6	1.9	Sac	19	5.5						
	Grundy	10	2.7	Shelby	*	0.0						
	Guthrie	*	*	Tama	32	5.9						
	Hamilton	29	5.9	Union	*	*						
Hancock	22	6.1	Winnebago	17	4.9							
Hardin	29	5.2	Wright	8	1.9							
Harrison	*	*	<b>Total</b>	578	3.0							
Counties with Average Population > 20,000	Benton	8	1.0	Jones	6	1.0						
	Boone	52	6.6	Lee	113	9.9						
	Bremer	30	4.3	Mahaska	51	7.6						
	Buchanan	31	4.9	Marion	34	3.5						
	Buena Vista	48	7.8	Marshall	66	5.6						
	Carroll	51	7.9	Muscatine	125	10.0						
	Cerro Gordo	96	6.9	Plymouth	9	1.2						
	Clinton	10	0.7	Sioux	36	3.8						
	Des Moines	99	7.8	Story	101	4.2						
	Fayette	*	*	Wapello	78	7.2						
	Henry	8	1.3	Washington	*	*						
	Jackson	42	6.9	Webster	87	7.2						
	Jasper	24	2.1	Winneshiek	18	2.8						
			<b>Total</b>	1,225	5.0							
MSA Counties	Black Hawk	230	0.6	Polk	535	4.8						
	Dallas	44	3.6	Pottawattamie	288	11.0						
	Dubuque	45	1.7	Scott	360	7.6						
	Johnson	138	4.1	Warren	30	2.5						
	Linn	296	5.1	Woodbury	349	11.2						
	<b>State Totals</b>	4,228	4.8									

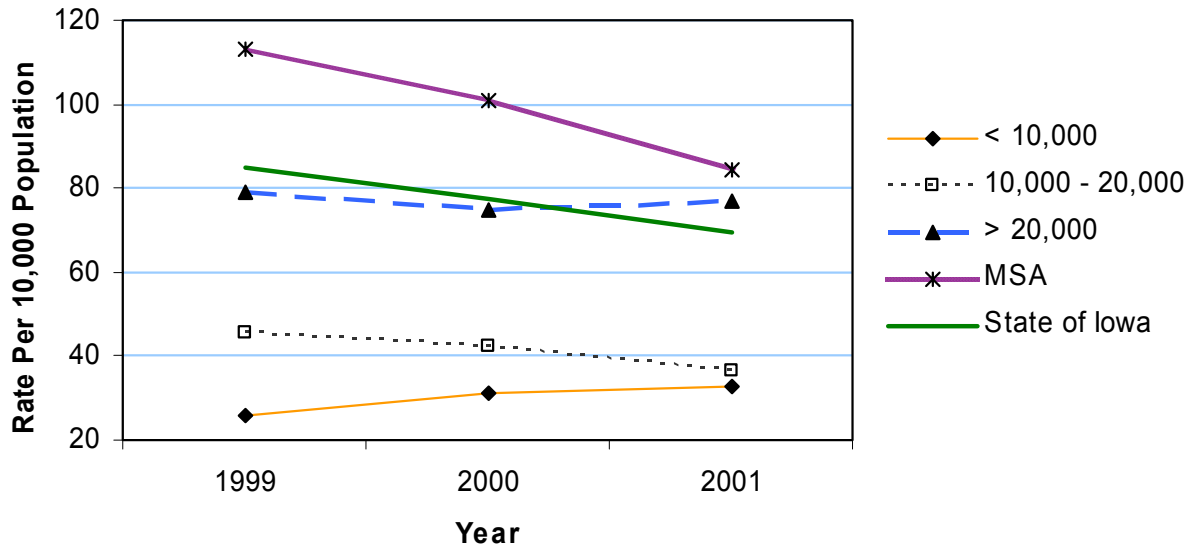
<sup>1</sup> Crime data may be incomplete due to selective reporting by counties and jurisdictions.

<sup>2</sup> Rates per 10,000 population

Source: Iowa Department of Public Safety, Uniform Crime Report

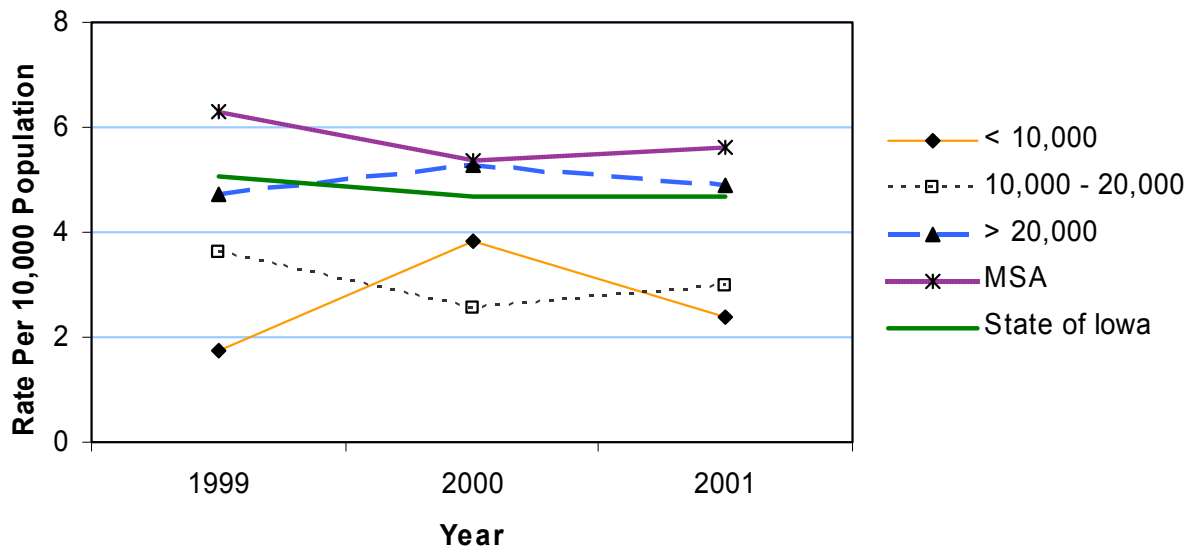
## Juvenile Arrests 1999-2001

### Crude Rates



## Juvenile Vandalism 1999-2001

### Crude Rates





## Prenatal and Infant Health

Each year families across the United States bring home a healthy baby who has all the potential for a full and productive life. But some families will suffer the loss of their child soon after birth.

Infant morbidity and mortality are critical indicators of the health of a population. Low birth weight and preterm birth result in a significant loss of life; surviving infants often sustain residual injuries that affect quality of life, and there is substantial financial cost to individuals and to society in caring for these children.

Certain factors have proven to increase the likelihood of delivering a low birth weight or preterm infant, such as (1) cigarette smoking during pregnancy; (2) substance abuse immediately prior to conception and during pregnancy (including alcohol abuse); and (3) teenage pregnancies.

Birth defects rank as the leading cause of mortality in full-term newborn babies in the United States. Iowa’s overall birth defect rate is approximately 5% of all births. The state of Iowa has taken a leadership role in birth defect surveillance and serves as a model to other states. Iowa has also partnered with the March of Dimes’ Folic Acid education campaign and the Preterm Birth Prevention campaign.

Adequate folic acid intake by women of reproductive years has been demonstrated to decrease the risk of neural tube defects in children. Early prenatal care for mothers and health education to women and medical providers allow for a healthier pregnancy and improved birth outcomes.

Interventions need to focus on providing preconceptional health care to women, early and comprehensive prenatal care, and family support that includes promotion of healthy lifestyles.

### IN AN AVERAGE WEEK IN IOWA\*

- ✓ 736 babies are born.
- ✓ 73 babies are born to teen mothers.
- ✓ 51 babies are born to mothers who receive inadequate prenatal care.
- ✓ 45 babies are born with low birth weight.
- ✓ 78 babies are born preterm.
- ✓ 5 babies die before their first birthday.

\*Source: March of Dimes perinatal statistics: [www.marchofdimes.com/peristats](http://www.marchofdimes.com/peristats)

### Live Births 1998-2001

	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with Average Population < 10,000	Adair	280	8.5 (98)	Lucas	439	11.6 (45)
	Adams	170	9.5 (94)	Monroe	362	11.3 (56)
	Audubon	248	9.1 (97)	Osceola	296	10.5 (76)
	Clarke	438	12.2 (28)	Pocahontas	291	8.4 (99)
	Davis	458	13.4 (12)	Ringgold	248	11.4 (51)
	Decatur	365	10.6 (75)	Taylor	301	10.8 (71)
	Fremont	359	11.3 (57)	Van Buren	381	12.2 (26)
	Howard	449	11.3 (55)	Wayne	296	11.0 (63)
	Ida	319	10.2 (86)	Worth	337	10.7 (72)
				<b>Total</b>	6,037	10.8
Counties with Average Population 10,000 to 20,000	Allamakee	686	11.7 (40)	Humboldt	453	10.9 (67)
	Appanoose	593	10.8 (69)	Iowa	715	11.4 (49)
	Butler	626	10.2 (84)	Jefferson	629	9.7 (92)
	Calhoun	419	9.4 (95)	Keokuk	547	12.0 (33)
	Cass	614	10.5 (77)	Kossuth	658	9.6 (93)
	Cedar	760	10.5 (78)	Louisa	660	13.6 (11)
	Cherokee	528	10.1 (87)	Lyon	603	12.8 (18)
	Chickasaw	573	10.9 (68)	Madison	720	12.9 (17)
	Clay	782	11.2 (58)	Mills	686	11.9 (38)
	Clayton	811	10.8 (70)	Mitchell	539	12.4 (23)
	Crawford	812	12.0 (35)	Monona	425	10.6 (73)
	Delaware	874	11.9 (37)	Montgomery	574	12.2 (27)
	Dickinson	662	10.1 (88)	O'Brien	676	11.1 (61)
	Emmet	501	11.3 (53)	Page	714	10.5 (79)
	Floyd	776	11.5 (47)	Palo Alto	424	10.5 (80)
	Franklin	472	11.0 (65)	Poweshiek	784	10.4 (81)
	Greene	439	10.6 (74)	Sac	475	10.2 (85)
	Grundy	498	10.1 (89)	Shelby	546	10.4 (82)
	Guthrie	531	11.7 (43)	Tama	949	13.1 (15)
	Hamilton	795	12.1 (29)	Union	557	11.3 (54)
Hancock	526	10.9 (66)	Winnebago	513	11.0 (64)	
Hardin	881	11.7 (41)	Wright	638	11.1 (62)	
Harrison	698	11.2 (60)	<b>Total</b>	28,342	11.2	
Counties with Average Population > 20,000	Benton	1,220	12.1 (32)	Jones	804	9.9 (91)
	Boone	1,221	11.7 (44)	Lee	1,736	11.4 (50)
	Bremer	934	10.0 (90)	Mahaska	1,165	13.0 (16)
	Buchanan	1,209	14.3 (07)	Marion	1,600	12.5 (21)
	Buena Vista	963	11.8 (39)	Marshall	2,181	13.9 (08)
	Carroll	986	11.5 (48)	Muscatine	2,524	15.2 (03)
	Cerro Gordo	2,081	11.2 (59)	Plymouth	1,185	12.0 (36)
	Clinton	2,510	12.5 (20)	Sioux	1,729	13.6 (10)
	Des Moines	2,091	12.3 (25)	Story	3,609	11.4 (52)
	Fayette	905	10.3 (83)	Wapello	1,663	11.5 (46)
	Henry	976	12.0 (34)	Washington	1,210	14.6 (04)
	Jackson	951	11.7 (42)	Webster	2,004	12.5 (19)
	Jasper	1,795	12.1 (31)	Winneshiek	789	9.3 (96)
				<b>Total</b>	40,041	12.1
MSA Counties	Black Hawk	6,379	12.5 (22)	Polk	24,178	16.2 (01)
	Dallas	2,123	13.2 (14)	Pottawattamie	4,782	13.7 (09)
	Dubuque	4,705	13.2 (13)	Scott	9,165	14.5 (05)
	Johnson	5,361	12.1 (30)	Warren	2,011	12.4 (24)
	Linn	10,941	14.3 (06)	Woodbury	6,606	15.9 (02)
<b>State Total</b>	150,671	12.9	<b>Total</b>	76,251	14.4	

<sup>1</sup>Rates per 1,000 population  
<sup>2</sup>Rank among 99 Iowa counties

Source: Iowa Department of Public Health, Vital Statistics, Birth Certificates



## Out-of-Wedlock Births 1998-2001

	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with Average Population < 10,000	Adair	58	207.1 (76)	Lucas	100	227.8 (59)
	Adams	35	205.9 (77)	Monroe	97	268.0 (35)
	Audubon	51	205.6 (78)	Osceola	63	212.8 (71)
	Clarke	143	326.5 (13)	Pocahontas	65	223.4 (64)
	Davis	48	104.8 (99)	Ringgold	49	197.6 (81)
	Decatur	105	287.7 (26)	Taylor	67	222.6 (66)
	Fremont	107	298.1 (23)	Van Buren	81	212.6 (72)
	Howard	107	238.3 (55)	Wayne	67	226.4 (62)
	Ida	57	178.7 (91)	Worth	72	213.6 (69)
				<b>Total</b>	1,372	227.3
Counties with Average Population 10,000 to 20,000	Allamakee	156	227.4 (60)	Humboldt	115	253.9 (47)
	Appanoose	192	323.8 (15)	Iowa	140	195.8 (83)
	Butler	132	210.9 (73)	Jefferson	165	262.3 (40)
	Calhoun	102	243.4 (52)	Keokuk	115	210.2 (74)
	Cass	164	267.1 (38)	Kossuth	112	170.2 (94)
	Cedar	141	185.5 (88)	Louisa	188	284.8 (29)
	Cherokee	161	304.9 (22)	Lyon	67	111.1 (98)
	Chickasaw	130	226.9 (61)	Madison	146	202.8 (79)
	Clay	209	267.3 (37)	Mills	196	285.7 (28)
	Clayton	181	223.2 (65)	Mitchell	103	191.1 (84)
	Crawford	253	311.6 (19)	Monona	130	305.9 (21)
	Delaware	167	191.1 (85)	Montgomery	182	317.1 (17)
	Dickinson	160	241.7 (53)	O'Brien	126	186.4 (87)
	Emmet	155	309.4 (20)	Page	225	315.1 (18)
	Floyd	197	253.9 (46)	Palo Alto	111	261.8 (41)
	Franklin	138	292.4 (25)	Poweshiek	208	265.3 (39)
	Greene	114	259.7 (43)	Sac	120	252.6 (49)
	Grundy	81	162.7 (95)	Shelby	101	185.0 (89)
	Guthrie	111	209.0 (75)	Tama	314	330.9 (11)
	Hamilton	223	280.5 (32)	Union	164	294.4 (24)
Hancock	133	252.9 (48)	Winnebago	143	278.8 (33)	
Hardin	222	252.0 (50)	Wright	164	257.1 (44)	
Harrison	166	237.8 (56)	<b>Total</b>	7,023	247.8	
Counties with Average Population > 20,000	Benton	243	199.2 (80)	Jones	215	267.4 (36)
	Boone	284	232.6 (57)	Lee	663	381.9 (03)
	Bremer	178	190.6 (86)	Mahaska	297	254.9 (45)
	Buchanan	262	216.7 (68)	Marion	314	196.3 (82)
	Buena Vista	313	325.0 (14)	Marshall	721	330.6 (12)
	Carrroll	210	213.0 (70)	Muscatine	869	344.3 (10)
	Cerro Gordo	667	320.5 (16)	Plymouth	285	240.5 (54)
	Clinton	898	357.8 (08)	Sioux	205	118.6 (97)
	Des Moines	803	384.0 (02)	Story	537	148.8 (96)
	Fayette	254	280.7 (31)	Wapello	589	354.2 (09)
	Henry	263	269.5 (34)	Washington	210	173.6 (92)
	Jackson	273	287.1 (27)	Webster	797	397.7 (01)
	Jasper	415	231.2 (58)	Winneshiek	143	181.2 (90)
			<b>Total</b>	10,908	272.4	
MSA Counties	Black Hawk	2,367	371.1 (06)	Polk	6,847	283.2 (30)
	Dallas	478	225.2 (63)	Pottawattamie	1,775	371.2 (05)
	Dubuque	1,156	245.7 (51)	Scott	3,392	370.1 (07)
	Johnson	917	171.1 (93)	Warren	447	222.3 (67)
	Linn	2,855	260.9 (42)	Woodbury	2,468	373.6 (04)
<b>State Total</b>	42,005	278.8	<b>Total</b>	22,702	297.7	

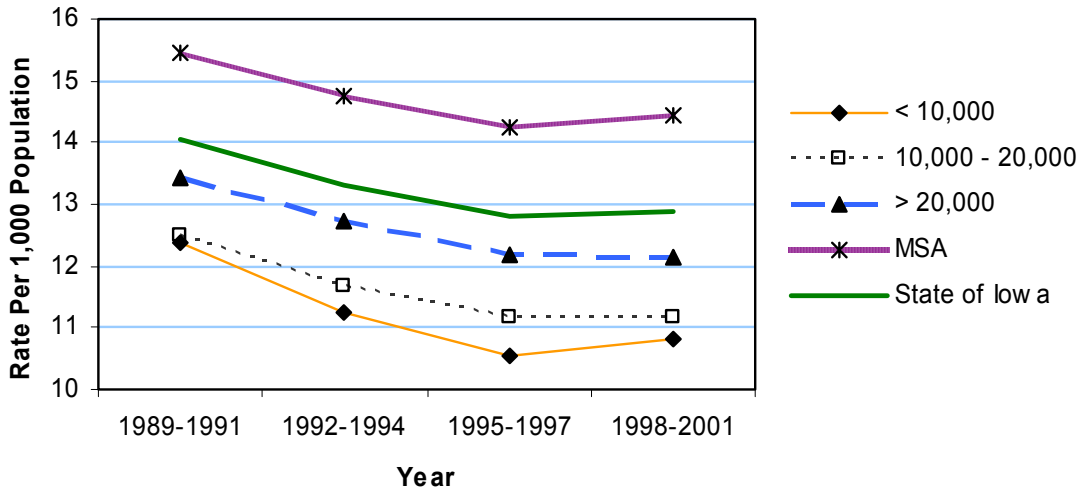
<sup>1</sup>Rates per 1,000 live births

<sup>2</sup>Rank among 99 Iowa counties

Source: Iowa Department of Public Health, Vital Statistics, Birth Certificates

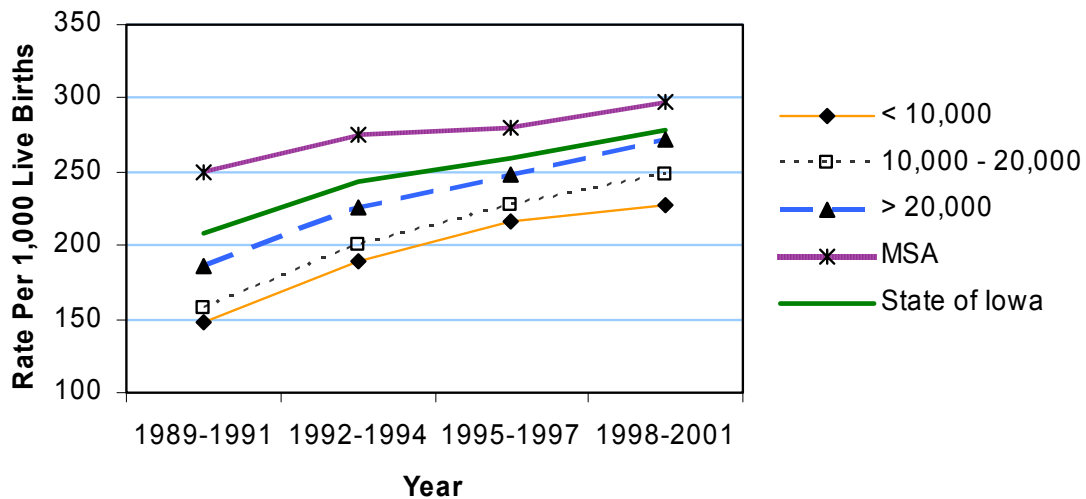
## LIVE BIRTHS 1989-2001

### Crude Rates



## OUT-OF-WEDLOCK BIRTHS 1989-2001

### Crude Rates



## Mothers Under Age 20 1998-2001

	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with Average Population < 10,000	Adair	36	128.6 (21)	Lucas	51	116.2 (35)
	Adams	11	64.7 (93)	Monroe	45	124.3 (26)
	Audubon	23	92.7 (56)	Osceola	26	87.8 (64)
	Clarke	62	141.6 (05)	Pocahontas	22	75.6 (80)
	Davis	32	69.9 (88)	Ringgold	29	116.9 (33)
	Decatur	54	147.9 (03)	Taylor	38	126.2 (24)
	Fremont	37	103.1 (42)	Van Buren	50	131.2 (16)
	Howard	37	82.4 (70)	Wayne	44	148.6 (02)
	Ida	27	84.6 (67)	Worth	35	103.9 (40)
				<b>Total</b>	659	109.2
Counties with Average Population 10,000 to 20,000	Allamakee	70	102.0 (43)	Humboldt	39	86.1 (66)
	Appanoose	81	136.6 (09)	Iowa	53	74.1 (83)
	Butler	46	73.5 (84)	Jefferson	61	97.0 (52)
	Calhoun	41	97.9 (50)	Keokuk	49	89.6 (61)
	Cass	76	123.8 (27)	Kossuth	49	74.5 (82)
	Cedar	49	64.5 (94)	Louisa	78	118.2 (32)
	Cherokee	47	89.0 (63)	Lyon	42	69.7 (89)
	Chickasaw	47	82.0 (72)	Madison	47	65.3 (92)
	Clay	88	112.5 (36)	Mills	66	96.2 (53)
	Clayton	62	76.4 (79)	Mitchell	45	83.5 (68)
	Crawford	81	99.8 (47)	Monona	52	122.4 (30)
	Delaware	71	81.2 (73)	Montgomery	60	104.5 (38)
	Dickinson	59	89.1 (62)	O'Brien	70	103.6 (41)
	Emmet	67	133.7 (12)	Page	94	131.7 (15)
	Floyd	70	90.2 (59)	Palo Alto	42	99.1 (48)
	Franklin	64	135.6 (11)	Poweshiek	96	122.4 (29)
	Greene	54	123.0 (28)	Sac	39	82.1 (71)
	Grundy	32	64.3 (96)	Shelby	37	67.8 (90)
	Guthrie	39	73.4 (85)	Tama	120	126.4 (23)
	Hamilton	95	119.5 (31)	Union	51	91.6 (58)
Hancock	53	100.8 (46)	Winnebago	49	95.5 (55)	
Hardin	115	130.5 (17)	Wright	65	101.9 (45)	
Harrison	68	97.4 (51)	<b>Total</b>	2,779	98.1	
Counties with Average Population > 20,000	Benton	89	73.0 (86)	Jones	82	102.0 (44)
	Boone	99	81.1 (74)	Lee	229	131.9 (14)
	Bremer	73	78.2 (78)	Mahaska	150	128.8 (20)
	Buchanan	91	75.3 (81)	Marion	133	83.1 (69)
	Buena Vista	131	136.0 (10)	Marshall	307	140.8 (06)
	Carroll	57	57.8 (97)	Muscatine	413	163.6 (01)
	Cerro Gordo	220	105.7 (37)	Plymouth	104	87.8 (65)
	Clinton	332	132.3 (13)	Sioux	123	71.1 (87)
	Des Moines	305	145.9 (04)	Story	190	52.6 (98)
	Fayette	94	103.9 (39)	Wapello	234	140.7 (07)
	Henry	114	116.8 (34)	Washington	78	64.5 (95)
	Jackson	88	92.5 (57)	Webster	261	130.2 (18)
	Jasper	172	95.8 (54)	Winneshiek	53	67.2 (91)
			<b>Total</b>	4,222	105.4	
MSA Counties	Black Hawk	797	124.9 (25)	Polk	2,368	97.9 (49)
	Dallas	168	79.1 (77)	Pottawattamie	654	136.8 (08)
	Dubuque	423	89.9 (60)	Scott	1,172	127.9 (22)
	Johnson	241	45.0 (99)	Warren	162	80.6 (75)
	Linn	866	79.2 (76)	Woodbury	859	130.0 (19)
<b>State Total</b>	15,370	102.0		7,710	101.1	

<sup>1</sup>Rates per 1,000 live births

<sup>2</sup>Rank among 99 Iowa counties

Source: Iowa Department of Public Health, Vital Statistics, Birth Certificates

## Low Birth Weight (< 2500 Grams) 1998-2001

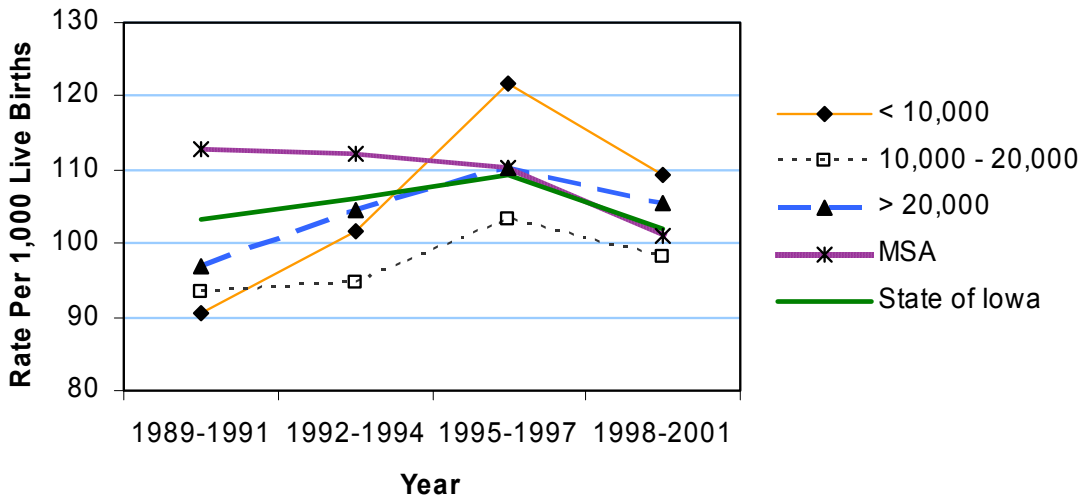
	Counties with Average Population < 10,000			Counties with Average Population 10,000 to 20,000			Counties with Average Population > 20,000			MSA Counties		
	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with Average Population < 10,000	Adair	10	35.7 (99)	Lucas	27	61.5 (51)	Lucas	27	61.5 (51)	Polk	1,589	65.7 (31)
	Adams	10	58.8 (61)	Monroe	19	52.5 (82)	Lee	125	72.0 (17)	Pottawattamie	331	69.2 (20)
	Audubon	13	52.4 (83)	Osceola	24	81.1 (04)	Mahaska	77	66.1 (29)	Scott	601	65.6 (32)
	Clarke	35	79.9 (06)	Pocahontas	16	55.0 (76)	Marion	91	56.9 (68)	Warren	125	62.2 (49)
	Davis	24	52.4 (84)	Ringgold	17	68.5 (22)	Marshall	122	55.9 (71)	Woodbury	457	69.2 (21)
	Decatur	20	54.8 (79)	Taylor	33	109.6 (01)	Muscatine	135	53.5 (81)	<b>Total</b>	4,919	64.5
	Fremont	23	64.1 (43)	Van Buren	18	47.2 (94)	Plymouth	58	48.9 (89)			
	Howard	30	66.8 (26)	Wayne	23	77.7 (08)	Sioux	69	39.9 (96)			
	Ida	19	59.6 (59)	Worth	31	92.0 (02)	Story	207	57.4 (65)			
				<b>Total</b>	392	64.9	Wapello	130	78.2 (07)			
Counties with Average Population 10,000 to 20,000	Allamakee	34	49.6 (88)	Humboldt	22	48.6 (91)	Washington	78	64.5 (38)			
	Appanoose	43	72.5 (15)	Iowa	47	65.7 (30)	Webster	125	62.4 (48)			
	Butler	36	57.5 (64)	Jefferson	45	71.5 (19)	Winneshiek	46	58.3 (63)			
	Calhoun	32	76.4 (09)	Keokuk	35	64.0 (44)	<b>Total</b>	2,451	61.2			
	Cass	30	48.9 (90)	Kossuth	43	65.3 (33)						
	Cedar	31	40.8 (95)	Louisa	40	60.6 (56)						
	Cherokee	27	51.1 (87)	Lyon	31	51.4 (86)						
	Chickasaw	34	59.3 (60)	Madison	42	58.3 (62)						
	Clay	51	65.2 (34)	Mills	44	64.1 (41)						
	Clayton	39	48.1 (93)	Mitchell	20	37.1 (97)						
	Crawford	50	61.6 (50)	Monona	24	56.5 (70)						
	Delaware	48	54.9 (77)	Montgomery	43	74.9 (10)						
	Dickinson	43	65.0 (35)	O'Brien	25	37.0 (98)						
	Emmet	28	55.9 (72)	Page	48	67.2 (25)						
	Floyd	40	51.5 (85)	Palo Alto	26	61.3 (52)						
	Franklin	34	72.0 (16)	Poweshiek	43	54.8 (78)						
	Greene	28	63.8 (46)	Sac	38	80.0 (05)						
	Grundy	32	64.3 (40)	Shelby	40	73.3 (12)						
	Guthrie	30	56.5 (69)	Tama	54	56.9 (67)						
	Hamilton	48	60.4 (57)	Union	36	64.6 (36)						
Hancock	35	66.5 (27)	Winnebago	42	81.9 (03)							
Hardin	64	72.6 (14)	Wright	43	67.4 (24)							
Harrison	42	60.2 (58)	<b>Total</b>	1,710	60.3							
Counties with Average Population > 20,000	Benton	81	66.4 (28)	Jones	49	60.9 (54)						
	Boone	83	68.0 (23)	Lee	125	72.0 (17)						
	Bremer	45	48.2 (92)	Mahaska	77	66.1 (29)						
	Buchanan	78	64.5 (37)	Marion	91	56.9 (68)						
	Buena Vista	62	64.4 (39)	Marshall	122	55.9 (71)						
	Carrroll	55	55.8 (73)	Muscatine	135	53.5 (81)						
	Cerro Gordo	132	63.4 (47)	Plymouth	58	48.9 (89)						
	Clinton	183	72.9 (13)	Sioux	69	39.9 (96)						
	Des Moines	134	64.1 (42)	Story	207	57.4 (65)						
	Fayette	49	54.1 (80)	Wapello	130	78.2 (07)						
	Henry	70	71.7 (18)	Washington	78	64.5 (38)						
	Jackson	58	61.0 (53)	Webster	125	62.4 (48)						
	Jasper	109	60.7 (55)	Winneshiek	46	58.3 (63)						
				<b>Total</b>	2,451	61.2						
MSA Counties	Black Hawk	474	74.3 (11)	Polk	1,589	65.7 (31)						
	Dallas	117	55.1 (74)	Pottawattamie	331	69.2 (20)						
	Dubuque	259	55.0 (75)	Scott	601	65.6 (32)						
	Johnson	343	64.0 (45)	Warren	125	62.2 (49)						
	Linn	623	56.9 (66)	Woodbury	457	69.2 (21)						
<b>State Total</b>	9,472	62.9										

<sup>1</sup>Rates per 1,000 live births  
<sup>2</sup>Rank among 99 Iowa counties

Source: Iowa Department of Public Health, Vital Statistics, Birth Certificates

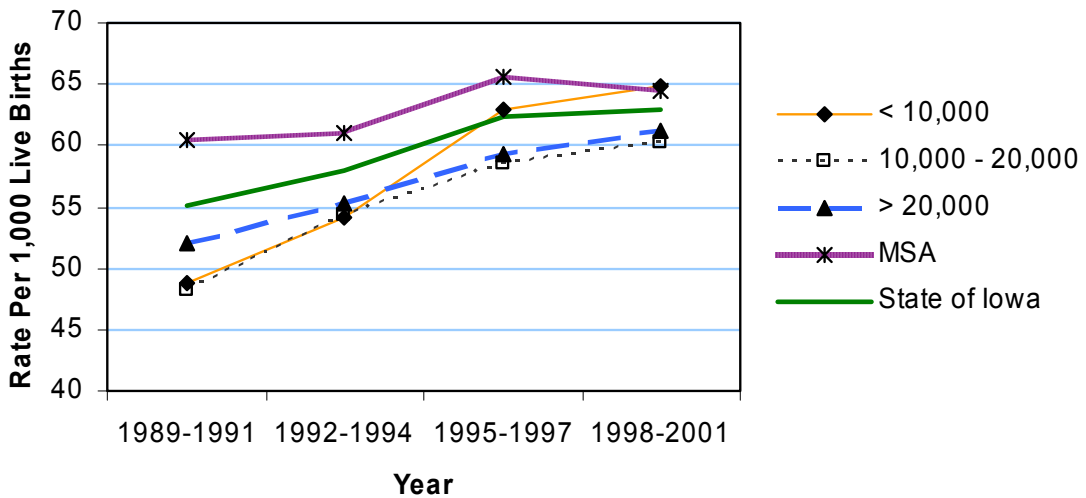
## Mothers Under Age 20 1989-2001

Crude Rates



## Low Birth Weight (<2500 Grams) 1989-2001

Crude Rates



## Mothers Who Began Prenatal Care in the First Trimester 1998-2001

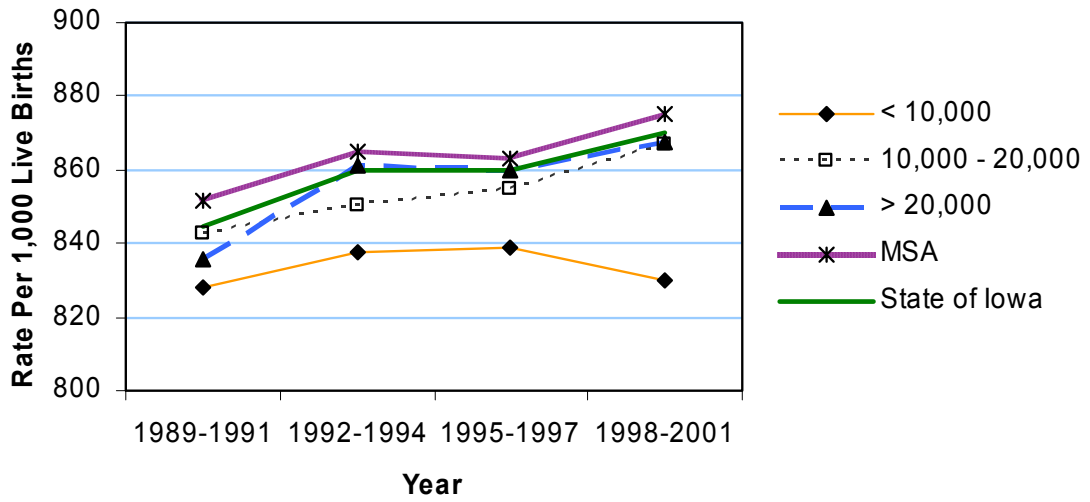
	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with Average Population < 10,000	Adair	253	903.6 (20)	Lucas	355	808.7 (89)
	Adams	140	823.5 (82)	Monroe	309	853.6 (62)
	Audubon	226	911.3 (12)	Osceola	260	878.4 (42)
	Clarke	382	872.1 (50)	Pocahontas	264	907.2 (14)
	Davis	285	622.3 (99)	Ringgold	206	830.6 (78)
	Decatur	297	813.7 (87)	Taylor	250	830.6 (79)
	Fremont	304	846.8 (67)	Van Buren	294	771.7 (94)
	Howard	363	808.5 (90)	Wayne	235	793.9 (91)
	Ida	295	924.8 (05)	Worth	291	863.5 (56)
				<b>Total</b>	5,009	829.7
Counties with Average Population 10,000 to 20,000	Allamakee	563	820.7 (84)	Humboldt	391	863.1 (58)
	Appanoose	501	844.9 (69)	Iowa	647	904.9 (19)
	Butler	575	918.5 (10)	Jefferson	534	849.0 (65)
	Calhoun	373	890.2 (33)	Keokuk	470	859.2 (61)
	Cass	556	905.5 (18)	Kossuth	573	870.8 (51)
	Cedar	680	894.7 (32)	Louisa	563	853.0 (64)
	Cherokee	479	907.2 (15)	Lyon	528	875.6 (47)
	Chickasaw	503	877.8 (44)	Madison	665	923.6 (06)
	Clay	719	919.4 (09)	Mills	594	865.9 (54)
	Clayton	660	813.8 (86)	Mitchell	407	755.1 (97)
	Crawford	668	822.7 (83)	Monona	383	901.2 (26)
	Delaware	771	882.2 (40)	Montgomery	510	888.5 (35)
	Dickinson	611	923.0 (07)	O'Brien	634	937.9 (03)
	Emmet	425	848.3 (66)	Page	645	903.4 (21)
	Floyd	558	719.1 (98)	Palo Alto	383	903.3 (22)
	Franklin	360	762.7 (96)	Poweshiek	708	903.1 (24)
	Greene	369	840.5 (70)	Sac	417	877.9 (43)
	Grundy	472	947.8 (02)	Shelby	489	895.6 (30)
	Guthrie	453	853.1 (63)	Tama	776	817.7 (85)
	Hamilton	722	908.2 (13)	Union	481	863.6 (55)
Hancock	439	834.6 (74)	Winnebago	429	836.3 (72)	
Hardin	757	859.3 (60)	Wright	519	813.5 (88)	
Harrison	609	872.5 (49)	<b>Total</b>	24,569	866.9	
Counties with Average Population > 20,000	Benton	1,079	884.4 (38)	Jones	711	884.3 (39)
	Boone	1,100	900.9 (27)	Lee	1,511	870.4 (52)
	Bremer	875	936.8 (04)	Mahaska	1,020	875.5 (48)
	Buchanan	944	780.8 (93)	Marion	1,445	903.1 (23)
	Buena Vista	740	768.4 (95)	Marshall	1,800	825.3 (81)
	Carrroll	944	957.4 (01)	Muscatine	2,242	888.3 (36)
	Cerro Gordo	1,722	827.5 (80)	Plymouth	1,074	906.3 (17)
	Clinton	2,198	875.7 (46)	Sioux	1,539	890.1 (34)
	Des Moines	1,739	831.7 (77)	Story	3,271	906.3 (16)
	Fayette	796	879.6 (41)	Wapello	1,310	787.7 (92)
	Henry	846	866.8 (53)	Washington	1,024	846.3 (68)
	Jackson	843	886.4 (37)	Webster	1,672	834.3 (75)
	Jasper	1,618	901.4 (25)	Winneshiek	680	861.9 (59)
				<b>Total</b>	34,743	867.7
MSA Counties	Black Hawk	5,745	900.6 (28)	Polk	21,202	876.9 (45)
	Dallas	1,833	863.4 (57)	Pottawattamie	3,985	833.3 (76)
	Dubuque	4,212	895.2 (31)	Scott	7,675	837.4 (71)
	Johnson	4,903	914.6 (11)	Warren	1,853	921.4 (08)
	Linn	9,812	896.8 (29)	Woodbury	5,519	835.5 (73)
<b>State Total</b>	131,060	869.8	<b>Total</b>	66,739	875.3	

<sup>1</sup>Rates per 1,000 live births  
<sup>2</sup>Rank among 99 Iowa counties

Source: Iowa Department of Public Health, Vital Statistics, Birth Certificates

# Mothers Who Began Prenatal Care in the First Trimester 1989-2001

Crude Rates



## Mothers Who Smoked During Pregnancy 1998-2001

	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with Average Population < 10,000	Adair	53	189.3 (44)	Lucas	89	202.7 (30)
	Adams	45	264.7 (03)	Monroe	77	212.7 (24)
	Audubon	44	177.4 (53)	Osceola	46	155.4 (73)
	Clarke	103	235.2 (15)	Pocahontas	55	189.0 (45)
	Davis	44	96.1 (95)	Ringgold	40	161.3 (66)
	Decatur	87	238.4 (13)	Taylor	68	225.9 (20)
	Fremont	94	261.8 (05)	Van Buren	56	147.0 (79)
	Howard	66	147.0 (78)	Wayne	70	236.5 (14)
	Ida	36	112.9 (90)	Worth	55	163.2 (64)
				<b>Total</b>	1,128	186.8
Counties with Average Population 10,000 to 20,000	Allamakee	108	157.4 (69)	Humboldt	80	176.6 (54)
	Appanoose	142	239.5 (12)	Iowa	84	117.5 (87)
	Butler	105	167.7 (61)	Jefferson	97	154.2 (75)
	Calhoun	81	193.3 (39)	Keokuk	83	151.7 (77)
	Cass	156	254.1 (07)	Kossuth	101	153.5 (76)
	Cedar	125	164.5 (63)	Louisa	93	140.9 (82)
	Cherokee	121	229.2 (18)	Lyon	58	96.2 (94)
	Chickasaw	89	155.3 (74)	Madison	125	173.6 (57)
	Clay	154	196.9 (32)	Mills	178	259.5 (06)
	Clayton	137	168.9 (59)	Mitchell	60	111.3 (91)
	Crawford	159	195.8 (35)	Monona	80	188.2 (46)
	Delaware	147	168.2 (60)	Montgomery	130	226.5 (19)
	Dickinson	93	140.5 (83)	O'Brien	87	128.7 (86)
	Emmet	102	203.6 (29)	Page	172	240.9 (11)
	Floyd	121	155.9 (71)	Palo Alto	69	162.7 (65)
	Franklin	75	158.9 (67)	Poweshiek	180	229.6 (17)
	Greene	101	230.1 (16)	Sac	92	193.7 (38)
	Grundy	52	104.4 (92)	Shelby	116	212.5 (25)
	Guthrie	117	220.3 (21)	Tama	173	182.3 (51)
	Hamilton	174	218.9 (22)	Union	146	262.1 (04)
Hancock	82	155.9 (72)	Winnebago	80	155.9 (70)	
Hardin	173	196.4 (34)	Wright	117	183.4 (50)	
Harrison	146	209.2 (27)	<b>Total</b>	5,161	182.1	
Counties with Average Population > 20,000	Benton	227	186.1 (49)	Jones	154	191.5 (41)
	Boone	240	196.6 (33)	Lee	439	252.9 (10)
	Bremer	134	143.5 (80)	Mahaska	218	187.1 (48)
	Buchanan	227	187.8 (47)	Marion	280	175.0 (55)
	Buena Vista	110	114.2 (89)	Marshall	421	193.0 (40)
	Carrroll	69	70.0 (98)	Muscatine	427	169.2 (58)
	Cerro Gordo	405	194.6 (37)	Plymouth	153	129.1 (85)
	Clinton	636	253.4 (09)	Sioux	109	63.0 (99)
	Des Moines	530	253.5 (08)	Story	300	83.1 (96)
	Fayette	173	191.2 (42)	Wapello	331	199.0 (31)
	Henry	207	212.1 (26)	Washington	139	114.9 (88)
	Jackson	181	190.3 (43)	Webster	533	266.0 (02)
	Jasper	387	215.6 (23)	Winneshiek	80	101.4 (93)
				<b>Total</b>	7,110	177.6
MSA Counties	Black Hawk	1,246	195.3 (36)	Polk	4,021	166.3 (62)
	Dallas	303	142.7 (81)	Pottawattamie	1,425	298.0 (01)
	Dubuque	612	130.1 (84)	Scott	1,881	205.2 (28)
	Johnson	388	72.4 (97)	Warren	319	158.6 (68)
	Linn	1,914	174.9 (56)	Woodbury	1,191	180.3 (52)
<b>State Total</b>	26,699	177.2	<b>Total</b>	13,300	174.4	

<sup>1</sup>Rates per 1,000 live births

<sup>2</sup>Rank among 99 Iowa counties

Source: Iowa Department of Public Health, Vital Statistics, Birth Certificates



## Mothers Who Drank During Pregnancy 1998-2001

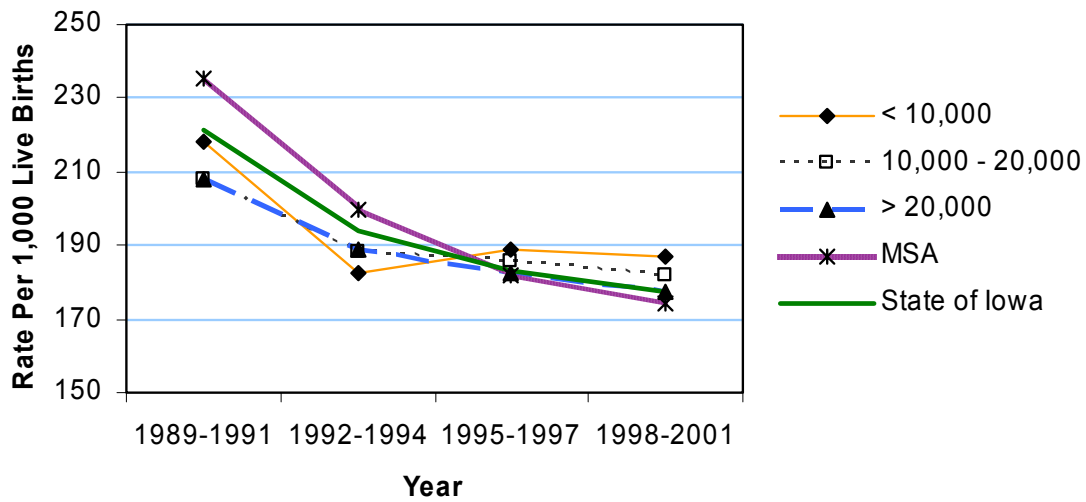
		County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Counties with Average Population < 10,000		Adair	*	*	Lucas	*	*
		Adams	*	*	Monroe	*	*
		Audubon	*	*	Osceola	*	*
		Clarke	*	*	Pocahontas	*	*
		Davis	*	*	Ringgold	*	*
		Decatur	*	*	Taylor	*	*
		Fremont	*	*	Van Buren	*	*
		Howard	*	*	Wayne	*	*
		Ida	*	*	Worth	*	*
					<b>Total</b>	35	5.8
Counties with Average Population 10,000 to 20,000		Allamakee	*	*	Humboldt	*	*
		Appanoose	9	15.2	Iowa	7	9.8
		Butler	*	*	Jefferson	*	*
		Calhoun	*	*	Keokuk	6	11.0
		Cass	8	13.0	Kossuth	6	9.1
		Cedar	11	14.5	Louisa	*	*
		Cherokee	*	*	Lyon	*	*
		Chickasaw	*	*	Madison	9	12.5
		Clay	6	7.7	Mills	11	16.0
		Clayton	11	13.6	Mitchell	2	3.7
		Crawford	6	7.4	Monona	2	4.7
		Delaware	20	22.9	Montgomery	7	12.2
		Dickinson	6	9.1	O'Brien	*	*
		Emmet	10	20.0	Page	8	11.2
		Floyd	5	6.4	Palo Alto	7	16.5
		Franklin	5	10.6	Poweshiek	12	15.3
		Greene	*	*	Sac	7	14.7
		Grundy	*	*	Shelby	6	11.0
		Guthrie	8	15.1	Tama	11	11.6
		Hamilton	7	8.8	Union	8	14.4
	Hancock	5	9.5	Winnebago	*	*	
	Hardin	5	5.7	Wright	11	17.2	
	Harrison	9	12.9	<b>Total</b>	284	10.0	
Counties with Average Population > 20,000		Benton	35	28.7	Jones	26	32.3
		Boone	*	*	Lee	32	18.4
		Bremer	*	*	Mahaska	7	6.0
		Buchanan	7	5.8	Marion	7	4.4
		Buena Vista	14	14.5	Marshall	22	10.1
		Carroll	*	*	Muscatine	19	7.5
		Cerro Gordo	17	8.2	Plymouth	6	5.1
		Clinton	11	4.4	Sioux	12	6.9
		Des Moines	17	8.1	Story	46	12.7
		Fayette	7	7.7	Wapello	7	4.2
		Henry	7	7.2	Washington	9	7.4
		Jackson	9	9.5	Webster	31	15.5
		Jasper	27	15.0	Winneshiek	*	*
					<b>Total</b>	386	9.6
MSA Counties		Black Hawk	45	7.1	Polk	389	16.1
		Dallas	23	10.8	Pottawattamie	35	7.3
		Dubuque	52	11.1	Scott	275	30.0
		Johnson	49	9.1	Warren	18	9.0
		Linn	346	31.6	Woodbury	26	3.9
		<b>State Total</b>	1,963	13.0	<b>Total</b>	1,258	16.5

<sup>1</sup>Rates per 1,000 live births

Source: Iowa Department of Public Health, Vital Statistics, Birth Certificates

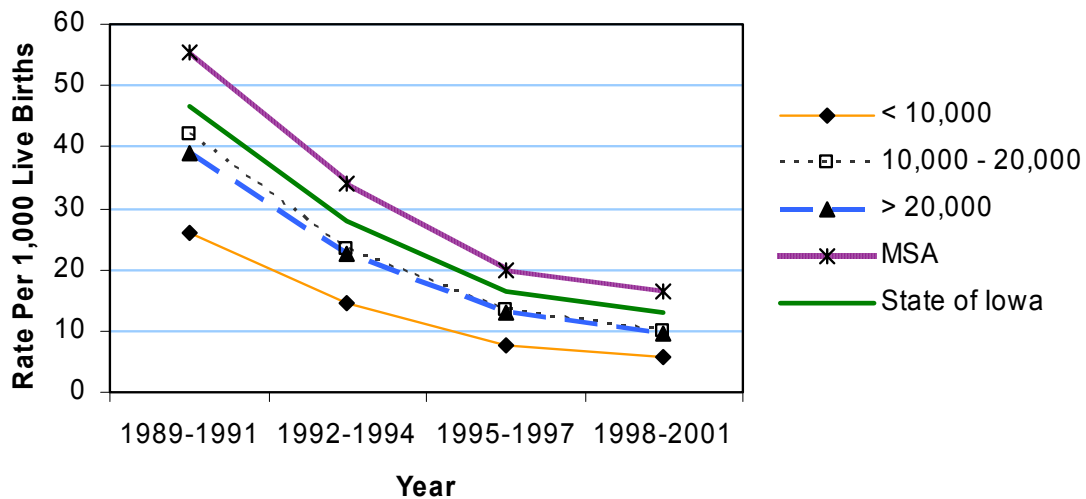
## Mothers Who Smoked During Pregnancy 1989-2001

Crude Rates



## Mothers Who Drank During Pregnancy 1989-2001

Crude Rates



### Fetal Deaths 1998-2001

	County			County		
	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Counties with Average Population < 10,000	Adair	*	*	Lucas	*	*
	Adams	*	*	Monroe	*	*
	Audubon	*	*	Osceola	*	*
	Clarke	*	*	Pocahontas	*	*
	Davis	6	13.1	Ringgold	*	*
	Decatur	*	*	Taylor	*	*
	Fremont	*	*	Van Buren	*	*
	Howard	*	*	Wayne	*	*
	Ida	*	*	Worth	*	*
				<b>Total</b>	37	6.1
Counties with Average Population 10,000 to 20,000	Allamakee	*	*	Humboldt	*	*
	Appanoose	*	*	Iowa	*	*
	Butler	5	8.0	Jefferson	5	7.9
	Calhoun	*	*	Keokuk	5	9.1
	Cass	*	*	Kossuth	6	9.1
	Cedar	5	6.6	Louisa	*	*
	Cherokee	*	*	Lyon	*	*
	Chickasaw	*	*	Madison	9	12.5
	Clay	*	*	Mills	*	*
	Clayton	*	*	Mitchell	*	*
	Crawford	10	12.3	Monona	*	*
	Delaware	11	12.6	Montgomery	6	10.5
	Dickinson	*	*	O'Brien	6	8.9
	Emmet	*	*	Page	5	7.0
	Floyd	*	*	Palo Alto	*	*
	Franklin	*	*	Poweshiek	*	*
	Greene	6	13.7	Sac	6	12.6
	Grundy	*	*	Shelby	*	*
	Guthrie	*	*	Tama	5	5.3
	Hamilton	*	*	Union	*	*
Hancock	*	*	Winnebago	*	*	
Hardin	*	*	Wright	6	9.4	
Harrison	*	*	<b>Total</b>	173	6.1	
Counties with Average Population > 20,000	Benton	10	8.2	Jones	*	*
	Boone	7	5.7	Lee	14	8.1
	Bremer	5	5.4	Mahaska	*	*
	Buchanan	15	12.4	Marion	*	*
	Buena Vista	9	9.3	Marshall	5	2.3
	Carroll	*	*	Muscatine	26	10.3
	Cerro Gordo	13	6.2	Plymouth	8	6.8
	Clinton	16	6.4	Sioux	6	3.5
	Des Moines	15	7.2	Story	13	3.6
	Fayette	6	6.6	Wapello	5	3.0
	Henry	9	9.2	Washington	*	*
	Jackson	11	11.6	Webster	16	8.0
	Jasper	11	6.1	Winneshiek	*	*
				<b>Total</b>	239	6.0
MSA Counties	Black Hawk	44	6.9	Polk	123	5.1
	Dallas	11	5.2	Pottawattamie	18	3.8
	Dubuque	24	5.1	Scott	53	5.8
	Johnson	26	4.8	Warren	13	6.5
	Linn	69	6.3	Woodbury	38	5.8
	<b>State Total</b>	868	5.8	<b>Total</b>	419	5.5

<sup>1</sup>Rates per 1,000 live births

Source: Iowa Department of Public Health, Vital Statistics, Death Certificates

## Neonatal Deaths 1998-2001

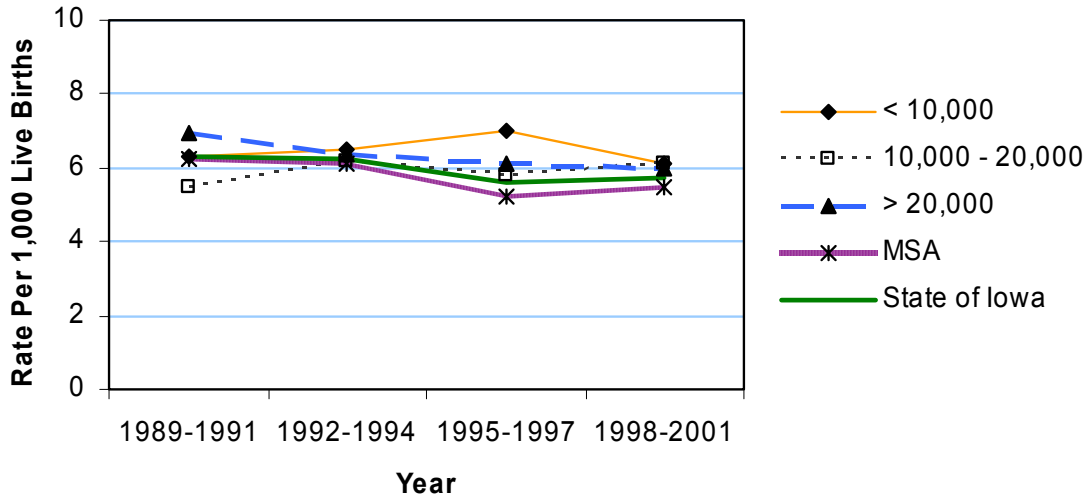
	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
<b>Counties with Average Population &lt; 10,000</b>	Adair	*	*	Lucas	*	*
	Adams	*	*	Monroe	*	*
	Audubon	*	*	Osceola	*	*
	Clarke	*	*	Pocahontas	*	*
	Davis	*	*	Ringgold	*	*
	Decatur	*	*	Taylor	*	*
	Fremont	*	*	Van Buren	*	*
	Howard	*	*	Wayne	*	*
	Ida	*	*	Worth	*	*
				<b>Total</b>	30	5.0
	<b>Counties with Average Population 10,000 to 20,000</b>	Allamakee	*	*	Humboldt	*
Appanoose		*	*	Iowa	*	*
Butler		*	*	Jefferson	*	*
Calhoun		*	*	Keokuk	*	*
Cass		*	*	Kossuth	*	*
Cedar		*	*	Louisa	*	*
Cherokee		*	*	Lyon	6	10.0
Chickasaw		*	*	Madison	*	*
Clay		*	*	Mills	*	*
Clayton		*	*	Mitchell	*	*
Crawford		*	*	Monona	*	*
Delaware		*	*	Montgomery	*	*
Dickinson		*	*	O'Brien	*	*
Emmet		*	*	Page	*	*
Floyd		*	*	Palo Alto	*	*
Franklin		*	*	Poweshiek	*	*
Greene		5	11.4	Sac	*	*
Grundy		*	*	Shelby	*	*
Guthrie		*	*	Tama	*	*
Hamilton		*	*	Union	*	*
Hancock	*	*	Winnebago	*	*	
Hardin	*	*	Wright	*	*	
Harrison	*	*	<b>Total</b>	94	3.3	
<b>Counties with Average Population &gt; 20,000</b>	Benton	7	5.7	Jones	*	*
	Boone	6	4.9	Lee	9	5.2
	Bremer	*	*	Mahaska	8	6.9
	Buchanan	5	4.1	Marion	5	3.1
	Buena Vista	*	*	Marshall	7	3.2
	Carroll	*	*	Muscatine	5	2.0
	Cerro Gordo	*	*	Plymouth	*	*
	Clinton	8	3.2	Sioux	*	*
	Des Moines	9	4.3	Story	16	4.4
	Fayette	*	*	Wapello	5	3.0
	Henry	*	*	Washington	6	5.0
	Jackson	7	7.4	Webster	*	*
	Jasper	7	3.9	Winneshiek	*	*
				<b>Total</b>	139	3.5
<b>MSA Counties</b>	Black Hawk	24	3.8	Polk	120	5.0
	Dallas	7	3.3	Pottawattamie	17	3.6
	Dubuque	15	3.2	Scott	42	4.6
	Johnson	20	3.7	Warren	11	5.5
	Linn	39	3.6	Woodbury	24	3.6
				<b>Total</b>	319	4.2
<b>State Total</b>		582	3.9			

<sup>1</sup>Rates per 1,000 live births

Source: Iowa Department of Public Health, Vital Statistics, Death Certificates

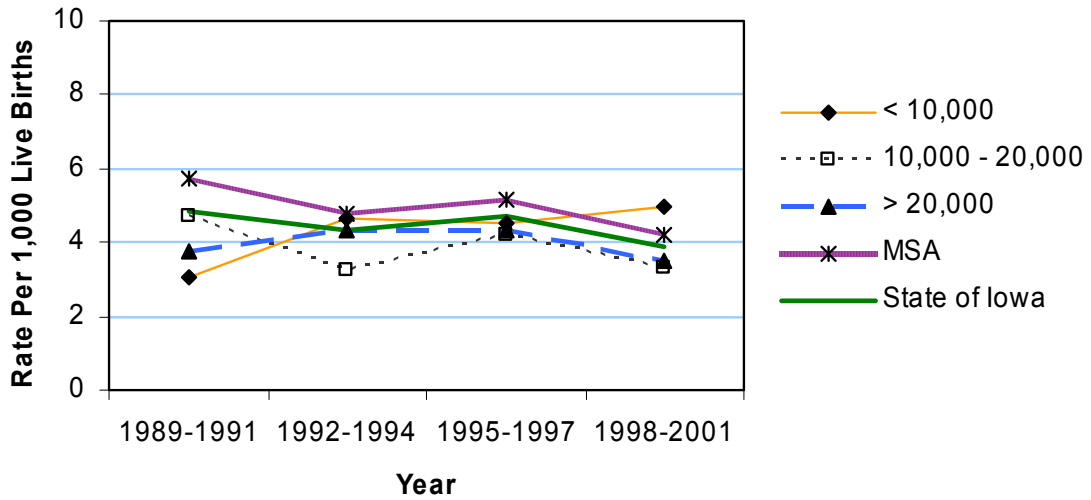
## Fetal Deaths 1989-2001

### Crude Rates



## Neonatal Deaths 1989-2001

### Crude Rates



## Perinatal Deaths<sup>2</sup> 1998-2001

	Counties with Average Population < 10,000			Counties with Average Population 10,000 to 20,000			Counties with Average Population > 20,000			MSA Counties		
	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Counties with Average Population < 10,000	Adair	*	*	Lucas	5	11.4						
	Adams	*	*	Monroe	*	*						
	Audubon	*	*	Osceola	*	*						
	Clarke	*	*	Pocahontas	*	*						
	Davis	8	17.5	Ringgold	*	*						
	Decatur	*	*	Taylor	*	*						
	Fremont	6	16.7	Van Buren	*	*						
	Howard	5	11.1	Wayne	5	16.9						
	Ida	5	15.7	Worth	*	*						
				<b>Total</b>	<b>67</b>	<b>11.1</b>						
Counties with Average Population 10,000 to 20,000	Allamakee	*	*	Humboldt	*	*						
	Appanoose	*	*	Iowa	7	9.8						
	Butler	8	12.8	Jefferson	6	9.5						
	Calhoun	*	*	Keokuk	6	11.0						
	Cass	6	9.8	Kossuth	9	13.7						
	Cedar	7	9.2	Louisa	*	*						
	Cherokee	*	*	Lyon	8	13.3						
	Chickasaw	*	*	Madison	13	18.1						
	Clay	7	9.0	Mills	*	*						
	Clayton	7	8.6	Mitchell	*	*						
	Crawford	13	16.0	Monona	*	*						
	Delaware	15	17.2	Montgomery	10	17.4						
	Dickinson	5	7.6	O'Brien	8	11.8						
	Emmet	*	*	Page	8	11.2						
	Floyd	*	*	Palo Alto	*	*						
	Franklin	*	*	Poweshiek	5	6.4						
	Greene	11	25.1	Sac	10	21.1						
	Grundy	7	14.1	Shelby	*	*						
	Guthrie	*	*	Tama	5	5.3						
	Hamilton	6	7.5	Union	8	14.4						
Hancock	*	*	Winnebago	*	*							
Hardin	7	7.9	Wright	7	11.0							
Harrison	*	*	<b>Total</b>	<b>267</b>	<b>9.4</b>							
Counties with Average Population > 20,000	Benton	17	13.9	Jones	5	6.2						
	Boone	13	10.6	Lee	23	13.2						
	Bremer	9	9.6	Mahaska	12	10.3						
	Buchanan	20	16.5	Marion	9	5.6						
	Buena Vista	11	11.4	Marshall	12	5.5						
	Carroll	*	*	Muscatine	31	12.3						
	Cerro Gordo	16	7.7	Plymouth	11	9.3						
	Clinton	24	9.6	Sioux	10	5.8						
	Des Moines	24	11.5	Story	29	8.0						
	Fayette	6	6.6	Wapello	10	6.0						
	Henry	12	12.3	Washington	10	8.3						
	Jackson	18	18.9	Webster	20	10.0						
	Jasper	18	10.0	Winneshiek	*	*						
				<b>Total</b>	<b>378</b>	<b>9.4</b>						
MSA Counties	Black Hawk	68	10.7	Polk	243	10.1						
	Dallas	18	8.5	Pottawattamie	35	7.3						
	Dubuque	39	8.3	Scott	95	10.4						
	Johnson	46	8.6	Warren	24	11.9						
	Linn	108	9.9	Woodbury	62	9.4						
	<b>State Total</b>	<b>1,450</b>	<b>9.6</b>	<b>Total</b>	<b>738</b>	<b>9.7</b>						

<sup>1</sup>Rates per 1,000 live births

<sup>2</sup>Includes Neonatal and Fetal Deaths

Source: Iowa Department of Public Health, Vital Statistics, Death Certificates

### Infant Deaths 1998-2001

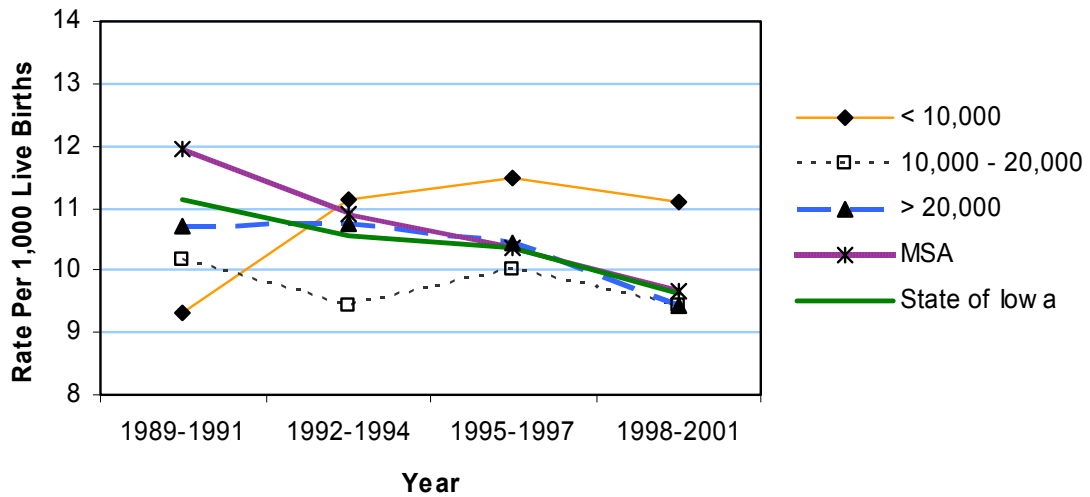
	County		#	Crude <sup>1</sup>	County		#	Crude <sup>1</sup>
Counties with Average Population < 10,000	Adair		*	*	Lucas	5	11.4	
	Adams		*	*	Monroe	*	*	
	Audubon		*	*	Osceola	*	*	
	Clarke		*	*	Pocahontas	*	*	
	Davis		*	*	Ringgold	*	*	
	Decatur	5	13.7		Taylor	*	*	
	Fremont		*	*	Van Buren	*	*	
	Howard		*	*	Wayne	*	*	
	Ida		*	*	Worth	5	14.8	
					<b>Total</b>	43	7.1	
Counties with Average Population 10,000 to 20,000	Allamakee		*	*	Humboldt	*	*	
	Appanoose		*	*	Iowa	*	*	
	Butler		*	*	Jefferson	*	*	
	Calhoun		*	*	Keokuk	*	*	
	Cass		*	*	Kossuth	*	*	
	Cedar		*	*	Louisa	*	*	
	Cherokee		*	*	Lyon	7	11.6	
	Chickasaw		*	*	Madison	7	9.7	
	Clay	5	6.4		Mills	*	*	
	Clayton		*	*	Mitchell	*	*	
	Crawford	5	6.2		Monona	*	*	
	Delaware	6	6.9		Montgomery	6	10.5	
	Dickinson		*	*	O'Brien	5	7.4	
	Emmet		*	*	Page	6	8.4	
	Floyd		*	*	Palo Alto	*	*	
	Franklin		*	*	Poweshiek	*	*	
	Greene	6	13.7		Sac	*	*	
	Grundy	5	10.0		Shelby	5	9.2	
	Guthrie		*	*	Tama	7	7.4	
	Hamilton	7	8.8		Union	7	12.6	
Hancock		*	*	Winnebago	*	*		
Hardin	5	5.7		Wright	*	*		
Harrison		*	*	<b>Total</b>	151	5.3		
Counties with Average Population > 20,000	Benton	8	6.6		Jones	*	*	
	Boone	10	8.2		Lee	14	8.1	
	Bremer	5	5.4		Mahaska	14	12.0	
	Buchanan	6	5.0		Marion	5	3.1	
	Buena Vista		*	*	Marshall	11	5.0	
	Carroll		*	*	Muscatine	8	3.2	
	Cerro Gordo	8	3.8		Plymouth	12	10.1	
	Clinton	17	6.8		Sioux	5	2.9	
	Des Moines	11	5.3		Story	22	6.1	
	Fayette		*	*	Wapello	8	4.8	
	Henry	5	5.1		Washington	9	7.4	
	Jackson	8	8.4		Webster	9	4.5	
	Jasper	9	5.0		Winneshiek	*	*	
					<b>Total</b>	214	5.3	
MSA Counties	Black Hawk	37	5.8		Polk	173	7.2	
	Dallas	13	6.1		Pottawattamie	32	6.7	
	Dubuque	26	5.5		Scott	69	7.5	
	Johnson	29	5.4		Warren	15	7.5	
	Linn	55	5.0		Woodbury	51	7.7	
					<b>Total</b>	500	6.6	
<b>State Total</b>		908	6.0					

<sup>1</sup>Rates per 1,000 live births

Source: Iowa Department of Public Health, Vital Statistics, Death Certificates

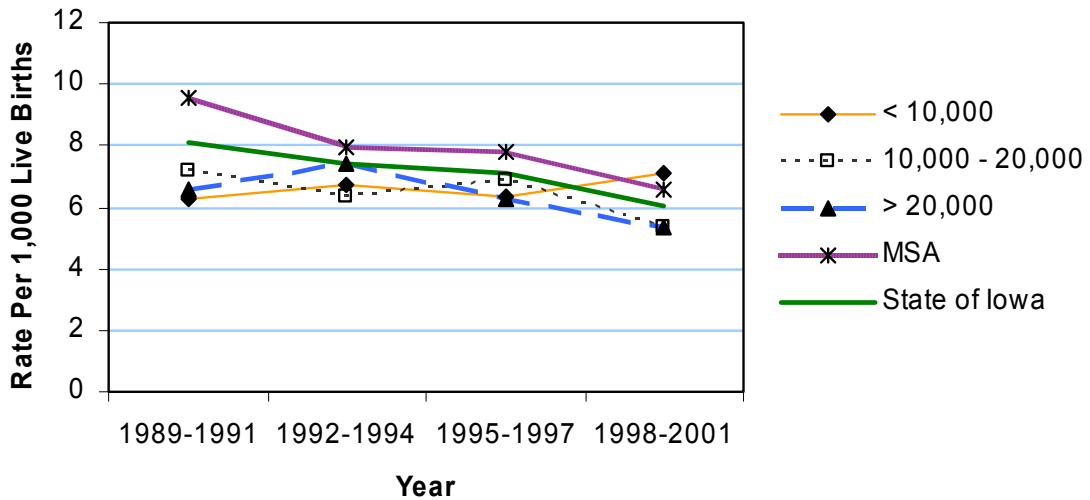
## Perinatal Deaths 1989-2001

### Crude Rates



## Infant Deaths 1989-2001

### Crude Rates





## Congenital Malformations 1998-2001

	Counties with Average Population < 10,000			Counties with Average Population 10,000 to 20,000			Counties with Average Population > 20,000			MSA Counties		
	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Counties with Average Population < 10,000	Adair	5	17.9	Lucas	7	15.9						
	Adams	*	*	Monroe	5	13.8						
	Audubon	6	24.2	Osceola	8	27.0						
	Clarke	*	*	Pocahontas	5	17.2						
	Davis	10	21.8	Ringgold	6	24.2						
	Decatur	5	13.7	Taylor	*	*						
	Fremont	8	22.3	Van Buren	*	*						
	Howard	12	26.7	Wayne	*	*						
	Ida	5	15.7	Worth	5	14.8						
				<b>Total</b>	105	17.4						
Counties with Average Population 10,000 to 20,000	Allamakee	11	16.0	Humboldt	*	*						
	Appanoose	10	16.9	Iowa	7	9.8						
	Butler	*	*	Jefferson	13	20.7						
	Calhoun	7	16.7	Keokuk	6	11.0						
	Cass	8	13.0	Kossuth	10	15.2						
	Cedar	6	7.9	Louisa	7	10.6						
	Cherokee	11	20.8	Lyon	8	13.3						
	Chickasaw	12	20.9	Madison	5	6.9						
	Clay	21	26.9	Mills	11	16.0						
	Clayton	16	19.7	Mitchell	13	24.1						
	Crawford	9	11.1	Monona	*	*						
	Delaware	21	24.0	Montgomery	16	27.9						
	Dickinson	5	7.6	O'Brien	7	10.4						
	Emmet	13	25.9	Page	12	16.8						
	Floyd	9	11.6	Palo Alto	10	23.6						
	Franklin	11	23.3	Poweshiek	10	12.8						
	Greene	9	20.5	Sac	*	*						
	Grundy	5	10.0	Shelby	15	27.5						
	Guthrie	*	*	Tama	7	7.4						
	Hamilton	6	7.5	Union	5	9.0						
Hancock	6	11.4	Winnebago	*	*							
Hardin	9	10.2	Wright	12	18.8							
Harrison	8	11.5	<b>Total</b>	408	14.4							
Counties with Average Population > 20,000	Benton	10	8.2	Jones	8	10.0						
	Boone	12	9.8	Lee	19	10.9						
	Bremer	9	9.6	Mahaska	16	13.7						
	Buchanan	13	10.8	Marion	28	17.5						
	Buena Vista	10	10.4	Marshall	21	9.6						
	Carroll	12	12.2	Muscatine	31	12.3						
	Cerro Gordo	28	13.5	Plymouth	14	11.8						
	Clinton	39	15.5	Sioux	22	12.7						
	Des Moines	34	16.3	Story	21	5.8						
	Fayette	21	23.2	Wapello	33	19.8						
	Henry	30	30.7	Washington	22	18.2						
	Jackson	10	10.5	Webster	20	10.0						
	Jasper	14	7.8	Winneshiek	13	16.5						
				<b>Total</b>	510	12.7						
MSA Counties	Black Hawk	54	8.5	Polk	142	5.9						
	Dallas	13	6.1	Pottawattamie	75	15.7						
	Dubuque	36	7.7	Scott	107	11.7						
	Johnson	65	12.1	Warren	7	3.5						
	Linn	116	10.6	Woodbury	38	5.8						
<b>State Total</b>	1,676	11.1	<b>Total</b>	653	8.6							

<sup>1</sup>Rates per 1,000 live births

Source: Iowa Department of Public Health, Vital Statistics, Death Certificates

### Birth Defects 1998-2000

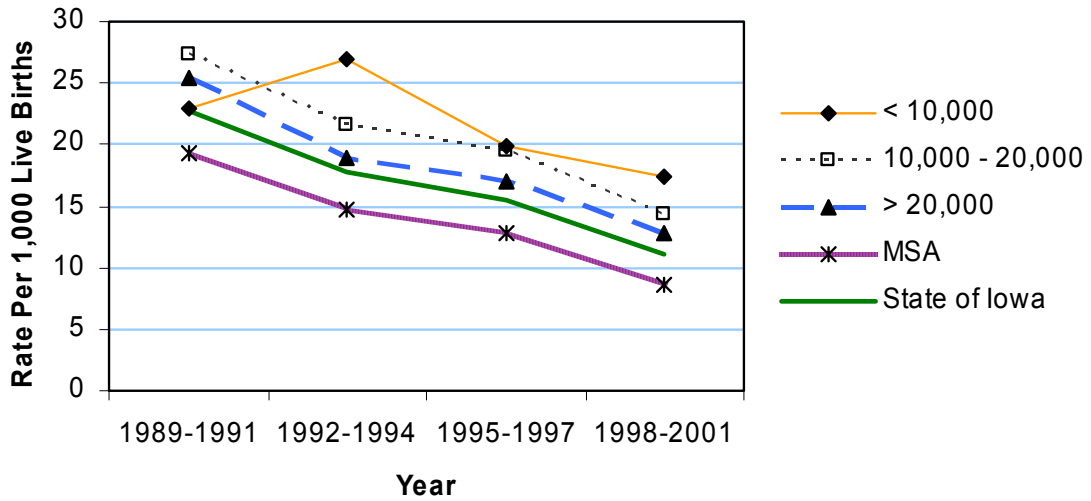
	Counties with Average Population < 10,000			Counties with Average Population 10,000 to 20,000			Counties with Average Population > 20,000			MSA Counties		
	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with Average Population < 10,000	Adair	7	32.6 (82)	Lucas	14	42.3 (52)	Lucas	14	42.3 (52)	Polk	823	45.6 (36)
	Adams	11	83.3 (01)	Monroe	12	43.0 (45)	Lee	59	44.5 (40)	Pottawattamie	103	28.9 (90)
	Audubon	7	37.4 (71)	Osceola	9	40.5 (62)	Mahaska	42	48.3 (26)	Scott	283	40.7 (61)
	Clarke	13	42.9 (46)	Pocahontas	14	61.9 (06)	Marion	52	42.7 (48)	Warren	58	38.7 (65)
	Davis	14	42.0 (53)	Ringgold	7	37.8 (68)	Marshall	48	29.3 (89)	Woodbury	190	38.1 (67)
	Decatur	12	42.4 (51)	Taylor	9	41.1 (59)	Muscatine	80	42.8 (47)	<b>Total</b>	2,627	46.0
	Fremont	6	22.3 (95)	Van Buren	15	51.9 (19)	Plymouth	43	47.6 (30)			
	Howard	9	26.5 (93)	Wayne	13	61.9 (07)	Sioux	37	29.5 (88)			
	Ida	13	54.2 (16)	Worth	17	68.0 (04)	Story	90	33.5 (79)			
				<b>Total</b>	202	44.8	Wapello	65	53.3 (17)			
Counties with Average Population 10,000 to 20,000	Allamakee	14	27.1 (92)	Humboldt	14	41.7 (55)	Washington	41	46.6 (33)			
	Appanoose	20	44.2 (42)	Iowa	31	57.9 (11)	Webster	102	67.9 (05)			
	Butler	25	50.9 (21)	Jefferson	29	61.1 (08)	Winneshiek	12	20.5 (96)			
	Calhoun	14	43.2 (44)	Keokuk	23	54.6 (14)	<b>Total</b>	1,299	43.2			
	Cass	19	41.6 (57)	Kossuth	20	39.9 (64)						
	Cedar	28	49.0 (23)	Louisa	21	41.9 (54)						
	Cherokee	19	46.2 (35)	Lyon	6	13.0 (98)						
	Chickasaw	10	23.1 (94)	Madison	20	36.5 (75)						
	Clay	28	48.4 (25)	Mills	6	11.9 (99)						
	Clayton	27	45.5 (37)	Mitchell	14	36.2 (77)						
	Crawford	19	32.4 (83)	Monona	13	41.7 (55)						
	Delaware	31	46.3 (34)	Montgomery	18	41.2 (58)						
	Dickinson	10	19.7 (97)	O'Brien	15	28.5 (91)						
	Emmet	16	42.6 (50)	Page	25	45.0 (38)						
	Floyd	28	47.7 (29)	Palo Alto	10	31.2 (85)						
	Franklin	27	78.3 (02)	Poweshiek	22	37.7 (70)						
	Greene	12	36.7 (72)	Sac	16	42.7 (49)						
	Grundy	18	48.3 (27)	Shelby	21	48.5 (24)						
	Guthrie	13	32.8 (81)	Tama	37	51.9 (20)						
Hamilton	19	30.8 (86)	Union	16	37.8 (69)							
Hancock	15	38.2 (66)	Winnebago	14	36.6 (73)							
Hardin	33	50.8 (22)	Wright	23	47.7 (28)							
Harrison	16	29.7 (87)	<b>Total</b>	875	40.9							
Counties with Average Population > 20,000	Benton	32	35.0 (78)	Jones	22	36.3 (76)						
	Boone	34	36.6 (74)	Lee	59	44.5 (40)						
	Bremer	33	47.4 (31)	Mahaska	42	48.3 (26)						
	Buchanan	54	59.5 (09)	Marion	52	42.7 (48)						
	Buena Vista	24	33.2 (80)	Marshall	48	29.3 (89)						
	Carrroll	40	52.6 (18)	Muscatine	80	42.8 (47)						
	Cerro Gordo	75	46.7 (32)	Plymouth	43	47.6 (30)						
	Clinton	82	43.2 (43)	Sioux	37	29.5 (88)						
	Des Moines	65	40.9 (60)	Story	90	33.5 (79)						
	Fayette	40	57.3 (12)	Wapello	65	53.3 (17)						
	Henry	52	68.4 (03)	Washington	41	46.6 (33)						
	Jackson	32	44.9 (39)	Webster	102	67.9 (05)						
	Jasper	43	32.2 (84)	Winneshiek	12	20.5 (96)						
			<b>Total</b>	1,299	43.2							
MSA Counties	Black Hawk	273	57.1 (13)	Polk	823	45.6 (36)						
	Dallas	64	40.1 (63)	Pottawattamie	103	28.9 (90)						
	Dubuque	156	44.2 (41)	Scott	283	40.7 (61)						
	Johnson	236	59.2 (10)	Warren	58	38.7 (65)						
	Linn	441	54.5 (15)	Woodbury	190	38.1 (67)						
<b>State Total</b>	5,003	44.3										

<sup>1</sup>Rates per 1,000 population  
<sup>2</sup>Rank among 99 Iowa counties

Source: Iowa Birth Defects Registry, The University of Iowa

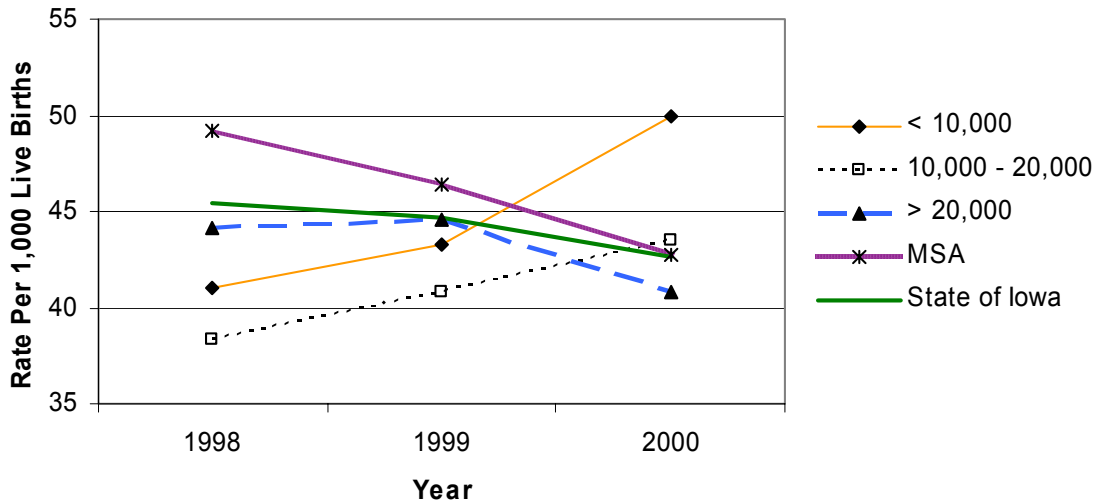
## Congenital Malformations 1989-2001

Crude Rates



## Birth Defects 1998-2000

Annual Crude Rates



## Selected Birth Defects in Iowa 1998-2000

Defect Name	Defects	Crude Rate <sup>1</sup>
Anencephalous	33	0.29
Aniridia	35	0.31
Anophthalmos Microphthal	24	0.21
Aortic Valve Stenosis and Atresia	154	1.36
Atrial Septal Defect	832	7.36
Bladder Exstrophy	8	0.07
Cleft Lip	142	1.26
Cleft Palate without Cleft Lip	57	0.50
Club foot without CNS Defect	292	2.58
Coarctation of Aorta	93	0.82
Coloboma Of Eye	15	0.13
Common Truncus	17	0.15
Congenital Arthrogryposis	50	0.44
Congenital Cataract	42	0.37
Conus Arteriosus	114	1.01
Down Syndrome (Trisomy 21)	152	1.34
Encephalocele	9	0.08
Endocardial Cushion Defect	59	0.52
Gastroschisis	56	0.50
Hydrocephalus without Spina Bifida	111	0.98
Hypoplastic Left Heart Syndrome	64	0.57
Lung Agenesis and Hypoplasia	41	0.36
Microcephalus	101	0.89
Omphalocele	31	0.27
Patent Ductus Arteriosus	463	4.10
Pulmonary Artery Anomaly	230	2.03
Pulmonary Valve Stenosis and Atresia	204	1.80
Rectal and Intestinal Atresia and Stenosis	45	0.40
Reduction Deformity of Lower Limbs	31	0.27
Reduction Deformity of Upper Limbs	61	0.54
Renal Agenesis	58	0.51
Spina Bifida without Anencephalous	50	0.44
Tetralogy of Fallot	36	0.32
Tracheo-Esophageal Anomalies	30	0.27
Transposition of Great Arteries	62	0.55
Tricuspid Valve Stenosis and Atresia	335	2.96
Trisomy 13 (Patau's Syndrome)	16	0.14
Trisomy 18 (Edward's Syndrome)	27	0.24
Ventricular Septal Defect	506	4.48

<sup>1</sup>Rates per 1,000 live births

Source: Iowa Birth Defects Registry, The University of Iowa

## Infectious Diseases

Fifty-one specific infectious diseases are listed as reportable conditions in Iowa Administrative Code 641, Chapter 1, although many others are reportable as rare or unusual diseases. Disease surveillance is conducted by the Bureau of Disease Prevention and

### HIGHLIGHTS...

- ✓ December of 2002 President Bush announced the smallpox response plan. IDPH continues to enact that plan.
- ✓ The problem of antibiotic resistance was addressed using targeted surveillance of bacteria and education for health care professionals and the public.

Immunization for STDs, HIV/AIDS, and Tuberculosis and by the Center for Acute Disease Epidemiology (CADE) for other reportable conditions. Local public health nurses or disease prevention specialists, in conjunction with the staff epidemiologists at the Iowa Department of Public Health, interview persons with selected conditions or diseases and conduct

investigations of disease outbreaks. Disease control is appropriately instituted including recall of contaminated food, vaccinations, and partner counseling/referral services to all persons reported with sexually transmitted diseases.

Drastic increases in reported cases of certain infectious diseases are often the result of specific outbreak situations. Increases in Hepatitis A cases reported from 1996–1998 were due to outbreaks in Woodbury (1996) and Polk (1997–1998) counties and were related to transmission among methamphetamine users. The increase in pertussis cases in 1997 occurred mainly in grade school children in Johnson County. Pertussis continues to be a concern. Reported sporadic cases are at times used to identify large pockets of pertussis in an area. In 2002 counties with greater than 30 cases of pertussis were Johnson and Linn. The outbreak of rubella in 1999 originated in a Hispanic migrant worker population. Immunization clinics were held in a number of packing plants across the state to contain the outbreak. In 2002, Cherokee county had a food-borne outbreak due to Salmonella enteritis with at least 47 persons becoming ill. Emerging infectious disease threats were also addressed such as West Nile encephalitis and antibiotic resistance.

## Sexually Transmitted Diseases<sup>2</sup> 2000-2002

	County			County		
	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Counties with Average Population < 10,000	Adair	17	0.7	Lucas	33	1.2
	Adams	*	*	Monroe	17	0.7
	Audubon	11	0.5	Osceola	6	0.3
	Clarke	39	1.4	Pocahontas	9	0.4
	Davis	14	0.5	Ringgold	10	0.6
	Decatur	28	1.1	Taylor	12	0.6
	Fremont	21	0.9	Van Buren	25	1.1
	Howard	18	0.6	Wayne	8	0.4
	Ida	10	0.4	Worth	13	0.6
				<b>Total</b>	292	0.7
Counties with Average Population 10,000 to 20,000	Allamakee	24	0.5	Humboldt	26	0.8
	Appanoose	37	0.9	Iowa	51	1.1
	Butler	34	0.7	Jefferson	39	0.8
	Calhoun	20	0.6	Keokuk	52	1.5
	Cass	37	0.9	Kossuth	16	0.3
	Cedar	49	0.9	Louisa	69	1.9
	Cherokee	26	0.7	Lyon	6	0.2
	Chickasaw	30	0.8	Madison	39	0.9
	Clay	58	1.1	Mills	31	0.7
	Clayton	26	0.5	Mitchell	8	0.2
	Crawford	66	1.3	Monona	26	0.9
	Delaware	48	0.9	Montgomery	37	1.1
	Dickinson	35	0.7	O'Brien	20	0.4
	Emmet	49	1.5	Page	24	0.5
	Floyd	42	0.8	Palo Alto	23	0.8
	Franklin	25	0.8	Poweshiek	59	1.0
	Greene	23	0.8	Sac	13	0.4
	Grundy	12	0.3	Shelby	13	0.3
	Guthrie	21	0.6	Tama	100	1.8
	Hamilton	36	0.7	Union	57	1.6
Hancock	11	0.3	Winnebago	15	0.4	
Hardin	42	0.8	Wright	22	0.5	
Harrison	40	0.9	<b>Total</b>	1,537	0.8	
Counties with Average Population > 20,000	Benton	81	1.0	Jones	57	0.9
	Boone	67	0.9	Lee	256	2.3
	Bremer	88	1.3	Mahaska	97	1.5
	Buchanan	44	0.7	Marion	97	1.0
	Buena Vista	107	1.8	Marshall	287	2.4
	Carroll	18	0.3	Muscatine	350	2.8
	Cerro Gordo	190	1.4	Plymouth	62	0.8
	Clinton	351	2.3	Sioux	36	0.4
	Des Moines	628	5.0	Story	507	2.1
	Fayette	83	1.3	Wapello	219	2.0
	Henry	118	1.9	Washington	84	1.3
	Jackson	69	1.1	Webster	398	3.3
	Jasper	118	1.1	Winneshiek	43	0.7
				<b>Total</b>	4,455	1.8
MSA Counties	Black Hawk	2,174	5.7	Polk	4,603	4.0
	Dallas	131	1.0	Pottawattamie	580	2.2
	Dubuque	630	2.4	Scott	3,147	6.6
	Johnson	1,092	3.2	Warren	141	1.1
	Linn	2,315	4.0	Woodbury	1,300	4.2
				<b>Total</b>	16,113	4.0
<b>State Totals</b>		22,397	2.5			

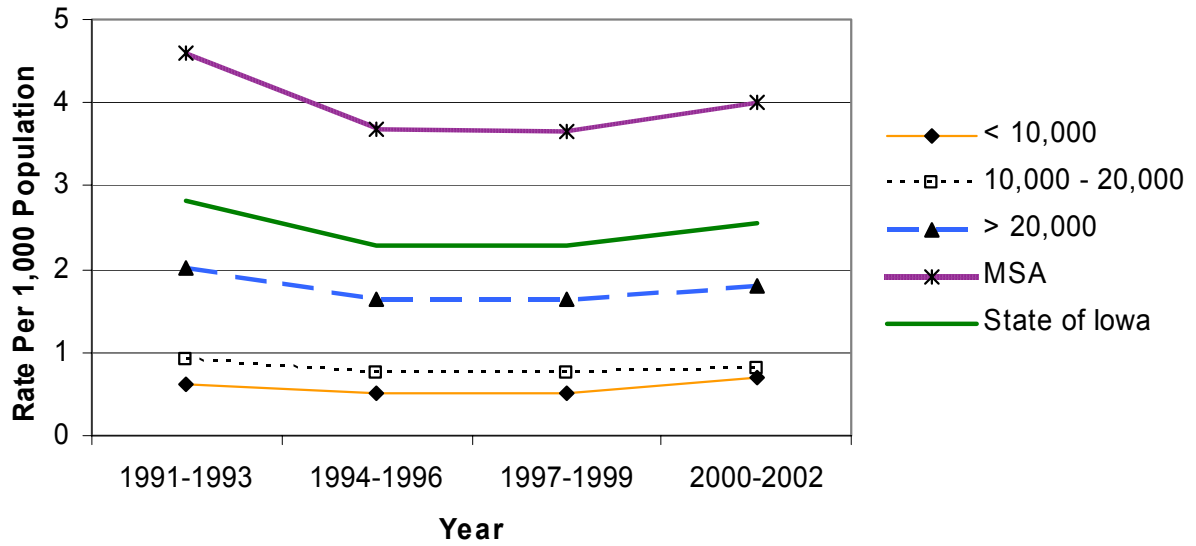
<sup>1</sup>Rates per 1,000 population

<sup>2</sup>Includes syphilis, gonorrhea, and Chlamydia, but not late latent cases (infection > 1 year)

Source: Disease Prevention Program, Iowa Department of Public Health

## Sexually Transmitted Diseases 1991-2002

### Annual Crude Rates



## Selected Infectious Diseases State of Iowa 1994-2002

	Number of Cases Reported								
	1994	1995	1996	1997	1998	1999	2000	2001	2002
AIDS	121	115	106	109	68	86	92	89	91
Campylobacter	280	274	339	425	455	467	499	466	425
Chlamydia	5,413	5,088	4,165	4,906	5,173	5,511	5,989	5,716	6,241
Cryptosporidium	71	21	75	71	66	56	77	82	48
E. coli	54	64	123	114	93	114	180	79	121
Giardia	339	391	410	358	429	377	420	345	313
Gonorrhea	1,645	1,723	1,144	1,309	1,615	1,365	1,394	1,424	1,496
Hepatitis A	64	106	346	490	400	161	67	36	66
Measles	7	0	1	0	0	0	0	0	0
Mumps	16	11	3	10	11	8	8	1	1
Pertussis	23	11	32	207	78	111	67	144	157
Rubella	0	0	0	0	0	30	0	1	0
Salmonella	404	433	335	296	375	260	373	336	507
Shigella	338	351	151	90	69	74	569	365	122
Syphilis (primary or secondary)	75	48	22	8	5	9	11	5	10
Tuberculosis	66	72	70	74	55	58	40	43	34

*Source: Bureau of Infectious Diseases, Iowa Department of Public Health*



## Cancer Incidence and Mortality

Cancer is the second leading cause of death in Iowa. From 1990 through 2000, 70,234 Iowans died from cancer and 165,106 cancers were newly diagnosed. During this period, cancer accounted for about one of every four deaths in Iowa. Although it occurs in people of all ages, more than 80 percent of new cancers occur in those 55 years of age and older.

For all sites of cancer incidence and mortality, the age-adjusted rates by county grouping increased as the average population increased. The crude rates, however, show the opposite trend, as these rates were highest in counties with average populations < 10,000. This reflects a larger proportion of older people in the smaller, more rural counties

(see tables and graph in Demographics). During the 1990s, The U.S. has experienced a decline in cancer mortality, reflected also in Iowa. Today, less than half of Iowans newly diagnosed with a

### FOUR PRIMARY TYPES OF CANCER IN IOWA ...

Prostate  
Female Breast  
Lung and bronchus  
Colorectum

### MOST COMMON CANCERS IN IOWA

**Females**

Breast  
Colorectum  
Lung

**Males**

Prostate  
Lung  
Colorectum

**Children (0-19)**

Leukemia  
Brain and other central nervous system  
Lymphomas

cancer will die from it. Survival rates, however, vary considerably by cancer site, and as the number of cancer deaths gets closer to the number of newly diagnosed cancers, the survival rate for the cancer decreases.

Tobacco use is the leading modifiable risk factor for cancer, and is associated with cancers of the lung and bronchus, oral cavity (excluding lip), esophagus, larynx, pancreas, uterine cervix,

urinary bladder, and kidney and renal pelvis. Alcohol consumption is also a known risk factor for cancers of the oral cavity (excluding lip), esophagus, and larynx. Ongoing research indicates that dietary factors may play an important role in the occurrence of cancers of the prostate and colorectum. Other important risk factors include obesity for cancer of the uterine corpus, excessive sunlight exposure for skin melanoma, and genetic predisposition (or positive family history) for breast cancer.

The Iowa Cancer Registry has been recording the occurrence of cancer in Iowa since 1973. It receives mortality data from the Iowa Department of Public Health (IDPH). The Registry's incidence and IDPH's mortality databases have been used to generate the cancer incidence and cancer mortality statistics provided in this section of the 2003 Iowa Health Fact Book via a software program called SEER\*Stat, which is provided by the National Cancer Institute.

## All Sites Cancer Incidence 1990-2000

	Average Population < 10,000				Average Population 10,000 to 20,000				Average Population > 20,000				MSA Counties			
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with Average Population < 10,000	Adair	540	586.9 (49)	387.7 (99)	Lucas	648	635.7 (27)	459.6 (54)	Adair	540	586.9 (49)	387.7 (99)	Lucas	648	635.7 (27)	459.6 (54)
	Adams	305	602.6 (42)	394.7 (98)	Monroe	559	624.7 (32)	452.6 (61)	Adams	305	602.6 (42)	394.7 (98)	Monroe	559	624.7 (32)	452.6 (61)
	Audubon	542	702.4 (06)	456.6 (56)	Osceola	456	578.1 (54)	424.5 (92)	Audubon	542	702.4 (06)	456.6 (56)	Osceola	456	578.1 (54)	424.5 (92)
	Clarke	524	552.4 (66)	435.9 (82)	Pocahontas	686	687.3 (09)	462.4 (50)	Clarke	524	552.4 (66)	435.9 (82)	Pocahontas	686	687.3 (09)	462.4 (50)
	Davis	514	553.9 (65)	430.4 (87)	Ringgold	431	722.9 (04)	443.4 (72)	Davis	514	553.9 (65)	430.4 (87)	Ringgold	431	722.9 (04)	443.4 (72)
	Decatur	549	594.3 (47)	463.2 (49)	Taylor	533	689.5 (08)	447.5 (67)	Decatur	549	594.3 (47)	463.2 (49)	Taylor	533	689.5 (08)	447.5 (67)
	Fremont	607	679.1 (11)	489.0 (15)	Van Buren	553	650.7 (23)	482.8 (22)	Fremont	607	679.1 (11)	489.0 (15)	Van Buren	553	650.7 (23)	482.8 (22)
	Howard	674	616.0 (36)	436.2 (80)	Wayne	579	759.4 (01)	476.0 (36)	Howard	674	616.0 (36)	436.2 (80)	Wayne	579	759.4 (01)	476.0 (36)
	Ida	536	598.4 (45)	429.4 (88)	Worth	536	613.4 (37)	446.1 (71)	Ida	536	598.4 (45)	429.4 (88)	Worth	536	613.4 (37)	446.1 (71)
					<b>Total</b>	9,772	633.0	446.0					<b>Total</b>	9,772	633.0	446.0
Counties with Average Population 10,000 to 20,000	Allamakee	897	568.4 (59)	424.9 (91)	Humboldt	758	655.1 (21)	456.5 (57)	Allamakee	897	568.4 (59)	424.9 (91)	Humboldt	758	655.1 (21)	456.5 (57)
	Appanoose	978	646.2 (26)	462.0 (51)	Iowa	910	546.6 (70)	447.0 (69)	Appanoose	978	646.2 (26)	462.0 (51)	Iowa	910	546.6 (70)	447.0 (69)
	Butler	1,136	664.5 (15)	480.4 (28)	Jefferson	837	463.1 (93)	421.4 (93)	Butler	1,136	664.5 (15)	480.4 (28)	Jefferson	837	463.1 (93)	421.4 (93)
	Calhoun	839	668.6 (14)	443.0 (74)	Keokuk	834	659.0 (18)	478.9 (32)	Calhoun	839	668.6 (14)	443.0 (74)	Keokuk	834	659.0 (18)	478.9 (32)
	Cass	1,089	661.8 (16)	456.7 (55)	Kossuth	1,160	593.1 (48)	442.3 (75)	Cass	1,089	661.8 (16)	456.7 (55)	Kossuth	1,160	593.1 (48)	442.3 (75)
	Cedar	1,017	519.1 (80)	427.8 (90)	Louisa	622	474.9 (89)	436.0 (81)	Cedar	1,017	519.1 (80)	427.8 (90)	Louisa	622	474.9 (89)	436.0 (81)
	Cherokee	979	653.8 (22)	483.3 (21)	Lyon	751	576.5 (55)	450.2 (63)	Cherokee	979	653.8 (22)	483.3 (21)	Lyon	751	576.5 (55)	450.2 (63)
	Chickasaw	785	539.0 (75)	431.3 (85)	Madison	761	522.7 (78)	438.3 (79)	Chickasaw	785	539.0 (75)	431.3 (85)	Madison	761	522.7 (78)	438.3 (79)
	Clay	1,121	579.2 (53)	476.4 (35)	Mills	760	502.2 (86)	484.1 (19)	Clay	1,121	579.2 (53)	476.4 (35)	Mills	760	502.2 (86)	484.1 (19)
	Clayton	1,255	604.2 (41)	472.5 (39)	Mitchell	790	658.1 (19)	455.3 (58)	Clayton	1,255	604.2 (41)	472.5 (39)	Mitchell	790	658.1 (19)	455.3 (58)
	Crawford	1,033	558.9 (63)	442.2 (76)	Monona	827	748.0 (02)	472.5 (39)	Crawford	1,033	558.9 (63)	442.2 (76)	Monona	827	748.0 (02)	472.5 (39)
	Delaware	943	468.1 (92)	430.8 (86)	Montgomery	863	657.8 (20)	460.1 (52)	Delaware	943	468.1 (92)	430.8 (86)	Montgomery	863	657.8 (20)	460.1 (52)
	Dickinson	1,219	706.1 (05)	491.7 (11)	O'Brien	1,148	674.3 (12)	481.7 (25)	Dickinson	1,219	706.1 (05)	491.7 (11)	O'Brien	1,148	674.3 (12)	481.7 (25)
	Emmet	750	597.8 (46)	452.8 (60)	Page	1,144	612.7 (38)	440.4 (77)	Emmet	750	597.8 (46)	452.8 (60)	Page	1,144	612.7 (38)	440.4 (77)
	Floyd	1,216	649.6 (24)	481.7 (25)	Palo Alto	828	725.4 (03)	509.9 (03)	Floyd	1,216	649.6 (24)	481.7 (25)	Palo Alto	828	725.4 (03)	509.9 (03)
	Franklin	711	585.3 (50)	428.3 (89)	Poweshiek	1,061	509.7 (84)	417.3 (94)	Franklin	711	585.3 (50)	428.3 (89)	Poweshiek	1,061	509.7 (84)	417.3 (94)
	Greene	732	647.7 (25)	438.8 (78)	Sac	870	660.8 (17)	443.2 (73)	Greene	732	647.7 (25)	438.8 (78)	Sac	870	660.8 (17)	443.2 (73)
	Grundy	817	609.0 (39)	448.9 (66)	Shelby	817	559.8 (62)	400.9 (96)	Grundy	817	609.0 (39)	448.9 (66)	Shelby	817	559.8 (62)	400.9 (96)
	Guthrie	825	668.9 (13)	469.4 (43)	Tama	1,245	634.9 (28)	482.6 (24)	Guthrie	825	668.9 (13)	469.4 (43)	Tama	1,245	634.9 (28)	482.6 (24)
	Hamilton	1,078	601.5 (44)	471.4 (42)	Union	850	620.8 (34)	474.4 (38)	Hamilton	1,078	601.5 (44)	471.4 (42)	Union	850	620.8 (34)	474.4 (38)
Hancock	750	558.2 (64)	435.4 (83)	Winnebago	685	526.5 (76)	400.4 (97)	Hancock	750	558.2 (64)	435.4 (83)	Winnebago	685	526.5 (76)	400.4 (97)	
Hardin	1,452	696.5 (07)	494.0 (07)	Wright	1,080	680 (10)	463.4 (48)	Hardin	1,452	696.5 (07)	494.0 (07)	Wright	1,080	680 (10)	463.4 (48)	
Harrison	1,050	628.9 (31)	483.5 (20)	<b>Total</b>	42,273	604.0	456.1	Harrison	1,050	628.9 (31)	483.5 (20)	<b>Total</b>	42,273	604.0	456.1	
Counties with Average Population > 20,000	Benton	1,424	542.6 (72)	471.7 (41)	Jones	1,212	547.5 (69)	479.3 (29)	Benton	1,424	542.6 (72)	471.7 (41)	Jones	1,212	547.5 (69)	479.3 (29)
	Boone	1,613	572.7 (57)	468.0 (44)	Lee	2,436	571.9 (58)	478.2 (34)	Boone	1,613	572.7 (57)	468.0 (44)	Lee	2,436	571.9 (58)	478.2 (34)
	Bremer	1,387	544.1 (71)	464.3 (46)	Mahaska	1,305	540.1 (74)	452.3 (62)	Bremer	1,387	544.1 (71)	464.3 (46)	Mahaska	1,305	540.1 (74)	452.3 (62)
	Buchanan	1,218	525.7 (77)	480.8 (27)	Marion	1,746	512.0 (81)	446.2 (70)	Buchanan	1,218	525.7 (77)	480.8 (27)	Marion	1,746	512.0 (81)	446.2 (70)
	Buena Vista	1,414	631.0 (29)	511.7 (02)	Marshall	2,567	602.2 (43)	489.1 (14)	Buena Vista	1,414	631.0 (29)	511.7 (02)	Marshall	2,567	602.2 (43)	489.1 (14)
	Carroll	1,472	620.4 (35)	492.5 (10)	Muscatine	2,176	480.9 (87)	479.0 (31)	Carroll	1,472	620.4 (35)	492.5 (10)	Muscatine	2,176	480.9 (87)	479.0 (31)
	Cerro Gordo	3,019	584.8 (51)	478.4 (33)	Plymouth	1,503	563.5 (61)	487.0 (17)	Cerro Gordo	3,019	584.8 (51)	478.4 (33)	Plymouth	1,503	563.5 (61)	487.0 (17)
	Clinton	3,210	573.1 (56)	494.2 (06)	Sioux	1,639	479.6 (88)	449.5 (64)	Clinton	3,210	573.1 (56)	494.2 (06)	Sioux	1,639	479.6 (88)	449.5 (64)
	Des Moines	2,667	566.7 (60)	479.2 (30)	Story	2,921	345.9 (98)	449.1 (65)	Des Moines	2,667	566.7 (60)	479.2 (30)	Story	2,921	345.9 (98)	449.1 (65)
	Fayette	1,478	607.7 (40)	465.0 (45)	Wapello	2,464	621.9 (33)	491.0 (12)	Fayette	1,478	607.7 (40)	465.0 (45)	Wapello	2,464	621.9 (33)	491.0 (12)
	Henry	1,118	510.7 (83)	455.0 (59)	Washington	1,203	540.6 (73)	431.7 (84)	Henry	1,118	510.7 (83)	455.0 (59)	Washington	1,203	540.6 (73)	431.7 (84)
	Jackson	1,284	579.3 (52)	482.7 (23)	Webster	2,769	630.1 (30)	509.6 (04)	Jackson	1,284	579.3 (52)	482.7 (23)	Webster	2,769	630.1 (30)	509.6 (04)
	Jasper	2,164	550.0 (67)	464.0 (47)	Winneshiek	1,061	456.6 (95)	412.8 (95)	Jasper	2,164	550.0 (67)	464.0 (47)	Winneshiek	1,061	456.6 (95)	412.8 (95)
					<b>Total</b>	48,470	540.4	473.2					<b>Total</b>	48,470	540.4	473.2
MSA Counties	Black Hawk	7,250	519.7 (79)	502.0 (05)	Polk	17,287	445.6 (96)	490.0 (13)	Black Hawk	7,250	519.7 (79)	502.0 (05)	Polk	17,287	445.6 (96)	490.0 (13)
	Dallas	1,809	473.5 (90)	475.1 (37)	Pottawattamie	4,721	506.4 (85)	486.3 (18)	Dallas	1,809	473.5 (90)	475.1 (37)	Pottawattamie	4,721	506.4 (85)	486.3 (18)
	Dubuque	5,333	548.7 (68)	515.7 (01)	Scott	7,853	457.6 (94)	492.9 (09)	Dubuque	5,333	548.7 (68)	515.7 (01)	Scott	7,853	457.6 (94)	492.9 (09)
	Johnson	3,487	305.2 (99)	460.0 (53)	Warren	1,749	412.4 (97)	447.3 (68)	Johnson	3,487	305.2 (99)	460.0 (53)	Warren	1,749	412.4 (97)	447.3 (68)
	Linn	9,347	469.7 (91)	488.5 (16)	Woodbury	5,755	511.6 (82)	493.3 (08)	Linn	9,347	469.7 (91)	488.5 (16)	Woodbury	5,755	511.6 (82)	493.3 (08)
	<b>State Totals</b>	165,106	524.6	474	<b>Total</b>	64,591	462.7	490.4	<b>State Totals</b>	165,106	524.6	474	<b>Total</b>	64,591	462.7	490.4

<sup>1</sup>Rates per 100,000 population

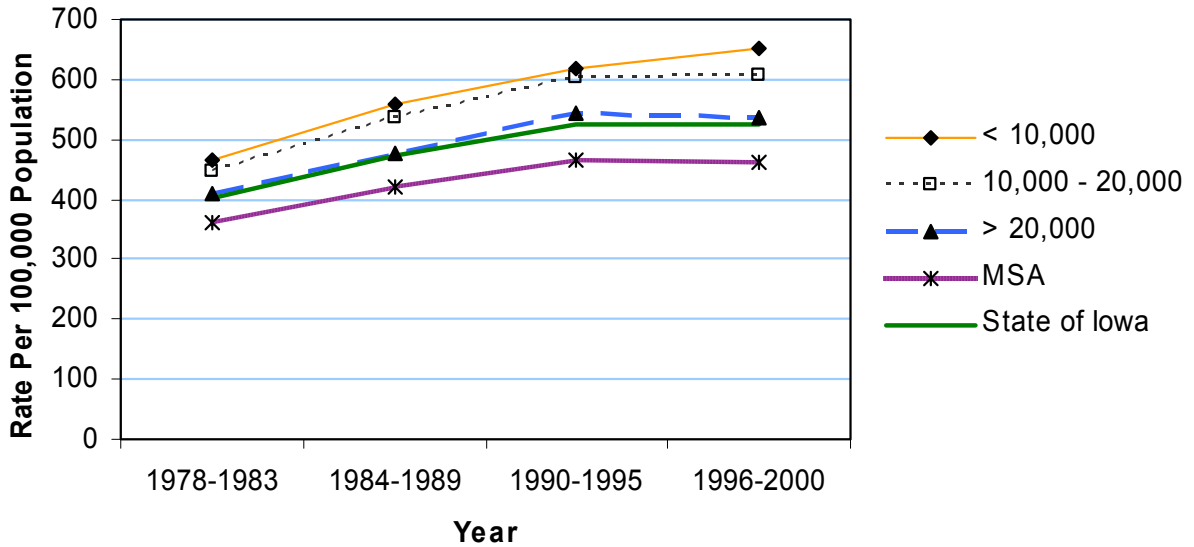
<sup>2</sup>Adjusted to Year 2000 population

<sup>3</sup>Rank among 99 Iowa counties

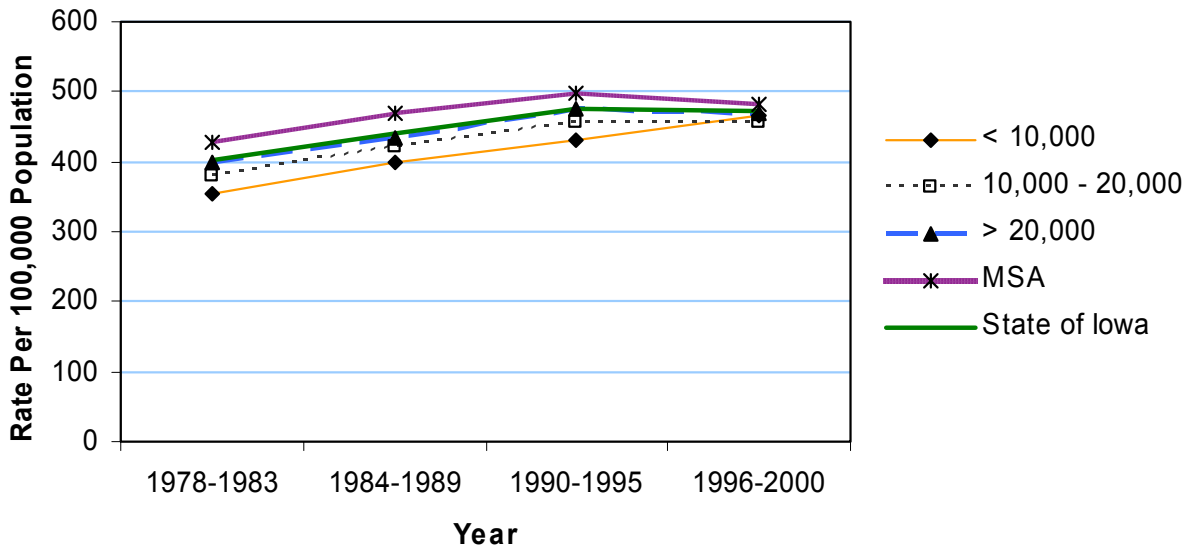
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## All Sites Cancer Incidence by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## All Sites of Cancer Mortality 1990-2000

	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
	<b>Counties with Average Population &lt; 10,000</b>	Adair	266	289.1 (17)	170.8 (88)	Lucas	282	276.7 (31)
Adams		150	296.3 (13)	188.3 (53)	Monroe	252	281.6 (28)	195.6 (34)
Audubon		222	287.7 (20)	175.5 (79)	Osceola	177	224.4 (81)	157.5 (97)
Clarke		225	237.2 (62)	175.3 (81)	Pocahontas	314	314.6 (07)	200.6 (21)
Davis		213	229.5 (69)	172.7 (86)	Ringgold	192	322.0 (03)	174.8 (83)
Decatur		255	276.0 (33)	202.5 (19)	Taylor	231	298.8 (10)	170.4 (89)
Fremont		287	321.1 (05)	220.2 (03)	Van Buren	214	251.8 (50)	178.9 (74)
Howard		310	283.3 (25)	181.6 (69)	Wayne	261	342.3 (02)	199.8 (25)
Ida		224	250.1 (52)	168.7 (92)	Worth	248	283.8 (24)	193.3 (41)
					<b>Total</b>	<b>4,323</b>	<b>280.0</b>	<b>184.5</b>
<b>Counties with Average Population 10,000 to 20,000</b>	Allamakee	373	236.4 (65)	167.3 (94)	Humboldt	341	294.7 (14)	192.5 (46)
	Appanoose	388	256.4 (48)	174.3 (84)	Iowa	408	245.1 (55)	186.8 (56)
	Butler	499	291.9 (15)	197.7 (30)	Jefferson	354	195.9 (91)	175.0 (82)
	Calhoun	393	313.2 (08)	189.7 (51)	Keokuk	361	285.3 (23)	195.3 (35)
	Cass	496	301.4 (09)	196.1 (33)	Kossuth	520	265.9 (37)	186.4 (57)
	Cedar	448	228.7 (72)	177.3 (77)	Louisa	273	208.5 (86)	186.4 (57)
	Cherokee	378	252.4 (49)	178.4 (75)	Lyon	340	261.0 (44)	194.2 (39)
	Chickasaw	327	224.5 (80)	168.4 (93)	Madison	385	264.5 (39)	211.1 (09)
	Clay	441	227.8 (73)	179.9 (72)	Mills	307	202.9 (89)	194.3 (38)
	Clayton	546	262.9 (41)	193.3 (41)	Mitchell	339	282.4 (27)	183.3 (64)
	Crawford	426	230.5 (68)	175.4 (80)	Monona	411	371.7 (01)	213.9 (07)
	Delaware	410	203.5 (88)	182.8 (65)	Montgomery	390	297.3 (12)	197.9 (29)
	Dickinson	480	278.0 (29)	187.1 (55)	O'Brien	461	270.8 (35)	180.0 (71)
	Emmet	329	262.2 (43)	187.7 (54)	Page	500	267.8 (36)	181.8 (67)
	Floyd	537	286.9 (22)	202.8 (17)	Palo Alto	367	321.5 (04)	209.8 (11)
	Franklin	278	228.9 (70)	153.4 (99)	Poweshiek	497	238.8 (61)	181.7 (68)
	Greene	311	275.2 (34)	170.9 (87)	Sac	382	290.1 (16)	179.5 (73)
	Grundy	318	237.0 (64)	163.0 (95)	Shelby	343	235.0 (66)	159.9 (96)
Guthrie	349	283.0 (26)	186.4 (57)	Tama	517	263.7 (40)	190.5 (48)	
Hamilton	475	265.0 (38)	198.3 (28)	Union	380	277.5 (30)	199.8 (25)	
Hancock	304	226.2 (77)	169.7 (90)	Winnebago	323	248.3 (54)	173.5 (85)	
Hardin	666	319.4 (06)	210.6 (10)	Wright	459	289.0 (18)	182.4 (66)	
Harrison	498	298.3 (11)	218.3 (05)	<b>Total</b>	<b>18,328</b>	<b>261.9</b>	<b>186.5</b>	
<b>Counties with Average Population &gt; 20,000</b>	Benton	628	239.3 (60)	201.6 (20)	Jones	504	227.7 (74)	191.2 (47)
	Boone	676	240.0 (59)	184.7 (60)	Lee	1,176	276.1 (32)	224.4 (01)
	Bremer	580	227.5 (75)	184.4 (62)	Mahaska	546	226.0 (78)	183.4 (63)
	Buchanan	563	243.0 (57)	215.5 (06)	Marion	769	225.5 (79)	189.8 (50)
	Buena Vista	563	251.2 (51)	192.8 (45)	Marshall	1,224	287.1 (21)	223.8 (02)
	Carrroll	612	258.0 (47)	196.5 (32)	Muscatine	896	198.0 (90)	195.1 (36)
	Cerro Gordo	1,339	259.4 (45)	202.8 (17)	Plymouth	615	230.6 (67)	190.5 (48)
	Clinton	1,373	245.1 (55)	205.9 (14)	Sioux	597	174.7 (96)	156.8 (98)
	Des Moines	1,135	241.2 (58)	197.1 (31)	Story	1,173	138.9 (98)	177.6 (76)
	Fayette	638	262.3 (42)	193.7 (40)	Wapello	1,143	288.5 (19)	219.8 (04)
	Henry	496	226.6 (76)	192.9 (44)	Washington	509	228.8 (71)	169.0 (91)
	Jackson	553	249.5 (53)	200.2 (23)	Webster	1,137	258.7 (46)	200.5 (22)
	Jasper	933	237.1 (63)	195.1 (36)	Winneshiek	478	205.7 (87)	176.5 (78)
					<b>Total</b>	<b>20,856</b>	<b>232.5</b>	<b>196.1</b>
<b>MSA Counties</b>	Black Hawk	3,027	217.0 (84)	206.5 (13)	Polk	7,269	187.4 (95)	208.4 (12)
	Dallas	748	195.8 (92)	193.0 (43)	Pottawattamie	2,061	221.1 (83)	212.4 (08)
	Dubuque	2,168	223.1 (82)	203.5 (16)	Scott	3,233	188.4 (94)	205.0 (15)
	Johnson	1,314	115.0 (99)	184.6 (61)	Warren	708	166.9 (97)	181.3 (70)
	Linn	3,804	191.1 (93)	198.8 (27)	Woodbury	2,395	212.9 (85)	200.0 (24)
					<b>Total</b>	<b>26,727</b>	<b>191.5</b>	<b>203.0</b>
<b>State Totals</b>	<b>70,234</b>	<b>223.2</b>	<b>195.1</b>					

<sup>1</sup>Rates per 100,000 population

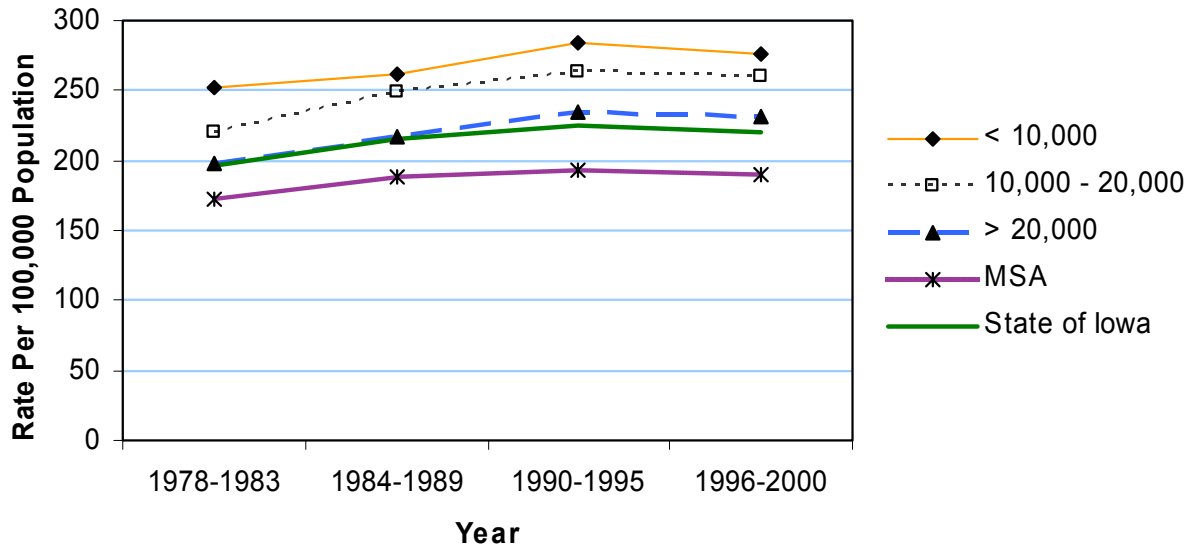
<sup>2</sup>Adjusted to Year 2000 population

<sup>3</sup>Rank among 99 Iowa counties

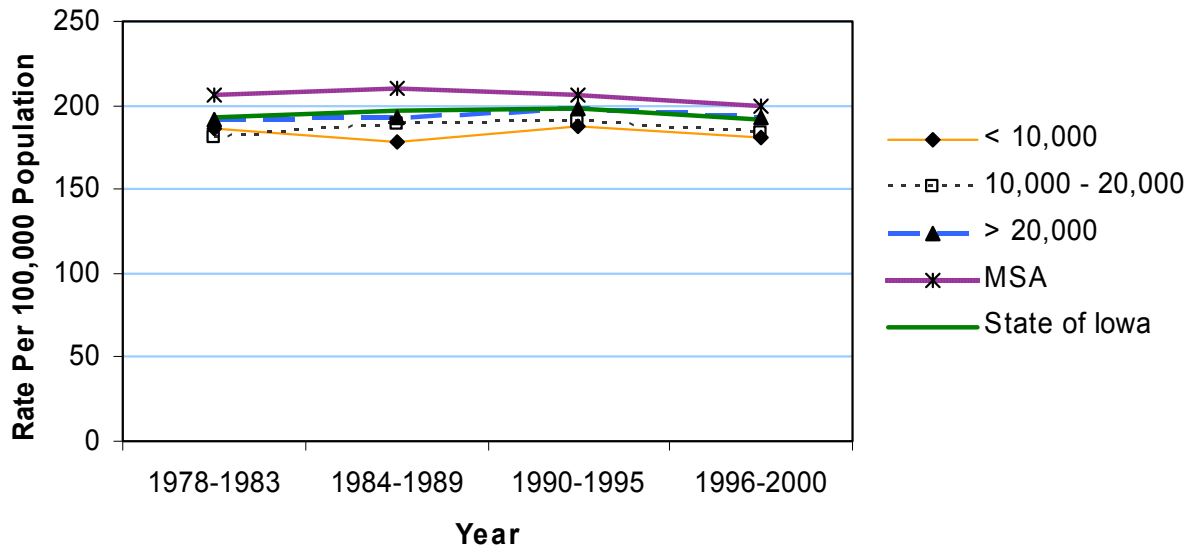
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## All Sites of Cancer Mortality by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Prostate Cancer Incidence 1990-2000

	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with Average Population < 10,000	Adair	100	223.7 (19)	154.6 (57)	Lucas	104	211.9 (27)	162.4 (42)
	Adams	48	193.2 (43)	139.7 (84)	Monroe	86	198.4 (38)	154.2 (58)
	Audubon	92	248.5 (09)	166.3 (36)	Osceola	72	187.7 (50)	152.2 (65)
	Clarke	87	190.3 (45)	158.3 (51)	Pocahontas	139	286.0 (04)	203.9 (05)
	Davis	79	173.2 (65)	147.7 (74)	Ringgold	78	272.6 (05)	172.9 (25)
	Decatur	66	147.3 (82)	116.9 (99)	Taylor	69	186.4 (53)	124.3 (94)
	Fremont	72	167.6 (70)	131.0 (91)	Van Buren	95	225.4 (16)	170.4 (29)
	Howard	120	224.1 (18)	161.8 (44)	Wayne	106	291.8 (03)	175.2 (23)
	Ida	92	212.3 (26)	160.6 (45)	Worth	85	198.8 (37)	156.2 (53)
					<b>Total</b>	1,590	212.3	156.7
	Counties with Average Population 10,000 to 20,000	Allamakee	162	207.6 (30)	172.6 (26)	Humboldt	121	214.8 (23)
Appanoose		160	221.7 (20)	166.5 (34)	Iowa	138	170.5 (67)	148.1 (72)
Butler		220	262.7 (07)	206.6 (04)	Jefferson	107	121.3 (92)	132.8 (88)
Calhoun		123	200.6 (35)	144.2 (80)	Keokuk	115	187.1 (52)	148.2 (71)
Cass		149	188.4 (49)	143.4 (81)	Kossuth	183	192.1 (44)	150.9 (69)
Cedar		167	173.7 (63)	152.9 (64)	Louisa	75	114.9 (96)	117.2 (98)
Cherokee		174	238.3 (13)	189.5 (16)	Lyon	127	197.7 (41)	171.0 (28)
Chickasaw		129	177.6 (62)	154.1 (60)	Madison	116	162.4 (74)	153.1 (63)
Clay		200	215.4 (22)	194.9 (11)	Mills	112	148.5 (81)	168.5 (32)
Clayton		183	178.8 (61)	146.3 (77)	Mitchell	141	241.0 (11)	170.3 (30)
Crawford		168	184.7 (55)	160.3 (46)	Monona	129	243.1 (10)	163.3 (41)
Delaware		139	139.7 (87)	139.0 (86)	Montgomery	133	214.5 (24)	164.3 (40)
Dickinson		244	292.3 (02)	211.9 (03)	O'Brien	207	250.7 (08)	196.0 (10)
Emmet		139	229.1 (15)	193.1 (13)	Page	138	149.3 (80)	119.7 (97)
Floyd		186	207.5 (32)	162.3 (43)	Palo Alto	162	292.5 (01)	223.0 (02)
Franklin		112	189.8 (46)	146.1 (78)	Poweshiek	147	146.9 (83)	131.2 (90)
Greene		94	172.4 (66)	124.1 (95)	Sac	154	239.6 (12)	169.9 (31)
Grundy		144	221.4 (21)	175.8 (22)	Shelby	135	189.3 (48)	139.1 (85)
Guthrie		135	224.9 (17)	165.0 (39)	Tama	227	237.5 (14)	191.7 (15)
Hamilton		174	198.1 (39)	166.3 (36)	Union	120	184.5 (56)	153.3 (62)
Hancock	114	173.3 (64)	144.8 (79)	Winnebago	116	183.4 (58)	149.6 (70)	
Hardin	211	208.3 (29)	160.2 (48)	Wright	154	201.2 (34)	143.4 (81)	
Harrison	158	194.4 (42)	166.5 (34)	<b>Total</b>	6,742	197.8	161.5	
Counties with Average Population > 20,000	Benton	233	179.1 (60)	173.8 (24)	Jones	168	145.1 (85)	151.1 (68)
	Boone	229	168.1 (69)	154.2 (58)	Lee	343	163.5 (73)	160.0 (49)
	Bremer	258	208.9 (28)	197.4 (09)	Mahaska	202	169.7 (68)	156.1 (55)
	Buchanan	211	184.5 (56)	192.3 (14)	Marion	223	131.5 (89)	121.6 (96)
	Buena Vista	295	267.5 (06)	236.3 (01)	Marshall	418	199.4 (36)	172.2 (27)
	Carroll	239	207.6 (30)	184.3 (18)	Muscatine	287	128.7 (91)	151.2 (67)
	Cerro Gordo	400	162.4 (74)	148.0 (73)	Plymouth	280	212.8 (25)	201.3 (08)
	Clinton	436	161.3 (77)	156.6 (52)	Sioux	312	187.2 (51)	193.7 (12)
	Des Moines	359	158.8 (78)	153.7 (61)	Story	467	107.5 (97)	177.4 (20)
	Fayette	236	198.1 (39)	165.9 (38)	Wapello	314	164.3 (72)	141.8 (83)
	Henry	146	132.1 (88)	138.6 (87)	Washington	177	165.1 (71)	147.5 (75)
	Jackson	200	183.3 (59)	166.9 (33)	Webster	436	204.2 (33)	184.7 (17)
	Jasper	273	140.4 (86)	130.2 (92)	Winneshiek	176	154.4 (79)	147.2 (76)
					<b>Total</b>	7,318	165.9	163.7
MSA Counties	Black Hawk	1,237	185.4 (54)	202.3 (06)	Polk	2,231	119.5 (93)	158.8 (50)
	Dallas	243	129.6 (90)	154.9 (56)	Pottawattamie	522	115.5 (95)	126.2 (93)
	Dubuque	893	189.4 (47)	201.6 (07)	Scott	995	119.1 (94)	151.3 (66)
	Johnson	470	82.7 (99)	156.2 (53)	Warren	219	106.1 (98)	132.7 (89)
	Linn	1,426	146.8 (84)	177.3 (21)	Woodbury	886	162.0 (76)	183.8 (19)
	<b>State Totals</b>	24,772	161.5	164.7	<b>Total</b>	9,122	134.7	168.1

<sup>1</sup>Rates per 100,000 population

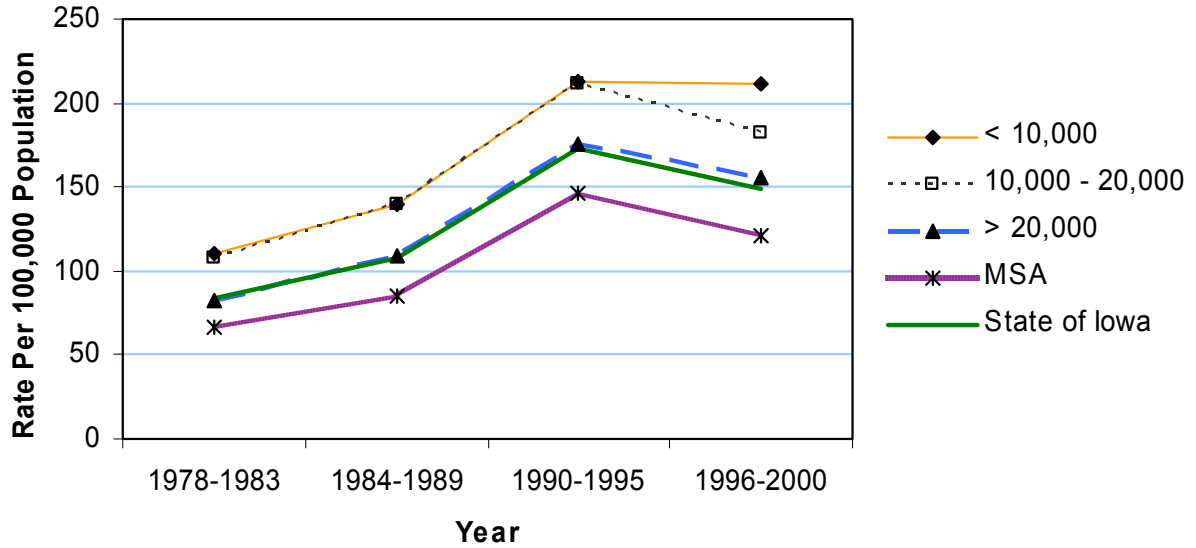
<sup>2</sup>Adjusted to Year 2000 population

<sup>3</sup>Rank among 99 Iowa counties

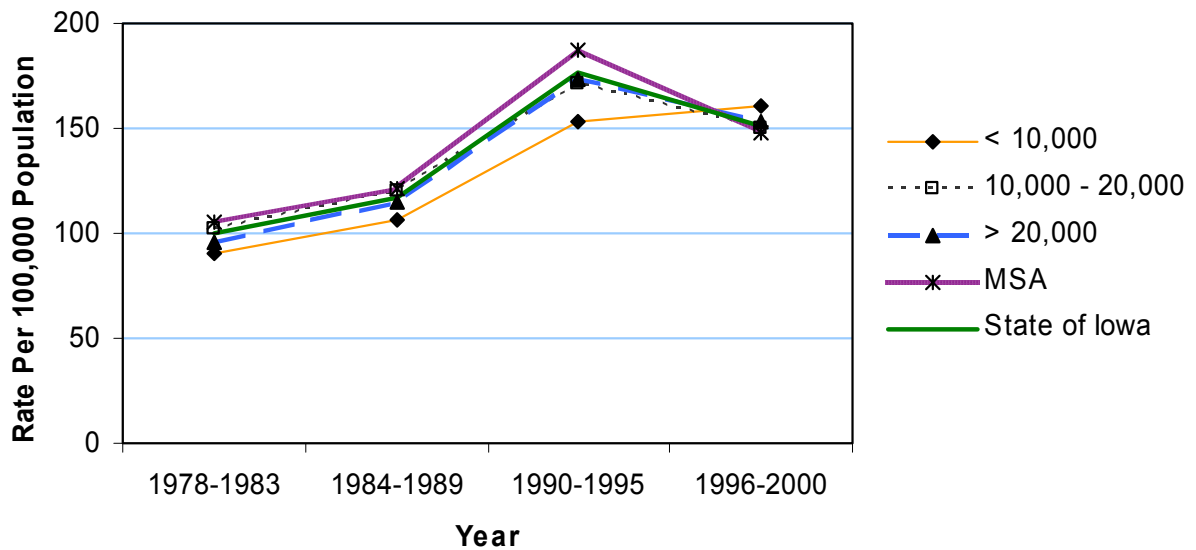
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Prostate Cancer Incidence by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Prostate Cancer Mortality 1990-2000

	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
	<b>Counties with Average Population &lt; 10,000</b>	Adair	24	53.7 (12)	35.4 (40)	Lucas	19	38.7 (52)
Adams		13	52.3 (15)	37.0 (32)	Monroe	18	41.5 (39)	34.7 (42)
Audubon		23	62.1 (05)	43.6 (13)	Osceola	17	44.3 (29)	37.3 (28)
Clarke		16	35.0 (63)	29.1 (86)	Pocahontas	21	43.2 (31)	31.5 (70)
Davis		19	41.6 (38)	37.3 (28)	Ringgold	19	66.4 (04)	41.4 (17)
Decatur		23	51.3 (17)	41.5 (16)	Taylor	19	51.3 (17)	32.9 (58)
Fremont		23	53.5 (13)	40.4 (20)	Van Buren	17	40.3 (44)	30.8 (74)
Howard		33	61.6 (06)	43.9 (12)	Wayne	30	82.6 (01)	46.8 (06)
Ida		25	57.7 (08)	44.9 (10)	Worth	18	42.1 (36)	32.4 (63)
					<b>Total</b>	<b>377</b>	<b>50.3</b>	<b>37.2</b>
<b>Counties with Average Population 10,000 to 20,000</b>	Allamakee	33	42.3 (34)	36.6 (33)	Humboldt	25	44.4 (28)	33.3 (55)
	Appanoose	29	40.2 (45)	29.8 (83)	Iowa	28	34.6 (65)	31.1 (72)
	Butler	36	43.0 (32)	34.4 (46)	Jefferson	22	24.9 (90)	27.3 (94)
	Calhoun	25	40.8 (41)	28.7 (89)	Keokuk	24	39.1 (50)	30.1 (79)
	Cass	39	49.3 (19)	37.7 (27)	Kossuth	37	38.8 (51)	31.8 (67)
	Cedar	34	35.4 (61)	32.5 (62)	Louisa	15	23.0 (92)	24.8 (99)
	Cherokee	32	43.8 (30)	36.0 (35)	Lyon	21	32.7 (71)	29.7 (84)
	Chickasaw	24	33.0 (70)	30.4 (76)	Madison	37	51.8 (16)	49.3 (03)
	Clay	33	35.5 (60)	34.7 (42)	Mills	17	22.5 (94)	29.1 (86)
	Clayton	41	40.0 (46)	33.5 (53)	Mitchell	28	47.8 (21)	33.0 (57)
	Crawford	25	27.5 (83)	25.3 (97)	Monona	41	77.3 (02)	50.9 (02)
	Delaware	25	25.1 (87)	28.6 (90)	Montgomery	21	33.9 (68)	25.1 (98)
	Dickinson	34	40.7 (43)	31.1 (72)	O'Brien	34	41.2 (40)	33.4 (54)
	Emmet	28	46.1 (23)	38.3 (25)	Page	35	37.9 (55)	30.4 (76)
	Floyd	49	54.7 (11)	44.5 (11)	Palo Alto	39	70.4 (03)	53.9 (01)
	Franklin	19	32.2 (73)	25.6 (96)	Poweshiek	38	38.0 (54)	34.5 (44)
	Greene	23	42.2 (35)	30.5 (75)	Sac	37	57.6 (09)	40.5 (19)
	Grundy	26	40.0 (46)	32.1 (65)	Shelby	32	44.9 (27)	33.8 (51)
	Guthrie	33	55.0 (10)	41.6 (15)	Tama	37	38.7 (52)	32.1 (65)
	Hamilton	30	34.2 (67)	31.8 (67)	Union	26	40.0 (46)	35.5 (38)
Hancock	24	36.5 (59)	32.9 (58)	Winnebago	38	60.1 (07)	47.4 (05)	
Hardin	43	42.5 (33)	32.2 (64)	Wright	32	41.8 (37)	30.0 (81)	
Harrison	43	52.9 (14)	46.6 (07)	<b>Total</b>	<b>1,392</b>	<b>40.8</b>	<b>34.3</b>	
<b>Counties with Average Population &gt; 20,000</b>	Benton	37	28.4 (80)	30.2 (78)	Jones	36	31.1 (77)	37.2 (30)
	Boone	50	36.7 (57)	35.1 (41)	Lee	65	31.0 (78)	34.0 (50)
	Bremer	56	45.3 (24)	46.0 (09)	Mahaska	44	37.0 (56)	35.8 (36)
	Buchanan	45	39.3 (49)	46.1 (08)	Marion	51	30.1 (79)	29.3 (85)
	Buena Vista	50	45.3 (24)	40.4 (20)	Marshall	95	45.3 (24)	41.9 (14)
	Carroll	47	40.8 (41)	38.1 (26)	Muscatine	60	26.9 (84)	35.5 (38)
	Cerro Gordo	68	27.6 (82)	27.7 (93)	Plymouth	46	35.0 (63)	34.1 (49)
	Clinton	70	25.9 (85)	28.5 (91)	Sioux	47	28.2 (81)	31.2 (71)
	Des Moines	76	33.6 (69)	35.6 (37)	Story	97	22.3 (95)	40.6 (18)
	Fayette	39	32.7 (71)	28.8 (88)	Wapello	70	36.6 (58)	34.4 (46)
	Henry	38	34.4 (66)	37.1 (31)	Washington	50	46.6 (22)	40.3 (22)
	Jackson	53	48.6 (20)	47.8 (04)	Webster	75	35.1 (62)	34.5 (44)
	Jasper	62	31.9 (75)	33.7 (52)	Winneshiek	36	31.6 (76)	31.6 (69)
					<b>Total</b>	<b>1,463</b>	<b>33.2</b>	<b>35.4</b>
<b>MSA Counties</b>	Black Hawk	214	32.1 (74)	39.3 (23)	Polk	444	23.8 (91)	38.7 (24)
	Dallas	47	25.1 (87)	34.3 (48)	Pottawattamie	94	20.8 (97)	26.1 (95)
	Dubuque	118	25.0 (89)	32.6 (61)	Scott	178	21.3 (96)	33.1 (56)
	Johnson	78	13.7 (99)	32.7 (60)	Warren	41	19.9 (98)	30.1 (79)
	Linn	246	25.3 (86)	36.4 (34)	Woodbury	124	22.7 (93)	28.5 (91)
					<b>Total</b>	<b>1,584</b>	<b>23.4</b>	<b>34.6</b>
<b>State Totals</b>	<b>4,816</b>	<b>31.4</b>	<b>34.9</b>					

<sup>1</sup>Rates per 100,000 population

<sup>2</sup>Adjusted to Year 2000 population

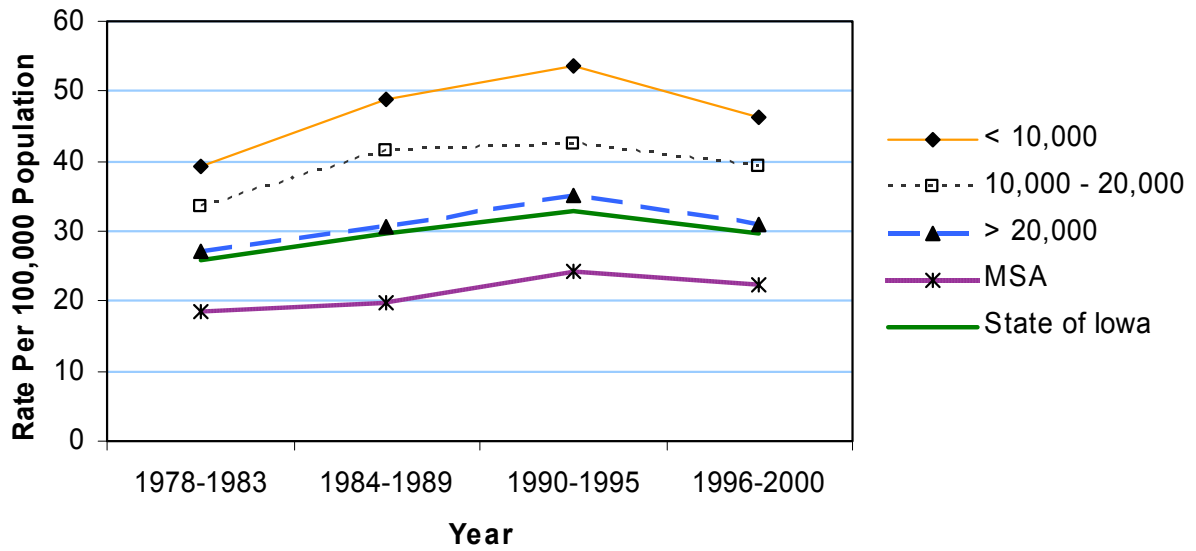
<sup>3</sup>Rank among 99 Iowa counties

Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

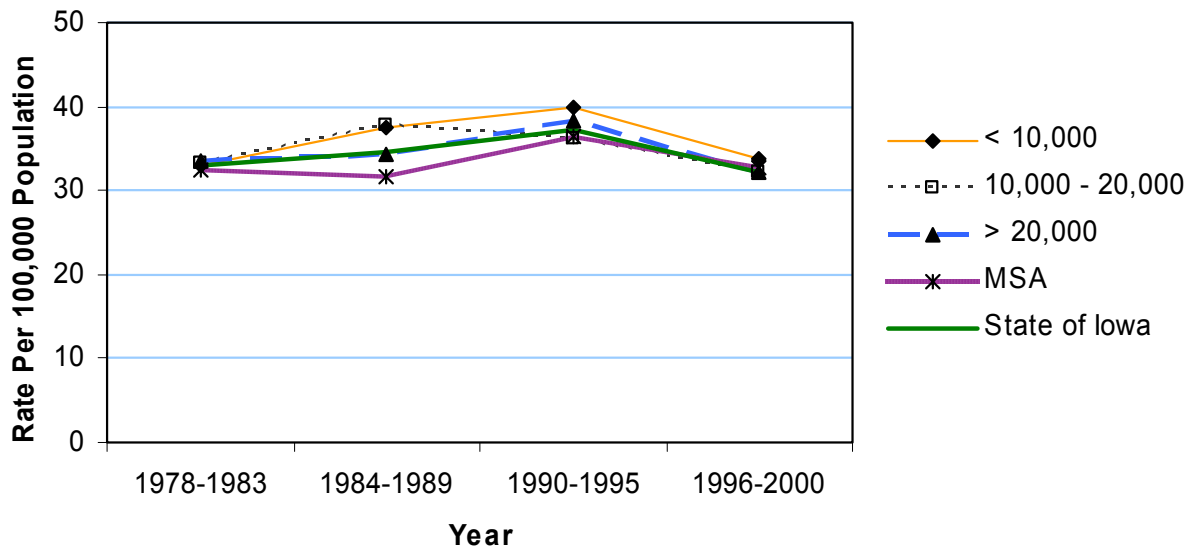


## Prostate Cancer Mortality by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Lung & Bronchus Cancer Incidence 1990-2000

	Average Population < 10,000				Average Population 10,000 to 20,000				Average Population > 20,000				MSA Counties																																																																																																																																																																																
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )																																																																																																																																																																													
Counties with Average Population < 10,000	Adair	80	86.9 (33)	56.8 (64)	Lucas	96	94.2 (20)	66.4 (38)	Monroe	91	101.7 (09)	74.7 (15)	Osceola	49	62.1 (85)	47.2 (87)	Clarke	57	60.1 (88)	46.1 (89)	Pocahontas	82	82.2 (41)	55.7 (68)	Davis	70	75.4 (54)	59.4 (58)	Ringgold	61	102.3 (08)	60.1 (56)	Decatur	71	76.9 (53)	58.6 (59)	Taylor	67	86.7 (34)	53.1 (76)	Fremont	89	99.6 (13)	69.0 (24)	Van Buren	68	80.0 (47)	56.3 (66)	Howard	75	68.5 (75)	43.9 (93)	Wayne	82	107.6 (02)	66.4 (38)	Ida	62	69.2 (73)	51.8 (79)	Worth	81	92.7 (23)	67.2 (33)	<b>Total</b>	<b>1,275</b>	<b>82.6</b>	<b>57.2</b>																																																																																																																									
	Counties with Average Population 10,000 to 20,000	Allamakee	116	73.5 (58)	55.3 (71)	Humboldt	111	95.9 (15)	64.3 (44)	Iowa	110	66.1 (82)	53.0 (77)	Appanoose	134	88.5 (29)	62.5 (47)	lowa	110	66.1 (82)	53.0 (77)	Butler	122	71.4 (67)	50.1 (81)	Jefferson	99	54.8 (94)	50.9 (80)	Calhoun	125	99.6 (13)	63.2 (46)	Keokuk	131	103.5 (07)	76.1 (11)	Cass	156	94.8 (18)	65.5 (42)	Kossuth	142	72.6 (61)	52.0 (78)	Cedar	137	69.9 (70)	57.7 (62)	Louisa	89	68.0 (78)	60.8 (54)	Cherokee	119	79.5 (50)	58.1 (60)	Lyon	94	72.2 (63)	55.5 (70)	Chickasaw	118	81.0 (43)	62.2 (50)	Madison	116	79.7 (49)	67.3 (32)	Clay	136	70.3 (69)	56.7 (65)	Mills	112	74.0 (57)	70.9 (22)	Clayton	149	71.7 (65)	54.1 (74)	Mitchell	109	90.8 (27)	59.7 (57)	Crawford	134	72.5 (62)	55.1 (72)	Monona	124	112.2 (01)	67.2 (33)	Delaware	136	67.5 (79)	60.9 (53)	Montgomery	124	94.5 (19)	66.9 (35)	Dickinson	181	104.8 (05)	68.4 (26)	O'Brien	104	61.1 (86)	43.8 (94)	Emmet	104	82.9 (39)	62.4 (48)	Page	197	105.5 (04)	76.1 (11)	Floyd	172	91.9 (25)	67.5 (31)	Palo Alto	105	92.0 (24)	62.3 (49)	Franklin	68	56.0 (93)	39.4 (97)	Poweshiek	118	56.7 (91)	45.4 (92)	Greene	83	73.4 (59)	49.1 (83)	Sac	92	69.9 (70)	45.7 (91)	Grundy	82	61.1 (86)	42.1 (95)	Shelby	102	69.9 (70)	48.5 (84)	Guthrie	116	94.1 (21)	63.5 (45)	Tama	147	75.0 (55)	58.1 (60)	Hamilton	162	90.4 (28)	70.1 (23)	Union	143	104.4 (06)	81.6 (04)	Hancock	92	68.5 (75)	53.2 (75)	Winnebago	63	48.4 (96)	37.7 (98)	Hardin	184	88.3 (31)	60.4 (55)	Wright	137	86.3 (35)	57.6 (63)	Harrison	177	106.0 (03)	81.9 (03)	<b>Total</b>	<b>5,572</b>	<b>79.6</b>	<b>59.0</b>
		Counties with Average Population > 20,000	Benton	203	77.3 (51)	66.9 (35)	Jones	177	80.0 (47)	68.3 (27)	Boone	239	84.9 (37)	67.9 (30)	Lee	433	101.7 (09)	83.6 (02)	Bremer	170	66.7 (81)	55.6 (69)	Mahaska	200	82.8 (40)	68.1 (29)	Buchanan	170	73.4 (59)	66.0 (40)	Marion	241	70.7 (68)	61.4 (51)	Buena Vista	130	58.0 (89)	46.7 (88)	Marshall	429	100.6 (11)	79.6 (05)	Carroll	190	80.1 (46)	64.4 (43)	Muscatine	313	69.2 (73)	68.6 (25)	Cerro Gordo	490	94.9 (17)	74.9 (14)	Plymouth	151	56.6 (92)	47.3 (86)	Clinton	479	85.5 (36)	72.5 (19)	Sioux	129	37.7 (97)	34.6 (99)	Des Moines	416	88.4 (30)	74.7 (15)	Story	314	37.2 (98)	49.6 (82)	Fayette	197	81.0 (43)	61.2 (52)	Wapello	396	100.0 (12)	78.1 (09)	Henry	163	74.5 (56)	65.8 (41)	Washington	129	58.0 (89)	46.1 (89)	Jackson	194	87.5 (32)	71.3 (20)	Webster	411	93.5 (22)	75.6 (13)	Jasper	376	95.6 (16)	79.0 (07)	Winneshiek	126	54.2 (95)	47.7 (85)	<b>Total</b>	<b>6,866</b>	<b>76.6</b>	<b>66.2</b>																																																																															
			MSA Counties	Black Hawk	1,144	82.0 (42)	78.4 (08)	Polk	2,775	71.5 (66)	79.6 (05)	Dallas	252	66.0 (83)	66.7 (37)	Pottawattamie	850	91.2 (26)	85.9 (01)	Dubuque	782	80.5 (45)	74.1 (17)	Scott	1,233	71.9 (64)	77.6 (10)	Johnson	393	34.4 (99)	55.8 (67)	Warren	265	62.5 (84)	68.3 (27)	Linn	1,360	68.3 (77)	71.3 (20)	Woodbury	866	77.0 (52)	73.8 (18)	<b>Total</b>	<b>9,920</b>	<b>71.1</b>	<b>75.6</b>																																																																																																																																														
				<b>State Totals</b>	<b>23,633</b>	<b>75.1</b>	<b>67.2</b>																																																																																																																																																																																						

<sup>1</sup>Rates per 100,000 population

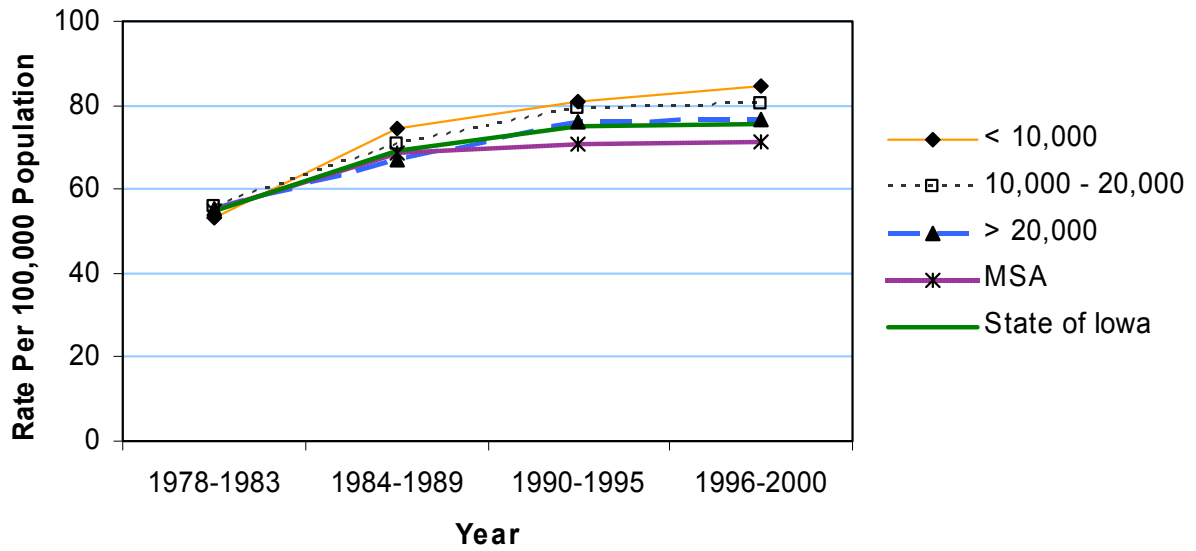
<sup>2</sup>Adjusted to Year 2000 population

<sup>3</sup>Rank among 99 Iowa counties

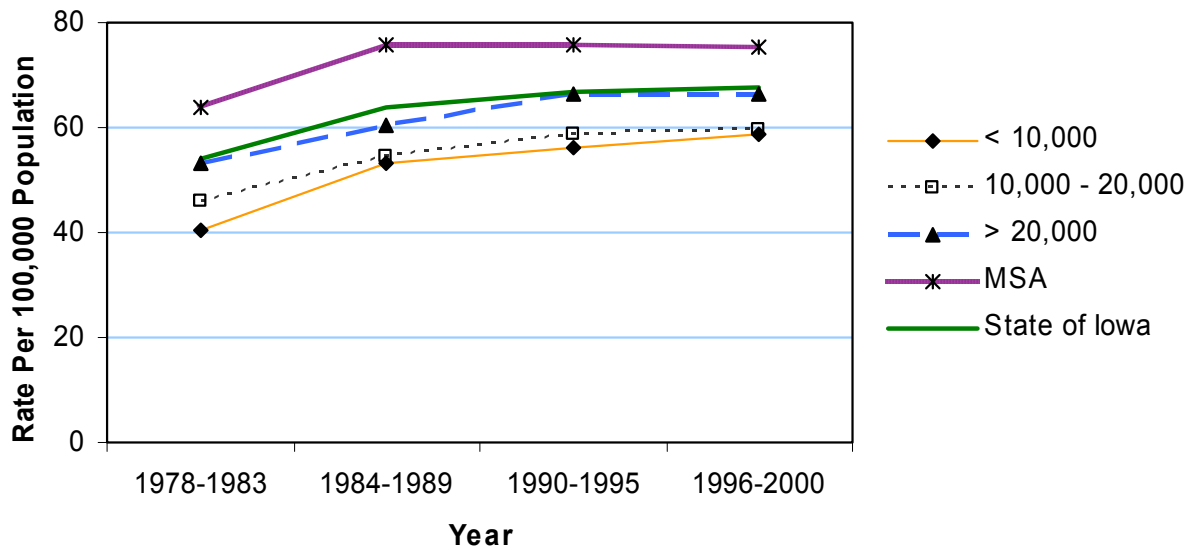
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

# Lung & Bronchus Cancer Incidence by County Group 1978-2000

## Crude Rates



## Age-Adjusted Rates



## Lung & Bronchus Cancer Mortality 1990-2000

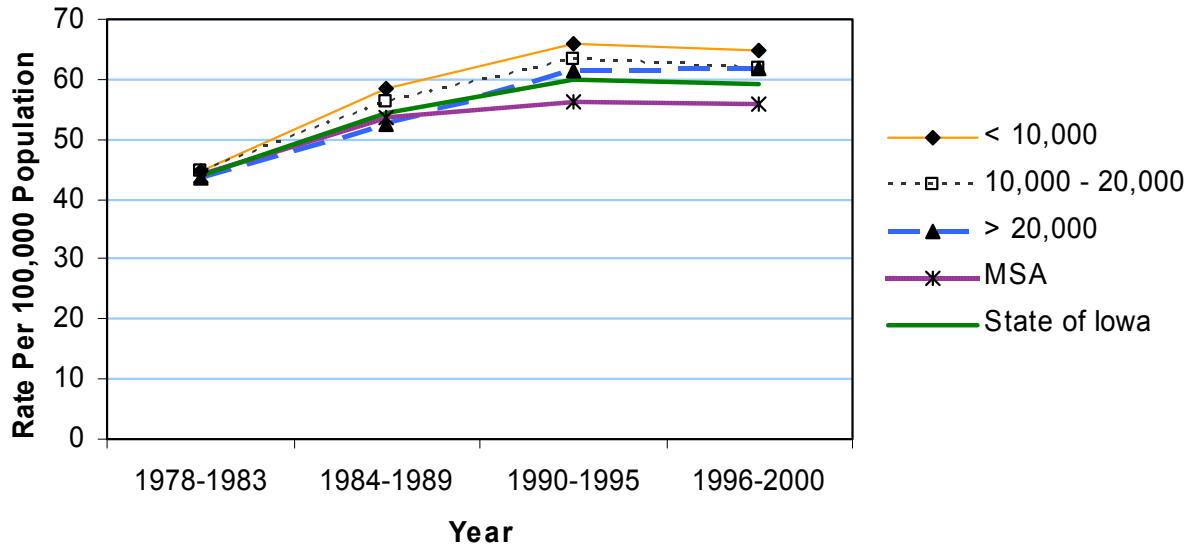
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
	<b>Counties with Average Population &lt; 10,000</b>	Adair	68	73.9 (25)	45.6 (58)	Lucas	81	79.5 (11)
Adams		36	71.1 (29)	47.3 (51)	Monroe	70	78.2 (14)	56.1 (20)
Audubon		43	55.7 (66)	34.0 (93)	Osceola	36	45.6 (89)	34.8 (91)
Clarke		53	55.9 (65)	41.7 (73)	Pocahontas	75	75.1 (21)	48.5 (48)
Davis		55	59.3 (53)	45.8 (57)	Ringgold	46	77.2 (16)	43.2 (68)
Decatur		51	55.2 (67)	41.7 (73)	Taylor	50	64.7 (39)	37.0 (85)
Fremont		76	85.0 (06)	56.8 (18)	Van Buren	48	56.5 (63)	39.9 (80)
Howard		55	50.3 (84)	30.4 (97)	Wayne	66	86.6 (03)	51.3 (37)
Ida		45	50.2 (85)	36.4 (87)	Worth	56	64.1 (40)	44.0 (62)
					<b>Total</b>	1,010	65.4	44.1
<b>Counties with Average Population 10,000 to 20,000</b>		Allamakee	89	56.4 (64)	41.4 (76)	Humboldt	96	83 (08)
	Appanoose	96	63.4 (43)	43.8 (64)	Iowa	89	53.5 (72)	42.4 (70)
	Butler	104	60.8 (48)	41.8 (71)	Jefferson	82	45.4 (92)	41.2 (77)
	Calhoun	101	80.5 (09)	49.8 (45)	Keokuk	88	69.5 (32)	51.8 (36)
	Cass	130	79 (12)	53 (31)	Kossuth	100	51.1 (81)	36.5 (86)
	Cedar	98	50 (86)	39.8 (81)	Louisa	65	49.6 (87)	44.3 (60)
	Cherokee	79	52.8 (75)	37.4 (84)	Lyon	80	61.4 (47)	46.3 (55)
	Chickasaw	86	59.1 (55)	45 (59)	Madison	88	60.4 (49)	50.2 (41)
	Clay	112	57.9 (60)	46.4 (54)	Mills	88	58.1 (58)	55.6 (24)
	Clayton	121	58.3 (57)	43.8 (64)	Mitchell	85	70.8 (30)	46 (56)
	Crawford	106	57.4 (62)	43.8 (64)	Monona	99	89.5 (01)	52.1 (34)
	Delaware	104	51.6 (79)	46.5 (53)	Montgomery	109	83.1 (07)	60.3 (09)
	Dickinson	139	80.5 (09)	52.9 (32)	O'Brien	87	51.1 (81)	34.1 (92)
	Emmet	75	59.8 (51)	44.3 (60)	Page	141	75.5 (20)	53.3 (28)
	Floyd	134	71.6 (27)	52 (35)	Palo Alto	78	68.3 (33)	46.6 (52)
	Franklin	63	51.9 (78)	35.8 (89)	Poweshiek	109	52.4 (76)	40.6 (78)
	Greene	68	60.2 (50)	40.5 (79)	Sac	70	53.2 (74)	33.3 (95)
	Grundy	60	44.7 (93)	30.2 (98)	Shelby	76	52.1 (77)	36 (88)
	Guthrie	95	77 (17)	50.8 (38)	Tama	106	54.1 (71)	41.5 (75)
	Hamilton	132	73.7 (26)	56 (21)	Union	104	76 (19)	57.7 (16)
Hancock	74	55.1 (68)	43.6 (67)	Winnebago	56	43 (96)	32.1 (96)	
Hardin	156	74.8 (22)	50 (44)	Wright	118	74.3 (24)	48 (49)	
Harrison	144	86.2 (04)	65.7 (03)	<b>Total</b>	4,380	62.6	45.6	
<b>Counties with Average Population &gt; 20,000</b>	Benton	155	59.1 (55)	50.6 (39)	Jones	131	59.2 (54)	49.6 (47)
	Boone	191	67.8 (34)	53.1 (30)	Lee	365	85.7 (05)	70.0 (01)
	Bremer	131	51.4 (80)	41.8 (71)	Mahaska	152	62.9 (44)	50.2 (41)
	Buchanan	145	62.6 (45)	54.9 (25)	Marion	197	57.8 (61)	50.1 (43)
	Buena Vista	102	45.5 (90)	35.4 (90)	Marshall	372	87.3 (02)	67.8 (02)
	Carroll	141	59.4 (52)	47.6 (50)	Muscataine	241	53.3 (73)	52.6 (33)
	Cerro Gordo	407	78.8 (13)	62.0 (08)	Plymouth	126	47.2 (88)	39.3 (82)
	Clinton	395	70.5 (31)	59.2 (12)	Sioux	99	29.0 (98)	26.3 (99)
	Des Moines	316	67.1 (38)	55.8 (22)	Story	274	32.4 (97)	43.0 (69)
	Fayette	165	67.8 (34)	50.5 (40)	Wapello	308	77.7 (15)	60.3 (09)
	Henry	140	63.9 (41)	55.7 (23)	Washington	96	43.1 (95)	33.5 (94)
	Jackson	158	71.3 (28)	57.7 (16)	Webster	328	74.6 (23)	60.1 (11)
	Jasper	301	76.5 (18)	62.6 (07)	Winneshiek	102	43.9 (94)	38.3 (83)
					<b>Total</b>	5,538	61.7	52.8
<b>MSA Counties</b>	Black Hawk	938	67.2 (37)	64.2 (05)	Polk	2,249	58.0 (59)	64.6 (04)
	Dallas	208	54.4 (70)	54.4 (26)	Pottawattamie	630	67.6 (36)	64.0 (06)
	Dubuque	620	63.8 (42)	58.3 (15)	Scott	937	54.6 (69)	59.1 (13)
	Johnson	306	26.8 (99)	43.9 (63)	Warren	193	45.5 (90)	49.8 (45)
	Linn	1017	51.1 (81)	53.3 (28)	Woodbury	701	62.3 (46)	59.1 (13)
					<b>Total</b>	7,799	55.9	59.4
<b>State Totals</b>	18,727	59.5	52.7					

<sup>1</sup>Rates per 100,000 population  
<sup>2</sup>Adjusted to Year 2000 population  
<sup>3</sup>Rank among 99 Iowa counties

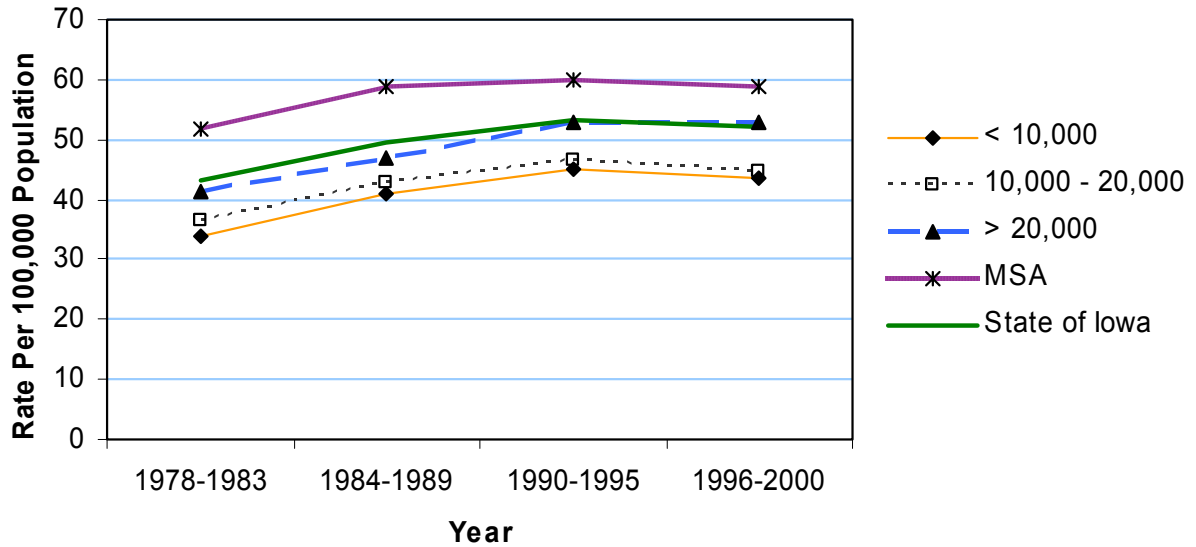
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

# Lung & Bronchus Cancer Mortality by County Group 1978-2000

## Crude Rates



## Age-Adjusted Rates



## Female Breast Cancer Incidence 1990-2000

	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with Average Population < 10,000	Adair	61	128.9 (88)	88.6 (99)	Lucas	73	138.1 (77)	98.7 (97)
	Adams	45	174.6 (28)	110.1 (83)	Monroe	62	134.4 (81)	100.0 (95)
	Audubon	85	211.8 (04)	146.1 (06)	Osceola	76	187.6 (15)	131.3 (36)
	Clarke	65	132.3 (83)	107.6 (87)	Pocahontas	86	167.9 (33)	117.1 (69)
	Davis	75	159.0 (47)	117.8 (65)	Ringgold	57	183.8 (17)	115.8 (77)
	Decatur	73	153.5 (54)	116.8 (72)	Taylor	92	228.4 (01)	167.8 (01)
	Fremont	99	213.2 (03)	158.6 (02)	Van Buren	78	182.0 (20)	136.3 (25)
	Howard	83	148.6 (62)	109.7 (86)	Wayne	72	180.4 (23)	113.6 (78)
	Ida	91	196.9 (10)	136.5 (22)	Worth	72	161.4 (44)	116.4 (76)
					<b>Total</b>	1,345	169.2	121.0
Counties with Average Population 10,000 to 20,000	Allamakee	105	131.6 (86)	99.0 (96)	Humboldt	107	180.2 (24)	128.0 (43)
	Appanoose	110	138.9 (76)	105.9 (90)	Iowa	109	127.4 (90)	104.1 (94)
	Butler	160	183.5 (18)	126.8 (47)	Jefferson	122	131.8 (85)	113.1 (80)
	Calhoun	132	205.7 (06)	141.8 (10)	Keokuk	96	147.5 (66)	111.6 (82)
	Cass	184	215.3 (02)	140.5 (12)	Kossuth	159	158.5 (48)	116.9 (71)
	Cedar	125	125.3 (93)	96.4 (98)	Louisa	89	135.5 (79)	121.9 (56)
	Cherokee	155	202.0 (07)	142.2 (09)	Lyon	107	162.0 (42)	123.3 (54)
	Chickasaw	93	127.4 (90)	105.3 (91)	Madison	113	152.4 (57)	124.9 (49)
	Clay	174	172.8 (32)	139.4 (14)	Mills	124	163.3 (38)	149.6 (03)
	Clayton	187	177.5 (27)	138.9 (15)	Mitchell	100	162.5 (41)	117.7 (67)
	Crawford	147	156.6 (51)	130.1 (40)	Monona	95	165.2 (35)	117.0 (70)
	Delaware	131	128.5 (89)	116.6 (73)	Montgomery	124	179.2 (26)	124.8 (51)
	Dickinson	148	166.0 (34)	117.9 (64)	O'Brien	177	201.8 (08)	147.0 (04)
	Emmet	107	165.1 (36)	118.9 (61)	Page	183	194.1 (12)	138.4 (16)
	Floyd	191	195.9 (11)	144.0 (07)	Palo Alto	107	182.1 (19)	131.2 (38)
	Franklin	125	200.1 (09)	137.6 (20)	Poweshiek	143	132.3 (83)	104.5 (93)
	Greene	108	184.6 (16)	134.0 (31)	Sac	122	181.0 (21)	124.9 (49)
	Grundy	120	173.6 (30)	127.2 (45)	Shelby	108	144.7 (72)	109.8 (85)
	Guthrie	98	154.8 (53)	105.2 (92)	Tama	159	158.2 (49)	117.7 (67)
	Hamilton	149	163.0 (40)	120.6 (57)	Union	129	179.5 (25)	135.1 (28)
Hancock	130	189.6 (13)	139.7 (13)	Winnebago	99	148.1 (64)	107.5 (88)	
Hardin	203	189.4 (14)	133.1 (32)	Wright	171	207.9 (05)	147.0 (04)	
Harrison	126	147.1 (68)	117.8 (65)	<b>Total</b>	5,951	165.8	124.3	
Counties with Average Population > 20,000	Benton	161	121.6 (96)	106.5 (89)	Jones	158	149.7 (61)	122.0 (55)
	Boone	252	173.3 (31)	138.1 (17)	Lee	315	145.7 (70)	116.5 (74)
	Bremer	210	159.8 (45)	133.1 (32)	Mahaska	195	159.1 (46)	129.7 (41)
	Buchanan	146	124.4 (95)	110.0 (84)	Marion	262	152.8 (56)	130.6 (39)
	Buena Vista	184	161.6 (43)	127.2 (45)	Marshall	327	150.9 (60)	123.5 (53)
	Carroll	193	158.0 (50)	126.0 (48)	Muscatine	319	139.0 (75)	131.3 (36)
	Cerro Gordo	488	180.7 (22)	143.7 (08)	Plymouth	211	156.2 (52)	138.1 (17)
	Clinton	473	163.2 (39)	137.7 (19)	Sioux	219	125.1 (94)	118.6 (62)
	Des Moines	358	146.4 (69)	116.5 (74)	Story	455	111.0 (98)	131.6 (35)
	Fayette	190	153.2 (55)	113.4 (79)	Wapello	358	174.5 (29)	135.3 (27)
	Henry	164	151.3 (58)	127.7 (44)	Washington	171	148.3 (63)	119.5 (58)
	Jackson	161	143.0 (74)	119.1 (59)	Webster	372	164.6 (37)	132.6 (34)
	Jasper	294	147.7 (65)	118.4 (63)	Winneshiek	150	126.7 (92)	119.1 (59)
					<b>Total</b>	6,786	148.9	126.8
MSA Counties	Black Hawk	1,046	143.7 (73)	135.0 (29)	Polk	2,691	133.7 (82)	136.4 (23)
	Dallas	287	147.5 (66)	141.5 (11)	Pottawattamie	653	135.9 (78)	124.1 (52)
	Dubuque	757	151.2 (59)	137.6 (20)	Scott	1,191	135.3 (80)	135.6 (26)
	Johnson	568	99.0 (99)	136.4 (23)	Warren	242	111.2 (97)	112.2 (81)
	Linn	1,339	131.5 (87)	128.3 (42)	Woodbury	837	144.8 (71)	134.3 (30)
	<b>State Totals</b>	23,693	146.9	128.8	<b>Total</b>	9,611	133.8	133.3

<sup>1</sup>Rates per 100,000 population

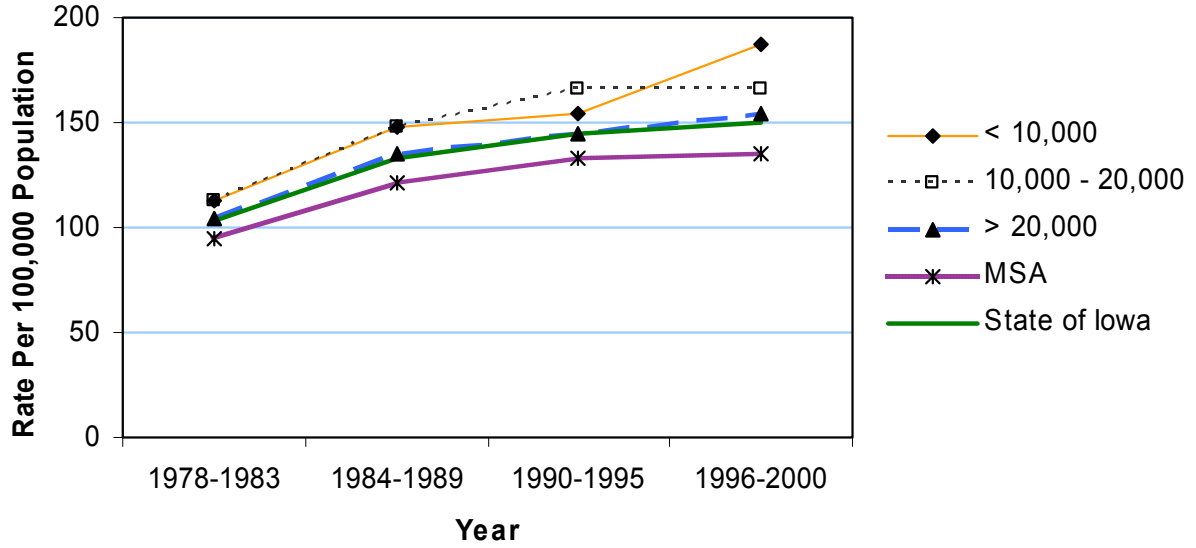
<sup>2</sup>Adjusted to Year 2000 population

<sup>3</sup>Rank among 99 Iowa counties

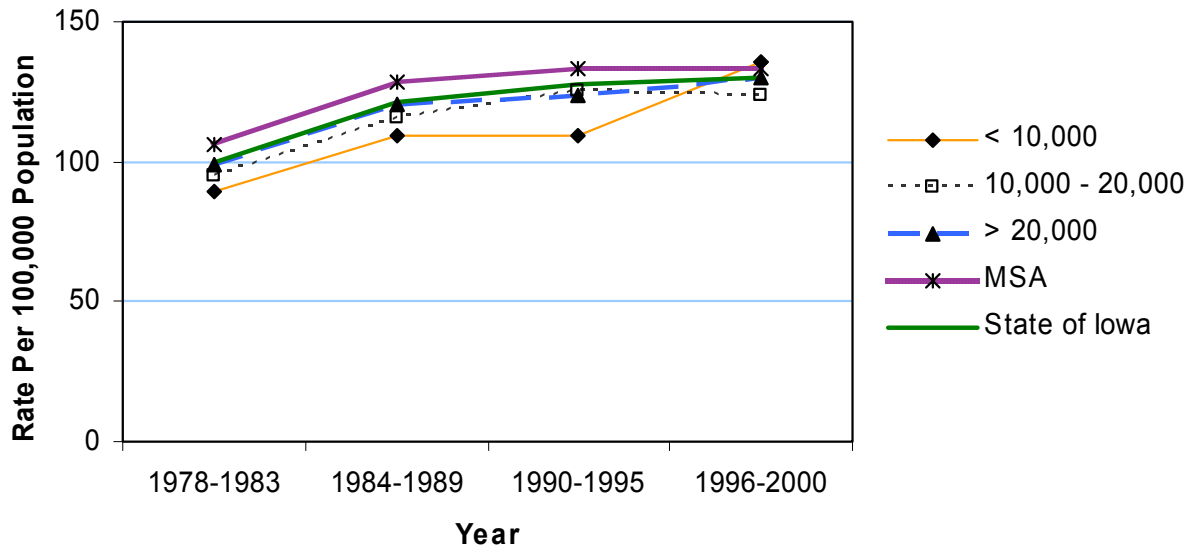
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Female Breast Cancer Incidence by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Female Breast Cancer Mortality 1990-2000

	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
	<b>Counties with Average Population &lt; 10,000</b>	Adair	16	33.8 (69)	22.0 (88)	Lucas	11	20.8 (99)
	Adams	9	34.9 (68)	20.0 (91)	Monroe	17	36.9 (61)	26.4 (68)
	Audubon	12	29.9 (85)	17.6 (96)	Osceola	17	42.0 (41)	25.2 (73)
	Clarke	24	48.8 (18)	36.8 (13)	Pocahontas	27	52.7 (06)	29.2 (42)
	Davis	11	23.3 (97)	17.9 (95)	Ringgold	11	35.5 (65)	13.6 (99)
	Decatur	23	48.4 (19)	34.9 (18)	Taylor	28	69.5 (01)	43.0 (01)
	Fremont	23	49.5 (13)	39.7 (04)	Van Buren	20	46.7 (25)	32.3 (25)
	Howard	32	57.3 (03)	39.6 (05)	Wayne	18	45.1 (33)	27.0 (60)
	Ida	21	45.4 (31)	30.5 (31)	Worth	18	40.3 (49)	24.8 (75)
					<b>Total</b>	338	42.5	27.8
<b>Counties with Average Population 10,000 to 20,000</b>	Allamakee	37	46.4 (26)	29.2 (42)	Humboldt	24	40.4 (47)	23.3 (84)
	Appanoose	33	41.7 (42)	27.6 (56)	Iowa	27	31.6 (82)	26.6 (63)
	Butler	43	49.3 (16)	29.6 (37)	Jefferson	41	44.3 (37)	37.6 (09)
	Calhoun	32	49.9 (12)	26.5 (67)	Keokuk	22	33.8 (69)	22.7 (86)
	Cass	32	37.4 (60)	23.2 (85)	Kossuth	46	45.9 (29)	32.5 (24)
	Cedar	38	38.1 (56)	24.8 (75)	Louisa	25	38.1 (56)	29.4 (38)
	Cherokee	40	52.1 (07)	33.9 (20)	Lyon	33	50.0 (11)	35.3 (17)
	Chickasaw	33	45.2 (32)	31.2 (28)	Madison	32	43.1 (40)	30.9 (30)
	Clay	39	38.7 (54)	29.2 (42)	Mills	31	40.8 (46)	37.4 (10)
	Clayton	50	47.5 (22)	37.2 (12)	Mitchell	27	43.9 (39)	27.6 (56)
	Crawford	25	26.6 (92)	21.2 (90)	Monona	29	50.4 (10)	26.4 (68)
	Delaware	33	32.4 (78)	27.6 (56)	Montgomery	22	31.8 (81)	21.4 (89)
	Dickinson	45	50.5 (09)	31.6 (27)	O'Brien	42	47.9 (21)	32.8 (23)
	Emmet	32	49.4 (14)	30.0 (35)	Page	42	44.5 (35)	26.2 (70)
	Floyd	45	46.1 (27)	33.0 (22)	Palo Alto	29	49.4 (14)	31.8 (26)
	Franklin	25	40.0 (50)	24.6 (77)	Poweshiek	29	26.8 (91)	19.8 (93)
	Greene	24	41.0 (45)	25.0 (74)	Sac	32	47.5 (22)	28.6 (51)
	Grundy	38	55.0 (04)	35.7 (15)	Shelby	18	24.1 (96)	17.4 (97)
	Guthrie	24	37.9 (58)	23.7 (79)	Tama	52	51.7 (08)	38.3 (06)
	Hamilton	32	35.0 (67)	23.4 (81)	Union	28	39.0 (52)	26.9 (61)
	Hancock	19	27.7 (89)	23.5 (80)	Winnebago	27	40.4 (47)	26.6 (63)
	Hardin	66	61.6 (02)	40.1 (03)	Wright	37	45.0 (34)	28.3 (52)
	Harrison	34	39.7 (51)	27.8 (53)	<b>Total</b>	1,514	42.2	28.9
<b>Counties with Average Population &gt; 20,000</b>	Benton	43	32.5 (77)	26.1 (71)	Jones	34	32.2 (79)	22.1 (87)
	Boone	48	33.0 (73)	23.4 (81)	Lee	96	44.4 (36)	34.4 (19)
	Bremer	51	38.8 (53)	29.2 (42)	Mahaska	59	48.1 (20)	37.9 (07)
	Buchanan	54	46.0 (28)	37.8 (08)	Marion	56	32.7 (75)	25.7 (72)
	Buena Vista	41	36.0 (64)	26.6 (63)	Marshall	96	44.3 (37)	33.5 (21)
	Carroll	66	54.0 (05)	40.6 (02)	Muscatine	75	32.7 (75)	29.9 (36)
	Cerro Gordo	124	45.9 (29)	35.5 (16)	Plymouth	64	47.4 (24)	37.4 (10)
	Clinton	111	38.3 (55)	29.3 (41)	Sioux	54	30.8 (83)	27.3 (59)
	Des Moines	66	27.0 (90)	19.9 (92)	Story	109	26.6 (92)	29.4 (38)
	Fayette	51	41.1 (44)	30.3 (33)	Wapello	101	49.2 (17)	36.1 (14)
	Henry	33	30.4 (84)	24.3 (78)	Washington	42	36.4 (62)	26.9 (61)
	Jackson	29	25.8 (94)	18.7 (94)	Webster	93	41.2 (43)	31.1 (29)
	Jasper	75	37.7 (59)	28.8 (47)	Winneshiek	42	35.5 (65)	26.6 (63)
					<b>Total</b>	1,713	37.6	29.8
<b>MSA Counties</b>	Black Hawk	233	32.0 (80)	28.7 (49)	Polk	601	29.9 (85)	29.4 (38)
	Dallas	64	32.9 (74)	30.4 (32)	Pottawattamie	159	33.1 (72)	28.9 (46)
	Dubuque	182	36.4 (62)	30.1 (34)	Scott	259	29.4 (87)	28.7 (49)
	Johnson	122	21.3 (98)	28.8 (47)	Warren	62	28.5 (88)	27.8 (53)
	Linn	255	25.0 (95)	23.4 (81)	Woodbury	195	33.7 (71)	27.7 (55)
					<b>Total</b>	2,132	29.7	28.3
<b>State Totals</b>		5,697	35.3	28.8				

<sup>1</sup>Rates per 100,000 population

<sup>2</sup>Adjusted to Year 2000 population

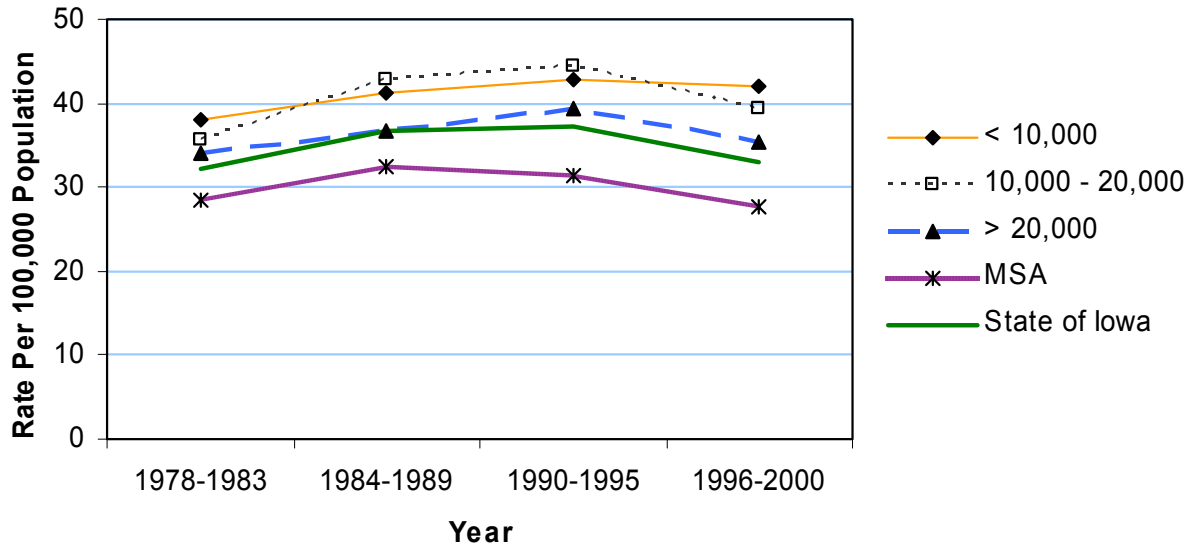
<sup>3</sup>Rank among 99 Iowa counties

Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

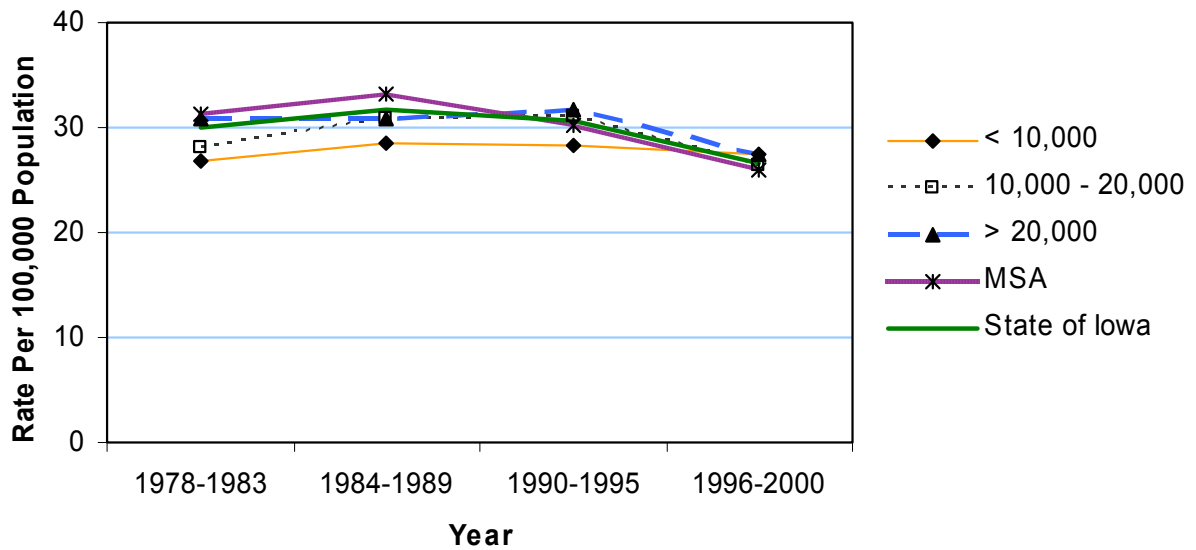


## Female Breast Cancer Mortality by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Colorectal Cancer Incidence 1990-2000

	Average Population < 10,000				Average Population 10,000 to 20,000				Average Population > 20,000				MSA Counties			
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with Average Population < 10,000	Adair	78	84.8 (53)	48.8 (99)	Lucas	93	91.2 (35)	60.8 (66)	Monroe	71	79.3 (63)	52.7 (91)	Osceola	74	93.8 (32)	62.2 (59)
	Adams	42	83.0 (57)	49.9 (98)	Pocahontas	111	111.2 (11)	70.6 (23)	Ringgold	59	99.0 (23)	58.8 (76)	Taylor	101	130.7 (02)	76.2 (05)
	Audubon	66	85.5 (52)	52.5 (93)	Van Buren	90	105.9 (14)	73.4 (16)	Wayne	80	104.9 (15)	58.0 (81)	Worth	71	81.3 (58)	56.5 (87)
	Clarke	64	67.5 (87)	50.0 (97)	<b>Total</b>	<b>1,480</b>	<b>95.9</b>	<b>62.9</b>								
	Davis	78	84.1 (54)	58.3 (79)	Allamakee	163	103.3 (19)	73.6 (13)	Humboldt	129	111.5 (09)	71.8 (19)	Iowa	128	76.9 (71)	58.0 (81)
	Decatur	90	97.4 (27)	72.0 (18)	Appanoose	170	112.3 (08)	74.8 (10)	lowa	128	76.9 (71)	58.0 (81)	Jefferson	126	69.7 (82)	62.7 (54)
	Fremont	105	117.5 (03)	80.5 (02)	Butler	149	87.2 (47)	58.5 (78)	Keokuk	135	106.7 (13)	70.8 (22)	Keokuk	135	106.7 (13)	70.8 (22)
	Howard	122	111.5 (09)	75.6 (06)	Calhoun	131	104.4 (16)	65.5 (37)	Kossuth	172	87.9 (44)	62.4 (58)	Louisa	94	71.8 (78)	63.9 (48)
	Ida	85	94.9 (29)	65.2 (39)	Cass	152	92.4 (33)	57.0 (86)	Lyon	117	89.8 (37)	66.2 (33)	Madison	97	66.6 (90)	52.6 (92)
					Cedar	129	65.9 (91)	50.6 (96)	Mills	113	74.7 (75)	71.0 (21)	Monona	149	134.8 (01)	74.2 (11)
				Cherokee	129	86.1 (50)	58.9 (75)	Mitchell	107	89.1 (39)	59.8 (71)	Montgomery	137	104.4 (16)	64.5 (43)	
				Chickasaw	109	74.8 (74)	57.6 (84)	Monona	149	134.8 (01)	74.2 (11)	O'Brien	197	115.7 (05)	77.0 (04)	
				Clay	162	83.7 (55)	64.3 (45)	Montgomery	137	104.4 (16)	64.5 (43)	O'Brien	197	115.7 (05)	77.0 (04)	
				Clayton	184	88.6 (41)	65.5 (37)	Mills	113	74.7 (75)	71.0 (21)	Page	166	88.9 (40)	60.1 (69)	
				Crawford	160	86.6 (49)	66.2 (33)	Mitchell	107	89.1 (39)	59.8 (71)	Palo Alto	132	115.7 (05)	75.0 (08)	
				Delaware	141	70.0 (80)	62.6 (56)	Monona	149	134.8 (01)	74.2 (11)	Poweshiek	182	87.4 (46)	68.1 (28)	
				Dickinson	152	88.0 (43)	58.0 (81)	Montgomery	137	104.4 (16)	64.5 (43)	Sac	136	103.3 (19)	63.1 (50)	
				Emmet	110	87.7 (45)	61.1 (65)	O'Brien	197	115.7 (05)	77.0 (04)	Shelby	143	98.0 (25)	67.7 (29)	
				Floyd	161	86.0 (51)	61.4 (62)	Page	166	88.9 (40)	60.1 (69)	Tama	179	91.3 (34)	62.7 (54)	
				Franklin	110	90.6 (36)	63.1 (50)	Palo Alto	132	115.7 (05)	75.0 (08)	Union	121	88.4 (42)	62.1 (61)	
				Greene	124	109.7 (12)	65.0 (40)	Poweshiek	182	87.4 (46)	68.1 (28)	Winnebago	88	67.6 (86)	51.3 (94)	
				Grundy	103	76.8 (72)	53.6 (90)	Sac	136	103.3 (19)	63.1 (50)	Wright	184	115.9 (04)	73.6 (13)	
				Guthrie	122	98.9 (24)	64.3 (45)	Shelby	143	98.0 (25)	67.7 (29)	<b>Total</b>	<b>6,348</b>	<b>90.7</b>	<b>64.1</b>	
				Hamilton	145	80.9 (62)	59.7 (72)	Tama	179	91.3 (34)	62.7 (54)					
				Hancock	106	78.9 (65)	58.2 (80)	Union	121	88.4 (42)	62.1 (61)					
				Hardin	235	112.7 (07)	71.3 (20)	Winnebago	88	67.6 (86)	51.3 (94)					
				Harrison	169	101.2 (21)	73.5 (15)	Wright	184	115.9 (04)	73.6 (13)					
								<b>Total</b>	<b>6,348</b>	<b>90.7</b>	<b>64.1</b>					
Counties with Average Population > 20,000	Benton	218	83.1 (56)	68.9 (25)	Jones	175	79.0 (64)	66.8 (31)	Lee	346	81.2 (60)	65.8 (35)	Mahaska	190	78.6 (66)	62.6 (56)
	Boone	229	81.3 (58)	63.0 (52)	Lee	346	81.2 (60)	65.8 (35)	Mahaska	190	78.6 (66)	62.6 (56)	Marion	232	68.0 (85)	56.5 (87)
	Bremer	198	77.7 (69)	64.0 (47)	Mahaska	190	78.6 (66)	62.6 (56)	Marion	232	68.0 (85)	56.5 (87)	Marshall	318	74.6 (76)	57.6 (84)
	Buchanan	160	69.1 (83)	61.2 (64)	Marion	232	68.0 (85)	56.5 (87)	Marshall	318	74.6 (76)	57.6 (84)	Muscatine	316	69.8 (81)	68.3 (27)
	Buena Vista	233	104.0 (18)	78.2 (03)	Marshall	318	74.6 (76)	57.6 (84)	Muscatine	316	69.8 (81)	68.3 (27)	Plymouth	261	97.8 (26)	81.8 (01)
	Carroll	239	100.7 (22)	74.9 (09)	Muscatine	316	69.8 (81)	68.3 (27)	Plymouth	261	97.8 (26)	81.8 (01)	Sioux	249	72.9 (77)	66.9 (30)
	Cerro Gordo	402	77.9 (68)	60.3 (67)	Plymouth	261	97.8 (26)	81.8 (01)	Sioux	249	72.9 (77)	66.9 (30)	Story	356	42.2 (98)	54.1 (89)
	Clinton	437	78.0 (67)	64.8 (42)	Sioux	249	72.9 (77)	66.9 (30)	Story	356	42.2 (98)	54.1 (89)	Wapello	344	86.8 (48)	66.6 (32)
	Des Moines	420	89.2 (38)	72.8 (17)	Story	356	42.2 (98)	54.1 (89)	Wapello	344	86.8 (48)	66.6 (32)	Washington	209	93.9 (31)	70.5 (24)
	Fayette	197	81.0 (61)	59.5 (73)	Wapello	344	86.8 (48)	66.6 (32)	Washington	209	93.9 (31)	70.5 (24)	Webster	421	95.8 (28)	73.7 (12)
	Henry	164	74.9 (73)	62.2 (59)	Washington	209	93.9 (31)	70.5 (24)	Webster	421	95.8 (28)	73.7 (12)	Winneshiek	156	67.1 (88)	59.0 (74)
	Jackson	209	94.3 (30)	75.3 (07)	Webster	421	95.8 (28)	73.7 (12)	Winneshiek	156	67.1 (88)	59.0 (74)	<b>Total</b>	<b>6,984</b>	<b>77.9</b>	<b>65.6</b>
	Jasper	305	77.5 (70)	64.5 (43)	Winneshiek	156	67.1 (88)	59.0 (74)	<b>Total</b>	<b>6,984</b>	<b>77.9</b>	<b>65.6</b>				
					<b>Total</b>	<b>6,984</b>	<b>77.9</b>	<b>65.6</b>								
MSA Counties	Black Hawk	907	65.0 (92)	61.4 (62)	Polk	2,039	52.6 (97)	58.6 (77)	Pottawattamie	641	68.8 (84)	65.8 (35)	Scott	1,084	63.2 (93)	68.9 (25)
	Dallas	232	60.7 (95)	60.2 (68)	Pottawattamie	641	68.8 (84)	65.8 (35)	Scott	1,084	63.2 (93)	68.9 (25)	Warren	230	54.2 (96)	59.9 (70)
	Dubuque	689	70.9 (79)	65.0 (40)	Scott	1,084	63.2 (93)	68.9 (25)	Warren	230	54.2 (96)	59.9 (70)	Woodbury	754	67.0 (89)	63.0 (52)
	Johnson	362	31.7 (99)	51.0 (95)	Warren	230	54.2 (96)	59.9 (70)	Woodbury	754	67.0 (89)	63.0 (52)	<b>Total</b>	<b>8,160</b>	<b>58.5</b>	<b>62.0</b>
	Linn	1,222	61.4 (94)	63.9 (48)	Woodbury	754	67.0 (89)	63.0 (52)	<b>Total</b>	<b>8,160</b>	<b>58.5</b>	<b>62.0</b>				
	<b>State Totals</b>	<b>22,972</b>	<b>73.0</b>	<b>63.6</b>												

<sup>1</sup>Rates per 100,000 population

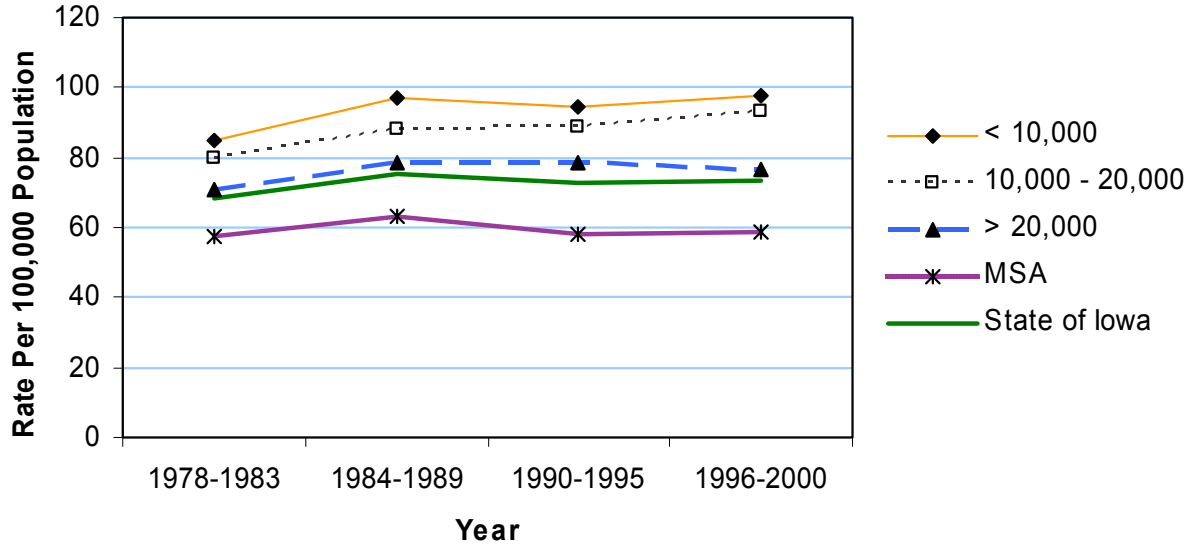
<sup>2</sup>Adjusted to Year 2000 population

<sup>3</sup>Rank among 99 Iowa counties

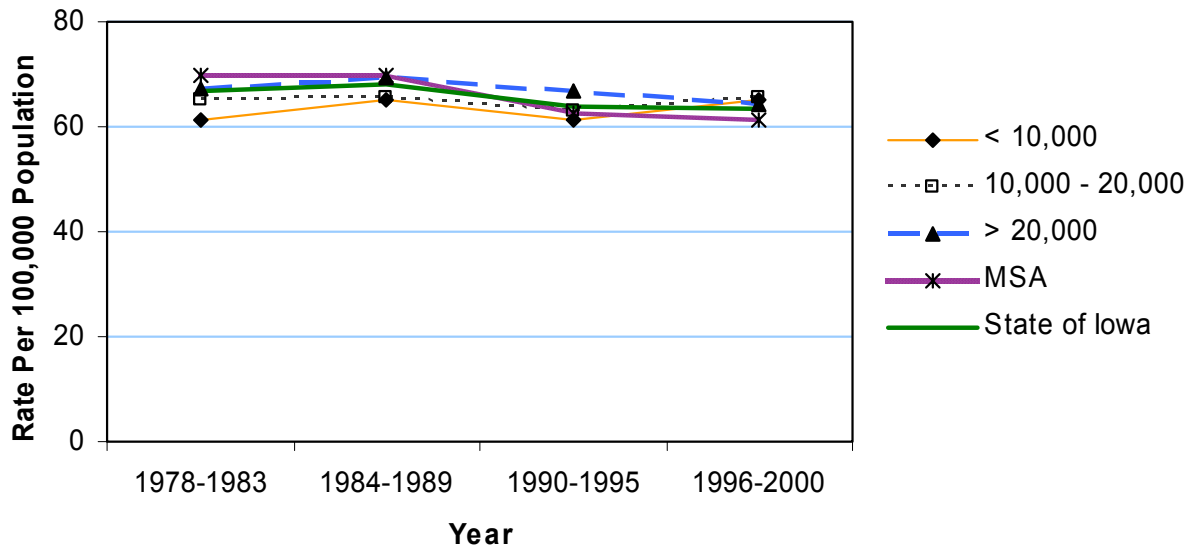
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Colorectal Cancer Incidence by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Colorectal Cancer Mortality 1990-2000

	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
<b>Counties with Average Population &lt; 10,000</b>	Adair	42	45.6 (10)	26.4 (22)	Lucas	38	37.3 (33)	23.6 (56)
	Adams	19	37.5 (31)	21.9 (72)	Monroe	33	36.9 (35)	23.5 (57)
	Audubon	24	31.1 (56)	19.7 (88)	Osceola	20	25.4 (86)	15.3 (99)
	Clarke	24	25.3 (88)	17.0 (98)	Pocahontas	49	49.1 (04)	29.8 (06)
	Davis	30	32.3 (51)	22.3 (70)	Ringgold	24	40.3 (17)	19.7 (88)
	Decatur	46	49.8 (03)	36.3 (01)	Taylor	39	50.5 (02)	27.5 (16)
	Fremont	40	44.7 (11)	29.4 (07)	Van Buren	39	45.9 (09)	31.5 (03)
	Howard	43	39.3 (23)	24.9 (37)	Wayne	36	47.2 (06)	24.0 (51)
	Ida	34	38.0 (27)	24.0 (51)	Worth	30	34.3 (42)	21.0 (83)
					<b>Total</b>	610	39.5	24.5
	<b>Counties with Average Population 10,000 to 20,000</b>	Allamakee	63	39.9 (19)	27.8 (14)	Humboldt	36	31.1 (56)
Appanoose		61	40.3 (17)	25.8 (25)	Iowa	57	34.2 (44)	24.0 (51)
Butler		63	36.8 (36)	24.3 (45)	Jefferson	44	24.3 (90)	21.4 (77)
Calhoun		53	42.2 (14)	25.1 (36)	Keokuk	48	37.9 (28)	25.7 (29)
Cass		62	37.7 (30)	22.8 (64)	Kossuth	60	30.7 (59)	21.8 (73)
Cedar		50	25.5 (85)	19.0 (93)	Louisa	38	29.0 (70)	26.0 (23)
Cherokee		42	28.0 (73)	18.6 (95)	Lyon	44	33.8 (45)	23.8 (54)
Chickasaw		44	30.2 (61)	22.4 (69)	Madison	43	29.5 (67)	23.2 (60)
Clay		65	33.6 (47)	24.8 (39)	Mills	41	27.1 (79)	25.8 (25)
Clayton		76	36.6 (37)	25.8 (25)	Mitchell	36	30.0 (62)	21.2 (81)
Crawford		73	39.5 (22)	28.7 (11)	Monona	65	58.8 (01)	29.9 (05)
Delaware		77	38.2 (25)	34.3 (02)	Montgomery	45	34.3 (42)	20.8 (85)
Dickinson		51	29.5 (67)	19.4 (90)	O'Brien	71	41.7 (16)	26.6 (21)
Emmet		35	27.9 (76)	19.3 (91)	Page	56	30.0 (62)	20.1 (87)
Floyd		61	32.6 (50)	22.7 (65)	Palo Alto	53	46.4 (08)	29.1 (10)
Franklin		44	36.2 (38)	24.2 (47)	Poweshiek	81	38.9 (24)	28.3 (13)
Greene		55	48.7 (05)	27.1 (18)	Sac	62	47.1 (07)	28.6 (12)
Grundy		35	26.1 (82)	17.8 (97)	Shelby	58	39.7 (20)	25.4 (34)
Guthrie		49	39.7 (20)	25.5 (31)	Tama	75	38.2 (25)	24.4 (43)
Hamilton		55	30.7 (59)	23.0 (62)	Union	49	35.8 (39)	24.3 (45)
Hancock	40	29.8 (64)	22.3 (70)	Winnebago	34	26.1 (82)	17.9 (96)	
Hardin	89	42.7 (12)	24.5 (41)	Wright	60	37.8 (29)	24.1 (49)	
Harrison	70	41.9 (15)	29.4 (07)	<b>Total</b>	2,469	35.3	24.1	
<b>Counties with Average Population &gt; 20,000</b>	Benton	88	33.5 (48)	27.6 (15)	Jones	62	28.0 (73)	23.3 (59)
	Boone	91	32.3 (51)	24.5 (41)	Lee	159	37.3 (33)	29.4 (07)
	Bremer	75	29.4 (69)	23.7 (55)	Mahaska	67	27.7 (77)	22.5 (68)
	Buchanan	69	29.8 (64)	25.8 (25)	Marion	93	27.3 (78)	21.8 (73)
	Buena Vista	95	42.4 (13)	31.2 (04)	Marshall	135	31.7 (55)	24.2 (47)
	Carroll	89	37.5 (31)	26.9 (19)	Muscatine	101	22.3 (94)	21.4 (77)
	Cerro Gordo	146	28.3 (71)	21.2 (81)	Plymouth	86	32.2 (53)	27.2 (17)
	Clinton	173	30.9 (58)	25.5 (31)	Sioux	96	28.1 (72)	24.4 (43)
	Des Moines	154	32.7 (49)	26.7 (20)	Story	143	16.9 (98)	21.3 (79)
	Fayette	82	33.7 (46)	25.7 (29)	Wapello	140	35.3 (41)	26.0 (23)
	Henry	65	29.7 (66)	23.1 (61)	Washington	79	35.5 (40)	24.7 (40)
	Jackson	71	32.0 (54)	24.9 (37)	Webster	113	25.7 (84)	18.9 (94)
	Jasper	104	26.4 (80)	21.7 (76)	Winneshiek	65	28.0 (73)	23.4 (58)
					<b>Total</b>	2,641	29.4	24.2
<b>MSA Counties</b>	Black Hawk	323	23.2 (92)	21.8 (73)	Polk	740	19.1 (97)	21.3 (79)
	Dallas	100	26.2 (81)	25.5 (31)	Pottawattamie	218	23.4 (91)	22.6 (67)
	Dubuque	247	25.4 (86)	22.9 (63)	Scott	377	22.0 (95)	24.1 (49)
	Johnson	142	12.4 (99)	20.2 (86)	Warren	88	20.7 (96)	22.7 (65)
	Linn	485	24.4 (89)	25.3 (35)	Woodbury	255	22.7 (93)	20.9 (84)
					<b>Total</b>	2,975	21.3	22.5
<b>State Totals</b>		8,695	27.6	23.6				

<sup>1</sup>Rates per 100,000 population

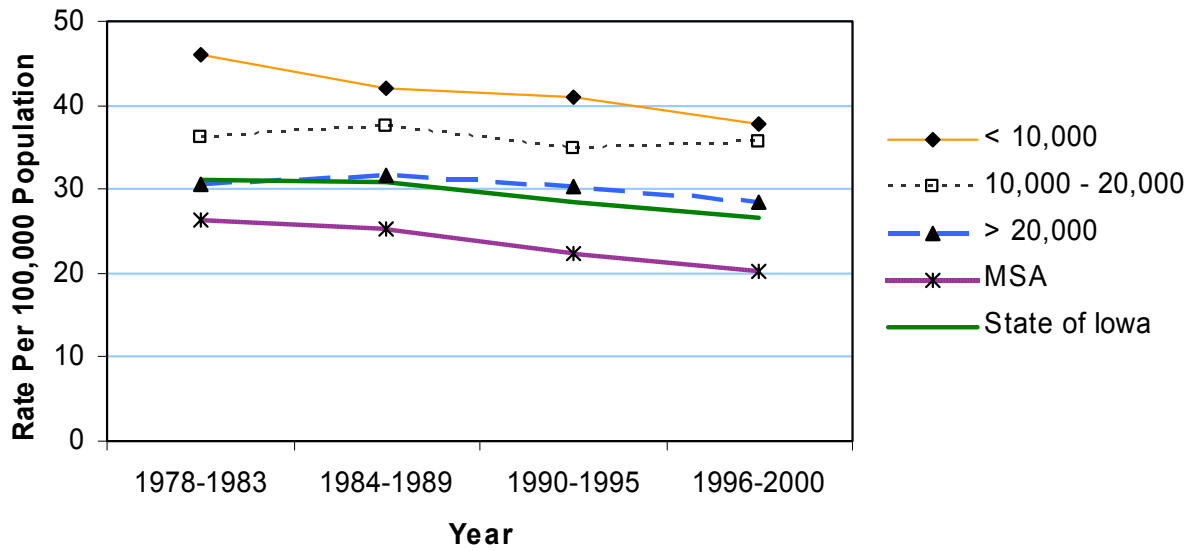
<sup>2</sup>Adjusted to Year 2000 population

<sup>3</sup>Rank among 99 Iowa counties

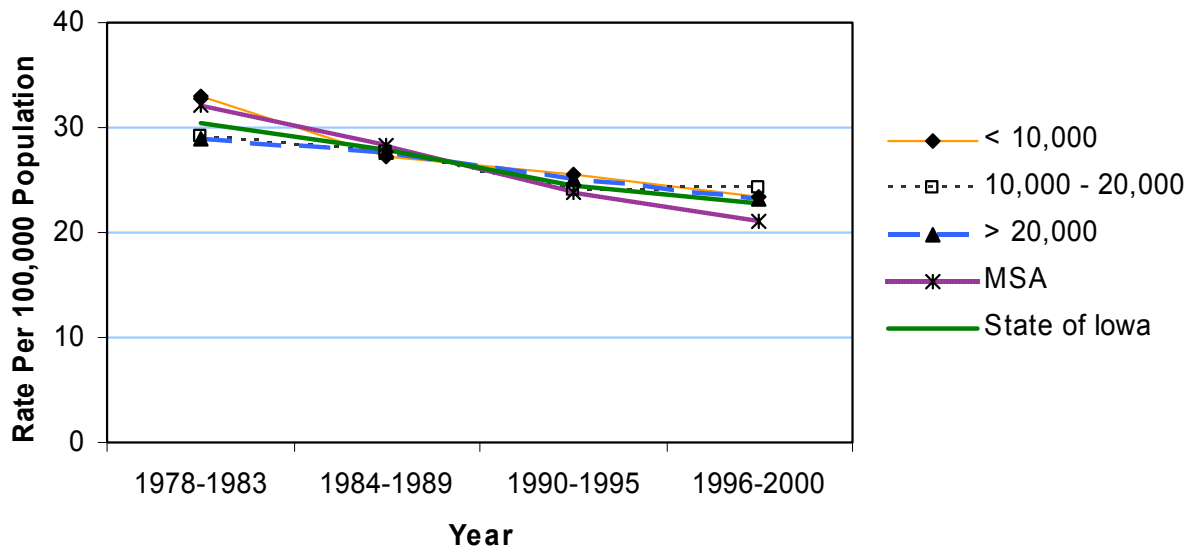
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## Colorectal Cancer Mortality by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Non-Hodgkin's Lymphoma Incidence 1990-2000

	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
	<b>Counties with Average Population &lt; 10,000</b>	Adair	27	29.3 (12)	22.0 (14)	Lucas	21	20.6 (70)
Adams		10	19.8 (74)	13.8 (91)	Monroe	22	24.6 (36)	17.4 (70)
Audubon		15	19.4 (78)	13.7 (92)	Osceola	20	25.4 (31)	19.2 (42)
Clarke		30	31.6 (06)	25.6 (03)	Pocahontas	29	29.1 (14)	22.7 (10)
Davis		22	23.7 (48)	18.8 (45)	Ringgold	22	36.9 (01)	22.2 (12)
Decatur		32	34.6 (02)	27.2 (02)	Taylor	17	22.0 (59)	12.6 (96)
Fremont		20	22.4 (57)	16.5 (72)	Van Buren	20	23.5 (49)	19.5 (37)
Howard		21	19.2 (79)	15.6 (84)	Wayne	26	34.1 (03)	24.9 (04)
Ida		22	24.6 (36)	16.3 (77)	Worth	24	27.5 (17)	20.9 (22)
					<b>Total</b>	400	25.9	19.1
<b>Counties with Average Population 10,000 to 20,000</b>		Allamakee	34	21.5 (63)	16.2 (79)	Humboldt	27	23.3 (51)
	Appanoose	42	27.8 (16)	18.4 (51)	Iowa	44	26.4 (21)	21.3 (19)
	Butler	46	26.9 (19)	20.4 (26)	Jefferson	38	21.0 (66)	19.3 (39)
	Calhoun	30	23.9 (43)	15.2 (86)	Keokuk	27	21.3 (64)	14.5 (88)
	Cass	43	26.1 (26)	19.3 (39)	Kossuth	49	25.1 (33)	19.6 (35)
	Cedar	43	22.0 (59)	17.7 (64)	Louisa	25	19.1 (80)	17.9 (62)
	Cherokee	36	24.0 (41)	18.3 (53)	Lyon	35	26.9 (19)	21.0 (21)
	Chickasaw	35	24.0 (41)	18.7 (48)	Madison	20	13.7 (98)	11.2 (98)
	Clay	40	20.7 (68)	18.0 (60)	Mills	20	13.2 (99)	12.8 (95)
	Clayton	46	22.1 (58)	17.7 (64)	Mitchell	38	31.7 (05)	22.2 (12)
	Crawford	34	18.4 (83)	14.4 (89)	Monona	31	28.0 (15)	17.6 (66)
	Delaware	30	14.9 (95)	13.7 (92)	Montgomery	36	27.4 (18)	18.3 (53)
	Dickinson	51	29.5 (11)	21.6 (18)	O'Brien	45	26.4 (21)	18.8 (45)
	Emmet	30	23.9 (43)	18.2 (55)	Page	33	17.7 (90)	12.2 (97)
	Floyd	56	29.9 (09)	21.8 (16)	Palo Alto	30	26.3 (25)	18.7 (48)
	Franklin	29	23.9 (43)	16.1 (81)	Poweshiek	55	26.4 (21)	21.9 (15)
	Greene	27	23.9 (43)	15.5 (85)	Sac	22	16.7 (92)	11.2 (98)
	Grundy	33	24.6 (36)	18.2 (55)	Shelby	36	24.7 (35)	16.4 (73)
	Guthrie	25	20.3 (71)	14.1 (90)	Tama	58	29.6 (10)	22.7 (10)
	Hamilton	54	30.1 (07)	24.9 (04)	Union	40	29.2 (13)	22.8 (09)
Hancock	34	25.3 (32)	19.5 (37)	Winnebago	39	30.0 (08)	23.9 (06)	
Hardin	55	26.4 (21)	18.1 (58)	Wright	37	23.3 (51)	16.1 (81)	
Harrison	39	23.4 (50)	17.5 (68)	<b>Total</b>	1,677	24.0	18.1	
<b>Counties with Average Population &gt; 20,000</b>	Benton	64	24.4 (39)	21.2 (20)	Jones	57	25.7 (29)	22.9 (08)
	Boone	53	18.8 (81)	16.2 (79)	Lee	109	25.6 (30)	21.7 (17)
	Bremer	46	18.0 (85)	15.1 (87)	Mahaska	43	17.8 (88)	15.7 (83)
	Buchanan	47	20.3 (71)	18.7 (48)	Marion	75	22.0 (59)	19.8 (31)
	Buena Vista	54	24.1 (40)	20.0 (28)	Marshall	102	23.9 (43)	20.1 (27)
	Carroll	80	33.7 (04)	28.0 (01)	Muscatine	94	20.8 (67)	20.8 (23)
	Cerro Gordo	107	20.7 (68)	17.5 (68)	Plymouth	61	22.9 (53)	19.9 (29)
	Clinton	128	22.9 (53)	19.8 (31)	Sioux	62	18.1 (84)	17.0 (71)
	Des Moines	106	22.5 (56)	19.3 (39)	Story	121	14.3 (97)	18.1 (58)
	Fayette	63	25.9 (28)	19.9 (29)	Wapello	103	26.0 (27)	20.5 (24)
	Henry	39	17.8 (88)	16.4 (73)	Washington	47	21.1 (65)	17.6 (66)
	Jackson	45	20.3 (71)	16.4 (73)	Webster	95	21.6 (62)	18.0 (60)
	Jasper	90	22.9 (53)	19.8 (31)	Winneshiek	35	15.1 (94)	13.6 (94)
					<b>Total</b>	1,926	21.5	19.1
<b>MSA Counties</b>	Black Hawk	274	19.6 (75)	19.1 (43)	Polk	696	17.9 (87)	19.6 (35)
	Dallas	75	19.6 (75)	19.8 (31)	Pottawattamie	173	18.6 (82)	18.2 (55)
	Dubuque	243	25.0 (34)	23.3 (07)	Scott	294	17.1 (91)	18.4 (51)
	Johnson	164	14.4 (96)	20.5 (24)	Warren	70	16.5 (93)	17.9 (62)
	Linn	358	18.0 (85)	18.8 (45)	Woodbury	220	19.6 (75)	19.1 (43)
	<b>State Totals</b>	6,570	20.9	19.0	<b>Total</b>	2,567	18.4	19.5

<sup>1</sup>Rates per 100,000 population

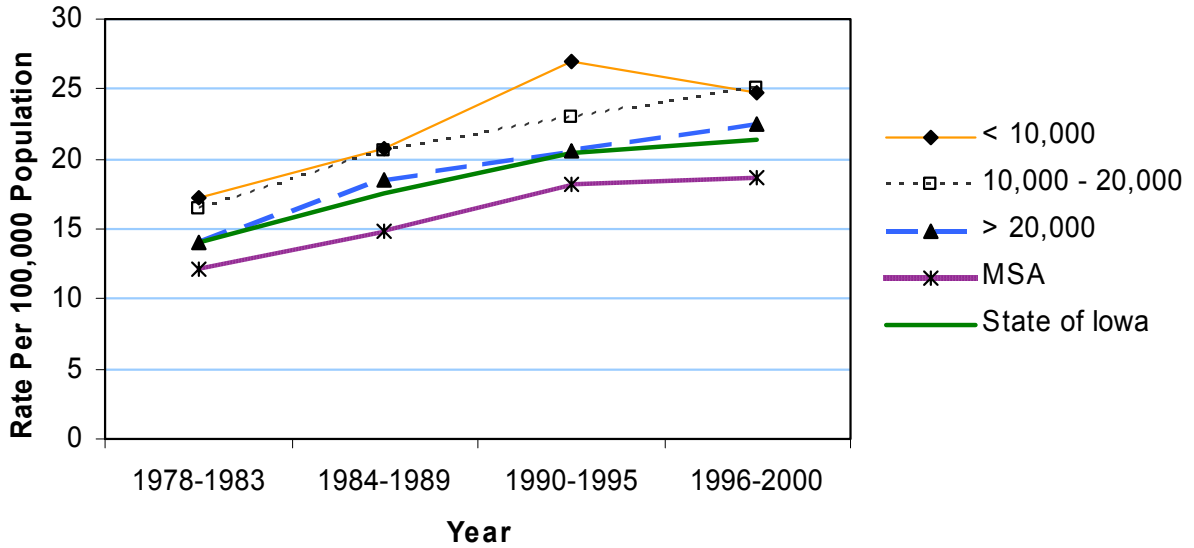
<sup>2</sup>Adjusted to Year 2000 population

<sup>3</sup>Rank among 99 Iowa counties

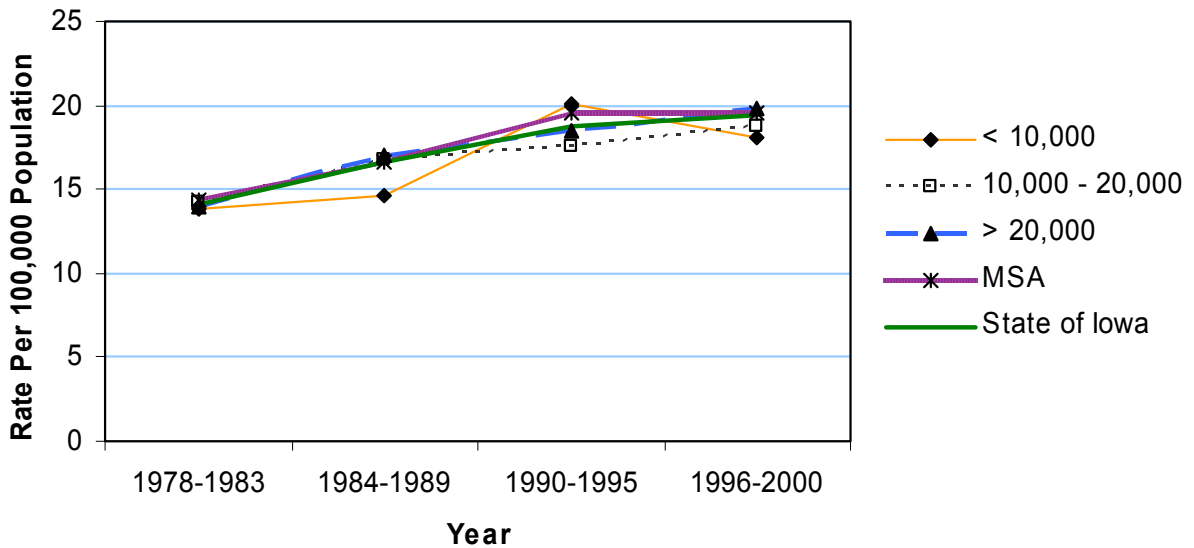
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

# Non-Hodgkin's Lymphoma Incidence by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Non-Hodgkin's Lymphoma Mortality 1990-2000

	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with Average Population < 10,000	Adair	14	15.2 (18)	8.4 (64)	Lucas	16	15.7 (15)	11.3 (13)
	Adams	6	11.9 (51)	9.2 (44)	Monroe	9	10.1 (72)	6.8 (90)
	Audubon	5	6.5 (97)	3.8 (98)	Osceola	9	11.4 (58)	7.4 (80)
	Clarke	19	20.0 (04)	15.7 (01)	Pocahontas	16	16.0 (12)	10.2 (23)
	Davis	11	11.9 (51)	8.5 (61)	Ringgold	10	16.8 (08)	9.0 (47)
	Decatur	15	16.2 (11)	12.3 (09)	Taylor	6	7.8 (91)	3.7 (99)
	Fremont	13	14.5 (22)	11.6 (11)	Van Buren	6	7.1 (94)	5.5 (95)
	Howard	10	9.1 (78)	7.2 (83)	Wayne	12	15.7 (15)	10.0 (26)
	Ida	11	12.3 (46)	8.0 (73)	Worth	16	18.3 (06)	13.8 (03)
					<b>Total</b>	204	13.2	9.1
Counties with Average Population 10,000 to 20,000	Allamakee	20	12.7 (41)	8.9 (49)	Humboldt	19	16.4 (10)	10.3 (21)
	Appanoose	21	13.9 (26)	8.7 (55)	Iowa	31	18.6 (05)	13.7 (04)
	Butler	17	9.9 (73)	6.9 (86)	Jefferson	25	13.8 (27)	12.5 (08)
	Calhoun	20	15.9 (13)	10.9 (16)	Keokuk	16	12.6 (43)	7.9 (76)
	Cass	18	10.9 (63)	6.9 (86)	Kossuth	26	13.3 (31)	9.5 (38)
	Cedar	22	11.2 (60)	8.8 (53)	Louisa	9	6.9 (95)	5.8 (94)
	Cherokee	19	12.7 (41)	8.8 (53)	Lyon	18	13.8 (27)	10.4 (20)
	Chickasaw	18	12.4 (45)	9.1 (46)	Madison	16	11.0 (61)	9.9 (30)
	Clay	25	12.9 (39)	10.2 (23)	Mills	11	7.3 (93)	7.0 (85)
	Clayton	20	9.6 (75)	7.5 (79)	Mitchell	20	16.7 (09)	9.9 (30)
	Crawford	16	8.7 (85)	6.6 (92)	Monona	15	13.6 (29)	7.3 (81)
	Delaware	20	9.9 (73)	8.7 (55)	Montgomery	30	22.9 (01)	13.6 (05)
	Dickinson	23	13.3 (31)	9.6 (36)	O'Brien	21	12.3 (46)	7.8 (77)
	Emmet	22	17.5 (07)	12.6 (07)	Page	24	12.9 (39)	8.0 (73)
	Floyd	40	21.4 (02)	15.2 (02)	Palo Alto	23	20.2 (03)	13.0 (06)
	Franklin	10	8.2 (88)	4.9 (96)	Poweshiek	30	14.4 (23)	10.8 (18)
	Greene	16	14.2 (24)	9.4 (40)	Sac	14	10.6 (66)	6.9 (86)
	Grundy	19	14.2 (24)	9.4 (40)	Shelby	11	7.5 (92)	4.6 (97)
	Guthrie	15	12.2 (49)	8.2 (68)	Tama	23	11.7 (53)	8.2 (68)
	Hamilton	27	15.1 (19)	11.6 (11)	Union	18	13.1 (33)	8.5 (61)
Hancock	21	15.6 (17)	11.3 (13)	Winnebago	17	13.1 (33)	9.7 (34)	
Hardin	33	15.8 (14)	9.8 (32)	Wright	24	15.1 (19)	9.2 (44)	
Harrison	18	10.8 (64)	7.2 (83)	<b>Total</b>	921	13.2	9.3	
Counties with Average Population > 20,000	Benton	34	13.0 (36)	10.3 (21)	Jones	23	10.4 (71)	8.7 (55)
	Boone	26	9.2 (77)	6.8 (90)	Lee	63	14.8 (21)	12.3 (09)
	Bremer	28	11.0 (61)	8.9 (49)	Mahaska	23	9.5 (76)	8.0 (73)
	Buchanan	29	12.5 (44)	11.2 (15)	Marion	36	10.6 (66)	8.9 (49)
	Buena Vista	30	13.4 (30)	10.6 (19)	Marshall	50	11.7 (53)	9.0 (47)
	Carroll	27	11.4 (58)	8.4 (64)	Muscatine	38	8.4 (87)	8.2 (68)
	Cerro Gordo	63	12.2 (49)	9.6 (36)	Plymouth	28	10.5 (69)	8.1 (72)
	Clinton	73	13.0 (36)	10.9 (16)	Sioux	31	9.1 (78)	7.7 (78)
	Des Moines	58	12.3 (46)	10.2 (23)	Story	58	6.9 (95)	8.7 (55)
	Fayette	28	11.5 (57)	8.3 (67)	Wapello	52	13.1 (33)	9.7 (34)
	Henry	19	8.7 (85)	7.3 (81)	Washington	26	11.7 (53)	9.4 (40)
	Jackson	24	10.8 (64)	8.4 (64)	Webster	57	13.0 (36)	10.0 (26)
	Jasper	46	11.7 (53)	10.0 (26)	Winneshiek	19	8.2 (88)	6.9 (86)
					<b>Total</b>	989	11.0	9.2
MSA Counties	Black Hawk	126	9.0 (80)	8.5 (61)	Polk	349	9.0 (80)	10.0 (26)
	Dallas	34	8.9 (83)	8.9 (49)	Pottawattamie	82	8.8 (84)	8.6 (59)
	Dubuque	103	10.6 (66)	9.5 (38)	Scott	136	7.9 (90)	8.6 (59)
	Johnson	59	5.2 (99)	8.2 (68)	Warren	26	6.1 (98)	6.6 (92)
	Linn	180	9.0 (80)	9.4 (40)	Woodbury	118	10.5 (69)	9.8 (32)
	<b>State Totals</b>	3,327	10.6	9.2	<b>Total</b>	1,213	8.7	9.2

<sup>1</sup>Rates per 100,000 population

<sup>2</sup>Adjusted to Year 2000 population

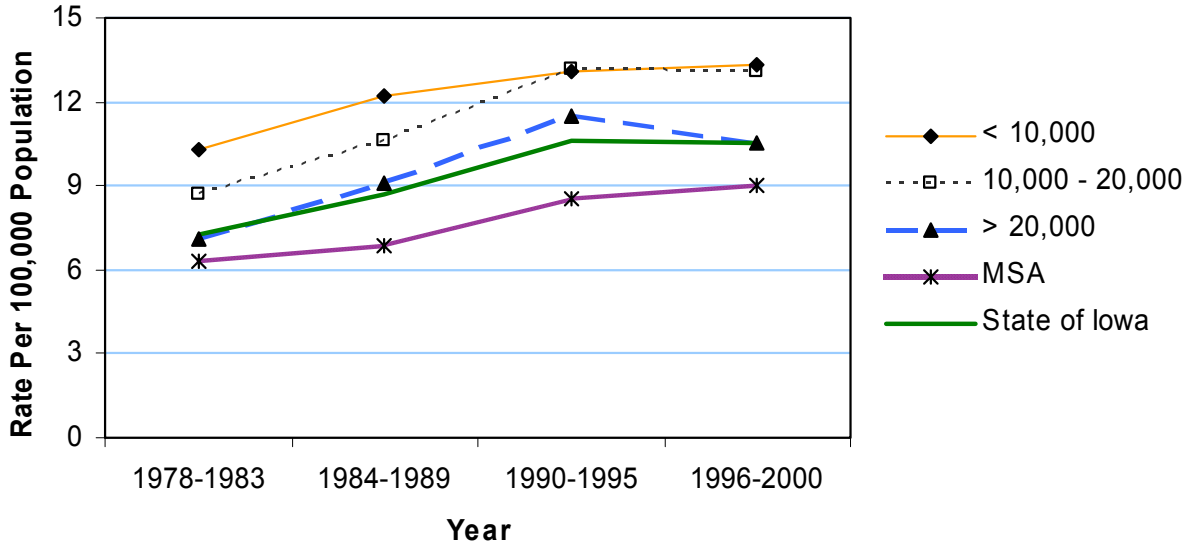
<sup>3</sup>Rank among 99 Iowa counties

Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

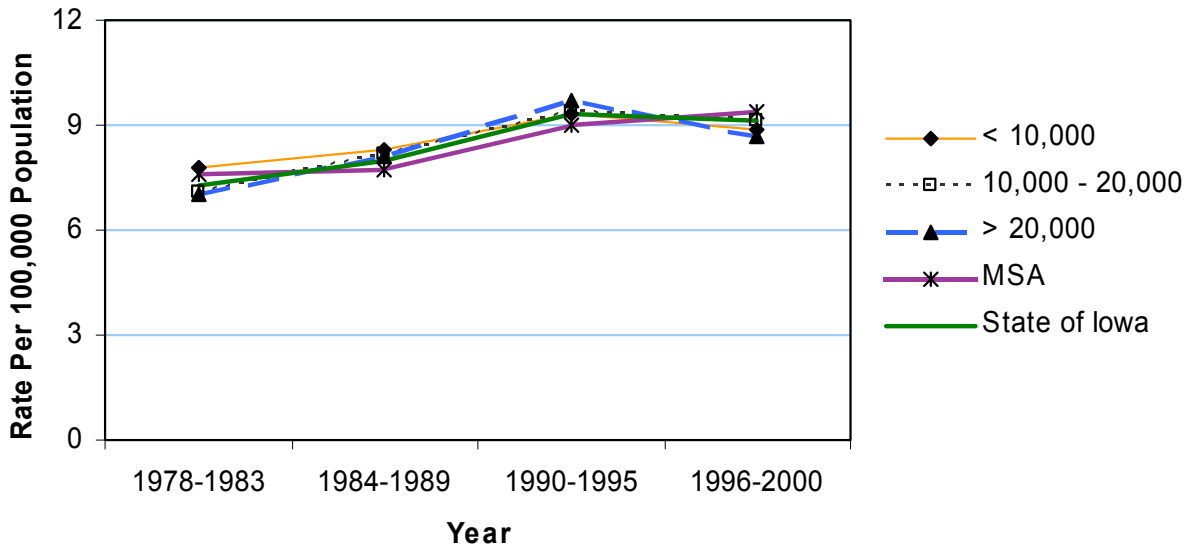


# Non-Hodgkin's Lymphoma Mortality by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Leukemia Incidence 1990-2000

	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with Average Population < 10,000	Adair	19	20.6 (29)	14.1 (59)	Lucas	23	22.6 (19)	16.6 (18)
	Adams	5	9.9 (99)	7.6 (97)	Monroe	17	19.0 (40)	14.5 (54)
	Audubon	21	27.2 (02)	14.6 (51)	Osceola	14	17.7 (54)	14.2 (57)
	Clarke	14	14.8 (77)	12.0 (80)	Pocahontas	25	25.0 (11)	17.4 (15)
	Davis	16	17.2 (59)	13.8 (65)	Ringgold	8	13.4 (89)	7.4 (99)
	Decatur	13	14.1 (83)	9.7 (94)	Taylor	15	19.4 (35)	12.0 (80)
	Fremont	24	26.8 (04)	19.1 (07)	Van Buren	18	21.2 (25)	14.4 (55)
	Howard	20	18.3 (46)	11.5 (83)	Wayne	18	23.6 (14)	16.6 (18)
	Ida	11	12.3 (92)	11.1 (87)	Worth	13	14.9 (76)	11.0 (88)
					<b>Total</b>	294	19.0	13.4
Counties with Average Population 10,000 to 20,000	Allamakee	28	17.7 (54)	12.6 (77)	Humboldt	24	20.7 (28)	15.1 (43)
	Appanoose	20	13.2 (90)	9.0 (96)	Iowa	30	18.0 (51)	13.7 (66)
	Butler	43	25.2 (09)	18.8 (09)	Jefferson	33	18.3 (46)	16.1 (23)
	Calhoun	32	25.5 (07)	16.3 (22)	Keokuk	33	26.1 (05)	18.1 (10)
	Cass	27	16.4 (66)	10.2 (92)	Kossuth	42	21.5 (23)	15.9 (25)
	Cedar	40	20.4 (30)	16.6 (18)	Louisa	19	14.5 (79)	13.0 (73)
	Cherokee	27	18.0 (51)	13.4 (67)	Lyon	16	12.3 (92)	9.2 (95)
	Chickasaw	22	15.1 (73)	10.9 (90)	Madison	25	17.2 (59)	15.3 (39)
	Clay	32	16.5 (65)	13.1 (71)	Mills	22	14.5 (79)	14.1 (59)
	Clayton	35	16.8 (63)	13.4 (67)	Mitchell	21	17.5 (56)	14.1 (59)
	Crawford	37	20.0 (32)	15.9 (25)	Monona	30	27.1 (03)	19.7 (03)
	Delaware	23	11.4 (95)	10.5 (91)	Montgomery	24	18.3 (46)	11.5 (83)
	Dickinson	36	20.9 (27)	14.1 (59)	O'Brien	40	23.5 (15)	16.7 (17)
	Emmet	18	14.3 (82)	11.2 (86)	Page	21	11.2 (96)	7.5 (98)
	Floyd	35	18.7 (43)	13.2 (70)	Palo Alto	23	20.2 (31)	15.3 (39)
	Franklin	19	15.6 (72)	12.9 (75)	Poweshiek	40	19.2 (37)	14.9 (48)
	Greene	28	24.8 (12)	15.4 (36)	Sac	24	18.2 (49)	12.1 (79)
	Grundy	34	25.3 (08)	19.7 (03)	Shelby	26	17.8 (53)	13.1 (71)
	Guthrie	28	22.7 (17)	15.7 (29)	Tama	39	19.9 (33)	15.5 (31)
	Hamilton	45	25.1 (10)	18.9 (08)	Union	20	14.6 (78)	11.3 (85)
Hancock	26	19.4 (35)	14.6 (51)	Winnebago	25	19.2 (37)	14.4 (55)	
Hardin	47	22.5 (20)	16.5 (21)	Wright	38	23.9 (13)	15.9 (25)	
Harrison	25	15.0 (74)	10.2 (92)	<b>Total</b>	1,322	18.9	14.1	
Counties with Average Population > 20,000	Benton	56	21.3 (24)	17.7 (13)	Jones	30	13.6 (86)	11.6 (82)
	Boone	64	22.7 (17)	17.9 (11)	Lee	73	17.1 (61)	14.6 (51)
	Bremer	37	14.5 (79)	12.2 (78)	Mahaska	40	16.6 (64)	14.0 (63)
	Buchanan	40	17.3 (58)	15.5 (31)	Marion	80	23.5 (15)	20.2 (02)
	Buena Vista	49	21.9 (22)	19.3 (06)	Marshall	81	19.0 (40)	15.5 (31)
	Carroll	44	18.5 (44)	15.2 (42)	Muscatine	68	15.0 (74)	15.1 (43)
	Cerro Gordo	97	18.8 (42)	15.4 (36)	Plymouth	49	18.4 (45)	15.3 (39)
	Clinton	91	16.2 (68)	14.2 (57)	Sioux	56	16.4 (66)	15.1 (43)
	Des Moines	99	21.0 (26)	17.6 (14)	Story	104	12.3 (92)	15.4 (36)
	Fayette	68	28.0 (01)	21.9 (01)	Wapello	79	19.9 (33)	15.5 (31)
	Henry	38	17.4 (57)	15.0 (47)	Washington	58	26.1 (05)	19.6 (05)
	Jackson	49	22.1 (21)	17.8 (12)	Webster	80	18.2 (49)	15.1 (43)
	Jasper	75	19.1 (39)	15.8 (28)	Winneshiek	37	15.9 (70)	14.0 (63)
					<b>Total</b>	1,642	18.3	15.9
MSA Counties	Black Hawk	189	13.5 (87)	13.0 (73)	Polk	522	13.5 (87)	14.7 (50)
	Dallas	60	15.7 (71)	15.5 (31)	Pottawattamie	150	16.1 (69)	15.7 (29)
	Dubuque	133	13.7 (85)	12.9 (75)	Scott	213	12.4 (91)	13.4 (67)
	Johnson	126	11.0 (97)	17.1 (16)	Warren	59	13.9 (84)	14.8 (49)
	Linn	211	10.6 (98)	11.0 (88)	Woodbury	191	17.0 (62)	16.1 (23)
	<b>State Totals</b>	5,112	16.2	14.6	<b>Total</b>	1,854	13.3	14.0

<sup>1</sup>Rates per 100,000 population

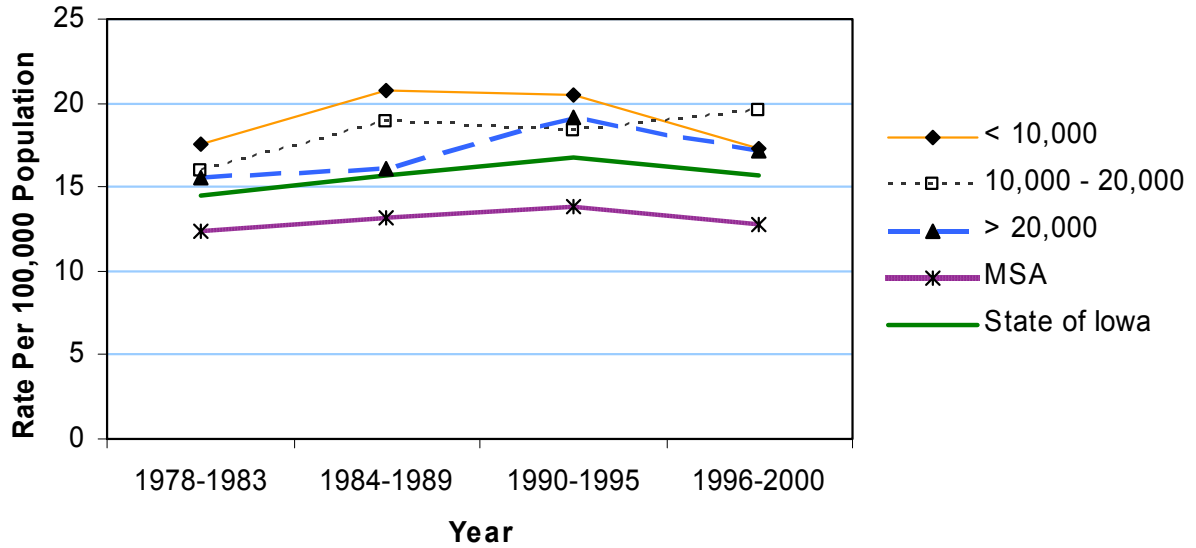
<sup>2</sup>Adjusted to Year 2000 population

<sup>3</sup>Rank among 99 Iowa counties

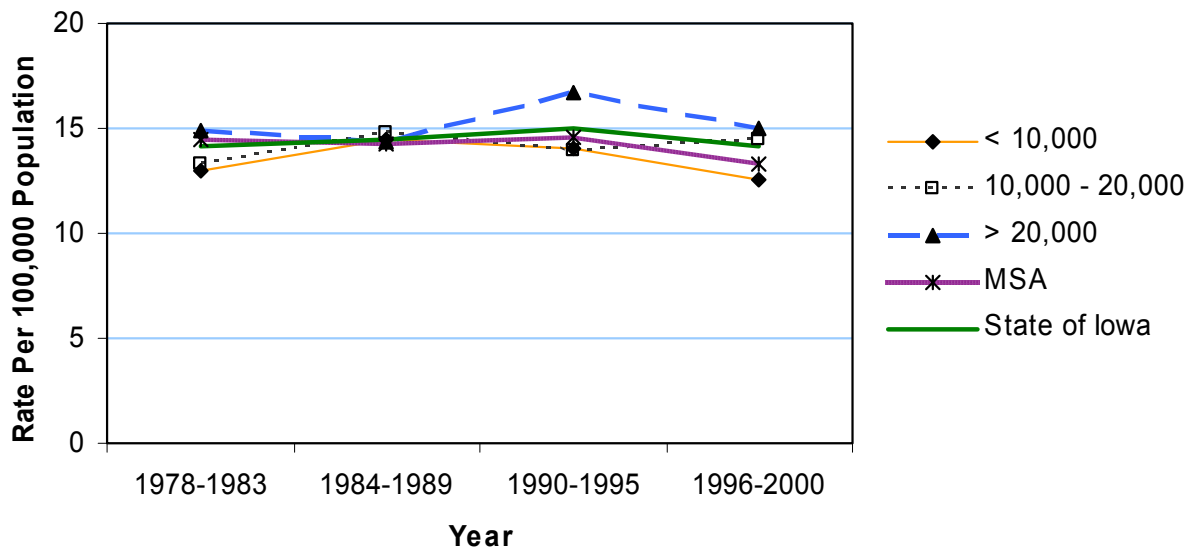
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Leukemia Incidence by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Leukemia Mortality 1990-2000

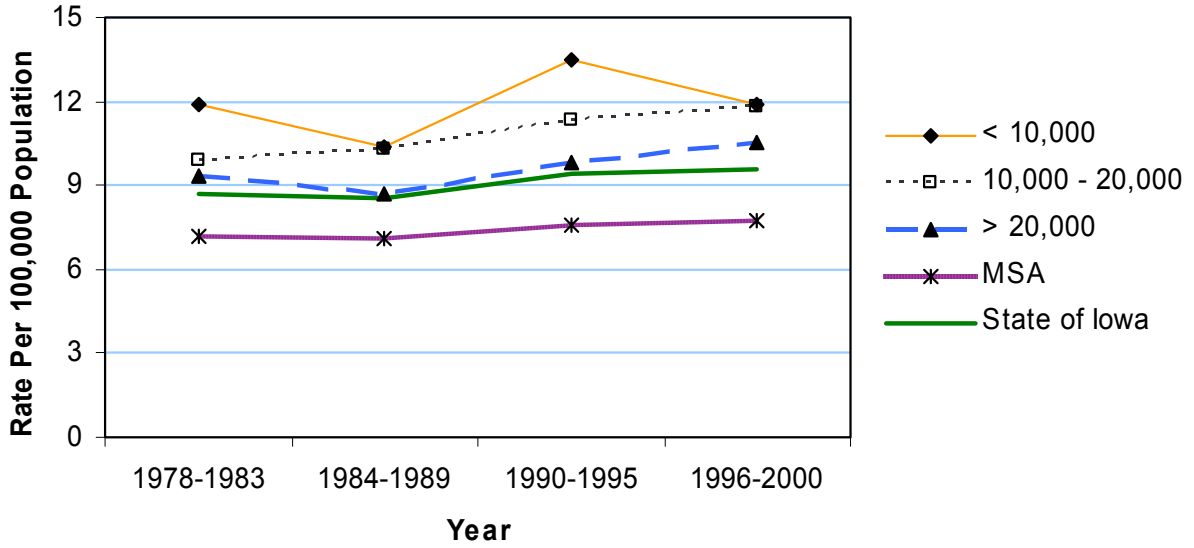
	Average Population < 10,000				Average Population 10,000 to 20,000				Average Population > 20,000				MSA Counties			
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with Average Population < 10,000	Adair	13	14.1	8.1	Lucas	19	18.6	12.2	Lucas	19	18.6	12.2	Polk	287	7.4	8.2
	Adams	*	*	*	Monroe	12	13.4	10.6	Lee	39	9.2	7.6	Pottawattamie	92	9.9	9.6
	Audubon	15	19.4	10.3	Osceola	10	12.7	10.1	Mahaska	19	7.9	6.0	Scott	104	6.1	6.6
	Clarke	15	15.8	12.0	Pocahontas	17	17.0	10.7	Marion	50	14.7	12.3	Warren	32	7.5	8.1
	Davis	11	11.9	8.4	Ringgold	*	*	*	Marshall	35	8.2	6.2	Johnson	88	7.7	11.8
	Decatur	8	8.7	5.8	Taylor	11	14.2	7.5	Muscatine	39	8.6	8.6	Linn	151	7.6	7.8
	Fremont	17	19.0	14	Van Buren	6	7.1	5.6	Plymouth	25	9.4	7.5	<b>State Totals</b>	2,976	9.5	8.2
	Howard	11	10.1	6.3	Wayne	10	13.1	9.2	Sioux	35	10.2	9.2				
	Ida	5	5.6	3.2	Worth	12	13.7	10.9	Story	60	7.1	8.9				
					<b>Total</b>	197	12.8	8.6	Wapello	54	13.6	10.4				
Counties with Average Population 10,000 to 20,000	Allamakee	16	10.1	6.5	Humboldt	16	13.8	10.3	Washington	26	11.7	8.5				
	Appanoose	9	5.9	4.0	Iowa	15	9.0	6.0	Webster	41	9.3	7.0				
	Butler	31	18.1	12.9	Jefferson	12	6.6	5.5	Winneshiek	18	7.7	6.5				
	Calhoun	17	13.5	8.0	Keokuk	17	13.4	9.1	<b>Total</b>	905	10.1	8.4				
	Cass	22	13.4	8.1	Kossuth	33	16.9	12.6								
	Cedar	20	10.2	8.0	Louisa	11	8.4	7.3								
	Cherokee	14	9.3	6.5	Lyon	19	14.6	10.3								
	Chickasaw	14	9.6	6.7	Madison	19	13.1	10.2								
	Clay	14	7.2	5.2	Mills	8	5.3	4.9								
	Clayton	26	12.5	8.9	Mitchell	14	11.7	7.9								
	Crawford	19	10.3	8.4	Monona	14	12.7	7.6								
	Delaware	13	6.5	6.0	Montgomery	24	18.3	10.8								
	Dickinson	24	13.9	10	O'Brien	27	15.9	10.3								
	Emmet	12	9.6	6.6	Page	17	9.1	6.1								
	Floyd	19	10.2	6.6	Palo Alto	9	7.9	4.8								
	Franklin	15	12.3	8.4	Poweshiek	27	13.0	9.4								
	Greene	14	12.4	6.6	Sac	12	9.1	6.4								
	Grundy	20	14.9	10	Shelby	18	12.3	9.3								
	Guthrie	14	11.4	7.9	Tama	25	12.7	9.1								
	Hamilton	24	13.4	9.5	Union	14	10.2	7.5								
Hancock	14	10.4	7.5	Winnebago	17	13.1	10.3									
Hardin	31	14.9	11.1	Wright	22	13.9	7.9									
Harrison	16	9.6	6.4	<b>Total</b>	808	11.5	8.1									
Counties with Average Population > 20,000	Benton	33	12.6	10.3	Jones	16	7.2	6.0								
	Boone	39	13.8	10.4	Lee	39	9.2	7.6								
	Bremer	21	8.2	6.5	Mahaska	19	7.9	6.0								
	Buchanan	28	12.1	10.7	Marion	50	14.7	12.3								
	Buena Vista	22	9.8	8.3	Marshall	35	8.2	6.2								
	Carroll	22	9.3	7.3	Muscatine	39	8.6	8.6								
	Cerro Gordo	55	10.7	8.1	Plymouth	25	9.4	7.5								
	Clinton	54	9.6	8.5	Sioux	35	10.2	9.2								
	Des Moines	56	11.9	9.3	Story	60	7.1	8.9								
	Fayette	28	11.5	8.8	Wapello	54	13.6	10.4								
	Henry	21	9.6	8.0	Washington	26	11.7	8.5								
	Jackson	29	13.1	10.5	Webster	41	9.3	7.0								
	Jasper	40	10.2	8.1	Winneshiek	18	7.7	6.5								
					<b>Total</b>	905	10.1	8.4								
MSA Counties	Black Hawk	111	8.0	7.5	Polk	287	7.4	8.2								
	Dallas	26	6.8	6.8	Pottawattamie	92	9.9	9.6								
	Dubuque	77	7.9	7.1	Scott	104	6.1	6.6								
	Johnson	88	7.7	11.8	Warren	32	7.5	8.1								
	Linn	151	7.6	7.8	Woodbury	98	8.7	8.1								
	<b>State Totals</b>	2,976	9.5	8.2	<b>Total</b>	1,066	7.6	8.0								

<sup>1</sup>Rates per 100,000 population  
<sup>2</sup>Adjusted to Year 2000 population

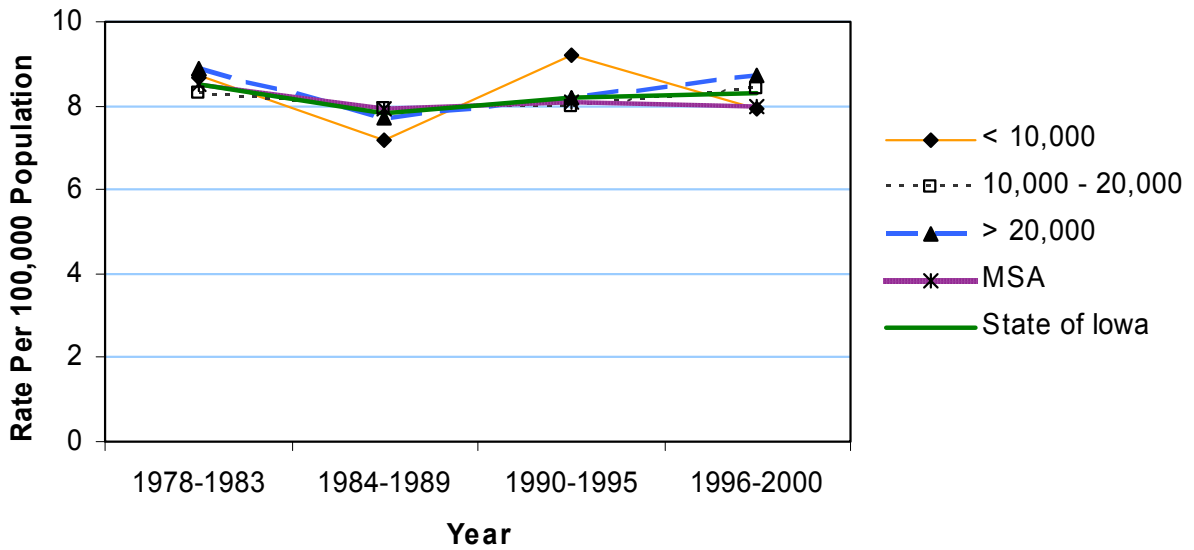
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## Leukemia Mortality by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Skin Melanoma Incidence 1990-2000

	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
<b>Counties with Average Population &lt; 10,000</b>	Adair	10	10.9 (89)	8.7 (92)	Lucas	17	16.7 (32)	15.5 (26)
	Adams	9	17.8 (21)	13.7 (49)	Monroe	13	14.5 (57)	11.0 (78)
	Audubon	10	13.0 (70)	8.7 (92)	Osceola	6	7.6 (98)	5.8 (98)
	Clarke	20	21.1 (06)	15.4 (28)	Pocahontas	8	8.0 (97)	5.3 (99)
	Davis	14	15.1 (52)	13.4 (53)	Ringgold	11	18.4 (17)	14.0 (44)
	Decatur	22	23.8 (03)	21.8 (02)	Taylor	11	14.2 (62)	10.9 (80)
	Fremont	10	11.2 (86)	9.1 (90)	Van Buren	12	14.1 (63)	12.2 (67)
	Howard	17	15.5 (46)	15.1 (31)	Wayne	12	15.7 (44)	12.5 (62)
	Ida	18	20.1 (10)	16.4 (16)	Worth	15	17.2 (25)	12.3 (65)
					<b>Total</b>	<b>235</b>	<b>15.2</b>	<b>12.2</b>
<b>Counties with Average Population 10,000 to 20,000</b>	Allamakee	28	17.7 (23)	15.1 (31)	Humboldt	14	12.1 (83)	9.0 (91)
	Appanoose	27	17.8 (21)	13.6 (50)	Iowa	21	12.6 (76)	11.5 (70)
	Butler	28	16.4 (36)	14.1 (41)	Jefferson	26	14.4 (58)	13.2 (56)
	Calhoun	17	13.5 (66)	11.2 (76)	Keokuk	17	13.4 (67)	11.4 (72)
	Cass	27	16.4 (36)	14.1 (41)	Kossuth	25	12.8 (73)	11.5 (70)
	Cedar	38	19.4 (12)	18.4 (07)	Louisa	21	16.0 (42)	15.6 (23)
	Cherokee	33	22.0 (05)	18.3 (08)	Lyon	22	16.9 (28)	15.0 (33)
	Chickasaw	16	11.0 (88)	10.1 (88)	Madison	17	11.7 (84)	10.5 (83)
	Clay	16	8.3 (96)	7.5 (94)	Mills	19	12.6 (76)	12.5 (62)
	Clayton	35	16.8 (29)	14.5 (38)	Mitchell	27	22.5 (04)	15.6 (23)
	Crawford	16	8.7 (95)	7.4 (95)	Monona	17	15.4 (48)	13.3 (55)
	Delaware	26	12.9 (71)	13.1 (57)	Montgomery	16	12.2 (81)	10.5 (83)
	Dickinson	35	20.3 (09)	17.8 (10)	O'Brien	24	14.1 (63)	11.1 (77)
	Emmet	11	8.8 (94)	7.3 (96)	Page	28	15.0 (54)	12.2 (67)
	Floyd	31	16.6 (34)	13.9 (46)	Palo Alto	15	13.1 (69)	11.0 (78)
	Franklin	15	12.3 (79)	11.4 (72)	Poweshiek	31	14.9 (55)	14.4 (40)
	Greene	21	18.6 (15)	15.8 (20)	Sac	27	20.5 (08)	14.6 (37)
	Grundy	32	23.9 (01)	20.5 (04)	Shelby	21	14.4 (58)	12.3 (65)
	Guthrie	23	18.6 (15)	16.2 (19)	Tama	32	16.3 (38)	14.5 (38)
	Hamilton	25	13.9 (65)	12.6 (61)	Union	23	16.8 (29)	14.9 (34)
Hancock	10	7.4 (99)	5.9 (97)	Winnebago	23	17.7 (23)	17.1 (11)	
Hardin	30	14.4 (58)	12.4 (64)	Wright	30	18.9 (14)	13.4 (53)	
Harrison	18	10.8 (91)	10.0 (89)	<b>Total</b>	<b>1,054</b>	<b>15.1</b>	<b>13.1</b>	
<b>Counties with Average Population &gt; 20,000</b>	Benton	33	12.6 (76)	11.3 (75)	Jones	53	23.9 (01)	22.5 (01)
	Boone	51	18.1 (18)	16.4 (16)	Lee	66	15.5 (46)	14.1 (41)
	Bremer	50	19.6 (11)	18.3 (08)	Mahaska	27	11.2 (86)	10.6 (82)
	Buchanan	48	20.7 (07)	21.2 (03)	Marion	40	11.7 (84)	10.8 (81)
	Buena Vista	22	9.8 (93)	10.2 (87)	Marshall	73	17.1 (27)	15.3 (29)
	Carroll	29	12.2 (81)	11.4 (72)	Muscatine	58	12.8 (73)	13.1 (57)
	Cerro Gordo	84	16.3 (38)	14.7 (36)	Plymouth	29	10.9 (89)	10.3 (86)
	Clinton	100	17.9 (20)	17.0 (12)	Sioux	52	15.2 (51)	15.5 (26)
	Des Moines	68	14.4 (58)	13.5 (52)	Story	132	15.6 (45)	19.5 (06)
	Fayette	47	19.3 (13)	15.6 (23)	Wapello	68	17.2 (25)	15.7 (21)
	Henry	33	15.1 (52)	13.8 (47)	Washington	40	18.0 (19)	15.3 (29)
	Jackson	34	15.3 (49)	13.8 (47)	Webster	65	14.8 (56)	13.1 (57)
	Jasper	65	16.5 (35)	14.8 (35)	Winneshiek	25	10.8 (91)	10.5 (83)
					<b>Total</b>	<b>1,392</b>	<b>15.5</b>	<b>14.7</b>
<b>MSA Counties</b>	Black Hawk	233	16.7 (32)	16.6 (15)	Polk	501	12.9 (71)	13.6 (50)
	Dallas	62	16.2 (40)	16.4 (16)	Pottawattamie	115	12.3 (79)	12.1 (69)
	Dubuque	163	16.8 (29)	17.0 (12)	Scott	227	13.2 (68)	14.0 (44)
	Johnson	184	16.1 (41)	20.1 (05)	Warren	68	16.0 (42)	16.8 (14)
	Linn	305	15.3 (49)	15.7 (21)	Woodbury	143	12.7 (75)	13.1 (57)
	<b>State Totals</b>	<b>4,682</b>	<b>14.9</b>	<b>14.4</b>	<b>Total</b>	<b>2,001</b>	<b>14.3</b>	<b>15.0</b>

<sup>1</sup>Rates per 100,000 population

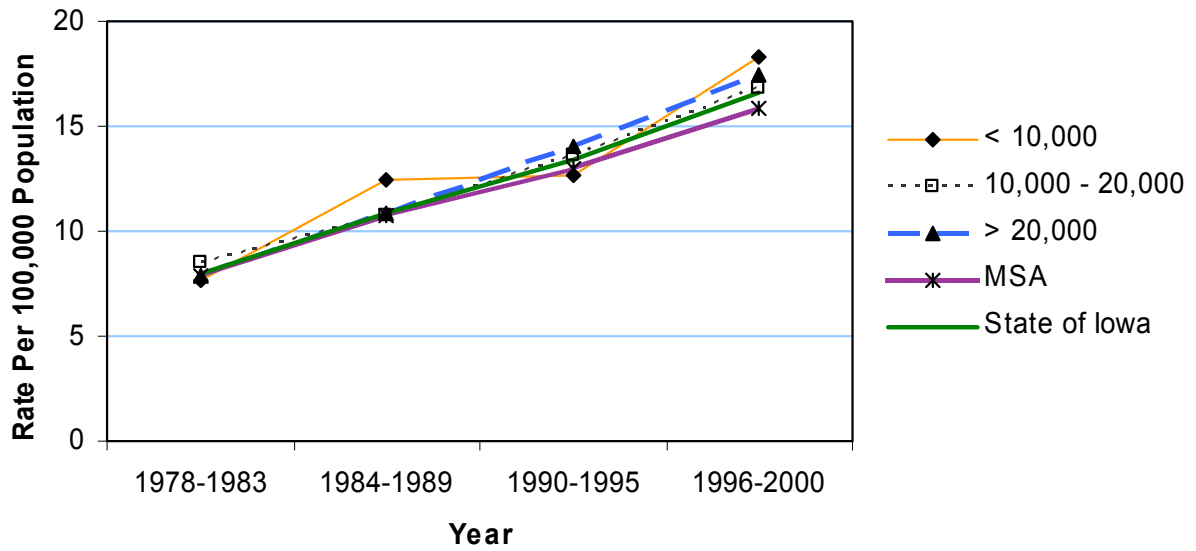
<sup>2</sup>Adjusted to Year 2000 population

<sup>3</sup>Rank among 99 Iowa counties

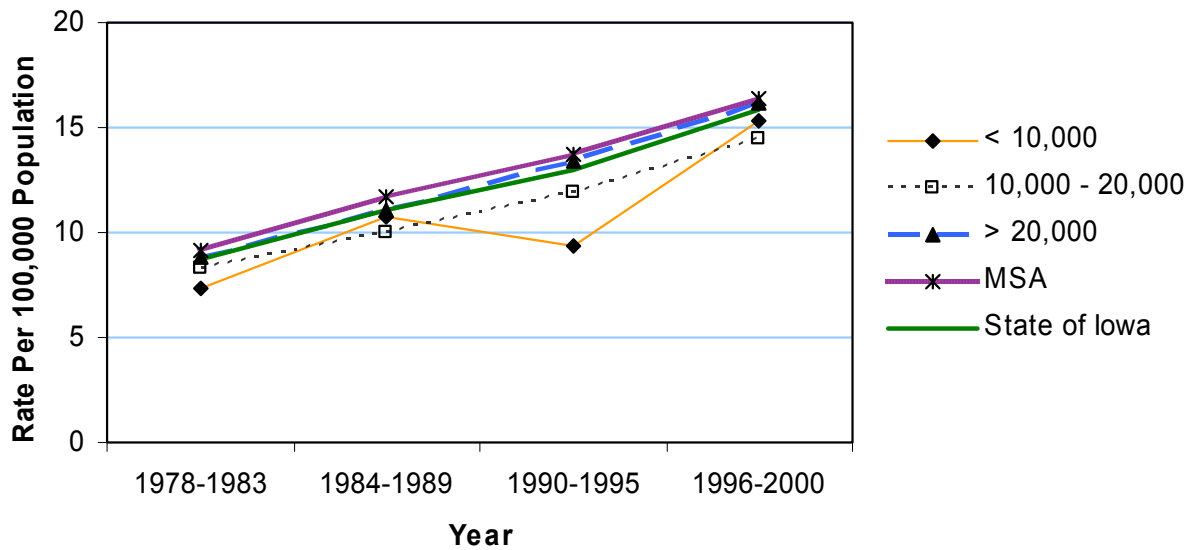
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Skin Melanoma Incidence by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Skin Melanoma Mortality 1990-2000

	Average Population < 10,000				Average Population 10,000 to 20,000				Average Population > 20,000				MSA Counties			
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with Average Population < 10,000	Adair	5	5.4	4.4	Lucas	5	4.9	4.4	Lucas	5	4.9	4.4	Polk	102	2.6	2.9
	Adams	*	*	*	Monroe	*	*	*	Lee	14	3.3	2.7	Pottawattamie	24	2.6	2.5
	Audubon	5	6.5	5.2	Osceola	*	*	*	Mahaska	*	*	*	Scott	49	2.9	3.1
	Clarke	*	*	*	Pocahontas	6	6.0	3.8	Marion	10	2.9	2.7	Marshall	10	2.3	2.1
	Davis	*	*	*	Ringgold	*	*	*	Marshall	10	2.3	2.1	Muscatine	14	3.1	3.1
	Decatur	*	*	*	Taylor	*	*	*	Plymouth	7	2.6	2.4	Wapello	11	2.8	2.4
	Fremont	*	*	*	Van Buren	*	*	*	Sioux	11	3.2	3.2	Washington	6	2.7	1.9
	Howard	*	*	*	Wayne	*	*	*	Story	13	1.5	1.9	Webster	13	3.0	2.5
	Ida	*	*	*	Worth	6	6.9	4.7	Wapello	11	2.8	2.4	Winneshiek	6	2.6	2.5
					<b>Total</b>	56	3.6	2.8	<b>Total</b>	246	2.7	2.5	<b>Total</b>	341	2.4	2.6
Counties with Average Population 10,000 to 20,000	Allamakee	6	3.8	2.9	Humboldt	*	*	*	Benton	8	3.0	2.6	Jones	7	3.2	3
	Appanoose	*	*	*	Iowa	5	3.0	2.3	Boone	7	2.5	2.1	Lee	14	3.3	2.7
	Butler	*	*	*	Jefferson	5	2.8	2.3	Bremer	5	2.0	2	Mahaska	*	*	*
	Calhoun	*	*	*	Keokuk	6	4.7	3.3	Buchanan	9	3.9	3.9	Marion	10	2.9	2.7
	Cass	*	*	*	Kossuth	*	*	*	Buena Vista	9	4.0	4	Marshall	10	2.3	2.1
	Cedar	12	6.1	5.3	Louisa	*	*	*	Carroll	6	2.5	1.8	Muscatine	14	3.1	3.1
	Cherokee	5	3.3	2.8	Lyon	*	*	*	Cerro Gordo	9	1.7	1.5	Plymouth	7	2.6	2.4
	Chickasaw	*	*	*	Madison	*	*	*	Clinton	9	1.6	1.4	Sioux	11	3.2	3.2
	Clay	9	4.6	3.9	Mills	*	*	*	Des Moines	20	4.2	3.8	Story	13	1.5	1.9
	Clayton	*	*	*	Mitchell	*	*	*	Fayette	15	6.2	4.7	Wapello	11	2.8	2.4
	Crawford	*	*	*	Monona	5	4.5	2.4	Henry	*	*	*	Washington	6	2.7	1.9
	Delaware	8	4.0	4	Montgomery	5	3.8	3.1	Jackson	5	2.3	2	Webster	13	3.0	2.5
	Dickinson	7	4.1	2.8	O'Brien	10	5.9	3.9	Jasper	14	3.6	3.3	Winneshiek	6	2.6	2.5
	Emmet	*	*	*	Page	*	*	*					<b>Total</b>	246	2.7	2.5
	Floyd	*	*	*	Palo Alto	6	5.3	3.9								
	Franklin	*	*	*	Poweshiek	8	3.8	4								
	Greene	*	*	*	Sac	*	*	*								
	Grundy	8	6.0	4.4	Shelby	7	4.8	4.4								
	Guthrie	*	*	*	Tama	5	2.5	2.6								
	Hamilton	7	3.9	3	Union	6	4.4	3								
Hancock	9	6.7	4.8	Winnebago	5	3.8	2.9									
Hardin	*	*	*	Wright	5	3.1	2.1									
Harrison	7	4.2	3.7	<b>Total</b>	225	3.2	2.5									

<sup>1</sup>Rates per 100,000 population

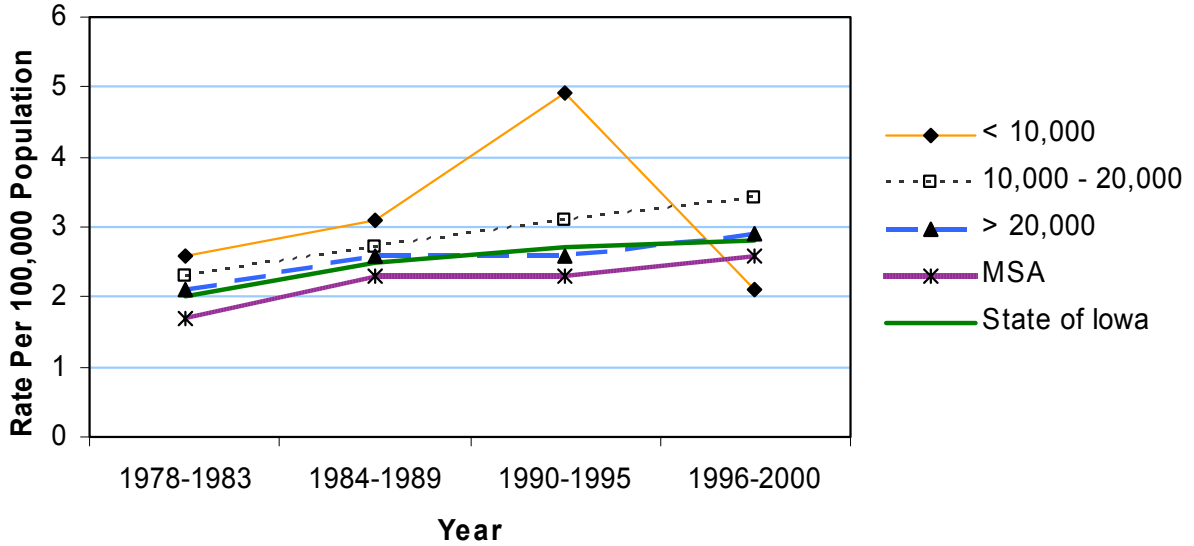
<sup>2</sup>Adjusted to Year 2000 population

Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

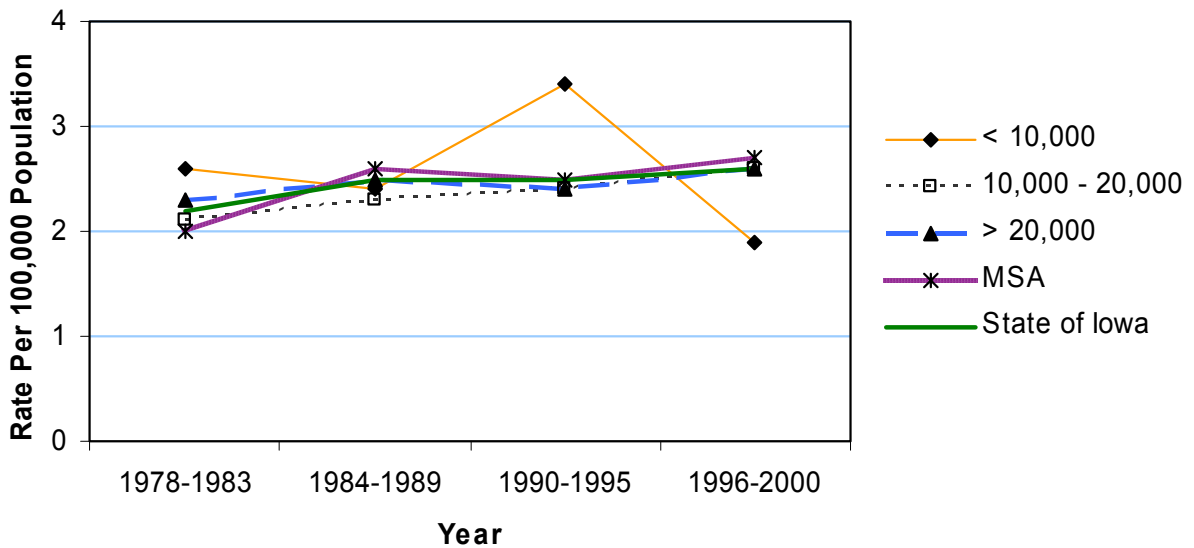


## Skin Melanoma Mortality by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Oral Cavity (Excluding Lip) Incidence 1990-2000

	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
	<b>Counties with Average Population &lt; 10,000</b>	Adair	10	10.9 (68)	8.0 (84)	Lucas	21	20.6 (11)
Adams		14	27.7 (01)	18.9 (01)	Monroe	21	23.5 (04)	16.3 (08)
Audubon		10	13.0 (43)	10.2 (58)	Osceola	8	10.1 (80)	8.3 (77)
Clarke		23	24.2 (02)	18.8 (02)	Pocahontas	12	12.0 (53)	9.2 (66)
Davis		16	17.2 (19)	14.0 (18)	Ringgold	13	21.8 (08)	14.1 (17)
Decatur		17	18.4 (17)	17.7 (05)	Taylor	15	19.4 (15)	13.2 (23)
Fremont		11	12.3 (50)	9.4 (65)	Van Buren	18	21.2 (09)	15.0 (13)
Howard		12	11.0 (64)	8.9 (69)	Wayne	17	22.3 (06)	17.3 (06)
Ida		12	13.4 (42)	8.1 (82)	Worth	10	11.4 (60)	8.6 (74)
					<b>Total</b>	260	16.8	12.5
<b>Counties with Average Population 10,000 to 20,000</b>	Allamakee	24	15.2 (27)	11.6 (39)	Humboldt	13	11.2 (61)	8.7 (72)
	Appanoose	35	23.1 (05)	17.3 (06)	Iowa	12	7.2 (95)	5.8 (96)
	Butler	25	14.6 (30)	11.7 (37)	Jefferson	17	9.4 (86)	8.2 (80)
	Calhoun	14	11.2 (61)	7.4 (91)	Keokuk	25	19.8 (14)	14.6 (16)
	Cass	18	10.9 (68)	8.0 (84)	Kossuth	30	15.3 (25)	12.7 (28)
	Cedar	18	9.2 (88)	8.0 (84)	Louisa	10	7.6 (93)	7.0 (93)
	Cherokee	27	18.0 (18)	13.8 (20)	Lyon	15	11.5 (58)	9.0 (68)
	Chickasaw	11	7.6 (93)	7.7 (90)	Madison	16	11.0 (64)	9.6 (60)
	Clay	17	8.8 (89)	7.8 (87)	Mills	15	9.9 (82)	9.5 (62)
	Clayton	46	22.1 (07)	17.8 (04)	Mitchell	10	8.3 (91)	7.1 (92)
	Crawford	27	14.6 (30)	12.4 (31)	Monona	17	15.4 (24)	11.8 (35)
	Delaware	11	5.5 (97)	5.3 (97)	Montgomery	14	10.7 (72)	7.8 (87)
	Dickinson	16	9.3 (87)	6.7 (94)	O'Brien	26	15.3 (25)	11.5 (42)
	Emmet	16	12.8 (47)	10.8 (52)	Page	22	11.8 (55)	8.1 (82)
	Floyd	16	8.5 (90)	6.5 (95)	Palo Alto	12	10.5 (73)	8.5 (75)
	Franklin	6	4.9 (98)	4.7 (98)	Poweshiek	21	10.1 (80)	8.2 (80)
	Greene	27	23.9 (03)	16.0 (10)	Sac	18	13.7 (36)	8.9 (69)
	Grundy	22	16.4 (21)	13.2 (23)	Shelby	6	4.1 (99)	3.0 (99)
	Guthrie	20	16.2 (22)	12.9 (26)	Tama	25	12.7 (48)	10.5 (54)
	Hamilton	34	19.0 (16)	15.3 (11)	Union	19	13.9 (35)	11.2 (47)
Hancock	13	9.7 (83)	8.4 (76)	Winnebago	15	11.5 (58)	8.3 (77)	
Hardin	42	20.1 (13)	14.9 (14)	Wright	19	12.0 (53)	7.8 (87)	
Harrison	35	21.0 (10)	18.0 (03)	<b>Total</b>	897	12.8	10.2	
<b>Counties with Average Population &gt; 20,000</b>	Benton	31	11.8 (55)	11.3 (44)	Jones	30	13.6 (39)	12.5 (30)
	Boone	40	14.2 (33)	12.4 (31)	Lee	54	12.7 (48)	11.0 (49)
	Bremer	28	11.0 (64)	9.6 (60)	Mahaska	26	10.8 (70)	9.2 (66)
	Buchanan	36	15.5 (23)	14.7 (15)	Marion	35	10.3 (78)	9.5 (62)
	Buena Vista	34	15.2 (27)	12.8 (27)	Marshall	46	10.8 (70)	8.8 (71)
	Carroll	32	13.5 (40)	10.7 (53)	Muscatine	43	9.5 (85)	9.5 (62)
	Cerro Gordo	67	13.0 (43)	11.0 (49)	Plymouth	40	15.0 (29)	14.0 (18)
	Clinton	77	13.7 (36)	12.3 (34)	Sioux	38	11.1 (63)	10.9 (51)
	Des Moines	61	13.0 (43)	11.2 (47)	Story	53	6.3 (96)	8.3 (77)
	Fayette	35	14.4 (32)	11.6 (39)	Wapello	81	20.4 (12)	16.1 (09)
	Henry	31	14.2 (33)	13.5 (21)	Washington	37	16.6 (20)	13.5 (21)
	Jackson	26	11.7 (57)	10.1 (59)	Webster	60	13.7 (36)	12.4 (31)
	Jasper	41	10.4 (77)	8.7 (72)	Winneshiek	30	12.9 (46)	11.7 (37)
					<b>Total</b>	1,112	12.4	11.2
<b>MSA Counties</b>	Black Hawk	144	10.3 (78)	10.4 (56)	Polk	409	10.5 (73)	11.6 (39)
	Dallas	42	11.0 (64)	11.3 (44)	Pottawattamie	114	12.2 (51)	11.8 (35)
	Dubuque	131	13.5 (40)	13.0 (25)	Scott	180	10.5 (73)	11.3 (44)
	Johnson	89	7.8 (92)	11.4 (43)	Warren	41	9.7 (83)	10.5 (54)
	Linn	240	12.1 (52)	12.7 (28)	Woodbury	118	10.5 (73)	10.4 (56)
	<b>State Totals</b>	3,777	12.0	11.2	<b>Total</b>	1,508	10.8	11.6

<sup>1</sup>Rates per 100,000 population

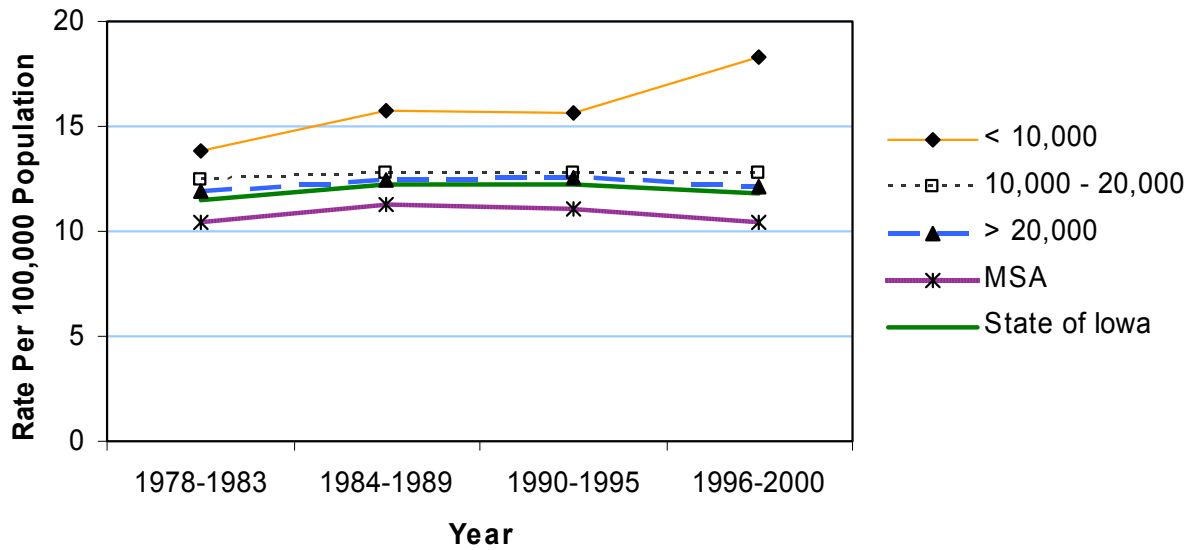
<sup>2</sup>Adjusted to Year 2000 population

<sup>3</sup>Rank among 99 Iowa counties

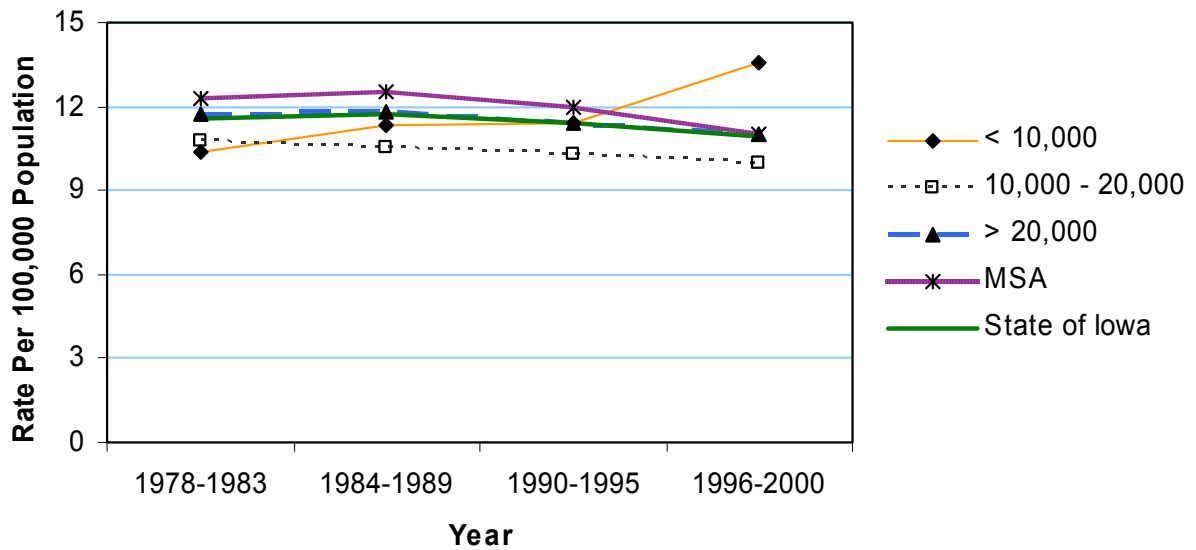
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Oral Cavity (Excluding Lip) Cancer Incidence by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Oral Cavity (Excluding Lip) Mortality 1990-2000

	County		Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County		Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
		#				#		
<b>Counties with Average Population &lt; 10,000</b>	Adair	5	5.4	3.6	Lucas	*	*	*
	Adams	5	9.9	6.8	Monroe	*	*	*
	Audubon	*	*	*	Osceola	*	*	*
	Clarke	5	5.3	4.6	Pocahontas	*	*	*
	Davis	*	*	*	Ringgold	*	*	*
	Decatur	5	5.4	4.2	Taylor	*	*	*
	Fremont	*	*	*	Van Buren	*	*	*
	Howard	5	4.6	3.2	Wayne	*	*	*
	Ida	5	5.6	3.1	Worth	*	*	*
					<b>Total</b>	52	3.4	2.3
	<b>Counties with Average Population 10,000 to 20,000</b>	Allamakee	6	3.8	2.5	Humboldt	5	4.3
Appanoose		5	3.3	3.2	Iowa	6	3.6	2.7
Butler		*	*	*	Jefferson	*	*	*
Calhoun		*	*	*	Keokuk	6	4.7	2.9
Cass		*	*	*	Kossuth	9	4.6	3.2
Cedar		5	2.6	1.9	Louisa	*	*	*
Cherokee		*	*	*	Lyon	*	*	*
Chickasaw		*	*	*	Madison	6	4.1	3.7
Clay		7	3.6	2.9	Mills	6	4.0	3.8
Clayton		*	*	*	Mitchell	*	*	*
Crawford		5	2.7	2.1	Monona	6	5.4	4
Delaware		*	*	*	Montgomery	*	*	*
Dickinson		7	4.1	2.7	O'Brien	*	*	*
Emmet		5	4.0	3.7	Page	6	3.2	2.2
Floyd		*	*	*	Palo Alto	*	*	*
Franklin		*	*	*	Poweshiek	*	*	*
Greene		*	*	*	Sac	*	*	*
Grundy		5	3.7	3.2	Shelby	8	5.5	3.7
Guthrie		*	*	*	Tama	6	3.1	2.4
Hamilton		7	3.9	3.2	Union	5	3.7	2.7
Hancock	*	*	*	Winnebago	6	4.6	3.3	
Hardin	11	5.3	4.1	Wright	*	*	*	
Harrison	5	3.0	2.6	<b>Total</b>	203	2.9	2.2	
<b>Counties with Average Population &gt; 20,000</b>	Benton	5	1.9	1.6	Jones	*	*	*
	Boone	9	3.2	2.8	Lee	15	3.5	3.0
	Bremer	8	3.1	2.8	Mahaska	6	2.5	1.9
	Buchanan	5	2.2	1.9	Marion	7	2.1	1.6
	Buena Vista	*	*	*	Marshall	13	3.0	2.3
	Carroll	9	3.8	2.6	Muscatine	10	2.2	2.3
	Cerro Gordo	17	3.3	2.6	Plymouth	9	3.4	2.7
	Clinton	17	3.0	2.6	Sioux	7	2.0	1.9
	Des Moines	16	3.4	2.8	Story	15	1.8	2.2
	Fayette	6	2.5	1.7	Wapello	16	4.0	3.1
	Henry	8	3.7	3.1	Washington	7	3.1	2.4
	Jackson	*	*	*	Webster	16	3.6	2.9
	Jasper	9	2.3	2.0	Winneshiek	10	4.3	3.6
					<b>Total</b>	250	2.8	2.4
<b>MSA Counties</b>	Black Hawk	43	3.1	3.1	Polk	101	2.6	2.9
	Dallas	7	1.8	1.7	Pottawattamie	26	2.8	2.7
	Dubuque	31	3.2	3.0	Scott	55	3.2	3.5
	Johnson	16	1.4	2.2	Warren	7	1.7	1.8
	Linn	60	3.0	3.2	Woodbury	31	2.8	2.7
	<b>State Totals</b>	882	2.8	2.5	<b>Total</b>	377	2.7	2.9

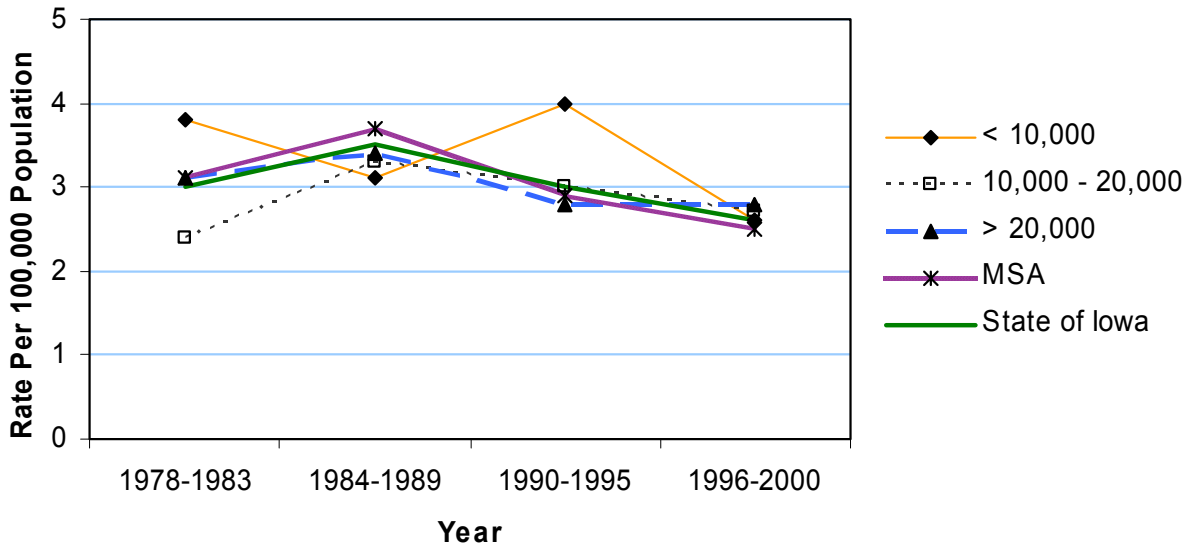
<sup>1</sup>Rates per 100,000 population

<sup>2</sup>Adjusted to Year 2000 population

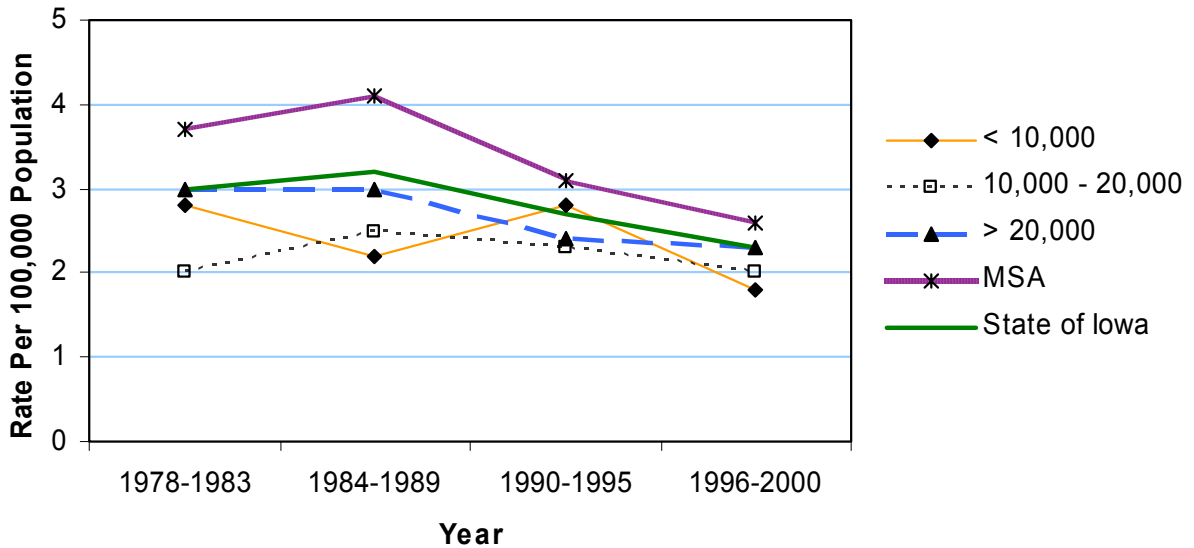
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## Oral Cavity (Excluding Lip) Cancer Mortality by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Cervical Cancer Incidence 1990-2000

	Average Population < 10,000				Average Population 10,000 to 20,000				Average Population > 20,000				MSA Counties			
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with Average Population < 10,000	Adair	7	14.8	14.8	Lucas	5	9.5	8.6								
	Adams	*	*	*	Monroe	6	13.0	8.9								
	Audubon	*	*	*	Osceola	8	19.7	21.6								
	Clarke	7	14.2	14.4	Pocahontas	*	*	*								
	Davis	*	*	*	Ringgold	*	*	*								
	Decatur	10	21.0	24.3	Taylor	5	12.4	11.7								
	Fremont	12	25.8	26.9	Van Buren	*	*	*								
	Howard	5	8.9	9.3	Wayne	*	*	*								
	Ida	*	*	*	Worth	7	15.7	14.4								
					<b>Total</b>	95	11.9	11.8								
	Counties with Average Population 10,000 to 20,000	Allamakee	8	10.0	10.0	Humboldt	7	11.8	9.2							
Appanoose		11	13.9	14.3	Iowa	*	*	*								
Butler		*	*	*	Jefferson	10	10.8	9.9								
Calhoun		*	*	*	Keokuk	*	*	*								
Cass		9	10.5	11.0	Kossuth	9	9.0	9.7								
Cedar		10	10.0	9.6	Louisa	10	15.2	14.6								
Cherokee		6	7.8	7.5	Lyon	*	*	*								
Chickasaw		6	8.2	8.2	Madison	6	8.1	8.5								
Clay		10	9.9	9.1	Mills	6	7.9	7.8								
Clayton		13	12.3	13.7	Mitchell	*	*	*								
Crawford		8	8.5	8.6	Monona	5	8.7	8.3								
Delaware		8	7.8	7.7	Montgomery	8	11.6	10.1								
Dickinson		9	10.1	9.8	O'Brien	9	10.3	9.9								
Emmet		9	13.9	13.8	Page	11	11.7	11.4								
Floyd		8	8.2	7.3	Palo Alto	7	11.9	9.7								
Franklin		*	*	*	Poweshiek	11	10.2	9.8								
Greene		6	10.3	10.1	Sac	8	11.9	11.2								
Grundy		6	8.7	9.6	Shelby	7	9.4	11.4								
Guthrie		8	12.6	13.9	Tama	6	6.0	5.6								
Hamilton		10	10.9	9.7	Union	7	9.7	8.8								
Hancock	*	*	*	Winnebago	*	*	*									
Hardin	13	12.1	11.3	Wright	9	10.9	10.7									
Harrison	10	11.7	10.5	<b>Total</b>	334	9.3	9.0									
Counties with Average Population > 20,000	Benton	13	9.8	9.8	Jones	8	7.6	6.9								
	Boone	16	11.0	11.7	Lee	18	8.3	7.8								
	Bremer	6	4.6	4.9	Mahaska	16	13.1	13.9								
	Buchanan	17	14.5	15.4	Marion	10	5.8	6.0								
	Buena Vista	15	13.2	13.2	Marshall	16	7.4	7.1								
	Carroll	14	11.5	12.4	Muscatine	29	12.6	12.3								
	Cerro Gordo	18	6.7	6.3	Plymouth	5	3.7	3.5								
	Clinton	23	7.9	8.4	Sioux	8	4.6	5.3								
	Des Moines	20	8.2	7.8	Story	24	5.9	7.0								
	Fayette	14	11.3	11.0	Wapello	17	8.3	7.5								
	Henry	13	12.0	11.8	Washington	11	9.5	9.4								
	Jackson	6	5.3	5.8	Webster	28	12.4	11.1								
	Jasper	19	9.5	9.4	Winneshiek	6	5.1	5.4								
					<b>Total</b>	390	8.6	8.6								
MSA Counties	Black Hawk	68	9.3	9.7	Polk	184	9.1	9.0								
	Dallas	22	11.3	10.6	Pottawattamie	54	11.2	11.2								
	Dubuque	46	9.2	9.3	Scott	86	9.8	9.8								
	Johnson	42	7.3	8.8	Warren	18	8.3	8.1								
	Linn	103	10.1	9.9	Woodbury	63	10.9	11.1								
	<b>State Totals</b>	1,505	9.3	9.2	<b>Total</b>	686	9.5	9.6								

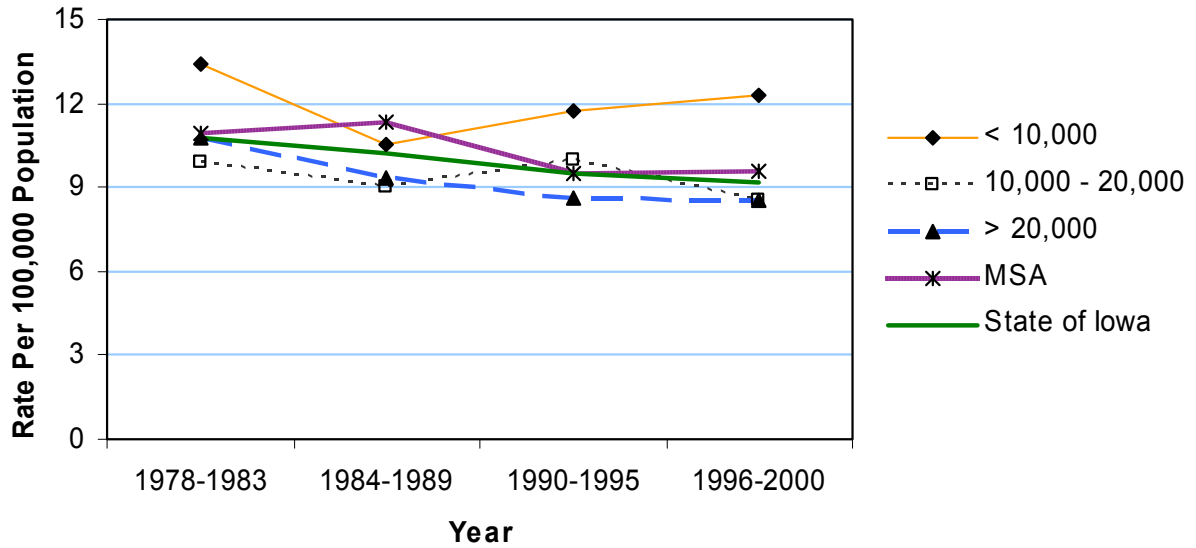
<sup>1</sup>Rates per 100,000 population

<sup>2</sup>Adjusted to Year 2000 population

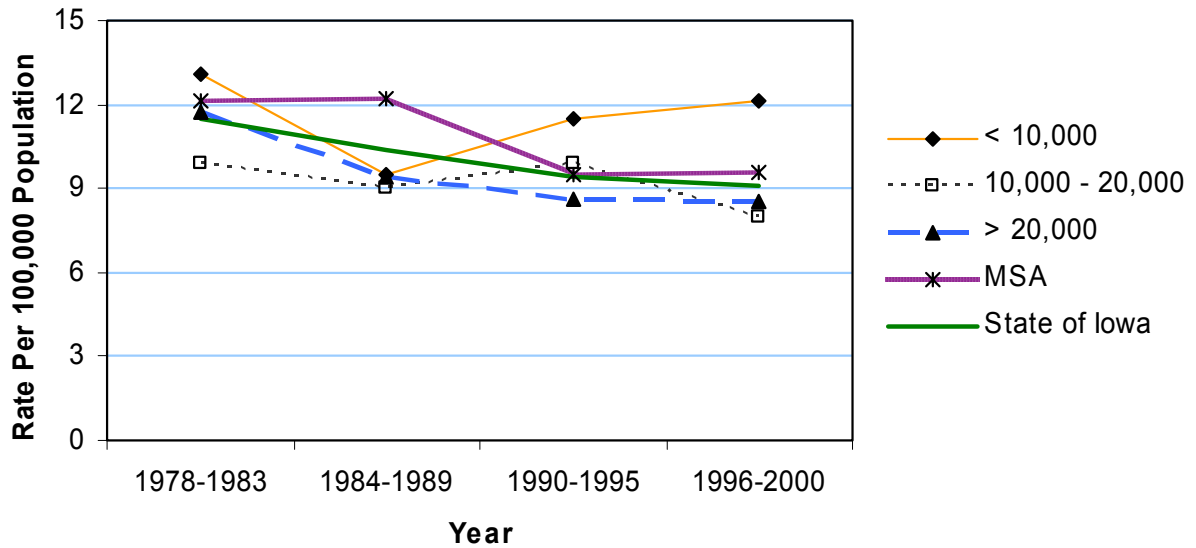
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Cervical Cancer Incidence by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Cervical Cancer Mortality 1990-2000

	Average Population < 10,000				Average Population 10,000 to 20,000				Average Population > 20,000				MSA Counties			
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with Average Population < 10,000	Adair	*	*	*	Lucas	*	*	*								
	Adams	*	*	*	Monroe	*	*	*								
	Audubon	*	*	*	Osceola	*	*	*								
	Clarke	*	*	*	Pocahontas	*	*	*								
	Davis	*	*	*	Ringgold	*	*	*								
	Decatur	*	*	*	Taylor	*	*	*								
	Fremont	*	*	*	Van Buren	*	*	*								
	Howard	*	*	*	Wayne	*	*	*								
	Ida	*	*	*	Worth	*	*	*								
					<b>Total</b>	31	3.9	3.0								
Counties with Average Population 10,000 to 20,000	Allamakee	*	*	*	Humboldt	*	*	*								
	Appanoose	6	7.6	7	Iowa	*	*	*								
	Butler	*	*	*	Jefferson	*	*	*								
	Calhoun	*	*	*	Keokuk	*	*	*								
	Cass	*	*	*	Kossuth	*	*	*								
	Cedar	*	*	*	Louisa	*	*	*								
	Cherokee	*	*	*	Lyon	*	*	*								
	Chickasaw	*	*	*	Madison	*	*	*								
	Clay	*	*	*	Mills	*	*	*								
	Clayton	*	*	*	Mitchell	*	*	*								
	Crawford	*	*	*	Monona	*	*	*								
	Delaware	*	*	*	Montgomery	*	*	*								
	Dickinson	*	*	*	O'Brien	*	*	*								
	Emmet	*	*	*	Page	*	*	*								
	Floyd	*	*	*	Palo Alto	*	*	*								
	Franklin	*	*	*	Poweshiek	*	*	*								
	Greene	*	*	*	Sac	*	*	*								
	Grundy	*	*	*	Shelby	*	*	*								
	Guthrie	*	*	*	Tama	*	*	*								
	Hamilton	*	*	*	Union	*	*	*								
Hancock	*	*	*	Winnebago	*	*	*									
Hardin	*	*	*	Wright	6	7.3	5.1									
Harrison	*	*	*	<b>Total</b>	107	3.0	2.6									
Counties with Average Population > 20,000	Benton	*	*	*	Jones	*	*	*								
	Boone	7	4.8	5	Lee	*	*	*								
	Bremer	*	*	*	Mahaska	7	5.7	6								
	Buchanan	*	*	*	Marion	*	*	*								
	Buena Vista	7	6.1	5.4	Marshall	6	2.8	2.3								
	Carroll	*	*	*	Muscatine	12	5.2	4.7								
	Cerro Gordo	7	2.6	2.4	Plymouth	*	*	*								
	Clinton	6	2.1	1.7	Sioux	*	*	*								
	Des Moines	9	3.7	3	Story	6	1.5	1.7								
	Fayette	5	4.0	3.7	Wapello	7	3.4	2.7								
	Henry	*	*	*	Washington	*	*	*								
	Jackson	5	4.4	4.8	Webster	5	2.2	1.7								
	Jasper	*	*	*	Winneshiek	*	*	*								
					<b>Total</b>	120	2.6	2.4								
MSA Counties	Black Hawk	20	2.7	2.7	Polk	45	2.2	2.3								
	Dallas	8	4.1	4	Pottawattamie	17	3.5	3.3								
	Dubuque	15	3.0	2.9	Scott	38	4.3	4.3								
	Johnson	8	1.4	1.9	Warren	*	*	*								
	Linn	23	2.3	2.2	Woodbury	25	4.3	3.8								
	<b>State Totals</b>	461	2.9	2.6	<b>Total</b>	203	2.8	2.8								

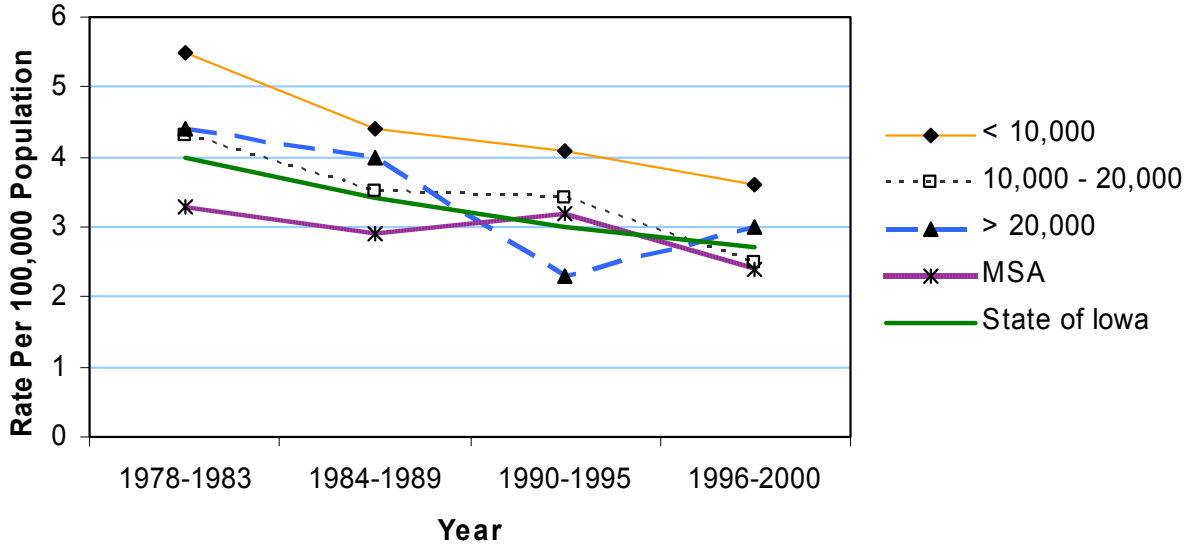
<sup>1</sup>Rates per 100,000 population  
<sup>2</sup>Adjusted to Year 2000 population

Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

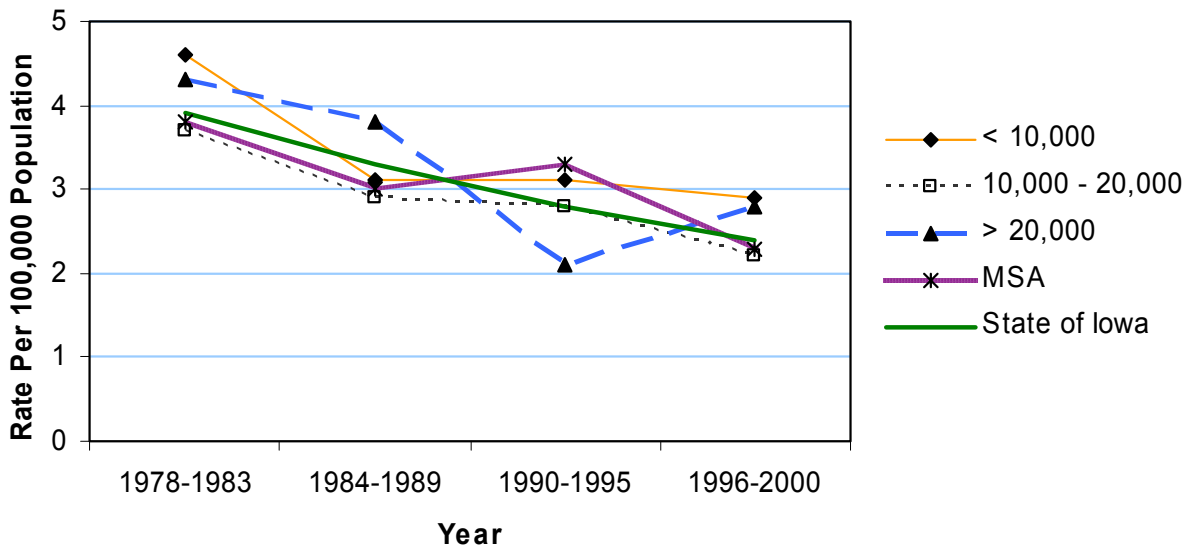


## Cervical Cancer Mortality by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates





## Injury Mortality

Transportation-related mortality accounted for 5,707 deaths in Iowa, 91% of which were motor vehicle fatalities, from 1990-2000. The rates for these fatalities are highest in the rural counties and lowest in the most urban counties. Crude rates for suicide, firearm mortality, and falls mortality tend to be highest in rural counties, but the age-adjusted rates are more similar for the county groups. Homicide rates are consistently higher in the urban counties. Poisoning mortality rates have shown much variation across years for each county group. The state's mortality rate from burns has increased in recent years after decreasing from 1979-1998. In general, drowning deaths have consistently decreased across all county levels since 1979. Deaths from all other unintentional injuries are difficult to compare for 1999-2000 and preceding years due to changes in the mortality classification systems (discussed below).

### HIGHLIGHTS...

- ✓ Injuries are the leading cause of death in persons 1-34 years of age.
- ✓ Motor vehicle deaths account for 91% of all transportation deaths in Iowa.
- ✓ Crude mortality rates from motor vehicle accidents, suicide, firearms, and falls are highest in rural counties.

Beginning in 1999, the tenth revision of the International Classification of Diseases (ICD-10) replaced the ninth version (ICD-9) as the standard mortality classification system. ICD-10 is more detailed than ICD-9; ICD-10 has about 8,000 categories while ICD-9 has about 5,000 categories. Also, some of the coding rules and rules for selecting the underlying cause of death have changed. Because of the new classification system, observed changes in mortality rates between 1999-2000 and preceding years could be due, in part, to changes in the method of mortality classification. Therefore, one should compare rates from 1999-2000 and preceding years with caution. The ICD-9 and ICD-10 codes used for each type of Injury Mortality are listed in the appendix.

The source of this mortality data is the cause of death data obtained from death certificates filed at the Iowa Department of Public Health. Analysis was done by the State Health Registry of Iowa and the Center for Public Health Statistics at the University of Iowa. Age-adjusted rates were calculated using the Year 2000 US population distribution.

## All Transportation Mortality 1990-2000

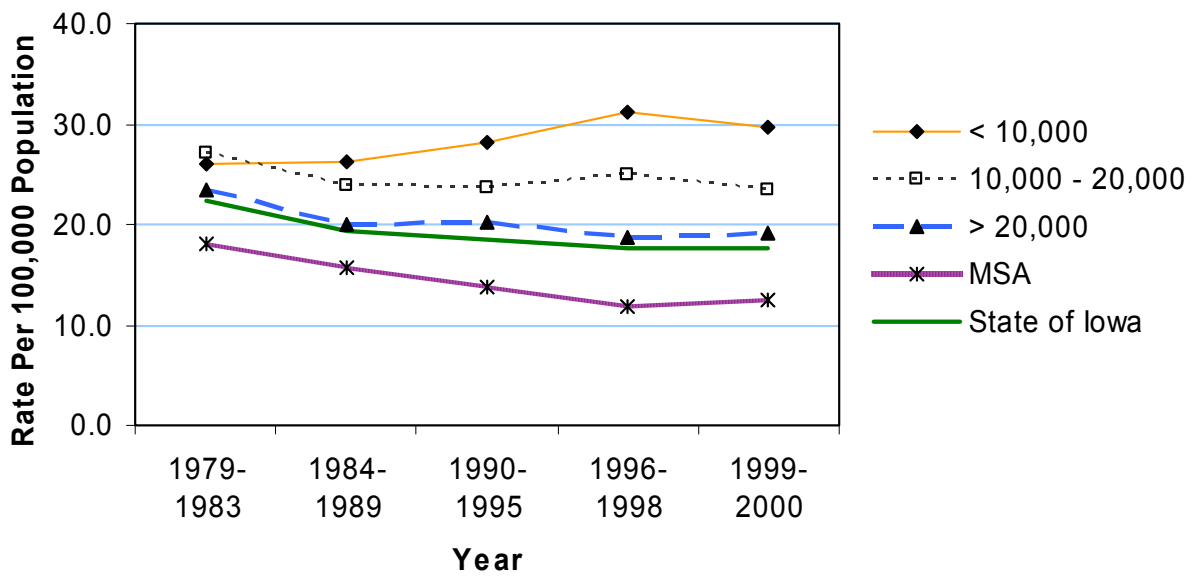
	Average Population < 10,000				Average Population 10,000 to 20,000				Average Population > 20,000				MSA Counties			
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with Average Population < 10,000	Adair	31	33.7 (09)	33.2 (12)	Lucas	38	37.3 (04)	35.5 (08)	Lucas	38	37.3 (04)	35.5 (08)	Lucas	38	37.3 (04)	35.5 (08)
	Adams	15	29.6 (16)	34.2 (10)	Monroe	33	36.9 (05)	39.4 (04)	Monroe	33	36.9 (05)	39.4 (04)	Monroe	33	36.9 (05)	39.4 (04)
	Audubon	17	22.0 (51)	18.8 (72)	Osceola	20	25.4 (30)	27.1 (25)	Osceola	20	25.4 (30)	27.1 (25)	Osceola	20	25.4 (30)	27.1 (25)
	Clarke	26	27.4 (19)	30.3 (16)	Pocahontas	24	24.0 (38)	26.4 (32)	Pocahontas	24	24.0 (38)	26.4 (32)	Pocahontas	24	24.0 (38)	26.4 (32)
	Davis	37	39.9 (02)	39.4 (03)	Ringgold	12	20.1 (63)	18.8 (73)	Ringgold	12	20.1 (63)	18.8 (73)	Ringgold	12	20.1 (63)	18.8 (73)
	Decatur	29	31.4 (13)	28.4 (20)	Taylor	20	25.9 (27)	29.4 (17)	Taylor	20	25.9 (27)	29.4 (17)	Taylor	20	25.9 (27)	29.4 (17)
	Fremont	22	24.6 (35)	27.3 (24)	Van Buren	27	31.8 (12)	32.3 (13)	Van Buren	27	31.8 (12)	32.3 (13)	Van Buren	27	31.8 (12)	32.3 (13)
	Howard	21	19.2 (69)	20.4 (62)	Wayne	36	47.2 (01)	55.7 (01)	Wayne	36	47.2 (01)	55.7 (01)	Wayne	36	47.2 (01)	55.7 (01)
	Ida	29	32.4 (11)	36.1 (07)	Worth	14	16.0 (86)	16.5 (86)	Worth	14	16.0 (86)	16.5 (86)	Worth	14	16.0 (86)	16.5 (86)
					<b>Total</b>	451	29.2	30.4	<b>Total</b>	451	29.2	30.4	<b>Total</b>	451	29.2	30.4
Counties with Average Population 10,000 to 20,000	Allamakee	47	29.8 (15)	31.8 (14)	Humboldt	22	19.0 (71)	20.7 (57)	Humboldt	22	19.0 (71)	20.7 (57)	Humboldt	22	19.0 (71)	20.7 (57)
	Appanoose	37	24.4 (37)	24.9 (38)	Iowa	45	27.0 (21)	29.2 (18)	Iowa	45	27.0 (21)	29.2 (18)	Iowa	45	27.0 (21)	29.2 (18)
	Butler	33	19.3 (68)	20.3 (63)	Jefferson	42	23.2 (42)	23.2 (42)	Jefferson	42	23.2 (42)	23.2 (42)	Jefferson	42	23.2 (42)	23.2 (42)
	Calhoun	23	18.3 (78)	19.5 (68)	Keokuk	49	38.7 (03)	40.0 (02)	Keokuk	49	38.7 (03)	40.0 (02)	Keokuk	49	38.7 (03)	40.0 (02)
	Cass	38	23.1 (44)	24.4 (40)	Kossuth	41	21.0 (55)	21.3 (53)	Kossuth	41	21.0 (55)	21.3 (53)	Kossuth	41	21.0 (55)	21.3 (53)
	Cedar	48	24.5 (36)	24.7 (39)	Louisa	35	26.7 (22)	26.6 (28)	Louisa	35	26.7 (22)	26.6 (28)	Louisa	35	26.7 (22)	26.6 (28)
	Cherokee	39	26.0 (26)	26.4 (31)	Lyon	29	22.3 (50)	21.8 (52)	Lyon	29	22.3 (50)	21.8 (52)	Lyon	29	22.3 (50)	21.8 (52)
	Chickasaw	35	24.0 (39)	25.6 (34)	Madison	37	25.4 (29)	27.5 (22)	Madison	37	25.4 (29)	27.5 (22)	Madison	37	25.4 (29)	27.5 (22)
	Clay	31	16.0 (87)	16.1 (88)	Mills	39	25.8 (28)	26.8 (27)	Mills	39	25.8 (28)	26.8 (27)	Mills	39	25.8 (28)	26.8 (27)
	Clayton	72	34.7 (08)	35.4 (09)	Mitchell	30	25.0 (33)	22.3 (46)	Mitchell	30	25.0 (33)	22.3 (46)	Mitchell	30	25.0 (33)	22.3 (46)
	Crawford	56	30.3 (14)	29.2 (19)	Monona	31	28.0 (17)	31.6 (15)	Monona	31	28.0 (17)	31.6 (15)	Monona	31	28.0 (17)	31.6 (15)
	Delaware	43	21.3 (54)	22.0 (51)	Montgomery	25	19.1 (70)	20.0 (66)	Montgomery	25	19.1 (70)	20.0 (66)	Montgomery	25	19.1 (70)	20.0 (66)
	Dickinson	36	20.9 (56)	20.0 (65)	O'Brien	34	20.0 (65)	20.5 (60)	O'Brien	34	20.0 (65)	20.5 (60)	O'Brien	34	20.0 (65)	20.5 (60)
	Emmet	26	20.7 (58)	20.6 (59)	Page	41	22.0 (52)	20.6 (58)	Page	41	22.0 (52)	20.6 (58)	Page	41	22.0 (52)	20.6 (58)
	Floyd	37	19.8 (67)	19.0 (70)	Palo Alto	32	28.0 (18)	27.9 (21)	Palo Alto	32	28.0 (18)	27.9 (21)	Palo Alto	32	28.0 (18)	27.9 (21)
	Franklin	28	23.1 (45)	22.5 (44)	Poweshiek	33	15.9 (89)	15.3 (89)	Poweshiek	33	15.9 (89)	15.3 (89)	Poweshiek	33	15.9 (89)	15.3 (89)
	Greene	23	20.3 (60)	22.1 (49)	Sac	44	33.4 (10)	33.4 (11)	Sac	44	33.4 (10)	33.4 (11)	Sac	44	33.4 (10)	33.4 (11)
	Grundy	27	20.1 (62)	21.1 (54)	Shelby	37	25.4 (31)	26.2 (33)	Shelby	37	25.4 (31)	26.2 (33)	Shelby	37	25.4 (31)	26.2 (33)
	Guthrie	19	15.4 (91)	16.5 (85)	Tama	70	35.7 (07)	38.0 (05)	Tama	70	35.7 (07)	38.0 (05)	Tama	70	35.7 (07)	38.0 (05)
	Hamilton	41	22.9 (46)	22.1 (48)	Union	31	22.6 (47)	22.5 (45)	Union	31	22.6 (47)	22.5 (45)	Union	31	22.6 (47)	22.5 (45)
Hancock	25	18.6 (77)	18.4 (75)	Winnebago	29	22.3 (49)	20.7 (56)	Winnebago	29	22.3 (49)	20.7 (56)	Winnebago	29	22.3 (49)	20.7 (56)	
Hardin	39	18.7 (75)	17.5 (79)	Wright	42	26.4 (25)	26.6 (29)	Wright	42	26.4 (25)	26.6 (29)	Wright	42	26.4 (25)	26.6 (29)	
Harrison	60	35.9 (06)	36.8 (06)	<b>Total</b>	1,681	24.0	24.2	<b>Total</b>	1,681	24.0	24.2	<b>Total</b>	1,681	24.0	24.2	
Counties with Average Population > 20,000	Benton	44	16.8 (83)	17.5 (78)	Jones	59	26.7 (23)	26.5 (30)	Jones	59	26.7 (23)	26.5 (30)	Jones	59	26.7 (23)	26.5 (30)
	Boone	56	19.9 (66)	19.7 (67)	Lee	113	26.5 (24)	27.0 (26)	Lee	113	26.5 (24)	27.0 (26)	Lee	113	26.5 (24)	27.0 (26)
	Bremer	48	18.8 (74)	17.2 (81)	Mahaska	54	22.3 (48)	22.2 (47)	Mahaska	54	22.3 (48)	22.2 (47)	Mahaska	54	22.3 (48)	22.2 (47)
	Buchanan	48	20.7 (59)	21.0 (55)	Marion	71	20.8 (57)	20.4 (61)	Marion	71	20.8 (57)	20.4 (61)	Marion	71	20.8 (57)	20.4 (61)
	Buena Vista	45	20.1 (64)	18.3 (76)	Marshall	93	21.8 (53)	22.1 (50)	Marshall	93	21.8 (53)	22.1 (50)	Marshall	93	21.8 (53)	22.1 (50)
	Carroll	55	23.2 (43)	23.5 (41)	Muscatine	86	19.0 (72)	19.1 (69)	Muscatine	86	19.0 (72)	19.1 (69)	Muscatine	86	19.0 (72)	19.1 (69)
	Cerro Gordo	85	16.5 (85)	16.3 (87)	Plymouth	45	16.9 (81)	17.3 (80)	Plymouth	45	16.9 (81)	17.3 (80)	Plymouth	45	16.9 (81)	17.3 (80)
	Clinton	106	18.9 (73)	18.8 (71)	Sioux	62	18.1 (79)	16.8 (83)	Sioux	62	18.1 (79)	16.8 (83)	Sioux	62	18.1 (79)	16.8 (83)
	Des Moines	85	18.1 (80)	18.0 (77)	Story	100	11.8 (96)	11.3 (98)	Story	100	11.8 (96)	11.3 (98)	Story	100	11.8 (96)	11.3 (98)
	Fayette	61	25.1 (32)	25.2 (37)	Wapello	98	24.7 (34)	25.2 (36)	Wapello	98	24.7 (34)	25.2 (36)	Wapello	98	24.7 (34)	25.2 (36)
	Henry	51	23.3 (41)	22.8 (43)	Washington	45	20.2 (61)	20.3 (64)	Washington	45	20.2 (61)	20.3 (64)	Washington	45	20.2 (61)	20.3 (64)
	Jackson	60	27.1 (20)	27.4 (23)	Webster	82	18.7 (76)	18.6 (74)	Webster	82	18.7 (76)	18.6 (74)	Webster	82	18.7 (76)	18.6 (74)
	Jasper	66	16.8 (82)	17.1 (82)	Winneshiek	37	15.9 (88)	14.0 (91)	Winneshiek	37	15.9 (88)	14.0 (91)	Winneshiek	37	15.9 (88)	14.0 (91)
					<b>Total</b>	1,755	19.6	19.0	<b>Total</b>	1,755	19.6	19.0	<b>Total</b>	1,755	19.6	19.0
MSA Counties	Black Hawk	215	15.4 (90)	15.1 (90)	Polk	492	12.7 (93)	12.8 (93)	Polk	492	12.7 (93)	12.8 (93)	Polk	492	12.7 (93)	12.8 (93)
	Dallas	91	23.8 (40)	25.3 (35)	Pottawattamie	156	16.7 (84)	16.7 (84)	Pottawattamie	156	16.7 (84)	16.7 (84)	Pottawattamie	156	16.7 (84)	16.7 (84)
	Dubuque	123	12.7 (94)	12.5 (94)	Scott	199	11.6 (97)	11.7 (96)	Scott	199	11.6 (97)	11.7 (96)	Scott	199	11.6 (97)	11.7 (96)
	Johnson	105	9.2 (99)	8.8 (99)	Warren	49	11.6 (98)	11.7 (97)	Warren	49	11.6 (98)	11.7 (97)	Warren	49	11.6 (98)	11.7 (97)
	Linn	236	11.9 (95)	11.8 (95)	Woodbury	154	13.7 (92)	13.5 (92)	Woodbury	154	13.7 (92)	13.5 (92)	Woodbury	154	13.7 (92)	13.5 (92)
<b>State Totals</b>	5,707	18.1	17.7	<b>Total</b>	1,820	13.0	12.9	<b>Total</b>	1,820	13.0	12.9	<b>Total</b>	1,820	13.0	12.9	

<sup>1</sup>Rates per 100,000 population<sup>2</sup>Adjusted to Year 2000 population<sup>3</sup>Rank among 99 Iowa counties

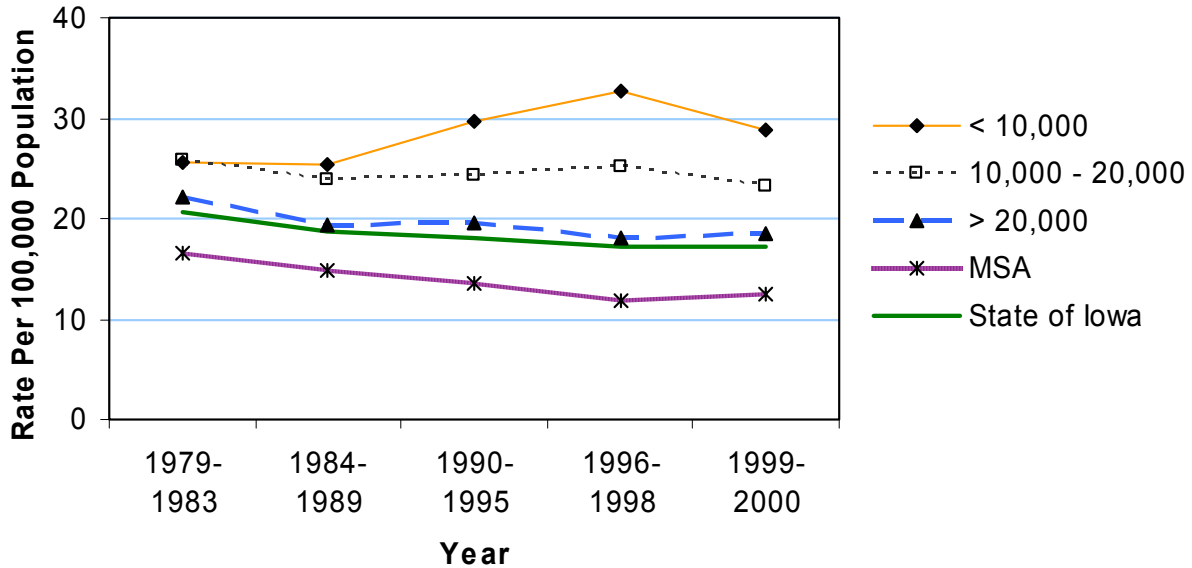
Source: Iowa Department of Public Health via Iowa Cancer Registry

## All Transportation Mortality by County Group 1979-2000

### Crude Rates



### Age-Adjusted Rates



## Motor Vehicle Traffic Mortality 1990-2000

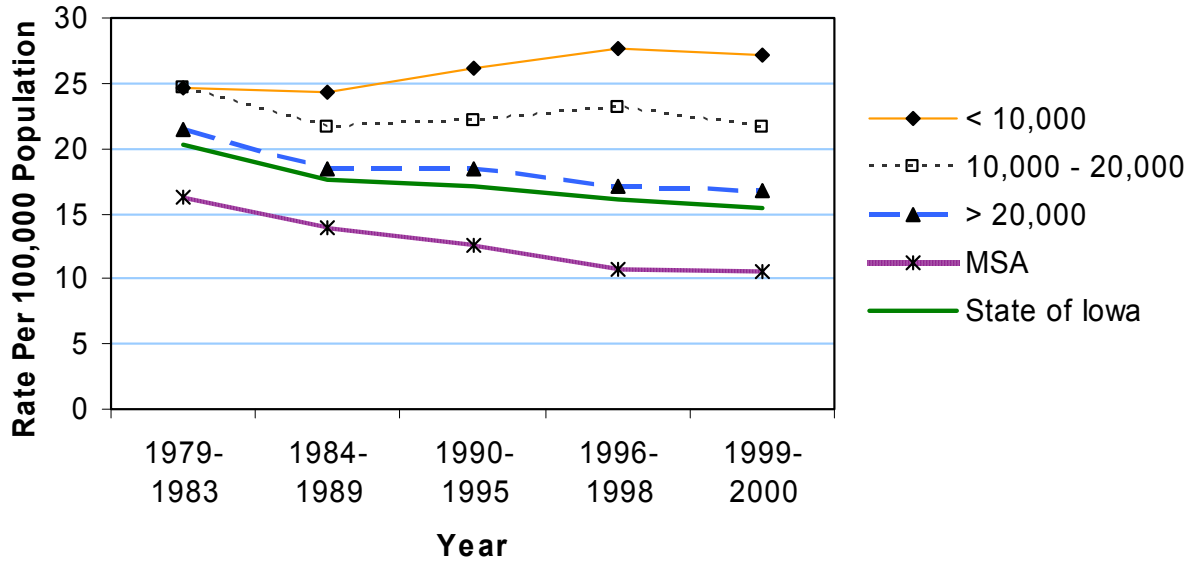
	Counties with Average Population < 10,000				Counties with Average Population 10,000 to 20,000				Counties with Average Population > 20,000				MSA Counties			
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with Average Population < 10,000	Adair	30	32.6 (06)	32.2 (09)	Lucas	32	31.4 (09)	31.0 (11)								
	Adams	14	27.7 (14)	32.0 (10)	Monroe	29	32.4 (07)	34.2 (06)								
	Audubon	15	19.4 (58)	16.7 (73)	Osceola	18	22.8 (37)	23.8 (32)								
	Clarke	23	24.2 (24)	26.2 (20)	Pocahontas	23	23.0 (35)	25.3 (23)								
	Davis	36	38.8 (02)	38.3 (02)	Ringgold	12	20.1 (53)	18.8 (61)								
	Decatur	28	30.3 (11)	27.0 (17)	Taylor	19	24.6 (21)	28.2 (16)								
	Fremont	21	23.5 (29)	26.3 (18)	Van Buren	25	29.4 (12)	30.2 (13)								
	Howard	18	16.5 (76)	17.6 (67)	Wayne	32	42.0 (01)	50.5 (01)								
	Ida	26	29.0 (13)	33.4 (07)	Worth	12	13.7 (90)	13.7 (89)								
					<b>Total</b>	413	26.8	27.9								
Counties with Average Population 10,000 to 20,000	Allamakee	42	26.6 (16)	28.7 (15)	Humboldt	20	17.3 (69)	17.8 (66)								
	Appanoose	35	23.1 (34)	23.7 (34)	Iowa	40	24.0 (27)	26.2 (19)								
	Butler	31	18.1 (67)	18.9 (60)	Jefferson	42	23.2 (33)	23.2 (37)								
	Calhoun	18	14.3 (87)	15.8 (80)	Keokuk	46	36.3 (03)	37.8 (03)								
	Cass	37	22.5 (39)	23.7 (35)	Kossuth	40	20.5 (50)	20.7 (50)								
	Cedar	46	23.5 (30)	23.7 (33)	Louisa	33	25.2 (20)	25.2 (25)								
	Cherokee	33	22.0 (41)	22.7 (41)	Lyon	26	20.0 (54)	19.6 (54)								
	Chickasaw	34	23.3 (31)	25.1 (27)	Madison	35	24.0 (26)	26.2 (21)								
	Clay	31	16.0 (79)	16.1 (75)	Mills	36	23.8 (28)	24.9 (30)								
	Clayton	68	32.7 (05)	33.3 (08)	Mitchell	29	24.2 (25)	21.8 (44)								
	Crawford	50	27.1 (15)	26.0 (22)	Monona	29	26.2 (17)	30.1 (14)								
	Delaware	39	19.4 (60)	19.8 (53)	Montgomery	22	16.8 (75)	17.0 (72)								
	Dickinson	34	19.7 (56)	18.5 (62)	O'Brien	32	18.8 (64)	19.1 (59)								
	Emmet	25	19.9 (55)	19.6 (55)	Page	38	20.4 (52)	19.1 (57)								
	Floyd	36	19.2 (62)	18.3 (63)	Palo Alto	29	25.4 (18)	25.1 (26)								
	Franklin	26	21.4 (47)	20.8 (48)	Poweshiek	31	14.9 (83)	14.6 (87)								
	Greene	22	19.5 (57)	21.8 (45)	Sac	40	30.4 (10)	30.5 (12)								
	Grundy	26	19.4 (59)	20.3 (52)	Shelby	34	23.3 (32)	24.1 (31)								
	Guthrie	16	13.0 (91)	13.6 (90)	Tama	63	32.1 (08)	34.8 (05)								
	Hamilton	38	21.2 (48)	20.3 (51)	Union	30	21.9 (43)	21.8 (43)								
Hancock	22	16.4 (78)	15.9 (78)	Winnebago	27	20.8 (49)	19.1 (58)									
Hardin	36	17.3 (70)	15.8 (79)	Wright	39	24.6 (22)	25.1 (28)									
Harrison	57	34.1 (04)	34.8 (04)	<b>Total</b>	1,563	22.3	22.5									
Counties with Average Population > 20,000	Benton	39	14.9 (84)	15.4 (82)	Jones	56	25.3 (19)	25.3 (24)								
	Boone	52	18.5 (66)	18.3 (64)	Lee	95	22.3 (40)	22.8 (40)								
	Bremer	44	17.3 (73)	15.7 (81)	Mahaska	52	21.5 (44)	21.4 (46)								
	Buchanan	40	17.3 (72)	17.4 (69)	Marion	63	18.5 (65)	18.2 (65)								
	Buena Vista	43	19.2 (63)	17.4 (68)	Marshall	87	20.4 (51)	20.7 (49)								
	Carroll	54	22.8 (38)	23.2 (36)	Muscatine	78	17.2 (74)	17.3 (71)								
	Cerro Gordo	78	15.1 (81)	15.0 (83)	Plymouth	41	15.4 (80)	15.9 (76)								
	Clinton	99	17.7 (68)	17.4 (70)	Sioux	59	17.3 (71)	15.9 (77)								
	Des Moines	71	15.1 (82)	15.0 (84)	Story	93	11.0 (94)	10.3 (96)								
	Fayette	56	23.0 (36)	23.1 (38)	Wapello	85	21.5 (46)	21.8 (42)								
	Henry	48	21.9 (42)	21.4 (47)	Washington	43	19.3 (61)	19.6 (56)								
	Jackson	54	24.4 (23)	24.9 (29)	Webster	72	16.4 (77)	16.2 (74)								
	Jasper	56	14.2 (88)	14.7 (86)	Winneshiek	32	13.8 (89)	12.3 (91)								
					<b>Total</b>	1,590	17.7	17.1								
MSA Counties	Black Hawk	201	14.4 (86)	14.0 (88)	Polk	442	11.4 (93)	11.5 (93)								
	Dallas	82	21.5 (45)	22.9 (39)	Pottawattamie	138	14.8 (85)	14.8 (85)								
	Dubuque	100	10.3 (97)	10.2 (97)	Scott	177	10.3 (96)	10.4 (95)								
	Johnson	95	8.3 (99)	7.9 (99)	Warren	42	9.9 (98)	10.0 (98)								
	Linn	213	10.7 (95)	10.7 (94)	Woodbury	140	12.4 (92)	12.2 (92)								
<b>State Totals</b>	5,196	16.5	16.1													

<sup>1</sup>Rates per 100,000 population<sup>2</sup>Adjusted to Year 2000 population<sup>3</sup>Rank among 99 Iowa counties

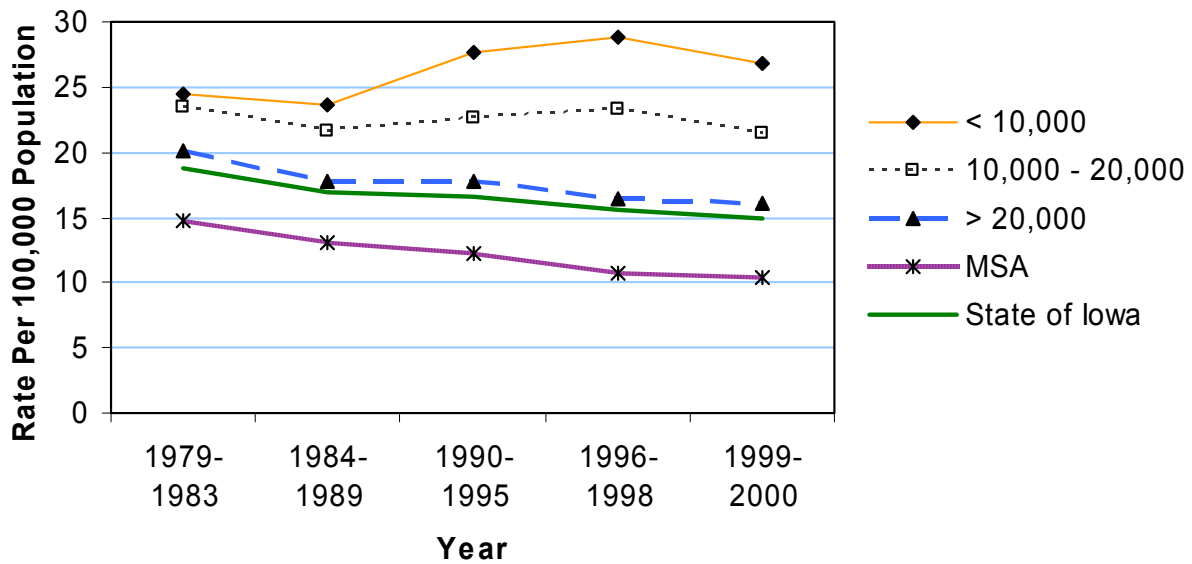
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Motor Vehicle Traffic Mortality by County Group 1979-2000

### Crude Rates



### Age-Adjusted Rates





## Suicide Mortality 1990-2000

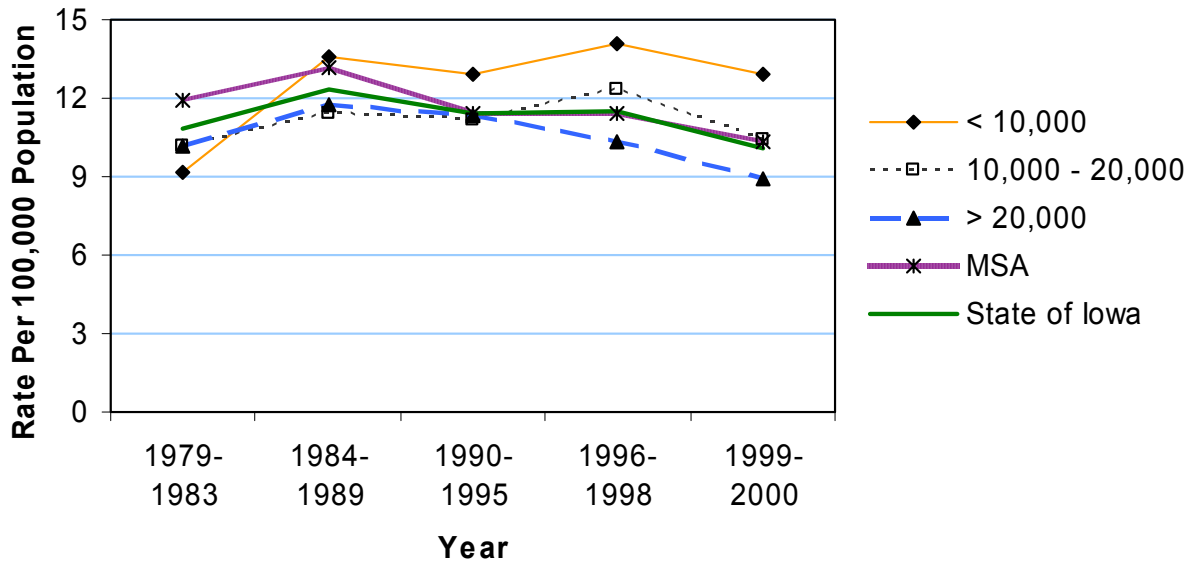
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with Average Population < 10,000	Adair	11	12.0	10.9	Lucas	17	16.7	15.9
	Adams	*	*	*	Monroe	20	22.3	23.6
	Audubon	10	13.0	12.3	Osceola	10	12.7	11.8
	Clarke	14	14.8	14.2	Pocahontas	14	14.0	14.3
	Davis	13	14.0	13.2	Ringgold	8	13.4	10.3
	Decatur	15	16.2	14.9	Taylor	11	14.2	10.6
	Fremont	10	11.2	11.5	Van Buren	12	14.1	14.0
	Howard	6	5.5	6.6	Wayne	9	11.8	11.2
	Ida	8	8.9	8.7	Worth	12	13.7	15.6
					<b>Total</b>	204	13.2	12.8
Counties with Average Population 10,000 to 20,000	Allamakee	17	10.8	10.8	Humboldt	18	15.6	16.8
	Appanoose	18	11.9	11.2	Iowa	16	9.6	9.1
	Butler	14	8.2	8.4	Jefferson	35	19.4	19.0
	Calhoun	14	11.2	10.8	Keokuk	22	17.4	16.4
	Cass	14	8.5	9.1	Kossuth	9	4.6	4.1
	Cedar	23	11.7	12.1	Louisa	18	13.7	13.7
	Cherokee	22	14.7	14.9	Lyon	8	6.1	5.5
	Chickasaw	15	10.3	11.1	Madison	15	10.3	10.2
	Clay	21	10.8	10.3	Mills	17	11.2	12.4
	Clayton	33	15.9	15.1	Mitchell	17	14.2	13.6
	Crawford	16	8.7	9.0	Monona	15	13.6	14.9
	Delaware	19	9.4	10.6	Montgomery	18	13.7	13.4
	Dickinson	22	12.7	12.9	O'Brien	21	12.3	12.6
	Emmet	13	10.4	9.2	Page	18	9.6	9.6
	Floyd	22	11.8	10.3	Palo Alto	8	7.0	7.2
	Franklin	10	8.2	9.5	Poweshiek	24	11.5	11.1
	Greene	14	12.4	12.6	Sac	15	11.4	11.7
	Grundy	17	12.7	11.8	Shelby	15	10.3	10.0
	Guthrie	16	13.0	11.6	Tama	27	13.8	13.1
	Hamilton	23	12.8	12.6	Union	26	19.0	18.6
Hancock	13	9.7	10.0	Winnebago	10	7.7	8.1	
Hardin	18	8.6	8.1	Wright	12	7.6	6.8	
Harrison	16	9.6	9.6	<b>Total</b>	794	11.3	11.2	
Counties with Average Population > 20,000	Benton	27	10.3	10.3	Jones	28	12.6	12.0
	Boone	33	11.7	11.6	Lee	56	13.1	13.3
	Bremer	33	12.9	12.2	Mahaska	17	7.0	7.0
	Buchanan	35	15.1	16.0	Marion	29	8.5	9.1
	Buena Vista	17	7.6	7.6	Marshall	52	12.2	12.5
	Carroll	26	11.0	10.9	Muscatine	50	11.0	11.0
	Cerro Gordo	54	10.5	10.6	Plymouth	25	9.4	9.9
	Clinton	58	10.4	10.1	Sioux	14	4.1	3.9
	Des Moines	72	15.3	14.9	Story	69	8.2	8.5
	Fayette	21	8.6	8.4	Wapello	50	12.6	12.5
	Henry	16	7.3	6.9	Washington	30	13.5	12.7
	Jackson	34	15.3	15.7	Webster	55	12.5	12.4
	Jasper	34	8.6	8.5	Winneshiek	17	7.3	7.6
					<b>Total</b>	952	10.6	10.5
MSA Counties	Black Hawk	143	10.2	10.2	Polk	451	11.6	11.7
	Dallas	45	11.8	11.9	Pottawattamie	137	14.7	14.9
	Dubuque	107	11.0	11.0	Scott	194	11.3	11.6
	Johnson	94	8.2	7.6	Warren	42	9.9	10.1
	Linn	238	12.0	11.9	Woodbury	114	10.1	10.2
<b>State Totals</b>	3,515	11.2	11.0	<b>Total</b>	1,565	11.2	11.1	

<sup>1</sup>Rates per 100,000 population<sup>2</sup>Adjusted to Year 2000 population

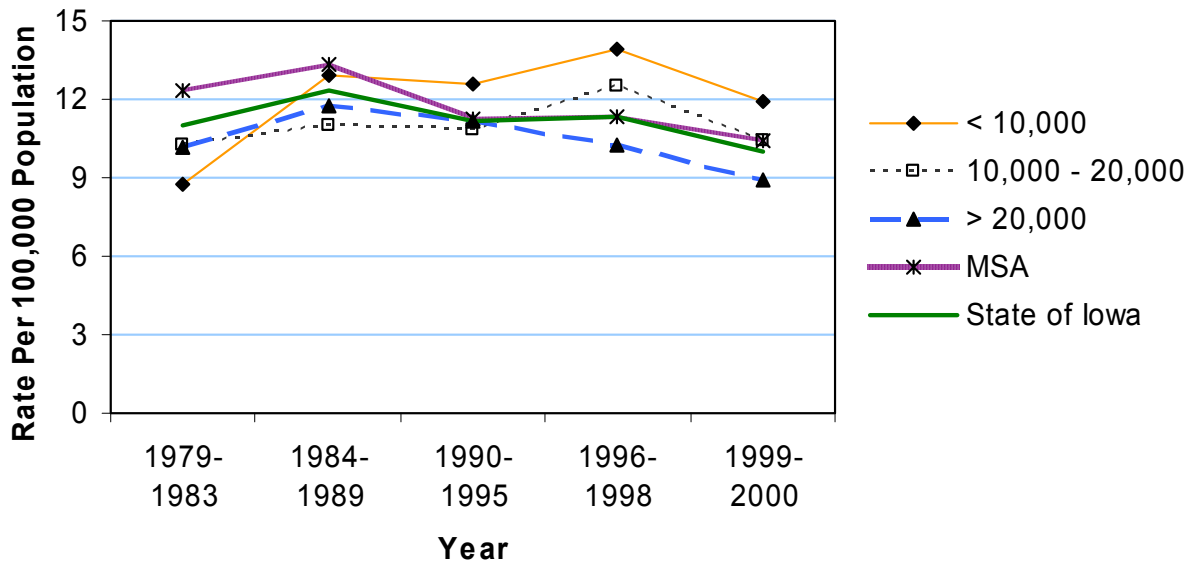
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Suicide Mortality by County Group 1979-2000

### Crude Rates



### Age-Adjusted Rates



## Firearms Mortality 1990-2000

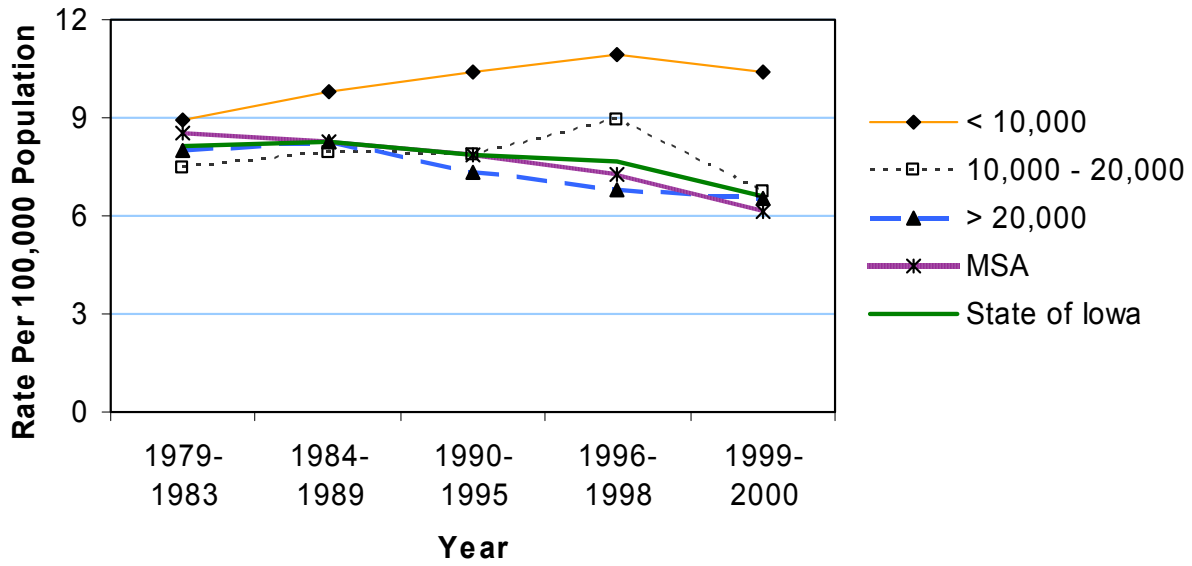
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with Average Population < 10,000	Adair	10	10.9	10.4	Lucas	11	10.8	10.3
	Adams	5	9.9	12.2	Monroe	10	11.2	10.7
	Audubon	6	7.8	6.6	Osceola	*	*	*
	Clarke	13	13.7	14.3	Pocahontas	10	10.0	10.5
	Davis	14	15.1	14.4	Ringgold	8	13.4	10.3
	Decatur	16	17.3	17.0	Taylor	10	12.9	10.0
	Fremont	9	10.1	10.8	Van Buren	14	16.5	16.1
	Howard	5	4.6	5.6	Wayne	7	9.2	9.5
	Ida	*	*	*	Worth	7	8.0	8.9
					<b>Total</b>	163	10.6	10.4
Counties with Average Population 10,000 to 20,000	Allamakee	15	9.5	10.5	Humboldt	12	10.4	11.8
	Appanoose	13	8.6	8.0	Iowa	14	8.4	8.2
	Butler	12	7.0	7.0	Jefferson	23	12.7	13.5
	Calhoun	8	6.4	5.8	Keokuk	18	14.2	13.8
	Cass	13	7.9	8.1	Kossuth	7	3.6	3.3
	Cedar	19	9.7	10.0	Louisa	10	7.6	7.6
	Cherokee	11	7.3	7.5	Lyon	*	*	*
	Chickasaw	9	6.2	6.6	Madison	12	8.2	7.9
	Clay	11	5.7	5.3	Mills	11	7.3	7.8
	Clayton	28	13.5	13.0	Mitchell	6	5.0	3.8
	Crawford	11	6.0	5.9	Monona	13	11.8	12.7
	Delaware	11	5.5	6.4	Montgomery	13	9.9	9.4
	Dickinson	11	6.4	7.0	O'Brien	15	8.8	9.2
	Emmet	11	8.8	8.5	Page	12	6.4	6.0
	Floyd	15	8.0	7.5	Palo Alto	6	5.3	5.1
	Franklin	8	6.6	7.7	Poweshiek	13	6.2	5.7
	Greene	6	5.3	6.5	Sac	8	6.1	6.4
	Grundy	13	9.7	10.3	Shelby	11	7.5	7.5
	Guthrie	11	8.9	8.5	Tama	23	11.7	11.6
	Hamilton	17	9.5	9.2	Union	12	8.8	9.2
Hancock	10	7.4	7.3	Winnebago	9	6.9	7.2	
Hardin	16	7.7	6.6	Wright	9	5.7	5.5	
Harrison	17	10.2	10.2	<b>Total</b>	557	8.0	8.0	
Counties with Average Population > 20,000	Benton	14	5.3	5.5	Jones	15	6.8	6.6
	Boone	19	6.7	6.6	Lee	43	10.1	10.3
	Bremer	14	5.5	5.2	Mahaska	14	5.8	5.9
	Buchanan	23	9.9	10.3	Marion	27	7.9	8.2
	Buena Vista	12	5.4	5.8	Marshall	37	8.7	8.9
	Carroll	16	6.7	6.4	Muscatine	33	7.3	7.3
	Cerro Gordo	38	7.4	7.6	Plymouth	15	5.6	6.0
	Clinton	38	6.8	6.5	Sioux	11	3.2	2.8
	Des Moines	57	12.1	11.8	Story	34	4.0	4.3
	Fayette	11	4.5	4.8	Wapello	49	12.4	12.1
	Henry	13	5.9	5.6	Washington	19	8.5	8.3
	Jackson	15	6.8	6.8	Webster	35	8.0	7.9
	Jasper	19	4.8	4.6	Winneshiek	10	4.3	4.3
					<b>Total</b>	631	7.0	6.9
MSA Counties	Black Hawk	98	7.0	6.8	Polk	333	8.6	8.6
	Dallas	37	9.7	9.9	Pottawattamie	98	10.5	10.6
	Dubuque	68	7.0	7.0	Scott	107	6.2	6.4
	Johnson	50	4.4	4.2	Warren	33	7.8	7.9
	Linn	130	6.5	6.5	Woodbury	75	6.7	6.6
					<b>Total</b>	1,029	7.4	7.2
<b>State Totals</b>		2,380	7.6	7.4				

<sup>1</sup>Rates per 100,000 population<sup>2</sup>Adjusted to Year 2000 population

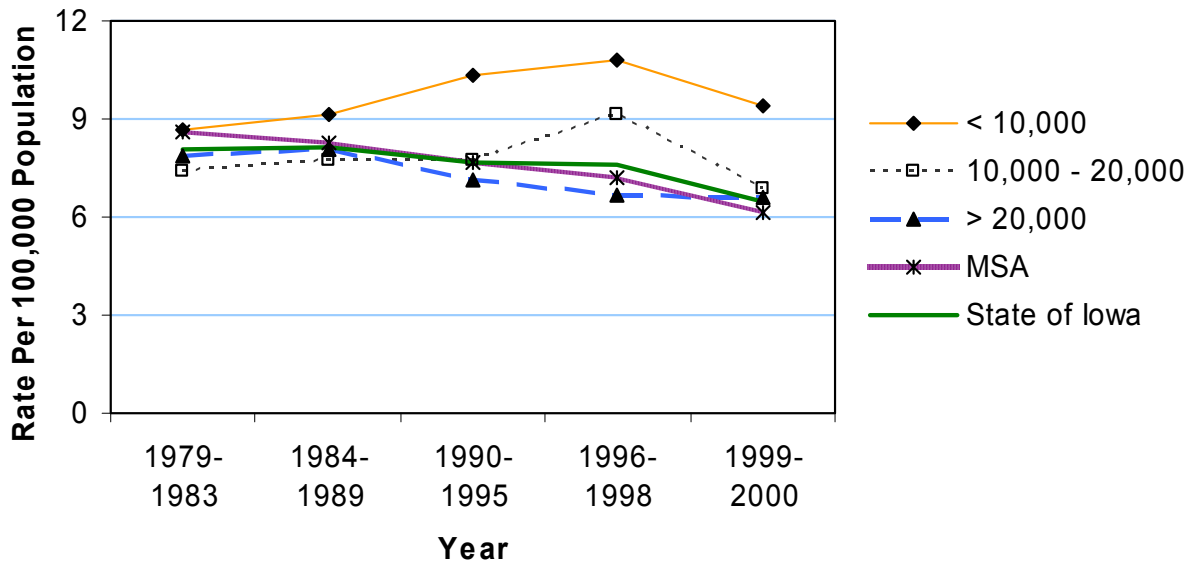
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Firearms Mortality by County Group 1979-2000

### Crude Rates



### Age-Adjusted Rates



## Falls Mortality 1990-2000

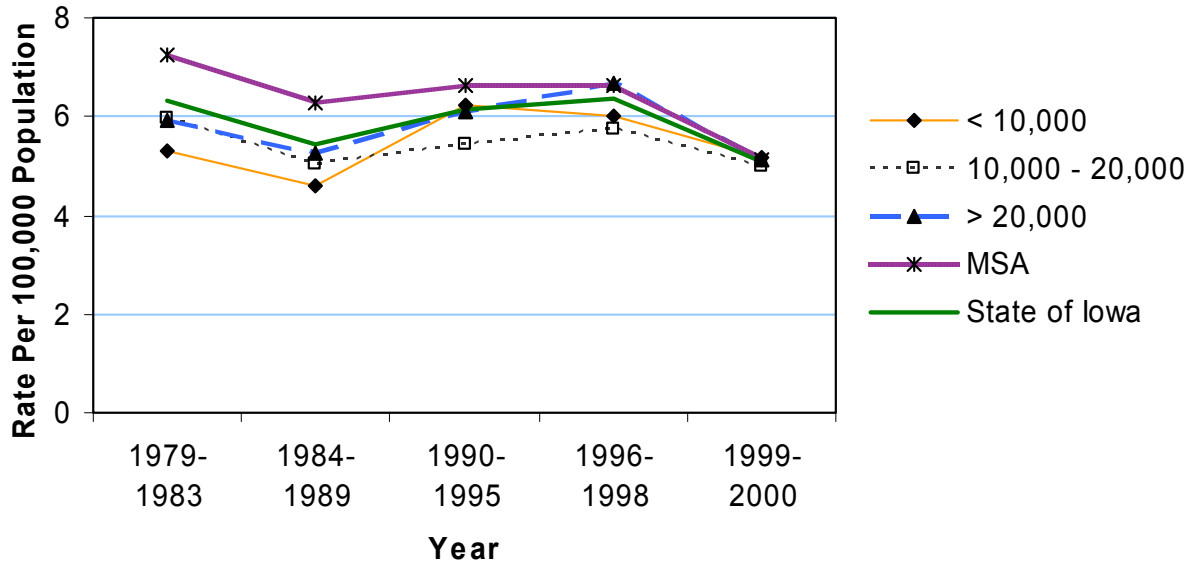
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with Average Population < 10,000	Adair	14	15.2	6.5	Lucas	8	7.8	4.5
	Adams	11	21.7	11.6	Monroe	7	7.8	4.7
	Audubon	10	13.0	8.2	Osceola	*	*	*
	Clarke	8	8.4	4.8	Pocahontas	12	12.0	7.0
	Davis	10	10.8	6.9	Ringgold	5	8.4	4.2
	Decatur	13	14.1	10.3	Taylor	6	7.8	3.5
	Fremont	7	7.8	5.1	Van Buren	8	9.4	6.0
	Howard	11	10.1	5.1	Wayne	11	14.4	6.1
	Ida	14	15.6	8.5	Worth	10	11.4	6.2
					<b>Total</b>	165	10.7	6.0
	Counties with Average Population 10,000 to 20,000	Allamakee	13	8.2	5.3	Humboldt	13	11.2
Appanoose		18	11.9	8.3	Iowa	13	7.8	5.0
Butler		11	6.4	4.0	Jefferson	10	5.5	4.8
Calhoun		21	16.7	9.0	Keokuk	17	13.4	6.9
Cass		18	10.9	5.8	Kossuth	13	6.6	3.8
Cedar		21	10.7	7.1	Louisa	7	5.3	4.6
Cherokee		11	7.3	4.9	Lyon	13	10.0	6.0
Chickasaw		6	4.1	3.0	Madison	12	8.2	6.1
Clay		12	6.2	4.2	Mills	8	5.3	5.0
Clayton		18	8.7	6.2	Mitchell	7	5.8	3.3
Crawford		14	7.6	5.0	Monona	10	9.0	5.2
Delaware		11	5.5	4.4	Montgomery	25	19.1	9.9
Dickinson		15	8.7	5.2	O'Brien	12	7.0	4.1
Emmet		14	11.2	5.9	Page	16	8.6	4.8
Floyd		9	4.8	2.7	Palo Alto	12	10.5	6.0
Franklin		8	6.6	4.4	Poweshiek	31	14.9	9.8
Greene		15	13.3	7.9	Sac	15	11.4	5.2
Grundy		12	8.9	5.3	Shelby	9	6.2	3.3
Guthrie		12	9.7	5.7	Tama	11	5.6	3.5
Hamilton		9	5.0	3.3	Union	18	13.1	8.3
Hancock	10	7.4	5.1	Winnebago	6	4.6	3.3	
Hardin	20	9.6	4.9	Wright	17	10.7	5.5	
Harrison	19	11.4	7.3	<b>Total</b>	612	8.7	5.4	
Counties with Average Population > 20,000	Benton	14	5.3	4.3	Jones	15	6.8	5.2
	Boone	28	9.9	6.5	Lee	30	7.0	5.4
	Bremer	17	6.7	5.5	Mahaska	27	11.2	8.1
	Buchanan	15	6.5	5.8	Marion	31	9.1	6.6
	Buena Vista	10	4.5	2.9	Marshall	44	10.3	7.4
	Carroll	22	9.3	6.2	Muscatine	26	5.7	5.4
	Cerro Gordo	23	4.5	3.4	Plymouth	12	4.5	3.4
	Clinton	35	6.2	5.0	Sioux	27	7.9	6.3
	Des Moines	37	7.9	6.0	Story	45	5.3	6.0
	Fayette	20	8.2	6.2	Wapello	34	8.6	6.2
	Henry	19	8.7	6.5	Washington	33	14.8	8.6
	Jackson	14	6.3	5.1	Webster	73	16.6	11.1
	Jasper	34	8.6	6.8	Winneshiek	18	7.7	5.4
					<b>Total</b>	703	7.8	6.1
MSA Counties	Black Hawk	83	5.9	5.5	Polk	293	7.6	8.4
	Dallas	21	5.5	5.1	Pottawattamie	48	5.1	5.1
	Dubuque	47	4.8	4.2	Scott	85	5.0	5.5
	Johnson	37	3.2	5.0	Warren	29	6.8	7.0
	Linn	125	6.3	6.4	Woodbury	84	7.5	6.8
<b>State Totals</b>	2,332	7.4	6.0	<b>Total</b>	852	6.1	6.3	

<sup>1</sup>Rates per 100,000 population<sup>2</sup>Adjusted to Year 2000 population

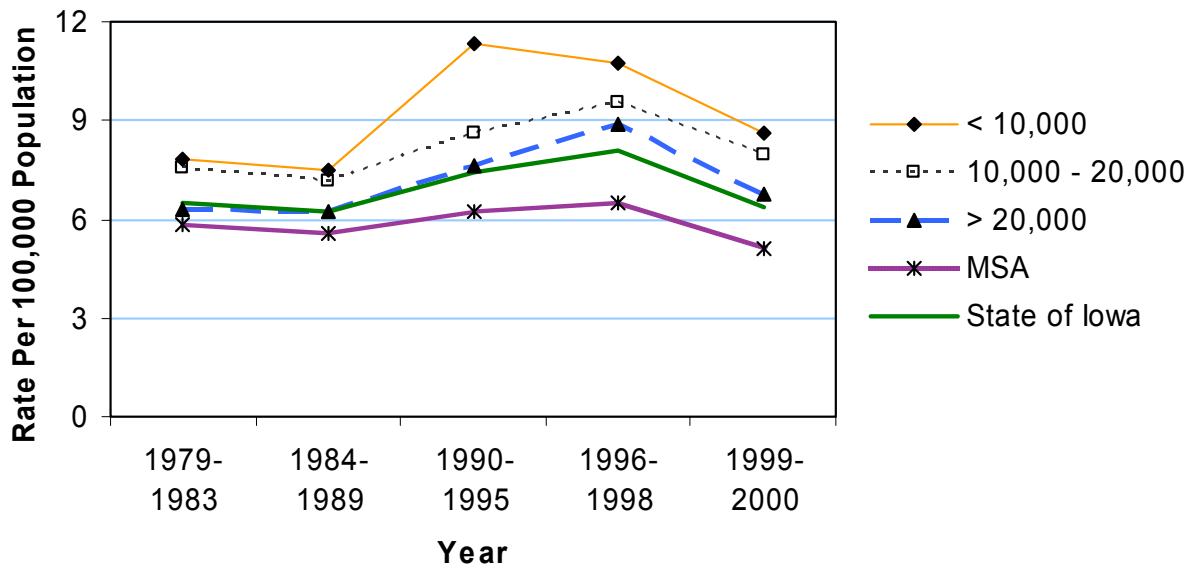
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Falls Mortality by County Group 1979-2000

### Age-Adjusted Rates



### Crude Rates



## Homicide Mortality 1990-2000

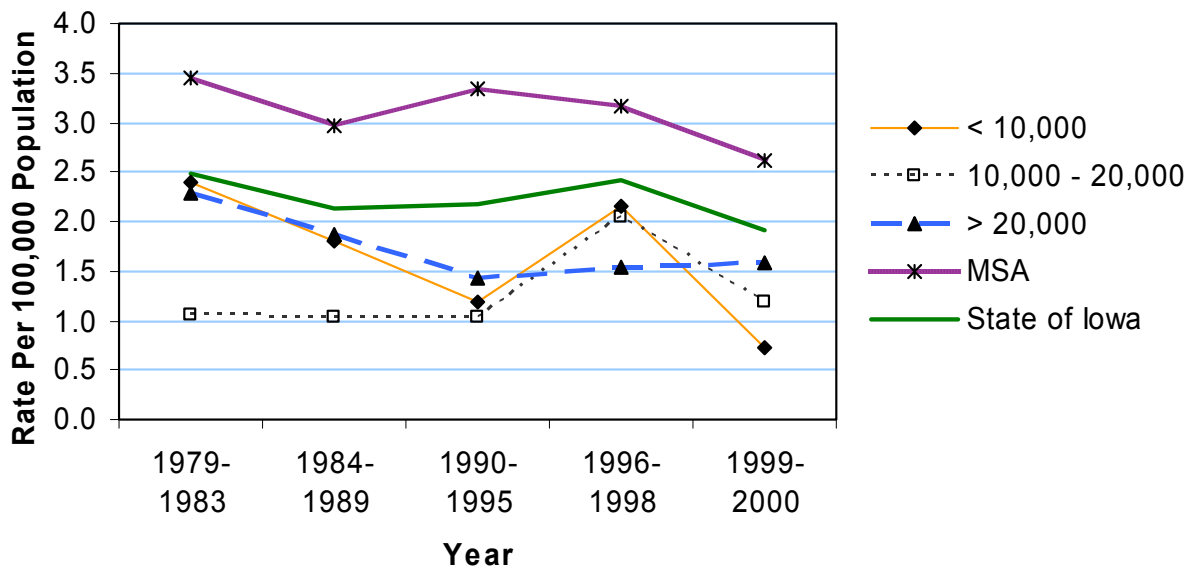
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with Average Population < 10,000	Adair	*	*	*	Lucas	*	*	*
	Adams	*	*	*	Monroe	*	*	*
	Audubon	*	*	*	Osceola	*	*	*
	Clarke	*	*	*	Pocahontas	*	*	*
	Davis	*	*	*	Ringgold	*	*	*
	Decatur	*	*	*	Taylor	*	*	*
	Fremont	*	*	*	Van Buren	*	*	*
	Howard	*	*	*	Wayne	*	*	*
	Ida	*	*	*	Worth	*	*	*
					<b>Total</b>	21	1.4	1.4
Counties with Average Population 10,000 to 20,000	Allamakee	*	*	*	Humboldt	*	*	*
	Appanoose	*	*	*	Iowa	*	*	*
	Butler	*	*	*	Jefferson	*	*	*
	Calhoun	*	*	*	Keokuk	*	*	*
	Cass	*	*	*	Kossuth	*	*	*
	Cedar	5	2.6	2.7	Louisa	*	*	*
	Cherokee	*	*	*	Lyon	*	*	*
	Chickasaw	*	*	*	Madison	*	*	*
	Clay	*	*	*	Mills	*	*	*
	Clayton	*	*	*	Mitchell	*	*	*
	Crawford	*	*	*	Monona	*	*	*
	Delaware	*	*	*	Montgomery	*	*	*
	Dickinson	*	*	*	O'Brien	5	2.9	3.4
	Emmet	*	*	*	Page	*	*	*
	Floyd	*	*	*	Palo Alto	*	*	*
	Franklin	5	4.1	4.2	Poweshiek	*	*	*
	Greene	*	*	*	Sac	*	*	*
	Grundy	*	*	*	Shelby	*	*	*
	Guthrie	*	*	*	Tama	9	4.6	5.2
	Hamilton	*	*	*	Union	6	4.4	4.9
Hancock	*	*	*	Winnebago	*	*	*	
Hardin	6	2.9	2.9	Wright	*	*	*	
Harrison	*	*	*	<b>Total</b>	93	1.3	1.5	
Counties with Average Population > 20,000	Benton	*	*	*	Jones	*	*	*
	Boone	*	*	*	Lee	10	2.3	2.3
	Bremer	*	*	*	Mahaska	*	*	*
	Buchanan	*	*	*	Marion	7	2.1	2.0
	Buena Vista	*	*	*	Marshall	8	1.9	2.0
	Carroll	*	*	*	Muscatine	8	1.8	1.7
	Cerro Gordo	15	2.9	3.2	Plymouth	*	*	*
	Clinton	7	1.2	1.2	Sioux	5	1.5	1.5
	Des Moines	10	2.1	2.2	Story	7	0.8	1.1
	Fayette	*	*	*	Wapello	14	3.5	3.7
	Henry	*	*	*	Washington	*	*	*
	Jackson	*	*	*	Webster	13	3.0	3.1
	Jasper	*	*	*	Winneshiek	*	*	*
					<b>Total</b>	133	1.5	1.5
MSA Counties	Black Hawk	36	2.6	2.5	Polk	195	5.0	4.9
	Dallas	8	2.1	2.2	Pottawattamie	46	4.9	5.0
	Dubuque	8	0.8	0.9	Scott	46	2.7	2.6
	Johnson	22	1.9	1.9	Warren	9	2.1	2.0
	Linn	37	1.9	1.8	Woodbury	34	3.0	3.0
					<b>Total</b>	441	3.2	3.1
<b>State Totals</b>	688	2.2	2.2					

<sup>1</sup>Rates per 100,000 population<sup>2</sup>Adjusted to Year 2000 population

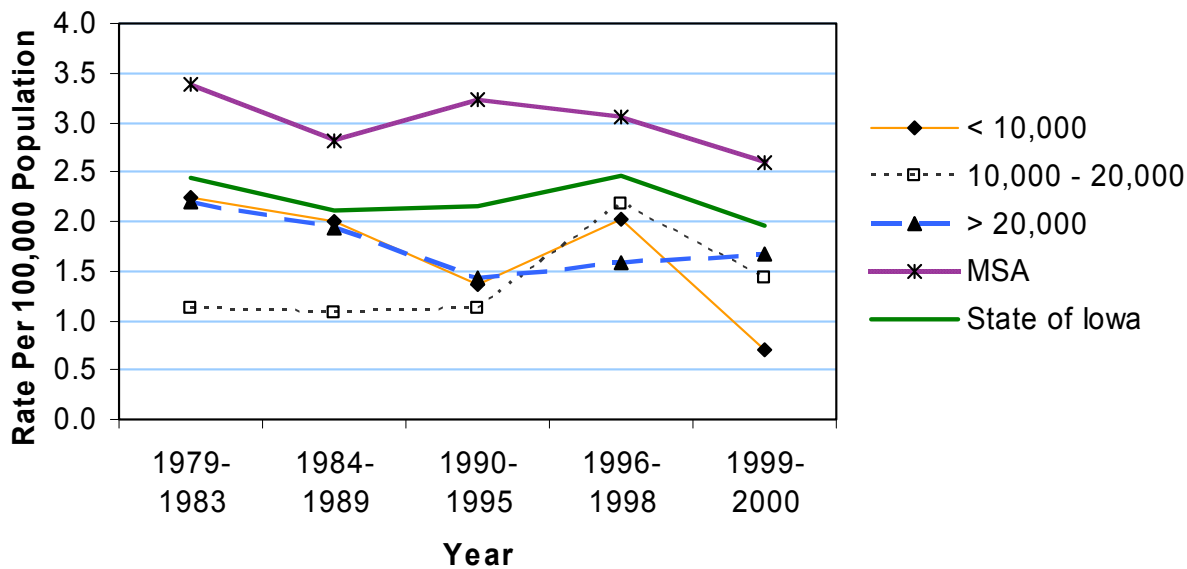
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Homicide Mortality by County Group 1979-2000

### Crude Rates



### Age-Adjusted Rates





## Poisoning Mortality 1990-2000

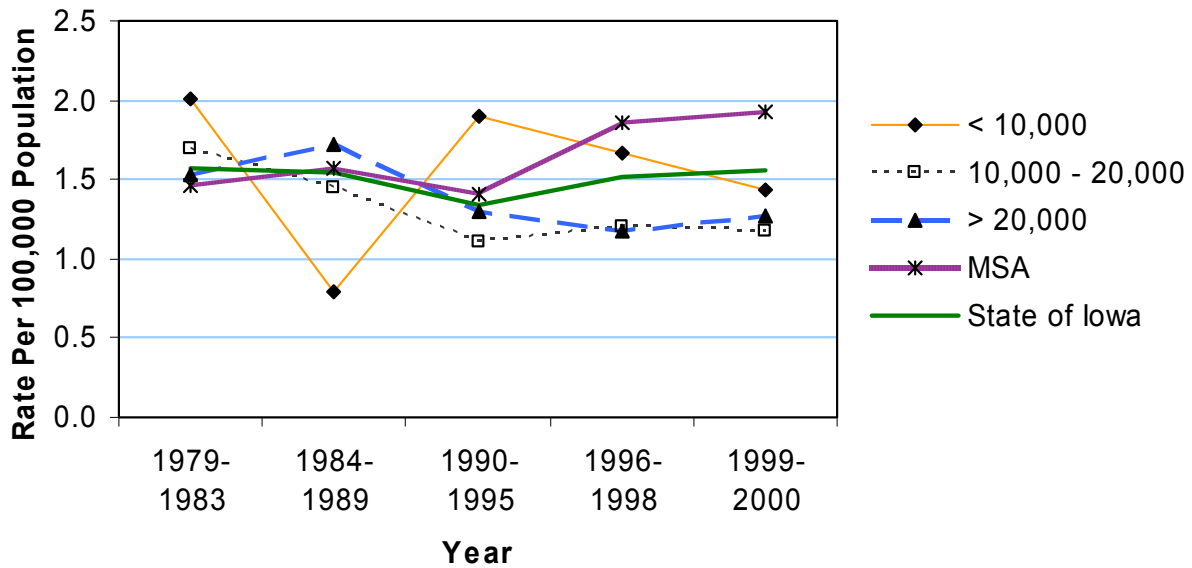
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with Average Population < 10,000	Adair	*	*	*	Lucas	*	*	*
	Adams	*	*	*	Monroe	*	*	*
	Audubon	*	*	*	Osceola	*	*	*
	Clarke	*	*	*	Pocahontas	*	*	*
	Davis	*	*	*	Ringgold	*	*	*
	Decatur	6	6.5	6.2	Taylor	*	*	*
	Fremont	*	*	*	Van Buren	*	*	*
	Howard	*	*	*	Wayne	*	*	*
	Ida	*	*	*	Worth	*	*	*
					<b>Total</b>	27	1.7	1.7
Average Population 10,000 to 20,000	Allamakee	*	*	*	Humboldt	*	*	*
	Appanoose	*	*	*	Iowa	*	*	*
	Butler	*	*	*	Jefferson	*	*	*
	Calhoun	*	*	*	Keokuk	*	*	*
	Cass	*	*	*	Kossuth	*	*	*
	Cedar	*	*	*	Louisa	*	*	*
	Cherokee	5	3.3	2.7	Lyon	*	*	*
	Chickasaw	*	*	*	Madison	*	*	*
	Clay	*	*	*	Mills	*	*	*
	Clayton	*	*	*	Mitchell	*	*	*
	Crawford	*	*	*	Monona	*	*	*
	Delaware	*	*	*	Montgomery	*	*	*
	Dickinson	*	*	*	O'Brien	*	*	*
	Emmet	*	*	*	Page	*	*	*
	Floyd	*	*	*	Palo Alto	*	*	*
	Franklin	*	*	*	Poweshiek	*	*	*
	Greene	*	*	*	Sac	*	*	*
	Grundy	*	*	*	Shelby	*	*	*
	Guthrie	*	*	*	Tama	*	*	*
	Hamilton	*	*	*	Union	*	*	*
Hancock	*	*	*	Winnebago	*	*	*	
Hardin	7	3.4	3.5	Wright	*	*	*	
Harrison	*	*	*	<b>Total</b>	80	1.1	1.0	
Counties with Average Population > 20,000	Benton	*	*	*	Jones	*	*	*
	Boone	*	*	*	Lee	*	*	*
	Bremer	*	*	*	Mahaska	6	2.5	2.5
	Buchanan	*	*	*	Marion	*	*	*
	Buena Vista	*	*	*	Marshall	9	2.1	2.0
	Carroll	*	*	*	Muscatine	*	*	*
	Cerro Gordo	8	1.5	1.5	Plymouth	*	*	*
	Clinton	5	0.9	0.8	Sioux	*	*	*
	Des Moines	10	2.1	2.1	Story	9	1.1	1.1
	Fayette	9	3.7	3.5	Wapello	10	2.5	2.6
	Henry	*	*	*	Washington	*	*	*
	Jackson	*	*	*	Webster	*	*	*
	Jasper	6	1.5	1.5	Winneshiek	*	*	*
					<b>Total</b>	113	1.3	1.2
MSA Counties	Black Hawk	18	1.3	1.3	Polk	72	1.9	1.8
	Dallas	*	*	*	Pottawattamie	22	2.4	2.4
	Dubuque	*	*	*	Scott	28	1.6	1.7
	Johnson	18	1.6	1.5	Warren	*	*	*
	Linn	33	1.7	1.6	Woodbury	27	2.4	2.4
					<b>Total</b>	228	1.6	1.6
<b>State Totals</b>	448	1.4	1.4					

<sup>1</sup>Rates per 100,000 population<sup>2</sup>Adjusted to Year 2000 population

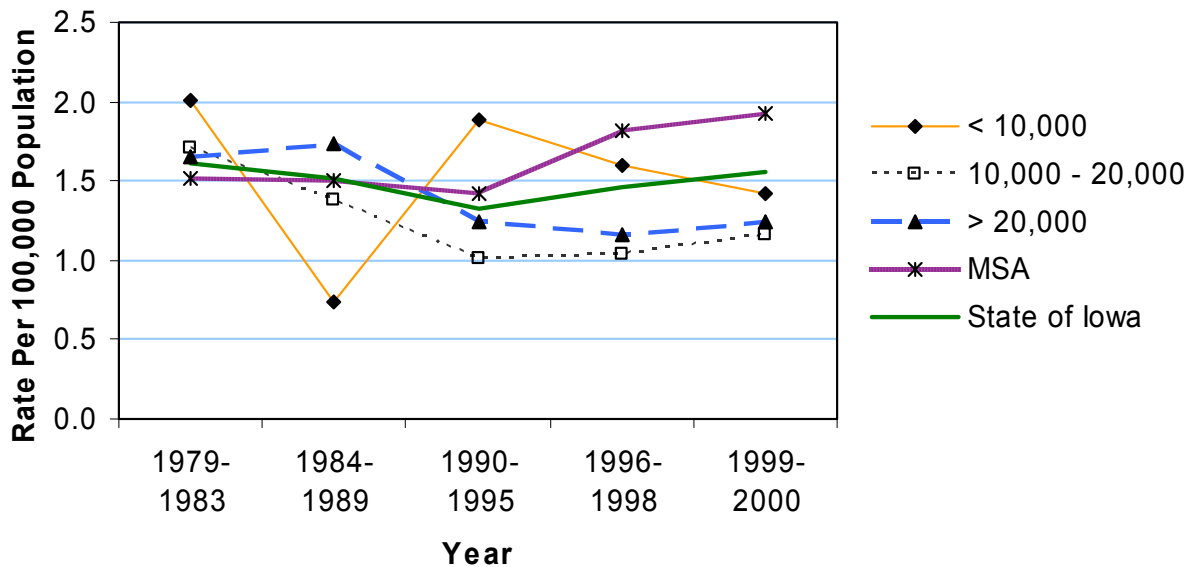
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Poisoning Mortality by County Group 1979-2000

### Crude Rates



### Age-Adjusted Rates



## Burns Mortality 1990-2000

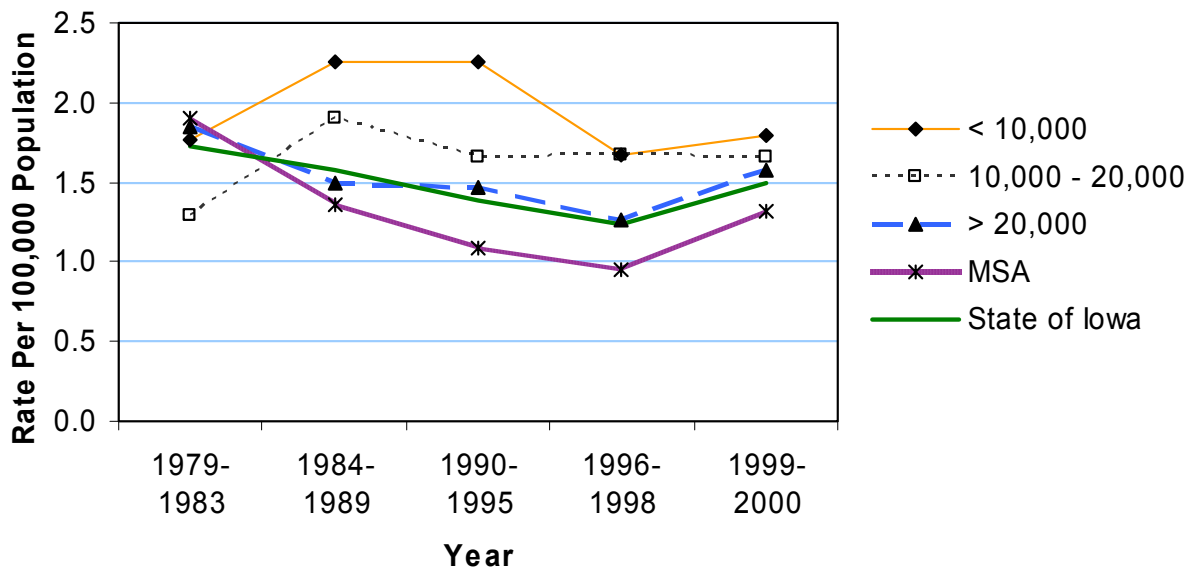
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with Average Population < 10,000	Adair	*	*	*	Lucas	5	4.9	4.1
	Adams	*	*	*	Monroe	*	*	*
	Audubon	*	*	*	Osceola	*	*	*
	Clarke	*	*	*	Pocahontas	*	*	*
	Davis	*	*	*	Ringgold	*	*	*
	Decatur	*	*	*	Taylor	*	*	*
	Fremont	*	*	*	Van Buren	*	*	*
	Howard	*	*	*	Wayne	*	*	*
	Ida	*	*	*	Worth	*	*	*
					<b>Total</b>	31	2.0	1.7
Counties with Average Population 10,000 to 20,000	Allamakee	*	*	*	Humboldt	*	*	*
	Appanoose	*	*	*	Iowa	*	*	*
	Butler	*	*	*	Jefferson	*	*	*
	Calhoun	*	*	*	Keokuk	*	*	*
	Cass	5	3.0	2.4	Kossuth	*	*	*
	Cedar	*	*	*	Louisa	5	3.8	3.7
	Cherokee	*	*	*	Lyon	*	*	*
	Chickasaw	7	4.8	4.1	Madison	7	4.8	4.3
	Clay	*	*	*	Mills	*	*	*
	Clayton	*	*	*	Mitchell	*	*	*
	Crawford	*	*	*	Monona	*	*	*
	Delaware	*	*	*	Montgomery	5	3.8	4.1
	Dickinson	*	*	*	O'Brien	*	*	*
	Emmet	*	*	*	Page	*	*	*
	Floyd	*	*	*	Palo Alto	*	*	*
	Franklin	*	*	*	Poweshiek	*	*	*
	Greene	*	*	*	Sac	6	4.6	5.1
	Grundy	*	*	*	Shelby	*	*	*
	Guthrie	*	*	*	Tama	*	*	*
	Hamilton	*	*	*	Union	*	*	*
Hancock	*	*	*	Winnebago	11	8.5	7.8	
Hardin	*	*	*	Wright	*	*	*	
Harrison	*	*	*	<b>Total</b>	116	1.7	1.5	
Counties with Average Population > 20,000	Benton	*	*	*	Jones	*	*	*
	Boone	*	*	*	Lee	18	4.2	4.5
	Bremer	*	*	*	Mahaska	7	2.9	2.7
	Buchanan	*	*	*	Marion	*	*	*
	Buena Vista	5	2.2	2.2	Marshall	5	1.2	1.1
	Carroll	*	*	*	Muscatine	*	*	*
	Cerro Gordo	6	1.2	1.1	Plymouth	*	*	*
	Clinton	9	1.6	1.7	Sioux	*	*	*
	Des Moines	7	1.5	1.4	Story	7	0.8	0.9
	Fayette	*	*	*	Wapello	11	2.8	2.6
	Henry	*	*	*	Washington	5	2.2	2.1
	Jackson	*	*	*	Webster	6	1.4	1.4
	Jasper	7	1.8	1.5	Winneshiek	*	*	*
					<b>Total</b>	128	1.4	1.4
MSA Counties	Black Hawk	18	1.3	1.3	Polk	48	1.2	1.3
	Dallas	*	*	*	Pottawattamie	8	0.9	0.8
	Dubuque	6	0.6	0.6	Scott	20	1.2	1.2
	Johnson	13	1.1	1.5	Warren	*	*	*
	Linn	18	0.9	0.9	Woodbury	16	1.4	1.4
					<b>Total</b>	153	1.1	1.1
<b>State Totals</b>	428	1.4	1.3					

<sup>1</sup>Rates per 100,000 population<sup>2</sup>Adjusted to Year 2000 population

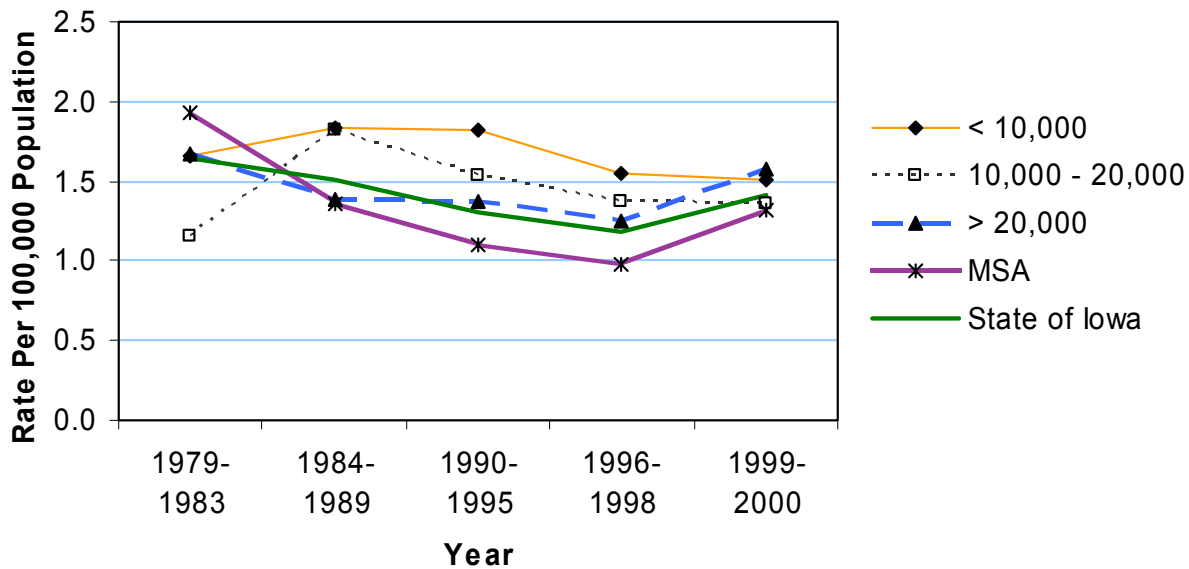
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Burns Mortality by County Group 1979-2000

### Crude Rates



### Age-Adjusted Rates



## Drowning Mortality 1990-2000

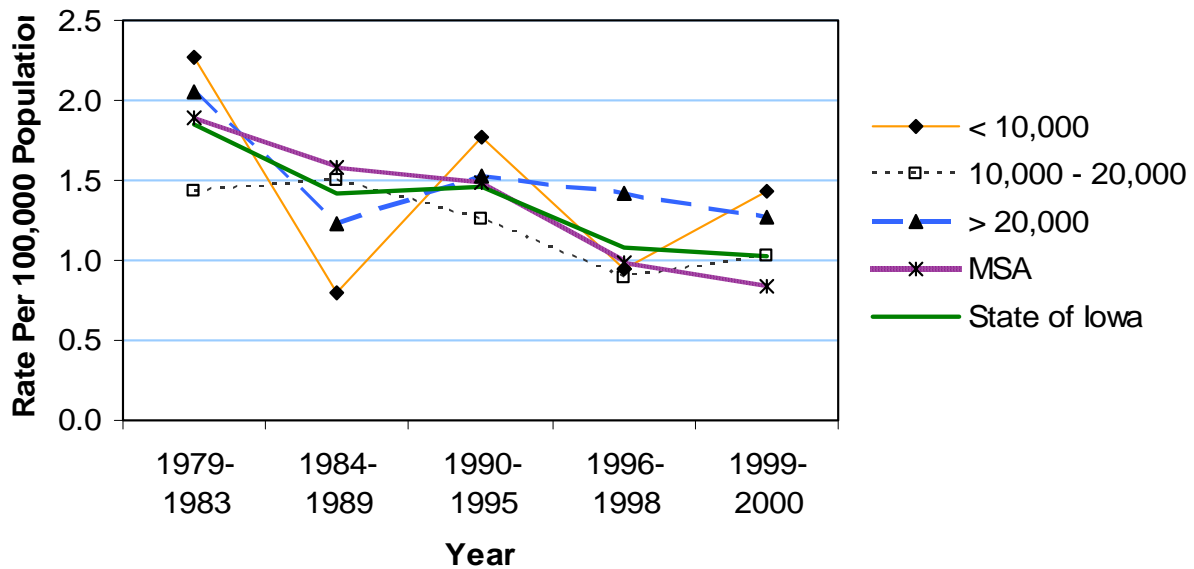
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with Average Population < 10,000	Adair	*	*	*	Lucas	*	*	*
	Adams	*	*	*	Monroe	*	*	*
	Audubon	*	*	*	Osceola	*	*	*
	Clarke	*	*	*	Pocahontas	*	*	*
	Davis	*	*	*	Ringgold	*	*	*
	Decatur	*	*	*	Taylor	*	*	*
	Fremont	*	*	*	Van Buren	*	*	*
	Howard	*	*	*	Wayne	*	*	*
	Ida	*	*	*	Worth	*	*	*
					<b>Total</b>	23	1.5	1.6
Counties with Average Population 10,000 to 20,000	Allamakee	*	*	*	Humboldt	*	*	*
	Appanoose	*	*	*	Iowa	*	*	*
	Butler	*	*	*	Jefferson	*	*	*
	Calhoun	*	*	*	Keokuk	*	*	*
	Cass	*	*	*	Kossuth	*	*	*
	Cedar	*	*	*	Louisa	6	4.6	4.5
	Cherokee	*	*	*	Lyon	*	*	*
	Chickasaw	*	*	*	Madison	*	*	*
	Clay	*	*	*	Mills	*	*	*
	Clayton	*	*	*	Mitchell	*	*	*
	Crawford	*	*	*	Monona	*	*	*
	Delaware	5	2.5	2.4	Montgomery	5	3.8	3.8
	Dickinson	*	*	*	O'Brien	*	*	*
	Emmet	*	*	*	Page	*	*	*
	Floyd	*	*	*	Palo Alto	*	*	*
	Franklin	*	*	*	Poweshiek	*	*	*
	Greene	*	*	*	Sac	*	*	*
	Grundy	*	*	*	Shelby	*	*	*
	Guthrie	*	*	*	Tama	*	*	*
	Hamilton	*	*	*	Union	*	*	*
Hancock	*	*	*	Winnebago	*	*	*	
Hardin	*	*	*	Wright	*	*	*	
Harrison	*	*	*	<b>Total</b>	78	1.1	1.2	
Counties with Average Population > 20,000	Benton	*	*	*	Jones	6	2.7	2.8
	Boone	*	*	*	Lee	13	3.1	3.0
	Bremer	*	*	*	Mahaska	*	*	*
	Buchanan	5	2.2	2.3	Marion	6	1.8	1.8
	Buena Vista	*	*	*	Marshall	*	*	*
	Carroll	*	*	*	Muscatine	8	1.8	1.7
	Cerro Gordo	8	1.5	1.6	Plymouth	*	*	*
	Clinton	10	1.8	1.9	Sioux	*	*	*
	Des Moines	8	1.7	1.7	Story	6	0.7	0.8
	Fayette	*	*	*	Wapello	7	1.8	1.9
	Henry	*	*	*	Washington	*	*	*
	Jackson	5	2.3	2.1	Webster	10	2.3	2.5
	Jasper	9	2.3	2.4	Winneshiek	*	*	*
					<b>Total</b>	130	1.4	1.5
MSA Counties	Black Hawk	10	0.7	0.7	Polk	52	1.3	1.3
	Dallas	10	2.6	2.5	Pottawattamie	21	2.3	2.3
	Dubuque	10	1.0	1.1	Scott	19	1.1	1.1
	Johnson	12	1.1	1.1	Warren	*	*	*
	Linn	19	1.0	0.9	Woodbury	14	1.2	1.3
<b>State Totals</b>	402	1.3	1.3	<b>Total</b>	171	1.2	1.2	

<sup>1</sup>Rates per 100,000 population<sup>2</sup>Adjusted to Year 2000 population

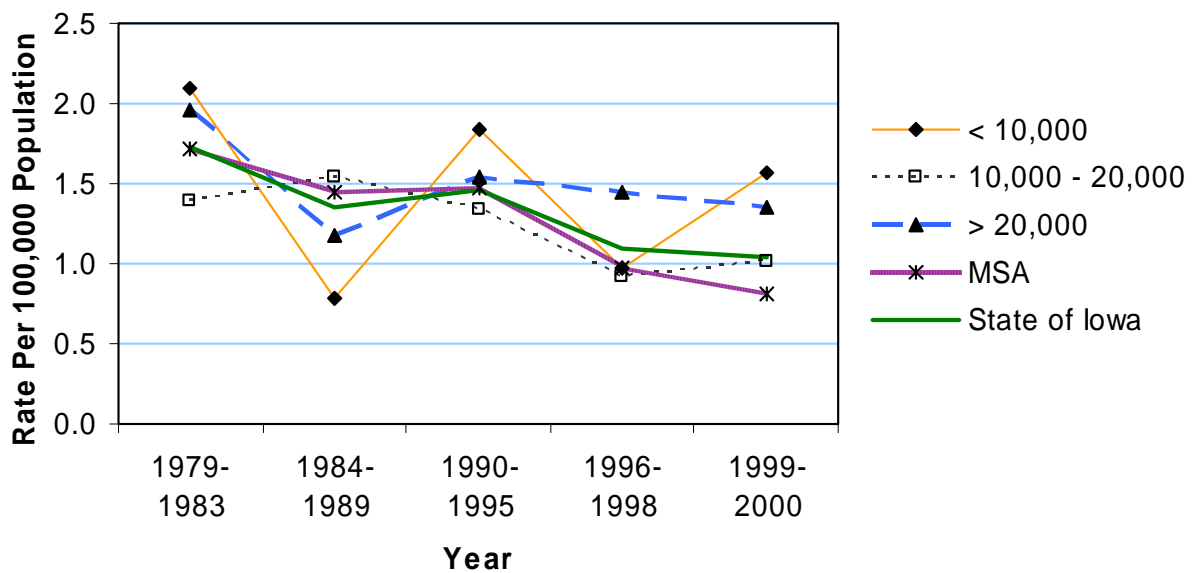
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Drowning Mortality by County Group 1979-2000

### Crude Rates



### Age-Adjusted Rates



## All Other Unintentional Mortality 1990-2000

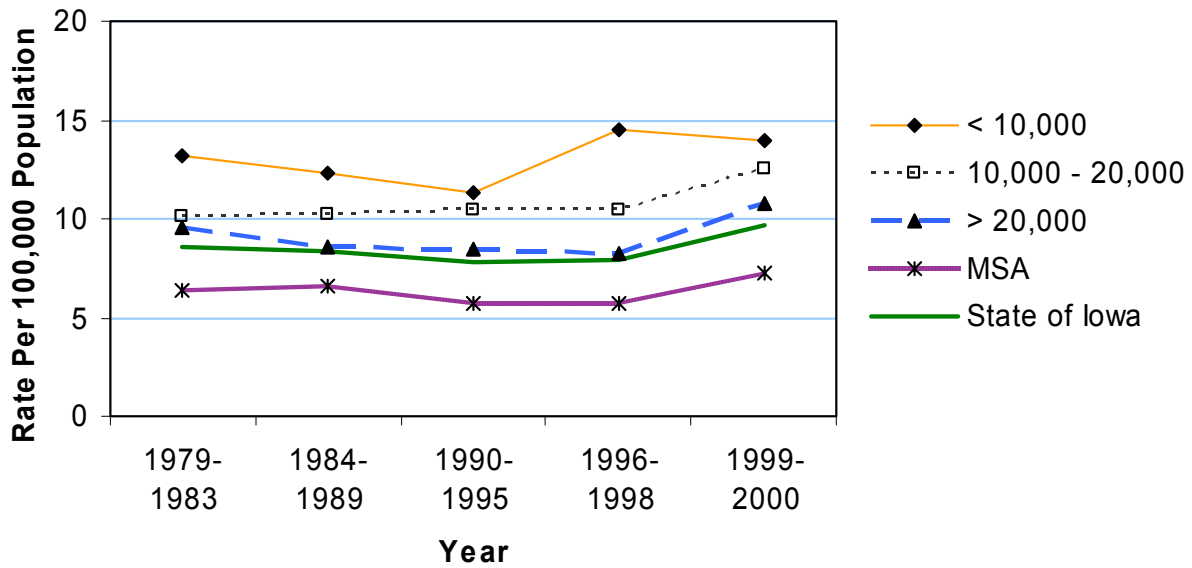
	Average Population < 10,000				Average Population 10,000 to 20,000				Average Population > 20,000				MSA Counties			
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with Average Population < 10,000	Adair	10	10.9 (41)	8.3 (42)	Lucas	7	6.9 (83)	5.3 (91)	Adair	10	10.9 (41)	8.3 (42)	Polk	205	5.3 (95)	5.7 (87)
	Adams	7	13.8 (15)	9.8 (23)	Monroe	7	7.8 (74)	5.7 (88)	Adams	7	13.8 (15)	9.8 (23)	Pottawattamie	63	6.8 (84)	6.7 (70)
	Audubon	9	11.7 (32)	6.9 (67)	Osceola	5	6.3 (87)	5.3 (92)	Audubon	9	11.7 (32)	6.9 (67)	Scott	103	6.0 (91)	6.5 (74)
	Clarke	15	15.8 (05)	14.0 (04)	Pocahontas	7	7.0 (81)	5.7 (86)	Clarke	15	15.8 (05)	14.0 (04)	Warren	27	6.4 (86)	6.5 (71)
	Davis	14	15.1 (10)	12.1 (07)	Ringgold	10	16.8 (03)	14.0 (03)	Davis	14	15.1 (10)	12.1 (07)	Woodbury	81	7.2 (78)	6.9 (66)
	Decatur	20	21.7 (01)	17.5 (01)	Taylor	10	12.9 (24)	6.9 (68)	Decatur	20	21.7 (01)	17.5 (01)	<b>Total</b>	837	6.0	6.2
	Fremont	14	15.7 (07)	11.5 (11)	Van Buren	17	20.0 (02)	14.2 (02)	Fremont	14	15.7 (07)	11.5 (11)				
	Howard	13	11.9 (30)	8.7 (35)	Wayne	8	10.5 (47)	7.0 (65)	Howard	13	11.9 (30)	8.7 (35)				
	Ida	12	13.4 (19)	11.0 (14)	Worth	11	12.6 (25)	8.6 (38)	Ida	12	13.4 (19)	11.0 (14)				
					<b>Total</b>	196	12.7	9.5								
	Counties with Average Population 10,000 to 20,000	Allamakee	17	10.8 (44)	8.0 (48)	Humboldt	10	8.6 (64)	5.9 (82)	Benton	24	9.1 (57)	7.9 (50)	Jones	19	8.6 (65)
Appanoose		9	5.9 (92)	5.1 (93)	Iowa	16	9.6 (54)	6.5 (73)	Boone	32	11.4 (35)	8.8 (33)	Lee	33	7.7 (75)	6.4 (75)
Butler		16	9.4 (55)	6.4 (77)	Jefferson	11	6.1 (90)	5.8 (83)	Bremer	23	9.0 (59)	7.8 (51)	Mahaska	26	10.8 (45)	9.0 (31)
Calhoun		15	12.0 (29)	8.2 (46)	Keokuk	20	15.8 (06)	11.8 (09)	Buchanan	27	11.7 (33)	10.8 (16)	Marion	51	15.0 (12)	12.8 (05)
Cass		25	15.2 (09)	10.4 (20)	Kossuth	26	13.3 (21)	10.4 (21)	Buena Vista	19	8.5 (67)	7.1 (62)	Marshall	43	10.1 (49)	8.3 (43)
Cedar		14	7.1 (79)	5.4 (90)	Louisa	17	13.0 (22)	12.0 (08)	Carroll	26	11.0 (39)	9.6 (27)	Muscatine	36	8.0 (72)	7.6 (53)
Cherokee		17	11.4 (36)	9.8 (24)	Lyon	8	6.1 (88)	4.7 (96)	Cerro Gordo	30	5.8 (93)	4.9 (94)	Plymouth	24	9.0 (60)	8.4 (40)
Chickasaw		13	8.9 (62)	6.4 (76)	Madison	20	13.7 (16)	11.5 (10)	Clinton	39	7.0 (82)	6.3 (79)	Sioux	24	7.0 (80)	6.8 (69)
Clay		18	9.3 (56)	7.3 (57)	Mills	19	12.6 (26)	12.2 (06)	Des Moines	43	9.1 (58)	7.6 (55)	Story	46	5.4 (94)	6.3 (78)
Clayton		26	12.5 (27)	10.1 (22)	Mitchell	16	13.3 (20)	10.8 (15)	Fayette	20	8.2 (70)	6.2 (80)	Wapello	43	10.9 (42)	8.6 (37)
Crawford		20	10.8 (43)	9.2 (30)	Monona	15	13.6 (17)	9.5 (28)	Henry	27	12.3 (28)	10.6 (18)	Washington	23	10.3 (48)	7.1 (60)
Delaware		17	8.4 (68)	7.6 (54)	Montgomery	17	13.0 (23)	8.4 (39)	Jackson	22	9.9 (50)	8.3 (45)	Webster	49	11.2 (38)	9.3 (29)
Dickinson		20	11.6 (34)	8.4 (41)	O'Brien	20	11.7 (31)	8.6 (36)	Jasper	31	7.9 (73)	7.3 (59)	Winneshiek	12	5.2 (96)	4.3 (98)
Emmet		17	13.5 (18)	9.6 (26)	Page	31	16.6 (04)	10.5 (19)					<b>Total</b>	792	8.8	7.7
Floyd		20	10.7 (46)	8.7 (34)	Palo Alto	11	9.6 (53)	7.5 (56)								
Franklin		12	9.9 (51)	6.5 (72)	Poweshiek	16	7.7 (76)	5.8 (84)								
Greene		10	8.8 (63)	7.1 (63)	Sac	11	8.4 (69)	5.9 (81)								
Grundy		13	9.7 (52)	7.3 (58)	Shelby	21	14.4 (14)	9.8 (25)								
Guthrie		6	4.9 (97)	3.0 (99)	Tama	16	8.2 (71)	5.5 (89)								
Hamilton		11	6.1 (89)	4.7 (97)	Union	15	11.0 (40)	8.0 (47)								
Hancock	12	8.9 (61)	7.7 (52)	Winnebago	20	15.4 (08)	11.2 (13)									
Hardin	31	14.9 (13)	10.7 (17)	Wright	18	11.3 (37)	8.8 (32)									
Harrison	25	15.0 (11)	11.2 (12)	<b>Total</b>	758	10.8	8.2									

<sup>1</sup>Rates per 100,000 population  
<sup>2</sup>Adjusted to Year 2000 population  
<sup>3</sup>Rank among 99 Iowa counties

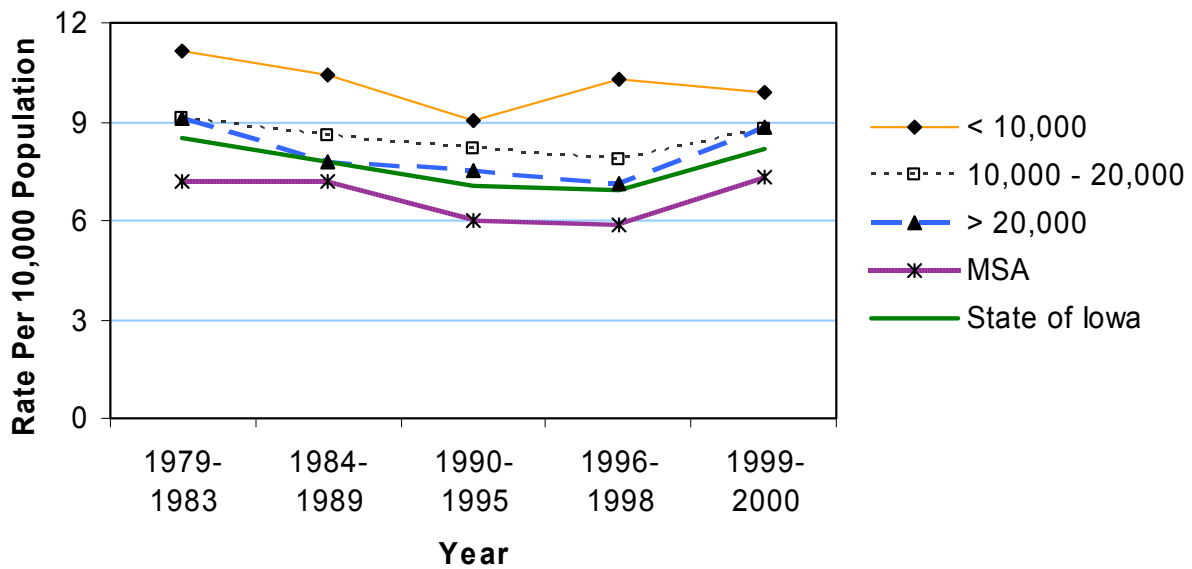
Source: Iowa Department of Public Health via Iowa Cancer Registry

# All Other Unintentional Mortality by County Group 1979-2000

## Crude Rates



## Age-Adjusted Rates





## Youth Injury Mortality

Injuries remain the leading cause of death in persons age 1-34 years and contribute the most to years of life lost (YLL), particularly for those events of pre-adult ages. Deaths from unintentional injuries, homicides and suicides are important public health problems in those 15-24 years of age and many of these deaths are preventable.

Transportation fatalities accounted for 377 deaths for youth aged 0-14 from 1990-2000. Of these, 90% were due to motor vehicle traffic death. In the 15-19 age range, 800 transportation deaths occurred over this same period with 97% accounted for by motor vehicle traffic deaths. In general, transportation mortality rates are higher in the more rural counties for both age groups. For 15-19 year-olds, the mortality rate was drastically higher in rural counties for the 1996-2000 time period. Tables for suicide and homicide are not presented due to the small number of events in both age ranges.

The source of the cause of death data is obtained from death certificates filed at the Iowa Department of Public Health. Analysis was done by the State Health Registry of Iowa at the University of Iowa. Age-adjusted rates were calculated using the Year 2000 U.S. population distribution.

Note that the crude and age-adjusted rates displayed in the graphs for ages 15-19 are identical to one another. This is because only one age group in the age-adjustment analysis is represented. The crude and age-adjusted rates for the 0-14 age group show slight differences as this represents four age groups (<1, 1-4, 5-9, and 10-14) in the age-adjustment analysis.

### HIGHLIGHTS...

- ✓ Unintentional injuries, homicides, and suicides are important public health problems in those 15-24 years of age.
- ✓ Injuries contribute the most to years of life lost (YLL).
- ✓ Motor vehicle deaths accounted for 97% of all transportation deaths in youth aged 15-19 in Iowa.

## Age 0-14: All Transportation Mortality 1990-2000

	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
<b>Counties with Average Population &lt; 10,000</b>	Adair	*	*	*	Lucas	*	*	*
	Adams	*	*	*	Monroe	*	*	*
	Audubon	*	*	*	Osceola	*	*	*
	Clarke	*	*	*	Pocahontas	*	*	*
	Davis	*	*	*	Ringgold	*	*	*
	Decatur	*	*	*	Taylor	*	*	*
	Fremont	*	*	*	Van Buren	*	*	*
	Howard	*	*	*	Wayne	*	*	*
	Ida	*	*	*	Worth	*	*	*
					<b>Total</b>	27	8.5	8.4
<b>Counties with Average Population 10,000 to 20,000</b>	Allamakee	*	*	*	Humboldt	*	*	*
	Appanoose	*	*	*	Iowa	*	*	*
	Butler	*	*	*	Jefferson	*	*	*
	Calhoun	*	*	*	Keokuk	*	*	*
	Cass	*	*	*	Kossuth	*	*	*
	Cedar	*	*	*	Louisa	*	*	*
	Cherokee	*	*	*	Lyon	*	*	*
	Chickasaw	*	*	*	Madison	*	*	*
	Clay	*	*	*	Mills	*	*	*
	Clayton	5	11.2	11.1	Mitchell	*	*	*
	Crawford	6	15.1	15.4	Monona	*	*	*
	Delaware	*	*	*	Montgomery	*	*	*
	Dickinson	*	*	*	O'Brien	*	*	*
	Emmet	*	*	*	Page	*	*	*
	Floyd	*	*	*	Palo Alto	5	21.5	20.6
	Franklin	*	*	*	Poweshiek	*	*	*
	Greene	*	*	*	Sac	5	18.3	16.8
	Grundy	*	*	*	Shelby	*	*	*
	Guthrie	*	*	*	Tama	*	*	*
	Hamilton	*	*	*	Union	*	*	*
Hancock	*	*	*	Winnebago	6	23.0	22.0	
Hardin	*	*	*	Wright	*	*	*	
Harrison	*	*	*	<b>Total</b>	113	7.7	7.6	
<b>Counties with Average Population &gt; 20,000</b>	Benton	*	*	*	Jones	*	*	*
	Boone	12	20.9	21.1	Lee	7	8.0	8.0
	Bremer	*	*	*	Mahaska	5	9.6	9.6
	Buchanan	*	*	*	Marion	*	*	*
	Buena Vista	*	*	*	Marshall	6	6.9	6.9
	Carroll	*	*	*	Muscatine	11	10.7	10.7
	Cerro Gordo	*	*	*	Plymouth	*	*	*
	Clinton	*	*	*	Sioux	7	8.7	8.6
	Des Moines	5	5.1	5.2	Story	*	*	*
	Fayette	*	*	*	Wapello	10	12.9	12.9
	Henry	5	11.2	11.2	Washington	*	*	*
	Jackson	*	*	*	Webster	7	7.6	7.6
	Jasper	*	*	*	Winneshiek	*	*	*
				<b>Total</b>	112	6.0	6.0	
<b>MSA Counties</b>	Black Hawk	13	4.7	4.6	Polk	28	3.4	3.4
	Dallas	6	6.7	6.7	Pottawattamie	9	4.4	4.4
	Dubuque	8	3.8	3.8	Scott	14	3.6	3.6
	Johnson	7	3.6	3.6	Warren	*	*	*
	Linn	21	5.0	5.0	Woodbury	15	5.8	5.8
<b>State Totals</b>	377	5.7	5.7	<b>Total</b>	125	4.2	4.2	

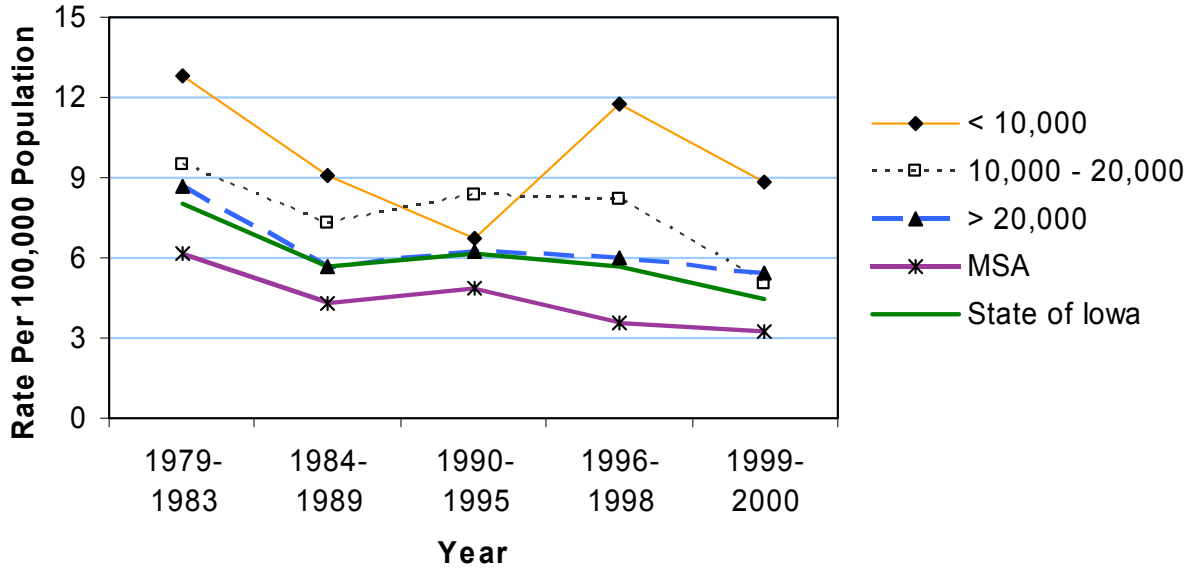
<sup>1</sup>Rates per 100,000 population

<sup>2</sup>Adjusted to Year 2000 population

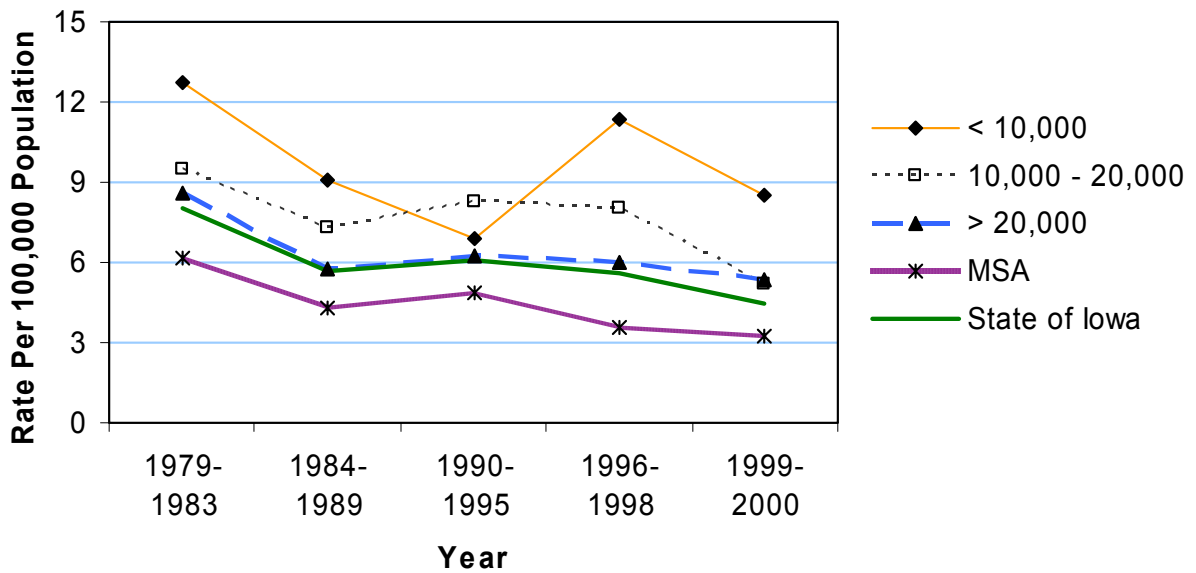
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Age 0-14: All Transportation Mortality by County Group 1979-2000

### Crude Rates



### Age-Adjusted Rates



## Age 15-19: All Transportation Mortality 1990-2000

	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
<b>Counties with Average Population &lt; 10,000</b>	Adair	7	115.2	115.2	Lucas	*	*	*
	Adams	*	*	*	Monroe	*	*	*
	Audubon	*	*	*	Osceola	*	*	*
	Clarke	*	*	*	Pocahontas	*	*	*
	Davis	6	89.8	89.8	Ringgold	*	*	*
	Decatur	6	64.8	64.8	Taylor	*	*	*
	Fremont	7	114.9	114.9	Van Buren	*	*	*
	Howard	*	*	*	Wayne	12	251.9	251.9
	Ida	7	111.8	111.8	Worth	*	*	*
					<b>Total</b>	71	66.5	66.5
<b>Counties with Average Population 10,000 to 20,000</b>	Allamakee	9	82.6	82.6	Humboldt	*	*	*
	Appanoose	6	57.4	57.4	Iowa	*	*	*
	Butler	9	75.4	75.4	Jefferson	7	56.6	56.6
	Calhoun	*	*	*	Keokuk	8	90.0	90.0
	Cass	9	81.3	81.3	Kossuth	12	83.7	83.7
	Cedar	5	37.1	37.1	Louisa	6	64.0	64.0
	Cherokee	5	46.4	46.4	Lyon	7	72.1	72.1
	Chickasaw	5	45.9	45.9	Madison	9	84.8	84.8
	Clay	*	*	*	Mills	8	70.3	70.3
	Clayton	19	127.8	127.8	Mitchell	6	71.3	71.3
	Crawford	8	52.7	52.7	Monona	6	85.3	85.3
	Delaware	14	90.5	90.5	Montgomery	6	67.4	67.4
	Dickinson	*	*	*	O'Brien	8	64.3	64.3
	Emmet	*	*	*	Page	5	38.1	38.1
	Floyd	*	*	*	Palo Alto	6	63.5	63.5
	Franklin	*	*	*	Poweshiek	7	38.4	38.4
	Greene	*	*	*	Sac	*	*	*
	Grundy	*	*	*	Shelby	*	*	*
	Guthrie	*	*	*	Tama	10	72.8	72.8
	Hamilton	*	*	*	Union	7	66.6	66.6
Hancock	7	71.0	71.0	Winnebago	*	*	*	
Hardin	*	*	*	Wright	5	49.3	49.3	
Harrison	7	60.1	60.1	<b>Total</b>	262	52.2	52.2	
<b>Counties with Average Population &gt; 20,000</b>	Benton	9	50.4	50.4	Jones	11	73.7	73.7
	Boone	*	*	*	Lee	11	38.5	38.5
	Bremer	5	22.3	22.3	Mahaska	*	*	*
	Buchanan	8	44.4	44.4	Marion	6	22.1	22.1
	Buena Vista	5	26.8	26.8	Marshall	8	26.7	26.7
	Carroll	12	69.0	69.0	Muscatine	9	27.3	27.3
	Cerro Gordo	14	37.6	37.6	Plymouth	7	32.7	32.7
	Clinton	14	34.9	34.9	Sioux	19	55.9	55.9
	Des Moines	10	30.2	30.2	Story	8	8.7	8.7
	Fayette	8	44.2	44.2	Wapello	10	35.3	35.3
	Henry	9	56.3	56.3	Washington	5	34.5	34.5
	Jackson	13	80.8	80.8	Webster	6	18.7	18.7
	Jasper	9	34.6	34.6	Winneshiek	5	21.3	21.3
				<b>Total</b>	228	32.8	32.8	
<b>MSA Counties</b>	Black Hawk	19	16.4	16.4	Polk	62	24.1	24.1
	Dallas	7	27.4	27.4	Pottawattamie	19	27.9	27.9
	Dubuque	24	31.2	31.2	Scott	27	21.9	21.9
	Johnson	17	15.7	15.7	Warren	6	17.3	17.3
	Linn	37	25.7	25.7	Woodbury	21	25.0	25.0
<b>State Totals</b>	800	34.1	34.1	<b>Total</b>	239	23.0	23.0	

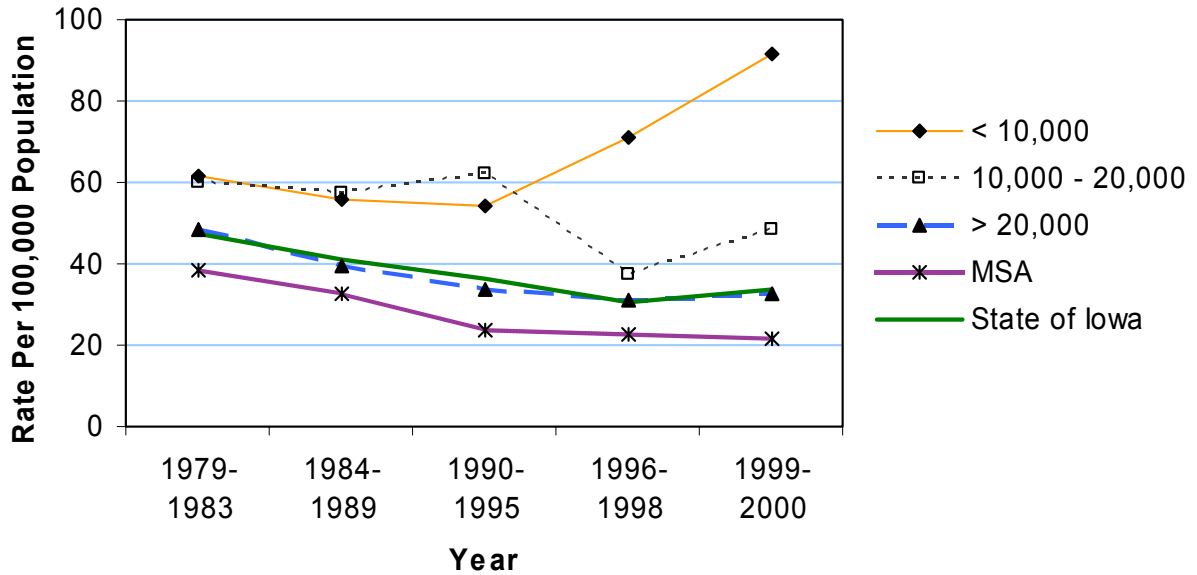
<sup>1</sup>Rates per 100,000 population

<sup>2</sup>Adjusted to Year 2000 population

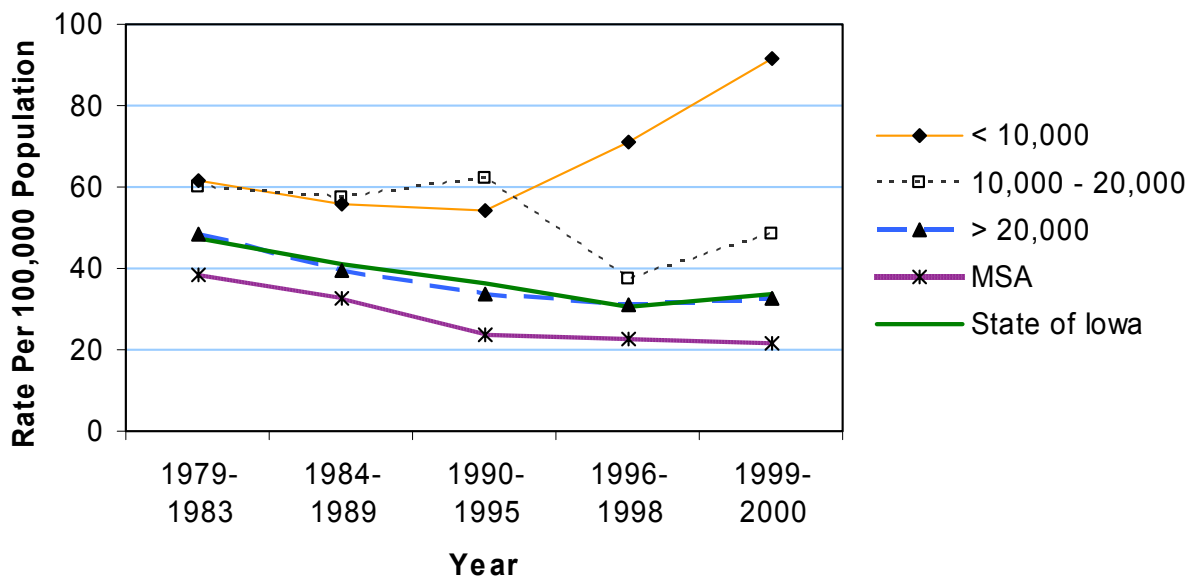
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Age 15-19: All Transportation Mortality by County Group 1979-2000

### Crude Rates



### Age-Adjusted Rates



## Age 0-14: Motor Vehicle Traffic Mortality 1990-2000

	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
<b>Counties with Average Population &lt; 10,000</b>	Adair	*	*	*	Lucas	*	*	*
	Adams	*	*	*	Monroe	*	*	*
	Audubon	*	*	*	Osceola	*	*	*
	Clarke	*	*	*	Pocahontas	*	*	*
	Davis	*	*	*	Ringgold	*	*	*
	Decatur	*	*	*	Taylor	*	*	*
	Fremont	*	*	*	Van Buren	*	*	*
	Howard	*	*	*	Wayne	*	*	*
	Ida	*	*	*	Worth	*	*	*
					<b>Total</b>	22	6.9	6.8
<b>Counties with Average Population 10,000 to 20,000</b>	Allamakee	*	*	*	Humboldt	*	*	*
	Appanoose	*	*	*	Iowa	*	*	*
	Butler	*	*	*	Jefferson	*	*	*
	Calhoun	*	*	*	Keokuk	*	*	*
	Cass	*	*	*	Kossuth	*	*	*
	Cedar	*	*	*	Louisa	*	*	*
	Cherokee	*	*	*	Lyon	*	*	*
	Chickasaw	*	*	*	Madison	*	*	*
	Clay	*	*	*	Mills	*	*	*
	Clayton	5	11.2	11.1	Mitchell	*	*	*
	Crawford	6	15.1	15.4	Monona	*	*	*
	Delaware	*	*	*	Montgomery	*	*	*
	Dickinson	*	*	*	O'Brien	*	*	*
	Emmet	*	*	*	Page	*	*	*
	Floyd	*	*	*	Palo Alto	*	*	*
	Franklin	*	*	*	Poweshiek	*	*	*
	Greene	*	*	*	Sac	5	18.3	16.8
	Grundy	*	*	*	Shelby	*	*	*
	Guthrie	*	*	*	Tama	*	*	*
	Hamilton	*	*	*	Union	*	*	*
Hancock	*	*	*	Winnebago	6	23.0	22.0	
Hardin	*	*	*	Wright	*	*	*	
Harrison	*	*	*	<b>Total</b>	104	7.1	7.0	
<b>Counties with Average Population &gt; 20,000</b>	Benton	*	*	*	Jones	*	*	*
	Boone	12	20.9	21.1	Lee	7	8.0	8.0
	Bremer	*	*	*	Mahaska	5	9.6	9.6
	Buchanan	*	*	*	Marion	*	*	*
	Buena Vista	*	*	*	Marshall	5	5.8	5.7
	Carroll	*	*	*	Muscatine	8	7.8	7.7
	Cerro Gordo	*	*	*	Plymouth	*	*	*
	Clinton	*	*	*	Sioux	6	7.5	7.3
	Des Moines	*	*	*	Story	*	*	*
	Fayette	*	*	*	Wapello	10	12.9	12.9
	Henry	5	11.2	11.2	Washington	*	*	*
	Jackson	*	*	*	Webster	7	7.6	7.6
	Jasper	*	*	*	Winneshiek	*	*	*
				<b>Total</b>	103	5.5	5.5	
<b>MSA Counties</b>	Black Hawk	12	4.3	4.3	Polk	25	3.0	3.1
	Dallas	5	5.6	5.6	Pottawattamie	6	2.9	2.9
	Dubuque	6	2.9	2.9	Scott	11	2.8	2.8
	Johnson	7	3.6	3.6	Warren	*	*	*
	Linn	20	4.8	4.8	Woodbury	15	5.8	5.8
<b>State Totals</b>	338	5.1	5.1	<b>Total</b>	109	3.7	3.7	

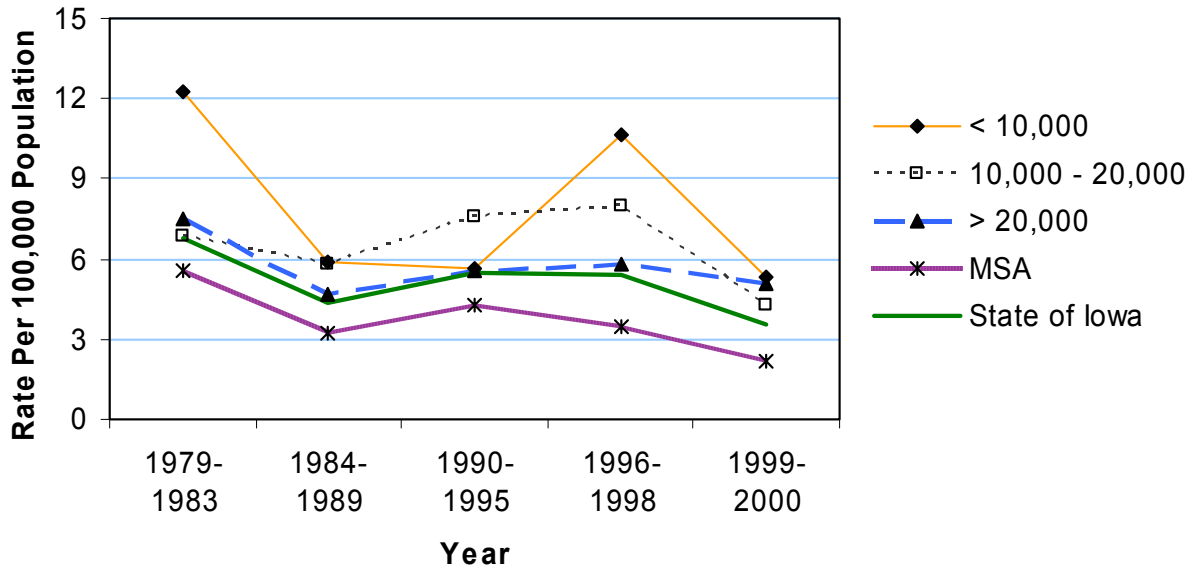
<sup>1</sup>Rates per 100,000 population

<sup>2</sup>Adjusted to Year 2000 population

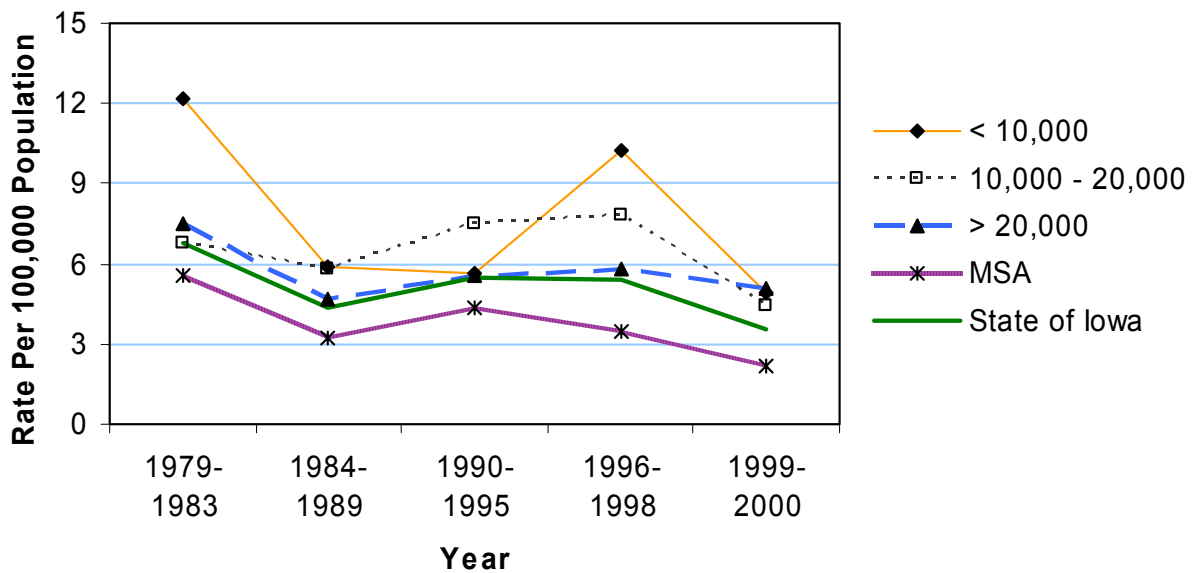
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Age 0-14: Motor Vehicle Traffic Mortality by County Group 1979-2000

### Crude Rates



### Age-Adjusted Rates



## Age 15-19: Motor Vehicle Traffic Mortality 1990-2000

	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
<b>Counties with Average Population &lt; 10,000</b>	Adair	7	115.2	115.2	Lucas	*	*	*
	Adams	*	*	*	Monroe	*	*	*
	Audubon	*	*	*	Osceola	*	*	*
	Clarke	*	*	*	Pocahontas	*	*	*
	Davis	6	89.8	89.8	Ringgold	*	*	*
	Decatur	6	64.8	64.8	Taylor	*	*	*
	Fremont	7	114.9	114.9	Van Buren	*	*	*
	Howard	*	*	*	Wayne	12	251.9	251.9
	Ida	7	111.8	111.8	Worth	*	*	*
					<b>Total</b>	70	65.5	65.5
<b>Counties with Average Population 10,000 to 20,000</b>	Allamakee	9	82.6	82.6	Humboldt	*	*	*
	Appanoose	6	57.4	57.4	Iowa	*	*	*
	Butler	9	75.4	75.4	Jefferson	7	56.6	56.6
	Calhoun	*	*	*	Keokuk	8	90.0	90.0
	Cass	9	81.3	81.3	Kossuth	12	83.7	83.7
	Cedar	5	37.1	37.1	Louisa	6	64.0	64.0
	Cherokee	5	46.4	46.4	Lyon	5	51.5	51.5
	Chickasaw	5	45.9	45.9	Madison	8	75.4	75.4
	Clay	*	*	*	Mills	8	70.3	70.3
	Clayton	19	127.8	127.8	Mitchell	6	71.3	71.3
	Crawford	8	52.7	52.7	Monona	6	85.3	85.3
	Delaware	14	90.5	90.5	Montgomery	6	67.4	67.4
	Dickinson	*	*	*	O'Brien	8	64.3	64.3
	Emmet	*	*	*	Page	*	*	*
	Floyd	*	*	*	Palo Alto	6	63.5	63.5
	Franklin	*	*	*	Poweshiek	7	38.4	38.4
	Greene	*	*	*	Sac	*	*	*
	Grundy	*	*	*	Shelby	*	*	*
	Guthrie	*	*	*	Tama	10	72.8	72.8
	Hamilton	*	*	*	Union	6	57.1	57.1
Hancock	7	71.0	71.0	Winnebago	*	*	*	
Hardin	*	*	*	Wright	5	49.3	49.3	
Harrison	6	51.5	51.5	<b>Total</b>	256	51.0	51.0	
<b>Counties with Average Population &gt; 20,000</b>	Benton	8	44.8	44.8	Jones	11	73.7	73.7
	Boone	*	*	*	Lee	11	38.5	38.5
	Bremer	5	22.3	22.3	Mahaska	*	*	*
	Buchanan	7	38.8	38.8	Marion	6	22.1	22.1
	Buena Vista	5	26.8	26.8	Marshall	8	26.7	26.7
	Carroll	12	69.0	69.0	Muscatine	9	27.3	27.3
	Cerro Gordo	14	37.6	37.6	Plymouth	7	32.7	32.7
	Clinton	13	32.4	32.4	Sioux	19	55.9	55.9
	Des Moines	10	30.2	30.2	Story	8	8.7	8.7
	Fayette	8	44.2	44.2	Wapello	10	35.3	35.3
	Henry	9	56.3	56.3	Washington	5	34.5	34.5
	Jackson	12	74.6	74.6	Webster	6	18.7	18.7
	Jasper	9	34.6	34.6	Winneshiek	5	21.3	21.3
					<b>Total</b>	224	32.2	32.2
<b>MSA Counties</b>	Black Hawk	19	16.4	16.4	Polk	59	23.0	23.0
	Dallas	7	27.4	27.4	Pottawattamie	17	24.9	24.9
	Dubuque	21	27.3	27.3	Scott	27	21.9	21.9
	Johnson	15	13.9	13.9	Warren	6	17.3	17.3
	Linn	33	22.9	22.9	Woodbury	20	23.8	23.8
				<b>Total</b>	224	21.6	21.6	
<b>State Totals</b>		774	33.0				33.0	

<sup>1</sup>Rates per 100,000 population

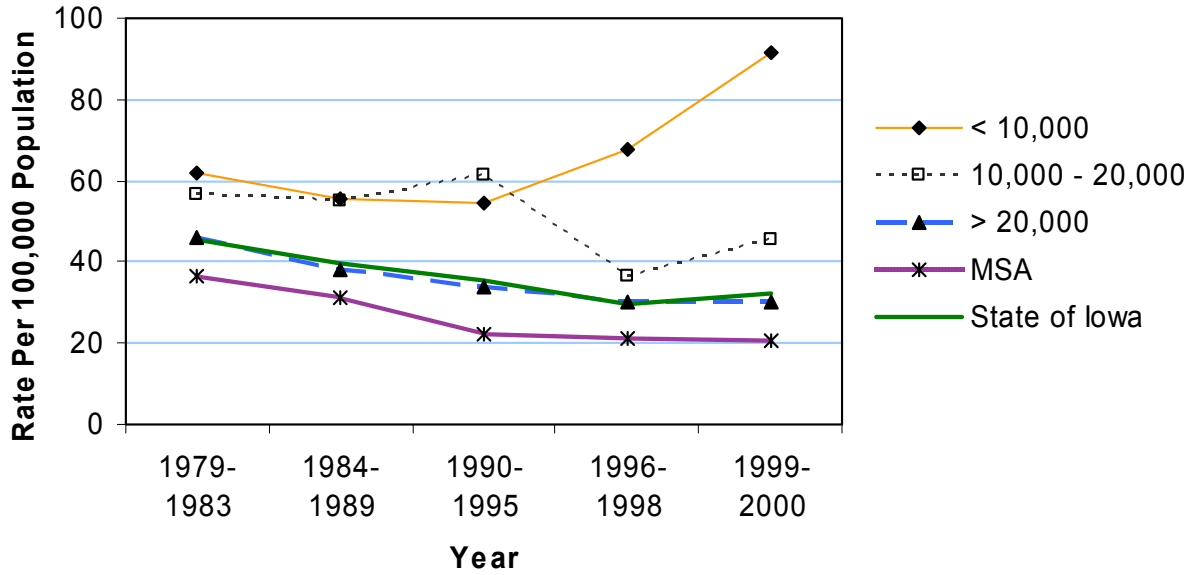
<sup>2</sup>Adjusted to Year 2000 population

Source: Iowa Department of Public Health via Iowa Cancer Registry

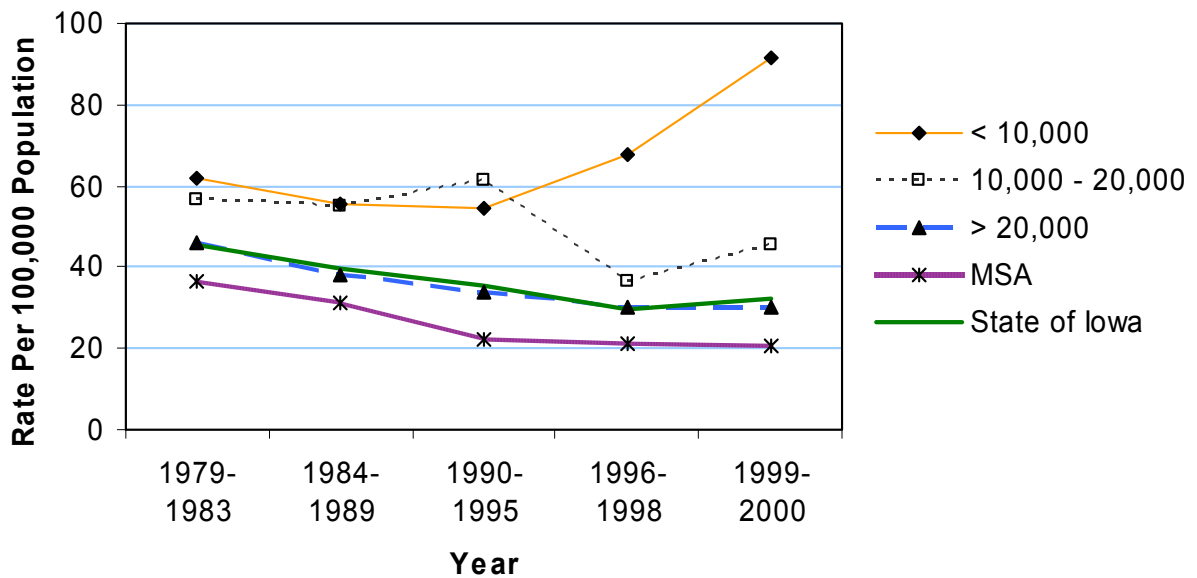


## Age 15-19: Motor Vehicle Traffic Mortality by County Group 1979-2000

### Crude Rates

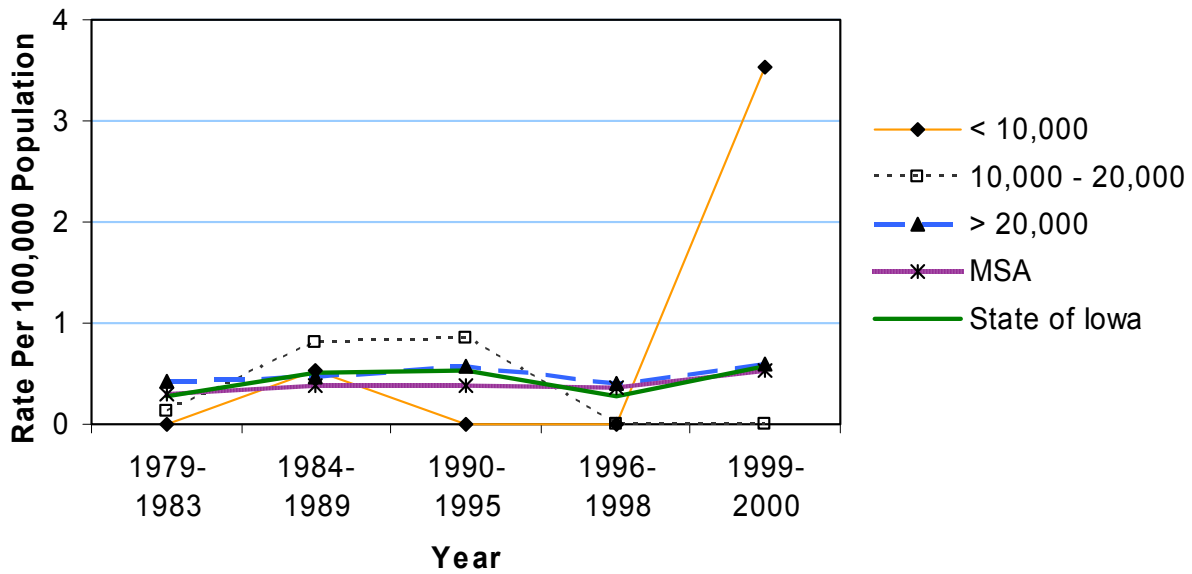


### Age-Adjusted Rates

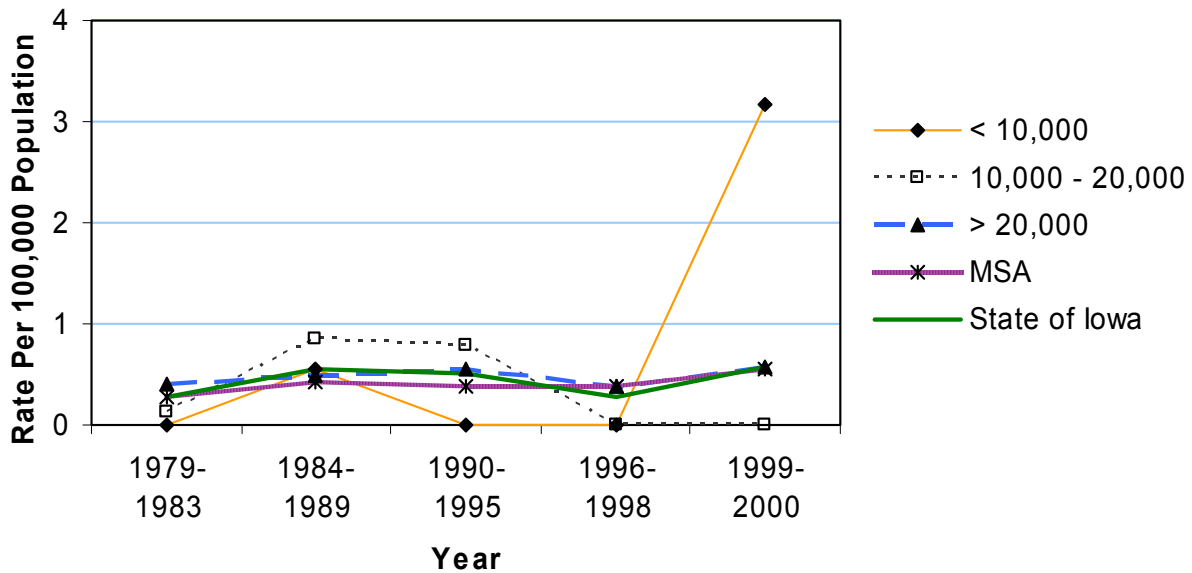


## Age 0-14: Suicide by County Group 1979-2000

### Crude Rates



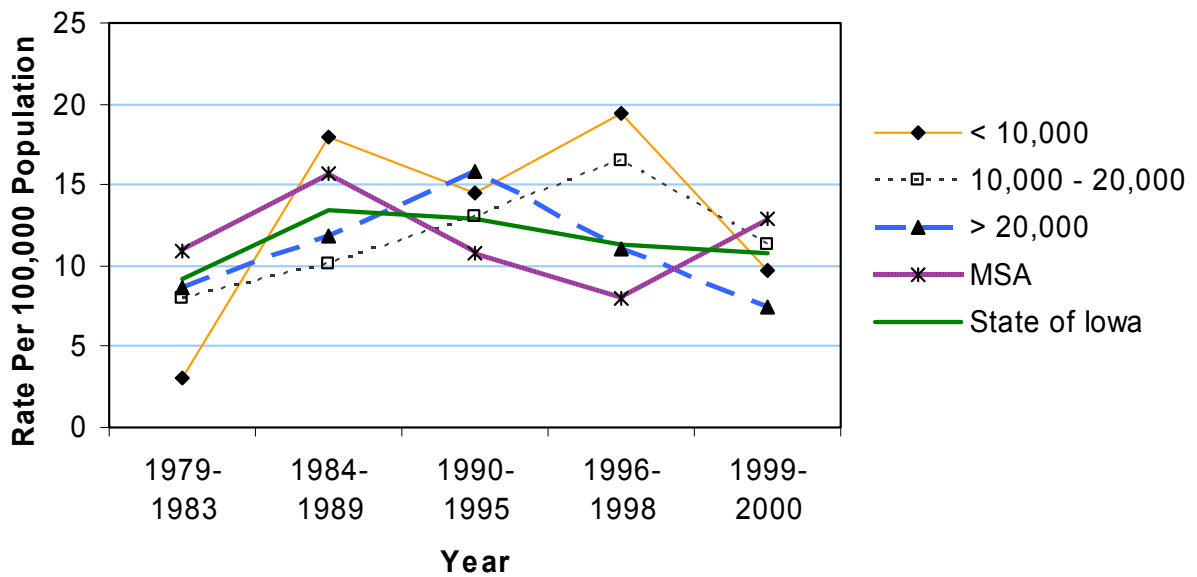
### Age-Adjusted Rates



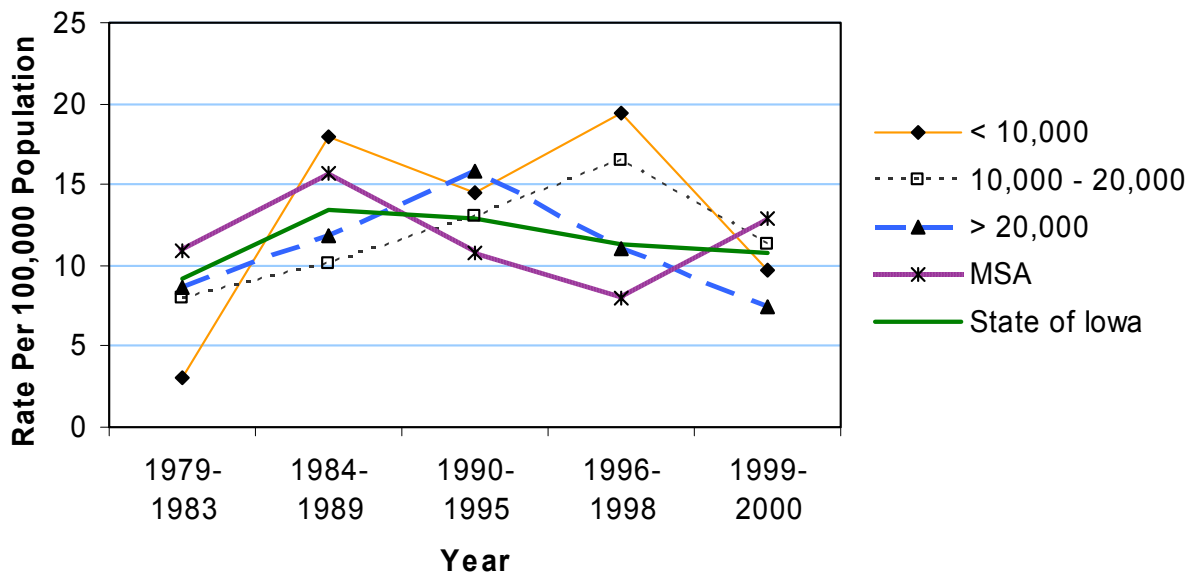
Source: Iowa Department of Public Health, via Iowa Cancer Registry

## Age 15-19: Suicide by County Group 1979-2000

### Crude Rates



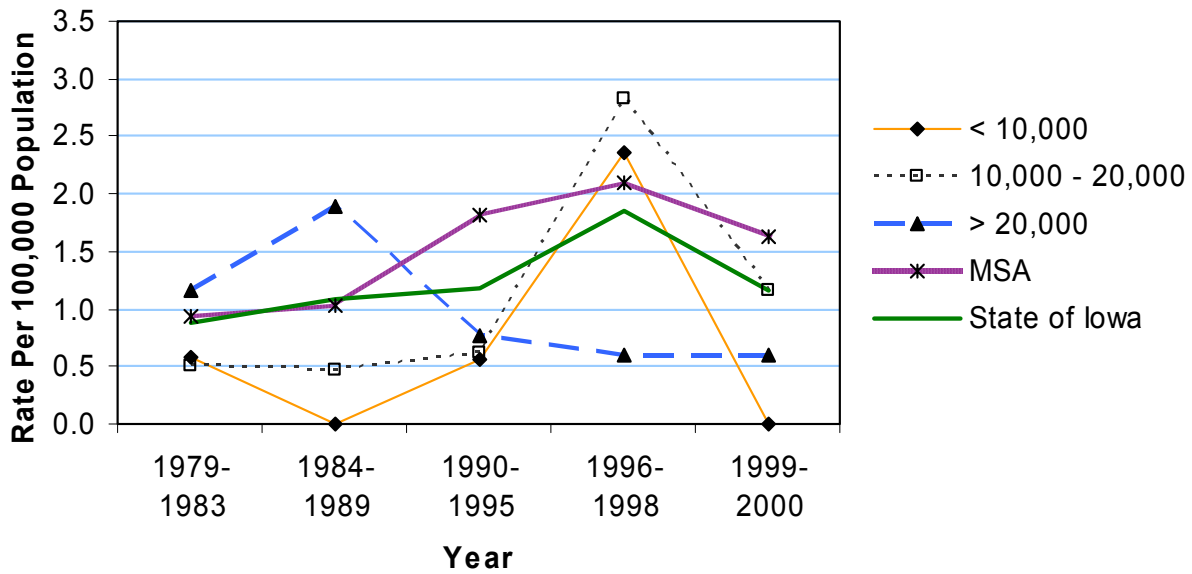
### Age-Adjusted Rates



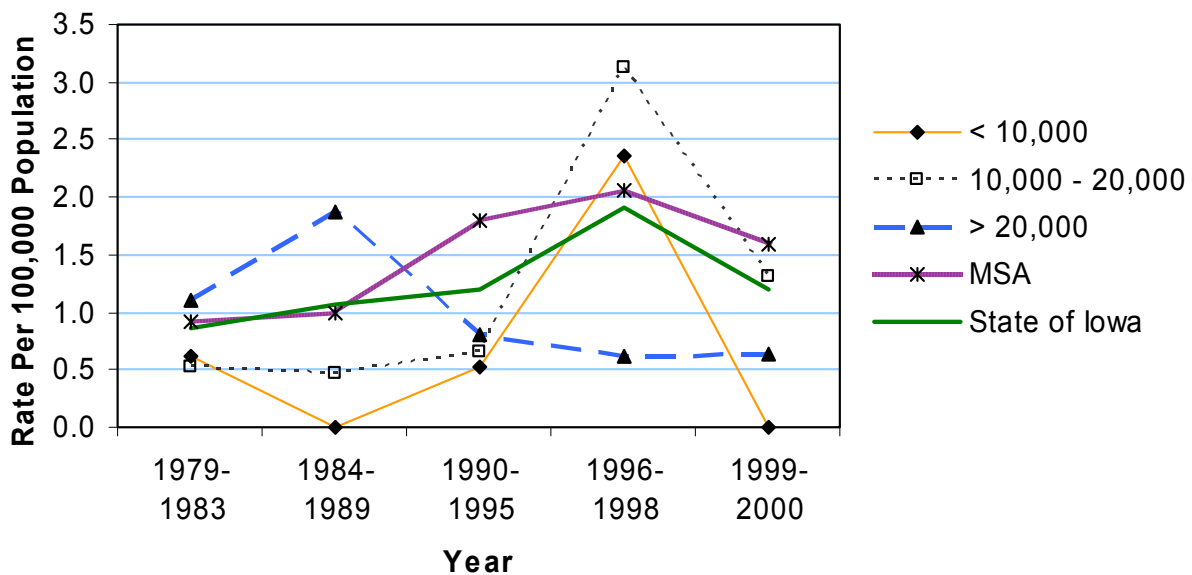
Source: Iowa Department of Public Health, via Iowa Cancer Registry

## Age 0-14: Homicide by County Group 1979-2000

### Crude Rates



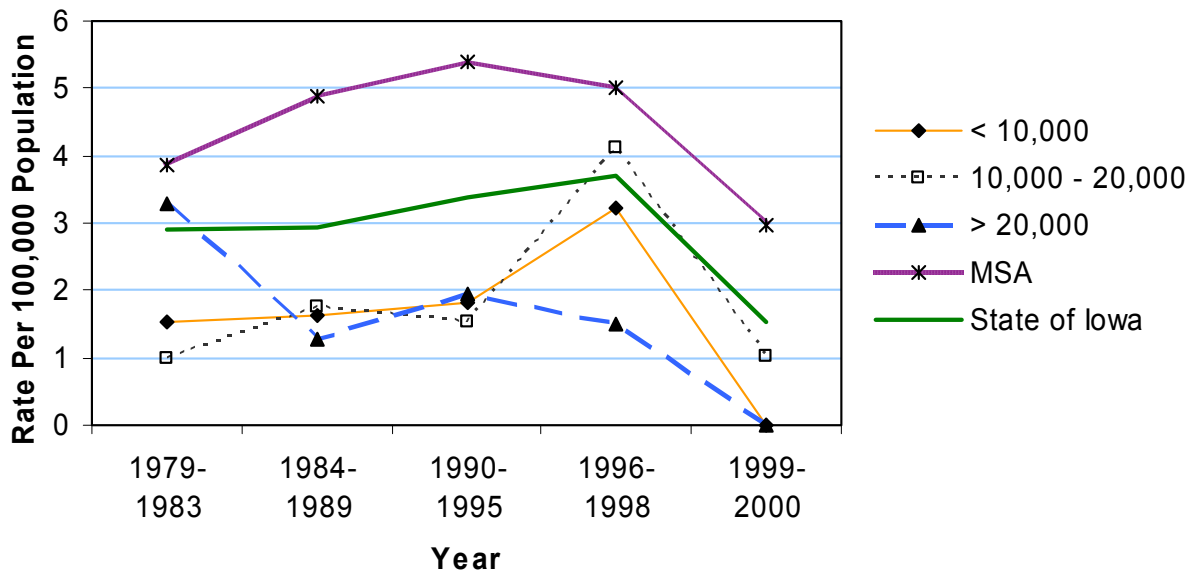
### Age-Adjusted Rates



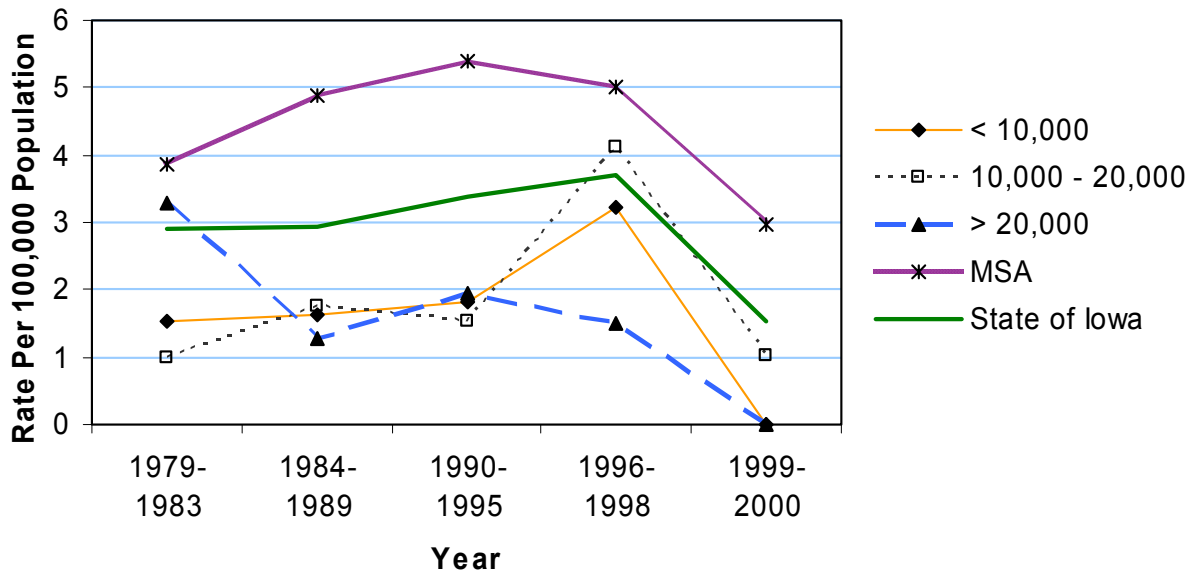
Source: Iowa Department of Public Health, via Iowa Cancer Registry

## Age 15-19: Homicide by County Group 1979-2000

### Crude Rates



### Age-Adjusted Rates



Source: Iowa Department of Public Health, via Iowa Cancer Registry



## Other Mortality

With the population aging, chronic disease has become a major determinant of the health of Iowans and the need for health care services in the state.

Heart disease, still the number one cause of death in Iowa, accounted for 323 deaths per 100,000 persons (crude rate) between 1990 and 2000. Using age-adjusted rates, the four county groupings (based on county size) do not vary much, but we do see a consistent decline over time. In the 1978 to 1983 period, the state age-adjusted mortality rate was 365 per 100,000, whereas it had dropped steadily to 249 per 100,000 by the 1996-2000 time period.

Cancer is still the second leading cause of death in Iowa, with a crude mortality rate of 223 per 100,000. Iowa, like the rest of the country, experienced an increase in age-adjusted mortality rates in the late 1970s and 1980s, but a decline in the 1990s, returning us to a rate of 191.7 per 100,000 in 1996-2000, compared to 193.0 in 1978-1983.

From 1978 through 1990, we experienced an steady decline in age-adjusted stroke mortality, but it remained relatively constant between 1990 and 2000. The age-adjusted mortality rates for chronic obstructive pulmonary disease (COPD) have been increasing across time with the larger counties experiencing the highest rates. Death from pneumonia and influenza shows little overall change over time, when adjusted for age, but unadjusted rates indicate a greater problem in the smaller counties, due to their larger proportion of elderly. The smaller counties are also exhibiting a greater problem with mortality due to diabetes, atherosclerosis, kidney diseases, and Alzheimer's disease, based upon crude mortality rates.

These data were obtained from death certificates filed at the Iowa Department of Public Health via the National Center for Health Statistics and the NCI SEER Stat program.

### MAJOR CAUSES OF DEATH IN IOWA...

- ✓ Heart disease
- ✓ Cancer
- ✓ Stroke
- ✓ Respiratory disease
- ✓ Pneumonia/influenza
- ✓ Unintentional injuries
- ✓ Arteriosclerosis
- ✓ Diabetes
- ✓ Alzheimer's Disease
- ✓ Infectious/parasitic diseases

## All Causes Mortality 1990-2000

	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with Average Population < 10,000	Adair	1,271	1,381.3 (09)	761.7 (78)	Lucas	1,305	1,280.3 (30)	819.7 (36)
	Adams	681	1,345.4 (13)	832.5 (30)	Monroe	1,153	1,288.4 (28)	859.1 (19)
	Audubon	1,064	1,378.8 (10)	745.4 (86)	Osceola	906	1,148.6 (53)	741.8 (89)
	Clarke	1,102	1,161.7 (50)	790.3 (56)	Pocahontas	1,310	1,312.6 (24)	784.3 (61)
	Davis	1,073	1,156.3 (52)	796.3 (50)	Ringgold	894	1,499.4 (03)	791.2 (55)
	Decatur	1,240	1,342.3 (14)	901.7 (08)	Taylor	1,093	1,414.0 (07)	774.6 (66)
	Fremont	1,278	1,429.8 (06)	929.8 (02)	Van Buren	1,109	1,304.9 (25)	869.0 (16)
	Howard	1,437	1,313.3 (23)	774.2 (67)	Wayne	1,203	1,577.9 (01)	855.3 (21)
	Ida	1,201	1,340.8 (15)	848.8 (25)	Worth	1,119	1,280.6 (29)	787.5 (57)
					<b>Total</b>	20,439	1,323.9	813.5
Counties with Average Population 10,000 to 20,000	Allamakee	1,896	1,201.4 (43)	807.8 (44)	Humboldt	1,394	1,204.9 (41)	768.3 (74)
	Appanoose	2,025	1,338.0 (16)	853.1 (23)	Iowa	1,862	1,118.4 (56)	787.2 (58)
	Butler	2,088	1,221.3 (36)	771.4 (69)	Jefferson	1,683	931.2 (84)	795.7 (52)
	Calhoun	1,807	1,440.0 (05)	809.2 (42)	Keokuk	1,540	1,216.9 (37)	783.6 (62)
	Cass	2,176	1,322.4 (21)	810.1 (41)	Kossuth	2,275	1,163.2 (49)	770.8 (71)
	Cedar	1,875	957.1 (80)	715.3 (94)	Louisa	1,265	965.9 (79)	823.7 (32)
	Cherokee	1,819	1,214.8 (38)	817.9 (38)	Lyon	1,388	1,065.4 (66)	742.5 (88)
	Chickasaw	1,584	1,087.7 (60)	792.5 (54)	Madison	1,721	1,182.2 (47)	873.8 (13)
	Clay	1,973	1,019.3 (73)	756.6 (81)	Mills	1,445	954.8 (82)	910.0 (06)
	Clayton	2,467	1,187.7 (45)	839.5 (28)	Mitchell	1,594	1,327.9 (18)	758.9 (79)
	Crawford	1,888	1,021.5 (72)	741.3 (90)	Monona	1,739	1,572.9 (02)	848.1 (26)
	Delaware	1,754	870.8 (90)	763.4 (77)	Montgomery	1,918	1,461.9 (04)	880.2 (11)
	Dickinson	1,919	1,111.6 (58)	738.6 (91)	O'Brien	2,114	1,241.6 (33)	752.5 (83)
	Emmet	1,510	1,203.5 (42)	796.3 (50)	Page	2,540	1,360.4 (11)	854.5 (22)
	Floyd	2,310	1,234.1 (34)	808.1 (43)	Palo Alto	1,537	1,346.6 (12)	817.8 (39)
	Franklin	1,466	1,206.9 (40)	772.3 (68)	Poweshiek	2,255	1,083.3 (62)	771.1 (70)
	Greene	1,494	1,321.9 (22)	768.4 (73)	Sac	1,834	1,392.9 (08)	803.0 (46)
	Grundy	1,408	1,049.6 (67)	687.1 (97)	Shelby	1,731	1,186.0 (46)	752.4 (84)
	Guthrie	1,546	1,253.5 (32)	778.9 (63)	Tama	2,333	1,189.8 (44)	803.6 (45)
	Hamilton	1,939	1,081.9 (63)	778.9 (63)	Union	1,776	1,297.0 (27)	873.7 (14)
Hancock	1,449	1,078.4 (64)	753.2 (82)	Winnebago	1,590	1,222.1 (35)	785.8 (60)	
Hardin	2,767	1,327.2 (19)	802.3 (47)	Wright	2,107	1,326.7 (20)	765.2 (76)	
Harrison	2,218	1,328.5 (17)	915.8 (04)	<b>Total</b>	83,019	1,186.1	793.9	
Counties with Average Population > 20,000	Benton	2,339	891.2 (88)	728.1 (93)	Jones	1,971	890.3 (89)	734.3 (92)
	Boone	3,310	1,175.3 (48)	832.0 (31)	Lee	4,885	1,146.8 (54)	912.9 (05)
	Bremer	2,501	981.2 (77)	747.1 (85)	Mahaska	2,472	1,023.1 (71)	787.0 (59)
	Buchanan	2,269	979.3 (78)	858.9 (20)	Marion	3,538	1,037.4 (69)	822.0 (34)
	Buena Vista	2,332	1,040.6 (68)	744.0 (87)	Marshall	5,537	1,298.9 (26)	984.8 (01)
	Carroll	2,590	1,091.7 (59)	769.8 (72)	Muscatine	4,096	905.2 (87)	863.0 (18)
	Cerro Gordo	5,604	1,085.4 (61)	823.2 (33)	Plymouth	2,641	990.1 (75)	775.1 (65)
	Clinton	6,006	1,072.3 (65)	885.2 (09)	Sioux	2,604	762.0 (95)	646.8 (99)
	Des Moines	4,865	1,033.7 (70)	816.3 (40)	Story	4,764	564.1 (98)	679.5 (98)
	Fayette	2,821	1,160.0 (51)	801.0 (49)	Wapello	4,967	1,253.7 (31)	921.1 (03)
	Henry	2,201	1,005.3 (74)	794.8 (53)	Washington	2,497	1,122.2 (55)	757.2 (80)
	Jackson	2,472	1,115.3 (57)	869.2 (15)	Webster	5,310	1,208.3 (39)	883.4 (10)
	Jasper	3,893	989.5 (76)	801.2 (48)	Winneshiek	2,013	866.4 (91)	692.0 (96)
					<b>Total</b>	90,498	1,009.1	813.4
MSA Counties	Black Hawk	12,734	912.7 (86)	853.0 (24)	Polk	29,382	757.4 (96)	835.2 (29)
	Dallas	3,276	857.5 (92)	818.4 (37)	Pottawattamie	8,656	928.4 (85)	906.2 (07)
	Dubuque	9,301	957.0 (81)	842.1 (27)	Scott	13,738	800.6 (93)	879.7 (12)
	Johnson	5,198	455.0 (99)	713.2 (95)	Warren	3,269	770.8 (94)	821.1 (35)
	Linn	14,794	743.4 (97)	766.4 (75)	Woodbury	10,585	941.0 (83)	864.7 (17)
					<b>Total</b>	110,933	794.7	833.0
<b>State Totals</b>		304,889	968.8	814.5				

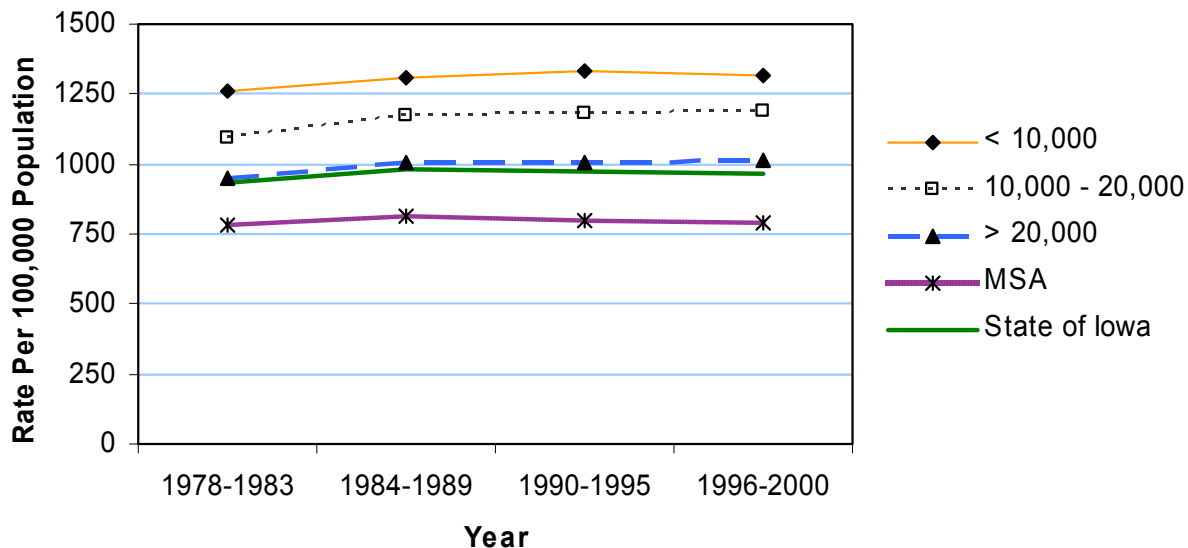
<sup>1</sup>Rates per 100,000 population<sup>2</sup>Adjusted to Year 2000 population<sup>3</sup>Rank among 99 Iowa counties

Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

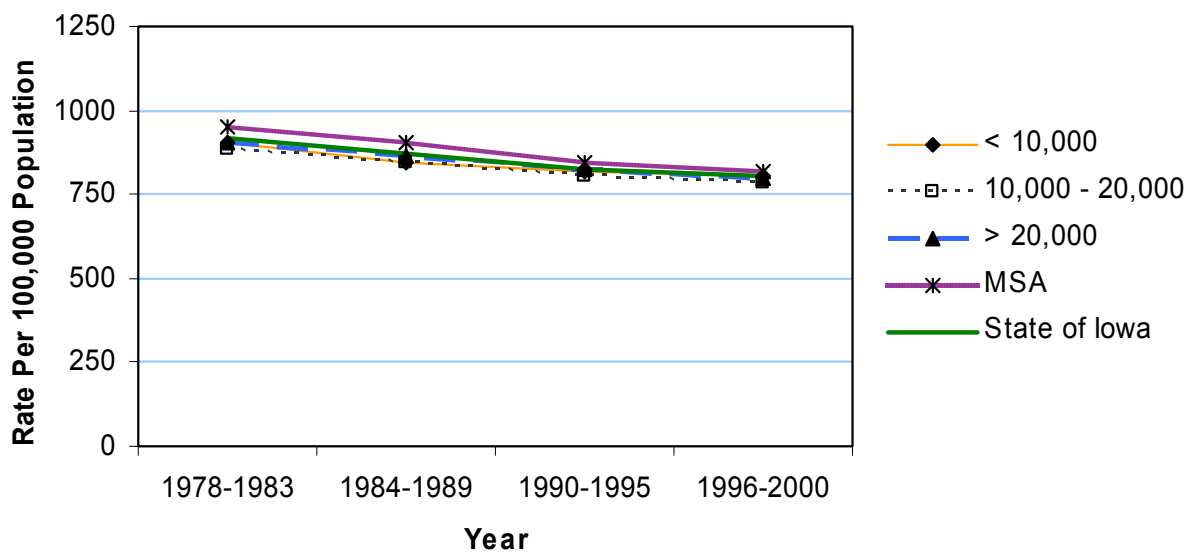


## All Causes Mortality by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Heart Disease Mortality 1990-2000

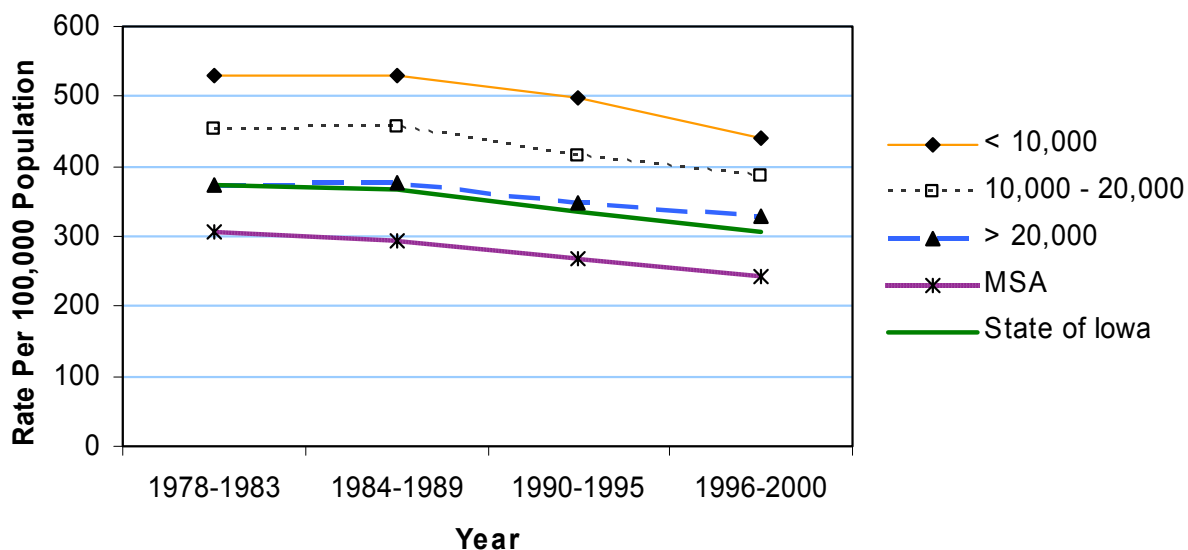
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with Average Population < 10,000	Adair	405	440.1 (27)	230.6 (85)	Lucas	563	552.3 (03)	330.4 (04)
	Adams	224	442.5 (26)	255.7 (54)	Monroe	413	461.5 (16)	292.0 (15)
	Audubon	318	412.1 (43)	213.7 (94)	Osceola	431	546.4 (05)	326.9 (07)
	Clarke	414	436.4 (29)	281.4 (29)	Pocahontas	421	421.8 (39)	238.5 (78)
	Davis	419	451.5 (21)	288.8 (18)	Ringgold	375	628.9 (01)	311.5 (13)
	Decatur	424	459.0 (18)	288.6 (19)	Taylor	358	463.1 (15)	247.0 (62)
	Fremont	412	460.9 (17)	285.9 (24)	Van Buren	385	453.0 (20)	288.0 (21)
	Howard	462	422.2 (38)	245.0 (65)	Wayne	385	505.0 (08)	257.2 (50)
	Ida	489	545.9 (06)	322.8 (08)	Worth	373	426.9 (36)	248.4 (61)
					<b>Total</b>	7,271	471.0	273.7
Counties with Average Population 10,000 to 20,000	Allamakee	551	349.2 (67)	226.5 (89)	Humboldt	492	425.2 (37)	259.4 (47)
	Appanoose	886	585.4 (02)	352.9 (01)	Iowa	536	321.9 (80)	216.2 (92)
	Butler	703	411.2 (44)	246.5 (63)	Jefferson	559	309.3 (83)	255.6 (55)
	Calhoun	561	447.1 (23)	239.4 (77)	Keokuk	481	380.1 (53)	231.8 (82)
	Cass	688	418.1 (40)	242.5 (71)	Kossuth	710	363.0 (60)	231.4 (83)
	Cedar	541	276.2 (89)	202.2 (96)	Louisa	435	332.2 (77)	277.0 (32)
	Cherokee	669	446.8 (25)	284.9 (25)	Lyon	495	380.0 (54)	254.6 (57)
	Chickasaw	661	453.9 (19)	318.5 (10)	Madison	498	342.1 (73)	243.4 (68)
	Clay	644	332.7 (76)	240.2 (75)	Mills	527	348.2 (70)	327.2 (06)
	Clayton	698	336.0 (74)	231.9 (81)	Mitchell	583	485.7 (12)	254.0 (58)
	Crawford	684	370.1 (56)	257.1 (51)	Monona	538	486.6 (11)	242.6 (70)
	Delaware	535	265.6 (92)	230.3 (86)	Montgomery	587	447.4 (22)	245.7 (64)
	Dickinson	661	382.9 (52)	243.7 (67)	O'Brien	734	431.1 (32)	244.5 (66)
	Emmet	497	396.1 (49)	251.9 (59)	Page	901	482.6 (13)	283.8 (27)
	Floyd	809	432.2 (31)	271.8 (39)	Palo Alto	476	417.0 (41)	241.2 (74)
	Franklin	533	438.8 (28)	269.3 (42)	Poweshiek	726	348.8 (68)	237.4 (79)
	Greene	567	501.7 (09)	273.0 (36)	Sac	565	429.1 (34)	235.7 (80)
	Grundy	486	362.3 (61)	224.8 (90)	Shelby	711	487.2 (10)	289.2 (16)
	Guthrie	365	295.9 (84)	183.0 (99)	Tama	775	395.2 (50)	251.2 (60)
	Hamilton	663	369.9 (58)	255.4 (56)	Union	740	540.4 (07)	337.7 (03)
Hancock	576	428.7 (35)	287.0 (22)	Winnebago	565	434.3 (30)	263.2 (46)	
Hardin	999	479.2 (14)	273.0 (36)	Wright	662	416.8 (42)	228.0 (88)	
Harrison	914	547.4 (04)	351.6 (02)	<b>Total</b>	28,187	402.7	256.8	
Counties with Average Population > 20,000	Benton	770	293.4 (85)	230.7 (84)	Jones	629	284.1 (87)	229.1 (87)
	Boone	1,214	431.1 (32)	286.7 (23)	Lee	1,727	405.4 (47)	313.5 (12)
	Bremer	923	362.1 (63)	266.2 (45)	Mahaska	841	348.1 (71)	259.4 (47)
	Buchanan	807	348.3 (69)	300.4 (14)	Marion	1,079	316.4 (82)	242.7 (69)
	Buena Vista	789	352.1 (65)	242.1 (73)	Marshall	1,639	384.5 (51)	284.8 (26)
	Carroll	847	357.0 (64)	240.0 (76)	Muscatine	1,277	282.2 (88)	267.3 (43)
	Cerro Gordo	1,911	370.1 (56)	271.3 (40)	Plymouth	966	362.2 (62)	273.2 (35)
	Clinton	2,272	405.6 (46)	328.5 (05)	Sioux	808	236.4 (96)	195.9 (98)
	Des Moines	1,573	334.2 (75)	256.4 (53)	Story	1,472	174.3 (98)	209.6 (95)
	Fayette	998	410.4 (45)	272.5 (38)	Wapello	1,592	401.8 (48)	288.2 (20)
	Henry	765	349.4 (66)	266.5 (44)	Washington	836	375.7 (55)	242.2 (72)
	Jackson	805	363.2 (59)	274.3 (34)	Webster	1,964	446.9 (24)	317.0 (11)
	Jasper	1,364	346.7 (72)	275.0 (33)	Winneshiek	641	275.9 (90)	215.0 (93)
					<b>Total</b>	30,509	340.2	267.0
MSA Counties	Black Hawk	4,094	293.4 (85)	270.8 (41)	Polk	9,645	248.6 (94)	277.2 (31)
	Dallas	1,038	271.7 (91)	256.5 (52)	Pottawattamie	3,066	328.8 (78)	322.2 (09)
	Dubuque	3,134	322.5 (79)	279.5 (30)	Scott	4,382	255.4 (93)	283.2 (28)
	Johnson	1,397	122.3 (99)	199.0 (97)	Warren	1,026	241.9 (95)	257.5 (49)
	Linn	4,228	212.5 (97)	219.3 (91)	Woodbury	3,587	318.9 (81)	289.1 (17)
	<b>State Totals</b>	101,564	322.7	265.2	<b>Total</b>	35,597	255.0	268.1

<sup>1</sup>Rates per 100,000 population<sup>2</sup>Adjusted to Year 2000 population<sup>3</sup>Rank among 99 Iowa counties

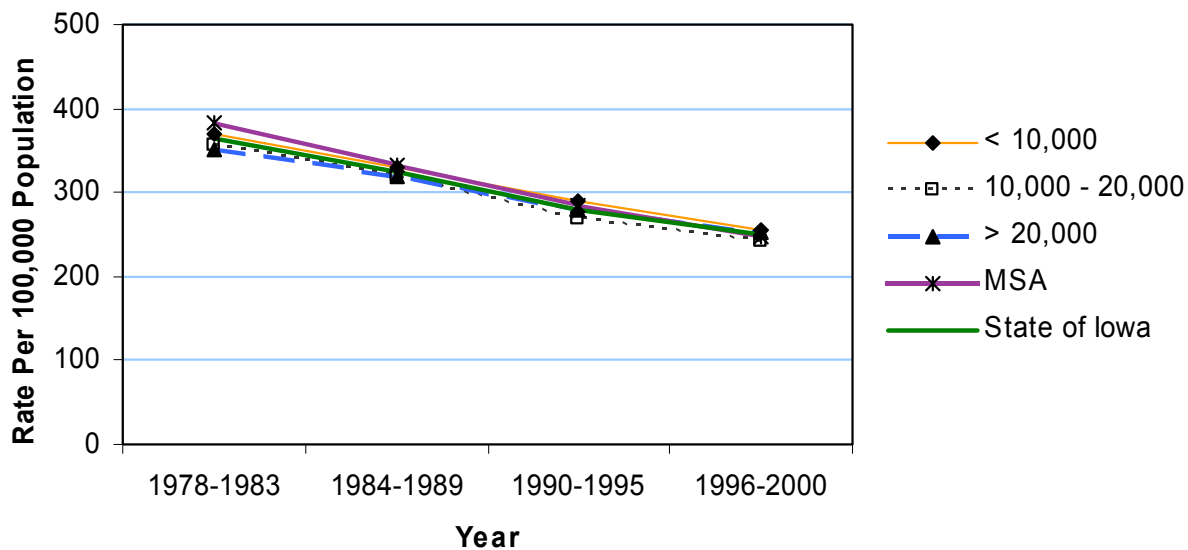
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## Heart Disease Mortality by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Stroke Mortality 1990-2000

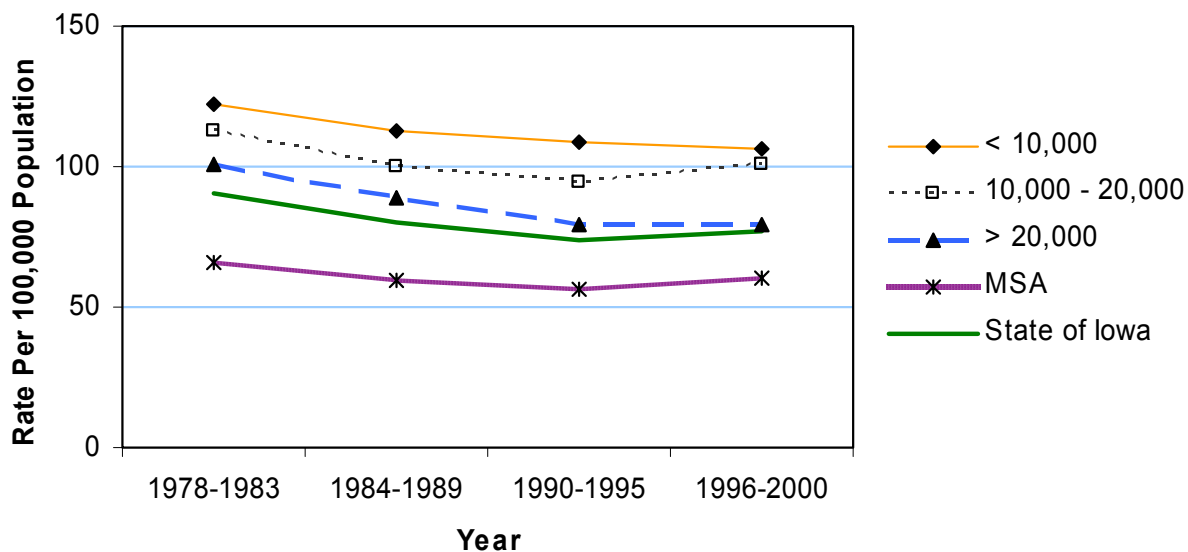
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with Average Population < 10,000	Adair	80	86.9 (53)	45.1 (96)	Lucas	80	78.5 (72)	45.9 (90)
	Adams	62	122.5 (12)	71.4 (15)	Monroe	93	103.9 (30)	61.9 (42)
	Audubon	87	112.7 (18)	52.2 (71)	Osceola	59	74.8 (77)	45.6 (93)
	Clarke	94	99.1 (33)	62.0 (41)	Pocahontas	135	135.3 (06)	71.5 (14)
	Davis	79	85.1 (57)	53.7 (64)	Ringgold	57	95.6 (43)	45.6 (93)
	Decatur	102	110.4 (21)	66.9 (28)	Taylor	84	108.7 (23)	53.3 (67)
	Fremont	110	123.1 (10)	72.1 (11)	Van Buren	91	107.1 (26)	64.7 (34)
	Howard	114	104.2 (29)	52.8 (70)	Wayne	113	148.2 (01)	66.7 (29)
	Ida	88	98.2 (36)	56.0 (56)	Worth	129	147.6 (02)	81.4 (02)
					<b>Total</b>	1,657	107.3	59.2
Counties with Average Population 10,000 to 20,000	Allamakee	204	129.3 (08)	80.0 (03)	Humboldt	96	83.0 (62)	49.1 (83)
	Appanoose	131	86.6 (54)	51.0 (73)	Iowa	195	117.1 (15)	73.2 (10)
	Butler	207	121.1 (14)	69.3 (20)	Jefferson	175	96.8 (40)	76.6 (06)
	Calhoun	134	106.8 (28)	53.0 (68)	Keokuk	105	83.0 (62)	45.7 (92)
	Cass	210	127.6 (09)	70.6 (18)	Kossuth	220	112.5 (19)	67.2 (27)
	Cedar	190	97.0 (39)	66.0 (30)	Louisa	89	68.0 (81)	54.8 (61)
	Cherokee	140	93.5 (46)	57.3 (54)	Lyon	118	90.6 (49)	58.8 (51)
	Chickasaw	110	75.5 (76)	51.4 (72)	Madison	120	82.4 (65)	55.0 (60)
	Clay	154	79.6 (70)	54.2 (63)	Mills	76	50.2 (96)	47.6 (87)
	Clayton	232	111.7 (20)	72.0 (13)	Mitchell	129	107.5 (24)	53.4 (65)
	Crawford	109	59.0 (91)	40.4 (98)	Monona	109	98.6 (35)	45.9 (90)
	Delaware	165	81.9 (66)	68.7 (22)	Montgomery	193	147.1 (03)	79.7 (04)
	Dickinson	169	97.9 (37)	60.9 (46)	O'Brien	160	94.0 (45)	50.7 (75)
	Emmet	87	69.3 (79)	45.2 (95)	Page	205	109.8 (22)	63.6 (36)
	Floyd	173	92.4 (47)	56.0 (56)	Palo Alto	158	138.4 (05)	73.8 (08)
	Franklin	120	98.8 (34)	57.7 (52)	Poweshiek	240	115.3 (17)	75.6 (07)
	Greene	161	142.4 (04)	70.9 (17)	Sac	172	130.6 (07)	65.6 (31)
	Grundy	114	85.0 (59)	50.8 (74)	Shelby	121	82.9 (64)	47.5 (88)
	Guthrie	105	85.1 (57)	49.4 (81)	Tama	191	97.4 (38)	59.7 (50)
	Hamilton	100	55.8 (93)	39.1 (99)	Union	111	81.1 (67)	49.8 (79)
Hancock	144	107.2 (25)	67.8 (25)	Winnebago	160	123.0 (11)	69.1 (21)	
Hardin	223	107.0 (27)	57.5 (53)	Wright	193	121.5 (13)	61.6 (43)	
Harrison	109	65.3 (86)	42.6 (97)	<b>Total</b>	6,827	97.5	59.4	
Counties with Average Population > 20,000	Benton	162	61.7 (88)	48.2 (85)	Jones	268	68.1 (80)	53.4 (65)
	Boone	243	86.3 (55)	55.9 (58)	Lee	136	61.4 (89)	47.7 (86)
	Bremer	225	88.3 (52)	63.0 (38)	Mahaska	337	79.1 (71)	59.8 (48)
	Buchanan	154	66.5 (84)	56.2 (55)	Marion	222	91.9 (48)	65.3 (33)
	Buena Vista	171	76.3 (75)	50.5 (76)	Marshall	294	86.2 (56)	63.1 (37)
	Carroll	186	78.4 (73)	49.9 (78)	Muscatine	429	100.6 (32)	72.1 (11)
	Cerro Gordo	496	96.1 (41)	68.1 (24)	Plymouth	299	66.1 (85)	61.4 (44)
	Clinton	473	84.4 (60)	67.4 (26)	Sioux	239	89.6 (51)	64.0 (35)
	Des Moines	376	79.9 (69)	59.9 (47)	Story	198	57.9 (92)	47.0 (89)
	Fayette	246	101.2 (31)	62.8 (39)	Wapello	362	42.9 (98)	50.5 (76)
	Henry	210	95.9 (42)	70.5 (19)	Washington	459	115.9 (16)	78.8 (05)
	Jackson	210	94.7 (44)	68.6 (23)	Webster	171	76.8 (74)	48.3 (84)
	Jasper	268	68.1 (80)	53.4 (65)	Winneshiek	398	90.6 (49)	61.2 (45)
					<b>Total</b>	7,121	79.4	60.2
MSA Counties	Black Hawk	1,124	80.6 (68)	73.3 (09)	Polk	1,717	44.3 (97)	49.4 (81)
	Dallas	259	67.8 (82)	62.8 (39)	Pottawattamie	501	53.7 (94)	53.0 (68)
	Dubuque	813	83.6 (61)	71.2 (16)	Scott	1,253	73.0 (78)	82.1 (01)
	Johnson	417	36.5 (99)	59.8 (48)	Warren	260	61.3 (90)	65.4 (32)
	Linn	1,056	53.1 (95)	54.6 (62)	Woodbury	704	62.6 (87)	55.8 (59)
					<b>Total</b>	8,104	58.1	60.8
<b>State Totals</b>		23,709	75.3	60.2				

<sup>1</sup>Rates per 100,000 population<sup>2</sup>Adjusted to Year 2000 population<sup>3</sup>Rank among 99 Iowa counties

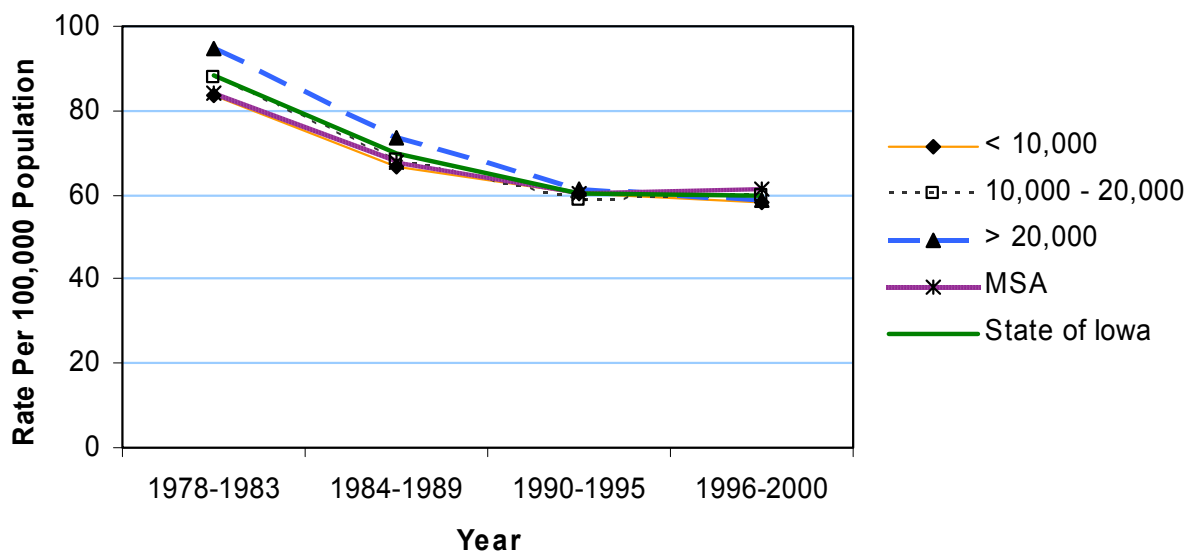
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## Stroke Mortality by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Chronic Obstructive Pulmonary Disease Mortality 1990-2000

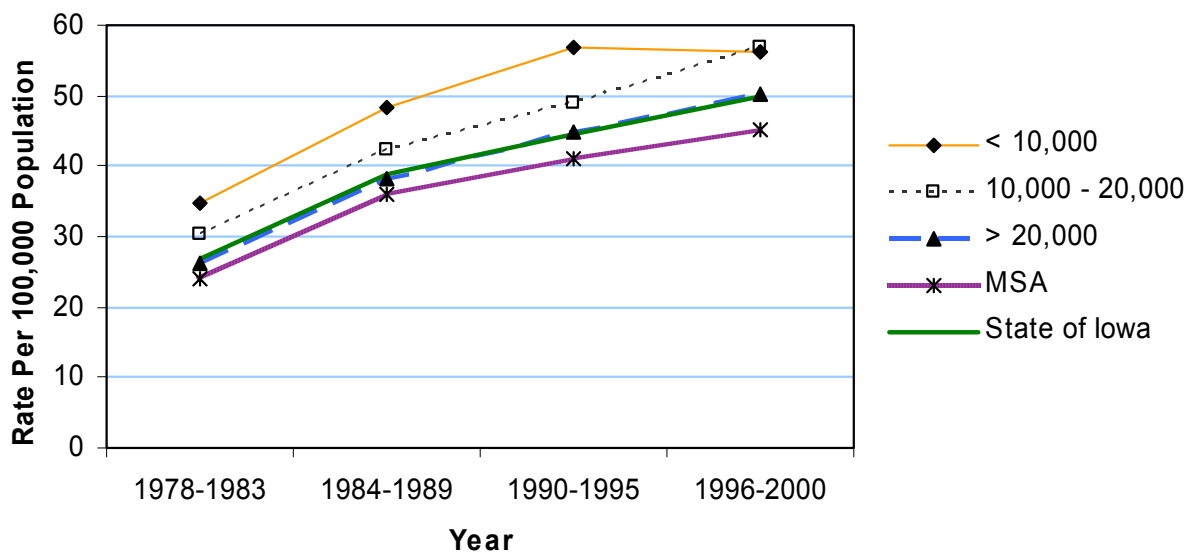
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with Average Population < 10,000	Adair	54	58.7 (24)	32.1 (68)	Lucas	45	44.1 (74)	28.7 (82)
	Adams	25	49.4 (52)	29.2 (78)	Monroe	55	61.5 (18)	40.8 (25)
	Audubon	64	82.9 (04)	41.7 (22)	Osceola	29	36.8 (89)	24.0 (94)
	Clarke	49	51.7 (40)	35.8 (50)	Pocahontas	52	52.1 (38)	30.8 (72)
	Davis	28	30.2 (96)	20.0 (99)	Ringgold	41	68.8 (10)	35.3 (54)
	Decatur	42	45.5 (70)	33.0 (66)	Taylor	61	78.9 (06)	40.1 (27)
	Fremont	77	86.1 (03)	53.2 (03)	Van Buren	45	53.0 (36)	33.5 (61)
	Howard	60	54.8 (32)	31.0 (71)	Wayne	44	57.7 (28)	29.8 (74)
	Ida	58	64.8 (14)	39.9 (28)	Worth	46	52.6 (37)	31.3 (70)
					<b>Total</b>	875	56.7	34.1
Counties with Average Population 10,000 to 20,000	Allamakee	64	40.6 (83)	26.9 (88)	Humboldt	63	54.5 (34)	35.0 (55)
	Appanoose	70	46.3 (67)	29.4 (76)	Iowa	77	46.2 (68)	32.8 (67)
	Butler	104	60.8 (19)	37.8 (41)	Jefferson	80	44.3 (72)	38.4 (35)
	Calhoun	78	62.2 (17)	36.7 (48)	Keokuk	75	59.3 (21)	36.5 (49)
	Cass	133	80.8 (05)	48.9 (09)	Kossuth	98	50.1 (49)	31.5 (69)
	Cedar	100	51.0 (45)	38.1 (38)	Louisa	46	35.1 (92)	30.6 (73)
	Cherokee	87	58.1 (27)	38.5 (34)	Lyon	41	31.5 (95)	21.7 (98)
	Chickasaw	86	59.1 (23)	41.6 (24)	Madison	71	48.8 (54)	37.7 (43)
	Clay	105	54.2 (35)	39.4 (31)	Mills	78	51.5 (41)	49.1 (07)
	Clayton	117	56.3 (29)	38.2 (36)	Mitchell	50	41.7 (80)	23.7 (95)
	Crawford	88	47.6 (60)	33.2 (63)	Monona	97	87.7 (02)	47.4 (12)
	Delaware	85	42.2 (77)	35.7 (52)	Montgomery	118	89.9 (01)	55.8 (01)
	Dickinson	81	46.9 (65)	29.4 (76)	O'Brien	101	59.3 (21)	33.4 (62)
	Emmet	52	41.4 (81)	28.4 (85)	Page	137	73.4 (08)	45.3 (14)
	Floyd	96	51.3 (43)	33.1 (64)	Palo Alto	75	65.7 (13)	37.0 (46)
	Franklin	44	36.2 (91)	22.8 (97)	Poweshiek	104	50.0 (50)	36.9 (47)
	Greene	75	66.4 (12)	35.5 (53)	Sac	89	67.6 (11)	38.1 (38)
	Grundy	63	47.0 (64)	29.0 (80)	Shelby	60	41.1 (82)	26.0 (90)
	Guthrie	72	58.4 (26)	35.8 (50)	Tama	102	52.0 (39)	34.1 (58)
	Hamilton	75	41.8 (79)	28.6 (83)	Union	77	56.2 (30)	38.2 (36)
Hancock	45	33.5 (93)	23.0 (96)	Winnebago	48	36.9 (88)	25.9 (91)	
Hardin	103	49.4 (52)	28.4 (85)	Wright	74	46.6 (66)	26.3 (89)	
Harrison	100	59.9 (20)	42.6 (20)	<b>Total</b>	3,684	52.6	34.7	
Counties with Average Population > 20,000	Benton	124	47.2 (62)	37.5 (44)	Jones	105	47.4 (61)	38.6 (32)
	Boone	135	47.9 (59)	34.3 (57)	Lee	205	48.1 (58)	37.9 (40)
	Bremer	98	38.4 (86)	29.1 (79)	Mahaska	93	38.5 (85)	28.8 (81)
	Buchanan	118	50.9 (46)	43.8 (19)	Marion	169	49.6 (51)	39.5 (30)
	Buena Vista	109	48.6 (57)	33.1 (64)	Marshall	314	73.7 (07)	54.8 (02)
	Carroll	153	64.5 (16)	44.3 (17)	Muscatine	221	48.8 (54)	47.1 (13)
	Cerro Gordo	263	50.9 (46)	38.6 (32)	Plymouth	104	39.0 (84)	29.7 (75)
	Clinton	307	54.8 (32)	44.1 (18)	Sioux	103	30.1 (97)	25.5 (92)
	Des Moines	208	44.2 (73)	34.9 (56)	Story	186	22.0 (99)	27.0 (87)
	Fayette	125	51.4 (42)	34.1 (58)	Wapello	276	69.7 (09)	49.9 (06)
	Henry	80	36.5 (90)	28.5 (84)	Washington	144	64.7 (15)	42.2 (21)
	Jackson	130	58.7 (24)	44.5 (16)	Webster	225	51.2 (44)	37.1 (45)
	Jasper	168	42.7 (76)	33.6 (60)	Winneshiek	74	31.8 (94)	25.0 (93)
					<b>Total</b>	4,237	47.2	37.7
MSA Counties	Black Hawk	681	48.8 (54)	45.0 (15)	Polk	1,444	37.2 (87)	41.7 (22)
	Dallas	160	41.9 (78)	40.2 (26)	Pottawattamie	471	50.5 (48)	47.9 (11)
	Dubuque	442	45.5 (70)	39.9 (28)	Scott	810	47.2 (62)	51.9 (04)
	Johnson	259	22.7 (98)	37.8 (41)	Warren	187	44.1 (74)	49.1 (07)
	Linn	920	46.2 (68)	48.0 (10)	Woodbury	625	55.6 (31)	51.0 (05)
					<b>Total</b>	5,999	43.0	45.3
<b>State Totals</b>		14,795	47	39.3				

<sup>1</sup>Rates per 100,000 population<sup>2</sup>Adjusted to Year 2000 population<sup>3</sup>Rank among 99 Iowa counties

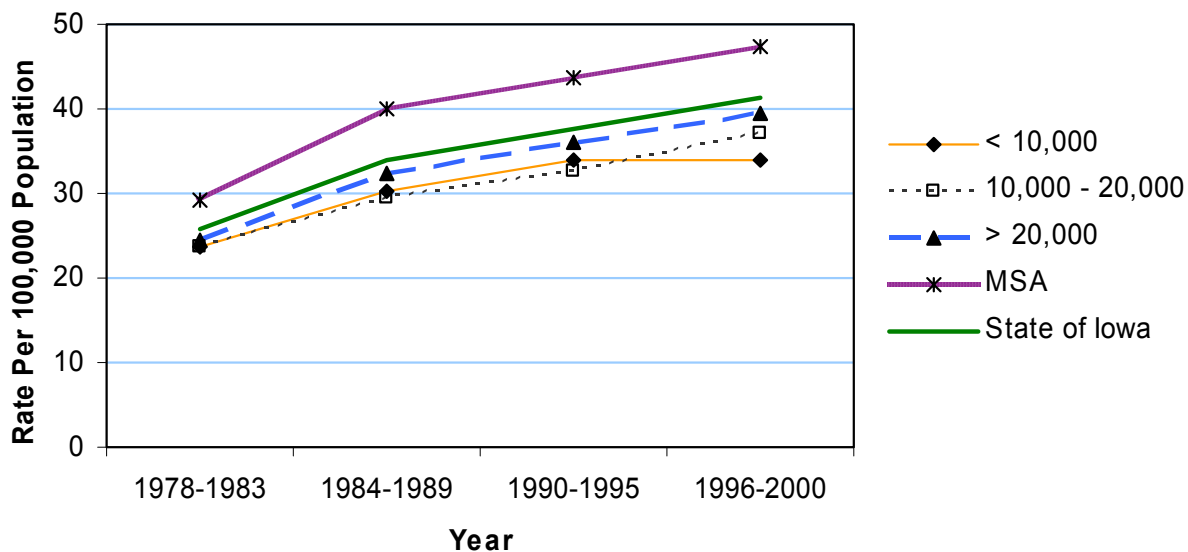
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## Chronic Obstructive Pulmonary Disease Mortality by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Pneumonia/Influenza Mortality 1990-2000

	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with Average Population < 10,000	Adair	161	175.0 (01)	76.8 (01)	Lucas	50	49.1 (48)	26.9 (70)
	Adams	18	35.6 (79)	18.4 (94)	Monroe	60	67.0 (14)	39.3 (20)
	Audubon	28	36.3 (77)	16.9 (97)	Osceola	47	59.6 (27)	35.0 (35)
	Clarke	49	51.7 (41)	29.3 (53)	Pocahontas	79	79.2 (07)	41.4 (16)
	Davis	50	53.9 (36)	34.1 (38)	Ringgold	21	35.2 (81)	18.1 (96)
	Decatur	93	100.7 (02)	59.1 (02)	Taylor	51	66.0 (16)	30.4 (47)
	Fremont	89	99.6 (03)	58.5 (03)	Van Buren	64	75.3 (08)	44.6 (09)
	Howard	81	74.0 (09)	38.9 (21)	Wayne	61	80.0 (06)	35.3 (34)
	Ida	48	53.6 (37)	29.6 (51)	Worth	39	44.6 (58)	23.4 (83)
					<b>Total</b>	1,089	70.5	37.3
Counties with Average Population 10,000 to 20,000	Allamakee	75	47.5 (53)	28.4 (62)	Humboldt	70	60.5 (25)	33.9 (40)
	Appanoose	95	62.8 (21)	35.7 (32)	Iowa	103	61.9 (23)	39.5 (19)
	Butler	78	45.6 (57)	26.7 (72)	Jefferson	50	27.7 (93)	23.1 (85)
	Calhoun	92	73.3 (10)	34.9 (36)	Keokuk	64	50.6 (45)	27.2 (66)
	Cass	65	39.5 (68)	22.2 (89)	Kossuth	81	41.4 (63)	25.9 (77)
	Cedar	71	36.2 (78)	24.4 (82)	Louisa	71	54.2 (35)	42.4 (13)
	Cherokee	69	46.1 (56)	29.2 (54)	Lyon	39	29.9 (90)	18.8 (93)
	Chickasaw	43	29.5 (92)	20.1 (91)	Madison	99	68.0 (13)	45.2 (08)
	Clay	73	37.7 (71)	25.8 (78)	Mills	87	57.5 (32)	53.9 (05)
	Clayton	122	58.7 (30)	36.7 (26)	Mitchell	47	39.2 (69)	18.4 (94)
	Crawford	42	22.7 (97)	14.8 (99)	Monona	92	83.2 (04)	37.6 (25)
	Delaware	82	40.7 (64)	33.9 (40)	Montgomery	80	61.0 (24)	32.6 (42)
	Dickinson	75	43.4 (61)	27.2 (66)	O'Brien	101	59.3 (28)	30.1 (48)
	Emmet	64	51.0 (43)	29.2 (54)	Page	123	65.9 (17)	37.9 (23)
	Floyd	90	48.1 (51)	28.2 (64)	Palo Alto	60	52.6 (39)	29.2 (54)
	Franklin	53	43.6 (60)	26.1 (74)	Poweshiek	84	40.4 (65)	25.8 (78)
	Greene	39	34.5 (83)	16.9 (97)	Sac	86	65.3 (18)	34.0 (39)
	Grundy	66	49.2 (47)	29.0 (58)	Shelby	72	49.3 (46)	27.3 (65)
	Guthrie	58	47.0 (54)	27.0 (69)	Tama	87	44.4 (59)	26.0 (76)
	Hamilton	62	34.6 (82)	23.1 (85)	Union	50	36.5 (76)	21.7 (90)
Hancock	66	49.1 (48)	31.8 (44)	Winnebago	86	66.1 (15)	36.1 (28)	
Hardin	110	52.8 (38)	28.3 (63)	Wright	112	70.5 (12)	35.4 (33)	
Harrison	67	40.1 (67)	25.6 (81)	<b>Total</b>	3,401	48.6	29.3	
Counties with Average Population > 20,000	Benton	98	37.3 (73)	28.6 (60)	Jones	66	29.8 (91)	23.1 (85)
	Boone	148	52.6 (39)	34.3 (37)	Lee	205	48.1 (51)	36.0 (29)
	Bremer	84	33.0 (85)	22.5 (88)	Mahaska	91	37.7 (71)	26.8 (71)
	Buchanan	71	30.6 (89)	26.1 (74)	Marion	249	73.0 (11)	53.5 (06)
	Buena Vista	104	46.4 (55)	30.5 (46)	Marshall	239	56.1 (33)	39.8 (17)
	Carroll	143	60.3 (26)	37.8 (24)	Muscatine	281	62.1 (22)	56.5 (04)
	Cerro Gordo	263	50.9 (44)	35.9 (30)	Plymouth	86	32.2 (88)	23.2 (84)
	Clinton	208	37.1 (75)	29.7 (49)	Sioux	127	37.2 (74)	29.7 (49)
	Des Moines	189	40.2 (66)	29.6 (51)	Story	215	25.5 (95)	29.2 (54)
	Fayette	144	59.2 (29)	36.7 (26)	Wapello	256	64.6 (19)	43.9 (11)
	Henry	120	54.8 (34)	39.6 (18)	Washington	143	64.3 (20)	38.5 (22)
	Jackson	130	58.7 (30)	42.4 (13)	Webster	356	81.0 (05)	52.8 (07)
	Jasper	133	33.8 (84)	26.3 (73)	Winneshiek	88	37.9 (70)	28.6 (60)
					<b>Total</b>	4,237	47.2	35.4
MSA Counties	Black Hawk	303	21.7 (98)	19.7 (92)	Polk	1,255	32.3 (87)	35.9 (30)
	Dallas	184	48.2 (50)	43.8 (12)	Pottawattamie	305	32.7 (86)	32.5 (43)
	Dubuque	501	51.5 (42)	42.4 (13)	Scott	444	25.9 (94)	29.0 (58)
	Johnson	191	16.7 (99)	27.2 (66)	Warren	181	42.7 (62)	44.3 (10)
	Linn	501	25.2 (96)	25.8 (78)	Woodbury	399	35.5 (80)	31.5 (45)
					<b>Total</b>	4,264	30.5	31.8
<b>State Totals</b>		12,991	41.3	32.5				

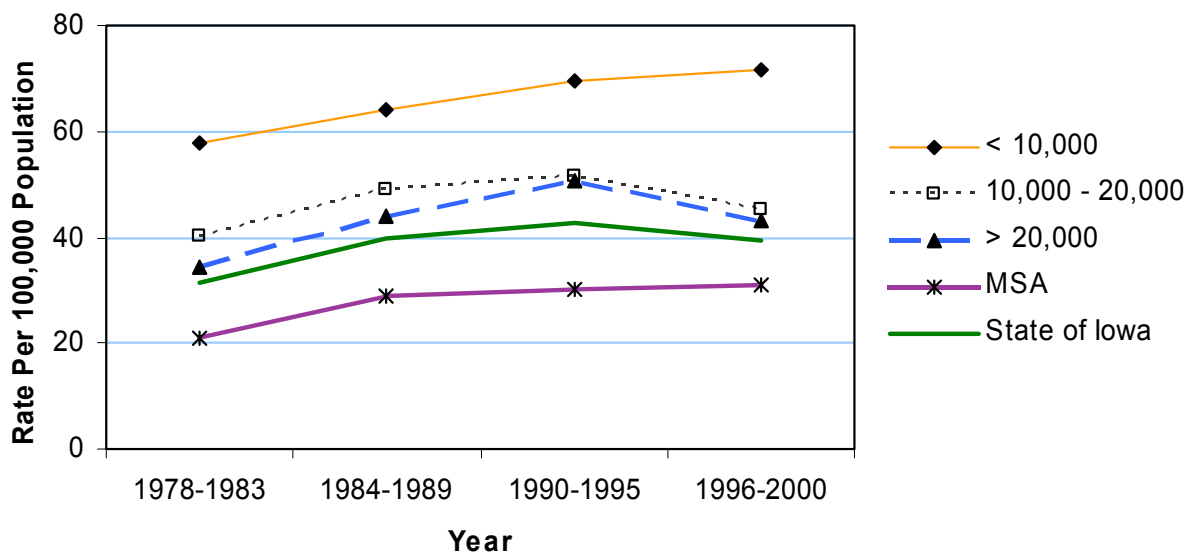
<sup>1</sup>Rates per 100,000 population<sup>2</sup>Adjusted to Year 2000 population<sup>3</sup>Rank among 99 Iowa counties

Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

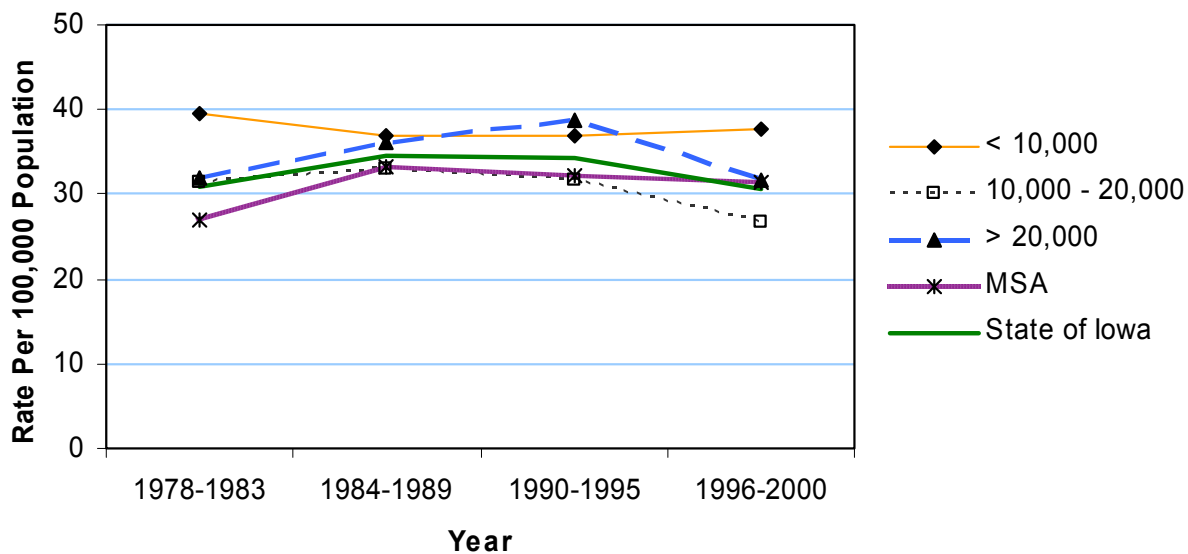


# Pneumonia/Influenza Mortality by County Group 1978-2000

## Crude Rates



## Age-Adjusted Rates



## Diabetes Mellitus Mortality 1990-2000

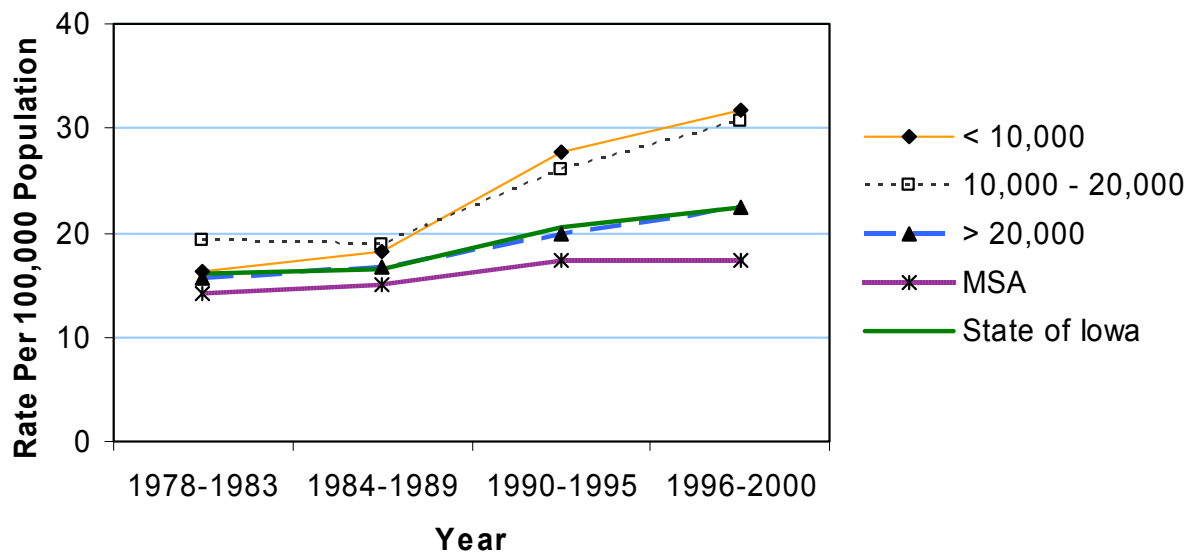
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with Average Population < 10,000	Adair	24	26.1 (39)	13.6 (81)	Lucas	20	19.6 (74)	11.7 (93)
	Adams	11	21.7 (61)	14.4 (75)	Monroe	17	19.0 (77)	13.5 (84)
	Audubon	31	40.2 (10)	23.1 (19)	Osceola	16	20.3 (71)	13.6 (81)
	Clarke	15	15.8 (91)	9.8 (98)	Pocahontas	21	21.0 (67)	13.8 (78)
	Davis	31	33.4 (19)	22.6 (21)	Ringgold	23	38.6 (12)	21.6 (26)
	Decatur	17	18.4 (81)	12.8 (86)	Taylor	34	44.0 (06)	26.9 (09)
	Fremont	28	31.3 (24)	19.8 (37)	Van Buren	36	42.4 (08)	28.1 (06)
	Howard	27	24.7 (44)	15.6 (68)	Wayne	43	56.4 (01)	30.3 (02)
	Ida	42	46.9 (04)	28.0 (07)	Worth	20	22.9 (51)	12.5 (89)
					<b>Total</b>	456	29.5	18.2
Counties with Average Population 10,000 to 20,000	Allamakee	45	28.5 (32)	19.3 (39)	Humboldt	25	21.6 (62)	15.9 (65)
	Appanoose	33	21.8 (59)	13.9 (77)	Iowa	55	33.0 (20)	23.2 (18)
	Butler	31	18.1 (82)	11.4 (96)	Jefferson	55	30.4 (27)	27.3 (08)
	Calhoun	40	31.9 (23)	18.0 (46)	Keokuk	51	40.3 (09)	26.2 (11)
	Cass	66	40.1 (11)	23.7 (16)	Kossuth	40	20.5 (70)	14.5 (74)
	Cedar	55	28.1 (34)	20.7 (30)	Louisa	27	20.6 (69)	16.7 (57)
	Cherokee	38	25.4 (43)	17.8 (48)	Lyon	31	23.8 (47)	16.3 (62)
	Chickasaw	25	17.2 (87)	12.4 (92)	Madison	44	30.2 (29)	22.7 (20)
	Clay	43	22.2 (57)	17.0 (55)	Mills	22	14.5 (94)	13.8 (78)
	Clayton	58	27.9 (35)	20.3 (34)	Mitchell	31	25.8 (42)	15.0 (71)
	Crawford	70	37.9 (13)	26.2 (11)	Monona	57	51.6 (02)	28.2 (05)
	Delaware	48	23.8 (47)	20.4 (33)	Montgomery	56	42.7 (07)	25.8 (13)
	Dickinson	49	28.4 (33)	18.2 (43)	O'Brien	45	26.4 (38)	16.5 (58)
	Emmet	57	45.4 (05)	28.9 (04)	Page	68	36.4 (14)	23.3 (17)
	Floyd	35	18.7 (79)	12.5 (89)	Palo Alto	31	27.2 (37)	17.2 (53)
	Franklin	23	18.9 (78)	12.6 (88)	Poweshiek	57	27.4 (36)	21.5 (28)
	Greene	20	17.7 (86)	11.7 (93)	Sac	38	28.9 (31)	17.4 (52)
	Grundy	30	22.4 (54)	15.1 (70)	Shelby	27	18.5 (80)	12.8 (86)
	Guthrie	25	20.3 (71)	12.5 (89)	Tama	63	32.1 (21)	21.6 (26)
	Hamilton	88	49.1 (03)	34.3 (01)	Union	44	32.1 (21)	22.1 (23)
Hancock	29	21.6 (62)	15.0 (71)	Winnebago	32	24.6 (45)	16.8 (56)	
Hardin	54	25.9 (40)	16.1 (64)	Wright	54	34.0 (17)	19.8 (37)	
Harrison	56	33.5 (18)	22.4 (22)	<b>Total</b>	1,971	28.2	19.0	
Counties with Average Population > 20,000	Benton	59	22.5 (53)	18.4 (42)	Jones	67	30.3 (28)	24.2 (14)
	Boone	83	29.5 (30)	21.9 (24)	Lee	76	17.8 (84)	13.7 (80)
	Bremer	33	12.9 (96)	10.3 (97)	Mahaska	54	22.3 (55)	17.8 (48)
	Buchanan	81	35.0 (16)	30.3 (02)	Marion	76	22.3 (55)	18.1 (44)
	Buena Vista	53	23.7 (49)	16.5 (58)	Marshall	131	30.7 (25)	23.9 (15)
	Carroll	46	19.4 (76)	13.6 (81)	Muscatine	68	15.0 (92)	14.7 (73)
	Cerro Gordo	114	22.1 (58)	17.6 (51)	Plymouth	69	25.9 (40)	20.3 (34)
	Clinton	122	21.8 (59)	17.9 (47)	Sioux	83	24.3 (46)	20.6 (31)
	Des Moines	84	17.8 (84)	14.3 (76)	Story	77	9.1 (99)	11.5 (95)
	Fayette	55	22.6 (52)	15.8 (66)	Wapello	144	36.3 (15)	26.8 (10)
	Henry	43	19.6 (74)	16.2 (63)	Washington	68	30.6 (26)	21.3 (29)
	Jackson	45	20.3 (71)	15.7 (67)	Webster	47	10.7 (98)	8.5 (99)
	Jasper	66	16.8 (89)	13.5 (84)	Winneshiek	48	20.7 (68)	16.4 (61)
					<b>Total</b>	1,892	21.1	17.2
MSA Counties	Black Hawk	298	21.4 (65)	20.0 (36)	Polk	581	15.0 (92)	16.5 (58)
	Dallas	69	18.1 (82)	17.1 (54)	Pottawattamie	198	21.2 (66)	20.6 (31)
	Dubuque	210	21.6 (62)	19.2 (41)	Scott	244	14.2 (95)	15.5 (69)
	Johnson	137	12.0 (97)	19.3 (39)	Warren	71	16.7 (90)	18.1 (44)
	Linn	342	17.2 (87)	17.8 (48)	Woodbury	266	23.6 (50)	21.8 (25)
					<b>Total</b>	2,416	17.3	18.2
<b>State Totals</b>		6,735	21.4	18.2				

<sup>1</sup>Rates per 100,000 population<sup>2</sup>Adjusted to Year 2000 population<sup>3</sup>Rank among 99 Iowa counties

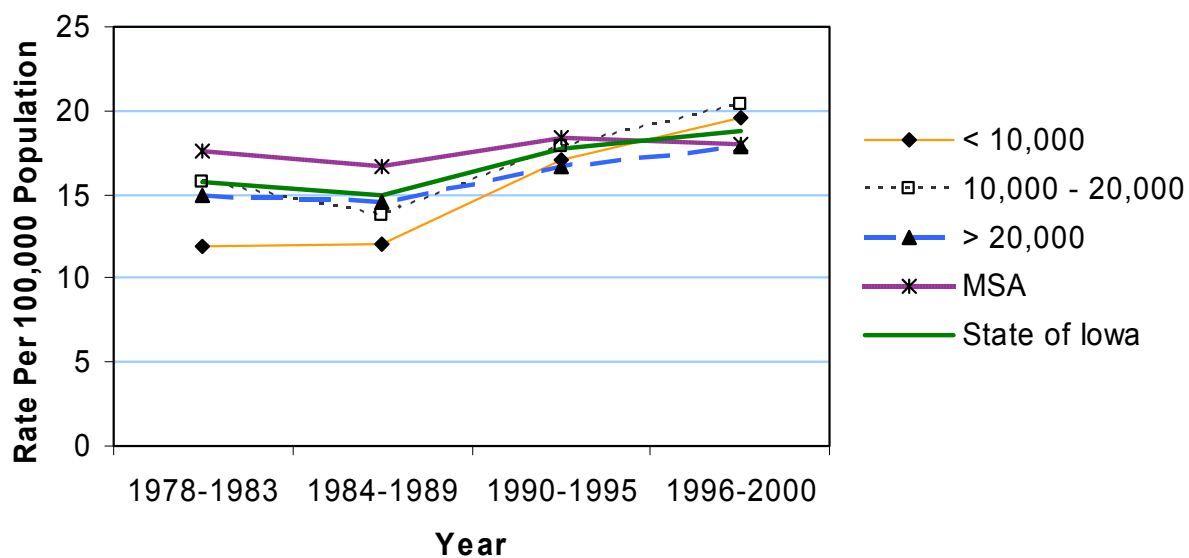
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## Diabetes Mellitus Mortality by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Atherosclerosis Mortality 1990-2000

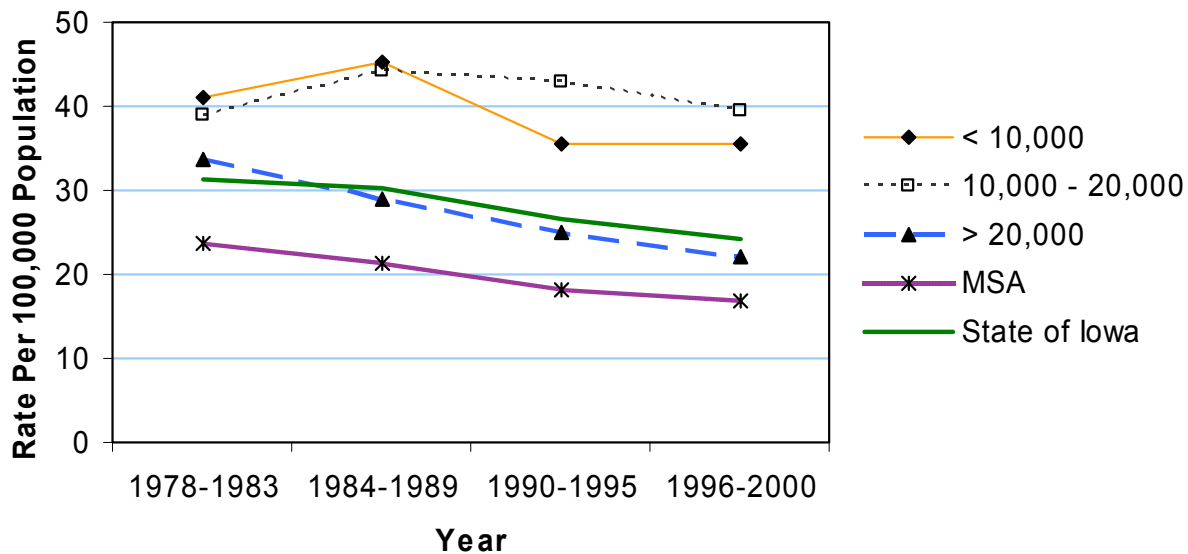
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with Average Population < 10,000	Adair	50	54.3 (11)	27.6 (16)	Lucas	29	28.5 (41)	17.5 (54)
	Adams	10	19.8 (82)	10.8 (96)	Monroe	52	58.1 (10)	33.4 (11)
	Audubon	40	51.8 (12)	23.6 (19)	Osceola	8	10.1 (98)	6.5 (99)
	Clarke	12	12.7 (96)	8 (97)	Pocahontas	46	46.1 (16)	23.6 (19)
	Davis	30	32.3 (31)	20 (36)	Ringgold	14	23.5 (60)	11.6 (95)
	Decatur	27	29.2 (38)	17.7 (52)	Taylor	28	36.2 (28)	16.9 (57)
	Fremont	26	29.1 (39)	16.9 (57)	Van Buren	42	49.4 (14)	29.2 (14)
	Howard	30	27.4 (45)	14.2 (82)	Wayne	59	77.4 (06)	35.2 (10)
	Ida	21	23.4 (61)	13.4 (88)	Worth	26	29.8 (34)	18.6 (44)
					<b>Total</b>	550	35.6	19.6
Counties with Average Population 10,000 to 20,000	Allamakee	77	48.8 (15)	30.4 (13)	Humboldt	33	28.5 (41)	16.9 (57)
	Appanoose	58	38.3 (25)	22.1 (26)	Iowa	49	29.4 (37)	18.8 (42)
	Butler	66	38.6 (24)	22.8 (24)	Jefferson	48	26.6 (49)	21.8 (27)
	Calhoun	102	81.3 (05)	40.4 (06)	Keokuk	27	21.3 (67)	12.4 (91)
	Cass	109	66.2 (08)	35.3 (09)	Kossuth	145	74.1 (07)	44.7 (05)
	Cedar	41	20.9 (70)	14.8 (77)	Louisa	39	29.8 (34)	25.0 (17)
	Cherokee	95	63.4 (09)	38.6 (07)	Lyon	23	17.7 (88)	12.4 (91)
	Chickasaw	37	25.4 (53)	17.4 (55)	Madison	45	30.9 (32)	21.1 (30)
	Clay	41	21.2 (68)	14.7 (79)	Mills	25	16.5 (91)	15.3 (74)
	Clayton	86	41.4 (20)	27.7 (15)	Mitchell	41	34.2 (30)	18.2 (47)
	Crawford	34	18.4 (85)	12.2 (93)	Monona	45	40.7 (21)	18.7 (43)
	Delaware	37	18.4 (85)	15.5 (72)	Montgomery	56	42.7 (19)	21.8 (27)
	Dickinson	40	23.2 (62)	14.0 (85)	O'Brien	67	39.4 (22)	20.7 (31)
	Emmet	36	28.7 (40)	17.9 (48)	Page	45	24.1 (57)	14.2 (82)
	Floyd	184	98.3 (04)	56.5 (03)	Palo Alto	52	45.6 (17)	23.2 (23)
	Franklin	128	105.4 (03)	59.5 (02)	Poweshiek	44	21.1 (69)	14.2 (82)
	Greene	44	38.9 (23)	19.9 (38)	Sac	139	105.6 (02)	50.8 (04)
	Grundy	35	26.1 (51)	16.4 (63)	Shelby	35	24.0 (58)	13.5 (86)
	Guthrie	342	277.3 (01)	154.2 (01)	Tama	53	27.0 (47)	16.0 (66)
	Hamilton	55	30.7 (33)	20.3 (33)	Union	37	27.0 (47)	16.3 (65)
Hancock	30	22.3 (64)	15.0 (76)	Winnebago	28	21.5 (66)	12.9 (90)	
Hardin	57	27.3 (46)	15.9 (67)	Wright	40	25.2 (54)	13.5 (86)	
Harrison	41	24.6 (56)	16.9 (57)	<b>Total</b>	2,891	41.3	25.0	
Counties with Average Population > 20,000	Benton	26	9.9 (99)	7.9 (98)	Jones	46	20.8 (77)	16.4 (63)
	Boone	100	35.5 (29)	23.6 (19)	Lee	89	20.9 (70)	15.7 (69)
	Bremer	52	20.4 (80)	14.8 (77)	Mahaska	105	43.5 (18)	31.0 (12)
	Buchanan	47	20.3 (81)	17.7 (52)	Marion	77	22.6 (63)	17.0 (56)
	Buena Vista	83	37.0 (27)	24.0 (18)	Marshall	121	28.4 (43)	20.3 (33)
	Carroll	67	28.2 (44)	17.8 (50)	Muscatine	80	17.7 (88)	16.6 (62)
	Cerro Gordo	108	20.9 (70)	15.4 (73)	Plymouth	58	21.7 (65)	15.6 (71)
	Clinton	143	25.5 (52)	20.5 (32)	Sioux	55	16.1 (93)	13.0 (89)
	Des Moines	98	20.8 (77)	15.7 (69)	Story	111	13.1 (95)	15.9 (67)
	Fayette	64	26.3 (50)	16.8 (61)	Wapello	83	20.9 (70)	14.6 (80)
	Henry	36	16.4 (92)	12.0 (94)	Washington	85	38.2 (26)	22.6 (25)
	Jackson	113	51.0 (13)	36.8 (08)	Webster	92	20.9 (70)	14.5 (81)
	Jasper	117	29.7 (36)	23.5 (22)	Winneshiek	58	25.0 (55)	18.9 (40)
					<b>Total</b>	2,114	23.6	18.1
MSA Counties	Black Hawk	289	20.7 (79)	18.9 (40)	Polk	524	13.5 (94)	15.1 (75)
	Dallas	80	20.9 (70)	19.3 (39)	Pottawattamie	170	18.2 (87)	17.8 (50)
	Dubuque	230	23.7 (59)	20.0 (36)	Scott	327	19.1 (84)	21.2 (29)
	Johnson	128	11.2 (97)	18.6 (44)	Warren	73	17.2 (90)	17.9 (48)
	Linn	393	19.7 (83)	20.2 (35)	Woodbury	235	20.9 (70)	18.6 (44)
				<b>Total</b>	2,449	17.5	18.3	
<b>State Totals</b>		8,004	25.4	20.3				

<sup>1</sup>Rates per 100,000 population<sup>2</sup>Adjusted to Year 2000 population<sup>3</sup>Rank among 99 Iowa counties

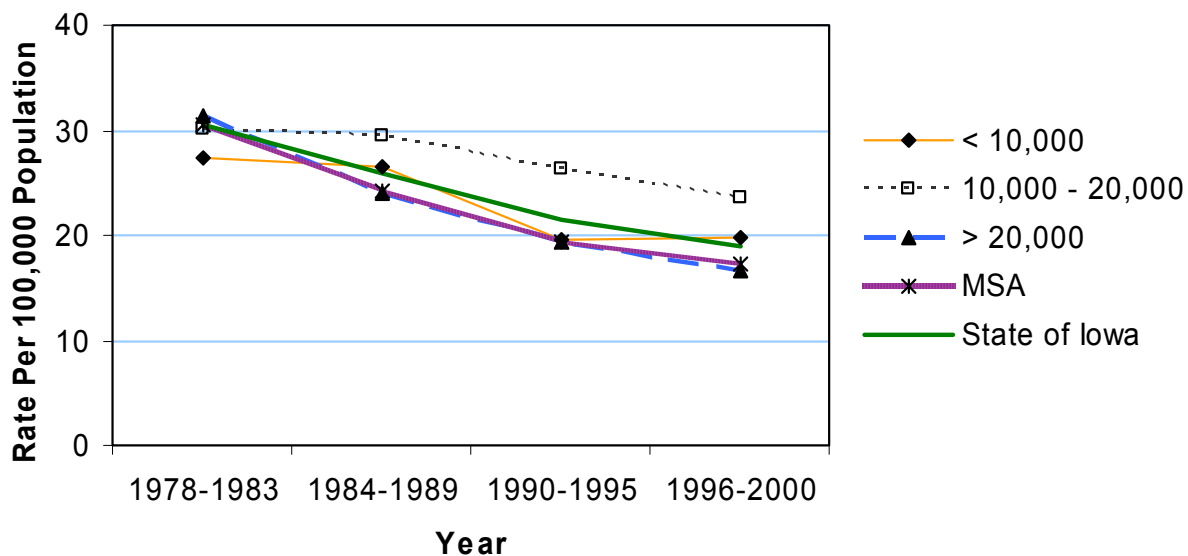
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## Atherosclerosis Mortality by County Group 1978-2000

### Crude Rates



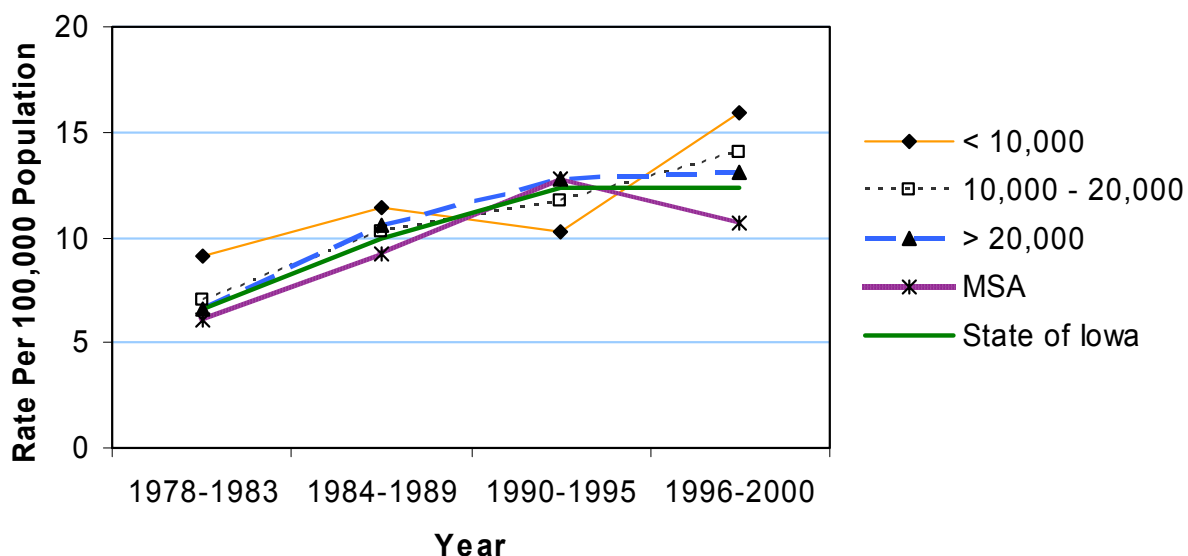
### Age-Adjusted Rates



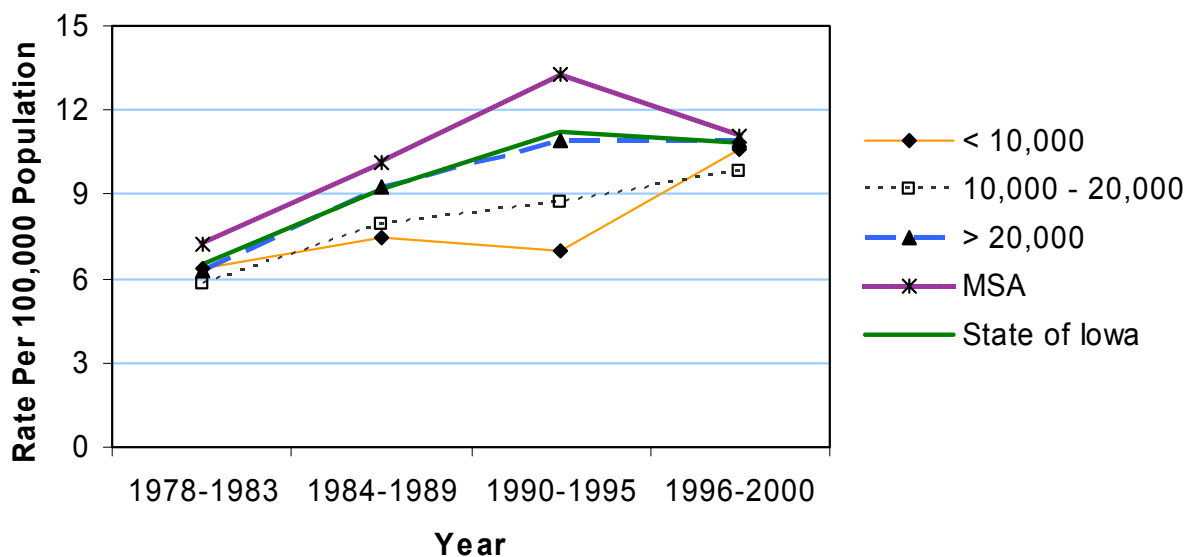


# Infectious/Parasitic Mortality by County Group 1978-2000

## Crude Rates



## Age-Adjusted Rates

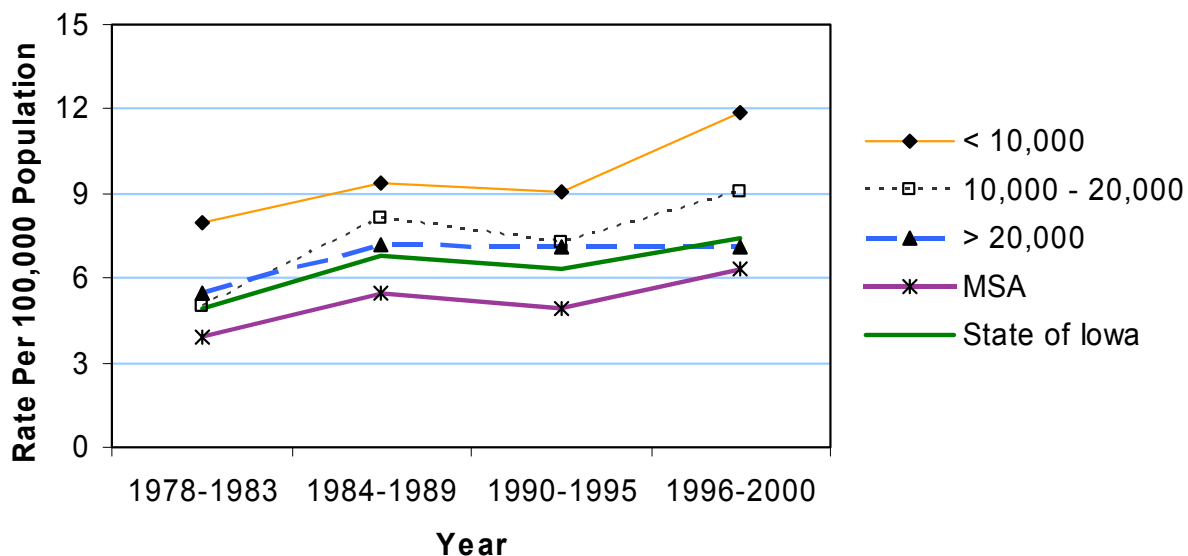




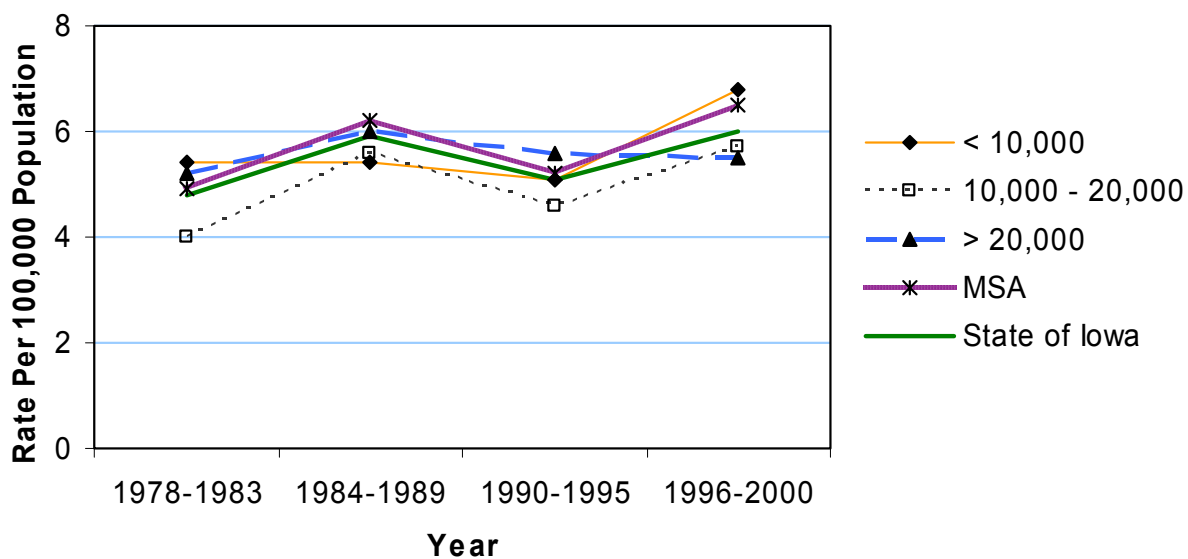


## Nephritis, Nephrotic Syndrome, Nephrosis Mortality by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Chronic Liver Disease & Cirrhosis Mortality 1990-2000

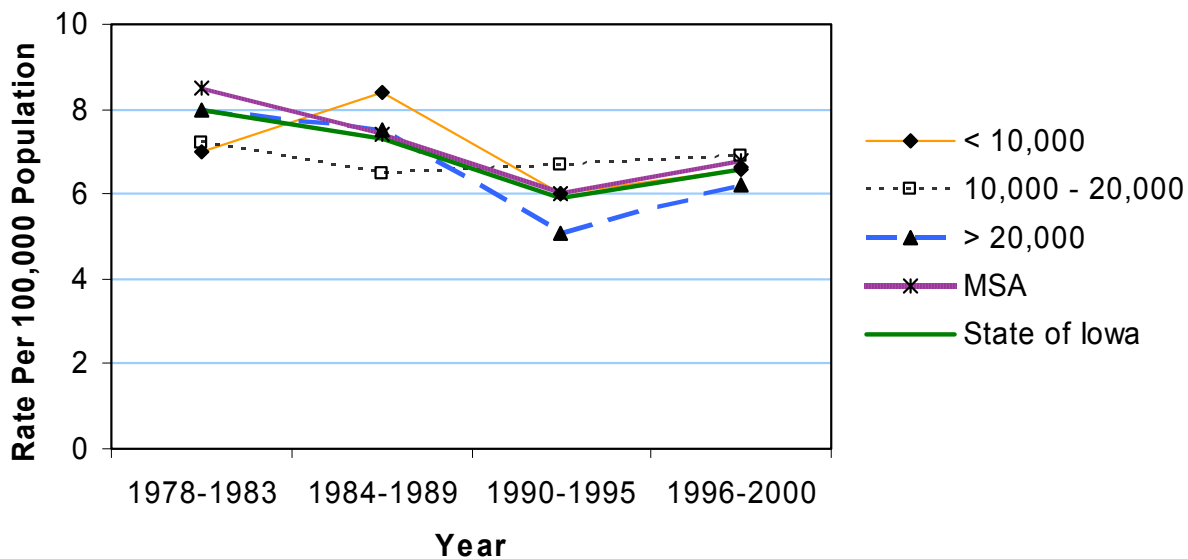
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with Average Population < 10,000	Adair	7	7.6	6.7	Lucas	7	6.9	5.1
	Adams	10	19.8	16.9	Monroe	7	7.8	5.9
	Audubon	6	7.8	5.3	Osceola	*	*	*
	Clarke	*	*	*	Pocahontas	6	6.0	4
	Davis	*	*	*	Ringgold	*	*	*
	Decatur	*	*	*	Taylor	7	9.1	4.7
	Fremont	*	*	*	Van Buren	5	5.9	4.3
	Howard	7	6.4	4.7	Wayne	*	*	*
	Ida	5	5.6	4	Worth	9	10.3	8.4
					<b>Total</b>	97	6.3	4.8
Counties with Average Population 10,000 to 20,000	Allamakee	15	9.5	7.3	Humboldt	6	5.2	3.1
	Appanoose	15	9.9	8.1	Iowa	10	6.0	4.9
	Butler	10	5.8	4.2	Jefferson	*	*	*
	Calhoun	10	8.0	4.3	Keokuk	8	6.3	5.2
	Cass	10	6.1	5	Kossuth	18	9.2	6.9
	Cedar	14	7.1	5.9	Louisa	11	8.4	7.8
	Cherokee	11	7.3	5.7	Lyon	6	4.6	3.5
	Chickasaw	13	8.9	8	Madison	6	4.1	3.3
	Clay	8	4.1	4	Mills	6	4.0	3.9
	Clayton	19	9.1	6.6	Mitchell	7	5.8	4.5
	Crawford	14	7.6	6.4	Monona	9	8.1	5.2
	Delaware	11	5.5	5	Montgomery	13	9.9	7.4
	Dickinson	9	5.2	4.2	O'Brien	16	9.4	6.6
	Emmet	11	8.8	6.6	Page	*	*	*
	Floyd	9	4.8	3.5	Palo Alto	13	11.4	8.6
	Franklin	6	4.9	3.1	Poweshiek	12	5.8	5.7
	Greene	7	6.2	3.9	Sac	9	6.8	4.4
	Grundy	8	6.0	3.8	Shelby	11	7.5	5.8
	Guthrie	7	5.7	4.2	Tama	18	9.2	8.2
	Hamilton	9	5.0	4.1	Union	15	11.0	9.5
Hancock	8	6.0	5.2	Winnebago	13	10.0	8.3	
Hardin	15	7.2	5.9	Wright	12	7.6	4.9	
Harrison	15	9.0	7.4	<b>Total</b>	477	6.8	5.4	
Counties with Average Population > 20,000	Benton	12	4.6	4.2	Jones	13	5.9	5.4
	Boone	26	9.2	8.1	Lee	29	6.8	5.9
	Bremer	13	5.1	4.3	Mahaska	9	3.7	3.1
	Buchanan	6	2.6	2.4	Marion	20	5.9	5.4
	Buena Vista	15	6.7	6.1	Marshall	35	8.2	6.8
	Carroll	12	5.1	4	Muscatine	20	4.4	4.4
	Cerro Gordo	52	10.1	8.6	Plymouth	18	6.7	6.2
	Clinton	34	6.1	5.6	Sioux	11	3.2	3.1
	Des Moines	25	5.3	4.7	Story	28	3.3	4.4
	Fayette	14	5.8	4.9	Wapello	17	4.3	3.4
	Henry	6	2.7	2.5	Washington	11	4.9	3.8
	Jackson	17	7.7	6.7	Webster	31	7.1	6.8
	Jasper	17	4.3	3.6	Winneshiek	9	3.9	3.7
					<b>Total</b>	500	5.6	5.1
MSA Counties	Black Hawk	84	6.0	6	Polk	310	8.0	8.8
	Dallas	20	5.2	5.3	Pottawattamie	47	5.0	5
	Dubuque	62	6.4	6.2	Scott	85	5.0	5.3
	Johnson	34	3.0	4.3	Warren	24	5.7	6.1
	Linn	124	6.2	6.5	Woodbury	101	9.0	9
	<b>State Totals</b>	1,965	6.2	5.9	<b>Total</b>	891	6.4	6.8

<sup>1</sup>Rates per 100,000 population<sup>2</sup>Adjusted to Year 2000 population

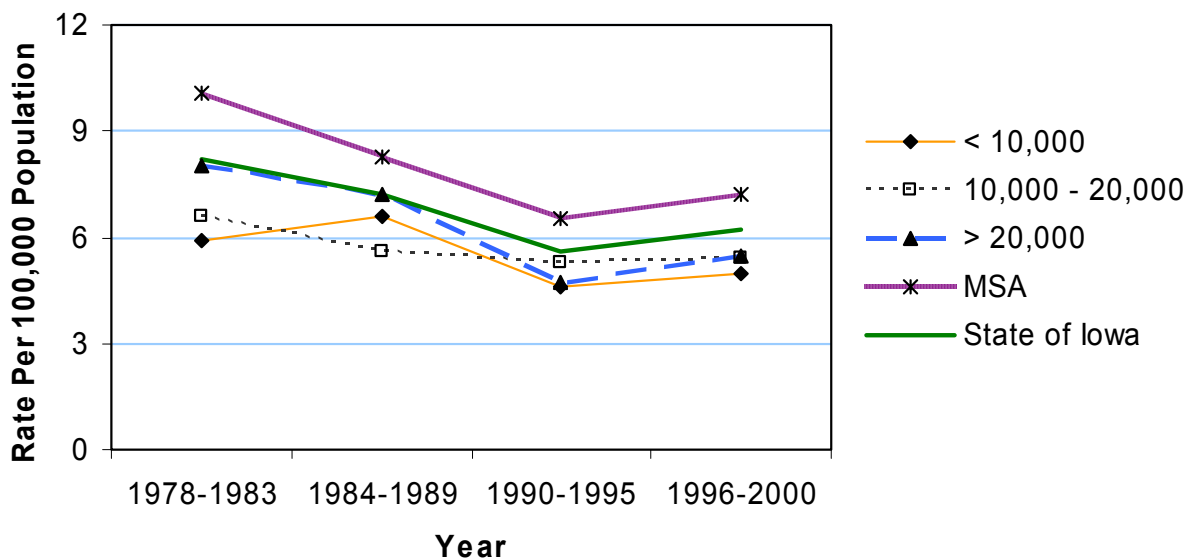
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## Chronic Liver Disease & Cirrhosis Mortality by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Congenital Anomalies Mortality 1990-2000

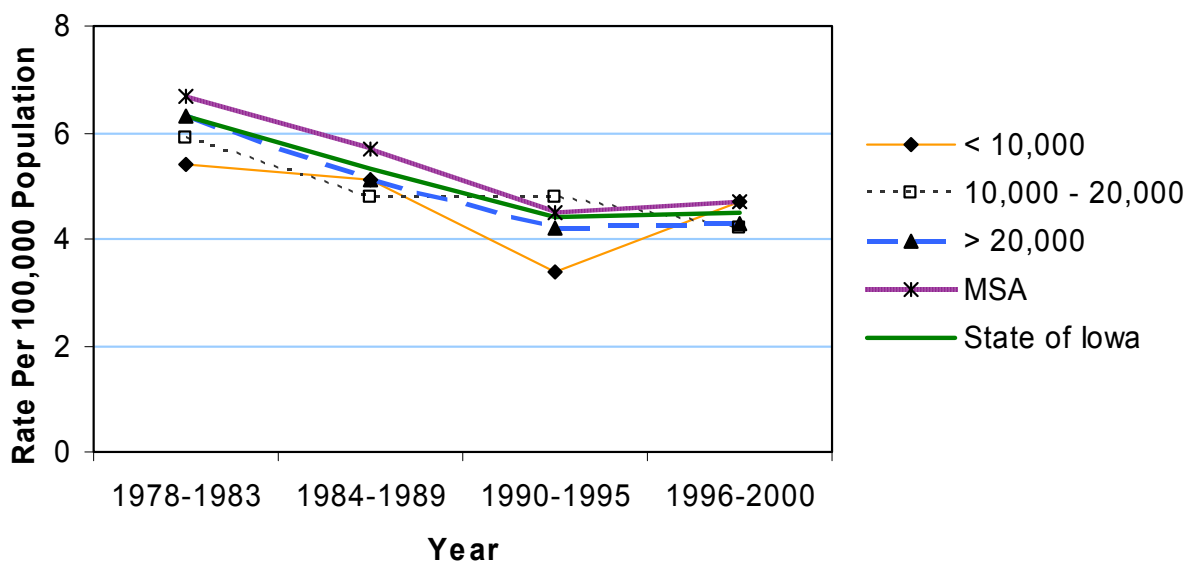
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with Average Population < 10,000	Adair	*	*	*	Lucas	*	*	*
	Adams	*	*	*	Monroe	*	*	*
	Audubon	5	6.5	5.7	Osceola	5	6.3	6.2
	Clarke	*	*	*	Pocahontas	*	*	*
	Davis	*	*	*	Ringgold	*	*	*
	Decatur	5	5.4	6.9	Taylor	*	*	*
	Fremont	*	*	*	Van Buren	*	*	*
	Howard	5	4.6	3.6	Wayne	6	7.9	9.3
	Ida	5	5.6	7.2	Worth	*	*	*
					<b>Total</b>	62	4.0	4.2
Counties with Average Population 10,000 to 20,000	Allamakee	9	5.7	5.4	Humboldt	*	*	*
	Appanoose	5	3.3	3	Iowa	6	3.6	3.4
	Butler	7	4.1	4.7	Jefferson	10	5.5	6.0
	Calhoun	7	5.6	3.9	Keokuk	5	4.0	4.1
	Cass	10	6.1	4.6	Kossuth	14	7.2	8.2
	Cedar	7	3.6	3.9	Louisa	*	*	*
	Cherokee	7	4.7	4.6	Lyon	10	7.7	7.4
	Chickasaw	*	*	*	Madison	6	4.1	3.7
	Clay	10	5.2	5.0	Mills	8	5.3	5.4
	Clayton	9	4.3	4.1	Mitchell	10	8.3	7.7
	Crawford	8	4.3	4.7	Monona	*	*	*
	Delaware	*	*	*	Montgomery	9	6.9	6.2
	Dickinson	7	4.1	4.7	O'Brien	6	3.5	4.0
	Emmet	5	4.0	4.8	Page	10	5.4	6.4
	Floyd	7	3.7	4.3	Palo Alto	6	5.3	5
	Franklin	7	5.8	6.5	Poweshiek	12	5.8	6.1
	Greene	7	6.2	5.5	Sac	7	5.3	6.4
	Grundy	*	*	*	Shelby	8	5.5	6.7
	Guthrie	*	*	*	Tama	8	4.1	4.1
	Hamilton	9	5.0	5.3	Union	10	7.3	8.2
Hancock	*	*	*	Winnebago	5	3.8	3.6	
Hardin	10	4.8	4.9	Wright	15	9.4	9.0	
Harrison	5	3.0	2.6	<b>Total</b>	318	4.5	4.7	
Counties with Average Population > 20,000	Benton	9	3.4	3.7	Jones	*	*	*
	Boone	13	4.6	4.7	Lee	12	2.8	3.0
	Bremer	9	3.5	3.3	Mahaska	10	4.1	4.2
	Buchanan	11	4.7	4.5	Marion	10	2.9	3.2
	Buena Vista	6	2.7	2.6	Marshall	28	6.6	6.8
	Carroll	16	6.7	6.5	Muscatine	17	3.8	3.6
	Cerro Gordo	29	5.6	5.7	Plymouth	19	7.1	7.3
	Clinton	25	4.5	4.5	Sioux	13	3.8	4.0
	Des Moines	10	2.1	2.2	Story	36	4.3	5.1
	Fayette	10	4.1	3.5	Wapello	20	5.0	4.9
	Henry	10	4.6	4.9	Washington	12	5.4	5.1
	Jackson	12	5.4	5.8	Webster	17	3.9	3.8
	Jasper	15	3.8	3.9	Winneshiek	7	3.0	3.5
					<b>Total</b>	380	4.2	4.4
	MSA Counties	Black Hawk	53	3.8	4.1	Polk	197	5.1
Dallas		15	3.9	3.7	Pottawattamie	46	4.9	4.9
Dubuque		40	4.1	4.2	Scott	64	3.7	3.7
Johnson		39	3.4	4.0	Warren	16	3.8	4.0
Linn		85	4.3	4.3	Woodbury	88	7.8	7.6
<b>State Totals</b>		1,403	4.5	4.5	<b>Total</b>	643	4.6	4.6

<sup>1</sup>Rates per 100,000 population<sup>2</sup>Adjusted to Year 2000 population

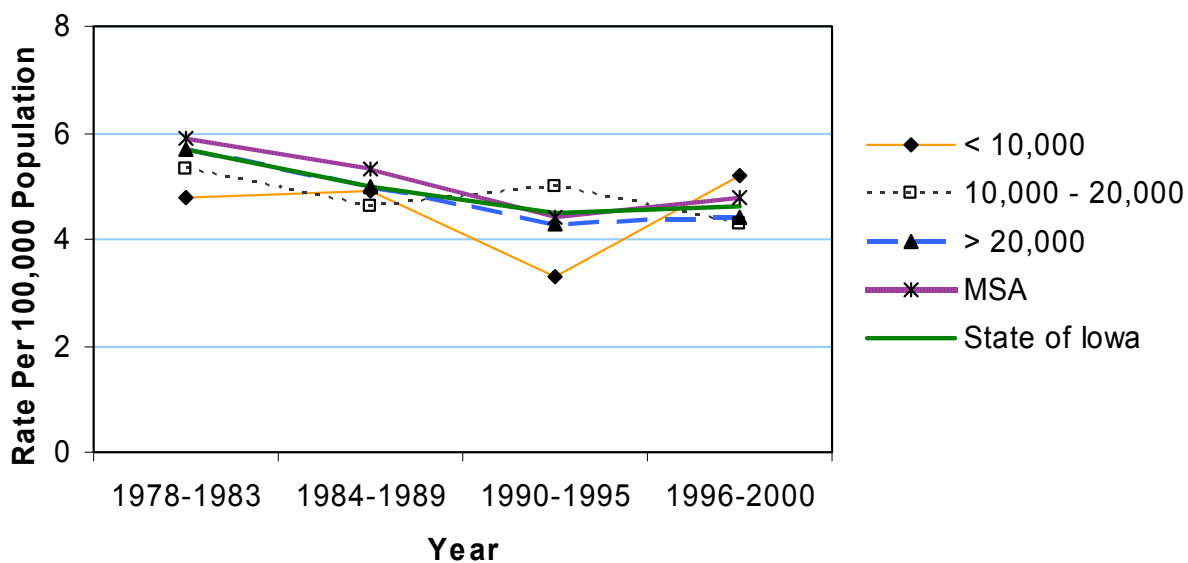
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

# Congenital Anomalies Mortality by County Group 1978-2000

## Crude Rates



## Age-Adjusted Rates



## Conditions Originating in Perinatal Period Mortality 1990-2000

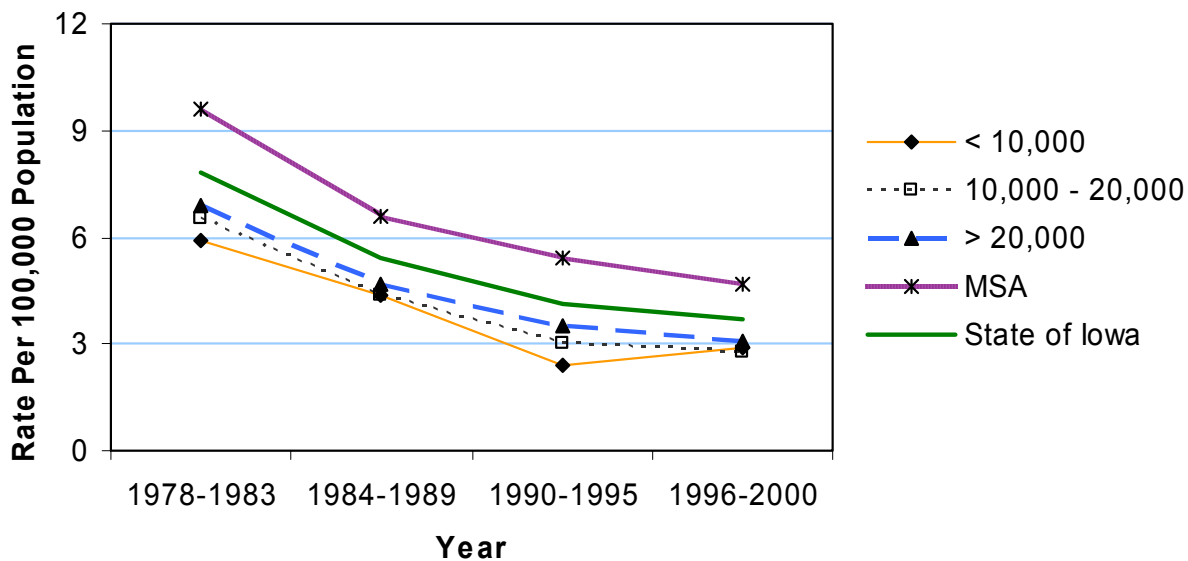
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with Average Population < 10,000	Adair	*	*	*	Lucas	*	*	*
	Adams	*	*	*	Monroe	*	*	*
	Audubon	*	*	*	Osceola	*	*	*
	Clarke	*	*	*	Pocahontas	*	*	*
	Davis	*	*	*	Ringgold	*	*	*
	Decatur	5	5.4	6.9	Taylor	*	*	*
	Fremont	*	*	*	Van Buren	*	*	*
	Howard	*	*	*	Wayne	*	*	*
	Ida	5	5.6	6.7	Worth	*	*	*
					<b>Total</b>	40	2.6	3.1
Counties with Average Population 10,000 to 20,000	Allamakee	5	3.2	3.9	Humboldt	*	*	*
	Appanoose	7	4.6	5.4	Iowa	*	*	*
	Butler	*	*	*	Jefferson	7	3.9	4.9
	Calhoun	*	*	*	Keokuk	*	*	*
	Cass	*	*	*	Kossuth	7	3.6	4.5
	Cedar	6	3.1	3.6	Louisa	5	3.8	3.9
	Cherokee	5	3.3	3.6	Lyon	*	*	*
	Chickasaw	*	*	*	Madison	*	*	*
	Clay	5	2.6	2.8	Mills	6	4.0	4.6
	Clayton	*	*	*	Mitchell	5	4.2	4.9
	Crawford	*	*	*	Monona	*	*	*
	Delaware	*	*	*	Montgomery	7	5.3	6.8
	Dickinson	*	*	*	O'Brien	10	5.9	7.3
	Emmet	*	*	*	Page	9	4.8	6.1
	Floyd	*	*	*	Palo Alto	7	6.1	7.8
	Franklin	*	*	*	Poweshiek	*	*	*
	Greene	5	4.4	5.9	Sac	*	*	*
	Grundy	*	*	*	Shelby	9	6.2	7.4
	Guthrie	*	*	*	Tama	*	*	*
	Hamilton	8	4.5	4.8	Union	5	3.7	4.5
Hancock	*	*	*	Winnebago	*	*	*	
Hardin	*	*	*	Wright	*	*	*	
Harrison	5	3.0	3.6	<b>Total</b>	202	2.9	3.4	
Counties with Average Population > 20,000	Benton	12	4.6	5	Jones	10	4.5	5.4
	Boone	9	3.2	3.6	Lee	21	4.9	5.6
	Bremer	7	2.7	3.5	Mahaska	9	3.7	3.8
	Buchanan	8	3.5	3.2	Marion	12	3.5	3.9
	Buena Vista	*	*	*	Marshall	16	3.8	4.2
	Carroll	6	2.5	2.8	Muscatine	20	4.4	4.2
	Cerro Gordo	10	1.9	2.2	Plymouth	6	2.2	2.5
	Clinton	13	2.3	2.5	Sioux	15	4.4	4.5
	Des Moines	18	3.8	4.2	Story	25	3.0	3.5
	Fayette	7	2.9	3.3	Wapello	9	2.3	2.5
	Henry	6	2.7	3.2	Washington	11	4.9	5
	Jackson	9	4.1	4.8	Webster	15	3.4	3.7
	Jasper	14	3.6	3.9	Winneshiek	*	*	*
					<b>Total</b>	295	3.3	3.6
	MSA Counties	Black Hawk	63	4.5	5.1	Polk	225	5.8
Dallas		12	3.1	2.9	Pottawattamie	42	4.5	4.4
Dubuque		32	3.3	3.4	Scott	95	5.5	5.3
Johnson		51	4.5	4.9	Warren	25	5.9	6.2
Linn		98	4.9	4.8	Woodbury	61	5.4	5.2
<b>State Totals</b>		1,241	3.9	4.2	<b>Total</b>	704	5.0	4.9

<sup>1</sup>Rates per 100,000 population<sup>2</sup>Adjusted to Year 2000 population

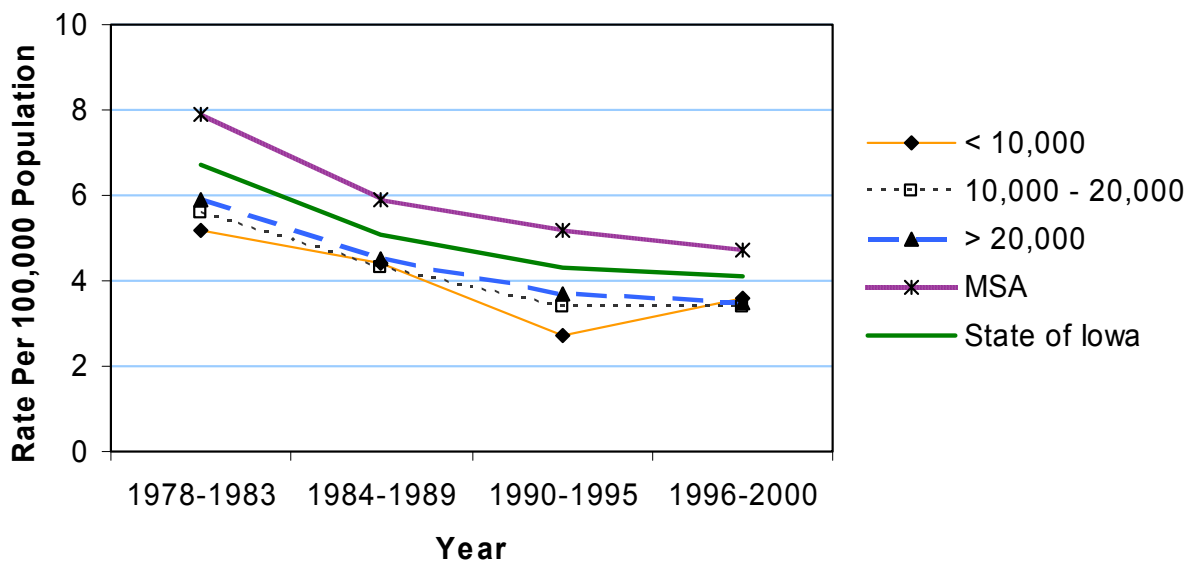
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## Conditions Originating in Perinatal Period Mortality by County Group 1978-2000

### Crude Rates



### Age-Adjusted Rates



## Alzheimer's Disease Mortality 1990-2000

	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with Average Population < 10,000	Adair	6	6.5	2.8	Lucas	8	7.8	4.2
	Adams	6	11.9	6.6	Monroe	18	20.1	11.2
	Audubon	17	22.0	9.8	Osceola	*	*	*
	Clarke	27	28.5	16.6	Pocahontas	19	19.0	9.5
	Davis	*	*	*	Ringgold	23	38.6	17.5
	Decatur	25	27.1	16.5	Taylor	15	19.4	8.7
	Fremont	31	34.7	19.8	Van Buren	12	14.1	8.5
	Howard	29	26.5	13	Wayne	11	14.4	6
	Ida	20	22.3	11.8	Worth	12	13.7	7.3
					<b>Total</b>	<b>285</b>	<b>18.5</b>	<b>9.6</b>
	Counties with Average Population 10,000 to 20,000	Allamakee	55	34.9	20.1	Humboldt	20	17.3
Appanoose		6	4.0	2.2	Iowa	23	13.8	8.4
Butler		49	28.7	15.8	Jefferson	40	22.1	17.1
Calhoun		48	38.3	18.1	Keokuk	18	14.2	7.4
Cass		15	9.1	5.1	Kossuth	40	20.5	11.5
Cedar		15	7.7	5.1	Louisa	14	10.7	8.5
Cherokee		15	10.0	6.2	Lyon	8	6.1	3.6
Chickasaw		17	11.7	7.7	Madison	41	28.2	18.3
Clay		30	15.5	10.5	Mills	19	12.6	11.5
Clayton		24	11.6	7	Mitchell	21	17.5	8
Crawford		35	18.9	12	Monona	32	28.9	12.6
Delaware		29	14.4	11.8	Montgomery	36	27.4	12.6
Dickinson		22	12.7	7.6	O'Brien	23	13.5	6.7
Emmet		18	14.3	7.7	Page	35	18.7	10.1
Floyd		48	25.6	14.8	Palo Alto	16	14.0	6.8
Franklin		37	30.5	17.3	Poweshiek	53	25.5	15.6
Greene		19	16.8	8.3	Sac	15	11.4	5.4
Grundy		13	9.7	5.6	Shelby	25	17.1	9.1
Guthrie		14	11.4	6.7	Tama	45	22.9	13.2
Hamilton		41	22.9	14.9	Union	15	11.0	6.4
Hancock	11	8.2	5.2	Winnebago	13	10.0	5.4	
Hardin	48	23.0	11.3	Wright	47	29.6	15.1	
Harrison	18	10.8	6.7	<b>Total</b>	<b>1,226</b>	<b>17.5</b>	<b>10.1</b>	
Counties with Average Population > 20,000	Benton	29	11.0	8.2	Jones	13	5.9	4.5
	Boone	94	33.4	20.4	Lee	78	18.3	13.3
	Bremer	80	31.4	21	Mahaska	33	13.7	9.5
	Buchanan	18	7.8	6.5	Marion	36	10.6	7.7
	Buena Vista	26	11.6	7.1	Marshall	175	41.1	29.3
	Carroll	51	21.5	13	Muscatine	52	11.5	10.3
	Cerro Gordo	77	14.9	10	Plymouth	34	12.7	9.2
	Clinton	57	10.2	7.9	Sioux	43	12.6	9.9
	Des Moines	47	10.0	7.3	Story	100	11.8	13.4
	Fayette	50	20.6	12.4	Wapello	61	15.4	10.1
	Henry	29	13.2	9.3	Washington	27	12.1	7
	Jackson	18	8.1	5.7	Webster	59	13.4	8.8
	Jasper	55	14.0	10.7	Winneshiek	30	12.9	9.5
					<b>Total</b>	<b>1,372</b>	<b>15.3</b>	<b>11.3</b>
MSA Counties	Black Hawk	152	10.9	9.8	Polk	401	10.3	11.5
	Dallas	43	11.3	10.2	Pottawattamie	115	12.3	12.2
	Dubuque	126	13.0	10.8	Scott	176	10.3	11.6
	Johnson	75	6.6	10.8	Warren	58	13.7	14.2
	Linn	174	8.7	8.9	Woodbury	122	10.8	9.4
					<b>Total</b>	<b>1,442</b>	<b>10.3</b>	<b>10.8</b>
<b>State Totals</b>	<b>4,325</b>	<b>13.7</b>	<b>10.6</b>					

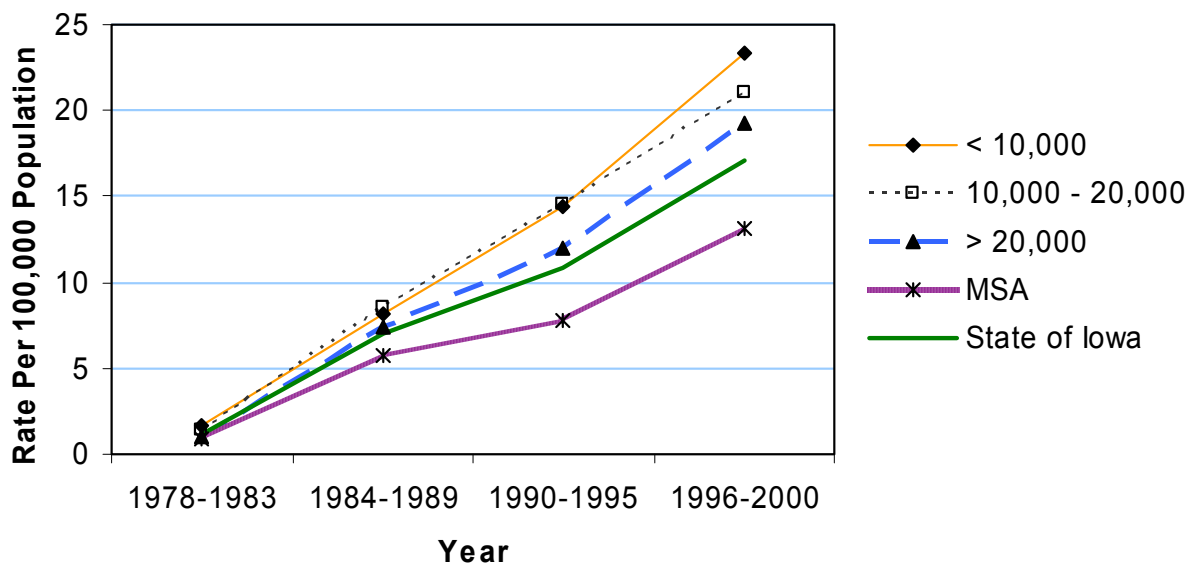
<sup>1</sup>Rates per 100,000 population<sup>2</sup>Adjusted to Year 2000 population

Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

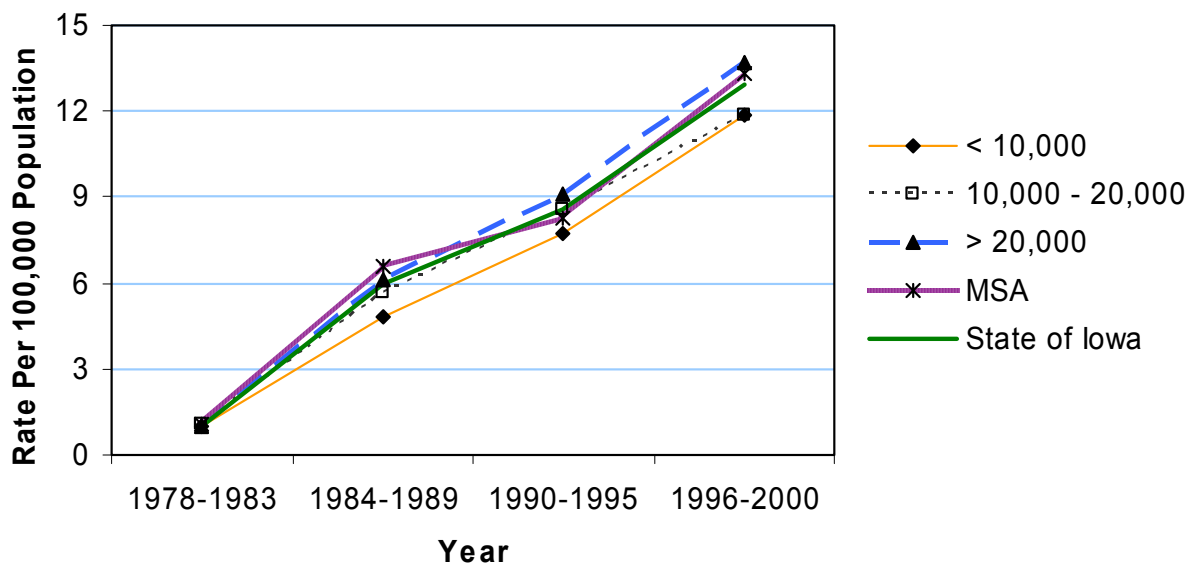


# Alzheimer's Disease Mortality by County Group 1978-2000

## Crude Rates



## Age-Adjusted Rates





## Health Care Providers

The Office of Statewide Clinical Education Programs (OSCEP) at The University of Iowa Carver College of Medicine, the Iowa Department of Public Health, Board of Nursing, and the Bureau of Emergency Medical Services collect the health care provider data presented in this Iowa Health Fact Book.

The OSCEP provides an up-to-date inventory of physicians, physician assistants, nurse practitioners, pharmacists, and dentists, which facilitates tracking trends in Iowa health professionals and provides feedback to the health science colleges on progress of their programs.

The Board of Nursing enforces and regulates nursing education, nursing practice, and continuing education for nurses. It sets standards, provides evaluation and licensing, and investigates complaints about licensed practical nurses, registered nurses, and advanced registered nurse practitioners. Its mission is “to protect the public health, safety and welfare of Iowans by ensuring that nursing is practiced by competent licensed individuals within their practice field.” Data related to the nursing supply are housed within the Board of Nursing.

The Bureau of Emergency Medical Services (EMS) is a regulatory agency that establishes initial training, continuing education, and renewal requirements leading to certification of emergency medical care providers, including those presented here. The EMS Bureau is also responsible for the authorization and regulation of EMS service programs (levels First Responder through Paramedic), and a statewide trauma system. In addition, the Bureau has statewide programs dealing with system development initiatives, injury prevention, and emergency medical services for children.

Seventeen other licensing boards are housed at the Iowa Department of Public Health which collects data about practice, licensing/certification, and other supply information.

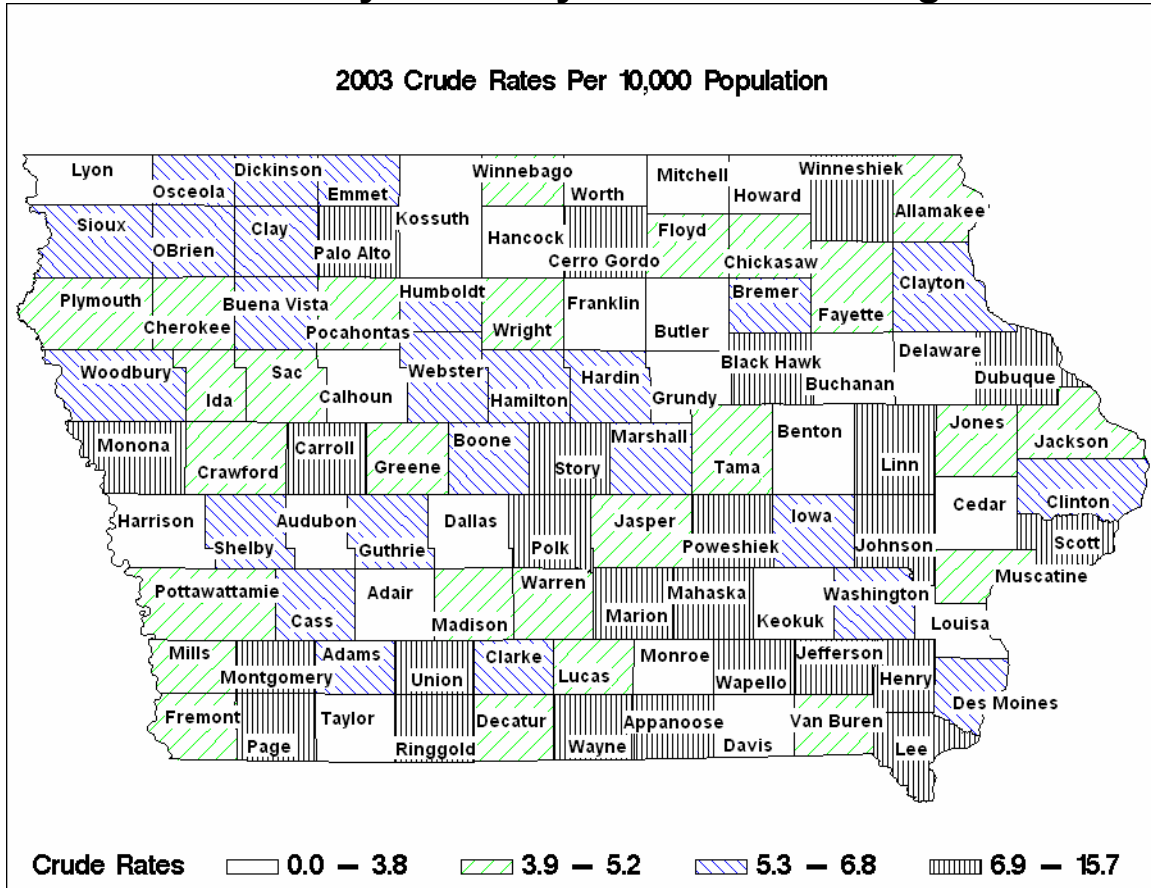
## Primary Care Physicians Practicing<sup>3</sup> - 2003

	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
	Counties with Average Population < 10,000	Adair	2	2.5 ( 91 )	Lucas	4
Adams		3	6.8 ( 26 )	Monroe	3	3.8 ( 78 )
Audubon		2	3.0 ( 87 )	Osceola	4	5.9 ( 43 )
Clarke		5	5.5 ( 45 )	Pocahontas	4	4.8 ( 59 )
Davis		3	3.5 ( 83 )	Ringgold	5	9.4 ( 04 )
Decatur		4	4.6 ( 65 )	Taylor	1	1.4 ( 98 )
Fremont		3	3.9 ( 75 )	Van Buren	4	5.1 ( 53 )
Howard		3	3.1 ( 86 )	Wayne	6	9.0 ( 06 )
Ida		4	5.2 ( 51 )	Worth	0	0.0 ( 99 )
				<b>Total</b>	60	4.4
Counties with Average Population 10,000 to 20,000	Allamakee	7	4.8 ( 60 )	Humboldt	6	5.9 ( 42 )
	Appanoose	10	7.5 ( 19 )	Iowa	10	6.3 ( 32 )
	Butler	3	2.0 ( 94 )	Jefferson	11	6.9 ( 25 )
	Calhoun	4	3.7 ( 81 )	Keokuk	2	1.8 ( 95 )
	Cass	9	6.3 ( 33 )	Kossuth	6	3.6 ( 82 )
	Cedar	4	2.2 ( 93 )	Louisa	3	2.4 ( 92 )
	Cherokee	6	4.7 ( 63 )	Lyon	2	1.7 ( 96 )
	Chickasaw	6	4.7 ( 64 )	Madison	6	4.1 ( 72 )
	Clay	11	6.4 ( 31 )	Mills	7	4.8 ( 61 )
	Clayton	11	6.0 ( 40 )	Mitchell	4	3.7 ( 79 )
	Crawford	8	4.7 ( 62 )	Monona	7	7.1 ( 22 )
	Delaware	6	3.3 ( 84 )	Montgomery	10	8.7 ( 09 )
	Dickinson	10	6.1 ( 37 )	O'Brien	8	5.4 ( 49 )
	Emmet	6	5.6 ( 44 )	Page	15	9.1 ( 05 )
	Floyd	8	4.8 ( 58 )	Palo Alto	7	7.1 ( 23 )
	Franklin	4	3.7 ( 80 )	Poweshiek	16	8.5 ( 11 )
	Greene	5	4.9 ( 57 )	Sac	5	4.5 ( 66 )
	Grundy	4	3.2 ( 85 )	Shelby	7	5.4 ( 48 )
	Guthrie	6	5.3 ( 50 )	Tama	7	3.9 ( 74 )
	Hamilton	11	6.8 ( 28 )	Union	10	8.3 ( 13 )
Hancock	2	1.7 ( 97 )	Winnebago	5	4.3 ( 68 )	
Hardin	11	6.0 ( 41 )	Wright	7	5.0 ( 55 )	
Harrison	4	2.6 ( 90 )	<b>Total</b>	317	5.0	
Counties with Average Population > 20,000	Benton	7	2.7 ( 89 )	Jones	8	3.9 ( 73 )
	Boone	16	6.1 ( 35 )	Lee	29	7.9 ( 16 )
	Bremer	14	6.0 ( 39 )	Mahaska	17	7.7 ( 18 )
	Buchanan	8	3.8 ( 77 )	Marion	27	8.3 ( 12 )
	Buena Vista	11	5.4 ( 47 )	Marshall	27	6.8 ( 27 )
	Carroll	17	8.1 ( 14 )	Muscatine	18	4.3 ( 69 )
	Cerro Gordo	52	11.5 ( 02 )	Plymouth	11	4.5 ( 67 )
	Clinton	27	5.4 ( 46 )	Sioux	20	6.3 ( 34 )
	Des Moines	25	6.0 ( 38 )	Story	59	7.3 ( 21 )
	Fayette	9	4.1 ( 71 )	Wapello	32	8.9 ( 08 )
	Henry	15	7.5 ( 20 )	Washington	14	6.6 ( 29 )
	Jackson	10	4.9 ( 56 )	Webster	26	6.5 ( 30 )
	Jasper	19	5.1 ( 54 )	Winneshiek	17	7.9 ( 15 )
				<b>Total</b>	535	6.5
	MSA Counties	Black Hawk	108	8.5 ( 10 )	Polk	371
Dallas		12	2.7 ( 88 )	Pottawattamie	46	5.2 ( 52 )
Dubuque		80	8.9 ( 07 )	Scott	123	7.7 ( 17 )
Johnson		180	15.7 ( 01 )	Warren	16	3.9 ( 76 )
Linn		136	7.0 ( 24 )	Woodbury	63	6.1 ( 36 )
				<b>Total</b>	1,135	8.4
<b>State Totals</b>		2,047	7.0			

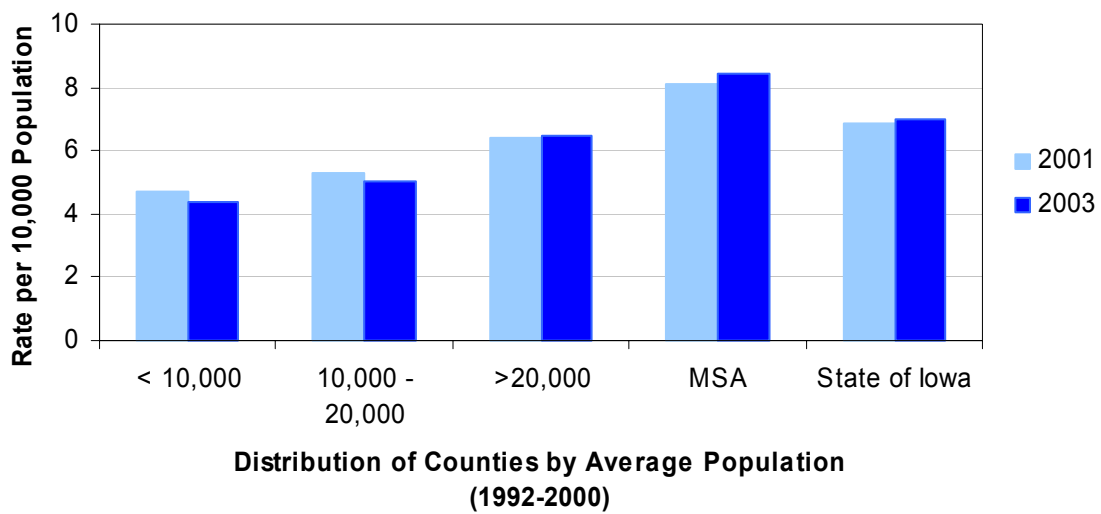
<sup>1</sup>Rates per 10,000 population<sup>2</sup>Rank among 99 Iowa counties<sup>3</sup>Includes Family Practice, Internal Medicine, Pediatrics and Obstetrics/Gynecology Physicians

Source: Office of Statewide Clinical Education Programs, UI Carver College of Medicine

## Primary Care Physicians Practicing



### Crude Rates, 2001 and 2003



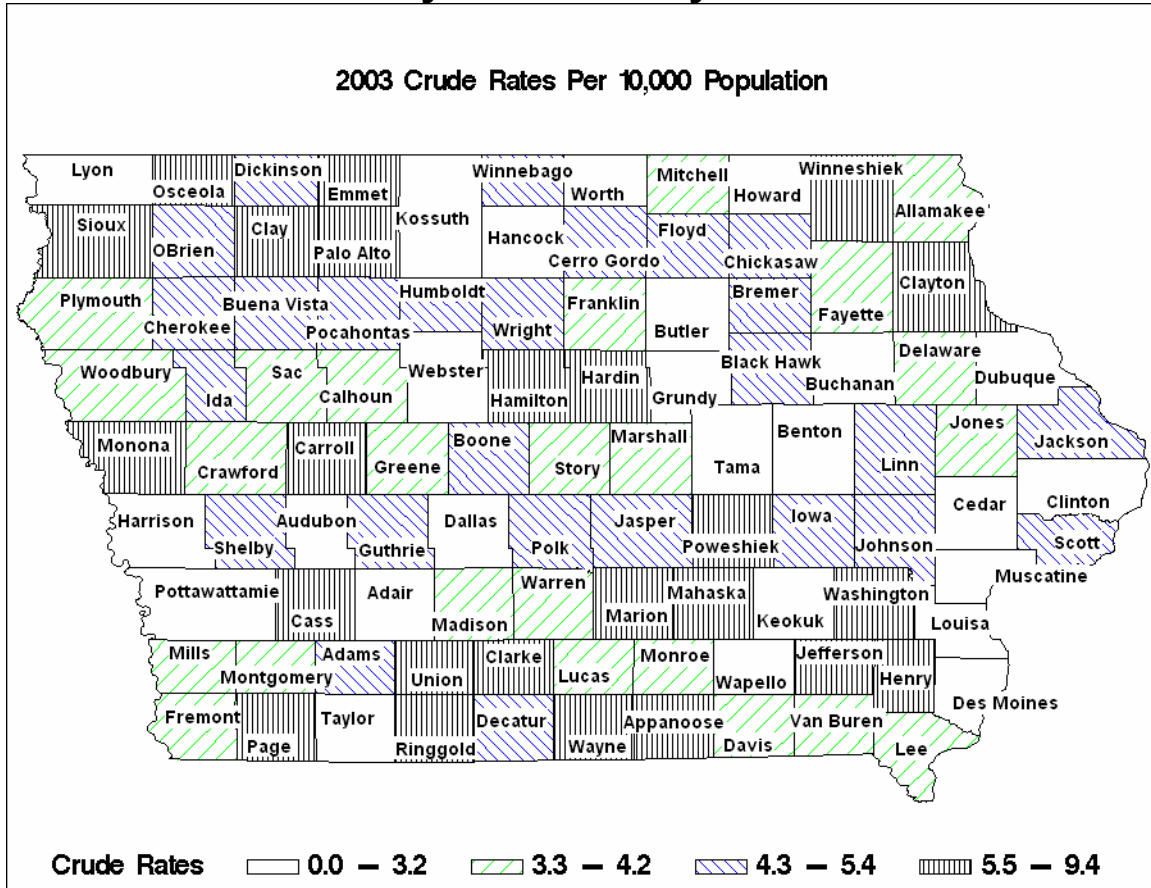
## Family Practice Physicians - 2003

	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Counties with Average Population < 10,000	Adair	2	2.5	Lucas	4	4.2
	Adams	2	4.6	Monroe	3	3.8
	Audubon	2	3.0	Osceola	4	5.9
	Clarke	5	5.5	Pocahontas	4	4.8
	Davis	3	3.5	Ringgold	5	9.4
	Decatur	4	4.6	Taylor	0	0.0
	Fremont	3	3.9	Van Buren	3	3.8
	Howard	3	3.1	Wayne	6	9.0
	Ida	4	5.2	Worth	0	0.0
				<b>Total</b>	<b>57</b>	<b>4.2</b>
Counties with Average Population 10,000 to 20,000	Allamakee	6	4.1	Humboldt	5	4.9
	Appanoose	8	6.0	Iowa	8	5.1
	Butler	3	2.0	Jefferson	10	6.3
	Calhoun	4	3.7	Keokuk	2	1.8
	Cass	9	6.3	Kossuth	5	3.0
	Cedar	4	2.2	Louisa	2	1.6
	Cherokee	6	4.7	Lyon	2	1.7
	Chickasaw	6	4.7	Madison	5	3.4
	Clay	11	6.4	Mills	5	3.4
	Clayton	11	6.0	Mitchell	4	3.7
	Crawford	7	4.1	Monona	6	6.1
	Delaware	6	3.3	Montgomery	4	3.5
	Dickinson	9	5.4	O'Brien	8	5.4
	Emmet	6	5.6	Page	12	7.3
	Floyd	8	4.8	Palo Alto	7	7.1
	Franklin	4	3.7	Poweshiek	12	6.3
	Greene	4	3.9	Sac	4	3.6
	Grundy	4	3.2	Shelby	7	5.4
	Guthrie	5	4.4	Tama	5	2.8
	Hamilton	9	5.5	Union	7	5.8
Hancock	2	1.7	Winnebago	5	4.3	
Hardin	11	6.0	Wright	7	5.0	
Harrison	4	2.6	<b>Total</b>	<b>279</b>	<b>4.4</b>	
Counties with Average Population > 20,000	Benton	6	2.3	Jones	8	3.9
	Boone	13	5.0	Lee	15	4.1
	Bremer	12	5.2	Mahaska	13	5.9
	Buchanan	6	2.9	Marion	18	5.5
	Buena Vista	10	4.9	Marshall	13	3.3
	Carroll	13	6.2	Muscatine	8	1.9
	Cerro Gordo	23	5.1	Plymouth	10	4.1
	Clinton	13	2.6	Sioux	20	6.3
	Des Moines	12	2.9	Story	28	3.5
	Fayette	8	3.7	Wapello	6	1.7
	Henry	12	6.0	Washington	12	5.7
	Jackson	10	4.9	Webster	12	3.0
	Jasper	16	4.3	Winneshiek	15	7.0
				<b>Total</b>	<b>332</b>	<b>4.0</b>
MSA Counties	Black Hawk	55	4.3	Polk	184	4.8
	Dallas	12	2.7	Pottawattamie	23	2.6
	Dubuque	23	2.6	Scott	68	4.3
	Johnson	60	5.2	Warren	16	3.9
	Linn	84	4.3	Woodbury	43	4.2
				<b>Total</b>	<b>568</b>	<b>4.2</b>
<b>State Totals</b>		1,236	4.2			

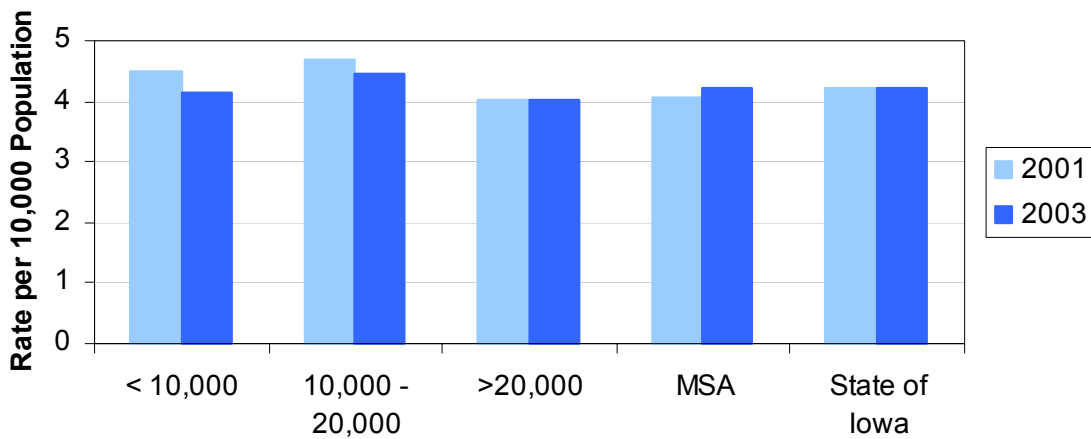
<sup>1</sup>Rates per 10,000 population

Source: Office of Statewide Clinical Education Programs, UI Carver College of Medicine

## Family Practice Physicians

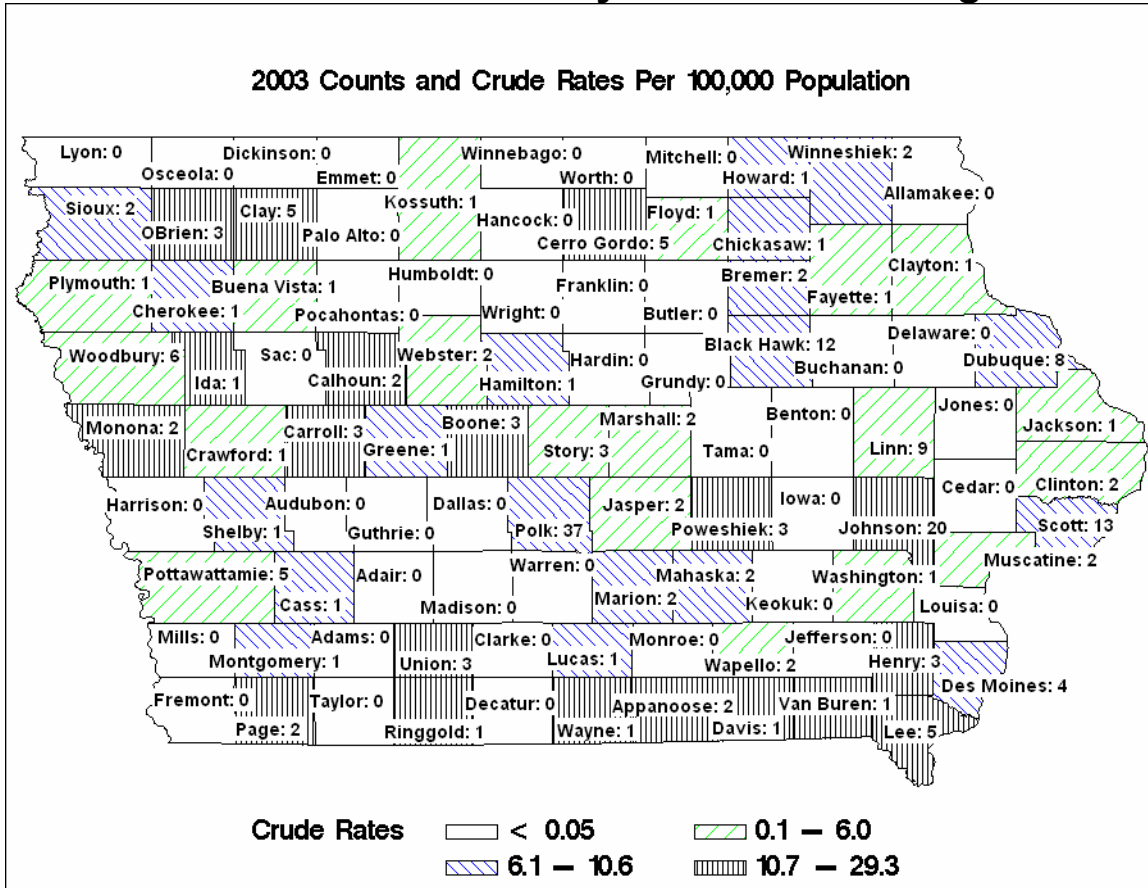


### Crude Rates, 2001 and 2003

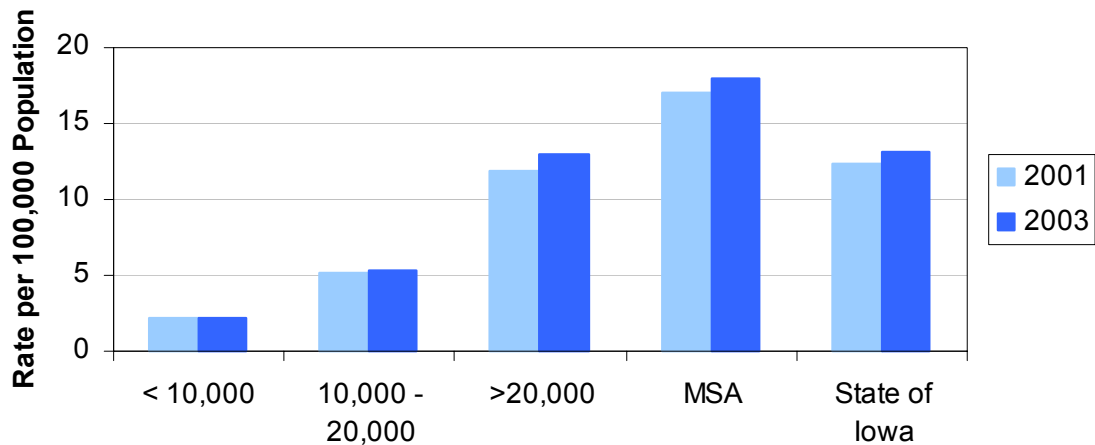


**Distribution of Counties by Average Population (1992-2000)**

## Internal Medicine Physicians Practicing



### Crude Rates, 2001 and 2003

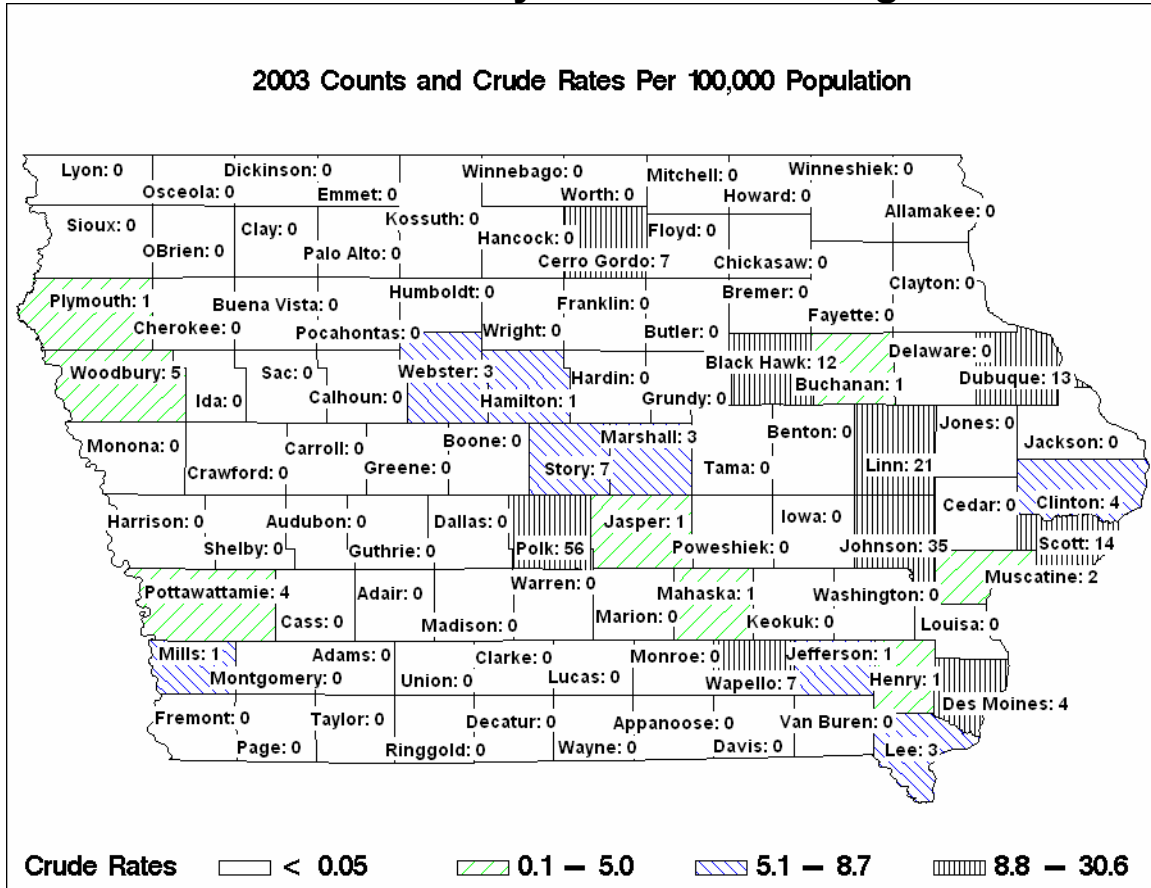


Distribution of Counties by Average Population (1992-2000)

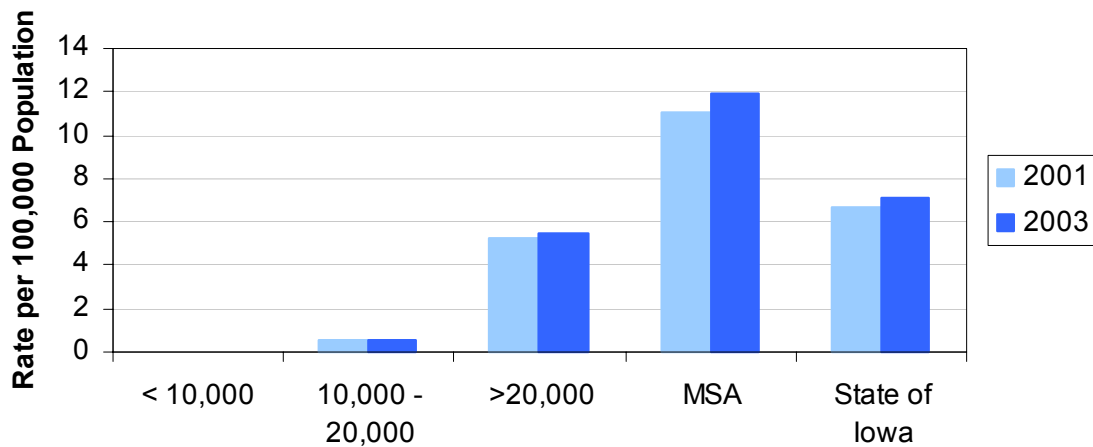
Source: Office of Statewide Clinical Education Programs, UI Carver College of Medicine



## Pediatric Physicians Practicing



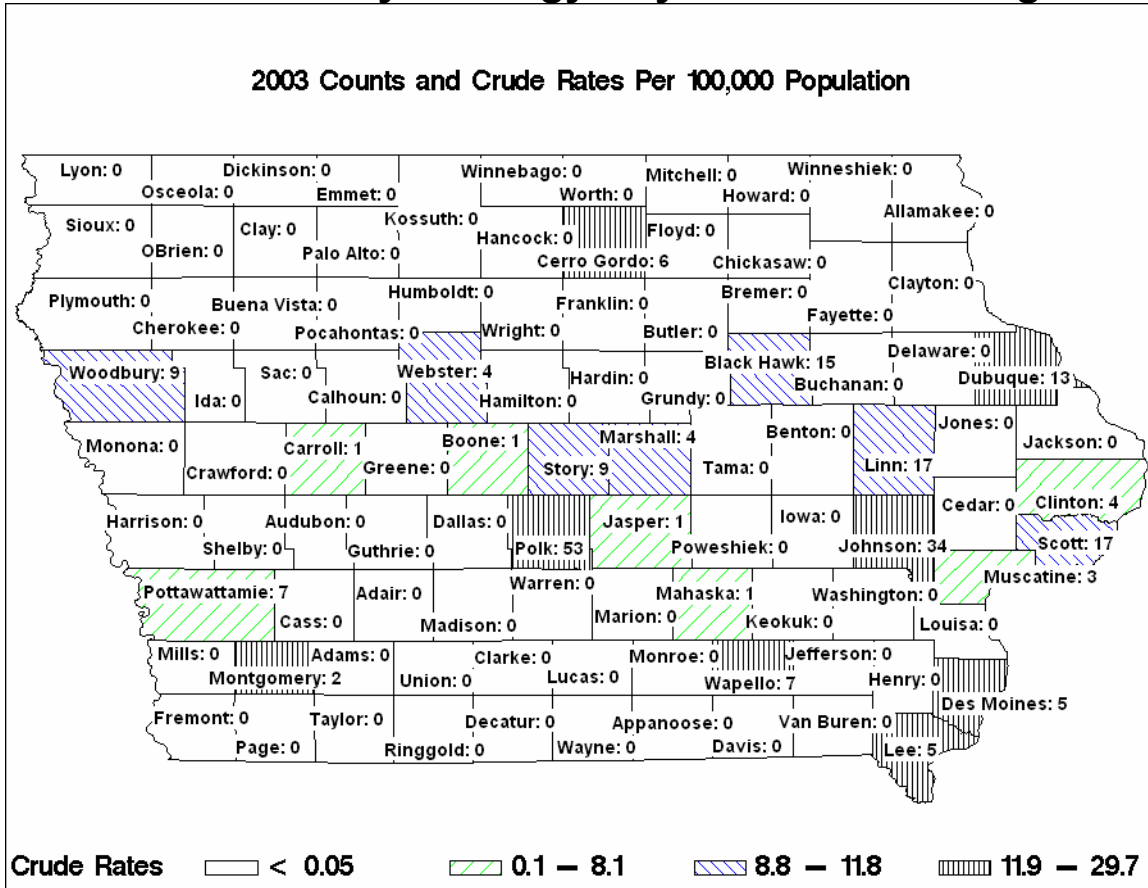
### Crude Rates, 2001 and 2003



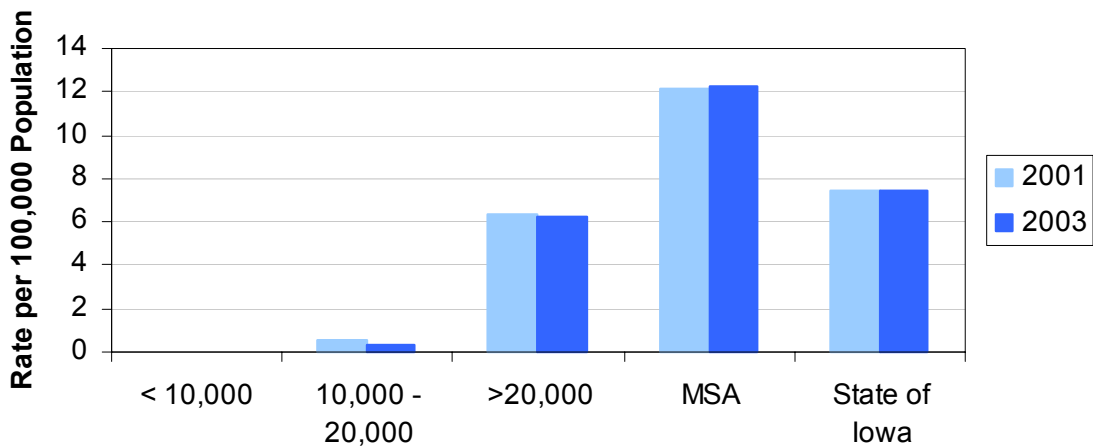
Distribution of Counties by Average Population (1992-2000)

Source: Office of Statewide Clinical Education Programs, UI Carver College of Medicine

## Obstetrics/Gynecology Physicians Practicing



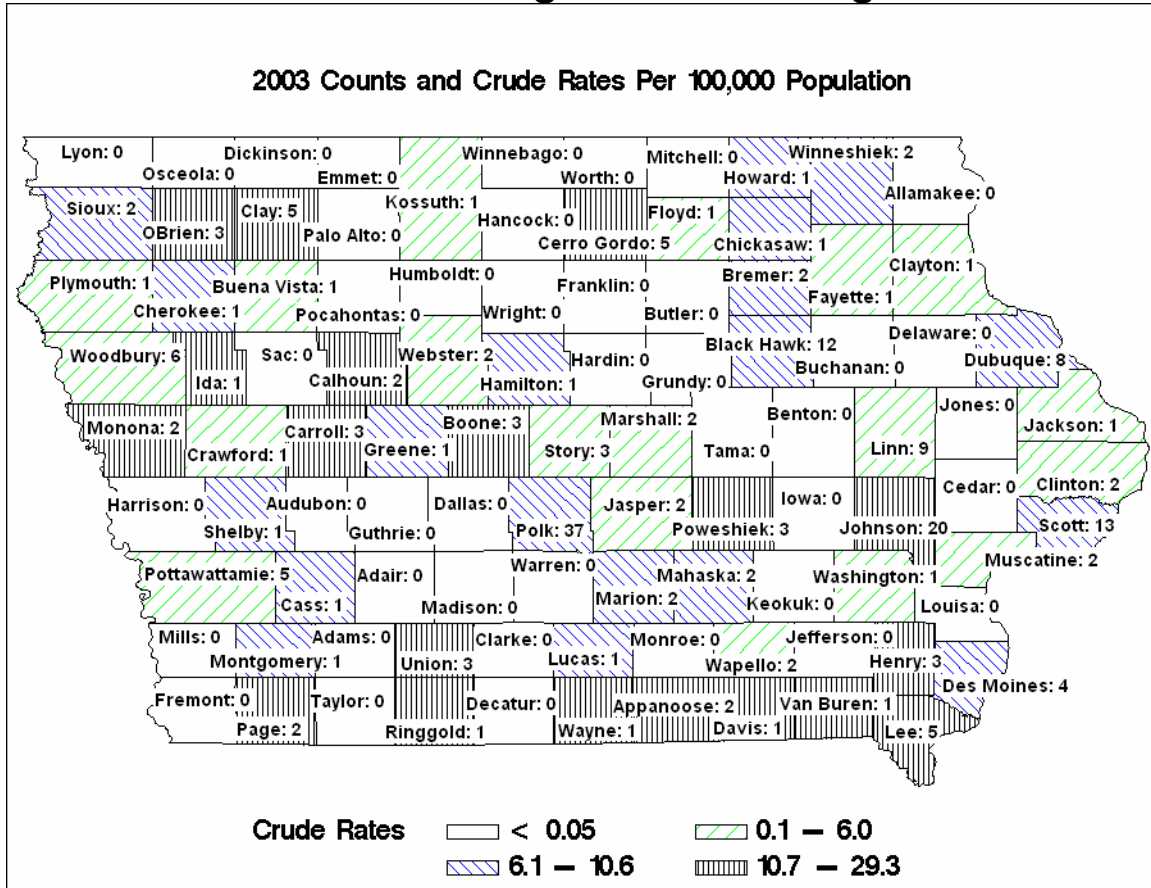
### Crude Rates, 2001 and 2003



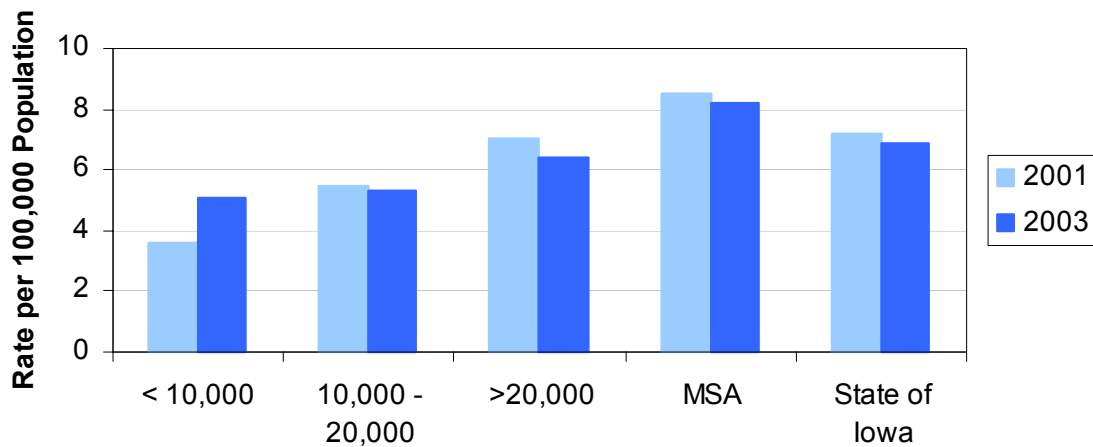
**Distribution of Counties by Average Population (1992-2000)**

*Source: Office of Statewide Clinical Education Programs, UI Carver College of Medicine*

## General Surgeons Practicing



### Crude Rates, 2001 and 2003



**Distribution of Counties by Average Population (1992-2000)**

Source: Office of Statewide Clinical Education Programs, UI Carver College of Medicine

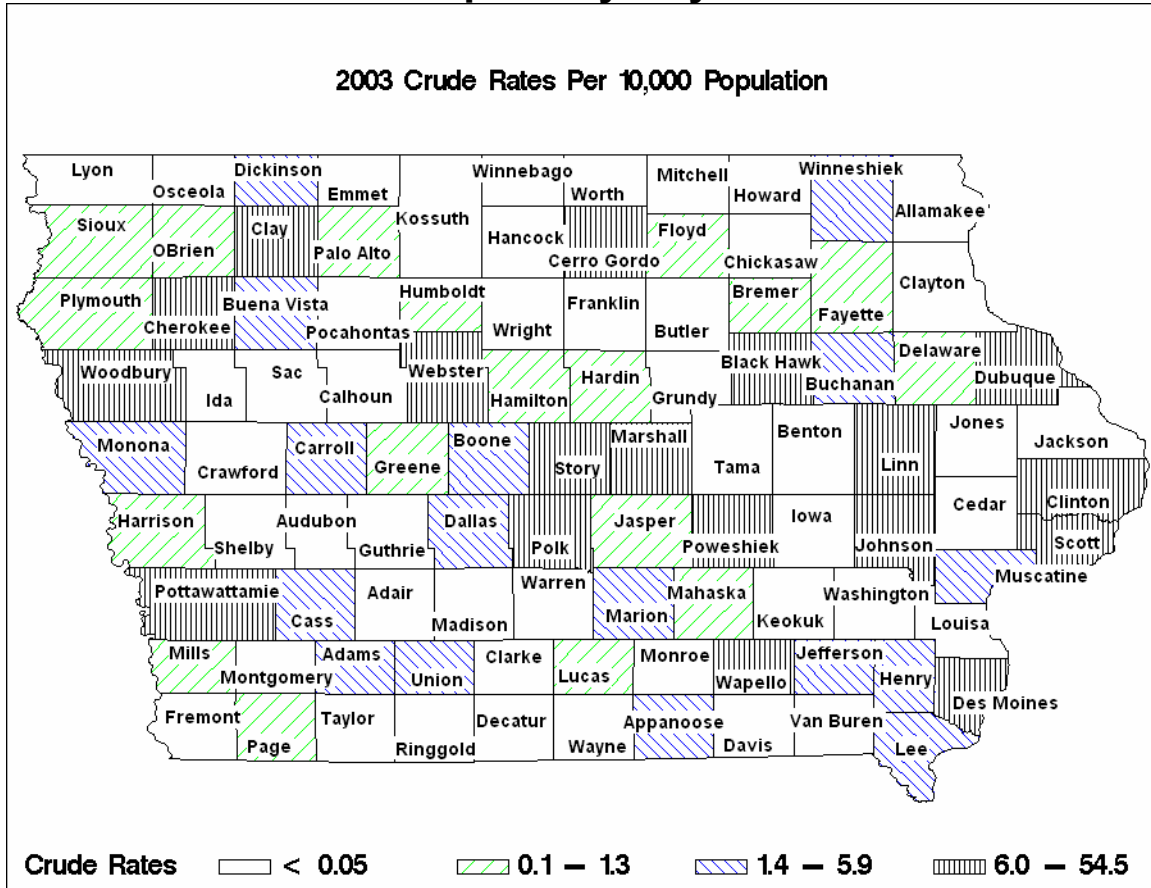
## Other Specialty Physicians Practicing - 2003

	County			County		
	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Counties with Average Population < 10,000	Adair	0	0.0	Lucas	1	1.1
	Adams	1	2.3	Monroe	0	0.0
	Audubon	0	0.0	Osceola	0	0.0
	Clarke	0	0.0	Pocahontas	0	0.0
	Davis	0	0.0	Ringgold	0	0.0
	Decatur	0	0.0	Taylor	0	0.0
	Fremont	0	0.0	Van Buren	0	0.0
	Howard	0	0.0	Wayne	0	0.0
	Ida	0	0.0	Worth	0	0.0
				<b>Total</b>	<b>2</b>	<b>0.1</b>
Counties with Average Population 10,000 to 20,000	Allamakee	0	0.0	Humboldt	1	1.0
	Appanoose	6	4.5	Iowa	0	0.0
	Butler	0	0.0	Jefferson	5	3.1
	Calhoun	0	0.0	Keokuk	0	0.0
	Cass	3	2.1	Kossuth	0	0.0
	Cedar	0	0.0	Louisa	0	0.0
	Cherokee	10	7.8	Lyon	0	0.0
	Chickasaw	0	0.0	Madison	0	0.0
	Clay	16	9.4	Mills	1	0.7
	Clayton	0	0.0	Mitchell	0	0.0
	Crawford	0	0.0	Monona	3	3.1
	Delaware	1	0.5	Montgomery	0	0.0
	Dickinson	3	1.8	O'Brien	1	0.7
	Emmet	0	0.0	Page	2	1.2
	Floyd	1	0.6	Palo Alto	1	1.0
	Franklin	0	0.0	Poweshiek	15	7.9
	Greene	1	1.0	Sac	0	0.0
	Grundy	0	0.0	Shelby	0	0.0
	Guthrie	0	0.0	Tama	0	0.0
	Hamilton	1	0.6	Union	2	1.7
Hancock	0	0.0	Winnebago	0	0.0	
Hardin	1	0.5	Wright	0	0.0	
Harrison	2	1.3	<b>Total</b>	<b>76</b>	<b>1.2</b>	
Counties with Average Population > 20,000	Benton	0	0.0	Jones	0	0.0
	Boone	4	1.5	Lee	18	4.9
	Bremer	2	0.9	Mahaska	2	0.9
	Buchanan	5	2.4	Marion	19	5.8
	Buena Vista	3	1.5	Marshall	26	6.6
	Carroll	12	5.7	Muscatine	10	2.4
	Cerro Gordo	88	19.4	Plymouth	1	0.4
	Clinton	34	6.8	Sioux	2	0.6
	Des Moines	50	12.1	Story	71	8.8
	Fayette	1	0.5	Wapello	48	13.4
	Henry	7	3.5	Washington	0	0.0
	Jackson	0	0.0	Webster	45	11.3
	Jasper	3	0.8	Winneshiek	6	2.8
				<b>Total</b>	<b>457</b>	<b>5.6</b>
MSA Counties	Black Hawk	142	11.1	Polk	596	15.5
	Dallas	6	1.4	Pottawattamie	58	6.6
	Dubuque	117	13.1	Scott	196	12.3
	Johnson	623	54.5	Warren	0	0.0
	Linn	228	11.7	Woodbury	121	11.7
				<b>Total</b>	<b>2,087</b>	<b>15.5</b>
<b>State Totals</b>	<b>2,622</b>	<b>8.9</b>				

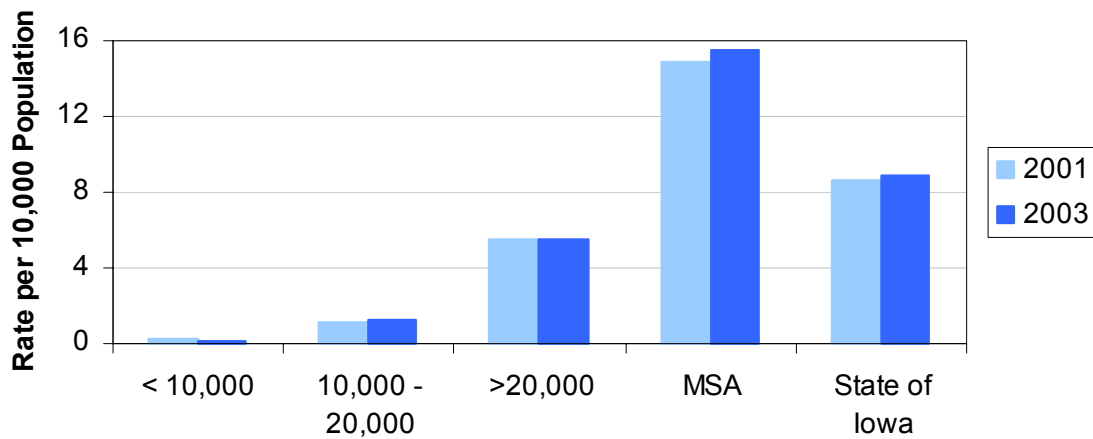
<sup>1</sup>Rates per 10,000 population

Source: Office of Statewide Clinical Education Programs, UI Carver College of Medicine

## Other Specialty Physicians



### Crude Rates, 2001 and 2003



**Distribution of Counties by Average Population (1992-2000)**

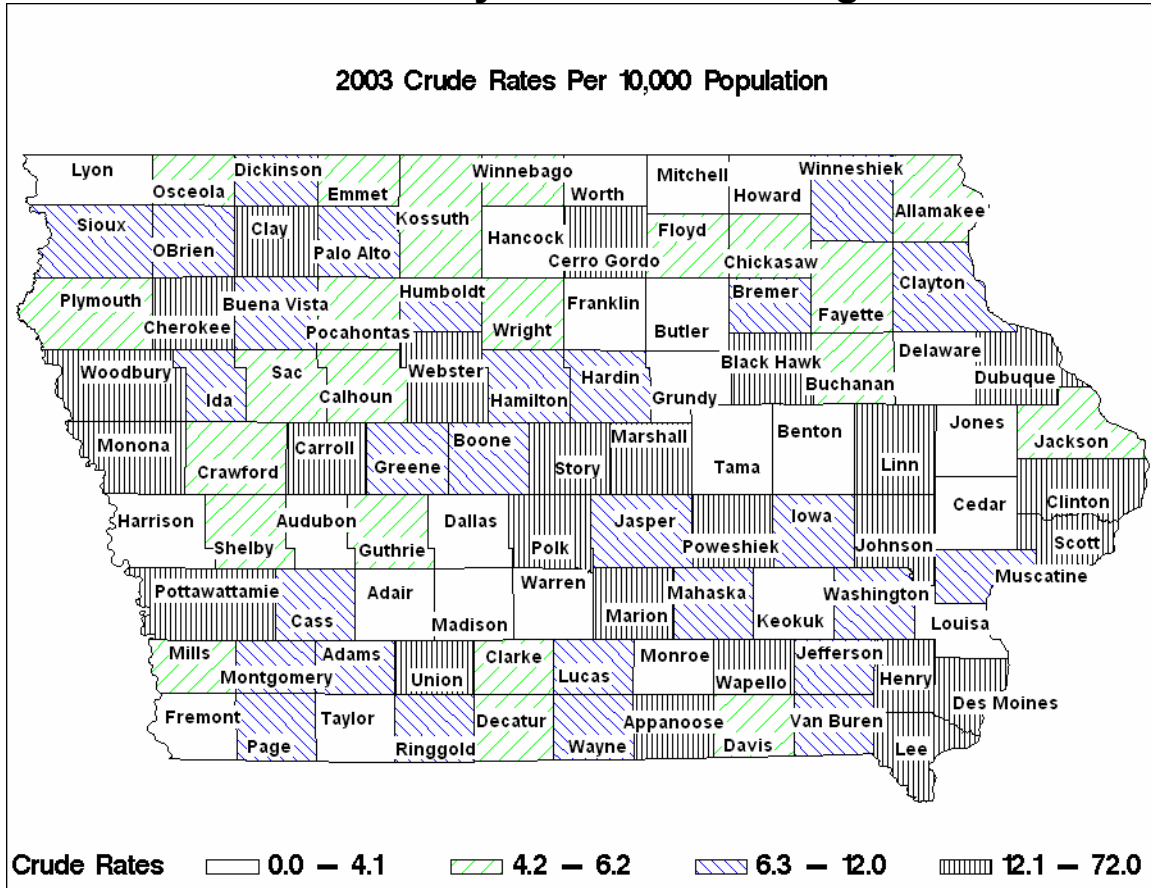
## Total Physicians Practicing - 2003

	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with Average Population < 10,000	Adair	2	2.5 ( 91 )	Lucas	6	6.4 ( 52 )
	Adams	4	9.1 ( 34 )	Monroe	3	3.8 ( 84 )
	Audubon	2	3.0 ( 89 )	Osceola	4	5.9 ( 57 )
	Clarke	5	5.5 ( 60 )	Pocahontas	4	4.8 ( 69 )
	Davis	4	4.7 ( 71 )	Ringgold	6	11.3 ( 28 )
	Decatur	4	4.6 ( 72 )	Taylor	1	1.4 ( 98 )
	Fremont	3	3.9 ( 81 )	Van Buren	5	6.4 ( 51 )
	Howard	4	4.1 ( 77 )	Wayne	7	10.5 ( 29 )
	Ida	5	6.5 ( 48 )	Worth	0	0.0 ( 99 )
				<b>Total</b>	69	5.0
Counties with Average Population 10,000 to 20,000	Allamakee	7	4.8 ( 70 )	Humboldt	7	6.9 ( 46 )
	Appanoose	18	13.4 ( 19 )	Iowa	10	6.3 ( 53 )
	Butler	3	2.0 ( 94 )	Jefferson	16	10.0 ( 30 )
	Calhoun	6	5.5 ( 59 )	Keokuk	2	1.8 ( 95 )
	Cass	13	9.1 ( 33 )	Kossuth	7	4.2 ( 75 )
	Cedar	4	2.2 ( 93 )	Louisa	3	2.4 ( 92 )
	Cherokee	17	13.3 ( 20 )	Lyon	2	1.7 ( 96 )
	Chickasaw	7	5.4 ( 63 )	Madison	6	4.1 ( 76 )
	Clay	32	18.8 ( 10 )	Mills	8	5.4 ( 62 )
	Clayton	12	6.5 ( 47 )	Mitchell	4	3.7 ( 86 )
	Crawford	9	5.3 ( 64 )	Monona	12	12.2 ( 25 )
	Delaware	7	3.8 ( 85 )	Montgomery	11	9.6 ( 31 )
	Dickinson	13	7.9 ( 39 )	O'Brien	12	8.1 ( 37 )
	Emmet	6	5.6 ( 58 )	Page	19	11.5 ( 27 )
	Floyd	10	6.0 ( 56 )	Palo Alto	8	8.1 ( 36 )
	Franklin	4	3.7 ( 87 )	Poweshiek	34	18.0 ( 13 )
	Greene	7	6.9 ( 45 )	Sac	5	4.5 ( 73 )
	Grundy	4	3.2 ( 88 )	Shelby	8	6.2 ( 55 )
	Guthrie	6	5.3 ( 65 )	Tama	7	3.9 ( 80 )
	Hamilton	13	8.0 ( 38 )	Union	15	12.4 ( 23 )
Hancock	2	1.7 ( 97 )	Winnebago	5	4.3 ( 74 )	
Hardin	12	6.5 ( 49 )	Wright	7	5.0 ( 68 )	
Harrison	6	3.8 ( 83 )	<b>Total</b>	426	6.8	
Counties with Average Population > 20,000	Benton	7	2.7 ( 90 )	Jones	8	3.9 ( 79 )
	Boone	23	8.8 ( 35 )	Lee	52	14.1 ( 17 )
	Bremer	18	7.7 ( 40 )	Mahaska	21	9.5 ( 32 )
	Buchanan	13	6.2 ( 54 )	Marion	48	14.7 ( 16 )
	Buena Vista	15	7.4 ( 42 )	Marshall	55	13.9 ( 18 )
	Carroll	32	15.2 ( 15 )	Muscatine	30	7.1 ( 43 )
	Cerro Gordo	145	32.0 ( 02 )	Plymouth	13	5.3 ( 66 )
	Clinton	63	12.7 ( 21 )	Sioux	24	7.5 ( 41 )
	Des Moines	79	19.1 ( 09 )	Story	133	16.5 ( 14 )
	Fayette	11	5.1 ( 67 )	Wapello	82	22.9 ( 05 )
	Henry	25	12.4 ( 22 )	Washington	15	7.1 ( 44 )
	Jackson	11	5.4 ( 61 )	Webster	73	18.3 ( 12 )
	Jasper	24	6.4 ( 50 )	Winneshiek	25	11.7 ( 26 )
				<b>Total</b>	1,045	12.7
MSA Counties	Black Hawk	262	20.6 ( 07 )	Polk	1,004	26.0 ( 03 )
	Dallas	18	4.1 ( 78 )	Pottawattamie	109	12.4 ( 24 )
	Dubuque	205	22.9 ( 04 )	Scott	332	20.8 ( 06 )
	Johnson	823	72.0 ( 01 )	Warren	16	3.9 ( 82 )
	Linn	373	19.1 ( 08 )	Woodbury	190	18.4 ( 11 )
				<b>Total</b>	3,332	24.7
<b>State Totals</b>		4,872	16.6			

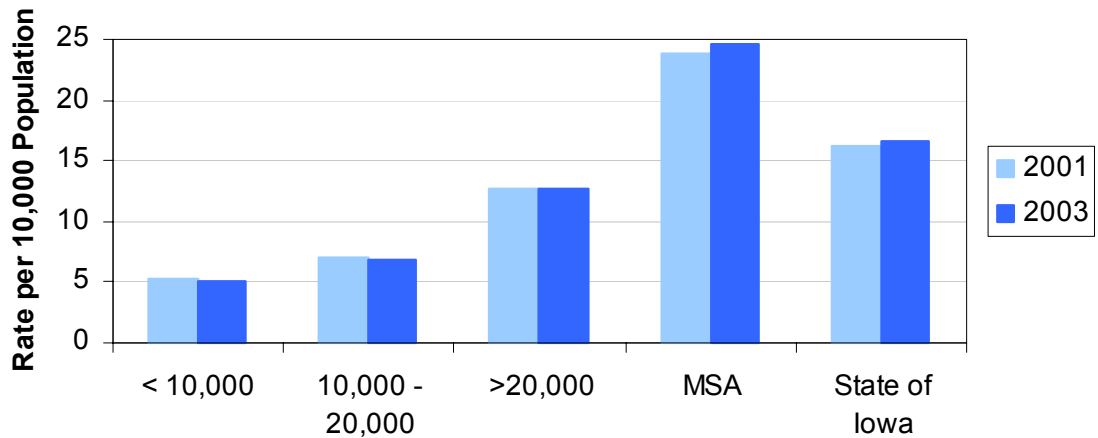
<sup>1</sup>Rates per 10,000 population<sup>2</sup>Rank among 99 Iowa counties

Source: Office of Statewide Clinical Education Programs, UI Carver College of Medicine

## Total Physicians Practicing

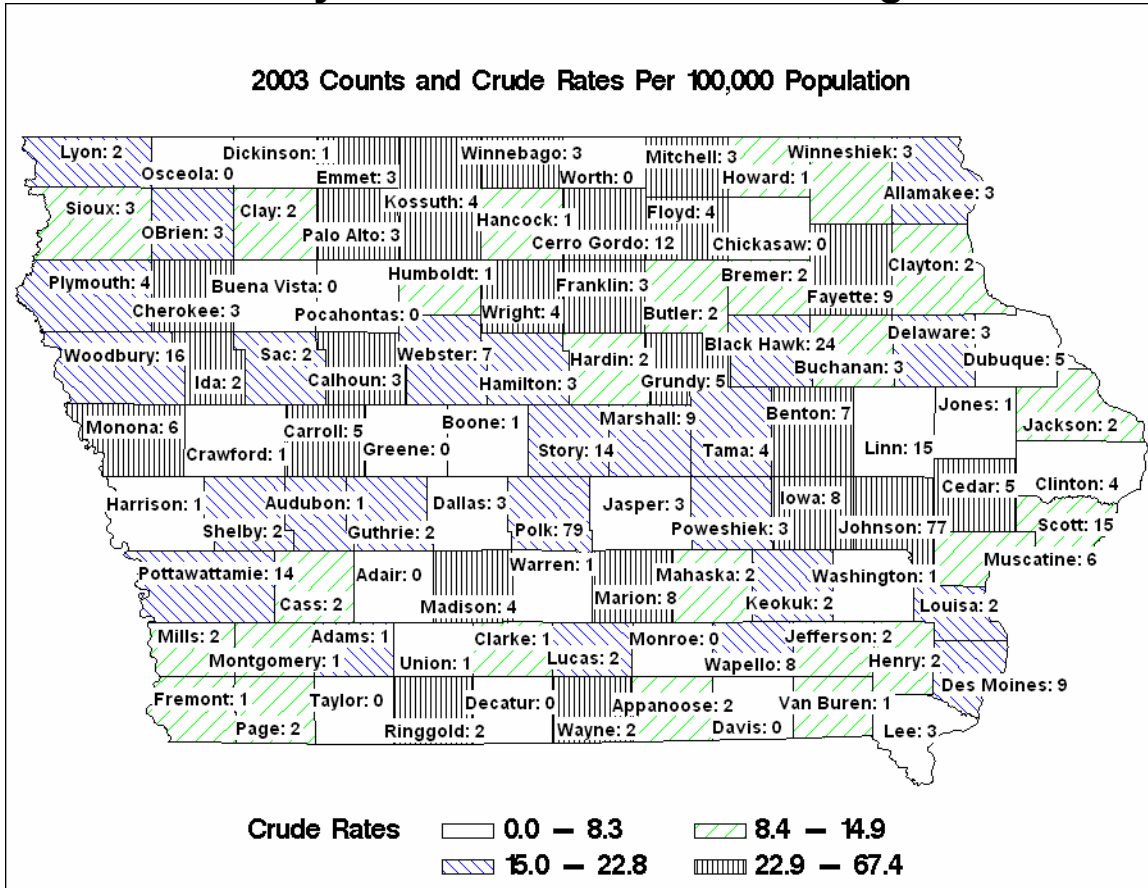


## Crude Rates, 2001 and 2003

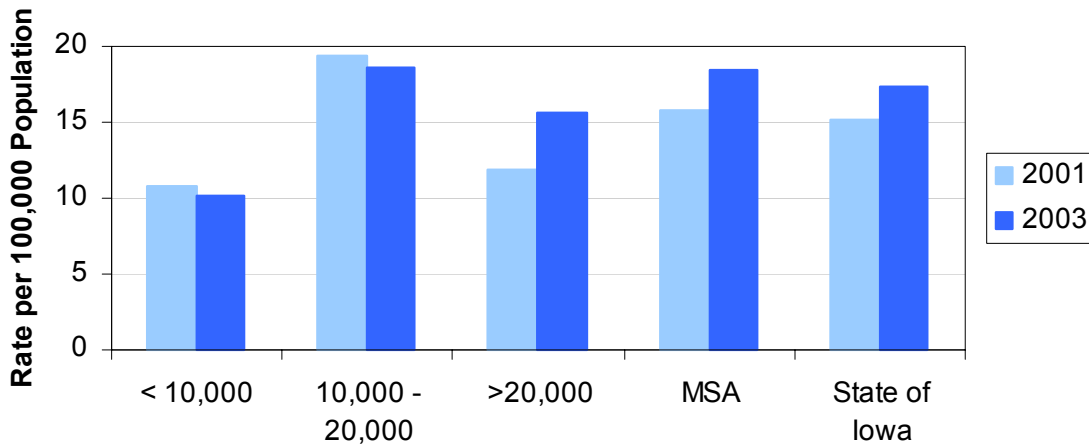


Distribution of Counties by Average Population (1992-2000)

## Physician Assistants Practicing



### Crude Rates, 2001 and 2003

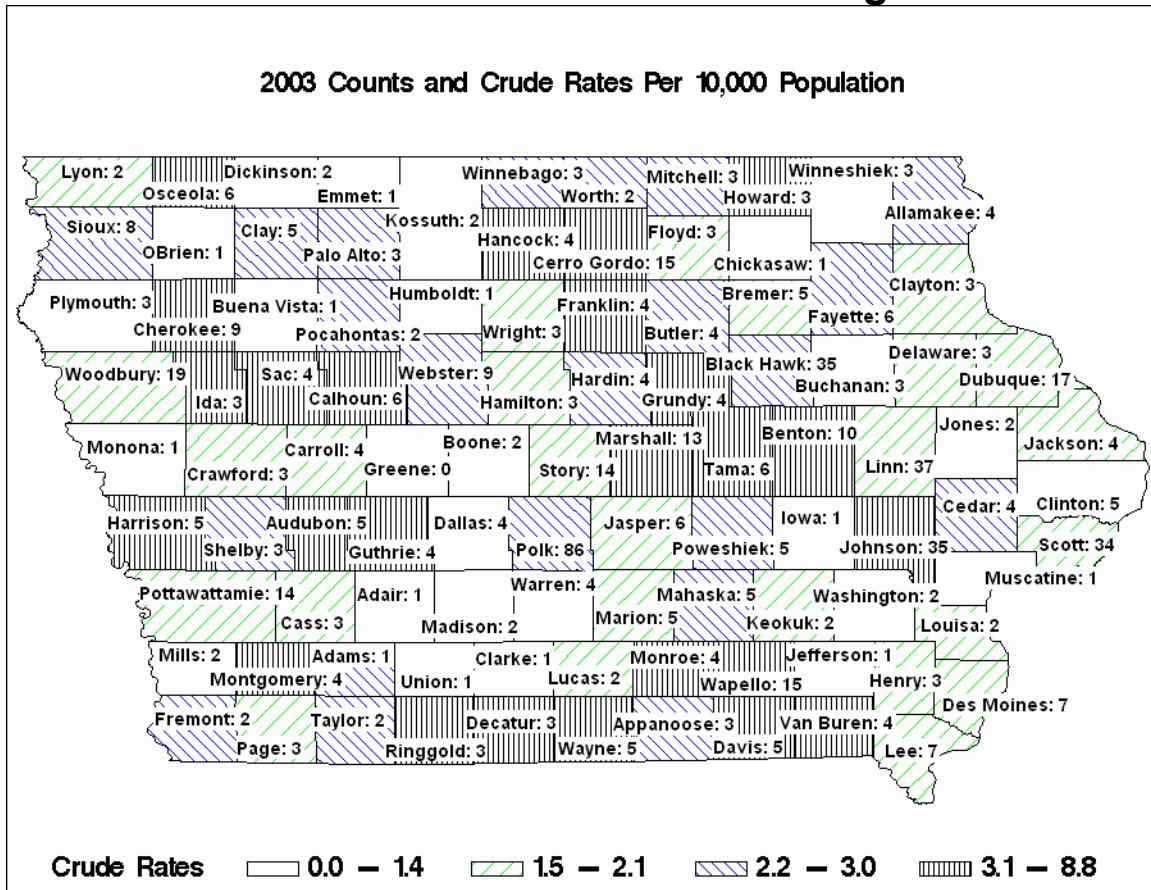


Distribution of Counties by Average Population (1992-2000)

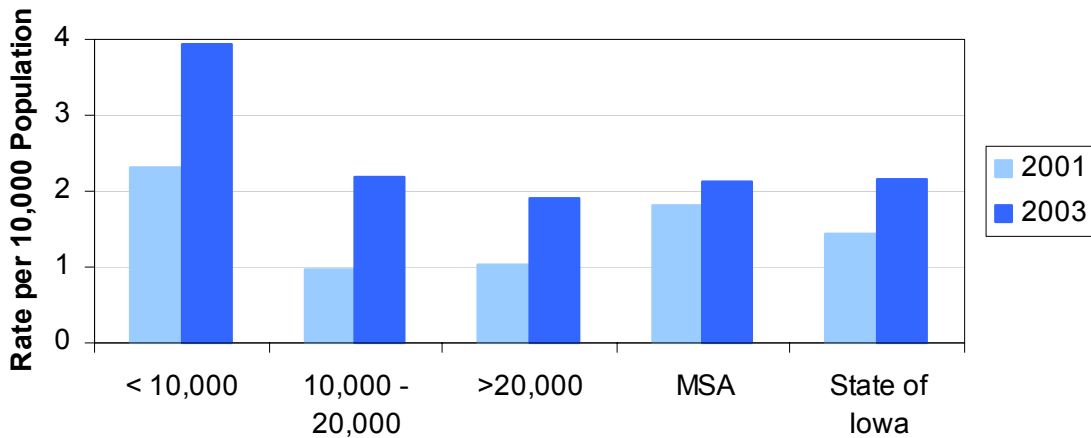
Source: Office of Statewide Clinical Education Programs, UI Carver College of Medicine



## Nurse Practitioners Practicing



### Crude Rates, 2001 and 2003



Distribution of Counties by Average Population (1992-2000)

Source: Office of Statewide Clinical Education Programs, UI Carver College of Medicine

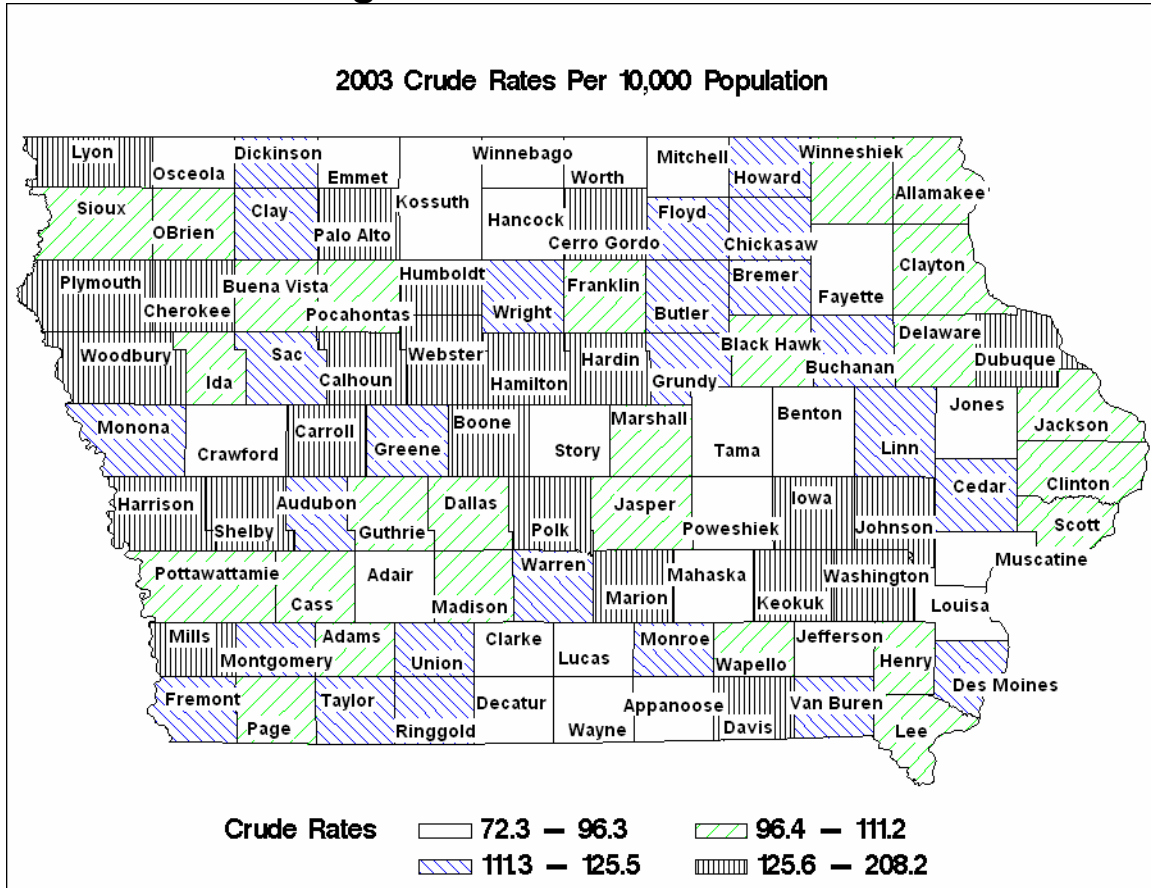
## Registered Nurses Licensed - 2003

	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with Average Population < 10,000	Adair	59	73.9 ( 96 )	Lucas	81	85.8 ( 89 )
	Adams	48	109.5 ( 54 )	Monroe	93	118.7 ( 34 )
	Audubon	77	115.8 ( 42 )	Osceola	62	90.9 ( 83 )
	Clarke	78	86.1 ( 87 )	Pocahontas	88	105.6 ( 59 )
	Davis	127	147.8 ( 05 )	Ringgold	65	122.7 ( 28 )
	Decatur	76	88.1 ( 85 )	Taylor	78	113.0 ( 46 )
	Fremont	88	113.6 ( 45 )	Van Buren	90	115.4 ( 43 )
	Howard	110	112.2 ( 48 )	Wayne	56	84.2 ( 90 )
	Ida	80	104.5 ( 61 )	Worth	72	92.7 ( 80 )
				<b>Total</b>	1,428	104.0
Counties with Average Population 10,000 to 20,000	Allamakee	151	103.5 ( 63 )	Humboldt	140	137.8 ( 12 )
	Appanoose	115	85.8 ( 88 )	Iowa	212	134.1 ( 17 )
	Butler	176	116.9 ( 39 )	Jefferson	117	73.4 ( 97 )
	Calhoun	183	169.2 ( 02 )	Keokuk	176	154.1 ( 03 )
	Cass	146	102.6 ( 66 )	Kossuth	139	83.4 ( 91 )
	Cedar	216	117.7 ( 36 )	Louisa	100	81.7 ( 92 )
	Cherokee	180	141.0 ( 09 )	Lyon	156	133.3 ( 18 )
	Chickasaw	145	112.5 ( 47 )	Madison	151	104.1 ( 62 )
	Clay	200	117.2 ( 38 )	Mills	190	129.1 ( 22 )
	Clayton	182	99.1 ( 69 )	Mitchell	101	94.5 ( 78 )
	Crawford	123	72.5 ( 98 )	Monona	112	114.0 ( 44 )
	Delaware	177	96.6 ( 74 )	Montgomery	136	118.9 ( 33 )
	Dickinson	199	120.4 ( 32 )	O'Brien	156	105.1 ( 60 )
	Emmet	99	92.3 ( 82 )	Page	170	102.8 ( 65 )
	Floyd	208	125.5 ( 25 )	Palo Alto	133	134.5 ( 15 )
	Franklin	107	99.9 ( 68 )	Poweshiek	165	87.3 ( 86 )
	Greene	127	125.1 ( 26 )	Sac	135	121.6 ( 30 )
	Grundy	146	117.5 ( 37 )	Shelby	174	134.1 ( 16 )
	Guthrie	124	109.6 ( 52 )	Tama	162	90.3 ( 84 )
	Hamilton	210	129.4 ( 21 )	Union	146	120.5 ( 31 )
Hancock	114	96.3 ( 76 )	Winnebago	109	94.1 ( 79 )	
Hardin	253	137.6 ( 14 )	Wright	171	122.3 ( 29 )	
Harrison	220	141.2 ( 08 )	<b>Total</b>	7,052	112.2	
Counties with Average Population > 20,000	Benton	241	92.4 ( 81 )	Jones	161	78.8 ( 94 )
	Boone	335	128.0 ( 23 )	Lee	363	98.4 ( 70 )
	Bremer	291	125.0 ( 27 )	Mahaska	172	77.4 ( 95 )
	Buchanan	242	115.9 ( 41 )	Marion	435	133.1 ( 19 )
	Buena Vista	198	97.2 ( 73 )	Marshall	428	108.4 ( 55 )
	Carroll	277	131.2 ( 20 )	Muscatine	304	72.3 ( 99 )
	Cerro Gordo	631	139.2 ( 10 )	Plymouth	342	138.9 ( 11 )
	Clinton	529	106.5 ( 58 )	Sioux	340	106.8 ( 57 )
	Des Moines	464	111.9 ( 49 )	Story	773	95.8 ( 77 )
	Fayette	173	79.7 ( 93 )	Wapello	392	109.5 ( 53 )
	Henry	208	103.4 ( 64 )	Washington	318	150.7 ( 04 )
	Jackson	197	97.5 ( 72 )	Webster	580	145.7 ( 06 )
	Jasper	361	96.6 ( 75 )	Winneshiek	214	99.9 ( 67 )
				<b>Total</b>	8,969	109.0
MSA Counties	Black Hawk	1,245	97.7 ( 71 )	Polk	4,919	127.5 ( 24 )
	Dallas	476	107.6 ( 56 )	Pottawattamie	980	111.2 ( 50 )
	Dubuque	1,299	145.3 ( 07 )	Scott	1,765	110.7 ( 51 )
	Johnson	2,380	208.2 ( 01 )	Warren	482	116.1 ( 40 )
	Linn	2,308	118.4 ( 35 )	Woodbury	1,423	137.7 ( 13 )
				<b>Total</b>	17,277	128.1
<b>State Total</b>		34,726	118.2			

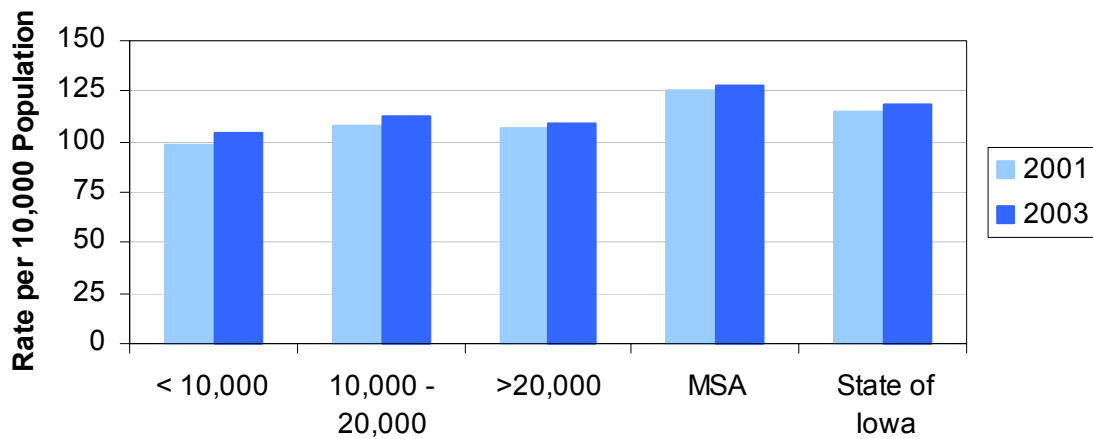
<sup>1</sup>Rates per 10,000 population<sup>2</sup>Rank among 99 Iowa counties

Source: Board of Nursing, Iowa Department of Public Health

## Registered Nurses Licensed



### Crude Rates, 2001 and 2003



**Distribution of Counties by Average Population (1992-2000)**

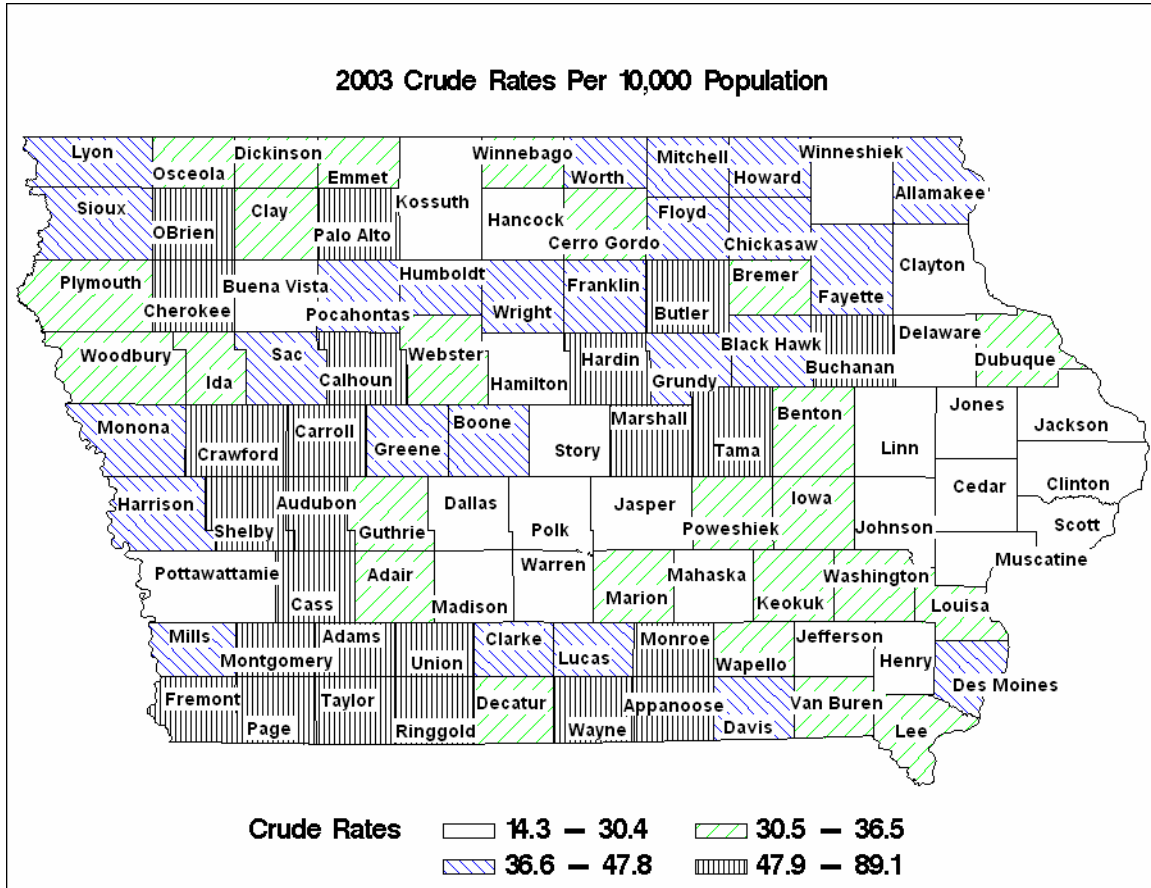
## Licensed Practical Nurses - 2003

	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with Average Population < 10,000	Adair	25	31.3 ( 73 )	Lucas	42	44.5 ( 28 )
	Adams	33	75.3 ( 05 )	Monroe	51	65.1 ( 10 )
	Audubon	52	78.2 ( 04 )	Osceola	22	32.3 ( 66 )
	Clarke	37	40.8 ( 34 )	Pocahontas	39	46.8 ( 27 )
	Davis	41	47.7 ( 26 )	Ringgold	29	54.7 ( 18 )
	Decatur	29	33.6 ( 62 )	Taylor	45	65.2 ( 09 )
	Fremont	69	89.1 ( 01 )	Van Buren	25	32.1 ( 69 )
	Howard	40	40.8 ( 36 )	Wayne	54	81.2 ( 02 )
	Ida	27	35.3 ( 55 )	Worth	31	39.9 ( 41 )
				<b>Total</b>	691	50.3
Counties with Average Population 10,000 to 20,000	Allamakee	60	41.1 ( 33 )	Humboldt	39	38.4 ( 46 )
	Appanoose	94	70.1 ( 06 )	Iowa	49	31.0 ( 74 )
	Butler	100	66.4 ( 08 )	Jefferson	37	23.2 ( 88 )
	Calhoun	53	49.0 ( 22 )	Keokuk	41	35.9 ( 52 )
	Cass	80	56.2 ( 17 )	Kossuth	45	27.0 ( 81 )
	Cedar	32	17.4 ( 96 )	Louisa	42	34.3 ( 57 )
	Cherokee	74	58.0 ( 16 )	Lyon	49	41.9 ( 31 )
	Chickasaw	52	40.3 ( 38 )	Madison	43	29.7 ( 76 )
	Clay	62	36.3 ( 51 )	Mills	55	37.4 ( 48 )
	Clayton	53	28.8 ( 78 )	Mitchell	47	44.0 ( 29 )
	Crawford	102	60.1 ( 14 )	Monona	47	47.8 ( 25 )
	Delaware	46	25.1 ( 83 )	Montgomery	70	61.2 ( 13 )
	Dickinson	59	35.7 ( 53 )	O'Brien	81	54.6 ( 20 )
	Emmet	37	34.5 ( 56 )	Page	131	79.2 ( 03 )
	Floyd	72	43.4 ( 30 )	Palo Alto	48	48.6 ( 23 )
	Franklin	43	40.1 ( 39 )	Poweshiek	60	31.7 ( 71 )
	Greene	39	38.4 ( 45 )	Sac	46	41.4 ( 32 )
	Grundy	49	39.4 ( 42 )	Shelby	71	54.7 ( 19 )
	Guthrie	40	35.3 ( 54 )	Tama	93	51.8 ( 21 )
	Hamilton	40	24.6 ( 84 )	Union	82	67.7 ( 07 )
Hancock	36	30.4 ( 75 )	Winnebago	37	32.0 ( 70 )	
Hardin	88	47.9 ( 24 )	Wright	53	37.9 ( 47 )	
Harrison	61	39.1 ( 43 )	<b>Total</b>	2,638	42.0	
Counties with Average Population > 20,000	Benton	85	32.6 ( 64 )	Jones	52	25.5 ( 82 )
	Boone	105	40.1 ( 40 )	Lee	125	33.9 ( 61 )
	Bremer	85	36.5 ( 50 )	Mahaska	65	29.3 ( 77 )
	Buchanan	123	58.9 ( 15 )	Marion	111	34.0 ( 59 )
	Buena Vista	50	24.6 ( 85 )	Marshall	250	63.3 ( 11 )
	Carroll	133	63.0 ( 12 )	Muscatine	88	20.9 ( 92 )
	Cerro Gordo	146	32.2 ( 67 )	Plymouth	79	32.1 ( 68 )
	Clinton	116	23.4 ( 86 )	Sioux	130	40.8 ( 35 )
	Des Moines	152	36.7 ( 49 )	Story	174	21.6 ( 91 )
	Fayette	84	38.7 ( 44 )	Wapello	113	31.6 ( 72 )
	Henry	47	23.4 ( 87 )	Washington	72	34.1 ( 58 )
	Jackson	40	19.8 ( 93 )	Webster	129	32.4 ( 65 )
	Jasper	70	18.7 ( 94 )	Winneshiek	59	27.5 ( 79 )
				<b>Total</b>	2,683	32.6
MSA Counties	Black Hawk	516	40.5 ( 37 )	Polk	659	17.1 ( 97 )
	Dallas	80	18.1 ( 95 )	Pottawattamie	239	27.1 ( 80 )
	Dubuque	303	33.9 ( 60 )	Scott	272	17.1 ( 98 )
	Johnson	164	14.3 ( 99 )	Warren	96	23.1 ( 89 )
	Linn	443	22.7 ( 90 )	Woodbury	341	33.0 ( 63 )
				<b>Total</b>	3,113	23.1
<b>State Totals</b>		9,125	31.1			

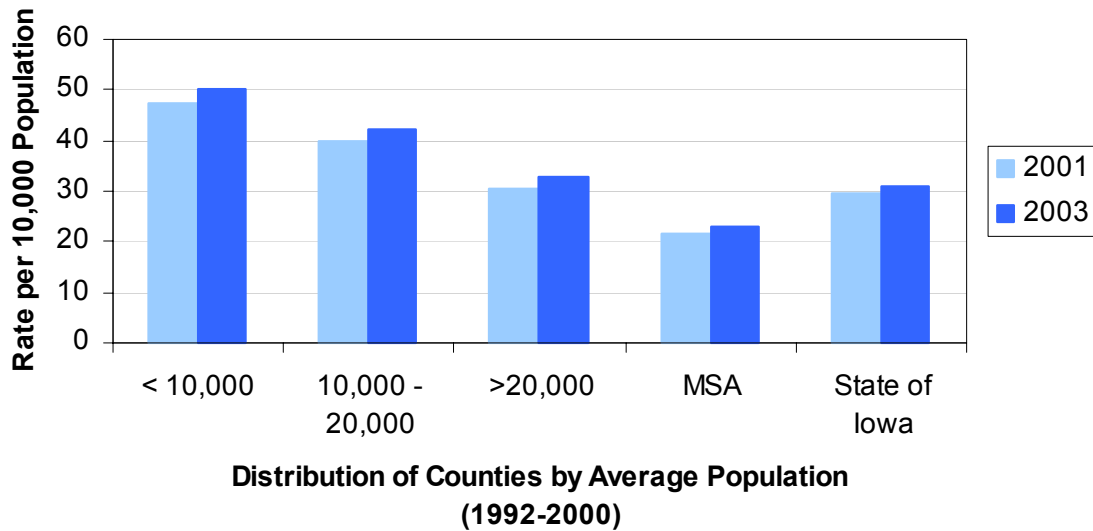
<sup>1</sup>Rates per 10,000 population<sup>2</sup>Rank among 99 Iowa counties

Source: Board of Nursing, Iowa Department of Public Health

## Licensed Practical Nurses



### Crude Rates, 2001 and 2003



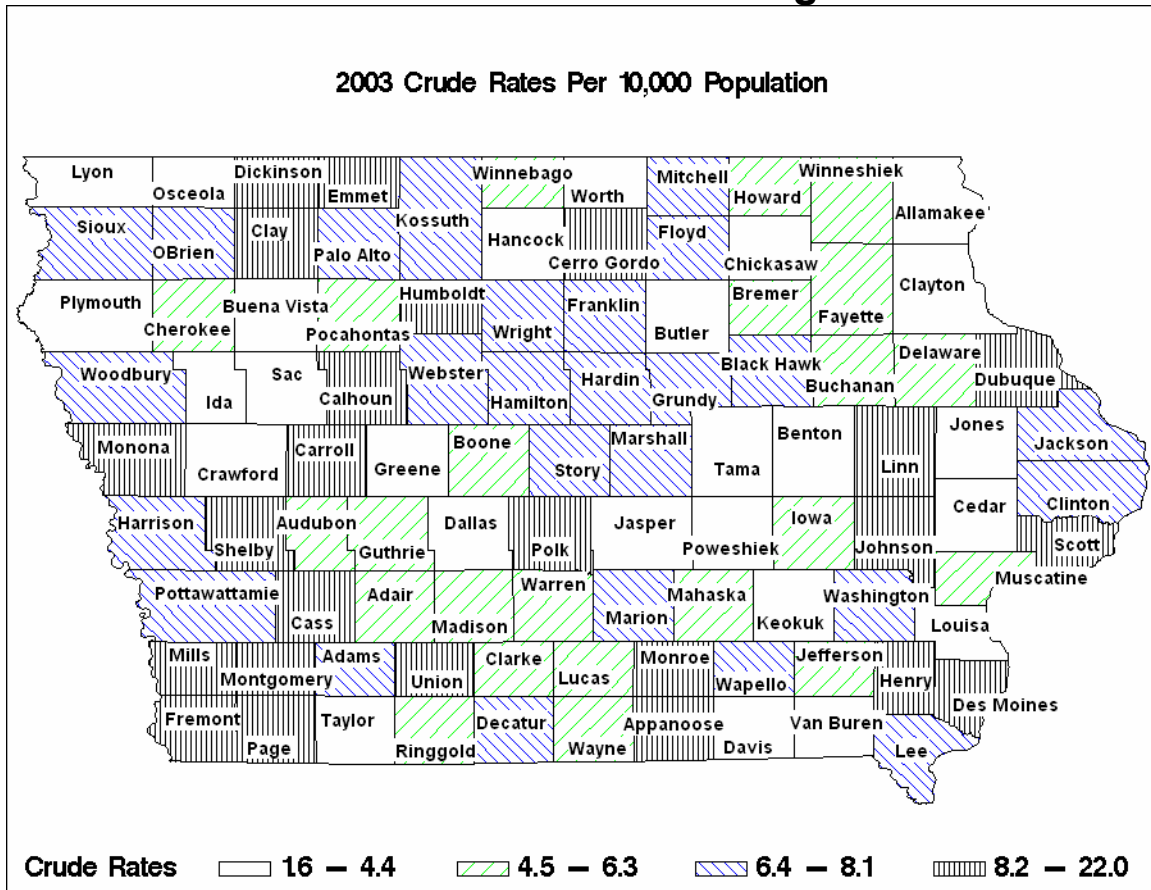
## Pharmacists Practicing - 2003

	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with Average Population < 10,000	Adair	4	5.0 ( 67 )	Lucas	5	5.3 ( 65 )
	Adams	3	6.8 ( 44 )	Monroe	7	8.9 ( 18 )
	Audubon	3	4.5 ( 73 )	Osceola	3	4.4 ( 75 )
	Clarke	5	5.5 ( 60 )	Pocahontas	4	4.8 ( 69 )
	Davis	3	3.5 ( 90 )	Ringgold	3	5.7 ( 58 )
	Decatur	7	8.1 ( 26 )	Taylor	3	4.3 ( 77 )
	Fremont	8	10.3 ( 05 )	Van Buren	2	2.6 ( 97 )
	Howard	5	5.1 ( 66 )	Wayne	4	6.0 ( 57 )
	Ida	3	3.9 ( 82 )	Worth	2	2.6 ( 96 )
				<b>Total</b>	74	5.4
Counties with Average Population 10,000 to 20,000	Allamakee	6	4.1 ( 80 )	Humboldt	9	8.9 ( 19 )
	Appanoose	12	9.0 ( 16 )	Iowa	10	6.3 ( 51 )
	Butler	4	2.7 ( 95 )	Jefferson	10	6.3 ( 52 )
	Calhoun	10	9.2 ( 14 )	Keokuk	4	3.5 ( 89 )
	Cass	15	10.5 ( 04 )	Kossuth	12	7.2 ( 41 )
	Cedar	6	3.3 ( 94 )	Louisa	2	1.6 ( 99 )
	Cherokee	8	6.3 ( 53 )	Lyon	4	3.4 ( 92 )
	Chickasaw	5	3.9 ( 84 )	Madison	9	6.2 ( 54 )
	Clay	15	8.8 ( 20 )	Mills	12	8.2 ( 24 )
	Clayton	8	4.4 ( 76 )	Mitchell	7	6.5 ( 46 )
	Crawford	7	4.1 ( 79 )	Monona	10	10.2 ( 07 )
	Delaware	9	4.9 ( 68 )	Montgomery	11	9.6 ( 11 )
	Dickinson	16	9.7 ( 10 )	O'Brien	11	7.4 ( 36 )
	Emmet	10	9.3 ( 13 )	Page	17	10.3 ( 06 )
	Floyd	12	7.2 ( 40 )	Palo Alto	7	7.1 ( 43 )
	Franklin	7	6.5 ( 47 )	Poweshiek	8	4.2 ( 78 )
	Greene	4	3.9 ( 81 )	Sac	4	3.6 ( 88 )
	Grundy	9	7.2 ( 39 )	Shelby	13	10.0 ( 08 )
	Guthrie	6	5.3 ( 64 )	Tama	4	2.2 ( 98 )
	Hamilton	11	6.8 ( 45 )	Union	10	8.3 ( 22 )
Hancock	4	3.4 ( 93 )	Winnebago	7	6.0 ( 55 )	
Hardin	14	7.6 ( 32 )	Wright	9	6.4 ( 49 )	
Harrison	10	6.4 ( 50 )	<b>Total</b>	398	6.3	
Counties with Average Population > 20,000	Benton	9	3.4 ( 91 )	Jones	8	3.9 ( 83 )
	Boone	14	5.4 ( 63 )	Lee	29	7.9 ( 28 )
	Bremer	14	6.0 ( 56 )	Mahaska	12	5.4 ( 62 )
	Buchanan	10	4.8 ( 70 )	Marion	26	8.0 ( 27 )
	Buena Vista	9	4.4 ( 74 )	Marshall	29	7.3 ( 37 )
	Carroll	19	9.0 ( 15 )	Muscatine	23	5.5 ( 61 )
	Cerro Gordo	57	12.6 ( 03 )	Plymouth	9	3.7 ( 86 )
	Clinton	36	7.3 ( 38 )	Sioux	25	7.9 ( 29 )
	Des Moines	34	8.2 ( 23 )	Story	52	6.4 ( 48 )
	Fayette	12	5.5 ( 59 )	Wapello	28	7.8 ( 31 )
	Henry	18	8.9 ( 17 )	Washington	15	7.1 ( 42 )
	Jackson	15	7.4 ( 35 )	Webster	30	7.5 ( 33 )
	Jasper	14	3.7 ( 85 )	Winneshiek	10	4.7 ( 71 )
				<b>Total</b>	557	6.8
	MSA Counties	Black Hawk	95	7.5 ( 34 )	Polk	485
Dallas		16	3.6 ( 87 )	Pottawattamie	69	7.8 ( 30 )
Dubuque		89	10.0 ( 09 )	Scott	136	8.5 ( 21 )
Johnson		252	22.0 ( 01 )	Warren	19	4.6 ( 72 )
Linn		184	9.4 ( 12 )	Woodbury	84	8.1 ( 25 )
				<b>Total</b>	1,429	10.6
<b>State Totals</b>		2,458	8.4			

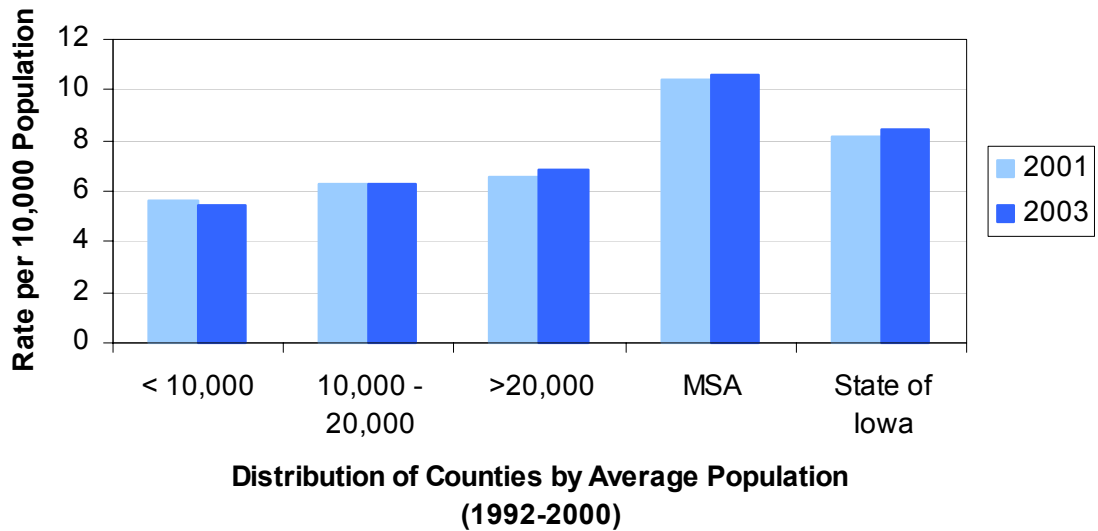
<sup>1</sup>Rates per 10,000 population<sup>2</sup>Rank among 99 Iowa counties

Source: Office of Statewide Clinical Education Programs, UI Carver College of Medicine

# Pharmacists Practicing



## Crude Rates, 2001 and 2003



## Dentists Practicing - 2003

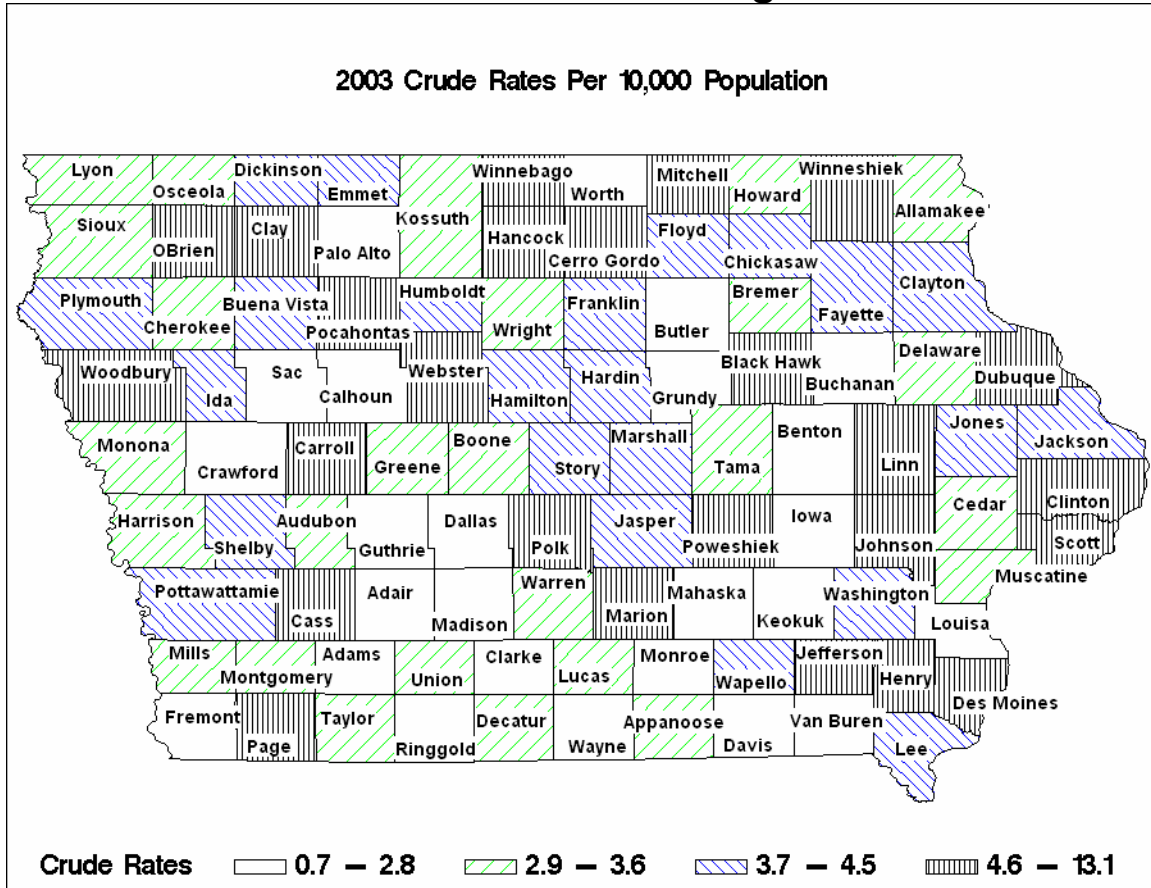
	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with Average Population < 10,000	Adair	2	2.5 ( 79 )	Lucas	3	3.2 ( 64 )
	Adams	1	2.3 ( 84 )	Monroe	2	2.6 ( 77 )
	Audubon	2	3.0 ( 69 )	Osceola	2	2.9 ( 72 )
	Clarke	2	2.2 ( 86 )	Pocahontas	4	4.8 ( 20 )
	Davis	1	1.2 ( 98 )	Ringgold	1	1.9 ( 91 )
	Decatur	3	3.5 ( 53 )	Taylor	2	2.9 ( 73 )
	Fremont	1	1.3 ( 95 )	Van Buren	1	1.3 ( 97 )
	Howard	3	3.1 ( 66 )	Wayne	1	1.5 ( 94 )
	Ida	3	3.9 ( 39 )	Worth	1	1.3 ( 96 )
				<b>Total</b>	35	2.5
Counties with Average Population 10,000 to 20,000	Allamakee	5	3.4 ( 56 )	Humboldt	4	3.9 ( 37 )
	Appanoose	4	3.0 ( 70 )	Iowa	4	2.5 ( 78 )
	Butler	1	0.7 ( 99 )	Jefferson	8	5.0 ( 16 )
	Calhoun	3	2.8 ( 75 )	Keokuk	2	1.8 ( 93 )
	Cass	7	4.9 ( 18 )	Kossuth	6	3.6 ( 50 )
	Cedar	6	3.3 ( 62 )	Louisa	3	2.4 ( 80 )
	Cherokee	4	3.1 ( 65 )	Lyon	4	3.4 ( 57 )
	Chickasaw	5	3.9 ( 41 )	Madison	3	2.1 ( 87 )
	Clay	12	7.0 ( 04 )	Mills	5	3.4 ( 58 )
	Clayton	7	3.8 ( 43 )	Mitchell	5	4.7 ( 25 )
	Crawford	4	2.4 ( 83 )	Monona	3	3.1 ( 68 )
	Delaware	6	3.3 ( 61 )	Montgomery	4	3.5 ( 52 )
	Dickinson	7	4.2 ( 30 )	O'Brien	7	4.7 ( 24 )
	Emmet	4	3.7 ( 48 )	Page	13	7.9 ( 03 )
	Floyd	7	4.2 ( 31 )	Palo Alto	2	2.0 ( 89 )
	Franklin	4	3.7 ( 47 )	Poweshiek	9	4.8 ( 21 )
	Greene	3	3.0 ( 71 )	Sac	3	2.7 ( 76 )
	Grundy	3	2.4 ( 81 )	Shelby	5	3.9 ( 42 )
	Guthrie	2	1.8 ( 92 )	Tama	6	3.3 ( 59 )
	Hamilton	7	4.3 ( 29 )	Union	4	3.3 ( 60 )
Hancock	6	5.1 ( 14 )	Winnebago	10	8.6 ( 02 )	
Hardin	7	3.8 ( 44 )	Wright	4	2.9 ( 74 )	
Harrison	5	3.2 ( 63 )	<b>Total</b>	233	3.7	
Counties with Average Population > 20,000	Benton	5	1.9 ( 90 )	Jones	8	3.9 ( 40 )
	Boone	8	3.1 ( 67 )	Lee	15	4.1 ( 33 )
	Bremer	8	3.4 ( 55 )	Mahaska	5	2.3 ( 85 )
	Buchanan	5	2.4 ( 82 )	Marion	17	5.2 ( 12 )
	Buena Vista	8	3.9 ( 38 )	Marshall	16	4.1 ( 35 )
	Carroll	10	4.7 ( 23 )	Muscatine	15	3.6 ( 51 )
	Cerro Gordo	28	6.2 ( 06 )	Plymouth	10	4.1 ( 34 )
	Clinton	26	5.2 ( 11 )	Sioux	11	3.5 ( 54 )
	Des Moines	21	5.1 ( 15 )	Story	36	4.5 ( 28 )
	Fayette	9	4.1 ( 32 )	Wapello	16	4.5 ( 27 )
	Henry	10	5.0 ( 17 )	Washington	8	3.8 ( 45 )
	Jackson	8	4.0 ( 36 )	Webster	22	5.5 ( 10 )
	Jasper	14	3.7 ( 46 )	Winneshiek	11	5.1 ( 13 )
				<b>Total</b>	350	4.3
MSA Counties	Black Hawk	62	4.9 ( 19 )	Polk	221	5.7 ( 09 )
	Dallas	9	2.0 ( 88 )	Pottawattamie	40	4.5 ( 26 )
	Dubuque	52	5.8 ( 08 )	Scott	100	6.3 ( 05 )
	Johnson	150	13.1 ( 01 )	Warren	15	3.6 ( 49 )
	Linn	114	5.8 ( 07 )	Woodbury	49	4.7 ( 22 )
				<b>Total</b>	812	6.0
<b>State Totals</b>		1,430	4.9			

<sup>1</sup>Rates per 10,000 population<sup>2</sup>Rank among 99 Iowa counties

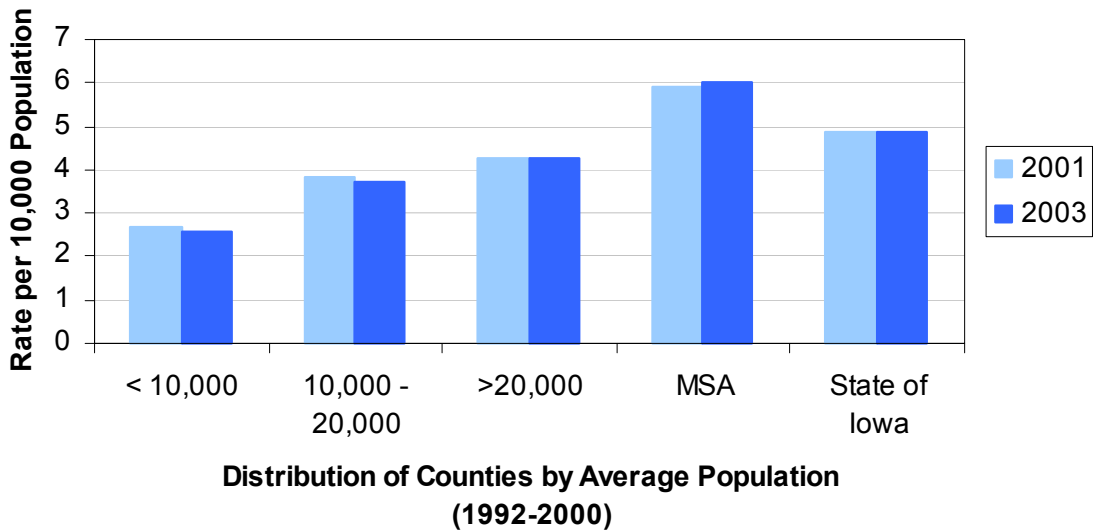
Source: Office of Statewide Clinical Education Programs, UI Carver College of Medicine



## Dentists Practicing



### Crude Rates, 2001 and 2003



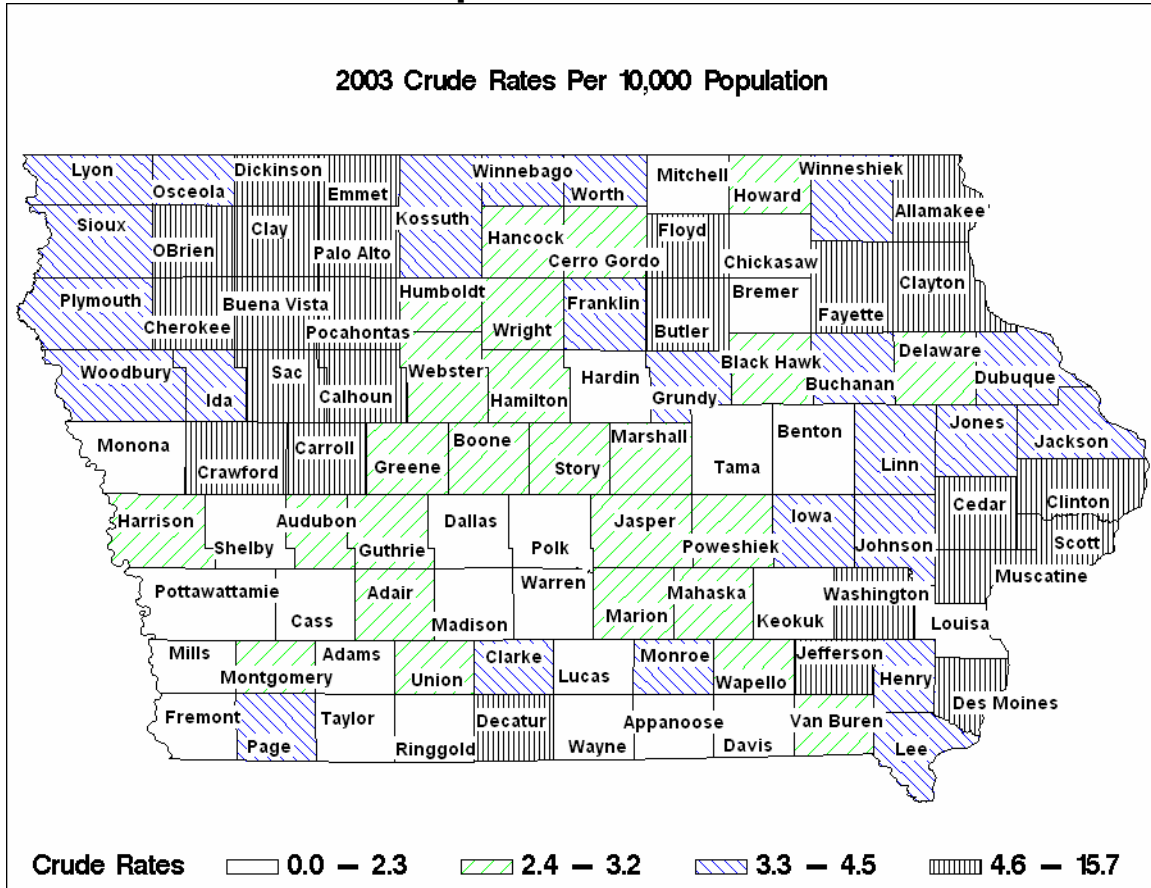
## Chiropractors Licensed - 2003

	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with Average Population < 10,000	Adair	2	2.5 ( 71 )	Lucas	2	2.1 ( 83 )
	Adams	1	2.3 ( 77 )	Monroe	3	3.8 ( 39 )
	Audubon	2	3.0 ( 56 )	Osceola	3	4.4 ( 30 )
	Clarke	4	4.4 ( 27 )	Pocahontas	4	4.8 ( 21 )
	Davis	2	2.3 ( 75 )	Ringgold	1	1.9 ( 89 )
	Decatur	4	4.6 ( 23 )	Taylor	0	0.0 ( 99 )
	Fremont	1	1.3 ( 98 )	Van Buren	2	2.6 ( 69 )
	Howard	3	3.1 ( 54 )	Wayne	1	1.5 ( 96 )
	Ida	3	3.9 ( 35 )	Worth	3	3.9 ( 37 )
				<b>Total</b>	41	3.0
Counties with Average Population 10,000 to 20,000	Allamakee	8	5.5 ( 15 )	Humboldt	3	3.0 ( 58 )
	Appanoose	3	2.2 ( 78 )	Iowa	6	3.8 ( 40 )
	Butler	9	6.0 ( 11 )	Jefferson	12	7.5 ( 04 )
	Calhoun	5	4.6 ( 24 )	Keokuk	2	1.8 ( 91 )
	Cass	3	2.1 ( 84 )	Kossuth	6	3.6 ( 44 )
	Cedar	11	6.0 ( 09 )	Louisa	2	1.6 ( 94 )
	Cherokee	7	5.5 ( 14 )	Lyon	5	4.3 ( 31 )
	Chickasaw	3	2.3 ( 76 )	Madison	3	2.1 ( 85 )
	Clay	10	5.9 ( 12 )	Mills	2	1.4 ( 97 )
	Clayton	11	6.0 ( 10 )	Mitchell	2	1.9 ( 90 )
	Crawford	8	4.7 ( 22 )	Monona	2	2.0 ( 86 )
	Delaware	5	2.7 ( 62 )	Montgomery	3	2.6 ( 67 )
	Dickinson	17	10.3 ( 02 )	O'Brien	9	6.1 ( 08 )
	Emmet	8	7.5 ( 05 )	Page	6	3.6 ( 43 )
	Floyd	11	6.6 ( 07 )	Palo Alto	9	9.1 ( 03 )
	Franklin	4	3.7 ( 42 )	Poweshiek	6	3.2 ( 51 )
	Greene	3	3.0 ( 57 )	Sac	6	5.4 ( 16 )
	Grundy	5	4.0 ( 33 )	Shelby	2	1.5 ( 95 )
	Guthrie	3	2.7 ( 66 )	Tama	4	2.2 ( 79 )
	Hamilton	4	2.5 ( 73 )	Union	3	2.5 ( 72 )
Hancock	3	2.5 ( 70 )	Winnebago	4	3.5 ( 46 )	
Hardin	4	2.2 ( 80 )	Wright	4	2.9 ( 60 )	
Harrison	5	3.2 ( 50 )	<b>Total</b>	251	4.0	
Counties with Average Population > 20,000	Benton	5	1.9 ( 88 )	Jones	9	4.4 ( 28 )
	Boone	7	2.7 ( 65 )	Lee	14	3.8 ( 41 )
	Bremer	4	1.7 ( 92 )	Mahaska	6	2.7 ( 63 )
	Buchanan	8	3.8 ( 38 )	Marion	10	3.1 ( 53 )
	Buena Vista	10	4.9 ( 20 )	Marshall	11	2.8 ( 61 )
	Carroll	12	5.7 ( 13 )	Muscatine	21	5.0 ( 19 )
	Cerro Gordo	13	2.9 ( 59 )	Plymouth	11	4.5 ( 26 )
	Clinton	33	6.6 ( 06 )	Sioux	14	4.4 ( 29 )
	Des Moines	22	5.3 ( 17 )	Story	19	2.4 ( 74 )
	Fayette	10	4.6 ( 25 )	Wapello	11	3.1 ( 52 )
	Henry	7	3.5 ( 45 )	Washington	11	5.2 ( 18 )
	Jackson	8	4.0 ( 34 )	Webster	12	3.0 ( 55 )
	Jasper	10	2.7 ( 64 )	Winneshiek	7	3.3 ( 49 )
				<b>Total</b>	305	3.7
MSA Counties	Black Hawk	33	2.6 ( 68 )	Polk	83	2.2 ( 82 )
	Dallas	9	2.0 ( 87 )	Pottawattamie	15	1.7 ( 93 )
	Dubuque	30	3.4 ( 47 )	Scott	251	15.7 ( 01 )
	Johnson	38	3.3 ( 48 )	Warren	9	2.2 ( 81 )
	Linn	79	4.1 ( 32 )	Woodbury	40	3.9 ( 36 )
				<b>Total</b>	587	4.4
<b>State Totals</b>		1,184	4.0			

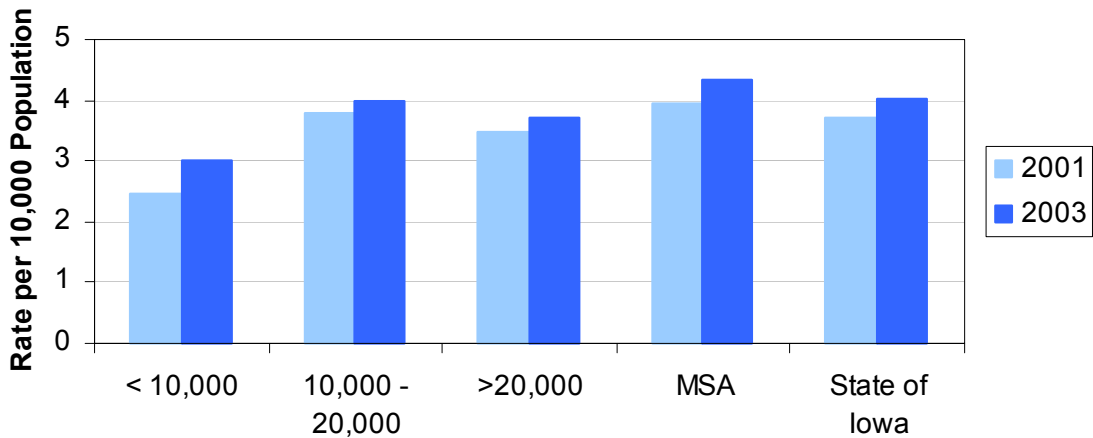
<sup>1</sup>Rates per 10,000 population<sup>2</sup>Rank among 99 Iowa counties

Source: Iowa Department of Public Health

# Chiropractors Licensed



## Crude Rates, 2001 and 2003



Distribution of Counties by Average Population (1992-2000)

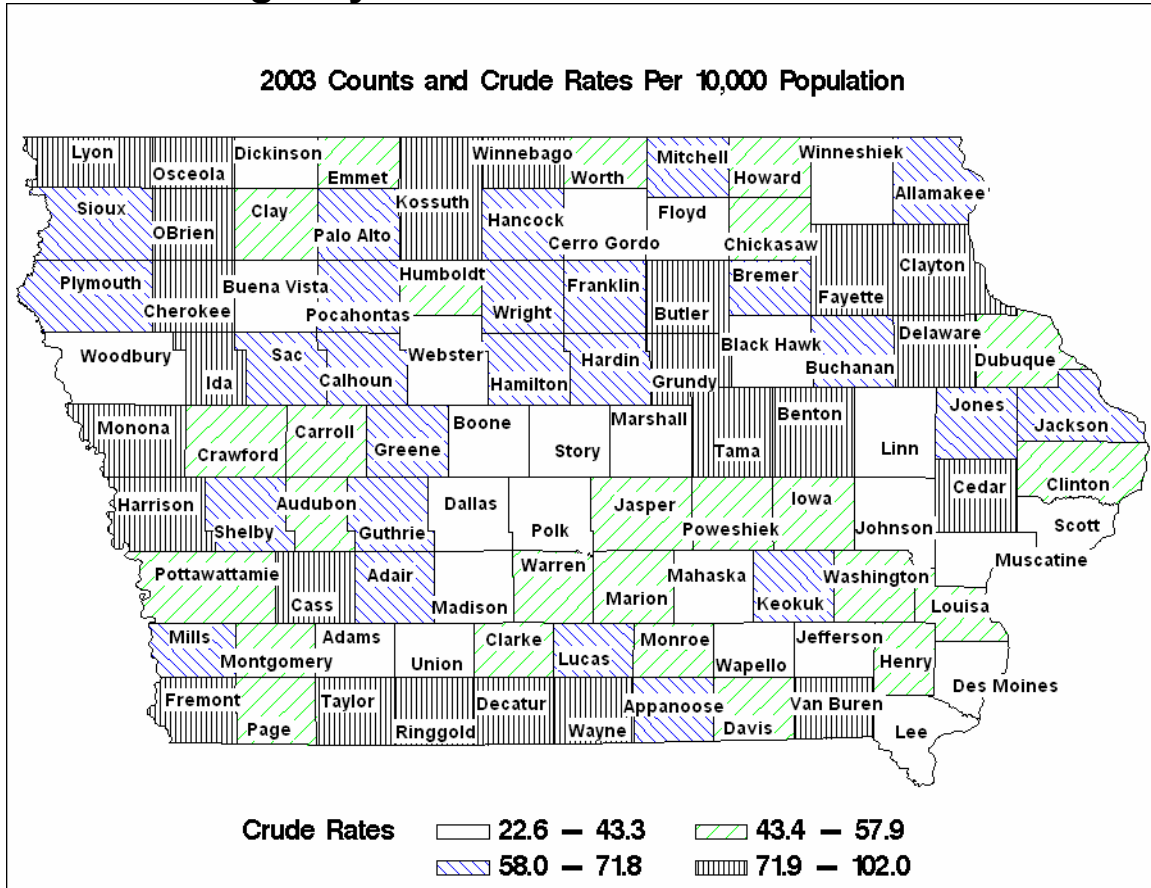
## Emergency Care Providers - Total Licensed<sup>3</sup> - 2003

	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with Average Population < 10,000	Adair	55	68.9 ( 33 )	Lucas	61	64.6 ( 41 )
	Adams	19	43.3 ( 75 )	Monroe	43	54.9 ( 57 )
	Audubon	37	55.7 ( 56 )	Osceola	50	73.3 ( 21 )
	Clarke	43	47.5 ( 68 )	Pocahontas	50	60.0 ( 45 )
	Davis	45	52.4 ( 63 )	Ringgold	51	96.3 ( 02 )
	Decatur	66	76.5 ( 18 )	Taylor	62	89.9 ( 05 )
	Fremont	79	102.0 ( 01 )	Van Buren	69	88.5 ( 07 )
	Howard	44	44.9 ( 74 )	Wayne	55	82.7 ( 12 )
	Ida	68	88.8 ( 06 )	Worth	45	57.9 ( 50 )
				<b>Total</b>	942	68.6
Counties with Average Population 10,000 to 20,000	Allamakee	103	70.6 ( 28 )	Humboldt	55	54.1 ( 59 )
	Appanoose	86	64.2 ( 42 )	Iowa	74	46.8 ( 70 )
	Butler	120	79.7 ( 15 )	Jefferson	36	22.6 ( 99 )
	Calhoun	75	69.3 ( 31 )	Keokuk	80	70.1 ( 29 )
	Cass	104	73.1 ( 24 )	Kossuth	151	90.6 ( 04 )
	Cedar	156	85.0 ( 10 )	Louisa	69	56.3 ( 54 )
	Cherokee	103	80.7 ( 14 )	Lyon	103	88.0 ( 09 )
	Chickasaw	73	56.6 ( 53 )	Madison	62	42.8 ( 77 )
	Clay	84	49.2 ( 66 )	Mills	88	59.8 ( 47 )
	Clayton	149	81.1 ( 13 )	Mitchell	70	65.5 ( 39 )
	Crawford	93	54.8 ( 58 )	Monona	72	73.3 ( 23 )
	Delaware	137	74.8 ( 20 )	Montgomery	59	51.6 ( 65 )
	Dickinson	70	42.4 ( 78 )	O'Brien	138	93.0 ( 03 )
	Emmet	58	54.1 ( 60 )	Page	79	47.8 ( 67 )
	Floyd	68	41.0 ( 81 )	Palo Alto	71	71.8 ( 25 )
	Franklin	64	59.7 ( 48 )	Poweshiek	85	45.0 ( 72 )
	Greene	68	67.0 ( 37 )	Sac	75	67.6 ( 35 )
	Grundy	93	74.9 ( 19 )	Shelby	93	71.7 ( 26 )
	Guthrie	67	59.2 ( 49 )	Tama	140	78.0 ( 17 )
	Hamilton	110	67.8 ( 34 )	Union	48	39.6 ( 83 )
Hancock	82	69.3 ( 32 )	Winnebago	102	88.1 ( 08 )	
Hardin	124	67.4 ( 36 )	Wright	91	65.1 ( 40 )	
Harrison	130	83.4 ( 11 )	<b>Total</b>	4,058	64.6	
Counties with Average Population > 20,000	Benton	206	78.9 ( 16 )	Jones	126	61.7 ( 44 )
	Boone	68	26.0 ( 97 )	Lee	142	38.5 ( 85 )
	Bremer	145	62.3 ( 43 )	Mahaska	75	33.8 ( 93 )
	Buchanan	125	59.8 ( 46 )	Marion	169	51.7 ( 64 )
	Buena Vista	85	41.7 ( 80 )	Marshall	149	37.7 ( 88 )
	Carroll	114	54.0 ( 61 )	Muscatine	178	42.3 ( 79 )
	Cerro Gordo	164	36.2 ( 92 )	Plymouth	163	66.2 ( 38 )
	Clinton	230	46.3 ( 71 )	Sioux	221	69.4 ( 30 )
	Des Moines	159	38.4 ( 87 )	Story	294	36.5 ( 90 )
	Fayette	159	73.3 ( 22 )	Wapello	86	24.0 ( 98 )
	Henry	116	57.6 ( 51 )	Washington	120	56.9 ( 52 )
	Jackson	143	70.8 ( 27 )	Webster	155	38.9 ( 84 )
	Jasper	177	47.4 ( 69 )	Winneshiek	78	36.4 ( 91 )
			<b>Total</b>	3,847	46.8	
MSA Counties	Black Hawk	374	29.4 ( 96 )	Polk	1,159	30.0 ( 95 )
	Dallas	170	38.4 ( 86 )	Pottawattamie	396	44.9 ( 73 )
	Dubuque	469	52.5 ( 62 )	Scott	522	32.7 ( 94 )
	Johnson	422	36.9 ( 89 )	Warren	233	56.1 ( 55 )
	Linn	797	40.9 ( 82 )	Woodbury	443	42.9 ( 76 )
			<b>Total</b>	4,985	37.0	
<b>State Totals</b>		13,832	47.1			

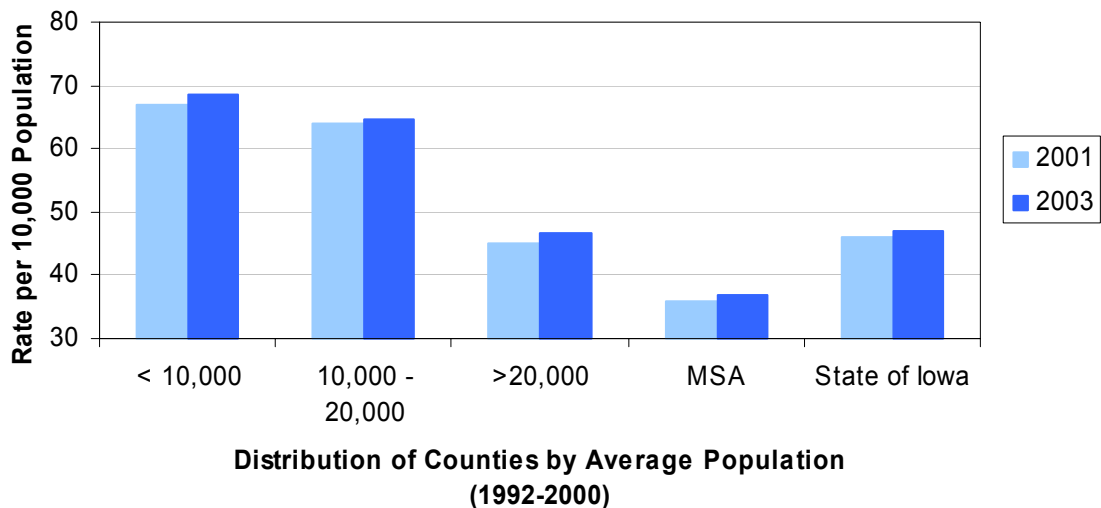
<sup>1</sup>Rates per 10,000 population<sup>2</sup>Rank among 99 Iowa counties<sup>3</sup>Includes First Responders, all types of EMT, and Iowa Law Enforcement Emergency Care Providers

Source: Bureau of Emergency Medical Services, Iowa Department of Public Health

## Emergency Care Providers - Total Licensed



### Crude Rates, 2001 and 2003



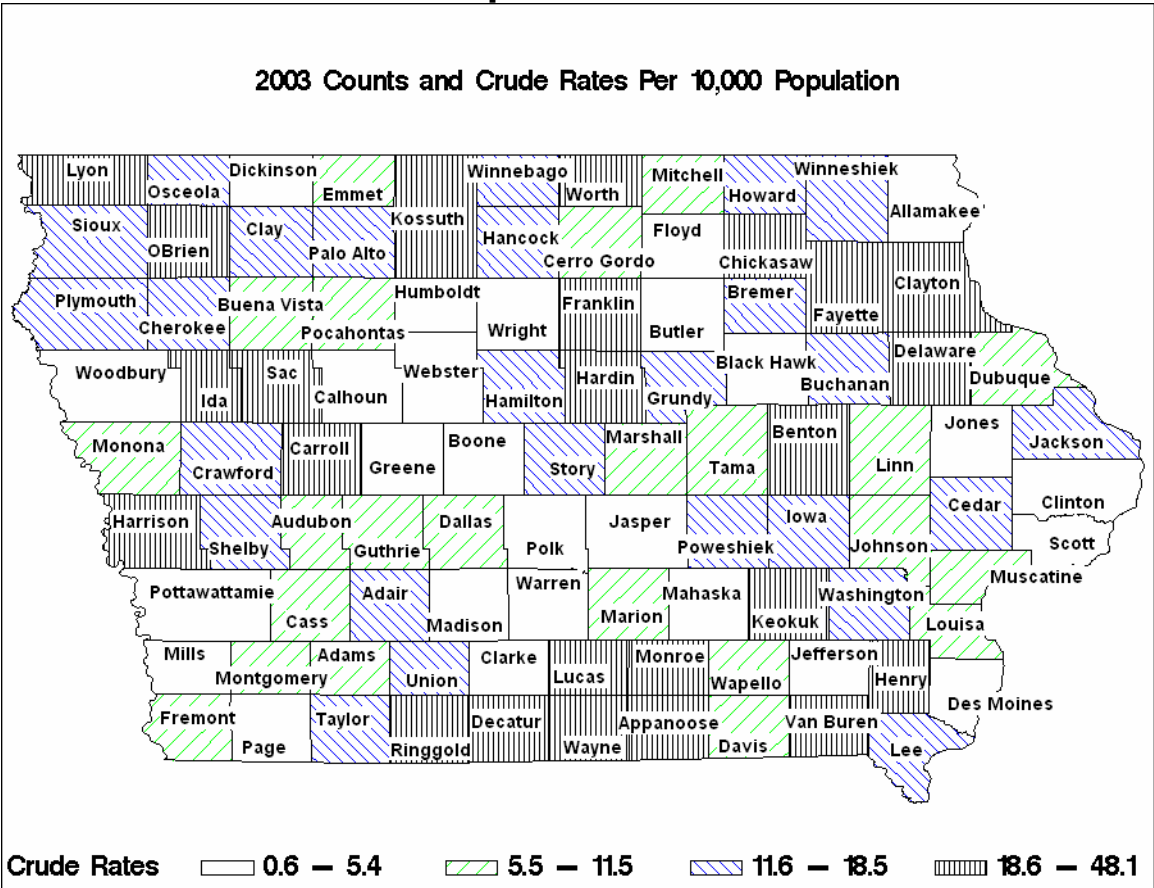
## First Responders Licensed - 2003

	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with Average Population < 10,000	Adair	13	16.3 ( 34 )	Lucas	18	19.1 ( 24 )
	Adams	4	9.1 ( 59 )	Monroe	15	19.1 ( 23 )
	Audubon	6	9.0 ( 60 )	Osceola	12	17.6 ( 28 )
	Clarke	3	3.3 ( 91 )	Pocahontas	9	10.8 ( 52 )
	Davis	7	8.1 ( 65 )	Ringgold	15	28.3 ( 06 )
	Decatur	18	20.9 ( 21 )	Taylor	8	11.6 ( 49 )
	Fremont	6	7.7 ( 67 )	Van Buren	17	21.8 ( 17 )
	Howard	13	13.3 ( 42 )	Wayne	32	48.1 ( 01 )
	Ida	23	30.0 ( 05 )	Worth	20	25.8 ( 10 )
				<b>Total</b>	239	17.4
Counties with Average Population 10,000 to 20,000	Allamakee	6	4.1 ( 85 )	Humboldt	4	3.9 ( 87 )
	Appanoose	29	21.6 ( 19 )	Iowa	26	16.4 ( 33 )
	Butler	8	5.3 ( 77 )	Jefferson	7	4.4 ( 84 )
	Calhoun	2	1.8 ( 96 )	Keokuk	40	35.0 ( 03 )
	Cass	15	10.5 ( 53 )	Kossuth	53	31.8 ( 04 )
	Cedar	24	13.1 ( 44 )	Louisa	7	5.7 ( 72 )
	Cherokee	22	17.2 ( 29 )	Lyon	44	37.6 ( 02 )
	Chickasaw	27	20.9 ( 20 )	Madison	4	2.8 ( 93 )
	Clay	29	17.0 ( 31 )	Mills	2	1.4 ( 97 )
	Clayton	41	22.3 ( 15 )	Mitchell	10	9.4 ( 57 )
	Crawford	31	18.3 ( 26 )	Monona	10	10.2 ( 55 )
	Delaware	51	27.8 ( 08 )	Montgomery	8	7.0 ( 69 )
	Dickinson	8	4.8 ( 81 )	O'Brien	38	25.6 ( 11 )
	Emmet	9	8.4 ( 63 )	Page	1	0.6 ( 99 )
	Floyd	9	5.4 ( 74 )	Palo Alto	17	17.2 ( 30 )
	Franklin	24	22.4 ( 14 )	Poweshiek	25	13.2 ( 43 )
	Greene	5	4.9 ( 80 )	Sac	31	27.9 ( 07 )
	Grundy	15	12.1 ( 48 )	Shelby	23	17.7 ( 27 )
	Guthrie	10	8.8 ( 61 )	Tama	18	10.0 ( 56 )
	Hamilton	25	15.4 ( 37 )	Union	14	11.6 ( 50 )
Hancock	15	12.7 ( 45 )	Winnebago	18	15.5 ( 36 )	
Hardin	46	25.0 ( 12 )	Wright	1	0.7 ( 98 )	
Harrison	36	23.1 ( 13 )	<b>Total</b>	888	14.1	
Counties with Average Population > 20,000	Benton	58	22.2 ( 16 )	Jones	8	3.9 ( 88 )
	Boone	13	5.0 ( 79 )	Lee	53	14.4 ( 40 )
	Bremer	34	14.6 ( 39 )	Mahaska	12	5.4 ( 76 )
	Buchanan	35	16.8 ( 32 )	Marion	24	7.3 ( 68 )
	Buena Vista	13	6.4 ( 71 )	Marshall	33	8.4 ( 64 )
	Carroll	43	20.4 ( 22 )	Muscatine	28	6.7 ( 70 )
	Cerro Gordo	52	11.5 ( 51 )	Plymouth	36	14.6 ( 38 )
	Clinton	23	4.6 ( 83 )	Sioux	50	15.7 ( 35 )
	Des Moines	12	2.9 ( 92 )	Story	101	12.5 ( 47 )
	Fayette	47	21.7 ( 18 )	Wapello	28	7.8 ( 66 )
	Henry	52	25.8 ( 09 )	Washington	39	18.5 ( 25 )
	Jackson	29	14.4 ( 41 )	Webster	19	4.8 ( 82 )
	Jasper	15	4.0 ( 86 )	Winneshiek	27	12.6 ( 46 )
				<b>Total</b>	884	10.7
MSA Counties	Black Hawk	69	5.4 ( 75 )	Polk	75	1.9 ( 95 )
	Dallas	41	9.3 ( 58 )	Pottawattamie	30	3.4 ( 90 )
	Dubuque	91	10.2 ( 54 )	Scott	62	3.9 ( 89 )
	Johnson	98	8.6 ( 62 )	Warren	11	2.6 ( 94 )
	Linn	108	5.5 ( 73 )	Woodbury	52	5.0 ( 78 )
				<b>Total</b>	637	4.7
<b>State Totals</b>		2,648	9.0			

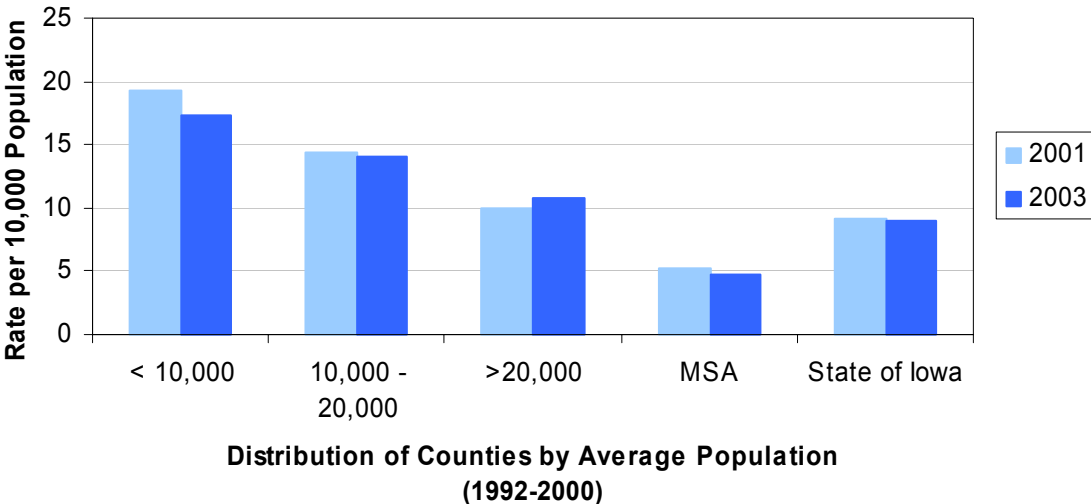
<sup>1</sup>Rates per 10,000 population<sup>2</sup>Rank among 99 Iowa counties

Source: Bureau of Emergency Medical Services, Iowa Department of Public Health

# First Responders Licensed



## Crude Rates, 2001 and 2003



## Emergency Medical Technicians - Basic Licensed - 2003

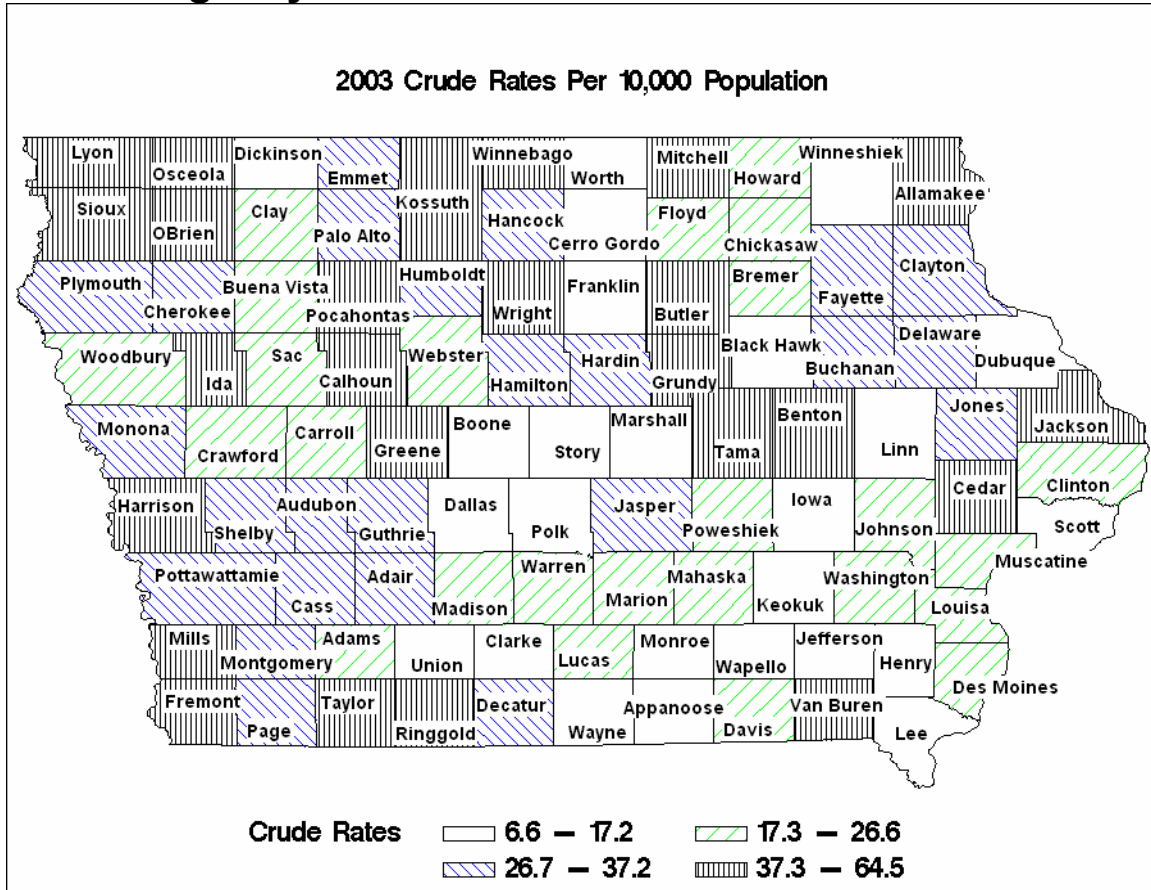
	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with Average Population < 10,000	Adair	28	35.1 ( 32 )	Lucas	20	21.2 ( 60 )
	Adams	10	22.8 ( 55 )	Monroe	7	8.9 ( 96 )
	Audubon	19	28.6 ( 46 )	Osceola	31	45.4 ( 14 )
	Clarke	6	6.6 ( 99 )	Pocahontas	32	38.4 ( 23 )
	Davis	21	24.4 ( 51 )	Ringgold	21	39.6 ( 20 )
	Decatur	27	31.3 ( 38 )	Taylor	34	49.3 ( 07 )
	Fremont	50	64.5 ( 01 )	Van Buren	43	55.1 ( 03 )
	Howard	17	17.3 ( 74 )	Wayne	6	9.0 ( 95 )
	Ida	29	37.9 ( 25 )	Worth	10	12.9 ( 87 )
				<b>Total</b>	411	29.9
Counties with Average Population 10,000 to 20,000	Allamakee	74	50.7 ( 05 )	Humboldt	37	36.4 ( 27 )
	Appanoose	23	17.2 ( 75 )	Iowa	26	16.4 ( 77 )
	Butler	83	55.1 ( 04 )	Jefferson	15	9.4 ( 94 )
	Calhoun	53	49.0 ( 08 )	Keokuk	14	12.3 ( 89 )
	Cass	53	37.2 ( 26 )	Kossuth	74	44.4 ( 15 )
	Cedar	89	48.5 ( 10 )	Louisa	25	20.4 ( 63 )
	Cherokee	46	36.0 ( 29 )	Lyon	54	46.2 ( 12 )
	Chickasaw	26	20.2 ( 65 )	Madison	33	22.8 ( 56 )
	Clay	34	19.9 ( 67 )	Mills	62	42.1 ( 19 )
	Clayton	66	35.9 ( 30 )	Mitchell	42	39.3 ( 22 )
	Crawford	36	21.2 ( 59 )	Monona	32	32.6 ( 36 )
	Delaware	55	30.0 ( 43 )	Montgomery	34	29.7 ( 44 )
	Dickinson	27	16.3 ( 79 )	O'Brien	84	56.6 ( 02 )
	Emmet	29	27.0 ( 48 )	Page	51	30.8 ( 40 )
	Floyd	30	18.1 ( 73 )	Palo Alto	34	34.4 ( 33 )
	Franklin	15	14.0 ( 83 )	Poweshiek	37	19.6 ( 68 )
	Greene	44	43.4 ( 16 )	Sac	25	22.5 ( 57 )
	Grundy	53	42.7 ( 18 )	Shelby	46	35.5 ( 31 )
	Guthrie	37	32.7 ( 35 )	Tama	89	49.6 ( 06 )
	Hamilton	50	30.8 ( 41 )	Union	14	11.6 ( 91 )
Hancock	43	36.3 ( 28 )	Winnebago	54	46.6 ( 11 )	
Hardin	57	31.0 ( 39 )	Wright	68	48.6 ( 09 )	
Harrison	67	43.0 ( 17 )	<b>Total</b>	2,040	32.5	
Counties with Average Population > 20,000	Benton	99	37.9 ( 24 )	Jones	64	31.3 ( 37 )
	Boone	26	9.9 ( 93 )	Lee	39	10.6 ( 92 )
	Bremer	56	24.1 ( 52 )	Mahaska	46	20.7 ( 62 )
	Buchanan	61	29.2 ( 45 )	Marion	87	26.6 ( 50 )
	Buena Vista	44	21.6 ( 58 )	Marshall	67	17.0 ( 76 )
	Carroll	40	18.9 ( 70 )	Muscatine	85	20.2 ( 64 )
	Cerro Gordo	63	13.9 ( 84 )	Plymouth	81	32.9 ( 34 )
	Clinton	116	23.4 ( 54 )	Sioux	146	45.9 ( 13 )
	Des Moines	76	18.3 ( 72 )	Story	105	13.0 ( 85 )
	Fayette	66	30.4 ( 42 )	Wapello	24	6.7 ( 98 )
	Henry	29	14.4 ( 82 )	Washington	40	19.0 ( 69 )
	Jackson	80	39.6 ( 21 )	Webster	83	20.8 ( 61 )
	Jasper	101	27.0 ( 49 )	Winneshiek	35	16.3 ( 78 )
				<b>Total</b>	1,759	21.4
MSA Counties	Black Hawk	109	8.6 ( 97 )	Polk	472	12.2 ( 90 )
	Dallas	66	14.9 ( 80 )	Pottawattamie	247	28.0 ( 47 )
	Dubuque	130	14.5 ( 81 )	Scott	198	12.4 ( 88 )
	Johnson	212	18.5 ( 71 )	Warren	98	23.6 ( 53 )
	Linn	252	12.9 ( 86 )	Woodbury	207	20.0 ( 66 )
				<b>Total</b>	1,991	14.8
<b>State Totals</b>		6,201	21.1			

<sup>1</sup>Rates per 10,000 population<sup>2</sup>Rank among 99 Iowa counties

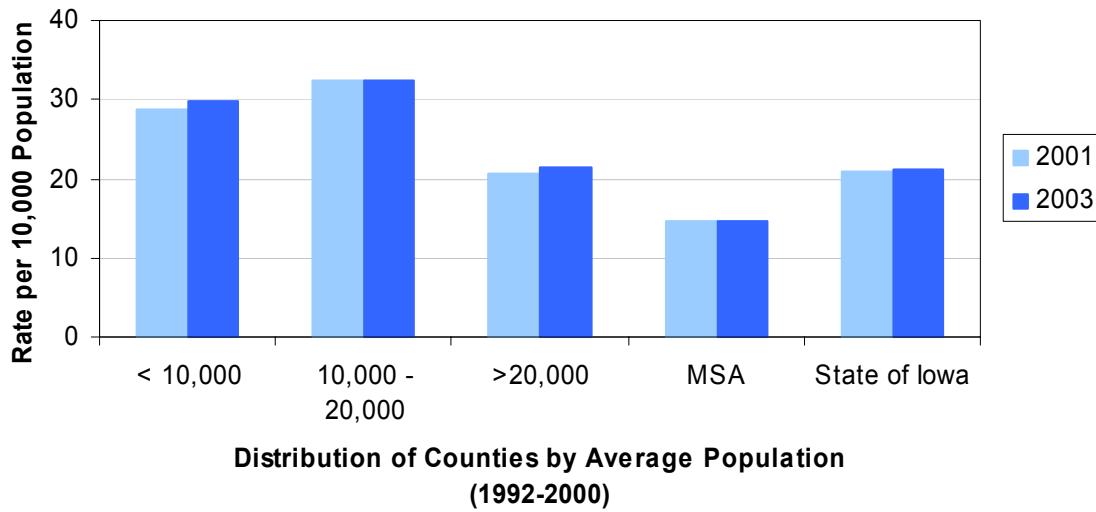
Source: Bureau of Emergency Medical Services, Iowa Department of Public Health



## Emergency Medical Technicians - Basic Licensed



### Crude Rates, 2001 and 2003



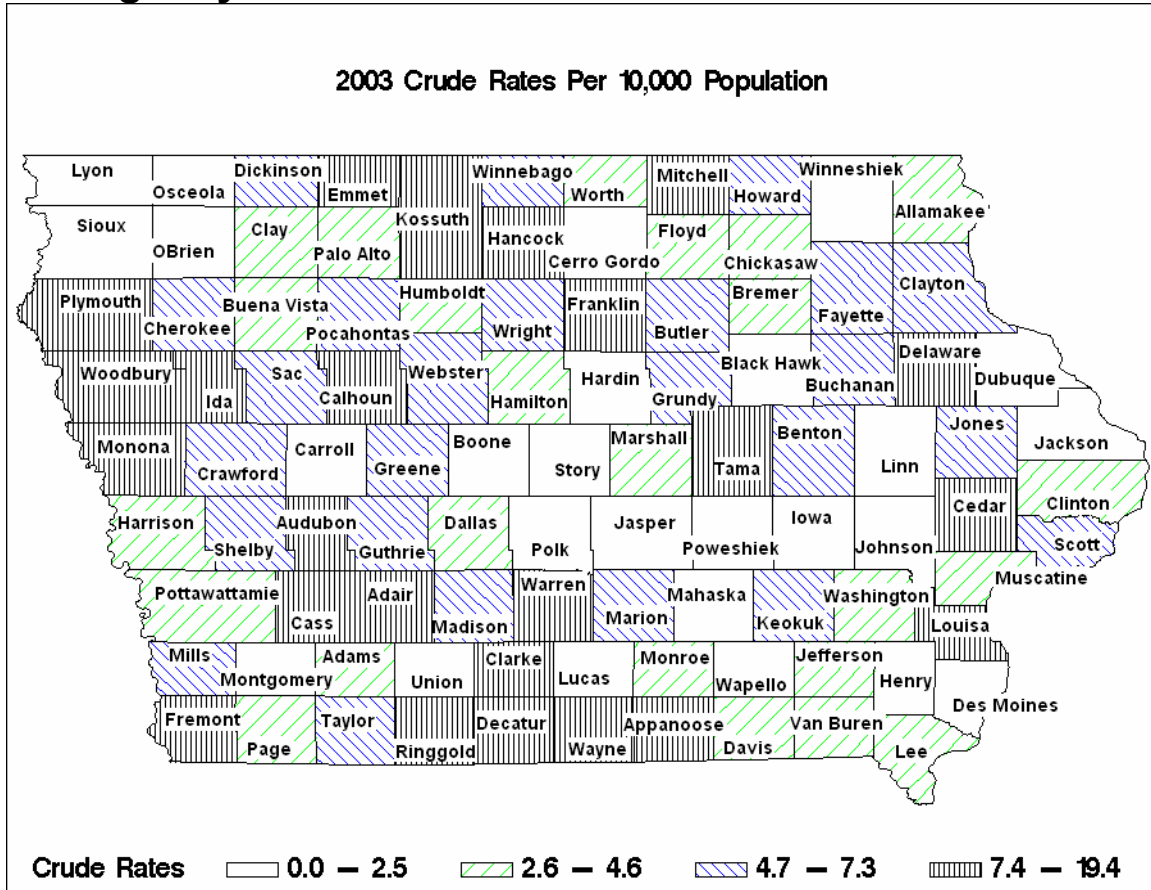
## Emergency Medical Technicians - Intermediate Licensed - 2003

	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
	<b>Counties with Average Population &lt; 10,000</b>	Adair	8	10.0 ( 11 )	Lucas	1
Adams		2	4.6 ( 51 )	Monroe	2	2.6 ( 73 )
Audubon		5	7.5 ( 22 )	Osceola	0	0.0 ( 98 )
Clarke		8	8.8 ( 16 )	Pocahontas	4	4.8 ( 47 )
Davis		3	3.5 ( 64 )	Ringgold	6	11.3 ( 08 )
Decatur		11	12.8 ( 05 )	Taylor	5	7.2 ( 27 )
Fremont		15	19.4 ( 01 )	Van Buren	3	3.8 ( 58 )
Howard		5	5.1 ( 46 )	Wayne	7	10.5 ( 09 )
Ida		12	15.7 ( 03 )	Worth	3	3.9 ( 57 )
				<b>Total</b>	100	7.3
<b>Counties with Average Population 10,000 to 20,000</b>	Allamakee	6	4.1 ( 54 )	Humboldt	4	3.9 ( 56 )
	Appanoose	13	9.7 ( 13 )	Iowa	4	2.5 ( 74 )
	Butler	11	7.3 ( 25 )	Jefferson	6	3.8 ( 59 )
	Calhoun	8	7.4 ( 24 )	Keokuk	7	6.1 ( 37 )
	Cass	21	14.8 ( 04 )	Kossuth	15	9.0 ( 15 )
	Cedar	15	8.2 ( 21 )	Louisa	14	11.4 ( 07 )
	Cherokee	9	7.1 ( 29 )	Lyon	0	0.0 ( 98 )
	Chickasaw	4	3.1 ( 67 )	Madison	8	5.5 ( 43 )
	Clay	5	2.9 ( 69 )	Mills	7	4.8 ( 48 )
	Clayton	11	6.0 ( 38 )	Mitchell	8	7.5 ( 23 )
	Crawford	8	4.7 ( 49 )	Monona	16	16.3 ( 02 )
	Delaware	23	12.6 ( 06 )	Montgomery	1	0.9 ( 95 )
	Dickinson	12	7.3 ( 26 )	O'Brien	2	1.3 ( 90 )
	Emmet	11	10.3 ( 10 )	Page	6	3.6 ( 61 )
	Floyd	7	4.2 ( 53 )	Palo Alto	4	4.0 ( 55 )
	Franklin	10	9.3 ( 14 )	Poweshiek	3	1.6 ( 89 )
	Greene	7	6.9 ( 32 )	Sac	7	6.3 ( 35 )
	Grundy	8	6.4 ( 34 )	Shelby	9	6.9 ( 30 )
	Guthrie	7	6.2 ( 36 )	Tama	15	8.4 ( 19 )
	Hamilton	6	3.7 ( 60 )	Union	2	1.7 ( 87 )
Hancock	10	8.5 ( 18 )	Winnebago	8	6.9 ( 31 )	
Hardin	3	1.6 ( 88 )	Wright	8	5.7 ( 41 )	
Harrison	7	4.5 ( 52 )	<b>Total</b>	376	6.0	
<b>Counties with Average Population &gt; 20,000</b>	Benton	17	6.5 ( 33 )	Jones	12	5.9 ( 40 )
	Boone	2	0.8 ( 97 )	Lee	13	3.5 ( 63 )
	Bremer	8	3.4 ( 65 )	Mahaska	5	2.3 ( 83 )
	Buchanan	15	7.2 ( 28 )	Marion	18	5.5 ( 44 )
	Buena Vista	6	2.9 ( 68 )	Marshall	14	3.5 ( 62 )
	Carroll	5	2.4 ( 78 )	Muscatine	12	2.9 ( 70 )
	Cerro Gordo	10	2.2 ( 85 )	Plymouth	24	9.7 ( 12 )
	Clinton	23	4.6 ( 50 )	Sioux	8	2.5 ( 75 )
	Des Moines	10	2.4 ( 77 )	Story	8	1.0 ( 94 )
	Fayette	12	5.5 ( 42 )	Wapello	4	1.1 ( 91 )
	Henry	2	1.0 ( 93 )	Washington	6	2.8 ( 71 )
	Jackson	5	2.5 ( 76 )	Webster	21	5.3 ( 45 )
	Jasper	7	1.9 ( 86 )	Winneshiek	5	2.3 ( 80 )
				<b>Total</b>	272	3.3
	<b>MSA Counties</b>	Black Hawk	29	2.3 ( 82 )	Polk	91
Dallas		14	3.2 ( 66 )	Pottawattamie	24	2.7 ( 72 )
Dubuque		20	2.2 ( 84 )	Scott	95	6.0 ( 39 )
Johnson		9	0.8 ( 96 )	Warren	34	8.2 ( 20 )
Linn		45	2.3 ( 81 )	Woodbury	91	8.8 ( 17 )
				<b>Total</b>	452	3.4
<b>State Totals</b>		1,200	4.1			

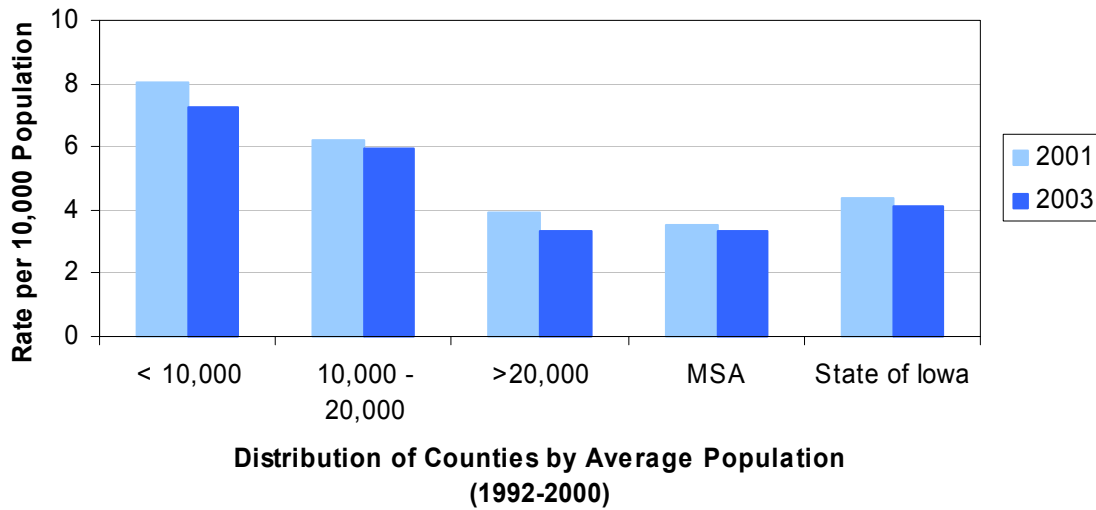
<sup>1</sup>Rates per 10,000 population<sup>2</sup>Rank among 99 Iowa counties

Source: Bureau of Emergency Medical Services, Iowa Department of Public Health

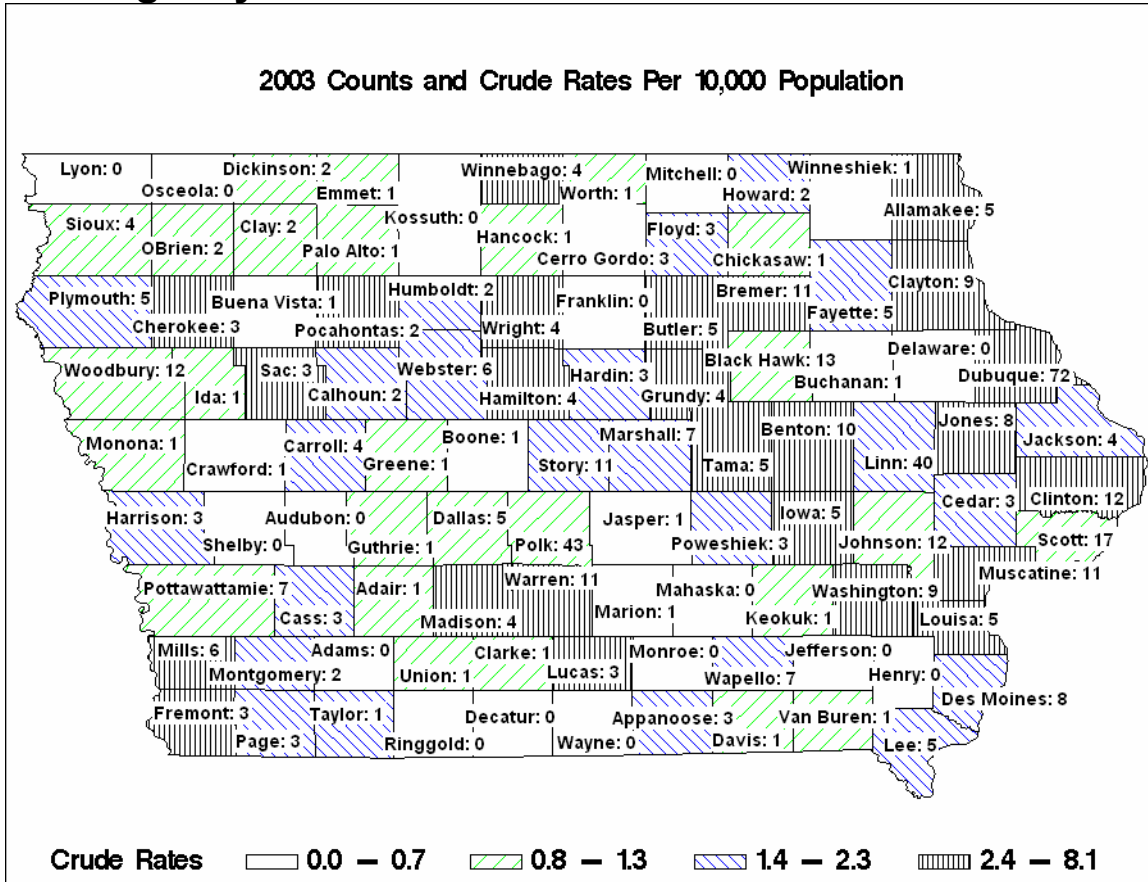
## Emergency Medical Technicians - Intermediate Licensed



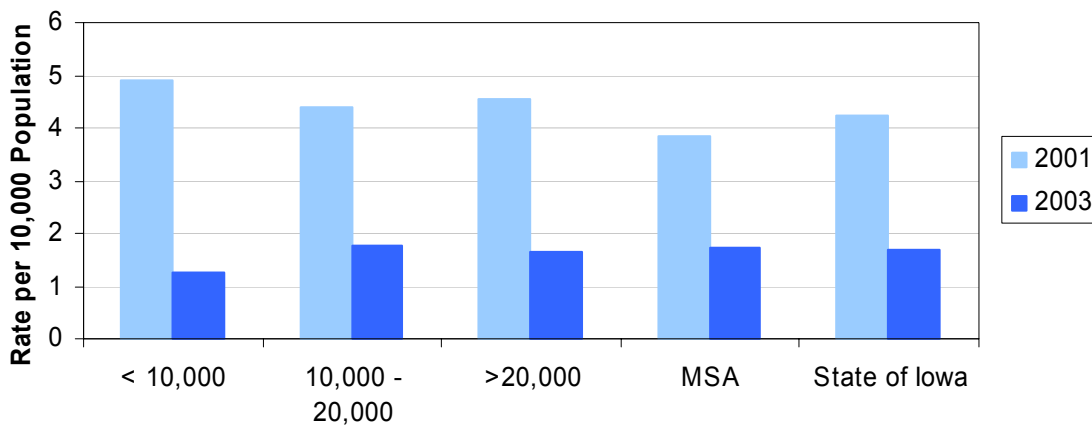
### Crude Rates, 2001 and 2003



## Emergency Medical Technicians - Paramedic Licensed



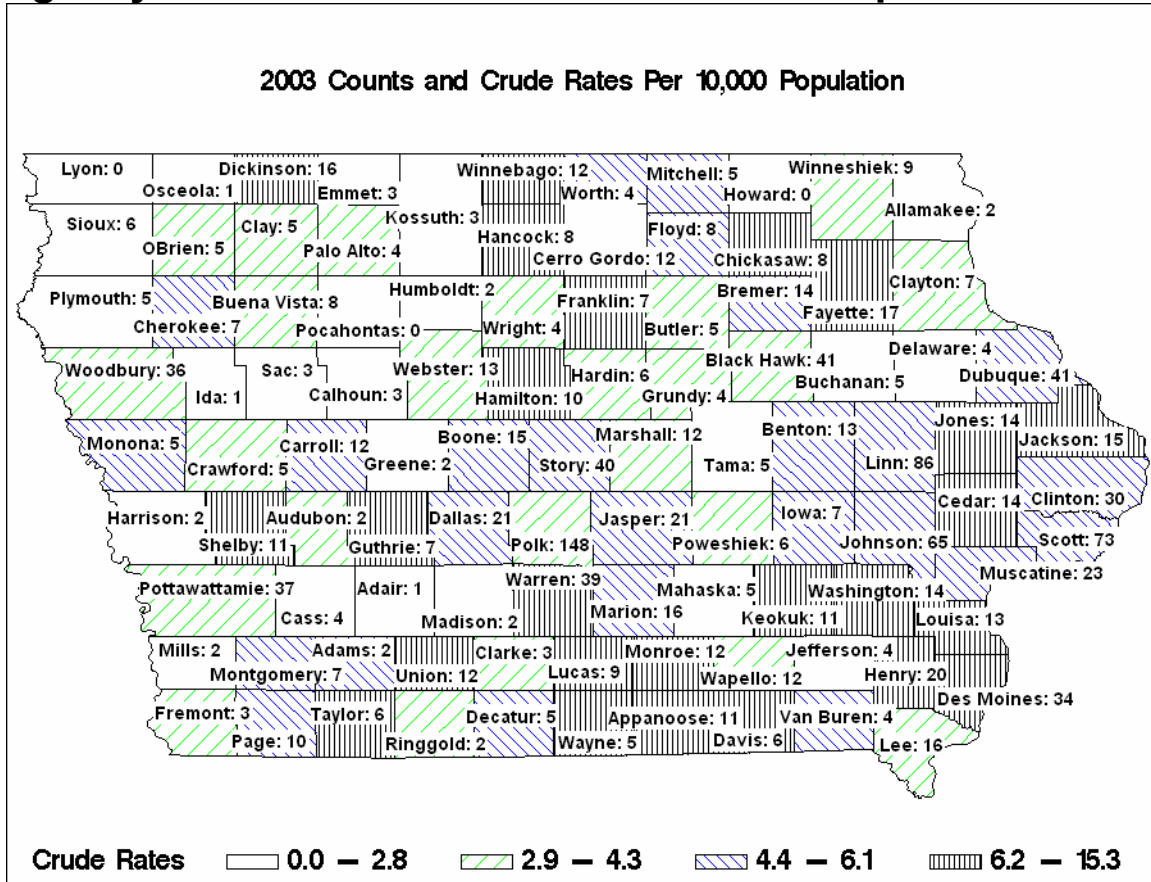
### Crude Rates, 2001 and 2003



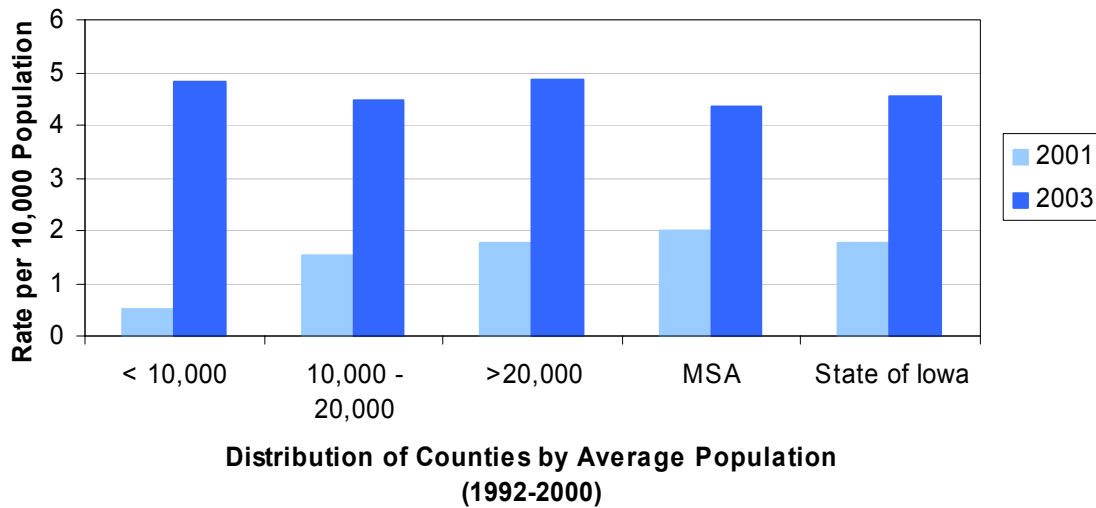
**Distribution of Counties by Average Population (1992-2000)**

*Source: Bureau of Emergency Medical Services, Iowa Department of Public Health*

# Emergency Medical Technicians - Paramedic Specialist Licensed

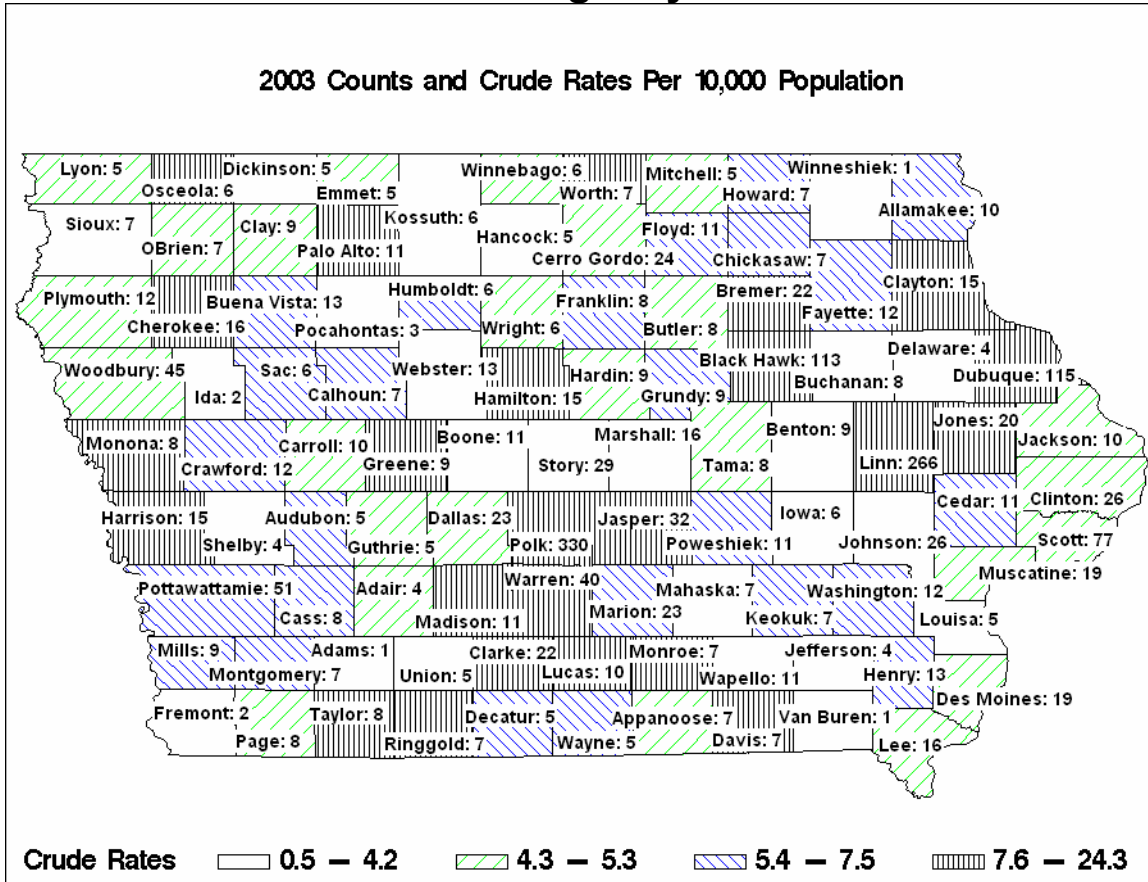


## Crude Rates, 2001 and 2003

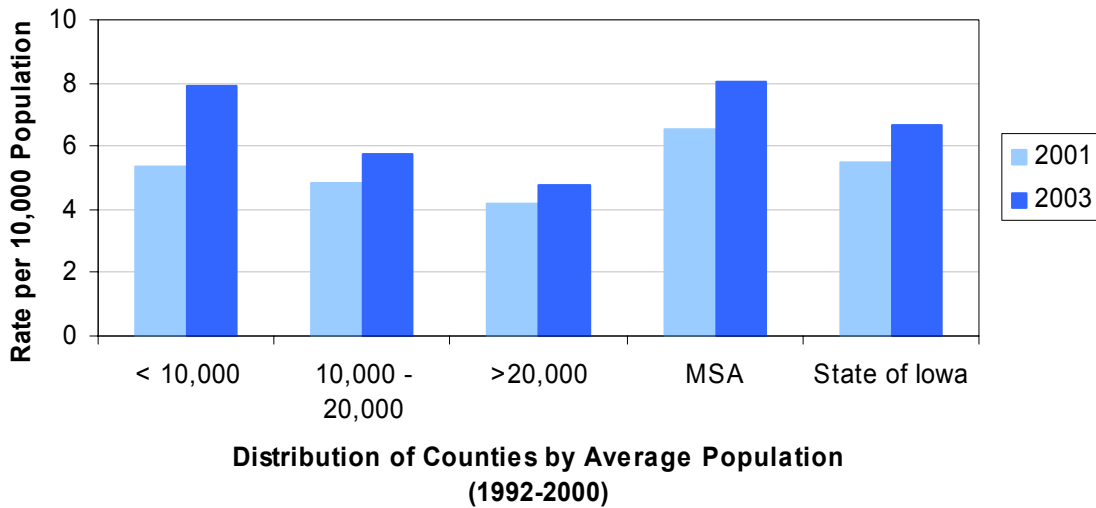


Source: Bureau of Emergency Medical Services, Iowa Department of Public Health

# Iowa Law Enforcement Emergency Care Provider Licensed



## Crude Rates, 2001 and 2003



Source: Bureau of Emergency Medical Services, Iowa Department of Public Health

## Health Care Facilities

The information presented on health care facilities comes from the Division of Health Facilities in the Iowa Department of Inspections and Appeals (DIA). This state agency is responsible for inspection of all Chapter 135C licensed health care facilities in Iowa, including those presented in the 2003 Iowa Health Fact Book. Under state law the DIA is responsible for the inspection and licensure of Hospitals (135B), Birth Centers (135G), Hospices (135J) and Psychiatric Medical Institutes for Children (135H). This agency also conducts inspections of various Medicare/Medicaid entities (e.g., skilled nursing facilities, home health agencies, hospices, hospitals, CLIA labs, etc.) through contract with the Health Care Financing Administration (HCFA), and investigates complaints of substandard care or services in these entities. Additional information may be accessed through their web site at

<http://www.dia-hfd.state.ia.us/>.

There is only one Intermediate Care Facility for Persons with Mental Illness in Iowa (a 25-bed unit in Davis County), so unlike previous editions of the Iowa Health Fact Book, statewide data for this type of facility is not presented.

### FACILITY TYPES REGULATED BY THE STATE OF IOWA DIVISION OF HEALTH FACILITIES...

- Ambulatory Surgical Centers
- Birthing Centers
- Chronic Confusion or Dementing Illness Units
- Community Mental Health Centers
- Comprehensive Out-Patient Rehabilitation Facilities
- Critical Access Hospitals
- End-Stage Renal Disease Facilities
- Home Health Agencies
- Hospices
- Hospital Based (Distinct-Part) Nursing Facility Units (Covered by Medicaid)
- Hospital Based (Distinct-Part) Skilled Nursing Facility Units (Covered by Medicaid)
- Hospital Based (Distinct-Part) Skilled Nursing Facility/Nursing Facility Units (Covered by Medicaid)
- Hospital Based Intermediate Care Facilities for the Mentally Retarded (Covered by Medicaid)
- Hospitals
- Hospitals with Psychiatric Units excluded under the Medicare Prospective Payment System
- Hospitals with Swing-Beds
- Intermediate Care Facilities for Persons with Mental Illness
- Intermediate Care Facilities for the Mentally Retarded
- Laboratories Covered under the (Federal) Clinical Laboratories Improvement Amendments 1988 (CLIA '88)
- Nursing Facilities
- Organ Procurement Organizations
- Portable X-Ray Service Suppliers
- Psychiatric Medical Institutions for Children
- Rehabilitation Agencies with Out-Patient Physical Therapy/Out-Patient speech Pathology/Out-Patient Occupational Therapy Providers
- Residential Care Facilities
- Residential Care Facilities for Persons with Mental Illness
- Residential Care Facilities for the Mentally Retarded
- Rural Health Clinics
- Specialized 3-5 Bed Facilities

## **Community and Migrant Health Centers**

Community and migrant health centers provide affordable, accessible, and acceptable primary health care to Iowans. These centers primarily serve indigent, medically-underserved and under-insured populations and assist special populations through grants and programs.

Community and migrant health centers are the safety net providers. They provide several health services to the community, including comprehensive health services with a variety of physician specialties, general dentistry and community health programs involving oral health education and dental screening, prenatal care, family planning, health screenings, immunizations, case management and pharmacies. Centers may be affiliated with a regional health system that can provide access to substantial support systems.

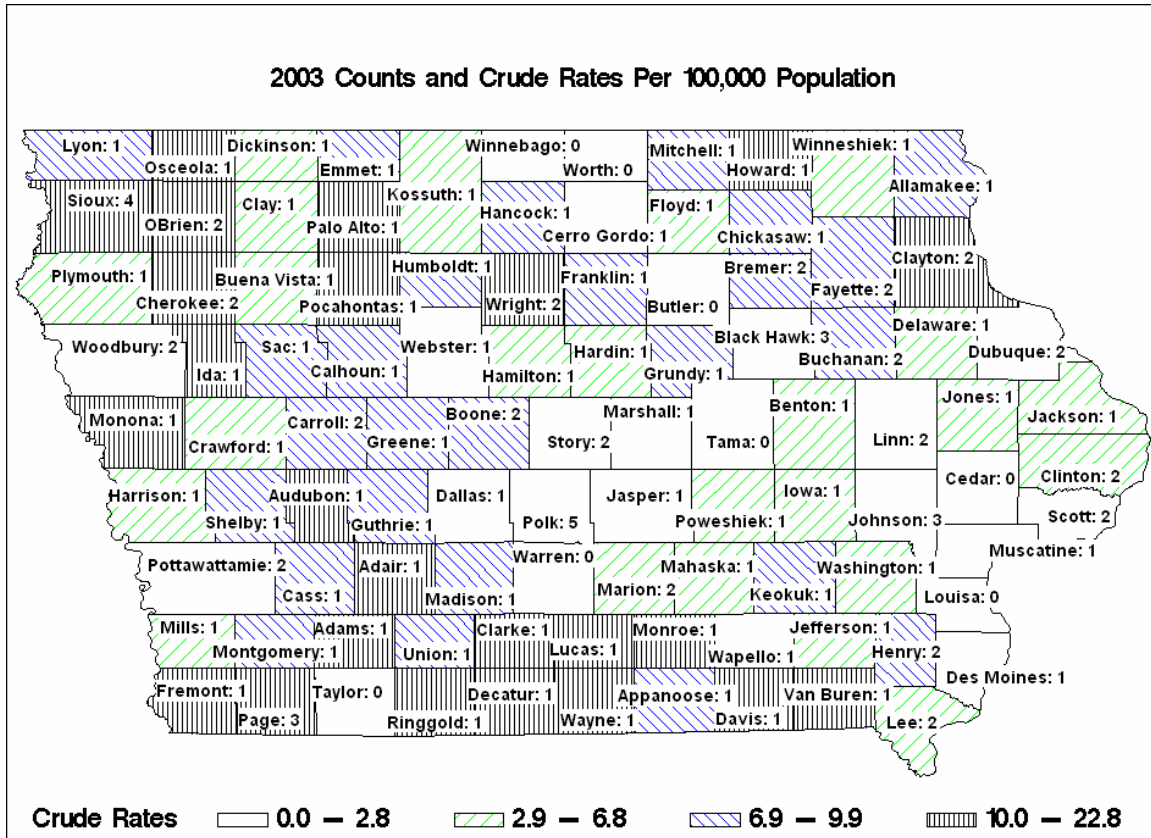
Community Health Centers are funded by Section 330 funds of the Public Health Service Act and Iowa has eight such centers (plus the Des Moines Health Center, which provides similar services). They are required to provide primary health services, dental services, mental health services, prevention, education, and case management. Patients cannot be turned away on the basis of ability to pay. A sliding fee scale based on income is mandated. The C/MHC model is a non-profit corporation whose board members must be members of the community and at least one percent of the board must be patients of the health center. Further information on Community Health Centers can be obtained from the Iowa Nebraska Primary Care Association (IANEPCA) at the web site [www.ianepca.com](http://www.ianepca.com).

## **Certified Rural Health Clinics and Community Health Centers**

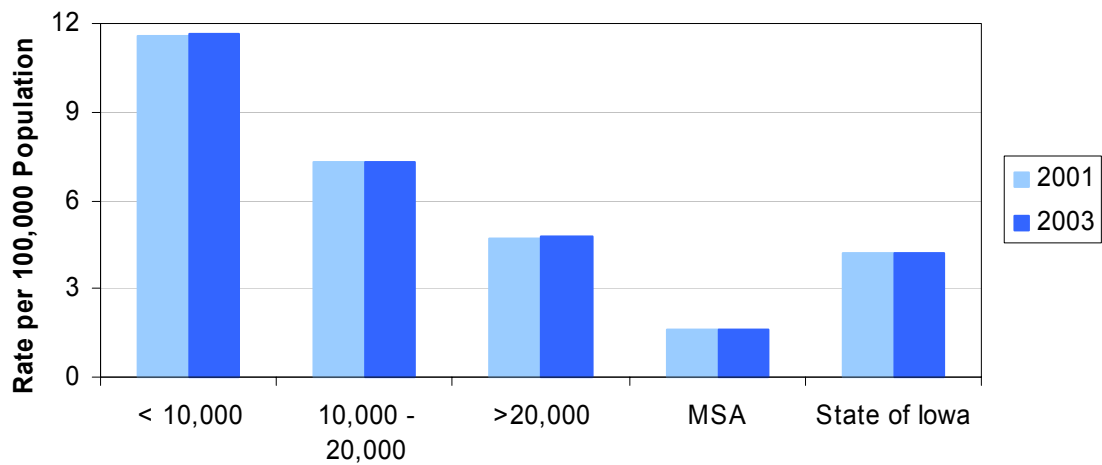
A rural health clinic is a clinic located in a rural area designated as a shortage area for personal health service and/or primary medical care manpower. In July of 2003, there were a total of 129 certified rural health clinics in Iowa (Iowa Department of Inspections and Appeals), located in 53 of our 99 counties. Such a clinic is neither a rehabilitation agency nor a facility primarily for the care and treatment of mental diseases. Patient services are furnished by a physician's assistant or nurse practitioner at least 50 percent of the time the clinic operates. The definition of such is found in Title 42 in the Code of Federal Regulations. Rural Health Clinics receive enhanced reimbursement for Medicare.



# Hospitals



## Crude Rates, 2001 and 2003



Distribution of Counties by Average Population (1992-2000)

Source: Department of Inspections and Appeals, Iowa Department of Public Health

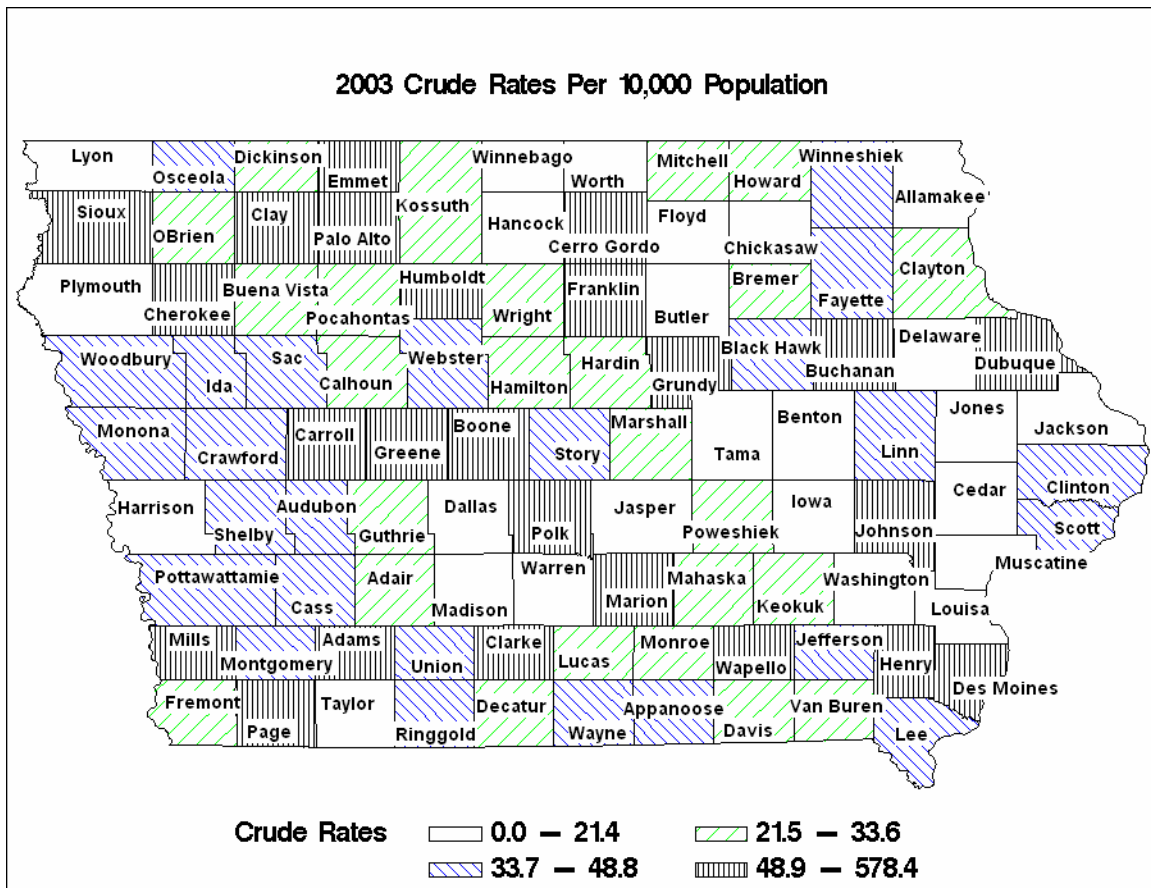
## Hospital Beds - 2003

	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Counties with Average Population < 10,000	Adair	25	31.3	Lucas	25	26.5
	Adams	22	50.2	Monroe	25	31.9
	Audubon	25	37.6	Osceola	25	36.7
	Clarke	55	60.7	Pocahontas	25	30.0
	Davis	25	29.1	Ringgold	22	41.5
	Decatur	25	29.0	Taylor	0	0.0
	Fremont	25	32.3	Van Buren	25	32.1
	Howard	25	25.5	Wayne	28	42.1
	Ida	31	40.5	Worth	0	0.0
				<b>Total</b>	433	31.5
Counties with Average Population 10,000 to 20,000	Allamakee	25	17.1	Humboldt	53	52.2
	Appanoose	53	39.5	Iowa	25	15.8
	Butler	0	0.0	Jefferson	67	42.0
	Calhoun	25	23.1	Keokuk	25	21.9
	Cass	69	48.5	Kossuth	40	24.0
	Cedar	0	0.0	Louisa	0	0.0
	Cherokee	122	95.6	Lyon	25	21.4
	Chickasaw	25	19.4	Madison	25	17.2
	Clay	99	58.0	Mills	851	578.4
	Clayton	50	27.2	Mitchell	25	23.4
	Crawford	72	42.5	Monona	48	48.8
	Delaware	25	13.6	Montgomery	40	35.0
	Dickinson	49	29.7	O'Brien	42	28.3
	Emmet	58	54.1	Page	153	92.5
	Floyd	25	15.1	Palo Alto	54	54.6
	Franklin	77	71.9	Poweshiek	46	24.3
	Greene	100	98.5	Sac	54	48.7
	Grundy	80	64.4	Shelby	49	37.8
	Guthrie	25	22.1	Tama	0	0.0
	Hamilton	40	24.6	Union	53	43.7
Hancock	25	21.1	Winnebago	0	0.0	
Hardin	42	22.8	Wright	47	33.6	
Harrison	25	16.0	<b>Total</b>	2,833	45.1	
Counties with Average Population > 20,000	Benton	25	9.6	Jones	25	12.2
	Boone	686	262.2	Lee	175	47.4
	Bremer	50	52.0	Mahaska	49	22.1
	Buchanan	179	85.7	Marion	215	65.8
	Buena Vista	54	26.5	Marshall	124	31.4
	Carroll	217	102.8	Muscatine	80	19.0
	Cerro Gordo	346	76.3	Plymouth	44	17.9
	Clinton	237	47.7	Sioux	291	91.4
	Des Moines	313	75.5	Story	325	40.3
	Fayette	89	41.0	Wapello	235	65.7
	Henry	139	69.1	Washington	25	11.8
	Jackson	43	21.3	Webster	170	42.7
	Jasper	68	18.2	Winneshiek	75	35.0
				<b>Total</b>	4,279	52.0
MSA Counties	Black Hawk	598	46.9	Polk	1,978	51.3
	Dallas	25	5.7	Pottawattamie	306	34.7
	Dubuque	649	72.6	Scott	652	40.9
	Johnson	1,029	90.0	Warren	0	0.0
	Linn	762	39.1	Woodbury	473	45.8
			<b>Total</b>	6,472	48.0	
<b>State Totals</b>		14,017	47.7			

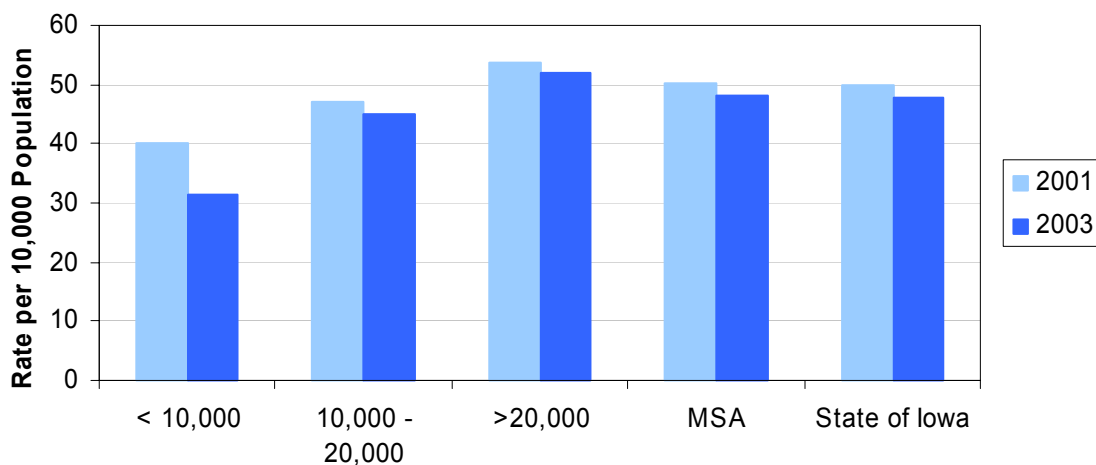
<sup>1</sup>Rates per 10,000 population

Source: Department of Inspections and Appeals, Iowa Department of Public Health

# Hospital Beds

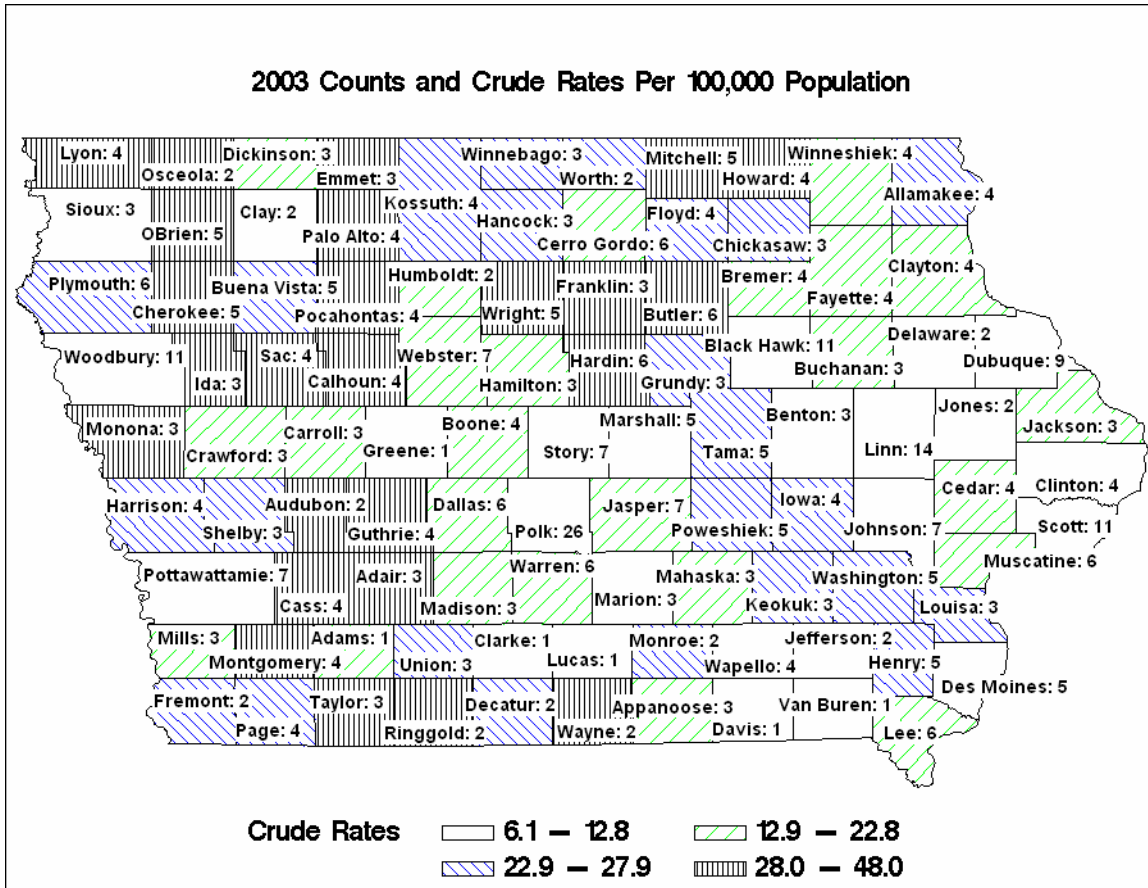


## Crude Rates, 2001 and 2003

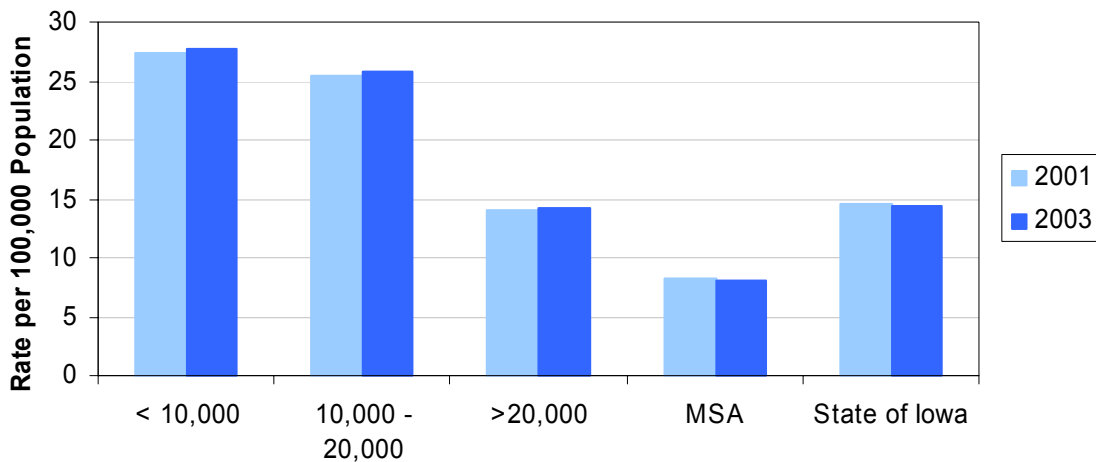


**Distribution of Counties by Average Population (1992-2000)**

## Nursing Facilities



### Crude Rates, 2001 and 2003



Distribution of Counties by Average Population (1992-2000)

Source: Department of Inspections and Appeals, Iowa Department of Public Health

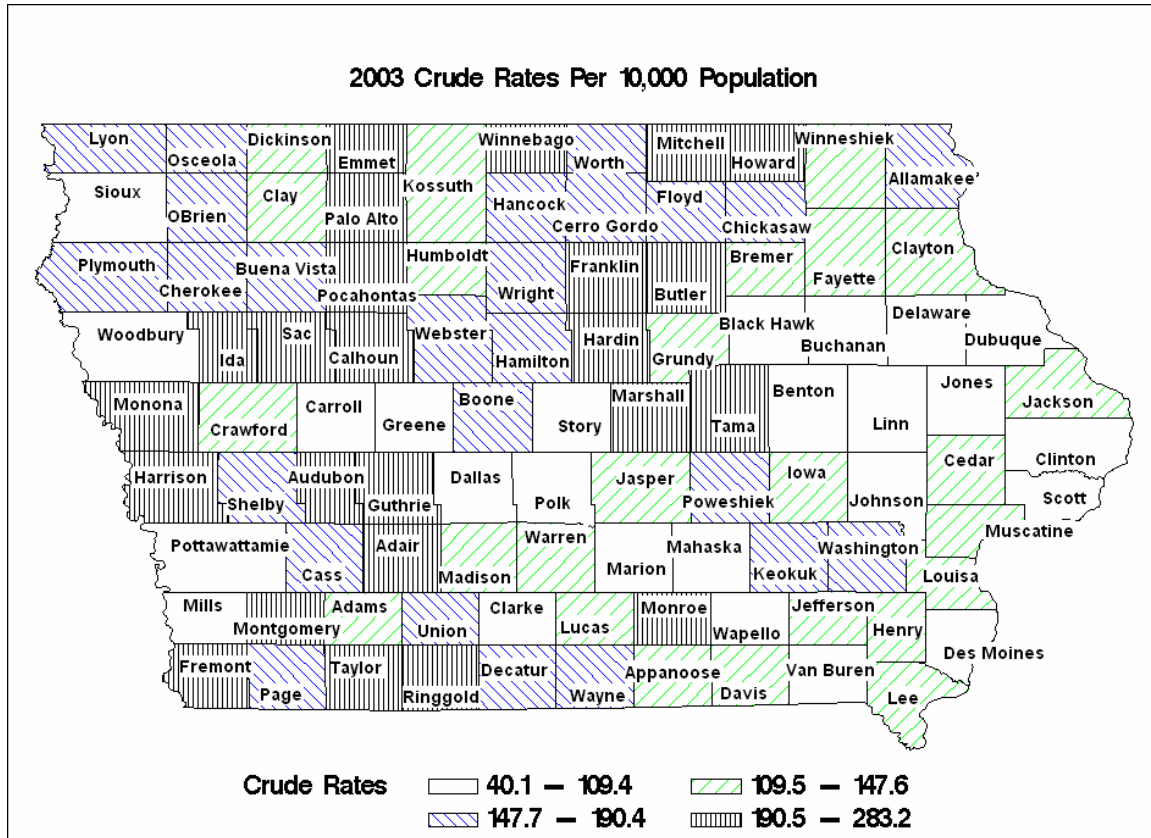
## Nursing Facility Beds - 2003

	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Counties with Average Population < 10,000	Adair	177	221.6 (11)	Lucas	130	137.7 (57)
	Adams	57	130.0 (63)	Monroe	154	196.5 (22)
	Audubon	141	212.1 (16)	Osceola	113	165.7 (35)
	Clarke	94	103.8 (78)	Pocahontas	182	218.5 (13)
	Davis	104	121.0 (68)	Ringgold	150	283.2 (01)
	Decatur	142	164.7 (37)	Taylor	149	215.9 (14)
	Fremont	159	205.2 (20)	Van Buren	75	96.2 (84)
	Howard	224	228.4 (10)	Wayne	122	183.4 (29)
	Ida	185	241.6 (06)	Worth	142	182.8 (30)
				<b>Total</b>	2,500	182.0
Counties with Average Population 10,000 to 20,000	Allamakee	269	184.4 (28)	Humboldt	150	147.6 (50)
	Appanoose	170	126.8 (65)	Iowa	229	144.9 (52)
	Butler	315	209.1 (17)	Jefferson	175	109.7 (74)
	Calhoun	223	206.1 (19)	Keokuk	185	162.0 (40)
	Cass	271	190.4 (25)	Kossuth	226	135.5 (58)
	Cedar	240	130.7 (62)	Louisa	174	142.1 (54)
	Cherokee	242	189.6 (26)	Lyon	190	162.4 (39)
	Chickasaw	215	166.8 (34)	Madison	209	144.1 (53)
	Clay	239	140.0 (55)	Mills	158	107.4 (76)
	Clayton	271	147.5 (51)	Mitchell	285	266.7 (04)
	Crawford	225	132.7 (60)	Monona	277	281.9 (02)
	Delaware	180	98.2 (82)	Montgomery	266	232.6 (09)
	Dickinson	228	138.0 (56)	O'Brien	250	168.5 (33)
	Emmet	228	212.5 (15)	Page	311	188.1 (27)
	Floyd	260	156.9 (42)	Palo Alto	241	243.8 (05)
	Franklin	213	198.8 (21)	Poweshiek	325	171.9 (32)
	Greene	68	67.0 (94)	Sac	267	240.6 (07)
	Grundy	141	113.5 (72)	Shelby	229	176.5 (31)
	Guthrie	267	235.9 (08)	Tama	343	191.1 (24)
	Hamilton	242	149.1 (46)	Union	186	153.5 (44)
Hancock	175	147.9 (49)	Winnebago	223	192.6 (23)	
Hardin	402	218.7 (12)	Wright	228	163.0 (38)	
Harrison	322	206.6 (18)	<b>Total</b>	10,533	167.7	
Counties with Average Population > 20,000	Benton	176	67.4 (93)	Jones	209	102.4 (81)
	Boone	390	149.0 (47)	Lee	492	133.3 (59)
	Bremer	284	116.9 (69)	Mahaska	202	90.9 (86)
	Buchanan	215	102.9 (80)	Marion	230	70.4 (91)
	Buena Vista	318	156.2 (43)	Marshall	1,075	272.3 (03)
	Carroll	231	109.4 (75)	Muscatine	477	113.5 (73)
	Cerro Gordo	674	148.7 (48)	Plymouth	373	151.5 (45)
	Clinton	434	87.4 (87)	Sioux	164	51.5 (98)
	Des Moines	311	75.0 (90)	Story	523	64.8 (96)
	Fayette	285	131.4 (61)	Wapello	377	105.3 (77)
	Henry	259	128.7 (64)	Washington	348	164.9 (36)
	Jackson	235	116.3 (70)	Webster	640	160.7 (41)
	Jasper	430	115.1 (71)	Winneshiek	269	125.6 (66)
				<b>Total</b>	9,621	116.9
MSA Counties	Black Hawk	1,191	93.5 (85)	Polk	2,219	57.5 (97)
	Dallas	359	81.2 (88)	Pottawattamie	668	75.8 (89)
	Dubuque	872	97.6 (83)	Scott	1,114	69.9 (92)
	Johnson	458	40.1 (99)	Warren	512	123.3 (67)
	Linn	1,267	65.0 (95)	Woodbury	1,067	103.3 (79)
<b>State Totals</b>		32,381	110.261	<b>Total</b>	9,727	72.1

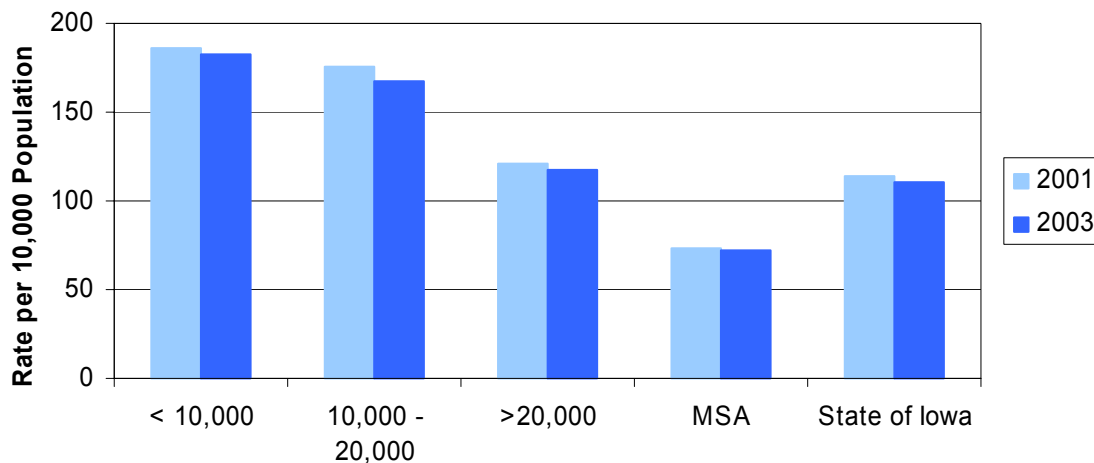
<sup>1</sup>Rates per 10,000 population

Source: Department of Inspections and Appeals, Iowa Department of Public Health

## Nursing Facility Beds

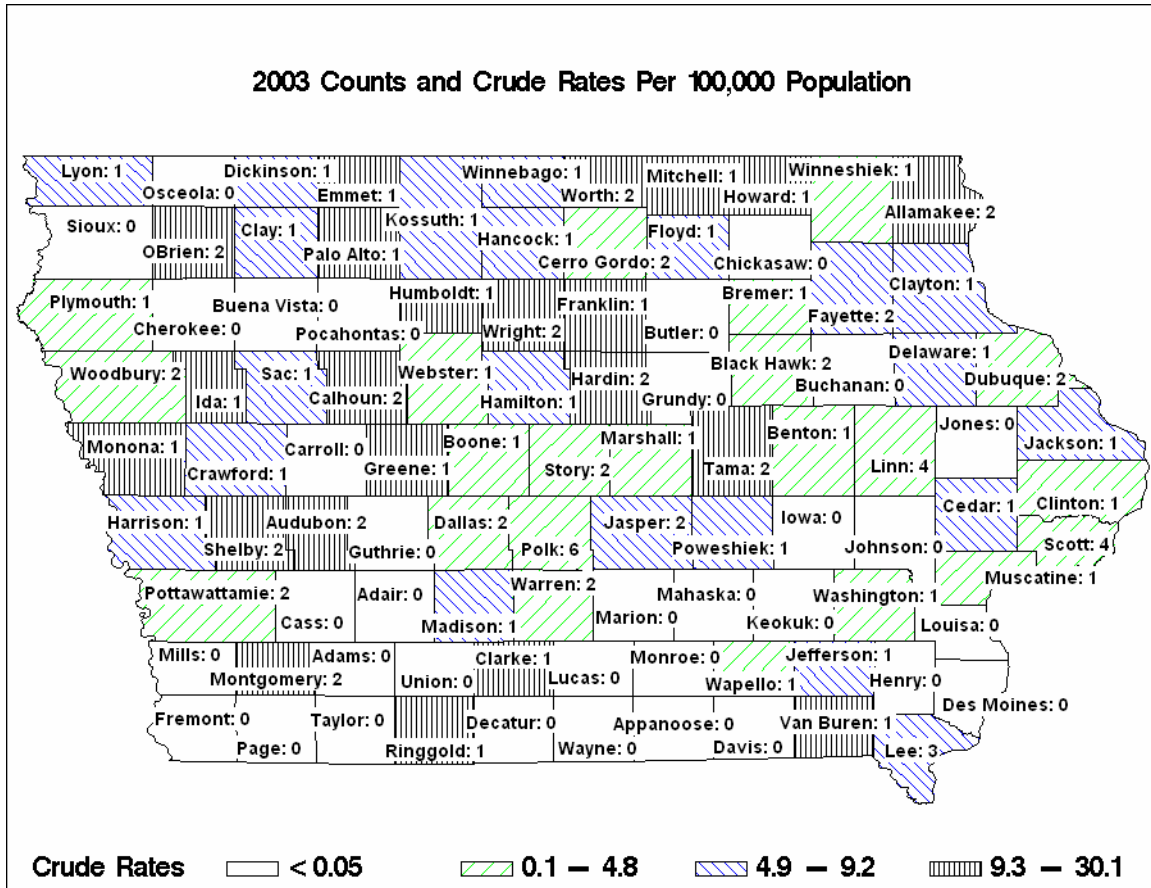


### Crude Rates, 2001 and 2003

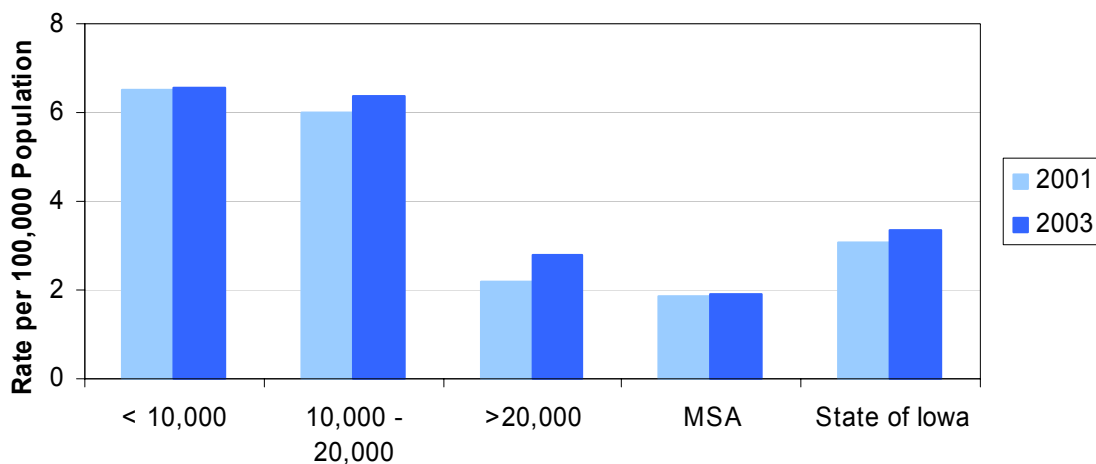


Distribution of Counties by Average Population (1992-2000)

# Chronic Confusion or Dementing Illness Units



## Crude Rates, 2001 and 2003



**Distribution of Counties by Average Population (1992-2000)**

Source: Department of Inspections and Appeals, Iowa Department of Public Health

## Beds in Chronic Confusion or Dementing Illness Units - 2003

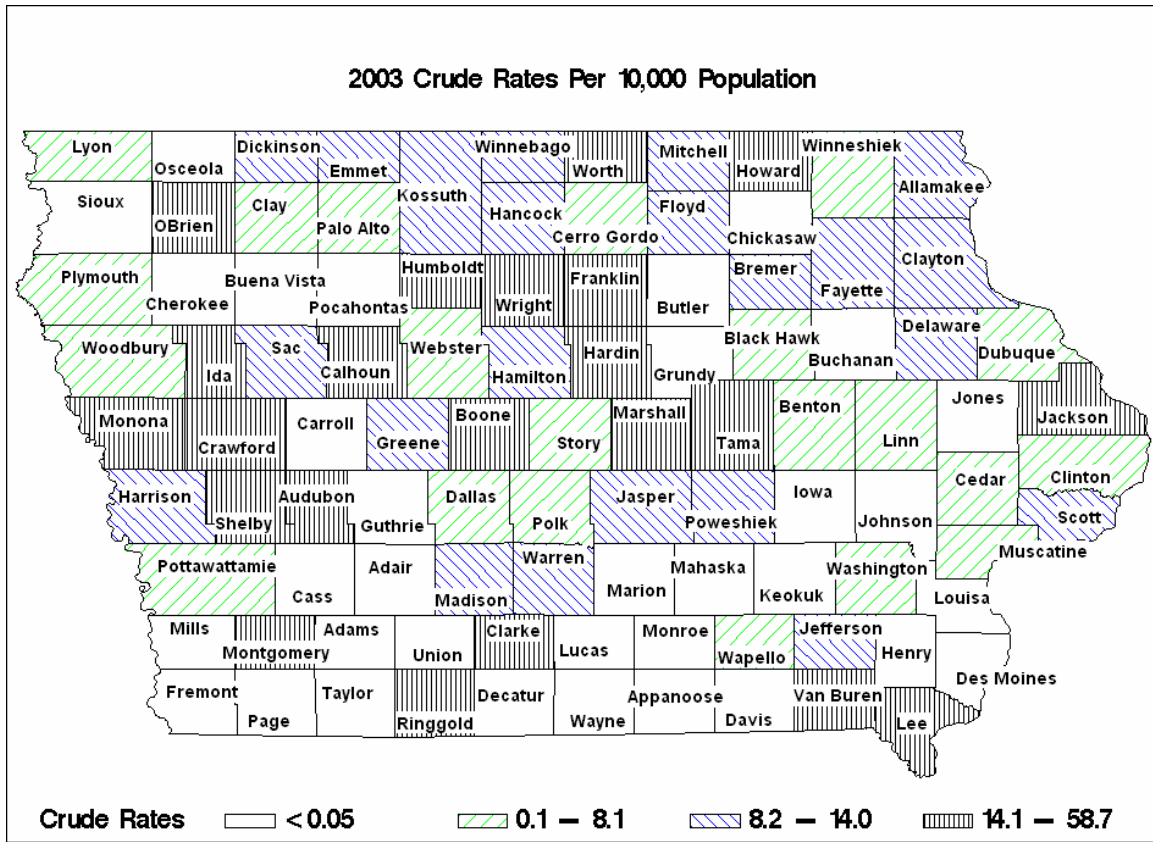
	County			County		
	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Counties with Average Population < 10,000	Adair	0	0.0	Lucas	0	0.0
	Adams	0	0.0	Monroe	0	0.0
	Audubon	39	58.7	Osceola	0	0.0
	Clarke	29	32.0	Pocahontas	0	0.0
	Davis	0	0.0	Ringgold	8	15.1
	Decatur	0	0.0	Taylor	0	0.0
	Fremont	0	0.0	Van Buren	18	23.1
	Howard	24	24.5	Wayne	0	0.0
	Ida	14	18.3	Worth	27	34.8
				<b>Total</b>	159	11.6
Counties with Average Population 10,000 to 20,000	Allamakee	20	13.7	Humboldt	24	23.6
	Appanoose	0	0.0	Iowa	0	0.0
	Butler	0	0.0	Jefferson	14	8.8
	Calhoun	28	25.9	Keokuk	0	0.0
	Cass	0	0.0	Kossuth	18	10.8
	Cedar	6	3.3	Louisa	0	0.0
	Cherokee	0	0.0	Lyon	9	7.7
	Chickasaw	0	0.0	Madison	18	12.4
	Clay	10	5.9	Mills	0	0.0
	Clayton	16	8.7	Mitchell	14	13.1
	Crawford	24	14.2	Monona	20	20.4
	Delaware	16	8.7	Montgomery	28	24.5
	Dickinson	14	8.5	O'Brien	30	20.2
	Emmet	15	14.0	Page	0	0.0
	Floyd	20	12.1	Palo Alto	8	8.1
	Franklin	19	17.7	Poweshiek	16	8.5
	Greene	10	9.9	Sac	12	10.8
	Grundy	0	0.0	Shelby	32	24.7
	Guthrie	0	0.0	Tama	32	17.8
	Hamilton	15	9.2	Union	0	0.0
Hancock	12	10.1	Winnebago	11	9.5	
Hardin	32	17.4	Wright	20	14.3	
Harrison	18	11.5	<b>Total</b>	581	9.2	
Counties with Average Population > 20,000	Benton	13	5.0	Jones	0	0.0
	Boone	38	14.5	Lee	58	15.7
	Bremer	30	6.4	Mahaska	0	0.0
	Buchanan	0	0.0	Marion	0	0.0
	Buena Vista	0	0.0	Marshall	78	19.8
	Carroll	0	0.0	Muscatine	19	4.5
	Cerro Gordo	27	6.0	Plymouth	17	6.9
	Clinton	24	4.8	Sioux	0	0.0
	Des Moines	0	0.0	Story	48	6.0
	Fayette	24	11.1	Wapello	20	5.6
	Henry	0	0.0	Washington	11	5.2
	Jackson	37	18.3	Webster	30	7.5
	Jasper	40	10.7	Winneshiek	10	4.7
				<b>Total</b>	524	6.4
MSA Counties	Black Hawk	54	4.2	Polk	154	4.0
	Dallas	31	7.0	Pottawattamie	37	4.2
	Dubuque	28	3.1	Scott	141	8.8
	Johnson	0	0.0	Warren	52	12.5
	Linn	106	5.4	Woodbury	62	6.0
			<b>Total</b>	665	4.9	
<b>State Totals</b>		1,929	6.6			

<sup>1</sup>Rates per 10,000 population

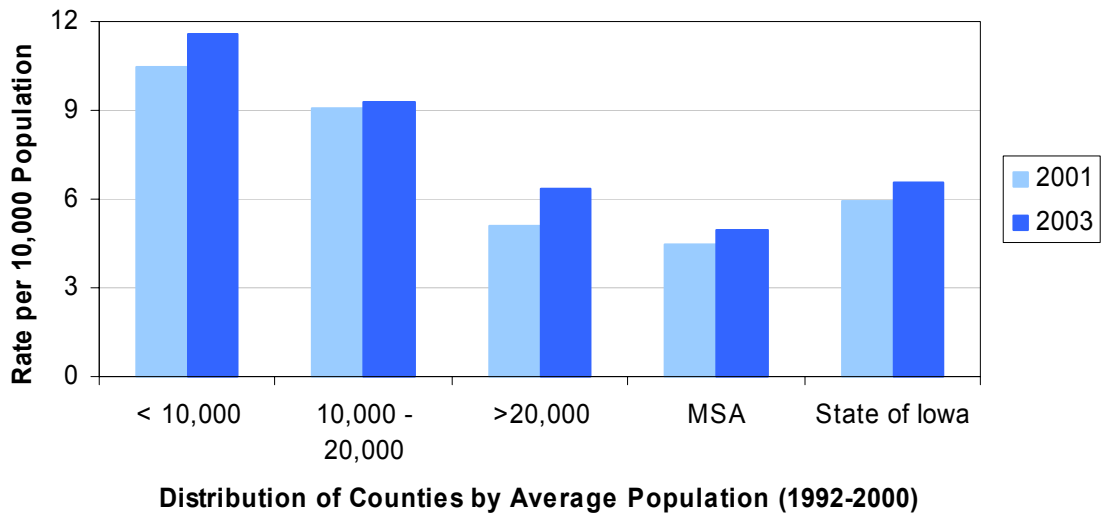
Source: Department of Inspections and Appeals, Iowa Department of Public Health



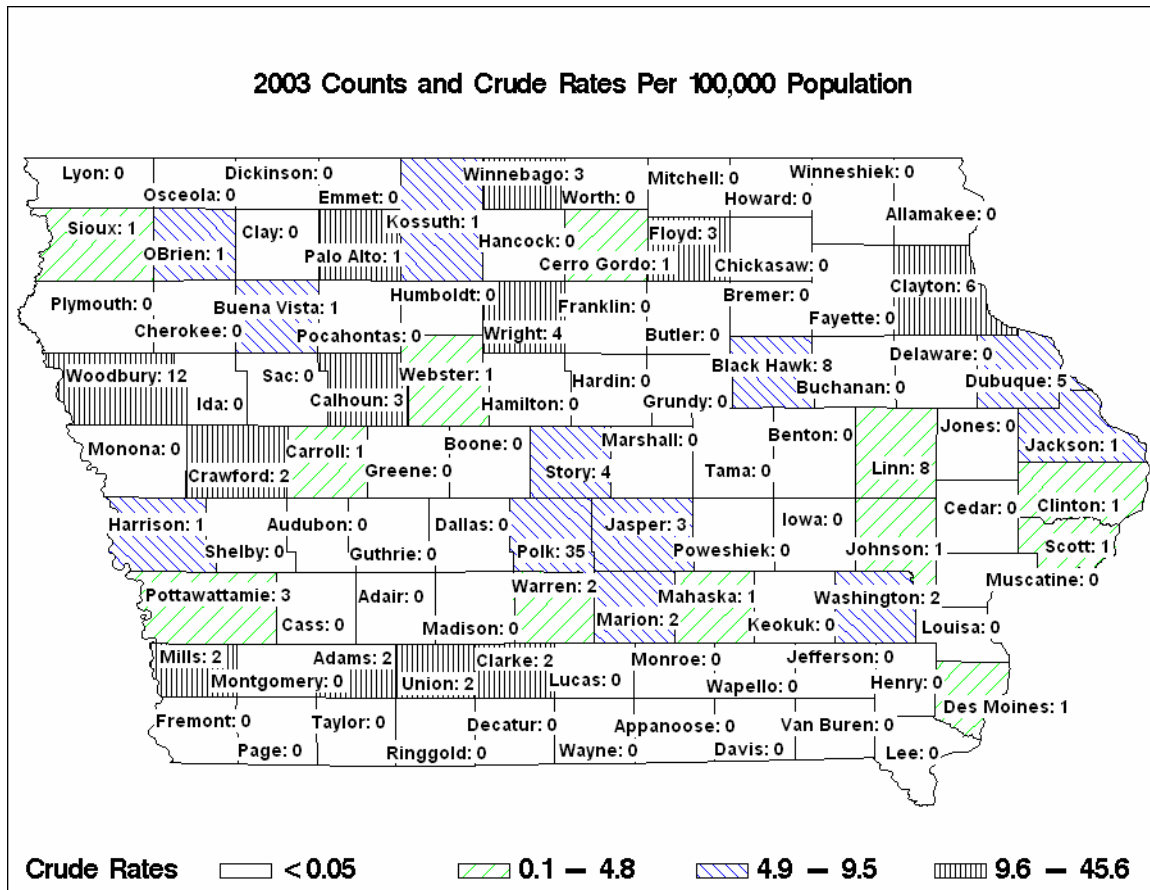
# Beds in Chronic Confusion or Dementing Illness Units



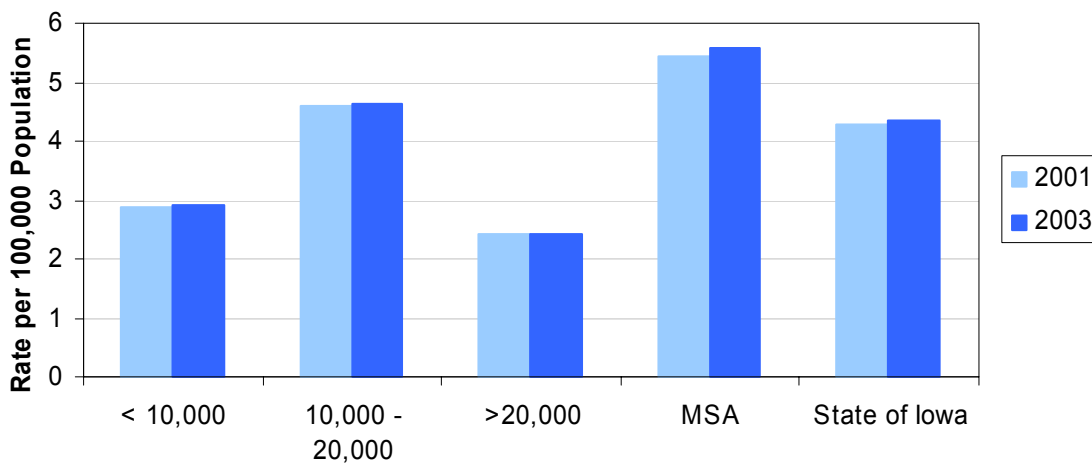
**Crude Rates, 2001 and 2003**



## Intermediate Care Facilities for the Mentally Retarded



**Crude Rates, 2001 and 2003**



**Distribution of Counties by Average Population (1992-2000)**

Source: Department of Inspections and Appeals, Iowa Department of Public Health

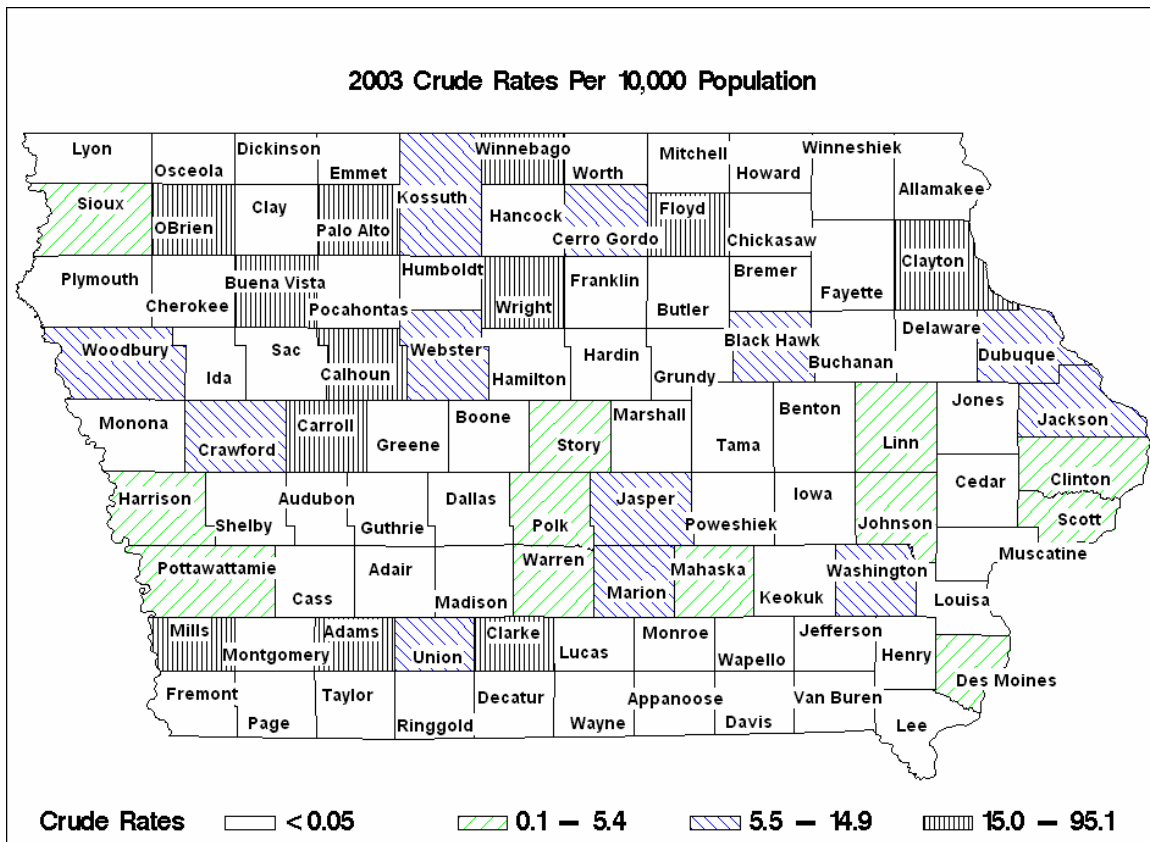
## Intermediate Care Beds for the Mentally Retarded - 2003

	County			County		
	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Counties with Average Population < 10,000	Adair	0	0.0	Lucas	0	0.0
	Adams	12	27.4	Monroe	0	0.0
	Audubon	0	0.0	Osceola	0	0.0
	Clarke	14	15.5	Pocahontas	0	0.0
	Davis	0	0.0	Ringgold	0	0.0
	Decatur	0	0.0	Taylor	0	0.0
	Fremont	0	0.0	Van Buren	0	0.0
	Howard	0	0.0	Wayne	0	0.0
	Ida	0	0.0	Worth	0	0.0
				<b>Total</b>	26	1.9
Counties with Average Population 10,000 to 20,000	Allamakee	0	0.0	Humboldt	0	0.0
	Appanoose	0	0.0	Iowa	0	0.0
	Butler	0	0.0	Jefferson	0	0.0
	Calhoun	64	59.2	Keokuk	0	0.0
	Cass	0	0.0	Kossuth	15	9.0
	Cedar	0	0.0	Louisa	0	0.0
	Cherokee	0	0.0	Lyon	0	0.0
	Chickasaw	0	0.0	Madison	0	0.0
	Clay	0	0.0	Mills	140	95.1
	Clayton	36	19.6	Mitchell	0	0.0
	Crawford	12	7.1	Monona	0	0.0
	Delaware	0	0.0	Montgomery	0	0.0
	Dickinson	0	0.0	O'Brien	60	40.4
	Emmet	0	0.0	Page	0	0.0
	Floyd	59	35.6	Palo Alto	16	16.2
	Franklin	0	0.0	Poweshiek	0	0.0
	Greene	0	0.0	Sac	0	0.0
	Grundy	0	0.0	Shelby	0	0.0
	Guthrie	0	0.0	Tama	0	0.0
	Hamilton	0	0.0	Union	18	14.9
Hancock	0	0.0	Winnebago	44	38.0	
Hardin	0	0.0	Wright	24	17.2	
Harrison	6	3.8	<b>Total</b>	494	7.9	
Counties with Average Population > 20,000	Benton	0	0.0	Jones	0	0.0
	Boone	0	0.0	Lee	0	0.0
	Bremer	0	3.7	Mahaska	8	3.6
	Buchanan	0	0.0	Marion	23	7.0
	Buena Vista	32	15.7	Marshall	0	0.0
	Carroll	49	23.2	Muscatine	0	0.0
	Cerro Gordo	30	6.6	Plymouth	0	0.0
	Clinton	25	5.0	Sioux	12	3.8
	Des Moines	16	3.9	Story	24	3.0
	Fayette	0	0.0	Wapello	0	0.0
	Henry	0	0.0	Washington	16	7.6
	Jackson	12	5.9	Webster	30	7.5
	Jasper	24	6.4	Winneshiek	0	0.0
				<b>Total</b>	301	3.7
MSA Counties	Black Hawk	129	10.1	Polk	207	5.4
	Dallas	0	0.0	Pottawattamie	24	2.7
	Dubuque	94	10.5	Scott	54	3.4
	Johnson	8	0.7	Warren	16	3.9
	Linn	82	4.2	Woodbury	144	13.9
<b>State Totals</b>	1,579	5.4	<b>Total</b>	758	5.6	

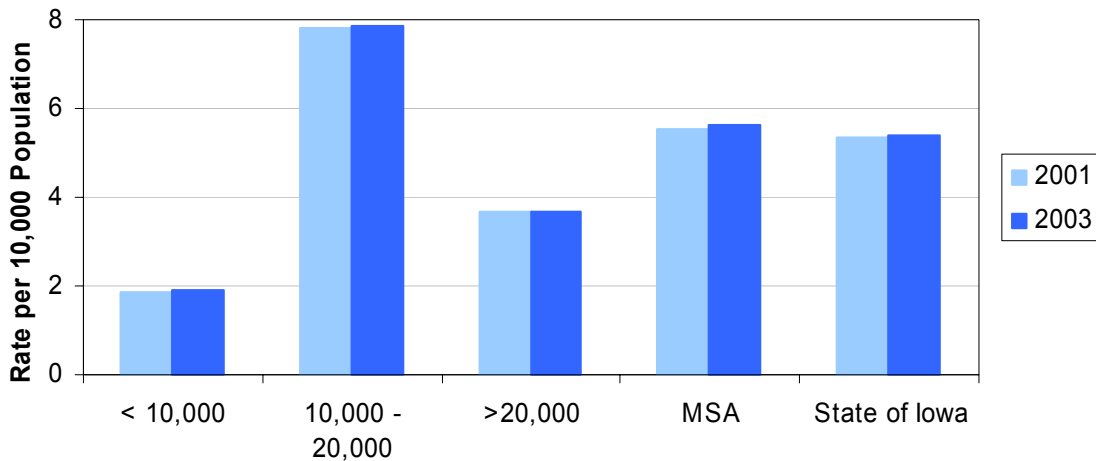
<sup>1</sup>Rates per 10,000 population

Source: Department of Inspections and Appeals, Iowa Department of Public Health

## Intermediate Care Beds for the Mentally Retarded

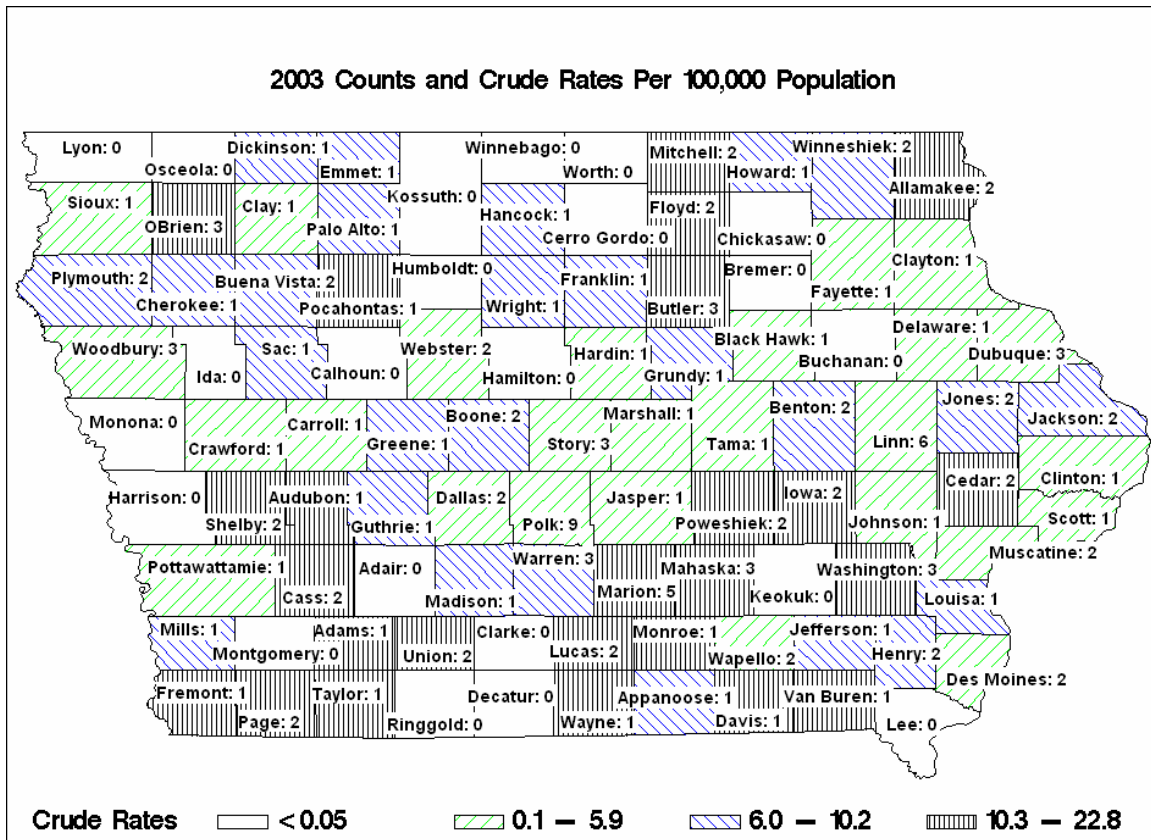


**Crude Rates, 2001 and 2003**

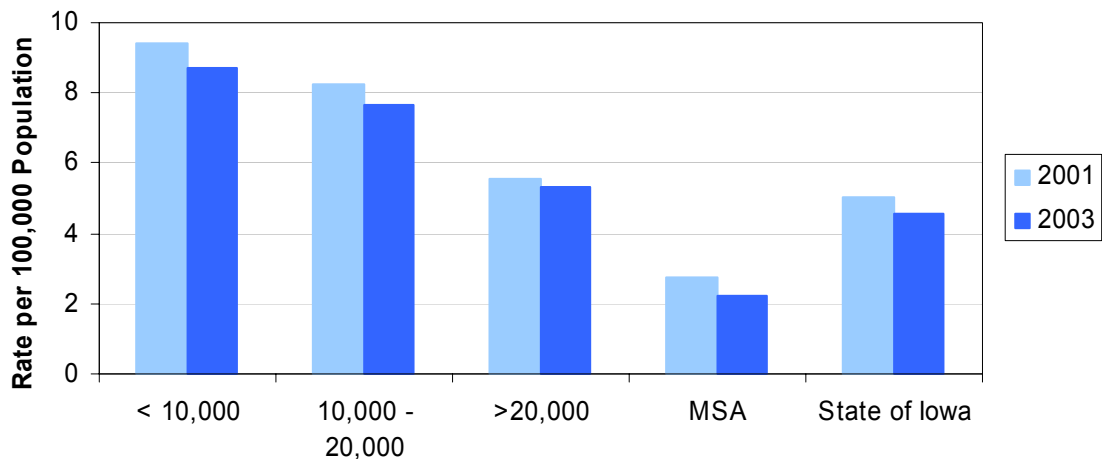


**Distribution of Counties by Average Population (1992-2000)**

# Residential Care Facilities



## Crude Rates, 2001 and 2003



Distribution of Counties by Average Population (1992-2000)

Source: Department of Inspections and Appeals, Iowa Department of Public Health

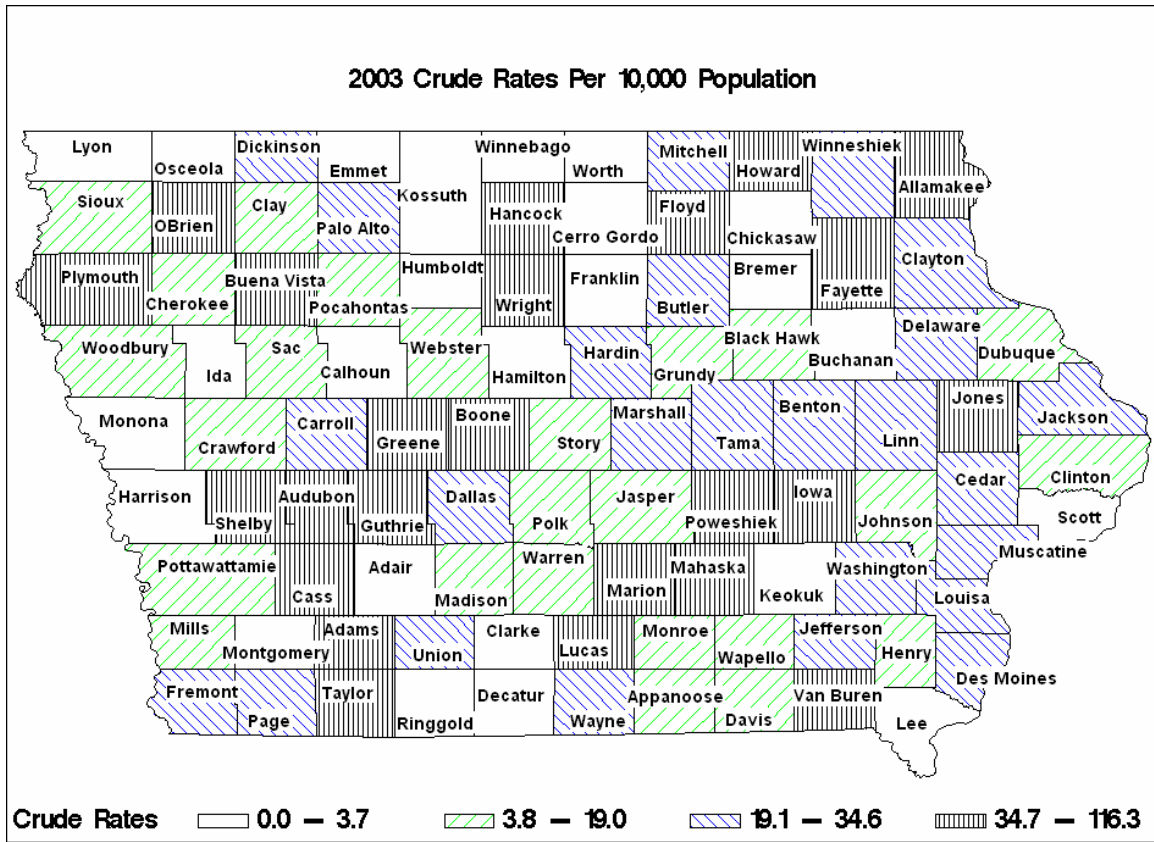
## Beds in Residential Care Facilities - 2003

	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Counties with Average Population < 10,000	Adair	0	0.0	Lucas	42	44.5
	Adams	51	116.3	Monroe	9	11.5
	Audubon	43	64.7	Osceola	0	0.0
	Clarke	0	0.0	Pocahontas	9	10.8
	Davis	6	7.0	Ringgold	0	0.0
	Decatur	0	0.0	Taylor	62	89.9
	Fremont	21	27.1	Van Buren	48	61.5
	Howard	49	50.0	Wayne	15	22.6
	Ida	0	0.0	Worth	0	0.0
				<b>Total</b>	<b>355</b>	<b>25.8</b>
Counties with Average Population 10,000 to 20,000	Allamakee	86	58.9	Humboldt	0	0.0
	Appanoose	10	7.5	Iowa	65	41.1
	Butler	33	21.9	Jefferson	51	32.0
	Calhoun	0	0.0	Keokuk	0	0.0
	Cass	58	40.7	Kossuth	0	0.0
	Cedar	35	19.1	Louisa	39	31.8
	Cherokee	20	15.7	Lyon	0	0.0
	Chickasaw	0	0.0	Madison	19	13.1
	Clay	15	8.8	Mills	25	17.0
	Clayton	52	28.3	Mitchell	34	31.8
	Crawford	25	14.7	Monona	0	0.0
	Delaware	60	32.7	Montgomery	0	0.0
	Dickinson	38	23.0	O'Brien	72	48.5
	Emmet	2	1.9	Page	42	25.4
	Floyd	82	49.5	Palo Alto	33	33.4
	Franklin	4	3.7	Poweshiek	84	44.4
	Greene	40	39.4	Sac	18	16.2
	Grundy	8	6.4	Shelby	74	57.0
	Guthrie	41	36.2	Tama	40	22.3
	Hamilton	0	0.0	Union	32	26.4
Hancock	51	43.1	Winnebago	0	0.0	
Hardin	40	21.8	Wright	50	35.8	
Harrison	0	0.0	<b>Total</b>	<b>1,378</b>	<b>21.9</b>	
Counties with Average Population > 20,000	Benton	76	29.1	Jones	99	48.5
	Boone	145	55.4	Lee	0	0.0
	Bremer	0	20.1	Mahaska	116	52.2
	Buchanan	0	0.0	Marion	203	62.1
	Buena Vista	92	45.2	Marshall	113	28.6
	Carroll	47	22.3	Muscatine	83	19.7
	Cerro Gordo	0	0.0	Plymouth	102	41.4
	Clinton	58	11.7	Sioux	15	4.7
	Des Moines	80	19.3	Story	32	4.0
	Fayette	90	41.5	Wapello	37	10.3
	Henry	34	16.9	Washington	73	34.6
	Jackson	55	27.2	Webster	30	7.5
	Jasper	20	5.4	Winneshiek	53	24.7
				<b>Total</b>	<b>1,653</b>	<b>20.1</b>
MSA Counties	Black Hawk	50	3.9	Polk	310	8.0
	Dallas	123	27.8	Pottawattamie	64	7.3
	Dubuque	170	19.0	Scott	54	3.4
	Johnson	114	10.0	Warren	62	14.9
	Linn	463	23.7	Woodbury	167	16.2
<b>State Totals</b>	<b>4,963</b>	<b>16.9</b>	<b>Total</b>	<b>1,577</b>	<b>11.7</b>	

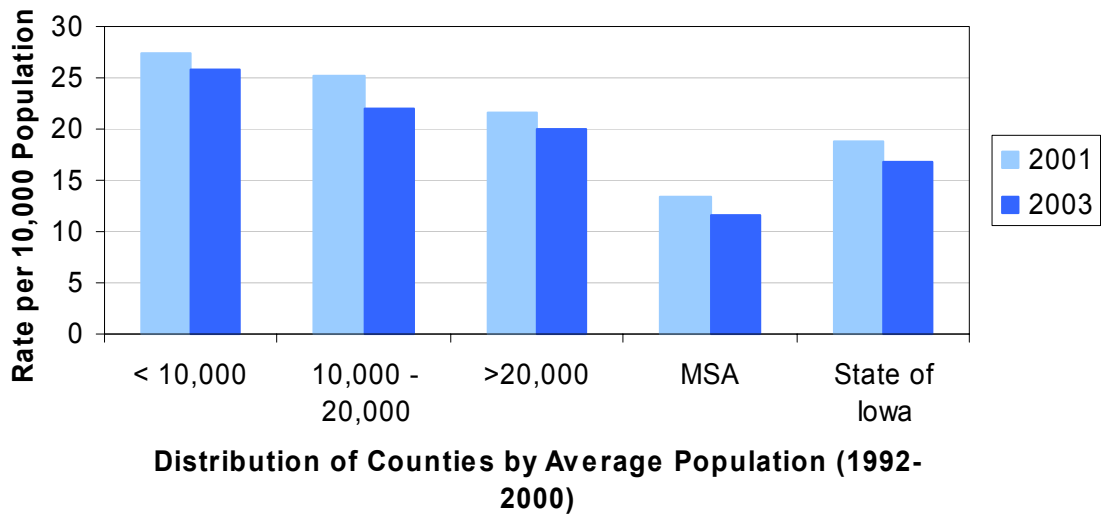
<sup>1</sup>Rates per 10,000 population

Source: Department of Inspections and Appeals, Iowa Department of Public Health

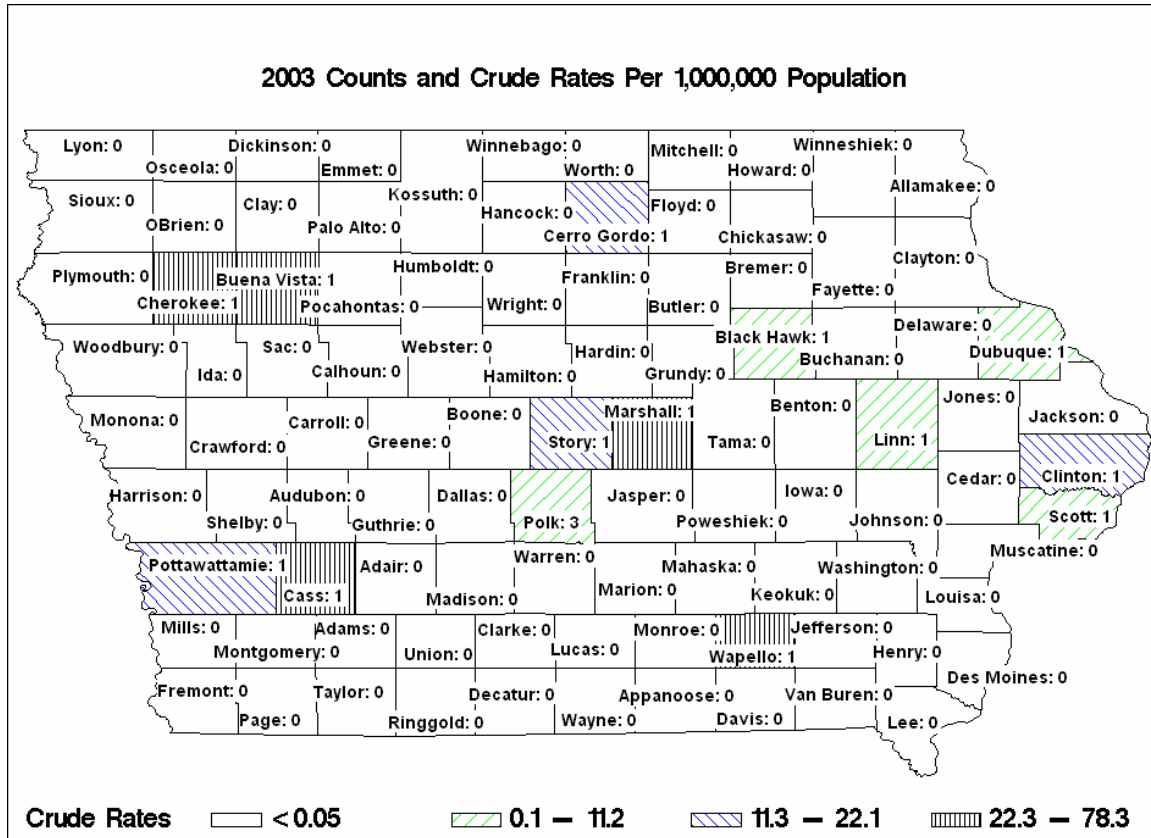
## Beds in Residential Care Facilities



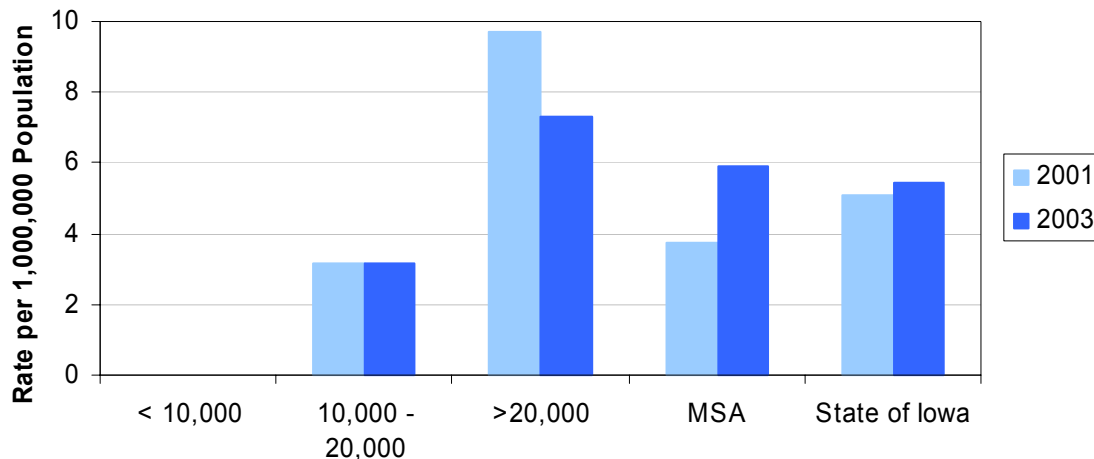
**Crude Rates, 2001 and 2003**



## Residential Care Facilities for Persons with Mental Illness



**Crude Rates, 2001 and 2003**

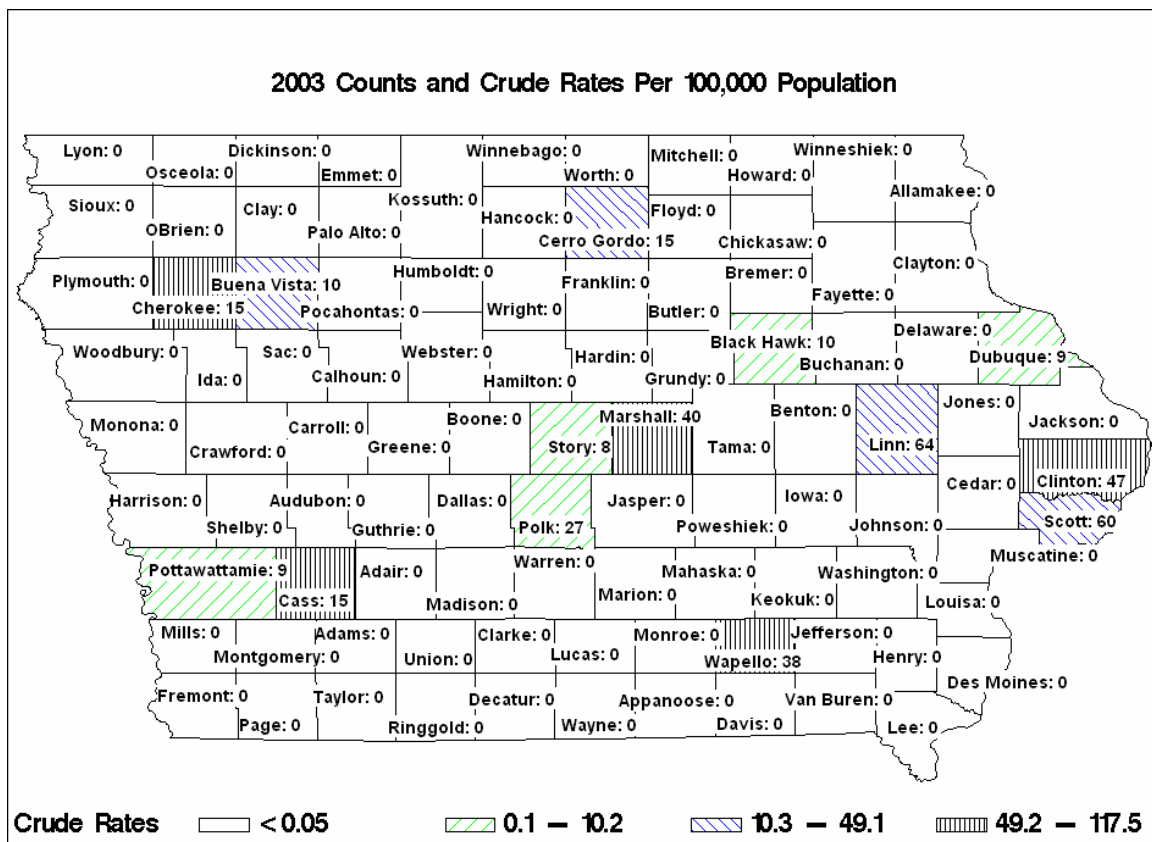


**Distribution of Counties by Average Population (1992-2000)**

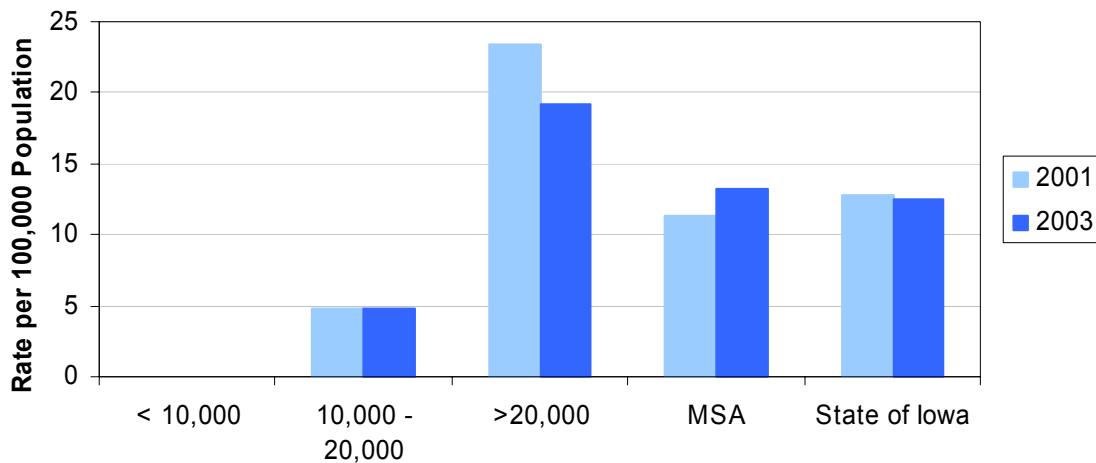
Source: Department of Inspections and Appeals, Iowa Department of Public Health



# Beds in Residential Care Facilities for Persons with Mental Illness



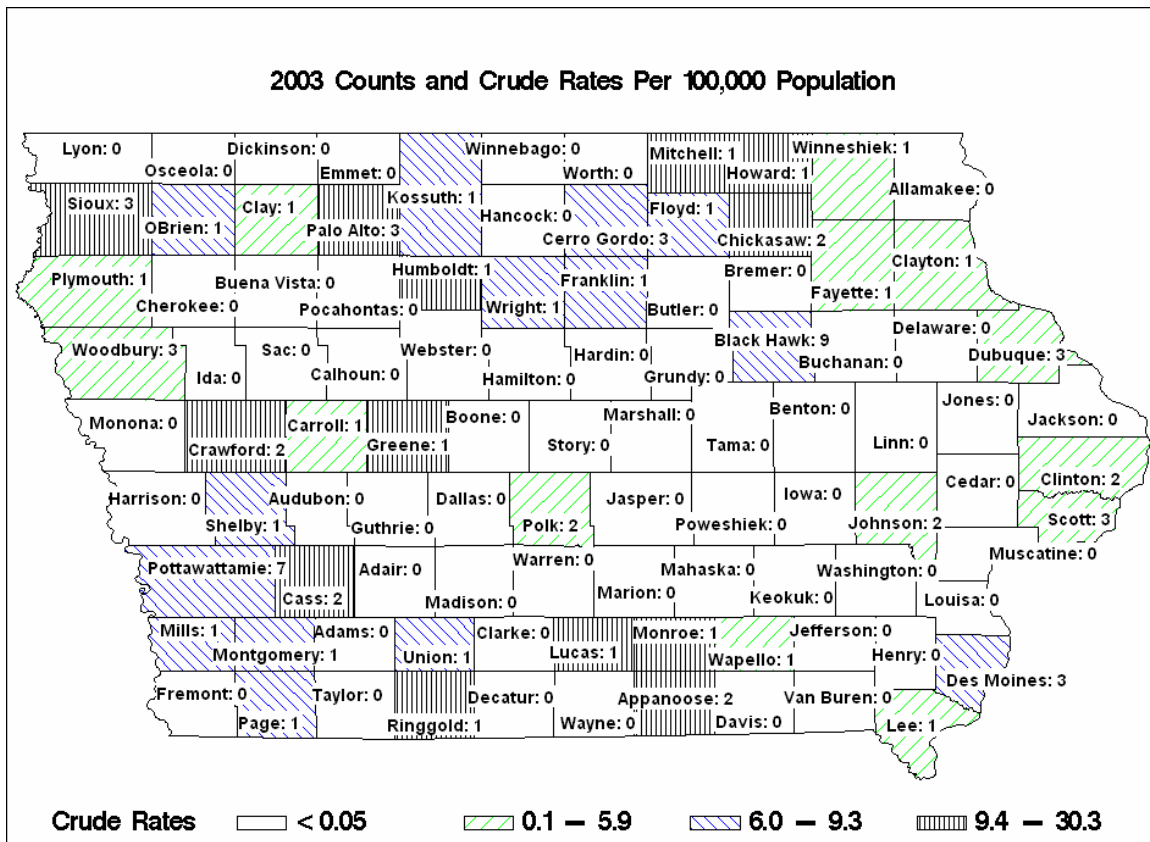
**Crude Rates, 2001 and 2003**



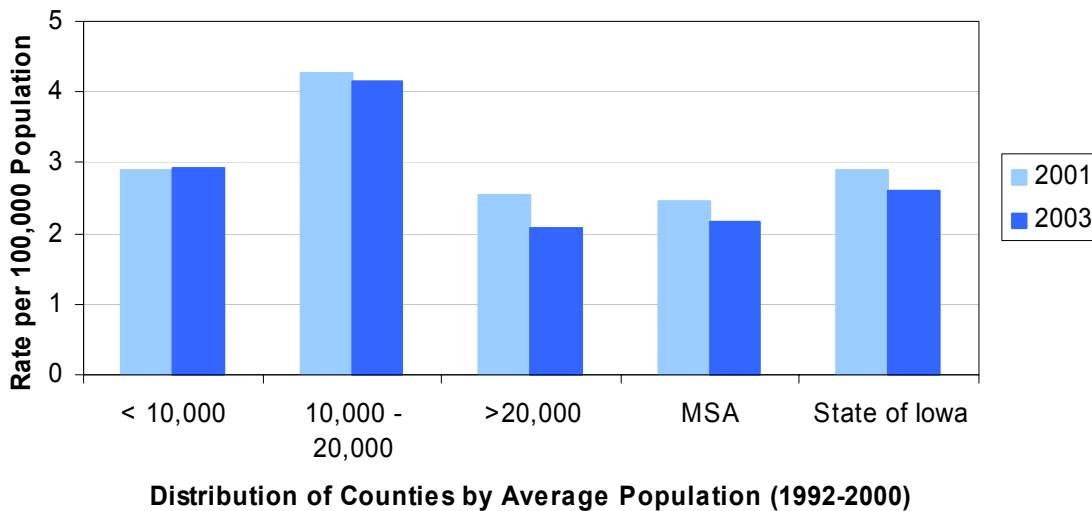
**Distribution of Counties by Average Population (1992-2000)**

Source: Department of Inspections and Appeals, Iowa Department of Public Health

## Residential Care Facilities for the Mentally Retarded



**Crude Rates, 2001 and 2003**



Source: Department of Inspections and Appeals, Iowa Department of Public Health

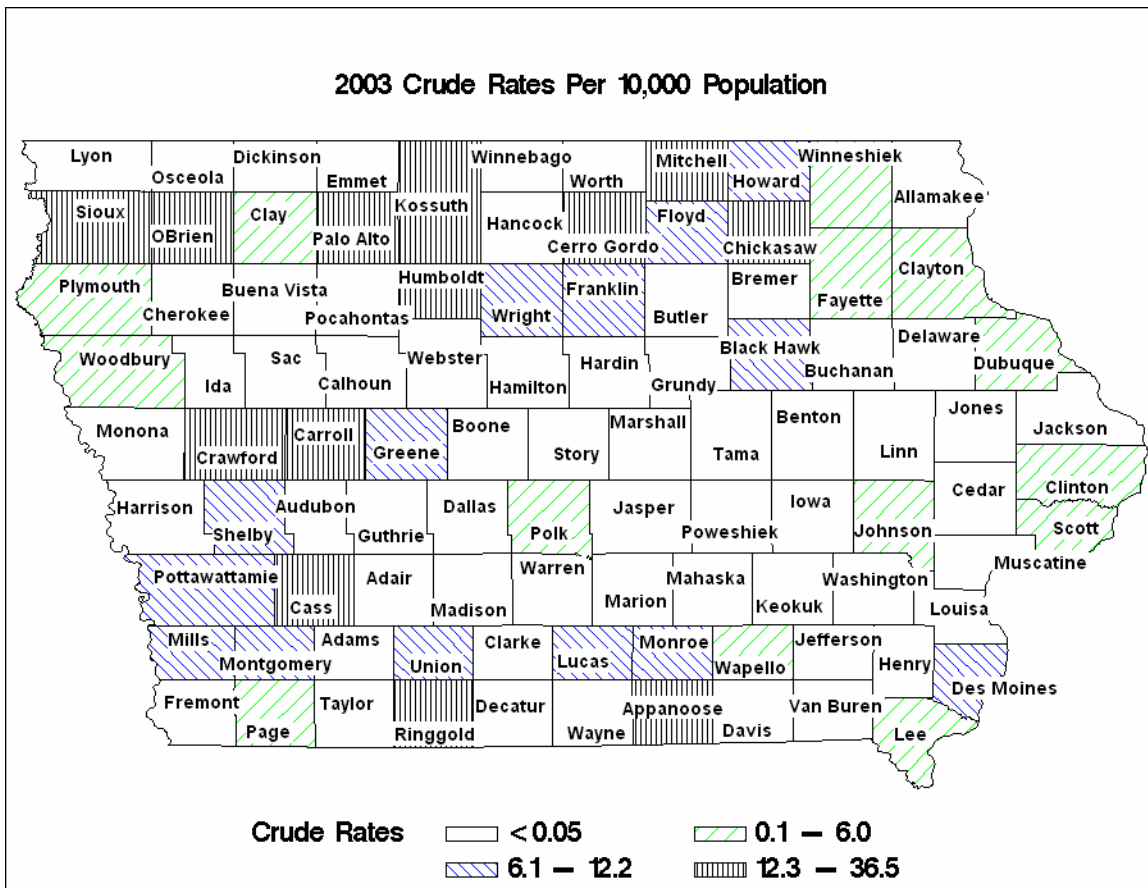
## Beds in Residential Care Facilities for the Mentally Retarded - 2003

	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Counties with Average Population < 10,000	Adair	0	0.0	Lucas	8	8.5
	Adams	0	0.0	Monroe	9	11.5
	Audubon	0	0.0	Osceola	0	0.0
	Clarke	0	0.0	Pocahontas	0	0.0
	Davis	0	0.0	Ringgold	8	15.1
	Decatur	0	0.0	Taylor	0	0.0
	Fremont	0	0.0	Van Buren	0	0.0
	Howard	12	12.2	Wayne	0	0.0
	Ida	0	0.0	Worth	0	0.0
				<b>Total</b>	<b>37</b>	<b>2.7</b>
Counties with Average Population 10,000 to 20,000	Allamakee	0	0.0	Humboldt	15	14.8
	Appanoose	18	13.4	Iowa	0	0.0
	Butler	0	0.0	Jefferson	0	0.0
	Calhoun	0	0.0	Keokuk	0	0.0
	Cass	27	19.0	Kossuth	34	20.4
	Cedar	0	0.0	Louisa	0	0.0
	Cherokee	0	0.0	Lyon	0	0.0
	Chickasaw	47	36.5	Madison	0	0.0
	Clay	9	5.3	Mills	10	6.8
	Clayton	10	5.4	Mitchell	15	14.0
	Crawford	27	15.9	Monona	0	0.0
	Delaware	0	0.0	Montgomery	10	8.7
	Dickinson	0	0.0	O'Brien	32	21.6
	Emmet	0	0.0	Page	10	6.0
	Floyd	12	7.2	Palo Alto	25	25.3
	Franklin	12	11.2	Poweshiek	0	0.0
	Greene	10	9.9	Sac	0	0.0
	Grundy	0	0.0	Shelby	9	6.9
	Guthrie	0	0.0	Tama	0	0.0
	Hamilton	0	0.0	Union	9	7.4
Hancock	0	0.0	Winnebago	0	0.0	
Hardin	0	0.0	Wright	12	8.6	
Harrison	0	0.0	<b>Total</b>	<b>353</b>	<b>5.6</b>	
Counties with Average Population > 20,000	Benton	0	0.0	Jones	0	0.0
	Boone	0	0.0	Lee	8	2.2
	Bremer	0	4.0	Mahaska	0	0.0
	Buchanan	0	0.0	Marion	0	0.0
	Buena Vista	0	0.0	Marshall	0	0.0
	Carroll	36	17.1	Muscatine	0	0.0
	Cerro Gordo	158	34.8	Plymouth	8	3.2
	Clinton	10	2.0	Sioux	39	12.3
	Des Moines	36	8.7	Story	0	0.0
	Fayette	8	3.7	Wapello	15	4.2
	Henry	0	0.0	Washington	0	0.0
	Jackson	0	0.0	Webster	0	0.0
	Jasper	0	0.0	Winneshiek	9	4.2
				<b>Total</b>	<b>327</b>	<b>4.0</b>
MSA Counties	Black Hawk	104	8.2	Polk	28	0.7
	Dallas	0	0.0	Pottawattamie	91	10.3
	Dubuque	23	2.6	Scott	24	1.5
	Johnson	12	1.0	Warren	0	0.0
	Linn	0	0.0	Woodbury	28	2.7
			<b>Total</b>	<b>310</b>	<b>2.3</b>	
<b>State Totals</b>		<b>1,027</b>	<b>3.5</b>			

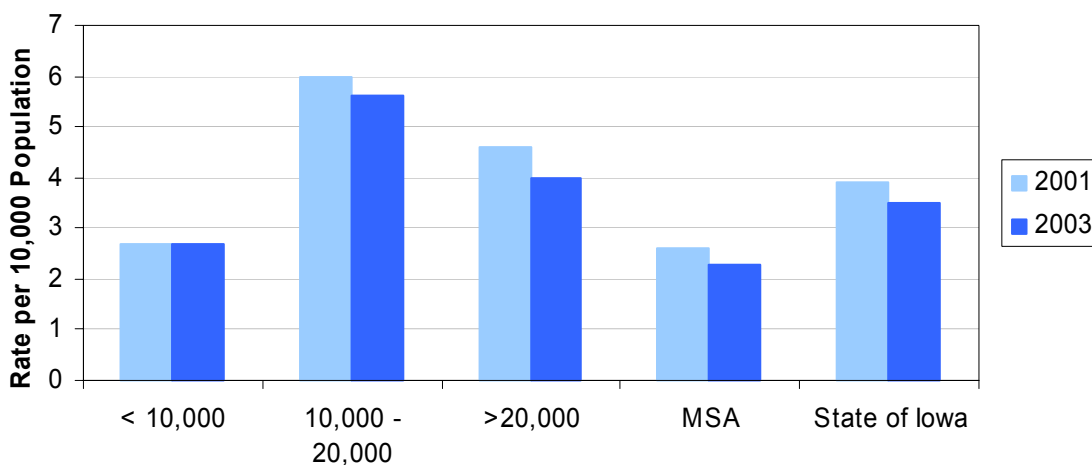
<sup>1</sup>Rates per 10,000 population

Source: Department of Inspections and Appeals, Iowa Department of Public Health

# Beds in Residential Care Facilities for the Mentally Retarded

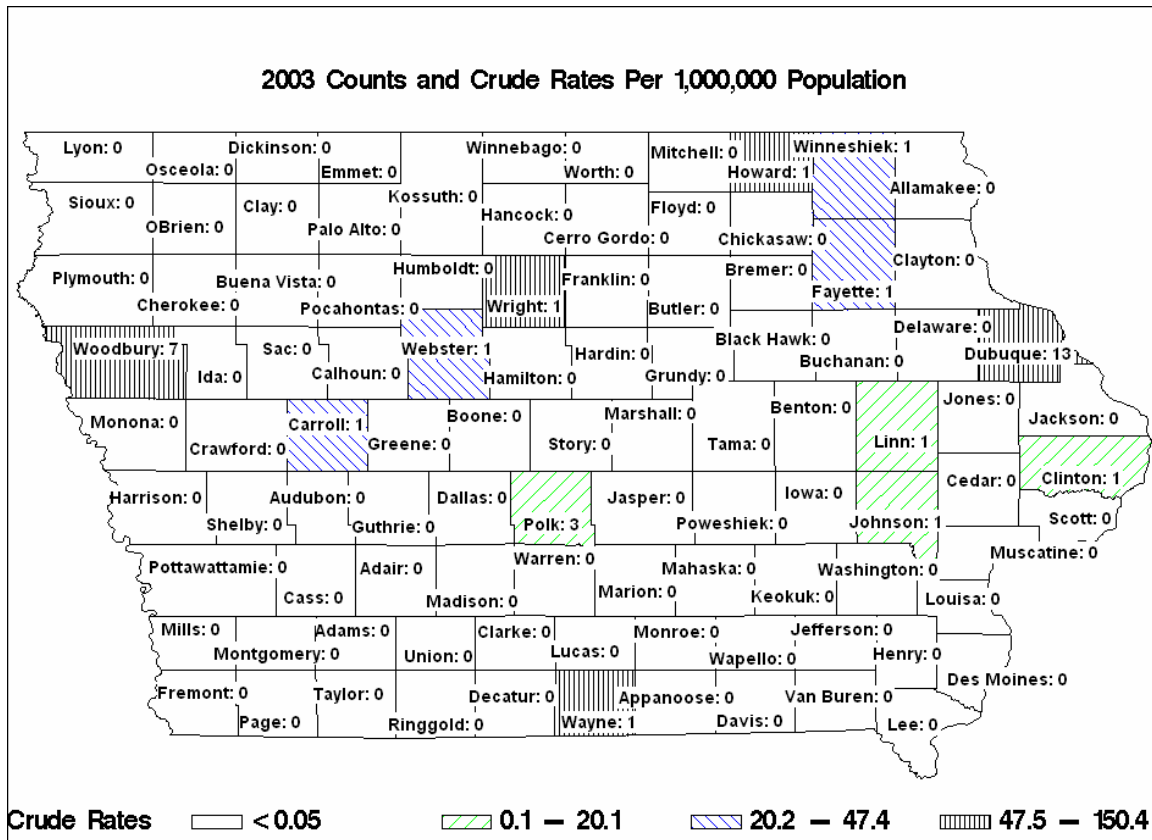


## Crude Rates, 2001 and 2003

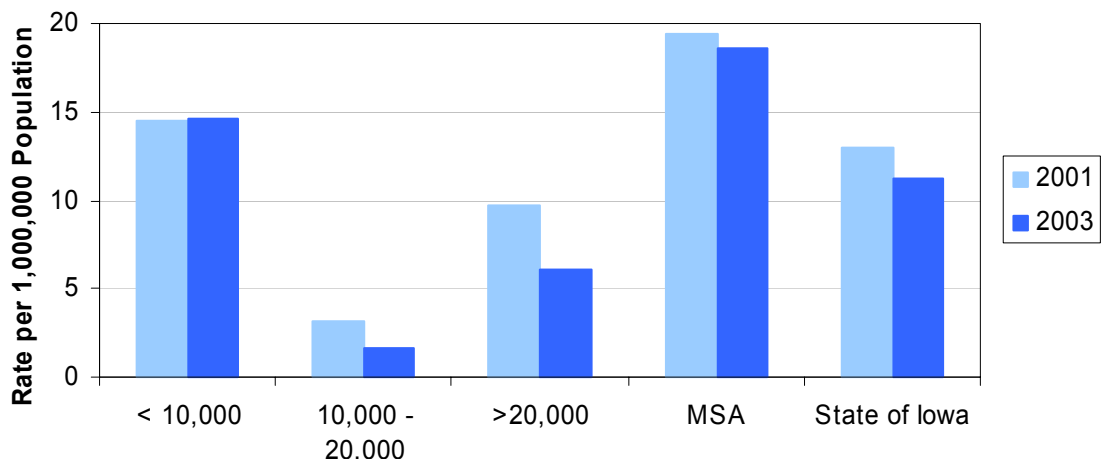


**Distribution of Counties by Average Population (1992-2000)**

### 3-5 Bed Units for the Mentally Retarded



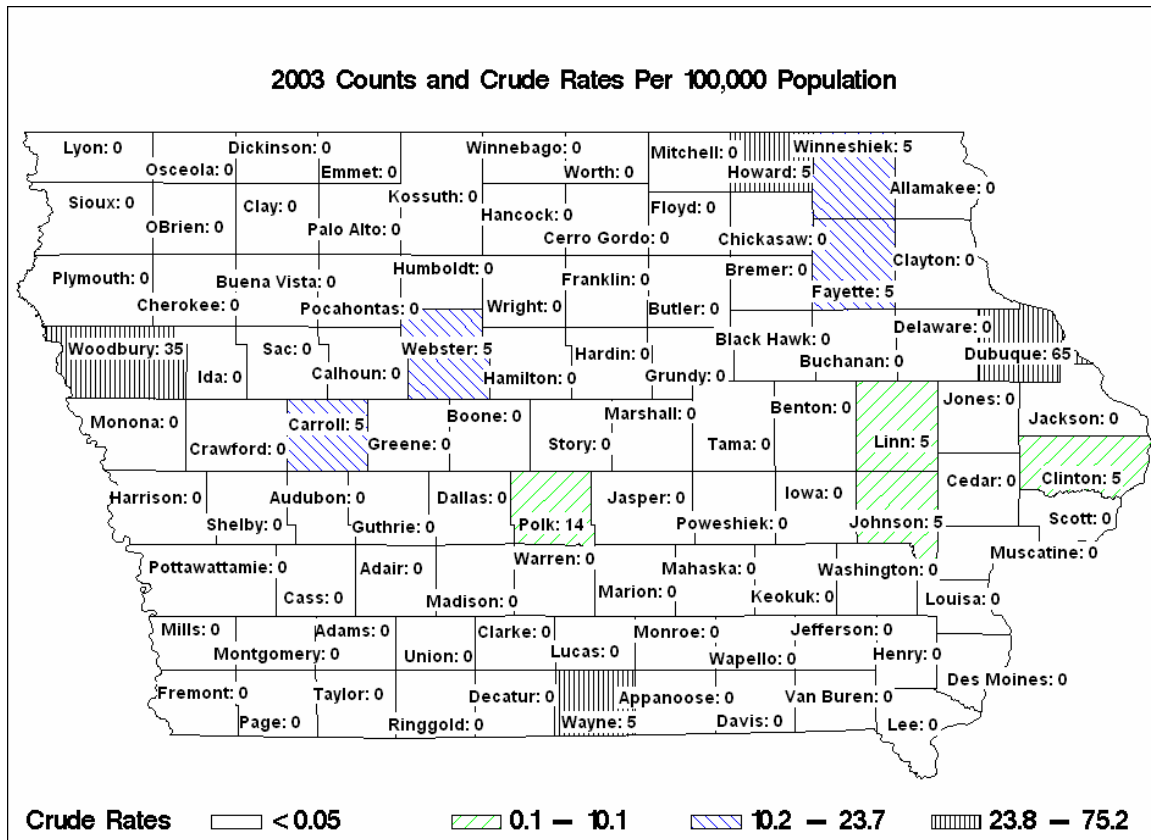
### Crude Rates, 2001 and 2003



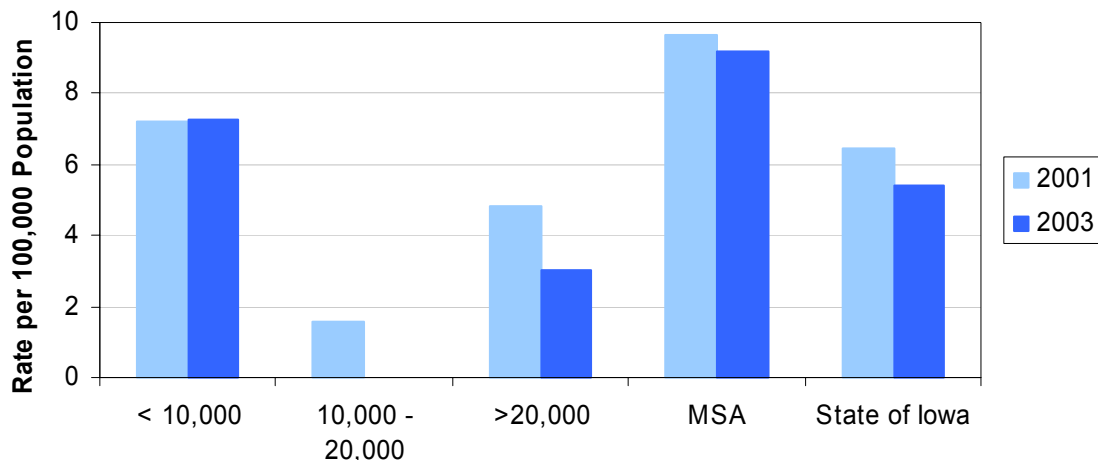
Distribution of Counties by Average Population (1992-2000)

Source: Department of Inspections and Appeals, Iowa Department of Public Health

## Beds in 3-5 Bed Units for the Mentally Retarded



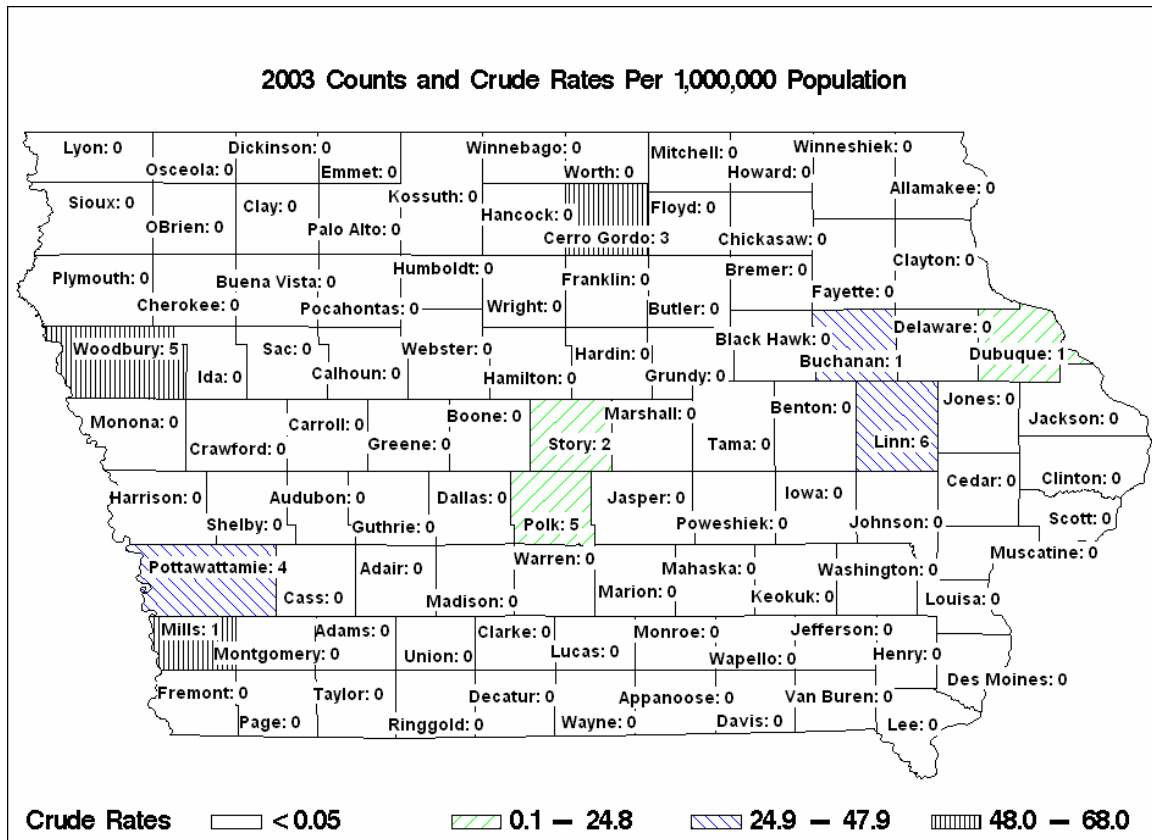
### Crude Rates, 2001 and 2003



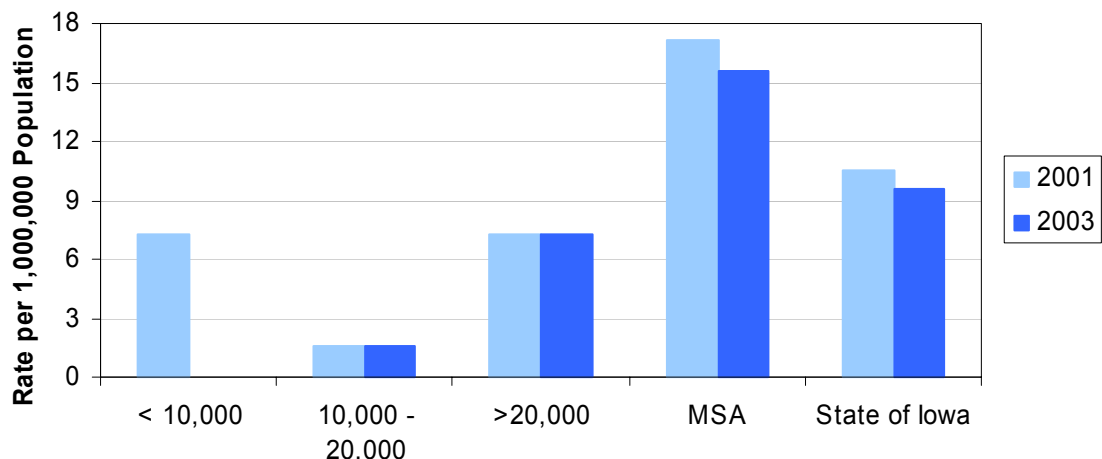
Distribution of Counties by Average Population (1992-2000)

Source: Department of Inspections and Appeals, Iowa Department of Public Health

## Psychiatric Medical Institutions for Children



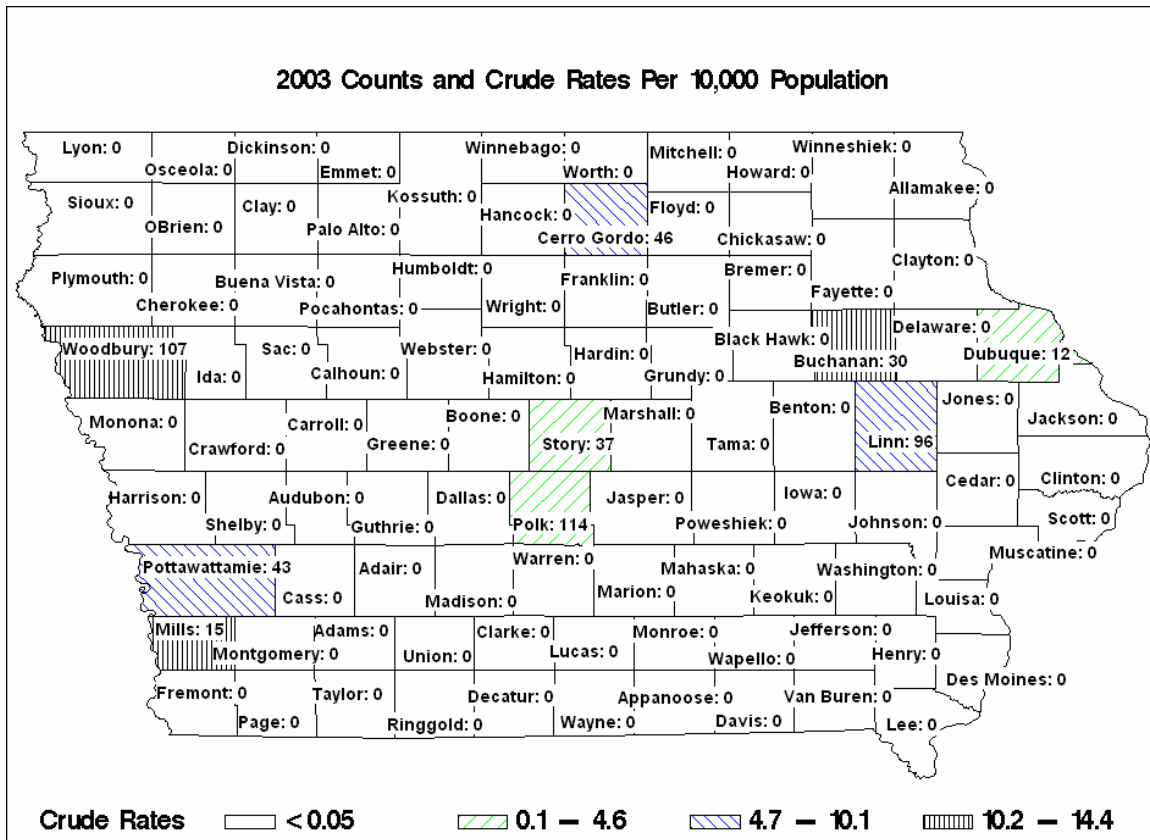
### Crude Rates, 2001 and 2003



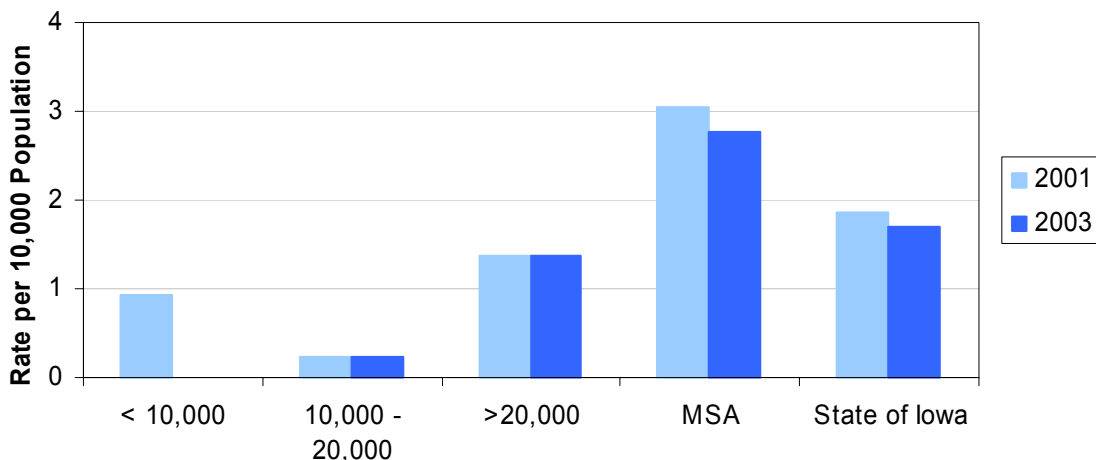
Distribution of Counties by Average Population (1992-2000)

Source: Department of Inspections and Appeals, Iowa Department of Public Health

## Beds in Psychiatric Medical Institutions for Children



### Crude Rates, 2001 and 2003

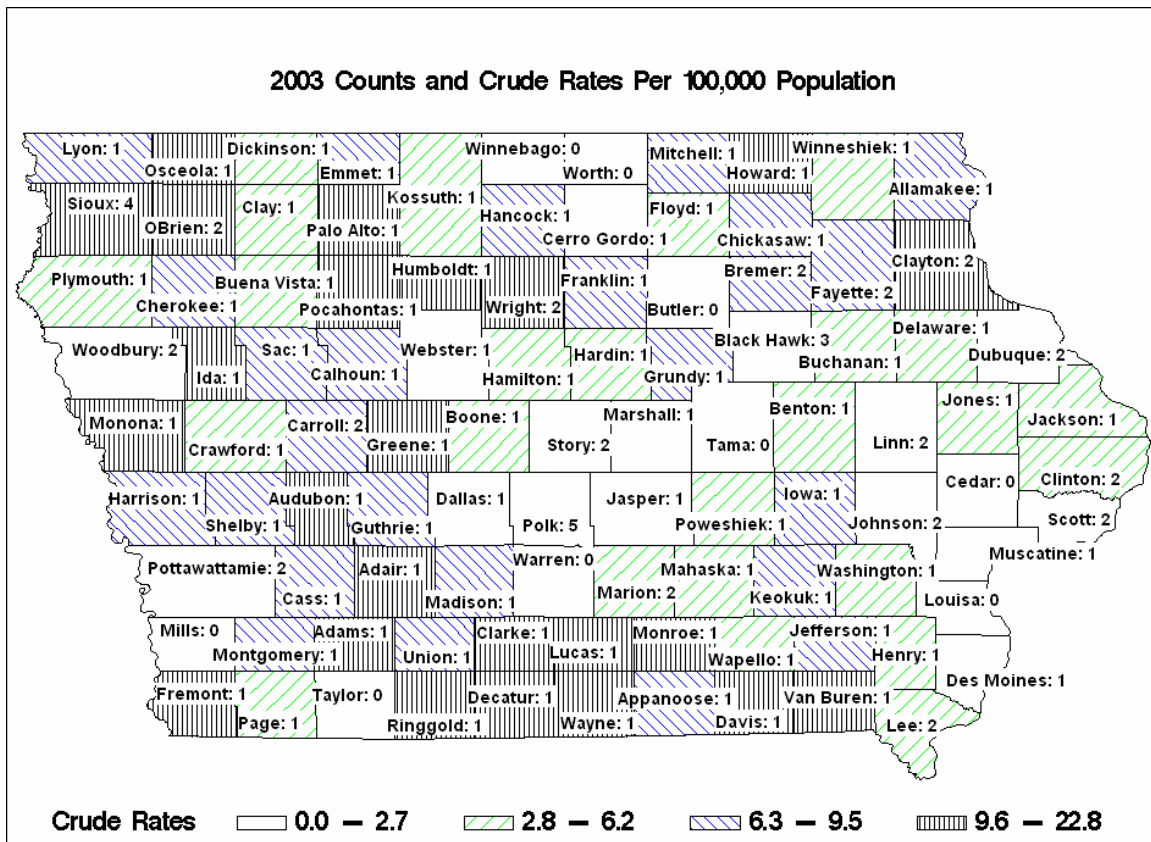


Distribution of Counties by Average Population (1992-2000)

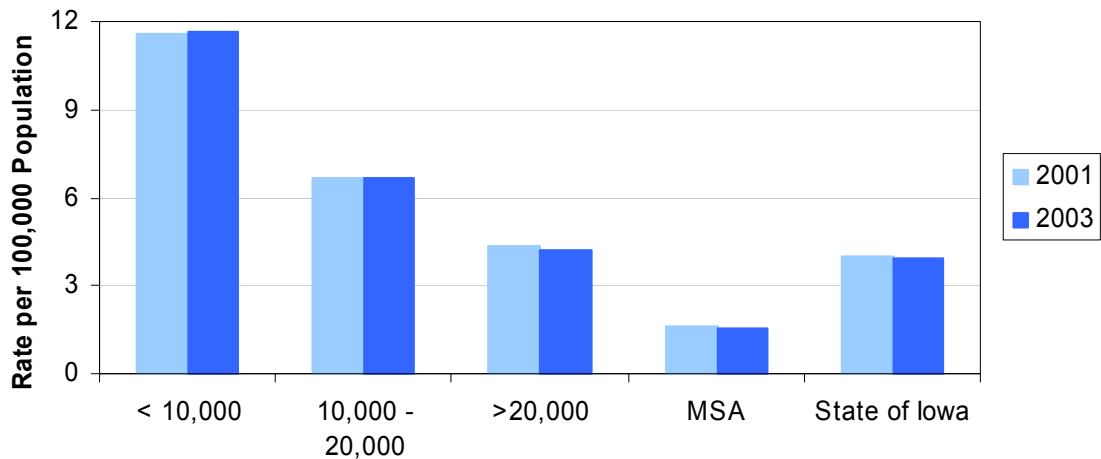
Source: Department of Inspections and Appeals, Iowa Department of Public Health



# Total Trauma Facilities



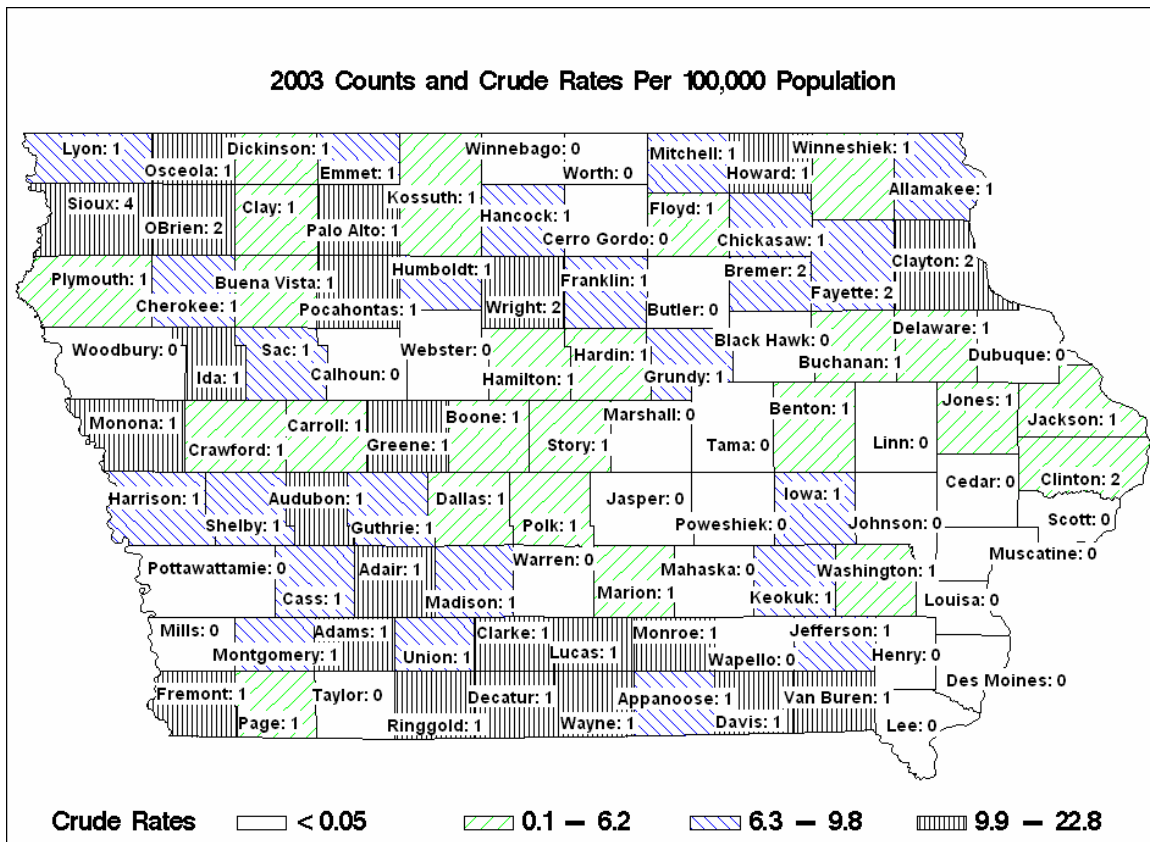
## Crude Rates, 2001 and 2003



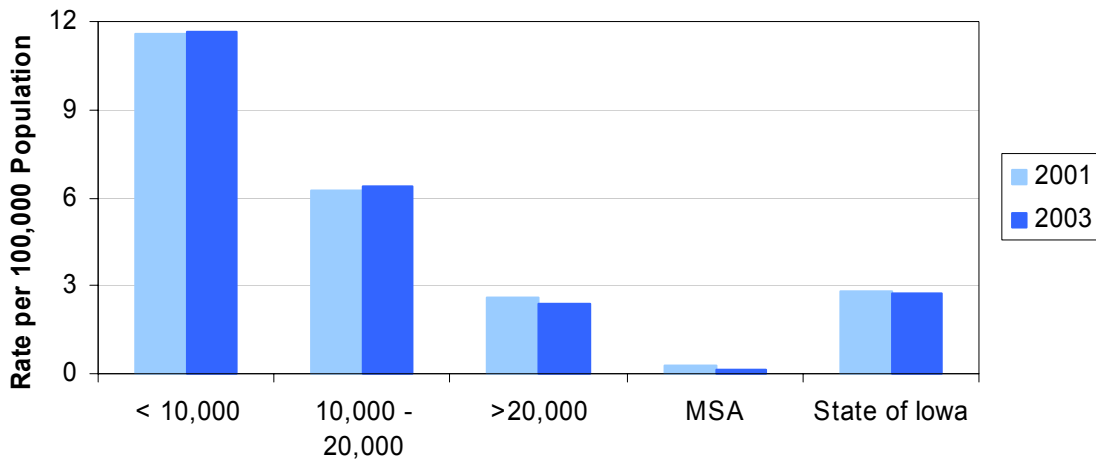
Distribution of Counties by Average Population (1992-2000)

Source: Department of Inspections and Appeals, Iowa Department of Public Health

## Community Trauma Care Facilities



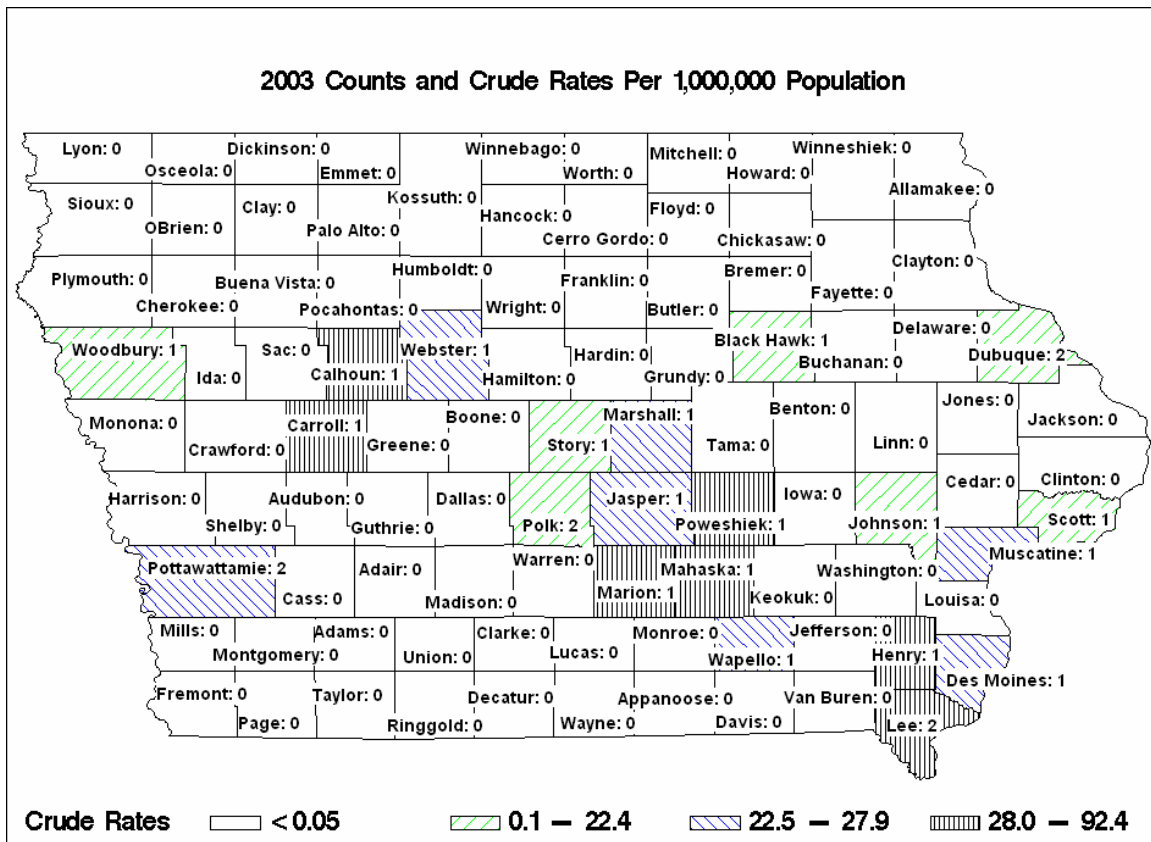
### Crude Rates, 2001 and 2003



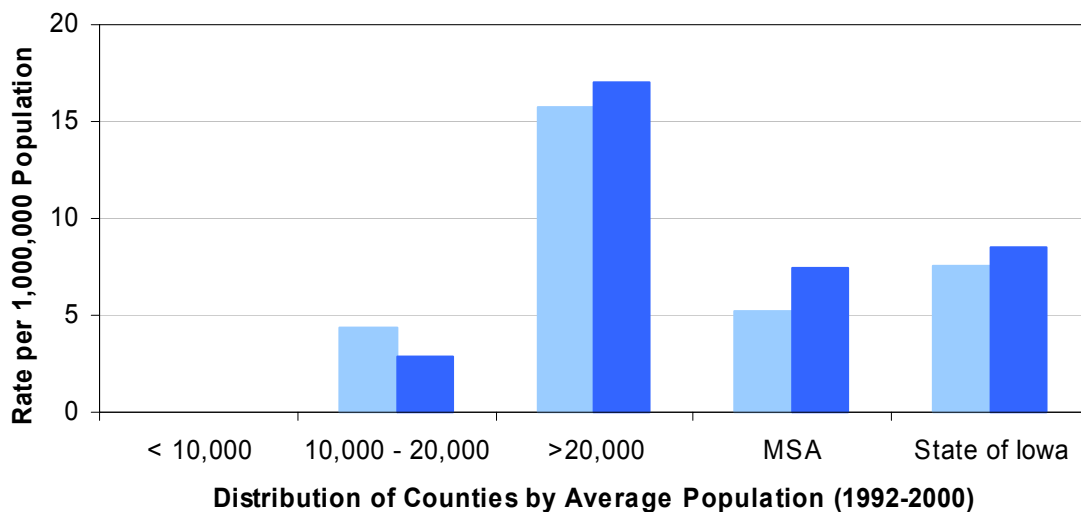
Distribution of Counties by Average Population (1992-2000)

Source: Department of Inspections and Appeals, Iowa Department of Public Health

## Area Trauma Care Facilities

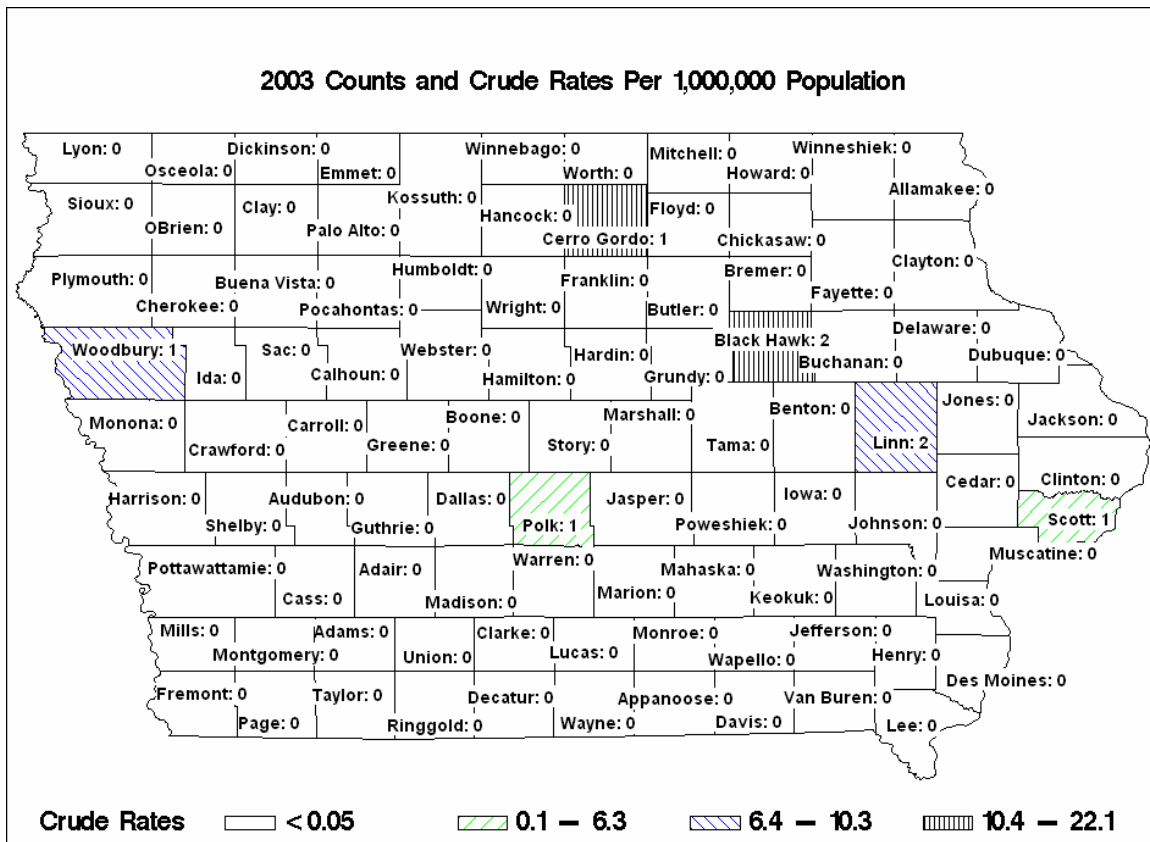


### Crude Rates, 2001 and 2003

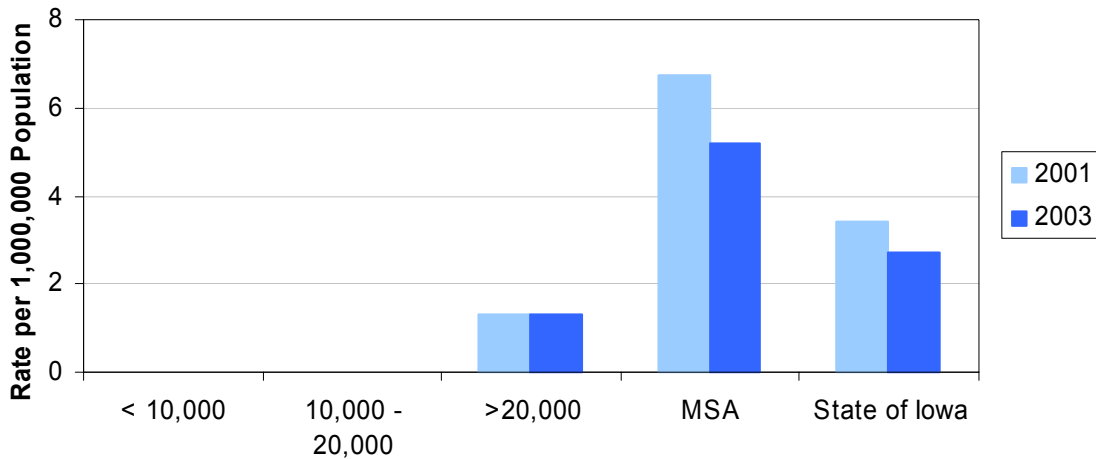


Source: Department of Inspections and Appeals, Iowa Department of Public Health

## Regional Trauma Care Facilities



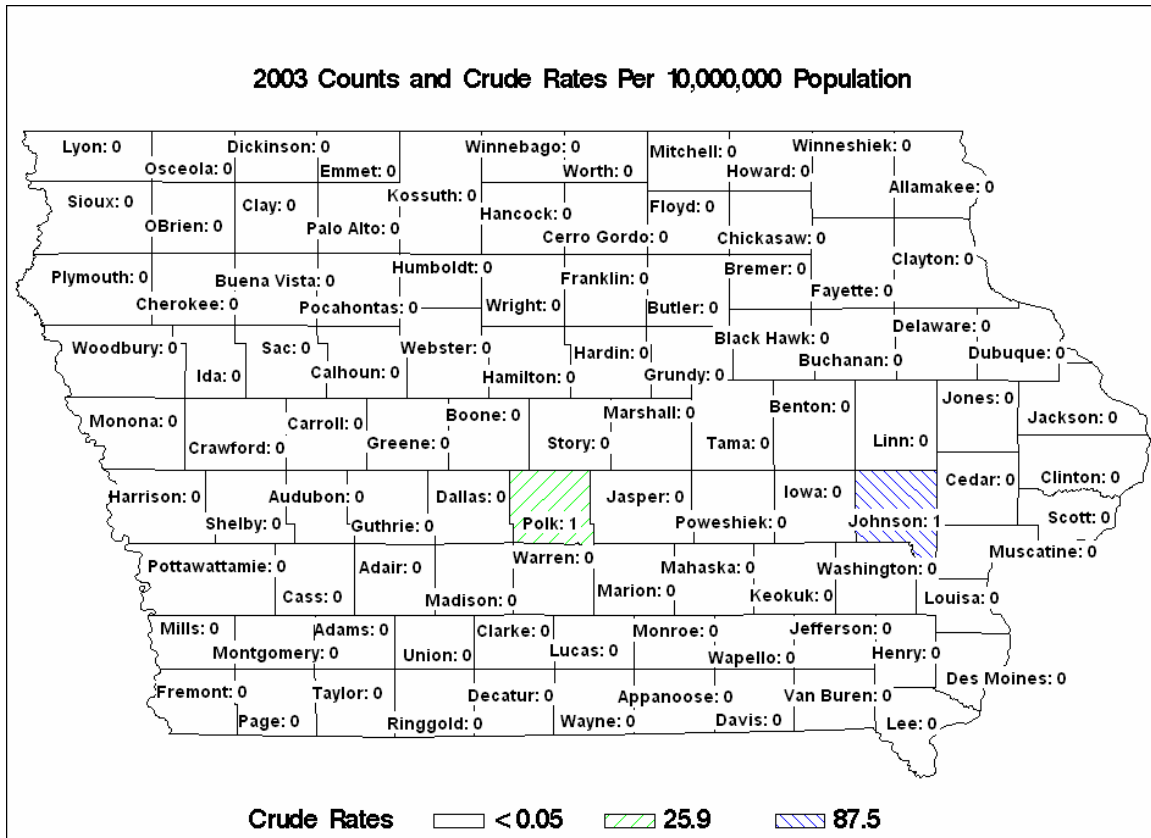
### Crude Rates, 2001 and 2003



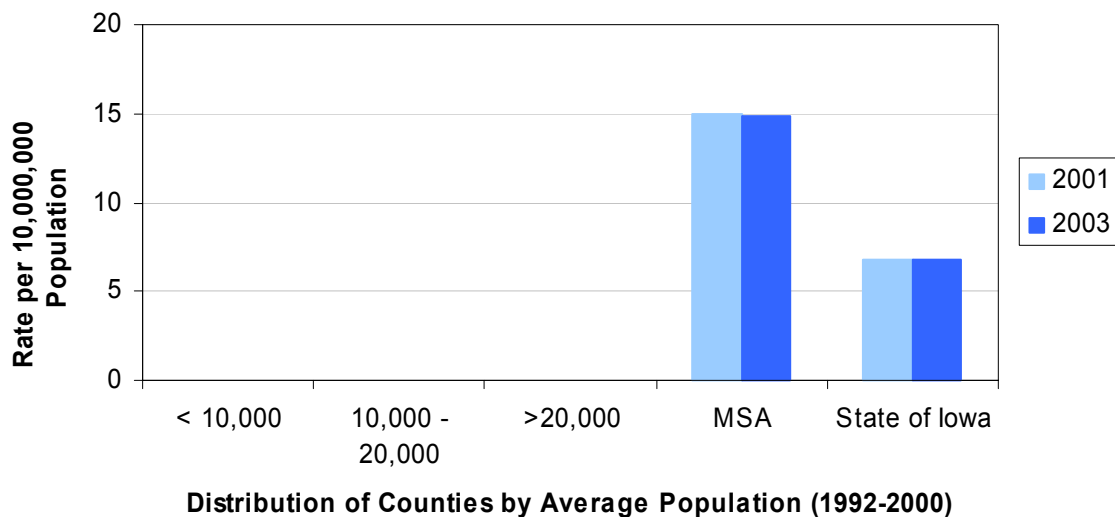
Distribution of Counties by Average Population (1992-2000)

Source: Department of Inspections and Appeals, Iowa Department of Public Health

## Resource Trauma Care Facilities



### Crude Rates, 2001 and 2003



Source: Department of Inspections and Appeals, Iowa Department of Public Health



## Environmental Health Indicators

Whether we consider global warming or water quality, it is clear that our environment affects us both directly and indirectly. While some environmental health issues have existed since the beginning of the human race, most have become evident in the last few centuries. These problems have emerged as a result of our growing and changing population. The industrial revolution has created air and water pollution problems as well as overcrowding and sanitation issues. As of July 2003, over 6.3 billion people inhabited the earth.

The environment plays a role in many health issues previously discussed including birth defects, cancer, respiratory diseases, and many infectious diseases. Other concerns include allergies, fertility, and exposure to animal and insect vectors. In Iowa, public health officials are especially concerned with pesticide toxicity, water quality in rural areas, and nitrate in municipal drinking water.

### ISSUES IN IOWA...

- ✓ Pesticide toxicity
- ✓ Rural water quality
- ✓ Nitrate in municipal drinking water

As we attempt to provide food, water, and shelter for the world's population, we must remain aware of how our actions affect our local and global environment. At the same time, we must monitor and attempt to prevent any adverse health conditions that are caused by interactions with the environment.

This is a new section for the Iowa Health Fact Book, and as such, includes only data on childhood lead poisoning. We hope to include other environmental health indicators as well in future editions.

## Childhood Blood Lead Poisoning

Childhood lead poisoning has significant effects on the health of children and on community health. Lead has adverse effects on nearly all organ systems in the body. It is especially harmful to the developing brains and nervous systems of children under the age of six years. At very high blood lead levels, children can suffer severe brain damage or even die. At blood lead levels as low as 10 micrograms per deciliter ( $\mu\text{g}/\text{dL}$ ), a child's intelligence, hearing, and growth are affected. In a community, the presence of lead-poisoned children can be associated with an increase in the number of children with developmental deficits and learning disorders. This places an unnecessary and expensive burden on the educational system. The presence of lead-poisoned children also requires substantial community public health resources for medical and environmental case management services.

*High blood lead levels have adverse effects on nearly all organ systems in the body, and are especially harmful to children.*

Most cases of childhood lead poisoning are caused by lead-based paint, which is found in most homes built before 1960. Young children who live in pre-1960 homes become lead-poisoned when they put paint chips or exterior soil in their mouths or when they get house dust and soil on their hands and put their hands in their mouths.

Although lead poisoning can cause serious health problems – including death – most lead-poisoned children demonstrate no visible symptoms. This makes it much more important to have an effective program to prevent childhood lead poisoning.

*Most cases of childhood lead poisoning are caused by lead-based paints found in homes built before 1960.*

Since 1992, the Iowa Department of Public Health (IDPH) has recommended that all children in Iowa under the age of six years be tested for lead poisoning. In addition, state and federal laws require that all children under the age of six and covered by Medicaid be tested for lead poisoning. In spite of this, the



statewide testing rates among children covered by Medicaid and children who are not covered by Medicaid are virtually identical.

In Iowa, blood lead testing is conducted by the Title V Child's Health Program, local health departments, and by many private physicians. The IDPH childhood blood lead level surveillance system tracks all testing in the state. Thus, blood lead testing results collected as required by Medicaid, as well as those collected from voluntary testing of non-Medicaid children are reported to IDPH.

In the following tables, data are presented for children who were born in calendar year 1992, 1993, 1994, 1995, and 1996 and who received at least one blood lead test before their sixth birthday. Children followed for blood lead poisoning may be tested multiple times. The test results that are presented in the following tables reflect the highest blood lead level for any particular child.

For each county, the number of children receiving a blood lead test who were identified with blood levels of 10.0 to 14.9 micrograms per deciliter ( $\mu\text{g}/\text{dL}$ ), 15.0 to 19.9  $\mu\text{g}/\text{dL}$ , 20.0 to 24.9  $\mu\text{g}/\text{dL}$ , and greater than or equal to 25  $\mu\text{g}/\text{dL}$  are presented. A blood level of 10  $\mu\text{g}/\text{dL}$  has been identified by the Centers for Disease Control and Prevention as the threshold for lead poisoning in children and is categorized as "high" for the graphs. Additional data, such as the percent of children in each birth cohort who were tested for lead poisoning, are also presented.

***Since 1992, the Iowa Department of Public Health has recommended that all children under the age of six years be tested for lead poisoning.***

## Percent of Children Tested For Blood Lead Poisoning, 1992-1996<sup>1</sup>

		1992	1993	1994	1995	1996
Counties with Average Population < 10,000	<b>County</b>					
	Adair	12.4%	44.6%	65.6%	62.5%	36.1%
	Adams	9.8%	31.4%	23.4%	63.9%	56.3%
	Audubon	38.6%	33.3%	45.5%	58.7%	57.1%
	Clarke	18.1%	32.1%	24.4%	41.2%	44.8%
	Davis	35.5%	37.3%	44.1%	43.6%	46.1%
	Decatur	20.5%	27.3%	25.7%	36.1%	35.1%
	Fremont	1.9%	7.8%	5.1%	20.0%	21.7%
	Howard	30.2%	50.0%	44.8%	53.4%	62.0%
	Ida	25.5%	34.4%	46.5%	43.8%	50.5%
	Lucas	60.0%	78.6%	78.3%	89.0%	80.5%
	Monroe	38.8%	49.6%	59.8%	58.4%	56.7%
	Osceola	4.7%	9.9%	7.1%	7.8%	15.2%
	Pocahontas	10.1%	19.3%	16.7%	28.8%	32.4%
	Ringgold	26.3%	36.8%	66.7%	63.6%	67.4%
	Taylor	26.7%	31.4%	34.6%	52.6%	60.0%
	Van Buren	27.5%	33.3%	27.9%	46.1%	38.4%
	Wayne	40.5%	62.0%	74.4%	60.0%	60.9%
Worth	14.3%	26.6%	50.5%	58.4%	58.8%	
	<b>County Grp %</b>	24.7%	37.0%	41.8%	48.9%	49.6%
Counties with Average Population 10,000 to 20,000	Allamakee	13.6%	25.0%	38.0%	38.2%	59.0%
	Appanoose	39.7%	43.9%	55.3%	36.1%	27.4%
	Butler	23.3%	42.6%	46.6%	56.0%	66.2%
	Calhoun	22.5%	25.6%	29.2%	36.8%	30.4%
	Cass	42.0%	53.9%	49.3%	63.2%	64.5%
	Cedar	40.6%	33.0%	36.8%	40.2%	44.1%
	Cherokee	21.5%	43.3%	34.4%	48.5%	53.9%
	Chickasaw	8.4%	11.7%	19.5%	23.7%	37.4%
	Clay	8.1%	16.3%	26.9%	27.2%	32.4%
	Clayton	16.2%	20.7%	34.3%	41.3%	50.0%
	Crawford	13.8%	21.2%	46.0%	35.4%	40.5%
	Delaware	10.3%	14.5%	21.3%	16.4%	22.7%
	Dickinson	3.9%	7.9%	7.4%	8.0%	9.5%
	Emmet	10.4%	7.8%	9.2%	7.4%	3.7%
	Floyd	16.7%	27.5%	41.9%	50.2%	61.3%
	Franklin	32.5%	40.8%	44.4%	59.5%	77.0%
	Greene	45.5%	45.0%	64.8%	76.8%	70.0%
	Grundy	38.9%	63.1%	69.4%	74.5%	60.5%
	Guthrie	29.7%	36.2%	31.7%	36.4%	36.9%
	Hamilton	19.9%	31.6%	35.5%	45.6%	72.0%
	Hancock	22.5%	22.4%	42.4%	56.6%	77.7%
	Hardin	63.5%	63.7%	53.2%	65.6%	76.9%
	Harrison	11.0%	19.6%	25.1%	24.1%	27.2%
	Humboldt	23.0%	47.3%	57.6%	66.4%	62.2%
	Iowa	35.2%	40.4%	36.3%	44.8%	43.6%
	Jefferson	20.0%	24.9%	30.8%	41.2%	33.3%
	Keokuk	35.4%	56.6%	48.1%	49.0%	45.5%
	Kossuth	20.6%	36.5%	49.5%	53.4%	63.2%
	Louisa	45.5%	44.6%	52.8%	39.7%	52.2%
	Lyon	14.4%	22.8%	28.5%	25.7%	26.7%
Madison	22.6%	19.1%	21.9%	26.4%	40.1%	
Mills	2.6%	8.8%	6.0%	10.8%	15.3%	
Mitchell	16.7%	14.3%	26.8%	44.2%	30.0%	

## Percentage of Children Tested for Blood Lead Poisoning, 1992-1996 (continued)

		County	1992	1993	1994	1995	1996
Counties with Average Population 10,000 to 20,000	Monona		17.9%	30.2%	33.1%	38.9%	44.9%
	Montgomery		19.4%	19.9%	28.8%	26.1%	35.0%
	O'Brien		18.1%	23.0%	13.8%	19.5%	22.1%
	Page		6.0%	8.5%	12.7%	21.8%	24.1%
	Palo Alto		8.0%	11.9%	15.9%	21.1%	29.6%
	Poweshiek		23.7%	24.9%	31.3%	34.9%	28.9%
	Sac		20.0%	27.3%	20.6%	24.3%	25.8%
	Shelby		7.8%	16.6%	34.2%	32.7%	46.1%
	Tama		42.9%	40.4%	47.5%	59.3%	58.3%
	Union		19.5%	24.3%	41.2%	40.3%	49.7%
	Winnebago		15.6%	31.4%	44.4%	53.7%	61.1%
	Wright		17.5%	24.4%	41.4%	64.0%	66.3%
	<b>County Grp %</b>		<b>22.2%</b>	<b>29.1%</b>	<b>34.8%</b>	<b>39.8%</b>	<b>44.2%</b>
Non-MSA Counties with Average Population > 20,000	Benton		24.7%	26.9%	19.5%	27.9%	29.9%
	Boone		36.0%	49.3%	47.3%	50.5%	57.2%
	Bremer		36.3%	49.6%	59.3%	58.2%	48.7%
	Buchanan		15.9%	22.7%	25.8%	26.9%	40.2%
	Buena Vista		16.4%	20.2%	20.6%	22.4%	26.8%
	Carroll		29.2%	34.9%	27.9%	23.7%	25.4%
	Cerro Gordo		21.3%	27.9%	42.4%	51.1%	62.2%
	Clinton		74.3%	72.9%	76.3%	78.7%	77.4%
	Des Moines		72.5%	76.7%	68.5%	81.3%	83.7%
	Fayette		15.1%	13.7%	20.2%	29.9%	35.7%
	Henry		49.6%	32.5%	33.9%	37.7%	41.4%
	Jackson		72.1%	79.1%	87.1%	82.8%	73.3%
	Jasper		17.1%	21.5%	37.1%	29.1%	29.8%
	Jones		30.0%	37.0%	35.6%	41.3%	45.1%
	Lee		62.6%	54.2%	57.9%	61.8%	49.9%
	Mahaska		44.7%	55.6%	55.9%	46.0%	58.1%
	Marion		13.1%	16.4%	25.5%	32.2%	47.4%
	Marshall		60.3%	62.3%	64.8%	76.0%	86.8%
	Muscatine		34.0%	38.3%	40.7%	43.7%	44.8%
	Plymouth		23.3%	21.2%	28.0%	30.1%	34.9%
Sioux		19.9%	27.2%	27.9%	31.0%	35.6%	
Story		37.4%	48.4%	49.8%	46.3%	50.9%	
Wapello		80.8%	88.6%	85.5%	84.9%	83.2%	
Washington		42.0%	49.5%	49.8%	45.5%	37.3%	
Webster		14.3%	20.4%	32.4%	48.8%	53.8%	
Winneshiek		18.8%	36.7%	43.4%	56.3%	59.0%	
<b>County Grp %</b>		<b>38.8%</b>	<b>44.0%</b>	<b>46.7%</b>	<b>50.4%</b>	<b>53.9%</b>	
MSA Counties	Black Hawk		64.8%	56.4%	63.9%	66.5%	66.3%
	Dallas		26.5%	34.1%	36.8%	39.6%	42.9%
	Dubuque		83.6%	84.4%	79.3%	73.2%	68.2%
	Johnson		9.8%	15.6%	17.2%	18.5%	22.2%
	Linn		54.0%	52.6%	41.0%	39.4%	48.3%
	Polk		11.7%	19.6%	31.4%	35.5%	40.9%
	Pottawattamie		4.5%	3.9%	4.2%	7.5%	15.2%
	Scott		58.6%	63.2%	67.7%	70.3%	72.5%
	Warren		12.2%	18.4%	25.8%	34.1%	33.9%
	Woodbury		26.3%	29.9%	28.1%	28.7%	28.7%
<b>County Grp %</b>		<b>34.1%</b>	<b>37.6%</b>	<b>40.2%</b>	<b>41.9%</b>	<b>45.7%</b>	

<sup>1</sup>Children born in years 1992 through 1996.

Source: Iowa Department of Public Health, Bureau of Lead Poisoning Prevention

## Elevated Levels of Blood Lead: Children Born in 1992<sup>1</sup>

		Number Born	Number Tested	10.0-14.9 µg/dL	15.0-19.9 µg/dL	20.0-24.9 µg/dL	≥ 25.0 µg/dL	Total % High
Counties with Average Population < 10,000	Adair	105	13	1	0	0	0	7.7%
	Adams	41	4	1	0	0	0	25.0%
	Audubon	70	27	2	1	0	0	11.1%
	Clarke	105	19	3	0	0	0	15.8%
	Davis	107	38	4	1	0	0	13.2%
	Decatur	88	18	1	1	1	0	16.7%
	Fremont	103	2	0	0	0	0	0.0%
	Howard	126	38	5	1	1	1	21.1%
	Ida	94	24	3	1	1	1	25.0%
	Lucas	100	60	8	8	3	7	43.3%
	Monroe	98	38	4	2	0	1	18.4%
	Osceola	86	4	0	1	0	0	25.0%
	Pocahontas	99	10	0	1	0	0	10.0%
	Ringgold	57	15	2	0	1	0	20.0%
	Taylor	75	20	3	2	0	1	30.0%
	Van Buren	91	25	3	1	1	2	28.0%
	Wayne	74	30	2	4	2	2	33.3%
Worth	91	13	1	1	0	0	15.4%	
Counties with Average Population 10,000 to 20,000	Allamakee	199	27	2	2	0	1	18.5%
	Appanoose	174	69	7	7	2	0	23.2%
	Butler	159	37	4	2	0	2	21.6%
	Calhoun	120	27	2	1	1	0	14.8%
	Cass	169	71	4	2	0	2	11.3%
	Cedar	197	80	13	3	2	2	25.0%
	Cherokee	158	34	5	0	2	1	23.5%
	Chickasaw	166	14	2	0	0	0	14.3%
	Clay	235	19	2	0	0	0	10.5%
	Clayton	228	37	4	0	1	1	16.2%
	Crawford	196	27	3	1	0	0	14.8%
	Delaware	261	27	2	1	0	0	11.1%
	Dickinson	152	6	1	0	0	0	16.7%
	Emmet	135	14	1	3	0	0	28.6%
	Floyd	204	34	3	0	0	0	8.8%
	Franklin	126	41	5	3	0	2	24.4%
	Greene	123	56	4	0	0	1	8.9%
	Grundy	113	44	4	2	1	0	15.9%
	Guthrie	155	46	6	1	0	0	15.2%
	Hamilton	206	41	1	0	0	0	2.4%
	Hancock	142	32	3	1	2	0	18.8%
	Hardin	192	122	13	7	3	2	20.5%
	Harrison	200	22	1	1	0	0	9.1%
	Humboldt	100	23	2	0	0	1	13.0%
	Iowa	196	69	7	2	0	2	15.9%
	Jefferson	185	37	2	2	0	0	10.8%
	Keokuk	147	52	6	1	2	2	21.2%
	Kossuth	199	41	6	2	1	0	22.0%
Louisa	143	65	4	1	3	2	15.4%	
Lyon	180	26	1	1	0	0	7.7%	
Madison	155	35	0	1	2	1	11.4%	
Mills	151	4	0	0	0	0	0.0%	
Mitchell	126	21	3	0	0	1	19.0%	

## Elevated Levels of Blood Lead: Children Born in 1992 (continued)

	County	Number Born	Number Tested	10.0-14.9 µg/dL	15.0-19.9 µg/dL	20.0-24.9 µg/dL	≥ 25.0 µg/dL	Total % High
Counties with Average Population 10,000 to 20,000	Monona	145	26	4	1	0	1	23.1%
	Montgomery	165	32	3	0	0	0	9.4%
	O'Brien	199	36	4	0	2	0	16.7%
	Page	166	10	2	0	0	0	20.0%
	Palo Alto	112	9	0	1	0	0	11.1%
	Poweshiek	215	51	5	3	2	2	23.5%
	Sac	140	28	4	0	1	0	17.9%
	Shelby	154	12	1	1	0	0	16.7%
	Tama	226	97	18	7	6	2	34.0%
	Union	149	29	5	0	0	0	17.2%
	Winnebago	141	22	1	0	0	0	4.5%
	Wright	171	30	3	0	2	1	20.0%
Non-MSA Counties with Average Population > 20,000	Benton	304	75	3	1	0	1	6.7%
	Boone	289	104	12	3	1	3	18.3%
	Bremer	259	94	3	3	1	2	9.6%
	Buchanan	327	52	10	2	2	0	26.9%
	Buena Vista	274	45	2	1	1	0	8.9%
	Carroll	271	79	7	2	0	1	12.7%
	Cerro Gordo	600	128	5	1	1	0	5.5%
	Clinton	680	505	44	14	6	4	13.5%
	Des Moines	568	412	51	17	5	8	19.7%
	Fayette	278	42	6	0	1	1	19.0%
	Henry	256	127	13	2	2	2	15.0%
	Jackson	258	186	6	4	5	1	8.6%
	Jasper	455	78	14	1	1	0	20.5%
	Jones	243	73	10	1	1	1	17.8%
	Lee	540	338	36	5	5	7	15.7%
	Mahaska	264	118	11	8	2	2	19.5%
	Marion	412	54	4	0	0	2	11.1%
	Marshall	471	284	44	21	9	10	29.6%
	Muscatine	656	223	29	8	1	9	21.1%
	Plymouth	317	74	9	4	1	1	20.3%
Sioux	433	86	14	0	2	0	18.6%	
Story	878	328	11	2	0	0	4.0%	
Wapello	422	341	39	9	8	5	17.9%	
Washington	269	113	11	5	3	3	19.5%	
Webster	566	81	3	4	0	3	12.3%	
Winneshiek	255	48	8	2	0	0	20.8%	
MSA Counties	Black Hawk	1,651	1,070	114	35	33	42	20.9%
	Dallas	422	112	7	1	2	1	9.8%
	Dubuque	1,168	976	71	23	13	8	11.8%
	Johnson	1,359	133	6	0	0	3	6.8%
	Linn	2,644	1,427	87	43	10	26	11.6%
	Polk	5,560	651	24	7	2	4	5.7%
	Pottawattamie	1,261	57	4	3	0	0	12.3%
	Scott	2,483	1,456	160	64	26	64	21.6%
	Warren	516	63	0	0	0	0	0.0%
Woodbury	1,665	438	59	14	9	7	20.3%	

<sup>1</sup>Children tested before six years of age.

Source: Iowa Department of Public Health  
Bureau of Lead Poisoning Prevention

## Elevated Levels of Blood Lead: Children Born in 1993<sup>1</sup>

		Number Born	Number Tested	10.0-14.9 µg/dL	15.0-19.9 µg/dL	20.0-24.9 µg/dL	≥ 25.0 µg/dL	Total % High
Counties with Average Population < 10,000	Adair	74	33	2	0	0	0	6.1%
	Adams	51	16	4	0	0	0	25.0%
	Audubon	72	24	1	0	1	1	12.5%
	Clarke	81	26	2	2	0	0	15.4%
	Davis	118	44	4	2	1	0	15.9%
	Decatur	88	24	0	0	2	1	12.5%
	Fremont	90	7	1	0	0	0	14.3%
	Howard	112	56	7	2	1	2	21.4%
	Ida	93	32	5	0	1	1	21.9%
	Lucas	117	92	13	6	4	9	34.8%
	Monroe	119	59	6	3	0	0	15.3%
	Osceola	81	8	1	0	0	0	12.5%
	Pocahontas	88	17	2	0	0	0	11.8%
	Ringgold	38	14	0	2	0	0	14.3%
	Taylor	70	22	1	0	0	0	4.5%
	Van Buren	108	36	4	1	0	1	16.7%
	Wayne	71	44	6	3	0	3	27.3%
	Worth	94	25	2	1	1	1	20.0%
Counties with Average Population 10,000 to 20,000	Allamakee	176	44	2	1	1	0	9.1%
	Appanoose	164	72	13	2	0	0	20.8%
	Butler	169	72	6	1	0	0	9.7%
	Calhoun	90	23	5	1	0	0	26.1%
	Cass	178	96	8	1	1	0	10.4%
	Cedar	203	67	11	4	1	1	25.4%
	Cherokee	141	61	8	5	2	0	24.6%
	Chickasaw	179	21	1	1	0	0	9.5%
	Clay	190	31	3	1	0	0	12.9%
	Clayton	242	50	1	1	1	0	6.0%
	Crawford	208	44	1	1	0	1	6.8%
	Delaware	262	38	2	2	2	0	15.8%
	Dickinson	127	10	0	1	0	0	10.0%
	Emmet	141	11	1	1	0	0	18.2%
	Floyd	200	55	3	2	0	1	10.9%
	Franklin	120	49	8	1	1	1	22.4%
	Greene	129	58	4	2	2	2	17.2%
	Grundy	141	89	11	0	0	3	15.7%
	Guthrie	105	38	5	2	0	0	18.4%
	Hamilton	193	61	7	0	1	0	13.1%
	Hancock	125	28	1	0	0	0	3.6%
	Hardin	204	130	8	6	2	4	15.4%
	Harrison	179	35	2	1	1	0	11.4%
	Humboldt	110	52	2	1	0	0	5.8%
	Iowa	213	86	9	4	0	0	15.1%
	Jefferson	177	44	5	4	1	1	25.0%
	Keokuk	143	81	9	4	1	4	22.2%
	Kossuth	219	80	8	0	1	0	11.3%
	Louisa	184	82	10	3	1	1	18.3%
	Lyon	162	37	3	3	0	1	18.9%
Madison	162	31	2	0	0	0	6.5%	
Mills	159	14	1	0	0	0	7.1%	
Mitchell	154	22	4	1	0	0	22.7%	

## Elevated Levels of Blood Lead: Children Born in 1993 (continued)

	County	Number Born	Number Tested	10.0-14.9 µg/dL	15.0-19.9 µg/dL	20.0-24.9 µg/dL	≥ 25.0 µg/dL	Total % High
Counties with Average Population 10,000 to 20,000	Monona	106	32	0	0	0	2	6.3%
	Montgomery	141	28	3	1	0	0	14.3%
	O'Brien	191	44	2	1	0	0	6.8%
	Page	164	14	0	1	0	1	14.3%
	Palo Alto	109	13	1	0	0	0	7.7%
	Poweshiek	205	51	5	2	0	1	15.7%
	Sac	139	38	4	2	0	1	18.4%
	Shelby	163	27	2	0	0	0	7.4%
	Tama	225	91	17	6	2	2	29.7%
	Union	152	37	9	0	0	1	27.0%
	Winnebago	121	38	3	0	0	0	7.9%
	Wright	156	38	5	0	0	0	13.2%
Non-MSA Counties with Average Population > 20,000	Benton	308	83	3	0	0	0	3.6%
	Boone	274	135	12	4	4	1	15.6%
	Bremer	272	135	7	7	2	0	11.9%
	Buchanan	277	63	4	3	0	0	11.1%
	Buena Vista	238	48	5	2	1	1	18.8%
	Carroll	258	90	2	3	2	0	7.8%
	Cerro Gordo	592	165	10	1	0	1	7.3%
	Clinton	680	496	30	8	10	10	11.7%
	Des Moines	558	428	50	18	6	9	19.4%
	Fayette	255	35	4	0	0	1	14.3%
	Henry	252	82	6	0	2	2	12.2%
	Jackson	258	204	8	1	2	2	6.4%
	Jasper	423	91	7	1	0	0	8.8%
	Jones	235	87	7	5	1	2	17.2%
	Lee	526	285	24	14	4	5	16.5%
	Mahaska	277	154	21	3	0	2	16.9%
	Marion	391	64	3	3	0	0	9.4%
	Marshall	523	326	44	21	5	12	25.2%
	Muscatine	642	246	34	10	6	3	21.5%
	Plymouth	307	65	5	0	1	1	10.8%
Sioux	437	119	11	1	1	3	13.4%	
Story	785	380	15	6	0	0	5.5%	
Wapello	465	412	48	15	4	5	17.5%	
Washington	273	135	16	5	1	2	17.8%	
Webster	534	109	10	2	1	0	11.9%	
Winneshiek	229	84	11	1	0	2	16.7%	
MSA Counties	Black Hawk	1,774	1,001	121	38	17	21	19.7%
	Dallas	425	145	16	3	1	1	14.5%
	Dubuque	1,252	1,057	47	20	12	14	8.8%
	Johnson	1,337	209	8	2	1	4	7.2%
	Linn	2,551	1,341	79	40	14	19	11.3%
	Polk	5,460	1,068	42	10	3	10	6.1%
	Pottawattamie	1,193	46	4	1	1	0	13.0%
	Scott	2,408	1,522	149	64	28	46	18.9%
	Warren	499	92	3	1	0	0	4.3%
Woodbury	1,651	493	64	14	7	8	18.9%	

<sup>1</sup>Children tested before six years of age.

Source: Iowa Department of Public Health  
Bureau of Lead Poisoning Prevention

## Elevated Levels of Blood Lead: Children Born in 1994<sup>1</sup>

	County	Number Born	Number Tested	10.0-14.9	15.0-19.9	20.0-24.9	≥ 25.0	Total % High
				μg/dL	μg/dL	μg/dL	μg/dL	
Counties with Average Population < 10,000	Adair	93	61	4	2	3	0	14.8%
	Adams	64	15	2	1	1	0	26.7%
	Audubon	88	40	4	0	2	0	15.0%
	Clarke	82	20	2	0	0	0	10.0%
	Davis	127	56	4	0	2	1	12.5%
	Decatur	113	29	2	2	1	0	17.2%
	Fremont	79	4	1	1	0	0	50.0%
	Howard	96	43	4	1	0	0	11.6%
	Ida	86	40	7	2	2	1	30.0%
	Lucas	129	101	15	6	5	9	34.7%
	Monroe	87	52	5	1	0	0	11.5%
	Osceola	70	5	0	0	0	0	0.0%
	Pocahontas	84	14	1	0	0	0	7.1%
	Ringgold	30	20	1	1	0	0	10.0%
	Taylor	78	27	3	1	1	0	18.5%
	Van Buren	104	29	5	0	0	1	20.7%
	Wayne	78	58	7	4	0	3	24.1%
	Worth	91	46	1	1	0	1	6.5%
Counties with Average Population 10,000 to 20,000	Allamakee	158	60	5	3	1	1	16.7%
	Appanoose	152	84	10	2	0	1	15.5%
	Butler	163	76	4	0	1	1	7.9%
	Calhoun	106	31	2	3	0	1	19.4%
	Cass	150	74	6	4	2	1	17.6%
	Cedar	193	71	15	1	0	4	28.2%
	Cherokee	157	54	7	2	2	0	20.4%
	Chickasaw	169	33	2	3	0	0	15.2%
	Clay	219	59	6	2	1	0	15.3%
	Clayton	207	71	7	2	0	0	12.7%
	Crawford	176	81	3	0	1	2	7.4%
	Delaware	268	57	2	1	1	0	7.0%
	Dickinson	148	11	0	1	0	0	9.1%
	Emmet	109	10	1	1	0	0	20.0%
	Floyd	186	78	6	2	0	0	10.3%
	Franklin	133	59	8	0	0	2	16.9%
	Greene	108	70	6	2	1	0	12.9%
	Grundy	111	77	5	1	1	2	11.7%
	Guthrie	126	40	2	2	1	1	15.0%
	Hamilton	203	72	4	1	0	0	6.9%
	Hancock	125	53	2	1	0	0	5.7%
	Hardin	218	116	16	8	3	2	25.0%
	Harrison	175	44	5	0	0	0	11.4%
	Humboldt	118	68	5	4	0	0	13.2%
	Iowa	212	77	8	2	1	1	15.6%
	Jefferson	172	53	2	1	0	0	5.7%
	Keokuk	129	62	5	2	2	2	17.7%
	Kossuth	196	97	6	1	0	0	7.2%
	Louisa	161	85	11	1	1	2	17.6%
	Lyon	165	47	4	1	2	1	17.0%
Madison	160	35	2	1	1	0	11.4%	
Mills	183	11	0	0	1	1	18.2%	
Mitchell	142	38	4	0	0	0	10.5%	



## Elevated Levels of Blood Lead: Children Born in 1994 (continued)

	County	Number Born	Number Tested	10.0-14.9 µg/dL	15.0-19.9 µg/dL	20.0-24.9 µg/dL	≥ 25.0 µg/dL	Total % High
Counties with Average Population 10,000 to 20,000	Monona	124	41	8	0	0	0	19.5%
	Montgomery	160	46	4	1	0	1	13.0%
	O'Brien	174	24	7	0	0	0	29.2%
	Page	181	23	3	1	0	0	17.4%
	Palo Alto	107	17	1	1	0	0	11.8%
	Poweshiek	211	66	9	0	0	1	15.2%
	Sac	126	26	3	2	0	1	23.1%
	Shelby	146	50	0	0	0	0	0.0%
	Tama	236	112	14	6	3	6	25.9%
	Union	119	49	5	0	1	1	14.3%
	Winnebago	135	60	2	0	1	0	5.0%
	Wright	157	65	5	2	0	1	12.3%
Non-MSA Counties with Average Population > 20,000	Benton	292	57	1	0	1	2	7.0%
	Boone	313	148	13	5	2	0	13.5%
	Bremer	243	144	17	5	1	1	16.7%
	Buchanan	314	81	4	2	2	3	13.6%
	Buena Vista	243	50	3	2	0	1	12.0%
	Carroll	269	75	7	1	1	2	14.7%
	Cerro Gordo	587	249	17	1	0	2	8.0%
	Clinton	645	492	32	17	7	6	12.6%
	Des Moines	524	359	38	8	6	5	15.9%
	Fayette	302	61	3	4	1	1	14.8%
	Henry	239	81	6	2	0	0	9.9%
	Jackson	241	210	22	4	2	2	14.3%
	Jasper	439	163	10	4	1	4	11.7%
	Jones	253	90	11	4	2	2	21.1%
	Lee	435	252	26	7	4	5	16.7%
	Mahaska	272	152	14	4	0	2	13.2%
	Marion	419	107	4	2	0	0	5.6%
	Marshall	523	339	50	14	6	15	25.1%
	Muscatine	626	255	19	9	3	7	14.9%
	Plymouth	311	87	4	0	1	1	6.9%
Sioux	380	106	6	2	2	4	13.2%	
Story	844	420	16	5	3	1	6.0%	
Wapello	428	366	45	12	3	8	18.6%	
Washington	279	139	9	3	0	1	9.4%	
Webster	525	170	13	4	2	2	12.4%	
Winneshiek	242	105	6	3	1	0	9.5%	
MSA Counties	Black Hawk	1,605	1,026	92	33	20	23	16.4%
	Dallas	440	162	13	3	1	1	11.1%
	Dubuque	1,176	932	39	19	9	11	8.4%
	Johnson	1,288	221	2	2	0	4	3.6%
	Linn	2,550	1,045	58	14	9	16	9.3%
	Polk	5,458	1,714	51	22	3	10	5.0%
	Pottawattamie	1,156	49	3	1	3	0	14.3%
	Scott	2,243	1,519	125	56	23	41	16.1%
	Warren	449	116	3	0	0	0	2.6%
Woodbury	1,651	464	88	18	6	14	19.0%	

<sup>1</sup>Children tested before six years of age.

Source: Iowa Department of Public Health  
Bureau of Lead Poisoning Prevention

## Elevated Levels of Blood Lead: Children Born in 1995<sup>1</sup>

		Number Born	Number Tested	10.0-14.9 µg/dL	15.0-19.9 µg/dL	20.0-24.9 µg/dL	≥ 25.0 µg/dL	Total % High
Counties with Average Population < 10,000	Adair	80	50	2	1	0	0	6.0%
	Adams	36	23	2	0	0	1	13.0%
	Audubon	75	44	1	2	0	0	6.8%
	Clarke	102	42	4	0	0	0	9.5%
	Davis	94	41	4	0	1	0	12.2%
	Decatur	97	35	1	1	0	1	8.6%
	Fremont	85	17	1	0	1	0	11.8%
	Howard	118	63	7	1	0	2	15.9%
	Ida	73	32	5	0	1	2	25.0%
	Lucas	100	89	14	6	3	4	30.3%
	Monroe	89	52	2	3	0	2	13.5%
	Osceola	90	7	2	0	0	0	28.6%
	Pocahontas	66	19	1	1	0	0	10.5%
	Ringgold	55	35	3	2	0	0	14.3%
	Taylor	76	40	5	0	1	1	17.5%
	Van Buren	76	35	2	1	0	1	11.4%
	Wayne	80	48	6	2	0	3	22.9%
	Worth	89	52	9	0	1	1	21.2%
Counties with Average Population 10,000 to 20,000	Allamakee	157	60	6	2	1	2	18.3%
	Appanoose	147	53	2	2	0	1	9.4%
	Butler	166	93	5	2	0	0	7.5%
	Calhoun	114	42	1	0	0	0	2.4%
	Cass	152	96	15	5	3	1	25.0%
	Cedar	204	82	8	4	3	4	23.2%
	Cherokee	134	65	3	3	1	2	13.8%
	Chickasaw	152	36	1	2	1	0	11.1%
	Clay	206	56	1	0	0	2	5.4%
	Clayton	206	85	9	0	0	1	11.8%
	Crawford	178	63	6	3	1	0	15.9%
	Delaware	213	35	1	0	0	0	2.9%
	Dickinson	137	11	2	1	0	0	27.3%
	Emmet	108	8	1	0	0	0	12.5%
	Floyd	203	102	7	0	1	0	7.8%
	Franklin	116	69	7	1	1	0	13.0%
	Greene	112	86	2	2	0	1	5.8%
	Grundy	98	73	2	2	0	1	6.8%
	Guthrie	121	44	2	0	2	0	9.1%
	Hamilton	193	88	6	1	1	0	9.1%
	Hancock	122	69	3	0	0	0	4.3%
	Hardin	244	160	18	4	4	1	16.9%
	Harrison	174	42	4	1	0	1	14.3%
	Humboldt	107	71	5	1	0	0	8.5%
	Iowa	192	86	8	1	0	1	11.6%
	Jefferson	153	63	4	1	0	0	7.9%
	Keokuk	145	71	4	6	2	1	18.3%
	Kossuth	174	93	6	1	1	2	10.8%
	Louisa	174	69	4	1	1	1	10.1%
	Lyon	136	35	5	0	0	0	14.3%
Madison	159	42	1	0	1	0	4.8%	
Mills	158	17	0	1	0	0	5.9%	
Mitchell	129	57	6	2	0	1	15.8%	

## Elevated Levels of Blood Lead: Children Born in 1995 (continued)

	County	Number Born	Number Tested	10.0-14.9 µg/dL	15.0-19.9 µg/dL	20.0-24.9 µg/dL	≥ 25.0 µg/dL	Total % High
Counties with Average Population 10,000 to 20,000	Monona	126	49	5	1	1	2	18.4%
	Montgomery	161	42	6	4	0	0	23.8%
	O'Brien	200	39	2	1	1	0	10.3%
	Page	174	38	6	3	0	0	23.7%
	Palo Alto	95	20	2	0	1	0	15.0%
	Poweshiek	215	75	3	2	0	4	12.0%
	Sac	136	33	4	1	1	1	21.2%
	Shelby	156	51	1	2	0	0	5.9%
	Tama	236	140	19	5	1	3	20.0%
	Union	154	62	4	2	1	1	12.9%
	Winnebago	134	72	5	0	1	0	8.3%
	Wright	139	89	7	3	1	2	14.6%
Non-MSA Counties with Average Population > 20,000	Benton	298	83	4	1	0	2	8.4%
	Boone	309	156	7	3	2	4	10.3%
	Bremer	249	145	8	2	3	2	10.3%
	Buchanan	283	76	5	1	1	0	9.2%
	Buena Vista	219	49	2	2	1	1	12.2%
	Carroll	283	67	5	3	0	2	14.9%
	Cerro Gordo	591	302	7	5	0	1	4.3%
	Clinton	657	517	25	9	2	10	8.9%
	Des Moines	523	425	33	16	5	8	14.6%
	Fayette	271	81	3	2	0	0	6.2%
	Henry	276	104	2	3	0	2	6.7%
	Jackson	261	216	18	6	1	2	12.5%
	Jasper	416	121	4	2	0	1	5.8%
	Jones	196	81	10	1	0	2	16.0%
	Lee	479	296	20	9	4	3	12.2%
	Mahaska	291	134	13	5	0	1	14.2%
	Marion	363	117	3	0	0	0	2.6%
	Marshall	516	392	40	15	4	6	16.6%
	Muscatine	629	275	26	10	5	7	17.5%
	Plymouth	316	95	9	0	0	0	9.5%
Sioux	410	127	3	1	4	0	6.3%	
Story	856	396	10	8	4	4	6.6%	
Wapello	403	342	31	8	3	9	14.9%	
Washington	308	140	20	3	4	7	24.3%	
Webster	498	243	22	4	2	2	12.3%	
Winneshiek	240	135	11	3	1	1	11.9%	
MSA Counties	Black Hawk	1,509	1,004	76	23	11	22	13.1%
	Dallas	477	189	13	2	3	2	10.6%
	Dubuque	1,188	870	41	12	11	7	8.2%
	Johnson	1,258	233	9	4	2	2	7.3%
	Linn	2,597	1,024	60	25	11	14	10.7%
	Polk	5,455	1,935	54	21	9	13	5.0%
	Pottawattamie	1,142	86	4	3	0	1	9.3%
	Scott	2,251	1,582	100	44	14	23	11.4%
	Warren	481	164	2	2	1	1	3.7%
Woodbury	1,700	488	37	17	5	6	13.3%	

<sup>1</sup>Children tested before six years of age.Source: Iowa Department of Public Health  
Bureau of Lead Poisoning Prevention

## Elevated Levels of Blood Lead: Children Born in 1996<sup>1</sup>

	County	Number Born	Number Tested	10.0-14.9	15.0-19.9	20.0-24.9	≥ 25.0	Total % High
				µg/dL	µg/dL	µg/dL	µg/dL	
Counties with Average Population < 10,000	Adair	61	22	2	0	0	0	9.1%
	Adams	48	27	5	0	0	0	18.5%
	Audubon	63	36	2	2	1	1	16.7%
	Clarke	87	39	5	2	0	0	17.9%
	Davis	128	59	4	1	1	1	11.9%
	Decatur	97	34	5	0	1	0	17.6%
	Fremont	60	13	0	0	0	1	7.7%
	Howard	92	57	1	1	1	1	7.0%
	Ida	99	50	8	1	2	1	24.0%
	Lucas	123	99	24	4	0	4	32.3%
	Monroe	97	55	2	2	0	0	7.3%
	Osceola	79	12	1	0	1	0	16.7%
	Pocahontas	68	22	1	0	0	0	4.5%
	Ringgold	43	29	2	1	0	1	13.8%
	Taylor	75	45	4	2	0	1	15.6%
	Van Buren	86	33	0	0	2	0	6.1%
	Wayne	64	39	6	2	1	0	23.1%
	Worth	85	50	1	1	0	1	6.0%
Counties with Average Population 10,000 to 20,000	Allamakee	173	102	3	1	2	3	8.8%
	Appanoose	168	46	2	0	2	0	8.7%
	Butler	148	98	6	2	0	0	8.2%
	Calhoun	115	35	4	0	0	0	11.4%
	Cass	152	98	8	3	3	1	15.3%
	Cedar	195	86	9	1	2	1	15.1%
	Cherokee	115	62	7	4	0	0	17.7%
	Chickasaw	123	46	2	0	0	0	4.3%
	Clay	188	61	0	1	0	0	1.6%
	Clayton	176	88	5	5	3	1	15.9%
	Crawford	232	94	7	1	1	2	11.7%
	Delaware	233	53	2	0	1	0	5.7%
	Dickinson	148	14	0	0	0	0	0.0%
	Emmet	134	5	0	0	0	0	0.0%
	Floyd	194	119	13	4	0	2	16.0%
	Franklin	126	97	7	3	1	2	13.4%
	Greene	120	84	1	2	2	1	7.1%
	Grundy	124	75	3	1	0	0	5.3%
	Guthrie	130	48	3	0	1	3	14.6%
	Hamilton	182	131	5	7	2	0	10.7%
	Hancock	121	94	3	0	0	0	3.2%
	Hardin	216	166	8	6	3	5	13.3%
	Harrison	173	47	1	1	0	1	6.4%
	Humboldt	111	69	4	1	0	0	7.2%
	Iowa	227	99	7	1	0	2	10.1%
	Jefferson	171	57	4	1	0	3	14.0%
	Keokuk	134	61	5	0	2	2	14.8%
	Kossuth	163	103	7	1	1	1	9.7%
	Louisa	161	84	8	1	1	1	13.1%
	Lyon	150	40	5	0	0	1	15.0%
Madison	152	61	2	0	1	1	6.6%	
Mills	177	27	2	0	0	0	7.4%	
Mitchell	130	39	5	1	0	1	17.9%	

## Elevated Levels of Blood Lead: Children Born in 1996 (continued)

	County	Number Born	Number Tested	10.0-14.9 µg/dL	15.0-19.9 µg/dL	20.0-24.9 µg/dL	≥ 25.0 µg/dL	Total % High
Counties with Average Population 10,000 to 20,000	Monona	98	44	5	2	0	0	15.9%
	Montgomery	160	56	4	0	0	0	7.1%
	O'Brien	190	42	5	2	0	0	16.7%
	Page	191	46	5	1	0	0	13.0%
	Palo Alto	98	29	0	0	0	0	0.0%
	Poweshiek	194	56	4	1	1	0	10.7%
	Sac	159	41	4	1	1	1	17.1%
	Shelby	115	53	3	0	0	0	5.7%
	Tama	230	134	16	10	1	3	22.4%
	Union	163	81	5	2	2	1	12.3%
	Winnebago	144	88	3	0	1	0	4.5%
	Wright	172	114	8	4	2	5	16.7%
Non-MSA Counties with Average Population > 20,000	Benton	264	79	4	3	0	0	8.9%
	Boone	299	171	8	2	1	3	8.2%
	Bremer	234	114	3	3	1	0	6.1%
	Buchanan	286	115	5	1	1	1	7.0%
	Buena Vista	228	61	1	0	0	2	4.9%
	Carroll	260	66	2	2	0	0	6.1%
	Cerro Gordo	600	373	18	3	1	1	6.2%
	Clinton	602	466	30	19	5	4	12.4%
	Des Moines	565	473	39	10	8	9	14.0%
	Fayette	249	89	6	3	1	0	11.2%
	Henry	203	84	6	0	0	1	8.3%
	Jackson	236	173	8	1	2	1	6.9%
	Jasper	426	127	2	2	0	1	3.9%
	Jones	224	101	7	3	1	3	13.9%
	Lee	477	238	19	6	3	4	13.4%
	Mahaska	260	151	11	1	3	1	10.6%
	Marion	378	179	5	1	0	1	3.9%
	Marshall	553	480	58	18	6	5	18.1%
	Muscatine	591	265	25	3	5	3	13.6%
	Plymouth	312	109	5	3	2	0	9.2%
Sioux	376	134	9	5	1	1	11.9%	
Story	904	460	9	5	0	3	3.7%	
Wapello	459	382	41	12	5	4	16.2%	
Washington	327	122	9	3	0	0	9.8%	
Webster	496	267	12	7	2	0	7.9%	
Winneshiek	212	125	5	2	3	1	8.8%	
MSA Counties	Black Hawk	1,601	1,061	60	31	14	21	11.9%
	Dallas	501	215	10	3	1	3	7.9%
	Dubuque	1,197	816	35	16	7	5	7.7%
	Johnson	1,272	283	7	0	1	0	2.8%
	Linn	2,540	1,226	63	23	12	23	9.9%
	Polk	5,782	2,362	86	24	10	9	5.5%
	Pottawattamie	1,102	168	9	0	0	3	7.1%
	Scott	2,303	1,670	92	30	14	17	9.2%
	Warren	481	163	3	1	0	0	2.5%
Woodbury	1,699	487	57	18	7	6	18.1%	

<sup>1</sup>Children tested before six years of age.Source: Iowa Department of Public Health  
Bureau of Lead Poisoning Prevention

## Elevated Levels of Blood Lead: Children Born in 1992-1996<sup>1</sup>

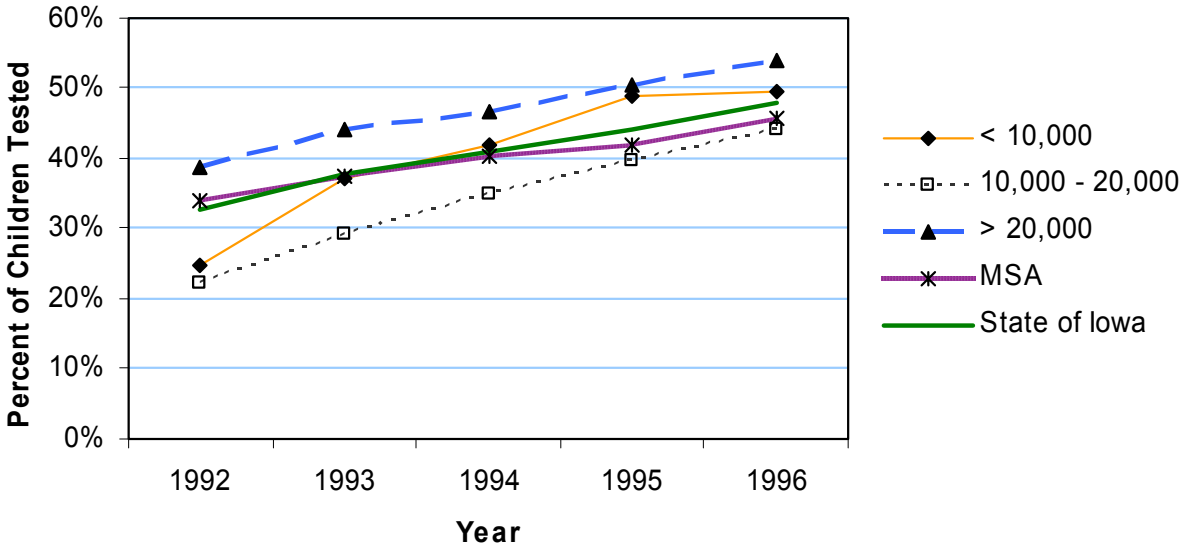
	County	Number Tested	% with High Levels	County	Number Tested	% with High Levels
	<b>Countries with Average Population &lt; 10,000</b>	Adair	179	9.5%	Lucas	441
	Adams	85	20.0%	Monroe	256	12.9%
	Audubon	171	12.3%	Osceola	36	16.7%
	Clarke	146	13.7%	Pocahontas	82	8.5%
	Davis	238	13.0%	Ringgold	113	14.2%
	Decatur	140	14.3%	Taylor	154	16.9%
	Fremont	43	14.0%	Van Buren	158	15.8%
	Howard	257	15.2%	Wayne	219	25.6%
	Ida	178	25.3%	Worth	186	12.9%
				<b>Total</b>	3,082	18.2%
<b>Countries with Average Population 10,000 to 20,000</b>	Allamakee	293	13.3%	Humboldt	283	9.2%
	Appanoose	324	16.4%	Iowa	417	13.4%
	Butler	376	9.6%	Jefferson	254	12.2%
	Calhoun	158	13.3%	Keokuk	327	19.0%
	Cass	435	16.1%	Kossuth	414	10.9%
	Cedar	386	23.1%	Louisa	385	15.1%
	Cherokee	276	19.6%	Lyon	185	15.1%
	Chickasaw	150	10.0%	Madison	204	7.8%
	Clay	226	8.4%	Mills	73	8.2%
	Clayton	331	12.7%	Mitchell	177	16.4%
	Crawford	309	11.0%	Monona	192	16.7%
	Delaware	210	8.1%	Montgomery	204	13.2%
	Dickinson	52	11.5%	O'Brien	185	14.6%
	Emmet	48	18.8%	Page	131	17.6%
	Floyd	388	11.3%	Palo Alto	88	8.0%
	Franklin	315	16.8%	Poweshiek	299	15.1%
	Greene	354	9.9%	Sac	166	19.3%
	Grundy	358	10.9%	Shelby	193	5.2%
	Guthrie	216	14.4%	Tama	574	25.6%
	Hamilton	393	9.2%	Union	258	15.5%
	Hancock	276	5.8%	Winnebago	280	6.1%
	Hardin	694	17.7%	Wright	336	15.2%
	Harrison	190	10.5%	<b>Total</b>	12,383	13.9%
<b>Countries with Average Population &gt; 20,000</b>	Benton	377	6.9%	Jones	432	17.1%
	Boone	714	12.6%	Lee	1,409	14.9%
	Bremer	632	11.2%	Mahaska	709	14.7%
	Buchanan	387	12.1%	Marion	521	5.4%
	Buena Vista	253	11.1%	Marshall	1,821	22.1%
	Carroll	377	11.1%	Muscatine	1,264	17.6%
	Cerro Gordo	1,217	6.2%	Plymouth	430	10.9%
	Clinton	2,476	11.8%	Sioux	572	12.2%
	Des Moines	2,097	16.6%	Story	1,984	5.1%
	Fayette	308	12.0%	Wapello	1,843	17.0%
	Henry	478	10.7%	Washington	649	16.2%
	Jackson	989	9.9%	Webster	870	10.9%
	Jasper	580	9.5%	Winneshiek	497	12.3%
				<b>Total</b>	23,886	13.0%
<b>MSA Counties</b>	Black Hawk	5,162	16.4%	Polk	7,730	5.4%
	Dallas	823	10.6%	Pottawattamie	406	9.9%
	Dubuque	4,651	9.0%	Scott	7,749	15.2%
	Johnson	1,079	5.3%	Warren	598	2.8%
	Linn	6,063	10.7%	Woodbury	2,370	17.8%
				<b>Total</b>	36,631	11.3%
<b>State Totals</b>		75,982	12.5%			

<sup>1</sup>Children tested before six years of age.

Source: Iowa Department of Public Health, Bureau of Lead Poisoning Prevention

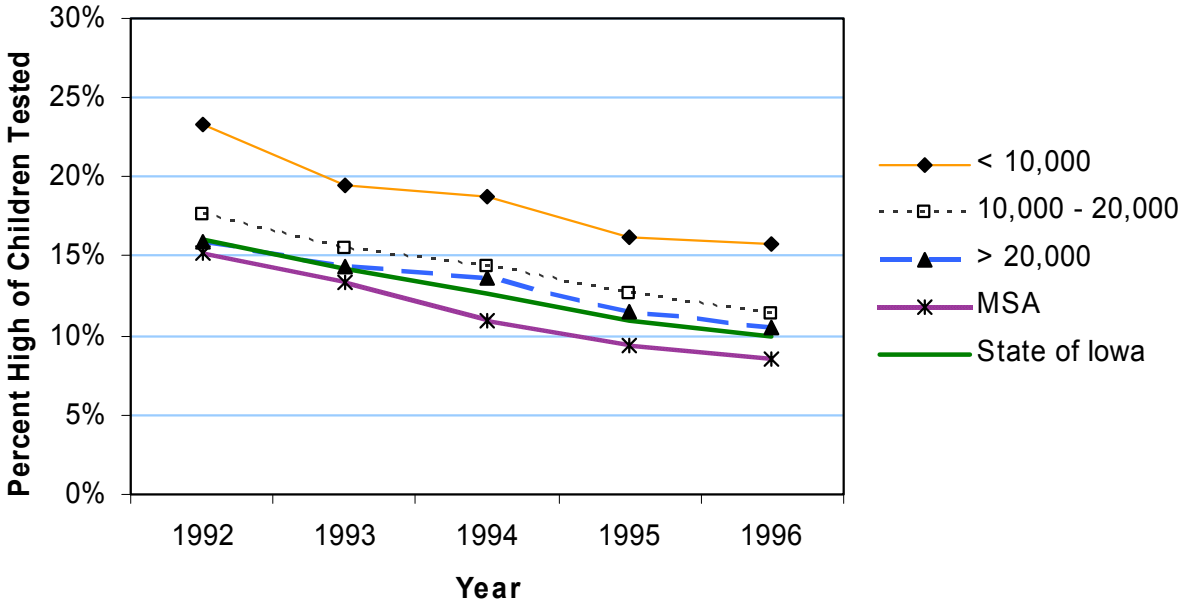
### Tested for Blood Lead: Children Born in 1992-1996

Crude Rates



### Elevated Levels of Blood Lead: Children Born in 1992-1996

Crude Rates







## **Appendix I: Data Sources**

Fact Book Item	Data Source
<b>Introduction</b>	
Healthy People 2010 Leading Health Indicators	State Center for Health Statistics, Iowa Department of Public Health and website: <a href="http://wonder.cdc.gov/data2010">http://wonder.cdc.gov/data2010</a>
<b>Demographics</b>	
State Population Distributions for 1970-2000	Surveillance, Epidemiology, and End Results (SEER) Program SEER*Stat Database, National Cancer Institute, DCCPS, Surveillance Research Program, Cancer Statistics Branch, released April 2003.
State Population Distributions for 2001-2002	US Census Bureau Website: <a href="http://www.census.gov">http://www.census.gov</a>
<b>Health and Social Behaviors</b>	
Behavioral Risk Factor Surveillance System (BRFSS)	Centers for Disease Control & Prevention Website: <a href="http://www.cdc.gov/nccdphp/brfss/">http://www.cdc.gov/nccdphp/brfss/</a>
Iowa Youth Tobacco Survey	Iowa Department of Public Health Division of Tobacco Use Prevention & Control in cooperation with the Centers for Disease Control and Prevention Office on Smoking and Health
Iowa Youth Survey	Iowa Department of Public Health, Division of Health Promotion, Prevention and Addictive Behaviors, Iowa Consortium for Substance Abuse Research, Iowa Governor's Office of Drug Control Policy, Iowa Department of Education, Iowa Workforce Development, The Higher Plain, Inc.
Substance Abuse Treatment	Iowa Consortium for Substance Abuse Research
Marriages	Iowa Department of Public Health Vital Statistics
Dissolutions	Iowa Department of Public Health Vital Statistics
Domestic Abuse Cases	Department of Public Safety, Uniform Crime Report
Driving Under the Influence	Department of Public Safety, Uniform Crime Report
Juvenile Arrests	Department of Public Safety, Uniform Crime Report
Juvenile Vandalism	Department of Public Safety, Uniform Crime Report

## Prenatal and Infant Health

Live Births	Iowa Department of Public Health, Vital Statistics, Birth Certificates	
Out-Of-Wedlock Births		
Mothers Under Age 20		
Low Birth Weight		
Mothers Who Began Prenatal Care in the First Trimester		
Mothers Who Smoked During Pregnancy	Iowa Department of Public Health, Vital Statistics, Death Certificates	
Mothers Who Drank During Pregnancy		
Fetal Deaths		
Neonatal Deaths		
Perinatal Deaths		
Infant Deaths		
Congenital Malformations		
Birth Defects		Iowa Birth Defects Registry, The University of Iowa
Selected Birth Defects in Iowa		

## Infectious Diseases

Sexually Transmitted Diseases	Disease Prevention Program via Iowa Department of Public Health
Infectious Diseases	Bureau of Infectious Diseases via Iowa Department of Public Health

## Cancer Incidence and Mortality

All Sites of Cancer	<i>All cancer incidence data from:</i> The University of Iowa, Iowa Cancer Registry via NCI's SEER*Stat Program.
Prostate	
Lung and Bronchus	<i>All cancer mortality data from:</i> “Cause of Death” codes on death certificates filed with Vital Records, Iowa Department of Public Health via NCHS and NCI's SEER*Stat Program.
Female Breast	
Colorectum	
Non-Hodgkin's Lymphoma	
Leukemia	
Skin Melanoma	
Oral Cavity (Excluding Lip)	
Cervical	

**Injury Mortality**

All Transportation  
 Motor Vehicle Traffic  
 Suicide  
 Firearms  
 Falls  
 Homicide  
 Poisoning  
 Burns  
 Drowning  
 All Other Unintentional

“Cause of Death” codes on death certificates filed with Vital Records, Iowa Department of Public Health. Analyses conducted by The University of Iowa, Iowa Cancer Registry.

**Youth Injury Mortality**

All Transportation Ages 0-14  
 All Transportation Ages 15-19  
 Motor Vehicle Traffic Ages 0-14  
 Motor Vehicle Traffic Ages 15-19  
 Suicide Ages 0-14  
 Suicide Ages 15-19  
 Homicide Ages 0-14  
 Homicide Ages 15-19

“Cause of Death” codes on death certificates filed with Vital Records, Iowa Department of Public Health. Analyses conducted by the University of Iowa, Iowa Cancer Registry.

**Other Mortality**

All Causes  
 Heart Disease  
 Stroke  
 Chronic Obstructive Pulmonary Disease  
 Pneumonia/Influenza  
 Diabetes Mellitus  
 Atherosclerosis  
 Infectious/Parasitic  
 Nephritis, Nephrotic Syndrome, Nephrosis  
 Chronic Liver Disease and Cirrhosis  
 Congenital Anomalies  
 Conditions Originating in the Perinatal Period  
 Alzheimer’s

“Cause of Death” codes on death certificates filed with Vital Records, Iowa Department of Public Health via NCHS and NCI’s SEER\*Stat Program.

## Health Care Providers

Primary Care Physicians	Office of Statewide Clinical Education Programs (OSCEP), College of Medicine, The University of Iowa
Family Practice Physicians	
Internal Medicine Physicians	
Pediatric Physicians	
Obstetrics/Gynecology Physicians	
General Surgeons	
Other Specialty Physicians	
Total Physicians	
Physician Assistants	
Nurse Practitioners	
Pharmacists	Iowa Department of Public Health
Dentists	
Chiropractors	
Registered Nurses	
Licensed Practical Nurses	
Emergency Care Providers: Total	
First Responders	
Emergency Medical Technicians: Basic	
Emergency Medical Technicians: Intermediate	
Emergency Medical Technicians: Paramedic	
Emergency Medical Technicians: Paramedic Specialist	Bureau of Emergency Medical Services via Iowa Department of Public Health
Iowa Law Enforcement Emergency Care Provider	

## Health Care Facilities

Hospitals	Department of Inspections and Appeals via Iowa
Hospital Beds	Department of Public Health
Nursing Facilities	
Nursing Facility Beds	
Chronic Confusion or Dementing Illness Units	
Chronic Confusion or Dementing Illness Beds	
Intermediate Care Facilities for the Mentally Retarded	
Intermediate Care Facilities for the Mentally Retarded Beds	
Residential Care Facilities	
Residential Care Facilities Beds	
Residential Care Facilities for Persons with Mental Illness	
Residential Care Facilities for Persons with Mental Illness Beds	
Residential Care Facilities for the Mentally Retarded	
Residential Care Facilities for the Mentally Retarded Beds	
3 to 5 Bed Units for the Mentally Retarded	
3 to 5 Bed Units for the Mentally Retarded Beds	
Psychiatric Medical Institutions for Children	
Psychiatric Medical Institutions for Children Beds	
Total Trauma Facilities	Bureau of Emergency Medical Services via
Community Trauma Care Facilities	Iowa Department of Public Health
Area Trauma Care Facilities	
Regional Trauma Care Facilities	
Resource Trauma Care Facilities	

## Environmental Indicators

Childhood Lead Poisoning	Iowa Department of Public Health Bureau of Lead Poisoning Prevention
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## **Appendix II: Glossary of Terms**

## Glossary of Terms

**Age-Adjusted Rate (Direct Method):** A weighted average of the age-specific incidence or mortality rates from the targeted population(s) where the weights are the proportions of persons in the corresponding age groups of a standard population. In this document, the Year 2000 US population is used as the standard population. Calculating an age-adjusted rate allows for comparisons across targeted populations after accounting or “adjusting” for possible differences in the age-distribution of these populations.

**Area Trauma Care Facility:** Provides initial evaluation and stabilization, including surgical intervention for the severely injured patient. An area trauma care facility provides comprehensive inpatient services to patients who can be maintained in a stable or improving condition without specialized care. Critically injured patients who require specialized care are transferred to a resource or regional trauma care facility. An organized trauma team including a general surgeon, emergency physician, CRNA and/or anesthesiologist, nursing and ancillary personnel are promptly available to meet the patient upon arrival at the emergency department. The general surgeon, emergency physician, and ancillary personnel may be on-call from outside the hospital but with a clear commitment to meet a patient upon arrival at the emergency department when given timely notice by out-of-hospital EMS providers. Some area trauma care facilities elect to provide in-house 24-hour emergency physician coverage. In addition to direct patient care, area trauma care facilities provide community and outreach education and injury prevention programs.

**Chronic Confusion or Dementing Illness Units:** “Chronic Confusion or Dementing Illness” is a special license classification for nursing facilities or a special unit within such a facility providing care to persons who suffer from chronic confusion or dementing illness. Reference to Chronic Confusion of Dementing Illness Units is made in the acts and joint resolutions of the 1990 regular session of the Seventy-Third General Assembly of the State of Iowa.

**Community Trauma Care Facility:** Provides initial evaluation and stabilization of the severely injured patient. Stabilization may include surgical intervention. Most patients needing surgical intervention and/or specialty care are transferred to resource or regional trauma care facilities. Community trauma care facilities have the necessary equipment and diagnostic resources to resuscitate the severely injured patient. An organized team including a physician, nursing and ancillary personnel are promptly available to meet the patient upon arrival at the emergency department if given timely notice by out-of-hospital EMS providers. In addition to patient care, a community trauma care facility provides continuing education and injury prevention programs.

**Crude Rate:** The number of events or occurrences of disease in a give time period divided by the population at risk for that event or disease over the same time period.



**Emergency Medical Technician – Basic:** The EMT-B course emphasizes the development of student skills in patient assessment and examination; the recognition of signs and symptoms of illness or injury; proper procedures when rendering emergency medical care including patient assisted medications, automated external defibrillation, maintenance of a non-medicated IV, and the use of an advanced airway device. General topics covered include: human anatomy and physiology, bleeding and shock, bandaging and splinting, medical/behavior emergencies, obstetrics/gynecology, extrication from automobiles, farm, industrial and environmental emergencies, and ambulance operations.

**Emergency Medical Technician – Intermediate:** The EMT-I course involves additional training in patient assessment, intravenous therapy, advanced airway management techniques and automated defibrillation.

**Emergency Medical Technician – Paramedic:** This level covers additional emergency medical care skills including cardiac evaluation and treatment, medication effects and treatment, and advanced airway management techniques.

**Emergency Medical Technician – Paramedic Specialist:** This level identifies individuals who have successfully completed a program of training that used, as a minimum, the 1985 EMT-P national standard curriculum (NSC), plus documentation of completion of the objectives to the 1998 EMT-P NSC, or completed the 1998 EMT-P NSC and have successfully completed the department's testing requirements.

**Fetal Death:** A birth that fails to show any sign of life after delivery. Reportable fetal deaths in Iowa are those greater than 20 weeks gestation. The responsibility for determining if a birth meets this definition is that of the attending physician. "Fetal death" and "stillbirth" are synonymous terms.

**First Responder:** The First Responder is trained in patient stabilizing techniques and basic emergency medical care prior to the arrival of an ambulance. Skills in this program include patient assessment, vital signs, automated external defibrillation, oxygen delivery, and use of an advanced airway device.

**Hospital:** Any place which is devoted primarily to the maintenance of facilities for the diagnosis, treatment, or care of two or more non-related individuals suffering from illness, injury, or deformity for a period exceeding 24 hours. It is also a place which is devoted primarily to the rendering of obstetrical or other medical/nursing care for two or more non-related individuals for a period exceeding 24 hours. It can be any institution, place, building or agency in which any accommodation is primarily maintained, furnished or offered for the care of two or more non-related aged or infirmed person requiring or receiving chronic or convalescent care for a period exceeding 24 hours. Hospitals shall include sanitariums or other related institutions within the meaning of the federal Hill-Burton Act. A hospital shall include, in any event, any facilities wholly or partially constructed, or constructed with federal assistance pursuant to Public Law 725, 79th Congress, approved August 13, 1946. Definition is found in Title 42 in the Code of Federal Regulations and 135J of the Iowa Administrative Code.

**Infant Death:** Death of a liveborn infant under one year of age. This includes both neonatal and postneonatal deaths.

**Intermediate Care Facilities for the Mentally Retarded:** Institutions or distinct parts of institutions whose primary purpose is to provide health or rehabilitative services to three or more individuals who primarily have mental retardation or a related condition. Intermediate Care Facilities for the Mentally Retarded must meet the requirements of Iowa Code Chapter 135C and federal standards codified in 42 United States Code 1936d, which is contained in Title 42 of the Code of Federal Regulations, Part 483, Subpart D, 410-480. Definition is found in Chapter 135C of the Code of Iowa.

**Intermediate Care Facilities for Persons with Mental Illness:** Institutions, places, buildings or agencies whose primary purpose is to provide accommodation, board and nursing care for a period exceeding 24 consecutive hours to three or more individuals who primarily have mental illness. Definition is found in Chapter 135C of the Code of Iowa.

**Live Birth:** A birth that shows any sign of life after delivery. The World Health Organization considers a sign of life as being the breathing or showing of any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached. The responsibility for determining if a birth meets this definition is that of the attending physician.

**Metropolitan Statistical Area (MSA):** An area with one city of 50,000 or more inhabitants or a Census defined urbanized area and a total metropolitan population of at least 100,000 (75,000 in New England).

**Neonatal Death:** Death of a liveborn infant occurring within the first 27 days of life.

**Nursing Facilities:** Institutions or distinct parts of institutions housing three or more individuals for a period exceeding 24 consecutive hours, whose primary purpose is to provide health-related care and services, including rehabilitation, for individuals who because of mental or physical condition, require nursing care and other services in addition to room and board. Nursing facilities do not engage primarily in providing treatment or care for mental illness or mental retardation. Definition is found in Chapter 135C of the Code of Iowa.

**Perinatal Death:** Death of a fetus of greater than 20 weeks gestation or death of a liveborn infant under 28 days of life.

**Primary Care Physicians:** Includes Family Practice, Internal Medicine, Pediatric, and Obstetrics/Gynecology physicians.

**Public Access Defibrillation:** An EMS provider level for nontraditional providers of emergency medical care who have successfully completed a program that uses a curriculum that meets the approved Iowa objectives regarding Public Access Defibrillation and have successfully completed the department's testing requirements.

**Residential Care Facilities:** Institutions, places, buildings, or agencies providing accommodation, board, personal assistance and other essential daily living activities for a period exceeding 24 consecutive hours. Individuals living in a residential care facility are unable to sufficiently or properly care for themselves because of illness, disease, or physical or mental infirmity, but do not require the services of a registered or licensed practical nurse, except for emergencies. Definition is found in Chapter 135C of the Code of Iowa.

**Residential Care and Specialized 3-5 Bed Facilities for the Mentally Retarded:** Facilities that provide accommodations, board, personal assistance, essential activities of daily living and habilitation services to three or more individuals with mental retardation. Residents of a Residential Care Facility for the Mentally Retarded are unable to sufficiently or properly care for themselves, but do not require the services of a registered or licensed practical nurse. The specialized license is for Residential Care Facilities which serve persons with mental retardation, chronic mental illness and other developmental disabilities having five or fewer residents as specified in Iowa Code Section 225C.26. The facility is exempt from Iowa Code Section 135.63. Definition is found in Chapter 135C of the Code of Iowa.

**Regional Trauma Care Facility:** Provides comprehensive care for the severely injured patient with complex multisystem trauma. An organized trauma team including a general surgeon, emergency physician, anesthesiologist, nursing and ancillary personnel are immediately available to the patient upon arrival at the emergency department. The general surgeon and anesthesiologist are immediately available to the patient upon arrival at the emergency department. The general surgeon and anesthesiologist may take call from outside the hospital, but with a clear commitment to meet the patient upon arrival at the emergency department. A broad range of physician specialists are on-call and promptly available to provide care and/or consultation. In addition to direct patient care, regional trauma care facilities are responsible for community and outreach education and injury prevention.

**Resource Trauma Care Facility:** Provides the most comprehensive care for the severely injured patient with complex multisystem trauma. An organized trauma team including a general surgeon, emergency physician, anesthesiologist, nursing and ancillary personnel are immediately available to the patient upon arrival at the emergency department. Physician specialists may also respond immediately with the trauma team. A broad range of physician specialists are on-call and promptly available to provide care and/or consultation. In addition to direct patient care, resource trauma care facilities are responsible for resident training, research, community and outreach education and injury prevention.



## **Appendix III: Coding and Classifications**

## Cancer Incidence and Mortality

Type of Cancer	Incidence	Mortality	
	ICD-O 2 <sup>1</sup>	ICD-9 <sup>2</sup> (1979-1998)	ICD-10 <sup>3</sup> (1999-2000)
All Sites	C00.0-C80.9	140-208, 238.6	C00-C97
Cervical	C53.0-C53.9	180	C53
Colorectum	C18.0-C18.9, C19.9, C20.9, C26.0	153, 159.0, 154.0-154.1	C18, C26.0, C19-C20
Female Breast	C50.0-C50.9	174-175	C50
Leukemia	M9800-M9804, M9820-M9828, M9830, M9840-M9842, M9850, M9860-M9864, M9866-M9868, M9870-M9874, M9880, M9890-M9894, M9900, M9910, M9931-M9932, M9940-M941	202.4, 203.1, 204.0-204.2, 204.8-205.3, 205.8-206.2, 206.8-207.2, 207.8, 208.0-208.2, 208.8-208.9	C90.1, C91.0-C91.5, C91.7, C91.9-C92.5, C92.7, C92.9-C93.2, C93.7, C93.9-C94.5, C94.7, C95.0- C95.2, C95.7, C95.9
Lung & Bronchus	C34.0-C34.9	162.2-162.5, 162.8-162.9	C34
Non-Hodgkin's Lymphoma	M9590-M9595, M9670-M9677, M9680-M9688, M9690-M9698, M9700-M9717, M9823, M9827	200, 202.0-202.2, 202.8-202.9	C82-C85, C96.3
Oral Cavity (Excluding Lip)	C01.9-C02.9, C07.9-C08.9, C04.0-C04.9, C03.0-C03.9, C05.0-C05.9, C06.0-C06.9, C11.0-C11.9, C09.0-C09.9, C10.0-C10.9, C12.9, C13.0-C13.9, C14.0, C14.2-C14.8	141-149	C01-C14
Prostate	C61.9	185	C61
Skin Melanoma	C44.0-C44.9	172	C43

<sup>1</sup>International Classification of Diseases for Oncology

<sup>2</sup>International Statistical Classification of Diseases and Related Health Problems, Ninth Revision

<sup>3</sup>International Statistical Classification of Diseases and Related Health Problems, Tenth Revision

## Injury Mortality

Injury Mortality Classification	ICD-9 <sup>2</sup> (1979-1998)	ICD-10 <sup>3</sup> (1999-2000)
Unintentional Poisoning	E850-E869	X40-X49
Unintentional Burn	E890-E899, E924	X00-X09, X10-X19
Unintentional Transportation	E800-E848, E929.0, E929.1	V01-V99, Y85
Motored Vehicle Traffic	E810-E819	V02-V04 (.1, .9), V09.2, V12-V14 (.3-.9), V19(.4-.6) V20-V28(.3-.9), V29(.4-.9) V30-V79(.4-.9), V80(.3-.5), V81.1, V82.1, V83-V86(.0-.3), V87(.0-.8), V89.2
Unintentional Drowning	E830, E832, E910	V90, V92, W65-W74
Firearm Mortality	E922, E955.0-E955.4, E965.0-E965.4, E970, E985.0-E985.4	W32-W34, X72-X74, X93-X95, Y35.0, Y22-Y24
Homicide and Legal Intervention Mortality	E960-E969, E970-E978	X85-Y09, Y87.1, Y35, Y89.0
Suicide Mortality	E950-E959	X60-X84, Y87.0
Deaths or Injuries from Falls	E880-E886.9, E888	W00-W19
All Other Unintentional Injury	E849, E870-E879, E887, E889, E900-E909, E911-E921, E923, E925-E928, E929.2-E929.9, E930-E949	W20-W31, W35-W45, W49-W60, W64, W75-W81, W83-W94, W99, X20-X39, X50-X54, X57-X59, Y40-Y66, Y69-Y84, Y86, Y88

<sup>1</sup>International Classification of Diseases for Oncology

<sup>2</sup>International Statistical Classification of Diseases and Related Health Problems, Ninth Revision

<sup>3</sup>International Statistical Classification of Diseases and Related Health Problems, Tenth Revision

## Other Mortality

Mortality Classification	ICD-8 <sup>4</sup> (1968-1978)	ICD-9 <sup>2</sup> (1979-1998)	ICD-10 <sup>3</sup> (1999-2000)
Heart Disease	390-398, 402, 404-429	390-398, 402, 404-429	I00-109, I11, I13, I20-I51
Stroke	430-438	430-438	I60-I89
COPD	490-493	490-496	J40-J47
Pneumonia/Influenza	470-486	480-487	J10-J18
Diabetes	250	250	E10-E14
Infectious/Parasitic	001-089, 090-136	001-018, 020-088, 090-139	A00-A09, A15-A19, A20-A39, A40-A41, A42-A49, A50-A53, A54-B19, B20-B24, B25-B99
Chronic liver disease and cirrhosis	571	571	K70, K73-K74
Diseases of arteries, arterioles, and capillaries	440, 441, 442-448	440, 441, 442-448	I70-I78
Diseases of the Kidney and ureter	580-584	580-589	N25-N27
Congenital anomalies	740-759	740-759	Q00-Q99
Certain conditions originating in the perinatal period	760-779	760-779	P00-P96

<sup>1</sup>International Classification of Diseases for Oncology

<sup>2</sup>International Statistical Classification of Diseases and Related Health Problems, Ninth Revision

<sup>3</sup>International Statistical Classification of Diseases and Related Health Problems, Tenth Revision

<sup>4</sup>International Statistical Classification of Diseases and Related Health Problems, Eighth Revision



## **Appendix IV: Iowa Health Data Information Resources**

## Iowa Health Data Information Resources

**ADULT BLOOD LEAD EPIDEMIOLOGY AND SURVEILLANCE: LEAD POISONING PREVENTION PROGRAM:** Rita Gergely, Division of Environmental Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 242-6340. Fax: (515) 281-4529. E-mail: rgergely@idph.state.ia.us.

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**IOWA EMS SERVICES PROGRAM REGISTRY:** Ray Jones, Bureau of Emergency Medical Services, Iowa Dept. of Public Health, 401 SW 7<sup>th</sup> Street, Suite D, Des Moines, IA 50309. Phone: (515) 725-0319. Fax: (515) 725-0318. E-mail: [rjones@idph.state.ia.us](mailto:rjones@idph.state.ia.us).

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