

# **The 2005 Iowa Health Fact Book**

## **The University of Iowa**

James A. Merchant, Dean of the College of Public Health

Jane Pendergast, Director, Center for Public Health Statistics

Jacob Oleson, Center for Public Health Statistics

Patti O'Neill, Designer, Communications Office, College of Public Health

Theresa Dunkin, Division Director, Information Systems/Research, Office of Statewide

Clinical Education Programs

## **Iowa Department of Public Health**

Mary M. Hansen, IDPH Director

Tom Newton, Director, Division of Environmental Health and Health Statistics

Jill France, Chief, Bureau of Health Statistics

Rita Gergely, Chief, Bureau of Lead Poisoning Prevention

Louise Lex, Coordinator, Healthy Iowans 2010

Deb Roeder, Project Manager, Bureau of Health Statistics

**Sponsored by**

**The University of Iowa College of Public Health**

**Iowa Department of Public Health**

*Host Website for the 2005 Iowa Health Fact Book:*

<http://www.public-health.uiowa.edu/FACTBOOK>

*You can also link to the above website via  
the Iowa Department of Public Health website:*

<http://www.idph.state.ia.us>

Questions and/or comments regarding the 2005 Iowa Health Fact Book may be directed to:

Jacob Oleson  
Center for Public Health Statistics  
College of Public Health  
2214 Westlawn Building  
The University of Iowa  
Iowa City, IA 52242-1102

Telephone: 319.335.7005  
Fax: 319.353.4248

Email:  
[cph-factbook@uiowa.edu](mailto:cph-factbook@uiowa.edu)

The correct bibliographic citation for this book is as follows:

The University of Iowa and the Iowa Department of Public Health. 2005 Iowa Health Fact Book.  
Iowa City, IA: The University of Iowa College of Public Health. July 2005.

## Acknowledgements

A number of individuals and their respective organizations contributed to the creation of the 2005 Iowa Health Fact Book. Their collaborative efforts are greatly appreciated, as are the effort of all others in their organizations who provided information or support for this 2005 edition of the Iowa Health Fact Book.

### Steering Committee for the 2005 Iowa Health Fact Book

<u>The University of Iowa</u>	<u>Iowa Department of Public Health</u>
Charles Lynch	Jill France
James Merchant	Deborah Kane
Jacob Oleson	Louise Lex
Jane Pendergast	Deb Roeder
Michele West	

### Other Individuals Contributing Data, Resource Information, or Management, Technical, or Clerical Support

#### The University of Iowa

Patrick Breheny, Center for Public Health Statistics

Jason Brubaker, State Health Registry of Iowa

Bradley McDowell, Deputy Director, Iowa Registry for Congenital and Inherited Disorders

Dan McMillan, Director of Communications, College of Public Health

Greyson Purcell, Academic Technologies

Paul Romitti, College of Public Health

Eric Schaefer, Center for Public Health Statistics

Linda Thiesen, Office of Statewide Clinical Education Programs

Roger Tracy, Director of the Office of Statewide Clinical Education Programs

#### Iowa Department of Public Health

Mary M. Hansen, IDPH Director

Josh Jungling, Bureau of Health Statistics

Tom Newton, Division Director, Health Protection and Environmental Health

Donald S. Shepherd, BRFSS Coordinator

#### Other Acknowledgements

Iowa Department of Inspections and Appeals, Health Facilities Division

Iowa Department of Public Safety

Iowa Consortium for Substance Abuse Research and Evaluation

National Center for Health Statistics, Centers for Disease Control and Prevention

U.S. Census Bureau

## WELCOME

---

## Welcome to the 2005 Iowa Health Fact Book!

*This book is the fifth in a series of Iowa Health Fact Book biennial publications and has been produced as a collaborative effort between The University of Iowa College of Public Health and the Iowa Department of Public Health. This book adds to the Iowa Great Places initiative by compiling information related to the health of Iowans. Much of this information is presented for each of Iowa's 99 counties and includes such knowledge as data on disease incidence and mortality, health and social behaviors, health resources, and environmental factors. With this book, 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, 2001, and 2003 were distributed to registrants at the Governor's Conference on Public Health (Barn Raisings I, II, III, and IV) in either print or CD-ROM format. This year, all participants of the Barn Raising V, to be held in July 2005, will again receive the CD-ROM version free. This version and previous versions are posted on our college website. A limited number of printed copies of the 2005 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 2005 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. Like the previous editions, 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,*

*James A. Merchant, M.D., Dr. P.H.  
Dean, College of Public Health*

*Jane Pendergast, Ph.D., Director  
Jacob Oleson, Ph.D., Editor  
Center for Public Health Statistics*

## WELCOME

---

---

## Table of Contents

<b>Introduction .....</b>	<b>1</b>
Introduction .....	1
Fact Book Conventions .....	2
<b>Healthy People 2010 Leading Indicators.....</b>	<b>5</b>
<b>Demographics .....</b>	<b>9</b>
Introduction to the Demographics Section.....	9
State Population Distributions 1992-2004 .....	10
Average Annual Population Distribution by Age 1993-2004.....	11
Aging Trend in Iowa.....	16
Estimated Year 2000 U. S. Standard Population .....	16
<b>Health and Social Behaviors.....</b>	<b>17</b>
Introduction to the Health and Social Behaviors Section.....	17
Introduction to the Behavioral Risk Factor Surveillance System (BRFSS) .....	18
Iowa Behavioral Risk Factor Surveillance System (BRFSS) 2002-2003 .....	19
2004 Iowa Youth Tobacco Survey (IYTS) .....	20
Introduction to Substance Abuse Treatment .....	22
Local Sites for Substance Abuse Treatment .....	23
Alcohol Admissions 2003-2004 .....	24
Marijuana Admissions 2003-2004 .....	27
Other Admissions 2003-2004 .....	30
Marriages 2002-2003.....	33
Dissolutions 2002-2003 .....	34
Domestic Abuse Cases 2002-2003 .....	36
Driving Under the Influence (DUI) Arrests 2002-2003.....	37
Juvenile Arrests 2002-2003 .....	39
Juvenile Vandalism 2002-2003.....	40
<b>Prenatal and Infant Health.....</b>	<b>43</b>
Introduction to the Prenatal and Infant Health Section .....	43
Live Births 2002-2003 .....	44
Out-of-Wedlock Births 2002-2003 .....	45
Mothers Under Age 20 2002-2003 .....	47
Low Birth Weight (< 2500 Grams) 2002-2003 .....	48
Mothers Who Began Prenatal Care in the First Trimester 2002-2003 .....	50
Mothers Who Smoked During Pregnancy 2002-2003 .....	52
Mothers Who Drank During Pregnancy 2002-2003.....	53
Fetal Deaths 2002-2003 .....	55
Neonatal Deaths 2002-2003.....	56
Perinatal Deaths 2002-2003.....	58
Infant Deaths 2002-2003 .....	59
Congenital Malformations 2002-2003.....	61
Birth Defects 2000-2002 .....	62
Selected Birth Defects in Iowa 2000-2002.....	64

---

<b>Infectious Diseases.....</b>	<b>65</b>
Introduction to Infectious Diseases Section .....	65
Sexually Transmitted Diseases 2003-2004 .....	66
Selected Infectious Diseases 1996-2004.....	68
<b>Cancer Incidence and Mortality .....</b>	<b>69</b>
Introduction to Cancer Incidence and Mortality Section .....	69
All Sites of Cancer Incidence 1993-2002.....	70
All Sites of Cancer Mortality 1993-2002.....	72
Prostate Cancer Incidence 1993-2002 .....	74
Prostate Cancer Mortality 1993-2002 .....	76
Lung Cancer Incidence 1993-2002 .....	78
Lung Cancer Mortality 1993-2002.....	80
Female Breast Cancer Incidence 1993-2002 .....	82
Female Breast Cancer Mortality 1993-2002 .....	84
Colorectal Cancer Incidence 1993-2002.....	86
Colorectal Cancer Mortality 1993-2002 .....	88
Non-Hodgkin's Lymphoma Incidence 1993-2002.....	90
Non-Hodgkin's Lymphoma Mortality 1993-2002.....	92
Leukemia Incidence 1993-2002.....	94
Leukemia Mortality 1993-2002.....	96
Skin Melanoma Incidence 1993-2002.....	98
Skin Melanoma Mortality 1993-2002 .....	100
Oral Cavity (Excluding Lip) Cancer Incidence 1993-2002 .....	102
Oral Cavity (Excluding Lip) Cancer Mortality 1993-2002.....	104
Cervical Cancer Incidence 1993-2002.....	106
Cervical Cancer Mortality 1993-2002.....	108
<b>Injury Mortality .....</b>	<b>111</b>
Introduction to Injury Mortality Section.....	111
All Transportation Mortality 1993-2002 .....	112
Motor Vehicle Traffic Mortality 1993-2002 .....	114
Suicides 1993-2002 .....	116
Firearms Mortality 1993-2002 .....	118
Falls Mortality 1993-2002.....	120
Homicides 1993-2002 .....	122
Poisoning Mortality 1993-2002 .....	124
Burns Mortality 1993-2002 .....	126
Drowning Mortality 1993-2002 .....	128
All Other Unintentional Mortality 1993-2002 .....	130
<b>Youth Injury Mortality .....</b>	<b>133</b>
Introduction to the Youth Injury Mortality Section .....	133
Age 0-14: All Transportation Mortality 1993-2002 .....	134
Age 15-19: All Transportation Mortality 1993-2002 .....	136
Age 0-14: Motor Vehicle Traffic Mortality 1993-2002 .....	138
Age 15-19: Motor Vehicle Traffic Mortality 1993-2002 .....	140
Age 0-14: Suicides by County Group 1979-2002 .....	142
Age 15-19: Suicides by County Group 1979-2002 .....	143
Age 0-14: Homicides by County Group 1979-2002 .....	144
Age 15-19: Homicides by County Group 1979-2002 .....	145

---

**Other Mortality ..... 147**

Introduction to Other Mortality Section .....	147
All Causes Mortality 1993-2002 .....	148
Heart Disease Mortality 1993-2002 .....	150
Stroke Mortality 1993-2002.....	152
Chronic Obstructive Pulmonary Disease Mortality 1993-2002.....	154
Pneumonia / Influenza Mortality 1993-2002 .....	156
Diabetes Mellitus Mortality 1993-2002.....	158
Atherosclerosis Mortality 1993-2002 .....	160
Infectious / Parasitic Mortality 1993-2002.....	162
Nephritis, Nephrotic Syndrome, Nephrosis Mortality 1993-2002.....	164
Chronic Liver Disease and Cirrhosis Mortality 1993-2002 .....	166
Congenital Anomalies Mortality 1993-2002 .....	168
Conditions Originating in Perinatal Period Mortality 1993-2002 .....	170
Alzheimer's Mortality 1993-2002 .....	172

**Health Care Providers ..... 175**

Introduction to Health Care Providers Section .....	175
Total Physicians 2005.....	176
Primary Care Physicians 2005 .....	177
Family Practice Physicians 2005 .....	178
Internal Medicine Physicians 2005 .....	179
Pediatric Physicians 2005.....	180
Obstetrics / Gynecology Physicians 2005 .....	181
General Surgeons 2005.....	182
Other Specialty Physicians 2005 .....	183
Physician Assistants 2005 .....	184
Registered Nurses 2005 .....	185
Licensed Practical Nurses 2005 .....	186
Advanced Practical Nurses 2005.....	187
Pharmacists 2005 .....	188
Dentists 2005 .....	189
Chiropractors 2005 .....	190
Emergency Care Providers – Total 2005.....	191
First Responders 2005.....	192
Emergency Medical Technicians – Basic 2005 .....	193
Emergency Medical Technicians – Intermediate 2005 .....	194
Emergency Medical Technicians – Paramedics 2005.....	195
Emergency Medical Technicians – Paramedic Specialists 2005 .....	196
Iowa Law Enforcement Emergency Care Providers 2005.....	197

**Health Care Facilities..... 199**

Introduction to Health Care Facilities Section.....	199
Community and Migrant Health Centers.....	200
Certified Rural Health Clinics .....	200
Hospitals 2005 .....	201
Hospital Beds 2005 .....	202
Nursing Facilities 2005.....	203
Nursing Facility Beds 2005 .....	204
Chronic Confusion or Dementing Illness Units 2005 .....	205
Beds in Chronic Confusion or Dementing Illness Units 2005 .....	206
Intermediate Care Facilities for the Mentally Retarded 2005 .....	207
Intermediate Care Beds for the Mentally Retarded 2005 .....	208
Residential Care Facilities 2005 .....	209
Beds in Residential Care Facilities 2005 .....	210

## WELCOME

---

Residential Care Facilities for Persons with Mental Illness 2005 .....	211
Beds in Residential Care Facilities for Persons with Mental Illness 2005 .....	212
Residential Care Facilities for the Mentally Retarded 2005.....	213
Beds in Residential Care Facilities for the Mentally Retarded 2005.....	214
3-5 Bed Units for the Mentally Retarded 2005.....	215
Beds in 3-5 Bed Units for the Mentally Retarded 2005.....	216
Psychiatric Medical Institutions for Children 2005 .....	217
Beds in Psychiatric Medical Institutions for Children 2005 .....	218
Total Trauma Care Facilities 2005.....	219
Community Trauma Care Facilities 2005.....	220
Area Trauma Care Facilities 2005 .....	221
Regional Trauma Care Facilities 2005.....	222
Resource Trauma Care Facilities 2005 .....	223
<b>Environmental Health Indicators .....</b>	<b>225</b>
Introduction to Environmental Health Indicators Section .....	225
Childhood Blood Lead Poisoning Introduction.....	226
Percent of Children Tested for Blood Lead Poisoning, 1997-1998 .....	228
Elevated Levels of Blood Lead: Children Born in 1997 .....	229
Elevated Levels of Blood Lead: Children Born in 1998 .....	230
Elevated Levels of Blood Lead: Children Born in 1997-1998 .....	231
<b>Appendix I: Data Sources.....</b>	<b>233</b>
<b>Appendix II: Glossary of Terms .....</b>	<b>239</b>
<b>Appendix III: Coding and Classifications.....</b>	<b>245</b>
<b>Appendix IV: Iowa Health Data Information Resources .....</b>	<b>249</b>

## Introduction

In the 2005 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. We encourage readers who would like to use these data to learn about the data collection processes and data definitions from those responsible for collecting the information. The use of U. S. Census data to compute adjusted rates, sparse data concerns, data groupings, data definitions, and use of ranks are described in the Fact Book Conventions section of this Introduction.

The second section, Healthy People 2010 Leading Health Indicators, outlines the major public health concerns and provides both targeted values and a comparison of Iowa to the nation. Demographics are provided in the third section, listing county-specific population totals in Iowa for from 1992 – 2004. These population totals drive the calculation of crude and age-adjusted rates in later sections.

The remaining ten sections provide valuable information on a variety of aspects of the health of Iowans. The Health and Social Behaviors section tracks behaviors affecting our health, with presented crude rates computed separately for both adults and adolescents. The Prenatal and Infant Health section covers information regarding infants, but also the well-being of their mothers during pregnancy. The Infectious Diseases section focuses mainly on sexually transmitted diseases, although other infectious disease data are presented as well. The Cancer Incidence and Mortality section provides both crude and age-adjusted rates for selected major types of cancer. The Injury Mortality section reveals both crude and age-adjusted rates for certain causes of mortality, such as motor vehicle deaths and deaths caused by firearms. Closely related is the Youth Injury Mortality section, providing the same type of data but restricted to individuals aged less than 20. The last mortality section, Other Mortality, lays out crude and age-adjusted rates for mortality not caused by cancer or the causes listed in the previous two sections. A component of a good health care system is adequate capacity of both facilities and health care providers. The Health Care Providers chapter shows counts and crude rates of various types of providers across the state. The Health Care Facilities chapter details counts and crude rates for a variety of types of facilities. The final section of the book, entitled Environmental Health Indicators, focuses exclusively on the testing of blood lead poisoning of children in Iowa.

## Fact Book Conventions

### Layout

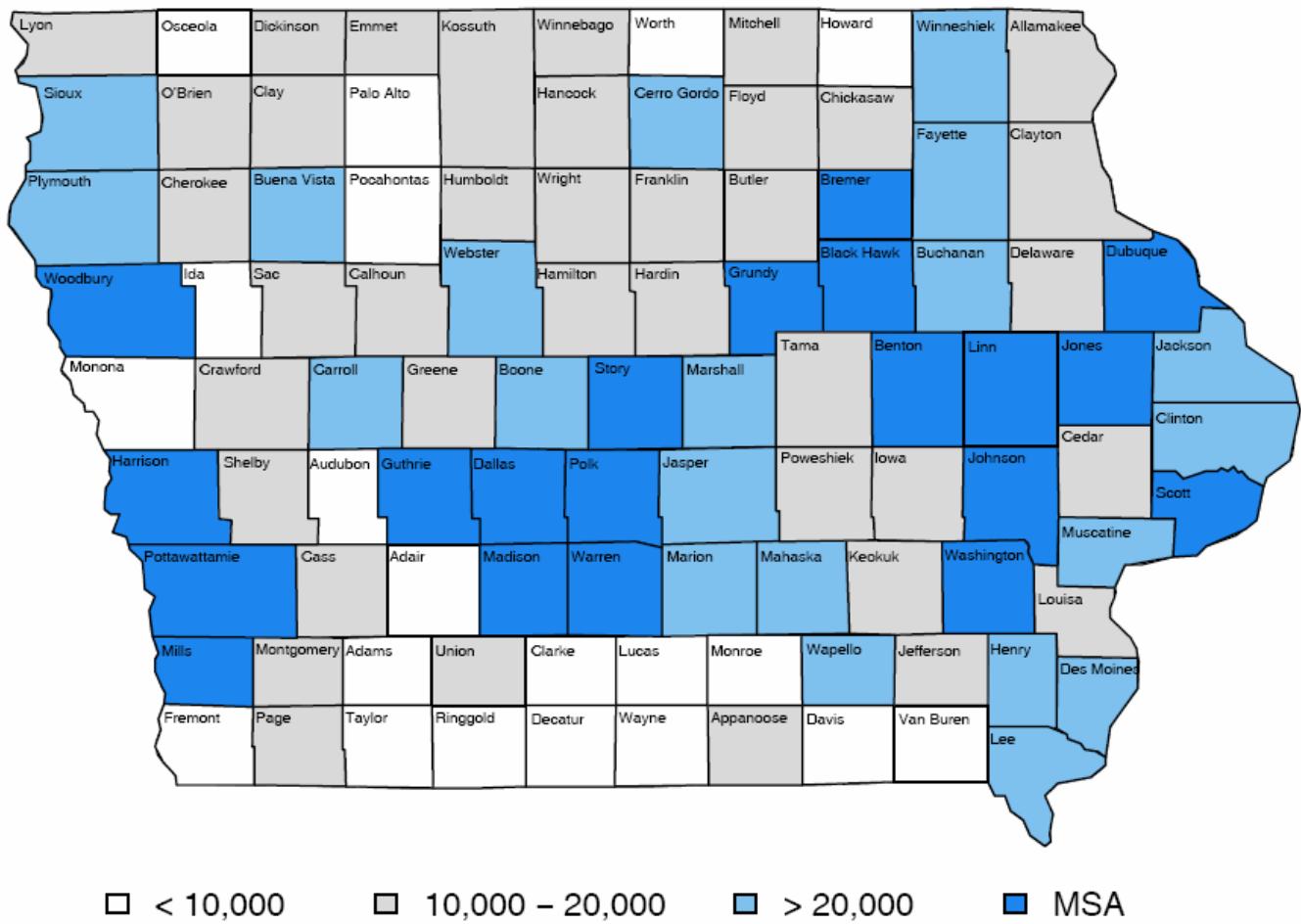
The time interval covered differs across the data items, mainly due to differences in data availability. Where reasonable and possible, county-specific data are presented. When it is not presented in that format, it is either because the data were too sparse (that is, a relatively small number of counties with non-zero counts) or they were 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 2004 population. Both crude and age-adjusted population rates are presented when reasonable, which also facilitates 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

An MSA (Metropolitan Statistical Area) county is defined by the Census Bureau as a central city along with the counties economically and socially connected to it. Each MSA must have 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). Under the 2000 standards, rural counties may be included in an MSA if at least 25 percent of the workers who live in the county work within the central county or counties (that is, the county or counties containing the urban core of 50,000 or more population) of the MSA. A county can also be included if at least 25 percent of the jobs in the county are filled by workers living in the central counties of the MSA. This definition was updated following the 2000 census resulting in some changes in these groupings when compared to the 2003 Iowa Health Fact Book.

Twenty counties were grouped as having a 2004 population of less than 10,000 (group 1); 38 counties had a 2004 population between 10,000 and 20,000 (group 2); 21 counties were non-MSA counties with a 2004 population over 20,000 (group 3); and 20 counties were classified as MSA counties (group 4). See the map on the following page to see the counties in each group.

## County Group Based on 2004 Population



### Small Numbers

If the number of county-specific events in a health outcome tables was less than five, we masked the count by replacing it with an asterisk (\*) to protect subject confidentiality. However, all numbers are included in the computations needed for the line graphs and other charts accompanying the health outcomes tables, which summarizes data over a larger number of people. If only one value in a county grouping is masked with an (\*), then we do not report the grouping total, only a range of possible values.

### 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**

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 were presented for a data table when no counts in the table were less than five; i.e. when there were no very small numbers.

### **Maps**

State maps were created to present the data for Health Care Providers and Health Care Facilities instead of tables. The number in the county represents the 2005 count. The crude rates were calculated from the 2004 population for each county. These rates were grouped into four categories of approximately twenty-five counties each and shaded on the map. If a county rate fell on the border between two categories, it was shaded using the smaller region.

## Healthy People 2010 Leading Indicators

The Healthy People 2010 Leading Health Indicators have been included in the 2005 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.

One objective of the 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 were 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. For more information on the 10 Health Status Indicators, see relevant chapters in the updated *Healthy Iowans 2010* on the Iowa Department of Public Health Website: [www.idph.state.ia.us](http://www.idph.state.ia.us).

### 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

## 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%	63% 2003 YRBS	74% 2001 YRBS
	BRFSS <sup>2</sup> respondents who reported engaging in physical activity for more than 30 minutes, 5 or more times per week.	50%	47% 2003 BRFSS	33% 2003 BRFSS
<b><u>Overweight and Obesity</u></b>  Reduce the proportion of children and adolescents who are overweight or obese. (19-3c)  Reduce the proportion of adults who are obese. (19-2)	YRBS respondents who are overweight based on weight and height.	5%	12% 2003 YRBS	10% 2001 YRBS
	BRFSS respondents with BMI equal to or greater than 30.0.	15%	23% 2003 BRFSS	24% 2004 BRFSS
<b><u>Tobacco Use</u></b>  Reduce cigarette smoking by adolescents. (27-2b)  Reduce cigarette smoking by adults. (27-1a)	YRBS respondents who reported smoking cigarettes on one or more of the past 30 days.	16%	22% 2003 YRBS	30% 2001 YRBS
	BRFSS respondents who reported having smoked 100 cigarettes in a lifetime and currently smoke.	12%	22% 2003 BRFSS	21% 2004 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%	55% 78% 2003 YRBS	48% 84% 2001 YRBS

<sup>1</sup>Youth Risk Behavior Survey<sup>2</sup>Behavioral Risk Factor Surveillance System

**Healthy People 2010 Leading Indicators (continued)**

National Indicator (Chapter-Section)	State Definition	National Target	National Baseline/ Data Source	State Prevalence Estimate/ Data Source
<b><u>Substance Abuse (continued)</u></b>				
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%	7% 2001 National Household Survey on Drug Abuse	Ages 18-25: 13% Ages 26+: 2% 2001 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%	16% 2003 BRFSS	19% 2004 BRFSS
<b><u>Responsible Sexual Behavior</u></b>				
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%	53% 63% 2003 YRBS	57% 59% 2001 YRBS
Increase the proportion of sexually active persons who use condoms. (13-6a)	Not available	50%	Not available	Not available
<b><u>Mental Health</u></b>				
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
<b><u>Injury and Violence</u></b>				
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 2002 Vital Statistics	15.5/100,000 2003 Vital Statistics
Reduce homicides. (15-32)	Vital Records- V85-Y09, Y35, Y87.1, Y89.0	3.0/ 100,000	6.1/100,000 2002 Vital Statistics	1.7/100,000 2003 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
<b><u>Environmental Quality</u></b>  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
	Not available	45%	65% 1988-94 NHANES <sup>3</sup>	Not available
<b><u>Immunization</u></b>  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%	79% 2003 National Immunization Survey <sup>4</sup>	81% 2003 National Immunization Survey
	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%	70% 64% 2003 BRFSS	74% 68% 2004 BRFSS
<b><u>Access to Health Care</u></b>  Increase the proportion of persons under age 65 with health insurance. (1-1)  Increase the proportion of persons who have a specified source of ongoing care. (1-4a)  Increase the proportion of pregnant women who begin prenatal care in the first trimester of pregnancy. (16-6a)	BRFSS respondents under age 65 who report having any type of health insurance.	100%	83% 2003 BRFSS	87% 2004 BRFSS
	BRFSS respondents who report having one person as a personal doctor or physician.	96%	68% 2003 BRFSS	77% 2004 BRFSS
	Birth certificate data file-women who report receiving prenatal care during the first three months of pregnancy.	90%	83% 2002 Vital Statistics	89% 2003 Vital Statistics

<sup>3</sup>National Health and Nutrition Examination Survey<sup>4</sup>NIS figures are for the 4:3:1:3:3 criterion which does not include varicella

## Demographics

Many of the health indicators in the 2005 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 their 2004 county populations. 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.

Using the 2004 county populations, there were 20 counties with less than 10,000 residents, 38 counties with 10,000 to 20,000 residents, 21 counties with 20,000 to 50,000 residents, and 20 Metropolitan Statistical Area (MSA) counties. The distribution of the population by age is different among the county groupings. The larger counties have a greater percentage of their population as young adults (15-44 years) compared to the smaller counties. Conversely, the smaller counties have a larger percentage of persons 65 years of age or older. These differences in age distributions 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.

### KEY CHANGES IN IOWA DEMOGRAPHICS...

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

## State Population Distributions

Annual Population Distribution 1992-2004							
County	1992	1993	1994	1995	1996	1997	1998
Counties with 2004 Population < 10,000	Adair	8,441	8,483	8,380	8,366	8,363	8,310
	Adams	4,687	4,634	4,616	4,578	4,534	4,503
	Audubon	7,141	7,038	6,992	6,954	6,920	6,916
	Clarke	8,496	8,549	8,429	8,486	8,663	8,701
	Davis	8,326	8,398	8,452	8,512	8,428	8,496
	Decatur	8,219	8,163	8,290	8,468	8,459	8,416
	Fremont	8,242	8,217	8,259	8,172	8,077	7,989
	Howard	9,977	10,008	9,944	9,944	9,980	9,966
	Ida	8,290	8,321	8,333	8,206	8,092	8,024
	Lucas	9,132	9,181	9,184	9,234	9,277	9,395
	Monona	10,045	10,070	10,092	10,059	10,069	10,121
	Monroe	8,209	8,175	8,184	8,203	8,129	8,132
	Osceola	7,246	7,239	7,217	7,138	7,156	7,167
	Palo Alto	10,561	10,506	10,511	10,260	10,261	10,254
	Pocahontas	9,312	9,167	9,140	9,133	8,970	8,864
	Ringgold	5,414	5,405	5,378	5,382	5,418	5,447
	Taylor	7,024	7,024	7,048	7,069	7,069	7,016
	Van Buren	7,700	7,725	7,686	7,701	7,669	7,736
	Wayne	7,017	7,043	6,974	6,939	6,936	6,910
	Worth	7,930	8,031	7,924	7,952	8,001	7,929
	<b>Total</b>	161,409	161,377	161,033	160,756	160,471	160,292
Counties with 2004 Population 10,000 - 20,000	Allamakee	14,123	14,231	14,248	14,484	14,468	14,487
	Appanoose	13,865	13,903	13,726	13,723	13,752	13,677
	Butler	15,709	15,578	15,578	15,573	15,531	15,501
	Calhoun	11,503	11,478	11,630	11,473	11,426	11,377
	Cass	15,056	15,090	15,168	15,043	15,005	14,886
	Cedar	17,703	17,551	17,566	17,742	17,860	18,102
	Cherokee	13,978	13,912	13,882	13,635	13,450	13,381
	Chickasaw	13,218	13,238	13,287	13,297	13,270	13,272
	Clay	17,766	17,700	17,696	17,577	17,601	17,662
	Clayton	18,813	18,909	18,886	18,871	18,930	18,952
	Crawford	16,791	16,683	16,715	16,761	16,775	16,864
	Delaware	18,271	18,269	18,322	18,347	18,324	18,380
	Dickinson	15,245	15,389	15,414	15,601	15,783	16,076
	Emmet	11,722	11,568	11,501	11,403	11,338	11,303
	Floyd	17,118	17,060	17,062	17,001	17,028	17,059
	Franklin	11,179	11,252	11,045	11,016	11,030	10,921
	Greene	10,187	10,280	10,255	10,226	10,333	10,402
	Hamilton	16,229	16,188	16,233	16,468	16,356	16,371
	Hancock	12,391	12,170	12,073	12,148	12,158	12,043
	Hardin	18,937	18,822	18,941	19,103	19,062	18,981
	Humboldt	10,586	10,517	10,492	10,457	10,475	10,473
	Iowa	14,750	14,857	14,927	15,136	15,332	15,423
	Jefferson	16,364	16,559	16,563	16,468	16,517	16,628
	Keokuk	11,592	11,600	11,490	11,597	11,486	11,444
	Kossuth	18,098	17,983	17,950	17,836	17,645	17,552
	Louisa	11,479	11,822	11,850	11,939	12,087	12,050
	Lyon	11,914	11,890	11,811	11,724	11,797	11,811
	Mitchell	10,799	10,947	10,974	10,971	10,957	10,941
	Montgomery	11,916	12,053	11,992	11,947	11,917	11,889
	O'Brien	15,638	15,635	15,646	15,647	15,456	15,498
							15,457

## State Population Distributions (continued)

Annual Population Distribution 1992-2004								
	1999	2000	2001	2002	2003	2004	Male <sup>1</sup>	Female <sup>1</sup>
<b>Counties with 2004 Population &lt; 10,000</b>	8,298	8,243	8,097	8,009	7,976	7,932	4,038	4,243
	4,498	4,482	4,415	4,388	4,389	4,320	2,222	2,291
	6,896	6,830	6,666	6,593	6,489	6,486	3,290	3,576
	8,908	9,133	9,165	9,162	9,215	9,223	4,282	4,530
	8,518	8,541	8,635	8,621	8,573	8,703	4,195	4,313
	8,646	8,689	8,696	8,631	8,577	8,538	4,142	4,362
	7,997	8,010	7,917	7,843	7,823	7,734	3,895	4,152
	9,950	9,932	9,899	9,861	9,813	9,834	4,881	5,062
	7,914	7,837	7,693	7,620	7,526	7,437	3,870	4,123
	9,461	9,422	9,448	9,459	9,526	9,719	4,519	4,825
	10,056	10,020	9,864	9,763	9,808	9,730	4,830	5,184
	8,061	8,016	7,927	7,805	7,857	7,861	3,921	4,148
	7,049	7,003	6,948	6,845	6,803	6,791	3,447	3,636
	10,137	10,147	10,045	9,892	9,741	9,778	4,972	5,252
	8,808	8,662	8,516	8,392	8,263	8,112	4,320	4,525
	5,449	5,469	5,425	5,338	5,347	5,284	2,611	2,803
	6,905	6,958	6,871	6,833	6,764	6,689	3,363	3,624
	7,784	7,809	7,743	7,806	7,748	7,710	3,846	3,894
	6,738	6,730	6,663	6,657	6,651	6,594	3,263	3,575
	7,890	7,909	7,835	7,798	7,723	7,715	3,901	4,019
	159,963	159,842	158,468	157,316	156,612	156,190	77,808	82,137
<b>Counties with 2004 Population 10,000 - 20,000</b>	14,651	14,675	14,411	14,450	14,607	14,759	7,193	7,281
	13,709	13,721	13,625	13,460	13,611	13,616	6,537	7,165
	15,286	15,305	15,159	15,023	15,051	15,071	7,555	7,837
	11,190	11,115	11,005	10,819	10,689	10,571	5,570	5,707
	14,649	14,684	14,577	14,321	14,358	14,266	7,159	7,663
	18,178	18,187	18,126	18,184	18,254	18,255	8,836	9,121
	13,096	13,035	12,926	12,682	12,538	12,470	6,522	6,796
	13,209	13,095	13,087	12,862	12,698	12,632	6,584	6,600
	17,339	17,372	17,287	17,088	16,977	16,869	8,422	9,068
	18,825	18,678	18,536	18,391	18,337	18,291	9,269	9,514
	16,911	16,942	16,956	16,980	16,897	16,925	8,350	8,497
	18,444	18,404	18,300	18,304	18,161	18,067	9,083	9,272
	16,333	16,424	16,484	16,425	16,453	16,672	7,780	8,240
	11,103	11,027	10,894	10,833	10,746	10,604	5,437	5,779
	16,959	16,900	16,644	16,626	16,574	16,535	8,143	8,784
	10,780	10,704	10,654	10,685	10,692	10,731	5,322	5,572
	10,394	10,366	10,174	10,183	10,039	10,049	4,994	5,310
	16,387	16,438	16,270	16,310	16,318	16,276	8,043	8,296
	12,091	12,100	11,950	11,836	11,877	11,801	5,919	6,148
	18,784	18,812	18,628	18,439	18,269	18,150	9,183	9,667
	10,414	10,381	10,324	10,135	10,104	10,044	5,077	5,333
	15,570	15,671	15,835	15,829	15,967	16,030	7,501	7,904
	16,282	16,181	16,109	15,963	15,993	16,022	8,005	8,374
	11,317	11,400	11,384	11,417	11,352	11,276	5,562	5,892
	17,258	17,163	16,818	16,604	16,452	16,378	8,497	8,910
	12,174	12,183	12,214	12,222	12,256	12,132	6,005	6,059
	11,812	11,763	11,669	11,700	11,725	11,752	5,823	5,956
	10,895	10,874	10,750	10,867	10,868	10,970	5,330	5,585
	11,767	11,771	11,534	11,365	11,339	11,398	5,589	6,225
	15,200	15,102	14,918	14,758	14,676	14,428	7,460	7,867

<sup>1</sup>1992-2002 Average

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

## State Population Distributions (continued)

Annual Population Distribution 1992-2004							
County	1992	1993	1994	1995	1996	1997	1998
Counties with 2004 Population 10,000 - 20,000	Page	16,678	16,652	16,784	16,729	17,344	17,374
	Poweshiek	18,944	18,884	18,999	18,925	19,004	18,989
	Sac	12,152	12,036	12,090	12,003	11,968	11,882
	Shelby	13,318	13,295	13,278	13,232	13,311	13,353
	Tama	17,513	17,728	17,906	17,951	17,885	17,950
	Union	12,503	12,482	12,352	12,325	12,459	12,345
	Winnebago	11,850	11,757	11,794	11,804	11,829	11,876
	Wright	14,388	14,348	14,470	14,674	14,662	14,560
	<b>Total</b>	<b>550,286</b>	<b>550,316</b>	<b>550,596</b>	<b>550,857</b>	<b>551,611</b>	<b>551,735</b>
	<b>Total</b>	<b>550,703</b>					
Counties with 2004 Population > 20,000	Boone	25,259	25,133	25,161	25,456	25,742	26,023
	Buchanan	20,952	21,091	21,230	21,141	21,126	21,084
	Buena Vista	20,299	20,578	20,497	20,500	20,506	20,427
	Carroll	21,483	21,634	21,525	21,651	21,651	21,705
	Cerro Gordo	47,060	46,904	46,945	47,196	47,080	47,091
	Clinton	51,405	51,489	51,320	51,270	50,793	50,635
	Des Moines	43,014	43,104	43,112	42,936	42,825	42,620
	Fayette	22,082	22,089	22,129	22,211	22,275	22,261
	Henry	19,641	19,634	19,841	20,001	20,025	20,033
	Jackson	20,106	20,165	20,262	20,196	20,199	20,155
	Jasper	34,925	35,136	35,342	35,406	35,715	36,087
	Lee	39,070	38,901	38,965	39,107	38,781	38,720
	Mahaska	21,613	21,798	21,908	22,055	22,031	22,126
	Marion	30,276	30,515	30,805	31,143	31,280	31,317
	Marshall	37,907	38,094	38,526	39,051	39,103	39,242
	Muscatine	40,831	41,192	41,246	41,440	41,274	41,280
	Plymouth	23,713	23,944	24,256	24,339	24,739	24,691
	Sioux	30,450	30,965	31,352	31,347	31,196	31,473
	Wapello	36,037	36,272	36,265	35,990	36,052	35,980
	Webster	40,283	40,137	39,780	39,698	39,461	39,268
	Winneshiek	21,051	21,113	21,129	21,114	21,128	21,064
	<b>Total</b>	<b>647,457</b>	<b>649,888</b>	<b>651,596</b>	<b>653,248</b>	<b>652,982</b>	<b>653,282</b>
	<b>Total</b>	<b>654,877</b>					
MSA Counties	Benton	22,712	23,223	23,552	23,962	24,249	24,453
	Black Hawk	126,142	126,976	127,150	126,936	127,392	127,275
	Bremer	23,038	23,157	23,098	23,183	23,301	23,292
	Dallas	31,360	32,262	33,036	34,050	35,380	36,862
	Dubuque	87,672	88,261	88,654	88,938	89,097	88,996
	Grundy	12,081	12,071	12,152	12,244	12,317	12,335
	Guthrie	11,125	11,123	11,139	11,241	11,268	11,321
	Harrison	14,752	14,895	14,993	15,231	15,400	15,498
	Johnson	99,364	100,939	103,045	104,488	105,355	106,538
	Jones	19,818	19,939	20,095	20,521	20,522	20,587
	Linn	174,288	176,786	179,064	181,874	183,167	185,450
	Madison	12,736	12,808	12,949	13,340	13,480	13,585
	Mills	13,305	13,275	13,446	13,663	13,819	14,145
	Polk	339,643	345,143	349,349	354,096	357,986	360,985
	Pottawattamie	83,507	83,643	83,540	83,973	84,992	85,677
	Scott	154,912	155,375	155,740	156,271	156,751	157,228
	Story	75,130	76,008	75,899	76,265	76,937	77,833
	Warren	37,150	37,769	38,198	38,645	39,180	39,510
	Washington	20,072	20,098	20,039	20,245	20,349	20,512
	Woodbury	100,442	101,640	102,383	103,346	103,994	103,728
	<b>Total</b>	<b>1,459,24</b>	<b>1,475,39</b>	<b>1,487,52</b>	<b>1,502,51</b>	<b>1,514,936</b>	<b>1,525,810</b>
	<b>Total</b>	<b>1,537,087</b>					

## State Population Distributions (continued)

Annual Population Distribution 1992-2004								
	1999	2000	2001	2002	2003	2004	Male <sup>1</sup>	Female <sup>1</sup>
Counties with 2004 Population 10,000 - 20,000	17,112	16,976	16,895	16,509	16,365	16,249	8,495	8,467
	18,797	18,815	18,900	18,860	18,973	19,036	9,094	9,824
	11,686	11,529	11,368	11,063	10,887	10,828	5,738	6,005
	13,179	13,173	13,022	12,847	12,799	12,764	6,444	6,738
	18,121	18,103	18,026	17,925	17,879	17,948	8,789	9,172
	12,397	12,309	12,241	12,154	11,952	11,993	5,886	6,453
	11,660	11,723	11,577	11,430	11,440	11,391	5,709	6,014
	14,379	14,334	14,151	13,962	13,807	13,648	6,992	7,408
	548,338	547,435	543,428	539,511	537,980	536,897	267,897	280,503
	26,164	26,224	26,253	26,110	26,250	26,478	12,555	13,267
Counties with 2004 Population > 20,000	21,158	21,093	20,962	20,867	20,887	21,046	10,437	10,643
	20,508	20,411	20,231	20,284	20,256	20,156	10,124	10,294
	21,631	21,421	21,197	21,173	21,042	20,898	10,460	11,061
	46,637	46,447	45,741	45,352	45,285	45,029	22,321	24,296
	50,346	50,149	49,964	49,864	49,790	49,872	24,499	26,125
	42,515	42,351	41,969	41,456	41,243	40,857	20,495	22,046
	22,011	22,008	21,730	21,558	21,441	21,170	10,836	11,207
	20,351	20,336	20,353	20,103	20,263	20,258	10,172	9,919
	20,217	20,296	20,340	20,254	20,241	20,264	9,960	10,271
	37,096	37,213	37,455	37,606	37,726	37,718	18,123	18,270
	38,281	38,052	37,505	37,004	36,732	36,726	18,936	19,437
	22,400	22,335	22,382	22,358	22,112	22,199	10,976	11,187
	31,879	32,052	32,589	32,582	32,557	32,766	15,694	15,886
	39,313	39,311	39,334	39,235	39,249	39,503	19,274	19,773
	41,587	41,722	41,940	42,080	42,137	42,557	20,522	21,003
	24,774	24,849	24,862	24,669	24,765	24,925	12,159	12,408
	31,669	31,589	31,887	32,031	32,039	32,180	15,415	16,105
	36,042	36,051	36,034	35,941	35,875	35,798	17,464	18,584
	40,255	40,235	40,119	39,829	39,667	39,288	19,579	20,263
	21,289	21,310	21,347	21,316	21,221	21,188	10,426	10,792
	656,123	655,455	654,194	651,672	650,778	650,876	320,427	332,837
MSA Counties	25,214	25,308	25,713	26,137	26,285	26,638	12,266	12,394
	127,786	128,012	127,485	126,481	125,936	126,078	61,015	66,306
	23,398	23,325	23,435	23,285	23,430	23,455	11,273	12,008
	39,691	40,750	42,766	44,491	46,519	49,591	18,573	19,171
	88,934	89,143	89,155	89,478	90,501	91,000	43,192	45,760
	12,332	12,369	12,314	12,354	12,346	12,380	5,976	6,301
	11,403	11,353	11,294	11,319	11,478	11,586	5,522	5,754
	15,510	15,666	15,700	15,573	15,706	15,821	7,531	7,876
	109,814	111,006	112,842	113,805	114,866	116,097	53,625	54,060
	20,220	20,221	20,197	20,282	20,380	20,646	10,649	9,644
	189,931	191,701	193,880	195,221	196,006	197,262	91,223	95,248
	13,898	14,019	14,195	14,427	14,604	14,957	6,713	6,926
	14,478	14,547	14,590	14,733	14,880	15,039	7,044	7,053
	370,592	374,601	380,169	384,708	388,841	393,184	176,084	188,286
	87,153	87,704	87,788	88,170	88,486	89,236	41,807	44,141
	158,765	158,668	158,731	159,068	159,452	160,141	76,863	80,585
	79,372	79,981	79,565	80,729	80,259	80,404	40,198	38,118
	40,340	40,671	41,107	41,444	42,160	42,560	19,314	20,374
	20,578	20,670	21,056	21,148	21,239	21,300	9,896	10,629
	103,801	103,877	103,521	103,424	103,232	103,113	50,436	52,888
	1,553,210	1,563,592	1,575,503	1,586,277	1,596,60	1,610,488	749,200	783,522

<sup>1</sup>1992-2002 Average

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

**Average Annual Population Distribution by Age: 1993-2002**

County	<1 yr	1-4	5-14	15-24	25-44	45-64	65-84	85 +	
Counties with 2004 Population < 10,000	Adair	1.0%	4.5%	13.7%	11.4%	24.7%	22.2%	18.5%	4.0%
	Adams	1.0%	4.6%	13.4%	10.8%	24.7%	23.6%	18.7%	3.2%
	Audubon	1.1%	4.7%	14.7%	10.1%	23.3%	22.6%	19.6%	3.9%
	Clarke	1.3%	4.9%	14.7%	12.1%	27.0%	21.9%	15.1%	3.0%
	Davis	1.2%	5.7%	15.0%	12.4%	25.8%	22.0%	14.8%	3.1%
	Decatur	1.0%	4.4%	12.8%	20.4%	22.3%	20.5%	15.5%	3.0%
	Fremont	1.0%	4.5%	14.7%	10.9%	25.0%	23.4%	17.5%	2.9%
	Howard	1.2%	4.8%	15.1%	11.5%	25.6%	20.9%	17.6%	3.3%
	Ida	1.0%	4.8%	14.7%	11.3%	25.0%	21.7%	18.4%	3.1%
	Lucas	1.0%	4.9%	14.4%	11.7%	25.3%	22.9%	16.4%	3.4%
	Monona	1.1%	4.2%	13.4%	10.6%	23.8%	22.7%	20.0%	4.3%
	Monroe	1.2%	4.9%	14.5%	11.7%	25.8%	22.4%	16.4%	3.0%
	Osceola	1.1%	4.8%	15.1%	12.1%	26.4%	21.3%	16.1%	3.1%
	Palo Alto	1.0%	4.5%	13.8%	14.1%	23.7%	21.5%	17.8%	3.6%
	Pocahontas	1.0%	4.2%	14.9%	10.4%	23.9%	23.5%	18.7%	3.4%
	Ringgold	1.1%	4.5%	13.0%	11.5%	22.3%	23.1%	20.4%	4.0%
	Taylor	1.0%	4.4%	13.8%	11.9%	23.8%	22.1%	19.2%	3.8%
	Van Buren	1.0%	4.8%	14.5%	11.5%	25.0%	23.5%	16.5%	3.1%
	Wayne	1.0%	4.2%	13.6%	10.7%	23.6%	22.3%	20.4%	4.1%
	Worth	1.2%	4.5%	13.9%	11.2%	26.5%	22.8%	16.4%	3.6%
	<b>Total</b>	1.1%	4.7%	14.2%	12.0%	24.7%	22.3%	17.6%	3.4%
Counties with 2004 Population 10,000 – 20,000	Allamakee	1.1%	4.8%	14.8%	11.7%	26.2%	22.7%	15.9%	2.9%
	Appanoose	1.1%	4.5%	13.8%	12.1%	25.6%	22.5%	17.2%	3.2%
	Butler	1.1%	4.5%	14.2%	11.3%	25.6%	23.1%	17.2%	3.1%
	Calhoun	0.9%	4.2%	13.3%	10.9%	25.4%	22.7%	18.7%	3.8%
	Cass	1.1%	4.5%	13.8%	11.3%	25.5%	22.9%	17.6%	3.4%
	Cedar	1.1%	4.8%	14.5%	11.8%	28.4%	22.7%	14.0%	2.7%
	Cherokee	1.1%	4.6%	14.3%	11.7%	25.0%	23.3%	17.1%	2.9%
	Chickasaw	1.2%	4.8%	15.3%	12.1%	26.3%	22.5%	15.2%	2.6%
	Clay	1.2%	5.0%	14.4%	12.3%	27.7%	21.7%	15.0%	2.7%
	Clayton	1.2%	4.7%	14.8%	11.5%	26.6%	22.6%	15.7%	2.8%
	Crawford	1.2%	5.0%	14.7%	13.3%	26.1%	22.1%	15.0%	2.7%
	Delaware	1.2%	5.3%	16.9%	12.8%	27.9%	20.9%	13.0%	2.0%
	Dickinson	1.0%	4.3%	12.6%	10.7%	25.2%	25.4%	18.0%	2.8%
	Emmet	1.1%	4.3%	13.7%	15.2%	24.6%	21.8%	16.2%	3.2%
	Floyd	1.1%	5.0%	14.3%	11.7%	25.1%	23.3%	16.5%	3.1%
	Franklin	1.1%	4.5%	13.8%	11.9%	25.2%	23.1%	17.5%	3.0%
	Greene	1.0%	4.6%	14.4%	11.0%	24.8%	21.9%	18.4%	3.8%
	Hamilton	1.2%	5.1%	14.2%	11.6%	27.7%	21.9%	15.6%	2.6%
	Hancock	1.2%	5.0%	15.1%	11.8%	26.2%	22.3%	15.7%	2.8%
	Hardin	1.1%	4.5%	13.2%	13.7%	24.5%	21.8%	17.5%	3.6%
	Humboldt	1.1%	4.4%	14.1%	11.7%	25.2%	22.2%	18.1%	3.1%
	Iowa	1.1%	5.1%	15.2%	10.9%	28.4%	21.7%	14.6%	3.0%
	Jefferson	1.0%	4.5%	14.0%	12.3%	27.6%	26.6%	11.9%	2.2%
	Keokuk	1.1%	4.8%	14.8%	11.8%	26.0%	21.3%	16.8%	3.3%
	Kossuth	1.0%	4.6%	14.9%	11.6%	25.1%	22.8%	16.9%	3.0%
	Louisa	1.4%	5.5%	15.5%	12.8%	29.1%	21.3%	12.3%	2.2%
	Lyon	1.4%	5.4%	16.3%	12.6%	25.4%	20.4%	15.6%	2.8%
	Mitchell	1.2%	4.9%	15.2%	11.1%	24.5%	21.4%	17.8%	3.9%
	Montgomery	1.1%	4.8%	14.1%	11.1%	26.1%	21.9%	17.3%	3.6%
	O'Brien	1.1%	4.8%	14.2%	12.4%	24.8%	21.5%	17.5%	3.6%

## DEMOGRAPHICS

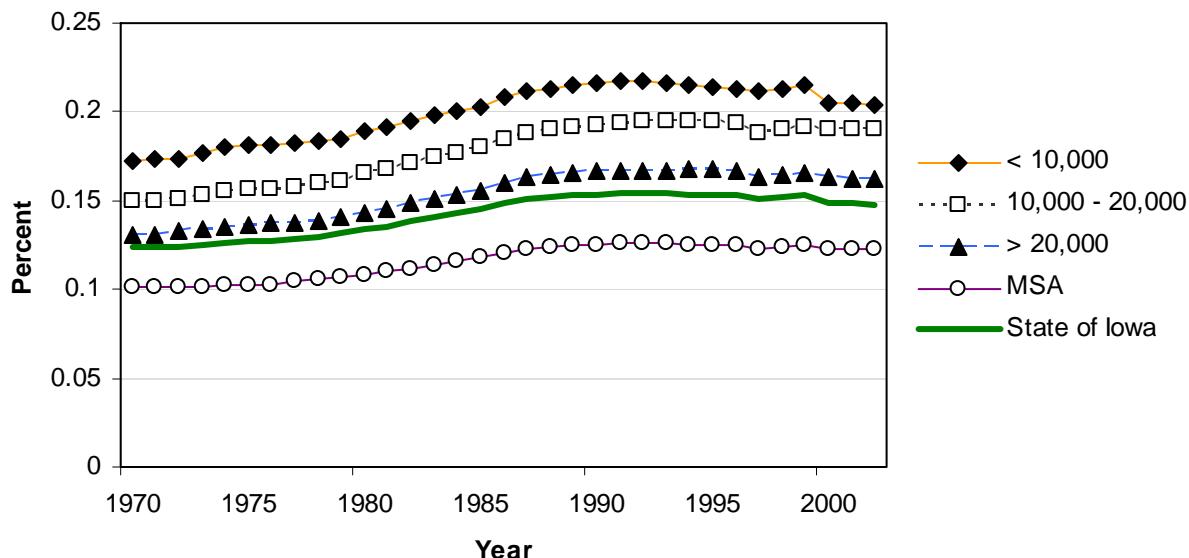
**Average Annual Population Distribution by Age: 1993-2002 (cont.)**

County	<1 yr	1-4	5-14	15-24	25-44	45-64	65-84	85 +
<b>Counties with 2004 Population 10,000 – 20,000 (cont.)</b>								
Page	1.1%	4.4%	13.0%	12.4%	26.7%	22.0%	17.2%	3.1%
Poweshiek	1.0%	4.5%	13.0%	17.1%	25.2%	21.5%	14.8%	2.9%
Sac	1.1%	4.6%	14.2%	11.2%	24.2%	22.1%	18.8%	3.8%
Shelby	1.1%	4.7%	15.1%	11.2%	25.5%	21.8%	17.5%	3.1%
Tama	1.3%	5.2%	14.6%	12.0%	25.7%	22.2%	15.9%	3.1%
Union	1.1%	4.7%	13.4%	13.1%	26.3%	22.5%	16.1%	2.9%
Winnebago	1.0%	4.6%	13.8%	14.4%	25.0%	21.9%	16.1%	3.3%
Wright	1.1%	4.6%	13.8%	11.0%	25.2%	22.6%	18.0%	3.8%
<b>Total</b>	1.1%	4.7%	14.3%	12.2%	26.0%	22.4%	16.2%	3.0%
<b>Counties with 2004 Population &gt; 20,000</b>								
Boone	1.2%	4.8%	14.0%	12.6%	28.1%	22.3%	14.0%	2.9%
Buchanan	1.4%	5.6%	16.4%	13.3%	27.0%	21.4%	12.8%	2.0%
Buena Vista	1.1%	4.8%	14.4%	16.6%	25.6%	19.8%	15.0%	2.8%
Carroll	1.2%	5.1%	15.7%	12.6%	26.3%	20.4%	15.8%	2.9%
Cerro Gordo	1.2%	4.8%	13.5%	13.2%	27.6%	22.2%	15.1%	2.5%
Clinton	1.2%	5.2%	14.6%	12.8%	27.8%	22.4%	13.9%	2.1%
Des Moines	1.2%	5.0%	13.9%	12.8%	27.3%	23.2%	14.1%	2.4%
Fayette	1.1%	4.8%	14.2%	13.3%	25.6%	21.8%	16.3%	2.8%
Henry	1.2%	4.8%	14.0%	13.7%	29.8%	21.4%	12.7%	2.4%
Jackson	1.1%	5.0%	15.2%	12.2%	27.0%	22.5%	14.6%	2.4%
Jasper	1.2%	4.9%	14.1%	11.8%	28.9%	22.7%	14.2%	2.1%
Lee	1.2%	4.8%	14.0%	12.3%	27.7%	23.4%	14.2%	2.3%
Mahaska	1.3%	5.3%	14.4%	14.0%	27.5%	20.8%	14.3%	2.4%
Marion	1.2%	5.0%	14.4%	15.0%	27.1%	21.2%	13.6%	2.5%
Marshall	1.3%	4.9%	13.9%	12.5%	27.2%	23.1%	14.7%	2.3%
Muscatine	1.4%	5.5%	15.3%	13.4%	29.7%	21.8%	11.2%	1.8%
Plymouth	1.2%	5.4%	16.1%	13.1%	26.7%	21.3%	13.8%	2.4%
Sioux	1.3%	5.5%	15.7%	19.6%	24.3%	18.7%	12.9%	2.2%
Wapello	1.2%	4.8%	13.3%	13.5%	26.9%	22.5%	15.4%	2.5%
Webster	1.2%	5.2%	13.9%	14.5%	26.2%	21.2%	15.0%	2.7%
Winneshiek	1.0%	4.3%	13.2%	21.3%	24.8%	19.7%	13.3%	2.4%
<b>Total</b>	1.2%	5.0%	14.4%	13.8%	27.2%	21.8%	14.1%	2.4%
<b>MSA Counties</b>								
Benton	1.2%	5.3%	15.9%	11.9%	29.4%	20.7%	13.3%	2.3%
Blackhawk	1.2%	4.9%	13.2%	19.0%	26.6%	21.1%	12.1%	1.9%
Bremer	1.1%	4.4%	13.9%	16.8%	24.9%	22.9%	13.5%	2.5%
Dallas	1.4%	6.2%	15.4%	11.9%	32.3%	20.8%	10.4%	1.7%
Dubuque	1.3%	5.3%	14.5%	14.9%	28.0%	21.4%	12.5%	2.1%
Grundy	1.0%	4.5%	14.6%	11.2%	25.8%	23.4%	16.5%	3.0%
Guthrie	1.1%	4.3%	13.6%	10.7%	25.4%	24.1%	17.7%	3.1%
Harrison	1.1%	4.9%	15.1%	11.8%	27.2%	21.8%	15.3%	2.9%
Johnson	1.2%	4.6%	10.9%	26.4%	32.5%	16.9%	6.5%	1.0%
Jones	1.1%	4.5%	13.9%	12.8%	29.9%	22.1%	13.5%	2.2%
Linn	1.4%	5.5%	14.0%	14.3%	31.1%	21.3%	10.7%	1.6%
Madison	1.3%	5.5%	15.3%	12.0%	27.9%	22.4%	12.9%	2.8%
Mills	1.1%	5.0%	15.4%	12.2%	29.4%	23.8%	11.3%	1.7%
Polk	1.5%	5.9%	14.0%	13.7%	33.0%	20.7%	9.8%	1.5%
Pottawattamie	1.4%	5.3%	14.7%	13.6%	29.3%	22.0%	12.2%	1.6%
Scott	1.4%	5.6%	15.0%	14.0%	30.5%	21.8%	10.3%	1.4%
Story	1.1%	4.1%	10.5%	31.0%	26.9%	16.3%	8.4%	1.5%
Warren	1.3%	5.5%	15.4%	14.8%	29.2%	22.3%	10.0%	1.7%
Washington	1.4%	5.4%	14.7%	11.6%	27.5%	21.3%	15.0%	3.1%
Woodbury	1.5%	6.0%	15.3%	14.5%	28.9%	20.0%	11.9%	1.9%
<b>Total</b>	1.4%	5.4%	13.9%	16.0%	30.2%	20.7%	10.7%	1.7%

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

## Aging Trend in Iowa

**Percent of Iowans Age 65 and Older**



## 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%
Total	1,000,000	100.0%

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 over 5,000 household telephone surveys in both English and Spanish, 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 2002-2003**

	<b>Definition</b>	<b>Iowa</b>		<b>US Median<sup>1</sup></b>	
		<b>2002 %</b> (%,%) <sup>2</sup>	<b>2003 %</b> (%,%) <sup>2</sup>	<b>2002 %</b>	<b>2003 %</b>
Binge drinking	All respondents having five or more alcoholic beverages on one or more occasion in the past month.	20.1 (18.4, 21.8)	19.4 (18.0, 20.9)	16.1	16.4
Chronic drinking	All respondents having an average of greater than two drinks per day for men, and one drink per day for women.	6.2 (5.1, 7.2)	6.0 (5.1, 6.9)	5.9	5.7
Current smoker	All respondents smoking 100 cigarettes in their lifetime and currently smoking every day or some days.	23.2 (21.5, 24.8)	21.7 (20.2, 23.1)	23.0	22.0
Diabetes	All respondents ever being diagnosed with diabetes, excluding gestational diabetes.	6.5 (5.7, 7.5)	6.7 (6.0, 7.5)	6.8	7.1
High blood pressure	All respondents being told by a health professional that they had high blood pressure.	24.9 (23.4, 26.6)	25.1 (23.7, 26.5)	**	24.8
Cholesterol	All respondents having their cholesterol checked in the past five years.	67.5 (65.4, 69.6)	71.3 (69.6, 72.9)	**	72.8
High cholesterol	All respondents being told by a health professional that they had high cholesterol.	33.2 (31.2, 35.3)	31.7 (30.1, 33.4)	**	33.1
No insurance coverage	All respondents who currently did not have any kind of health care coverage.	8.8 (7.7, 10.1)	11.9 (10.6, 13.3)	14.1	14.5
Mammogram	Female respondents age 40 and older having a mammogram in the past two years.	76.8 (74.3, 79.4)	76.2 (74.1, 78.4)	75.8	**
Pap smear	Female respondents with a uterine cervix having a pap smear in the past three years.	88.1 (86.3, 89.9)	86.6 (84.7, 88.5)	86.8	**
Obesity	All respondents who had a calculated body mass index (BMI) of 30.0 or above.	22.9 (21.2, 24.6)	23.9 (22.5, 25.3)	22.4	22.9
Overweight	All respondents who had a calculated body mass index (BMI) from 25.0 to 29.9, inclusive.	38.3 (36.4, 40.3)	37.7 (36.1, 39.3)	37.0	36.8
Sigmoidoscopy/ Colonoscopy	Respondents age 50 and over who ever had a sigmoidoscopy or colonoscopy	48.1 (45.4, 50.7)	51.4 (49.1, 53.7)	48.1	**
Tested for HIV	Respondents age 18 to 64 who have ever had a HIV test, excluding for blood donations.	31.8 (29.7, 33.9)	32.3 (30.5, 34.1)	43.9	45.0
Asthma	All respondents who currently have asthma.	6.4 (5.4, 7.5)	6.2 (5.4, 7.0)	7.6	7.5
Health status	All respondents who rate their current health as good, very good, or excellent.	88.5 (87.3, 89.6)	88.4 (87.3, 89.4)	85.2	85.3

<sup>\*\*</sup>This question was not asked in all states 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

## 2004 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 Fall of 2004. The IYTS used a random sample of 65 schools to participate in the 2004 IYTS: 40 middle schools (grades 6 through 8) and 25 high schools (grades 9 through 12). A multistage sampling design was used. All 25 of the middle schools and 36 of the high schools provided data

### LEVEL OF PARTICIPATION

Middle Schools 100%

High Schools 90%

(a 95% school response rate). Within these schools, most of the students participating were in the second period classrooms. There were 2,131 middle school students selected to participate and 1,912 (90%) completed a useable questionnaire. There were 2,123 high school students selected to participate and 1,806 (85%) completed a useable questionnaire. The overall response rate, including both schools and students, was 88% for the middle school sample and 79.6% for the high school sample. The questionnaires were completed between September 11, 2004 and January 22, 2005.

### SELECTED RESULTS...

		Weighted Estimates		
		Males	Females	Total
Respondents who reported using any tobacco products during the past 30 days.	Middle School	9.5%	9.1%	9.5%
	High School	28.7%	22.4%	25.7%
Respondents who reported smoking cigarettes during the past 30 days.	Middle School	6.7%	7.4%	7.2%
	High School	18.5%	20.3%	19.5%
Respondents who are current smokers and report they want to stop smoking cigarettes.	Middle School	42.9%	45.2%	42.5%
	High School	46.1%	54.5%	50.2%

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...**

	<b><u>Weighted Estimates by Grade Level</u></b>			
	<b>6<sup>th</sup></b>	<b>7<sup>th</sup></b>	<b>8<sup>th</sup></b>	
Respondents who reported using any tobacco products during the past 30 days	3.5%	8.9%	16%	
	<b>9<sup>th</sup></b>	<b>10<sup>th</sup></b>	<b>11<sup>th</sup></b>	<b>12<sup>th</sup></b>
	15.8%	21.4%	29.3%	37.7%

## 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 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.

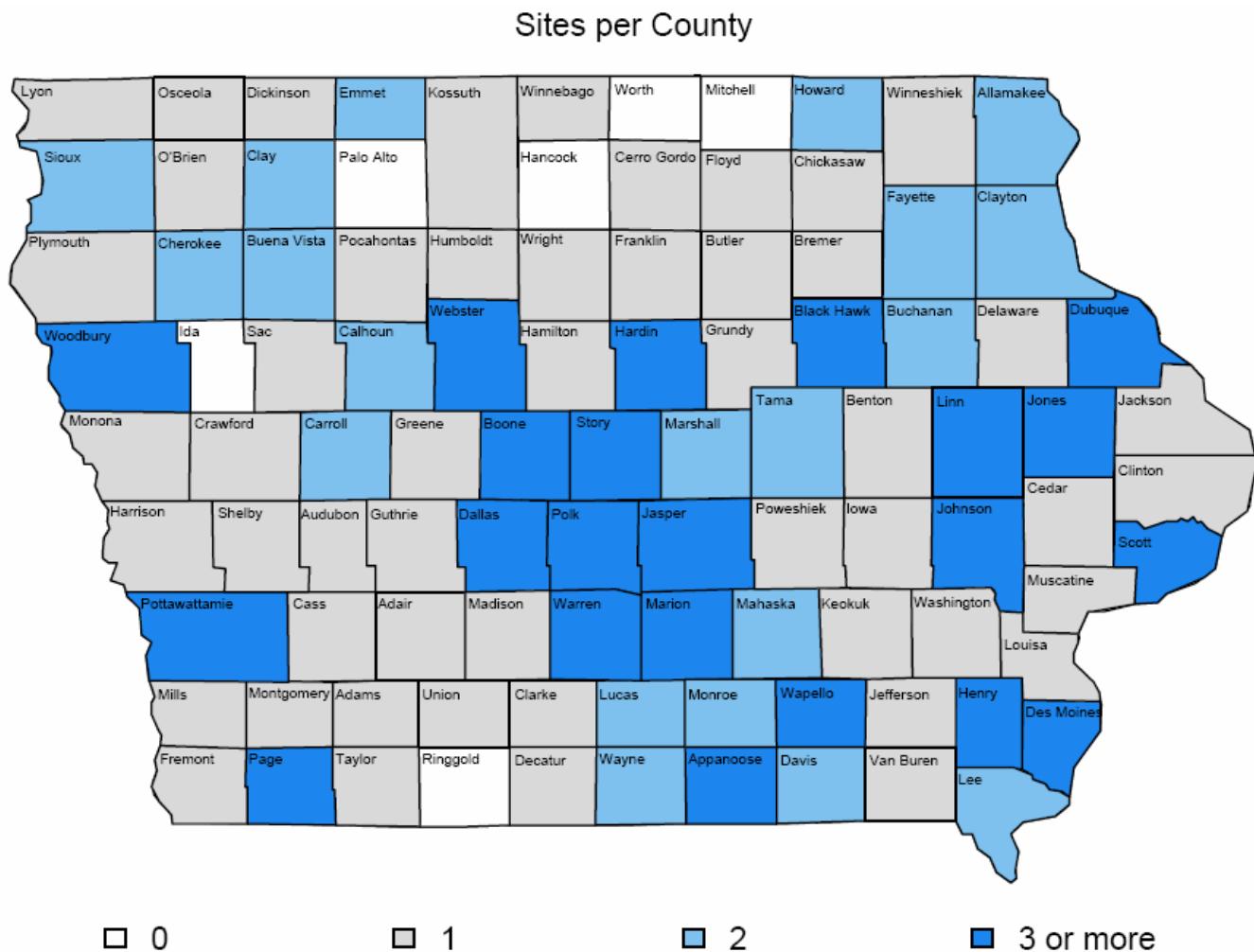
The tables on the following pages represent all admissions to substance abuse treatment programs regardless of source of funding for that specific client. The data for each county are divided by adult (18 and over) and adolescent (17 and under), and by primary substance of abuse.

The reporting period was for calendar years 1998, 1999, 2000, 2001, 2002, 2003, and 2004. 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 the 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
<b>2003</b>	12,440	6,355	7,582
<b>2004</b>	12,859	6,501	8,062

## County Sites for Substance Abuse Treatment



Source: Iowa Department of Public Health, Div. of Behavioral Health and Professional Licensure

For more information, see [www.drugfreeinfo.org](http://www.drugfreeinfo.org) or call the Helpline at 1-866-242-4111.

**Alcohol Admissions: Adult 2003-2004**

County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Adair	76	47.8 (23)	Monona	58	29.7 (61)
Adams	22	25.3 (77)	Monroe	98	62.3 (09)
Audubon	64	49.3 (21)	Osceola	37	27.2 (67)
Clarke	128	69.4 (07)	Palo Alto	55	28.2 (64)
Davis	47	27.2 (68)	Pocahontas	31	18.9 (92)
Decatur	66	38.6 (37)	Ringgold	42	39.5 (34)
Fremont	29	18.6 (94)	Taylor	73	54.3 (13)
Howard	59	30.0 (57)	Van Buren	9	5.8 (99)
Ida	35	23.4 (84)	Wayne	44	33.2 (50)
Lucas	66	34.3 (48)	Worth	45	29.1 (62)
			<b>Total</b>	1,084	34.7
Allamakee	156	53.1 (15)	Hardin	127	34.9 (44)
Appanoose	150	55.1 (11)	Humboldt	62	30.8 (56)
Butler	104	34.5 (47)	Iowa	125	39.1 (36)
Calhoun	68	32.0 (54)	Jefferson	96	30.0 (58)
Cass	150	52.4 (17)	Keokuk	60	26.5 (71)
Cedar	93	25.5 (74)	Kossuth	71	21.6 (87)
Cherokee	82	32.8 (52)	Louisa	33	13.5 (97)
Chickasaw	122	48.2 (22)	Lyon	54	23.0 (85)
Clay	117	34.6 (45)	Mitchell	54	24.7 (80)
Clayton	124	33.9 (49)	Montgomery	94	41.3 (30)
Crawford	134	39.6 (33)	O'Brien	74	25.4 (76)
Delaware	135	37.3 (39)	Page	115	35.3 (43)
Dickinson	164	49.5 (20)	Poweshiek	52	13.7 (96)
Emmet	64	30.0 (60)	Sac	75	34.5 (46)
Floyd	157	47.4 (24)	Shelby	67	26.2 (72)
Franklin	44	20.5 (89)	Tama	149	41.6 (29)
Greene	55	27.4 (66)	Union	158	66.0 (08)
Hamilton	83	25.5 (75)	Winnebago	73	32.0 (55)
Hancock	71	30.0 (59)	<b>Total</b>	3,686	34.3
Boone	186	35.3 (42)	Lee	155	21.1 (88)
Buchanan	153	36.5 (41)	Mahaska	206	46.5 (25)
Buena Vista	163	40.3 (31)	Marion	176	26.9 (70)
Carroll	189	45.1 (26)	Marshall	308	39.1 (35)
Cerro Gordo	698	77.3 (05)	Muscatine	448	52.9 (16)
Clinton	793	79.6 (03)	Plymouth	123	24.8 (79)
Des Moines	158	19.2 (91)	Sioux	161	25.1 (78)
Fayette	409	96.0 (01)	Wapello	557	77.7 (04)
Henry	98	24.2 (82)	Webster	224	28.4 (63)
Jackson	220	54.3 (12)	Winneshiek	222	52.3 (18)
Jasper	288	38.2 (38)	<b>Total</b>	5,935	45.6
Benton	145	27.4 (65)	Linn	2,005	51.0 (19)
Black Hawk	1,067	42.3 (28)	Madison	95	32.1 (53)
Bremer	174	37.1 (40)	Mills	46	15.4 (95)
Dallas	382	39.7 (32)	Polk	2,595	33.2 (51)
Dubuque	1,317	72.6 (06)	Pottawattamie	393	22.1 (86)
Grundy	50	20.2 (90)	Scott	2,688	84.1 (02)
Guthrie	57	24.7 (81)	Story	412	25.6 (73)
Harrison	75	23.8 (83)	Warren	98	11.6 (98)
Johnson	1,249	54.1 (14)	Washington	80	18.8 (93)
Jones	177	43.1 (27)	Woodbury	1,186	57.5 (10)
<b>State Total</b>	24,996	42.4	<b>Total</b>	14,291	44.6

<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 2003-2004**

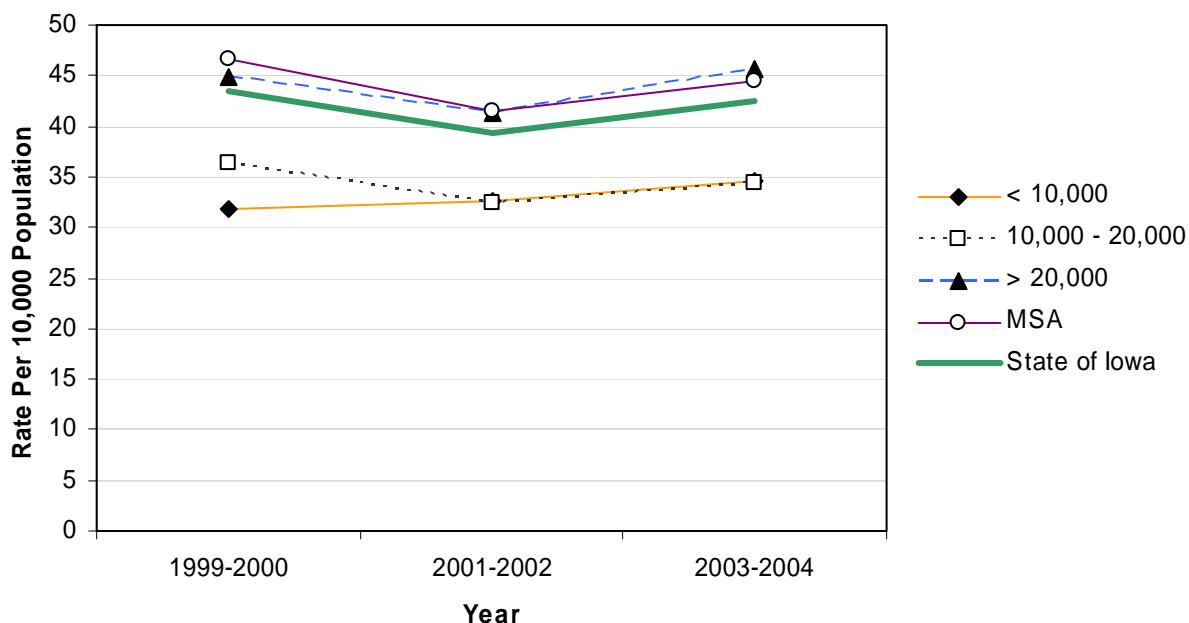
County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>	
Counties with 2004 Population < 10,000	Adair	20	12.6	Monona	5	2.6
	Adams	*	*	Monroe	11	7.0
	Audubon	9	6.9	Osceola	7	5.1
	Clarke	19	10.3	Palo Alto	10	5.1
	Davis	*	*	Pocahontas	6	3.7
	Decatur	*	*	Ringgold	*	*
	Fremont	*	*	Taylor	19	14.1
	Howard	28	14.3	Van Buren	*	*
	Ida	9	6.0	Wayne	*	*
	Lucas	12	6.2	Worth	8	5.2
			<b>Total</b>	184	5.9	
Counties with 2004 Population 10,000 – 20,000	Allamakee	25	8.5	Hardin	20	5.5
	Appanoose	11	4.0	Humboldt	*	*
	Butler	11	3.7	Iowa	8	2.5
	Calhoun	5	2.4	Jefferson	10	3.1
	Cass	18	6.3	Keokuk	11	4.9
	Cedar	15	4.1	Kossuth	23	7.0
	Cherokee	14	5.6	Louisa	7	2.9
	Chickasaw	35	13.8	Lyon	14	6.0
	Clay	26	7.7	Mitchell	7	3.2
	Clayton	16	4.4	Montgomery	15	6.6
	Crawford	21	6.2	O'Brien	13	4.5
	Delaware	56	15.5	Page	*	*
	Dickinson	25	7.5	Poweshiek	10	2.6
	Emmet	*	*	Sac	12	5.5
	Floyd	34	10.3	Shelby	18	7.0
	Franklin	*	*	Tama	20	5.6
	Greene	7	3.5	Union	21	8.8
	Hamilton	7	2.1	Winnebago	*	*
	Hancock	17	7.2	<b>Total</b>	569	5.3
Counties with 2004 Population > 20,000	Boone	92	17.4	Lee	33	4.5
	Buchanan	23	5.5	Mahaska	14	3.2
	Buena Vista	16	4.0	Marion	20	3.1
	Carroll	20	4.8	Marshall	49	6.2
	Cerro Gordo	68	7.5	Muscatine	37	4.4
	Clinton	37	3.7	Plymouth	12	2.4
	Des Moines	24	2.9	Sioux	25	3.9
	Fayette	67	15.7	Wapello	63	8.8
	Henry	33	8.1	Webster	34	4.3
	Jackson	31	7.7	Winneshiek	38	9.0
	Jasper	38	5.0	<b>Total</b>	774	5.9
MSA Counties	Benton	21	4.0	Linn	130	3.3
	Black Hawk	87	3.5	Madison	15	5.1
	Bremer	34	7.3	Mills	9	3.0
	Dallas	45	4.7	Polk	231	3.0
	Dubuque	148	8.2	Pottawattamie	38	2.1
	Grundy	8	3.2	Scott	167	5.2
	Guthrie	7	3.0	Story	79	4.9
	Harrison	10	3.2	Warren	16	1.9
	Johnson	51	2.2	Washington	13	3.1
	Jones	34	8.3	Woodbury	80	3.9
			<b>Total</b>	1,223	3.8	
<b>State Total</b>		2,750	4.7			

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

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

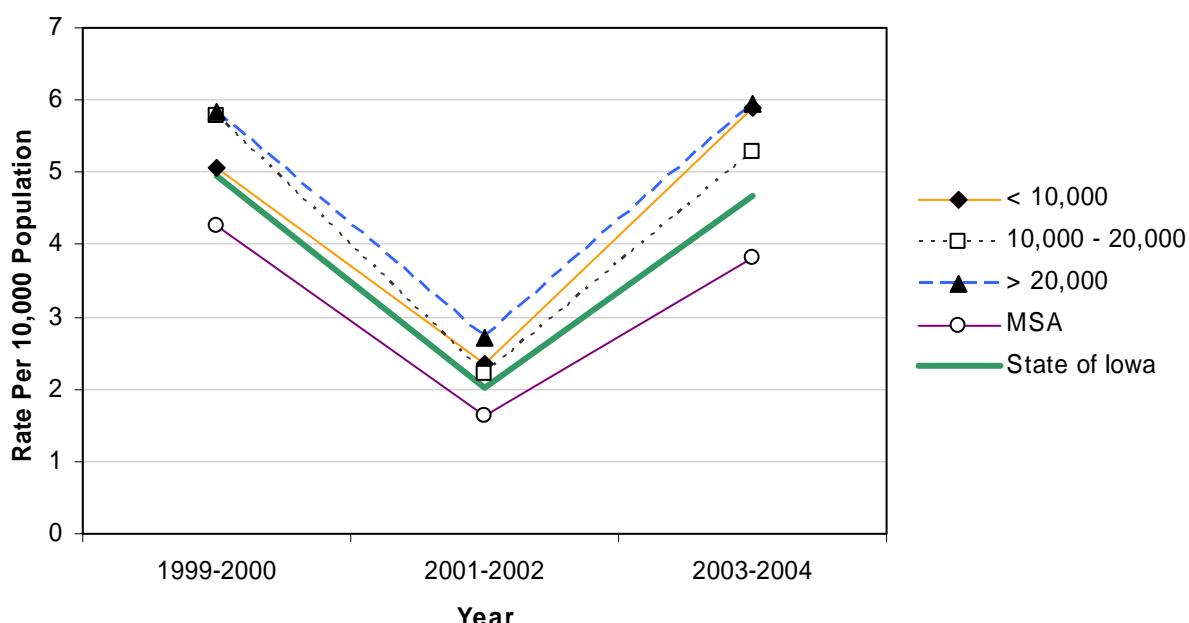
## Adult Alcohol Admissions 1999-2004

### Crude Rates



## Adolescent Alcohol Admissions 1999-2004

### Crude Rates



**Marijuana Admissions: Adult 2003-2004**

County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Counties with 2004 Population < 10,000	Adair	*	Monona	47	24.1
	Adams	5	Monroe	62	39.4
	Audubon	20	Osceola	15	11.0
	Clarke	51	Palo Alto	9	4.6
	Davis	25	Pocahontas	22	13.4
	Decatur	18	Ringgold	14	13.2
	Fremont	6	Taylor	16	11.9
	Howard	14	Van Buren	6	3.9
	Ida	8	Wayne	20	15.1
	Lucas	31	Worth	34	22.0
			<b>Total</b>	423-427	13.6-13.7
Counties with 2004 Population 10,000 – 20,000	Allamakee	12	Hardin	32	8.8
	Appanoose	63	Humboldt	15	7.4
	Butler	21	Iowa	18	5.6
	Calhoun	22	Jefferson	44	13.7
	Cass	66	Keokuk	44	19.4
	Cedar	21	Kossuth	31	9.4
	Cherokee	33	Louisa	*	*
	Chickasaw	35	Lyon	20	8.5
	Clay	43	Mitchell	19	8.7
	Clayton	25	Montgomery	32	14.1
	Crawford	31	O'Brien	41	14.1
	Delaware	41	Page	43	13.2
	Dickinson	32	Poweshiek	27	7.1
	Emmet	8	Sac	20	9.2
	Floyd	79	Shelby	22	8.6
	Franklin	24	Tama	54	15.1
	Greene	37	Union	64	26.7
	Hamilton	29	Winnebago	23	10.1
	Hancock	46	Wright	30	10.9
			<b>Total</b>	1,247-51	11.4-11.6
Counties with 2004 Population > 20,000	Boone	74	Lee	56	7.6
	Buchanan	56	Mahaska	106	23.9
	Buena Vista	17	Marion	66	10.1
	Carroll	76	Marshall	201	25.5
	Cerro Gordo	336	Muscatine	212	25.0
	Clinton	150	Plymouth	44	8.9
	Des Moines	100	Sioux	*	*
	Fayette	124	Wapello	276	38.5
	Henry	24	Webster	215	27.2
	Jackson	57	Winneshiek	37	8.7
	Jasper	138	<b>Total</b>	2,365-9	18.1-18.2
MSA Counties	Benton	67	Linn	980	24.9
	Black Hawk	434	Madison	22	7.4
	Bremer	92	Mills	16	5.3
	Dallas	96	Polk	1,582	20.2
	Dubuque	524	Pottawattamie	229	12.9
	Grundy	14	Scott	650	20.3
	Guthrie	25	Story	131	8.2
	Harrison	20	Warren	42	5.0
	Johnson	314	Washington	33	7.8
	Jones	45	Woodbury	524	25.4
			<b>Total</b>	5,840	18.2
	<b>State Total</b>	9,887			

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

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

## Marijuana Admissions: Adolescent 2003-2004

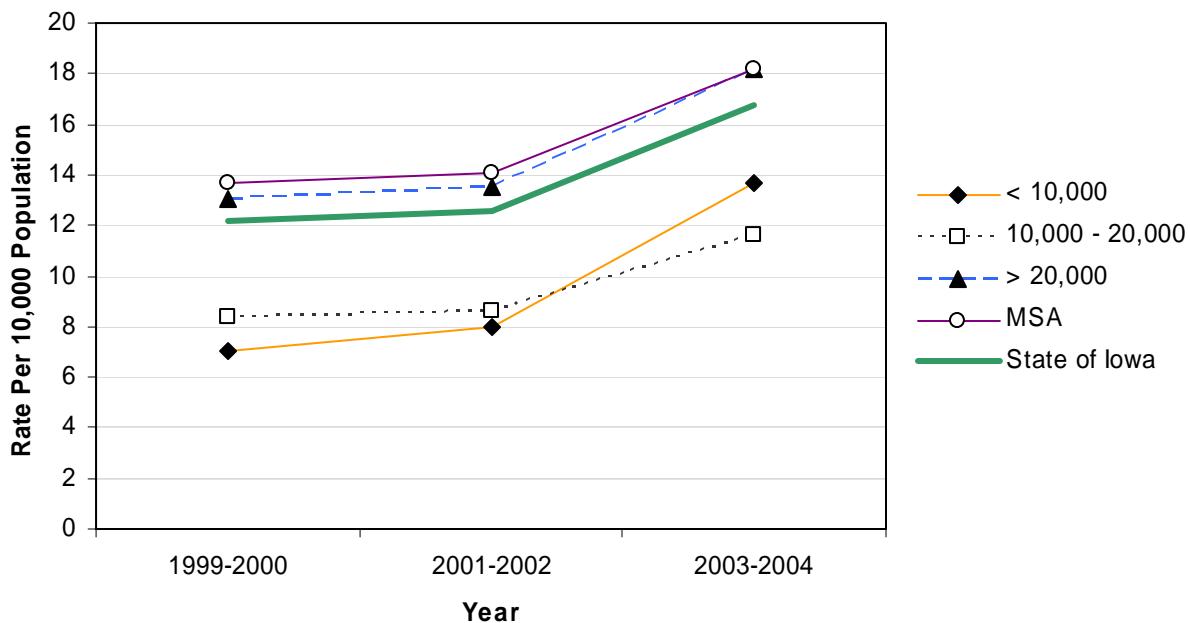
	County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
<b>Counties with 2004 Population &lt; 10,000</b>	Adair	6	3.8	Monona	11	5.6
	Adams	5	5.7	Monroe	15	9.5
	Audubon	15	11.6	Osceola	10	7.4
	Clarke	17	9.2	Palo Alto	*	*
	Davis	*	*	Pocahontas	5	3.1
	Decatur	*	*	Ringgold	7	6.6
	Fremont	*	*	Taylor	11	8.2
	Howard	5	2.5	Van Buren	*	*
	Ida	*	*	Wayne	*	*
	Lucas	9	4.7	Worth	16	10.4
				<b>Total</b>	149	4.8
<b>Counties with 2004 Population 10,000 - 20,000</b>	Allamakee	6	2.0	Hardin	20	5.5
	Appanoose	8	2.9	Humboldt	5	2.5
	Butler	13	4.3	Iowa	5	1.6
	Calhoun	6	2.8	Jefferson	19	5.9
	Cass	27	9.4	Keokuk	15	6.6
	Cedar	12	3.3	Kossuth	15	4.6
	Cherokee	12	4.8	Louisa	*	*
	Chickasaw	19	7.5	Lyon	8	3.4
	Clay	26	7.7	Mitchell	7	3.2
	Clayton	7	1.9	Montgomery	9	4.0
	Crawford	12	3.5	O'Brien	8	2.7
	Delaware	10	2.8	Page	13	4.0
	Dickinson	26	7.8	Poweshiek	12	3.2
	Emmet	5	2.3	Sac	7	3.2
	Floyd	41	12.4	Shelby	10	3.9
	Franklin	10	4.7	Tama	26	7.3
	Greene	13	6.5	Union	38	15.9
	Hamilton	12	3.7	Winnebago	7	3.1
	Hancock	5	2.1	Wright	6	2.2
				<b>Total</b>	500-504	4.6-4.7
<b>Counties with 2004 Population &gt; 20,000</b>	Boone	57	10.8	Lee	52	7.1
	Buchanan	35	8.3	Mahaska	29	6.5
	Buena Vista	31	7.7	Marion	29	4.4
	Carroll	21	5.0	Marshall	128	16.3
	Cerro Gordo	116	12.8	Muscatine	77	9.1
	Clinton	92	9.2	Plymouth	22	4.4
	Des Moines	75	9.1	Sioux	8	1.2
	Fayette	34	8.0	Wapello	92	12.8
	Henry	43	10.6	Webster	66	8.4
	Jackson	49	12.1	Winneshiek	9	2.1
	Jasper	81	10.7	<b>Total</b>	1,146	8.8
<b>MSA Counties</b>	Benton	26	4.9	Linn	528	13.4
	Black Hawk	240	9.5	Madison	28	9.5
	Bremer	33	7.0	Mills	6	2.0
	Dallas	77	8.0	Polk	925	11.8
	Dubuque	221	12.2	Pottawattamie	146	8.2
	Grundy	5	2.0	Scott	462	14.5
	Guthrie	9	3.9	Story	141	8.8
	Harrison	12	3.8	Warren	38	4.5
	Johnson	176	7.6	Washington	34	8.0
	Jones	34	8.3	Woodbury	202	9.8
				<b>Total</b>	3,343	10.4
	<b>State Total</b>	5,142	8.7			

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

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

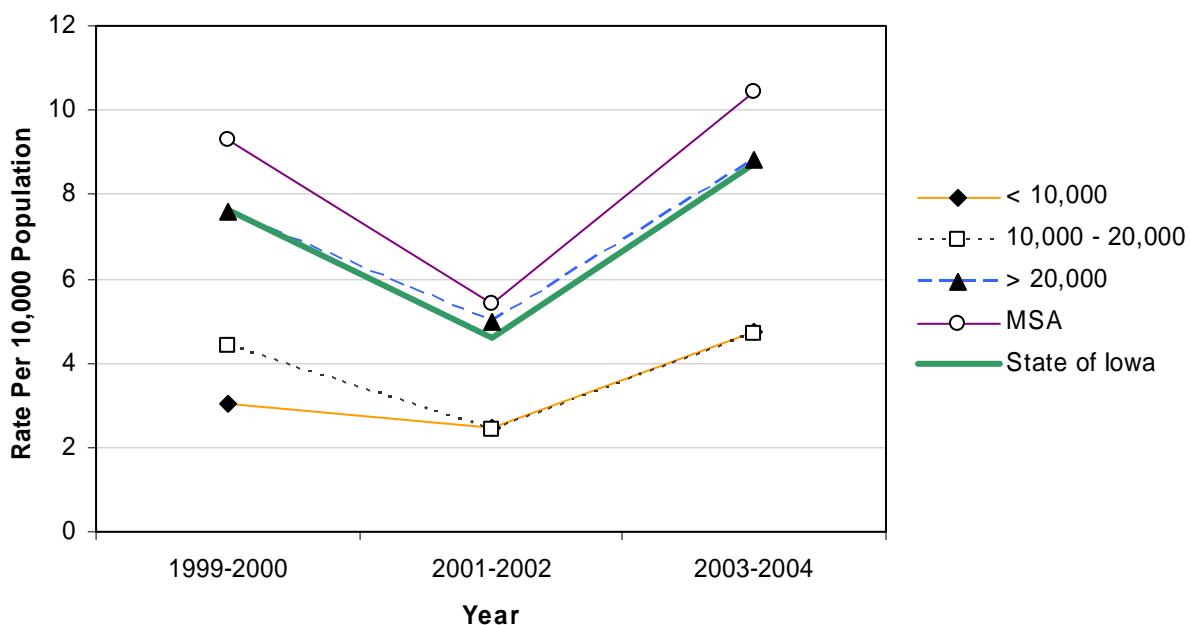
## Adult Marijuana Admissions 1999-2004

### Crude Rates



## Adolescent Marijuana Admissions 1999-2004

### Crude Rates



**Other Admissions: Adult 2003-2004**

	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with 2004 Population < 10,000	Adair	10	6.3 (93)	Monona	24	12.3 (77)
	Adams	29	33.3 (21)	Monroe	65	41.4 (13)
	Audubon	29	22.4 (39)	Osceola	20	14.7 (68)
	Clarke	75	40.7 (14)	Palo Alto	7	3.6 (98)
	Davis	34	19.7 (48)	Pocahontas	23	14.0 (71)
	Decatur	49	28.6 (26)	Ringgold	10	9.4 (89)
	Fremont	35	22.5 (38)	Taylor	32	23.8 (36)
	Howard	24	12.2 (78)	Van Buren	18	11.6 (82)
	Ida	22	14.7 (69)	Wayne	27	20.4 (46)
	Lucas	121	62.9 (03)	Worth	26	16.8 (61)
				<b>Total</b>	680	21.7
Counties with 2004 Population 10,000 - 20,000	Allamakee	25	8.5 (91)	Hardin	68	18.7 (56)
	Appanoose	90	33.1 (22)	Humboldt	35	17.4 (59)
	Butler	68	22.6 (37)	Iowa	17	5.3 (96)
	Calhoun	58	27.3 (28)	Jefferson	102	31.9 (24)
	Cass	87	30.4 (25)	Keokuk	44	19.4 (50)
	Cedar	21	5.8 (95)	Kossuth	71	21.6 (41)
	Cherokee	41	16.4 (62)	Louisa	35	14.4 (70)
	Chickasaw	35	13.8 (72)	Lyon	11	4.7 (97)
	Clay	46	13.6 (74)	Mitchell	35	16.0 (64)
	Clayton	44	12.0 (80)	Montgomery	95	41.8 (12)
	Crawford	113	33.4 (20)	O'Brien	46	15.8 (65)
	Delaware	50	13.8 (73)	Page	213	65.3 (01)
	Dickinson	63	19.0 (55)	Poweshiek	44	11.6 (83)
	Emmet	21	9.8 (87)	Sac	55	25.3 (32)
	Floyd	107	32.3 (23)	Shelby	46	18.0 (57)
	Franklin	54	25.2 (34)	Tama	48	13.4 (75)
	Greene	42	20.9 (45)	Union	117	48.9 (08)
	Hamilton	49	15.0 (67)	Winnebago	44	19.3 (51)
	Hancock	52	22.0 (40)	Wright	45	16.4 (63)
				<b>Total</b>	2,237	20.8
Counties with 2004 Population > 20,000	Boone	144	27.3 (27)	Lee	141	19.2 (52)
	Buchanan	150	35.8 (18)	Mahaska	114	25.7 (30)
	Buena Vista	27	6.7 (92)	Marion	158	24.2 (35)
	Carroll	80	19.1 (53)	Marshall	386	49.0 (07)
	Cerro Gordo	560	62.0 (04)	Muscatine	214	25.3 (33)
	Clinton	194	19.5 (49)	Plymouth	63	12.7 (76)
	Des Moines	163	19.9 (47)	Sioux	23	3.6 (99)
	Fayette	185	43.4 (11)	Wapello	414	57.8 (05)
	Henry	105	25.9 (29)	Webster	397	50.3 (06)
	Jackson	85	21.0 (43)	Winneshiek	26	6.1 (94)
	Jasper	329	43.6 (10)	<b>Total</b>	3,958	30.4
MSA Counties	Benton	50	9.4 (88)	Linn	844	21.5 (42)
	Black Hawk	1,014	40.2 (15)	Madison	50	16.9 (60)
	Bremer	72	15.4 (66)	Mills	119	39.8 (16)
	Dallas	167	17.4 (58)	Polk	3,040	38.9 (17)
	Dubuque	462	25.5 (31)	Pottawattamie	1,131	63.6 (02)
	Grundy	30	12.1 (79)	Scott	1,081	33.8 (19)
	Guthrie	26	11.3 (84)	Story	143	8.9 (90)
	Harrison	60	19.0 (54)	Warren	99	11.7 (81)
	Johnson	242	10.5 (86)	Washington	89	20.9 (44)
	Jones	44	10.7 (85)	Woodbury	962	46.6 (09)
				<b>Total</b>	9,725	30.3
	<b>State Total</b>	16,600	28.2			

<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

**Other Admissions: Adolescent 2003-2004**

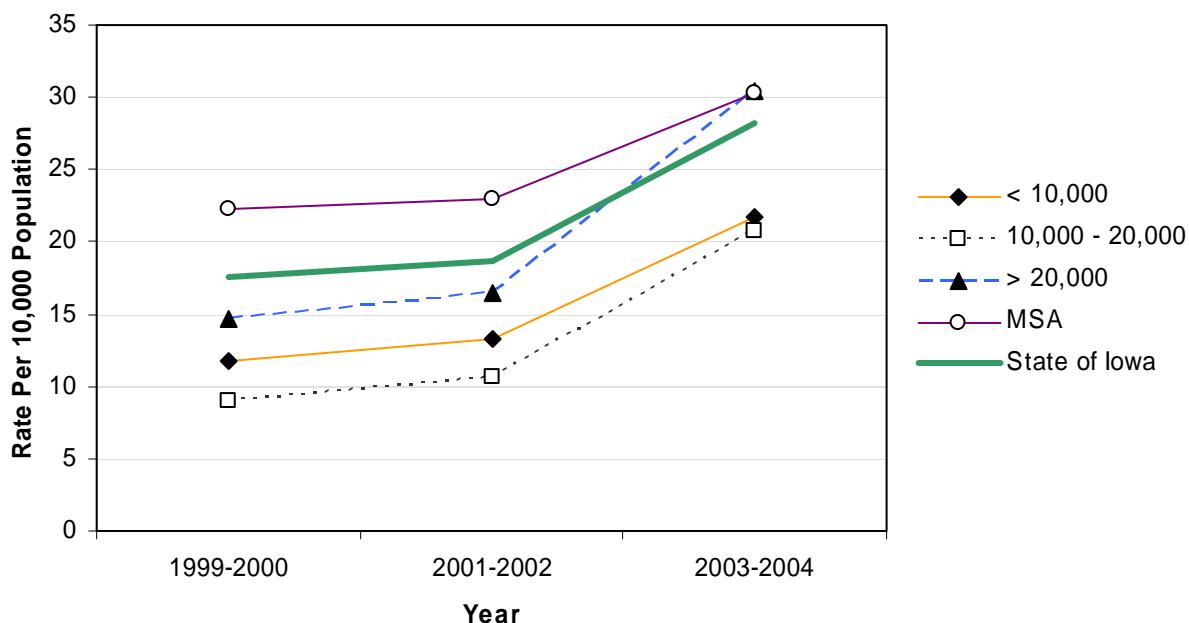
County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with 2004 Population < 10,000	Adair	*	Monona	*	*
	Adams	*	Monroe	*	*
	Audubon	*	Osceola	*	*
	Clarke	5	Palo Alto	*	*
	Davis	*	Pocahontas	*	*
	Decatur	*	Ringgold	*	*
	Fremont	*	Taylor	*	*
	Howard	*	Van Buren	*	*
	Ida	*	Wayne	*	*
	Lucas	*	Worth	*	*
			<b>Total</b>	30	1.0
Counties with 2004 Population 10,000 – 20,000	Allamakee	5	Hardin	*	*
	Appanoose	*	Humboldt	5	2.5
	Butler	9	Iowa	*	*
	Calhoun	*	Jefferson	*	*
	Cass	9	Keokuk	*	*
	Cedar	*	Kossuth	6	1.8
	Cherokee	*	Louisa	*	*
	Chickasaw	*	Lyon	*	*
	Clay	8	Mitchell	*	*
	Clayton	*	Montgomery	*	*
	Crawford	5	O'Brien	*	*
	Delaware	*	Page	*	*
	Dickinson	*	Poweshiek	*	*
	Emmet	*	Sac	*	*
	Floyd	*	Shelby	5	2.0
	Franklin	*	Tama	*	*
	Greene	*	Union	7	2.9
	Hamilton	7	Winnebago	11	4.8
	Hancock	6	Wright	*	*
			<b>Total</b>	131	1.2
Counties with 2004 Population > 20,000	Boone	*	Lee	11	1.5
	Buchanan	13	Mahaska	*	*
	Buena Vista	8	Marion	6	0.9
	Carroll	5	Marshall	38	4.8
	Cerro Gordo	33	Muscatine	21	2.5
	Clinton	10	Plymouth	*	*
	Des Moines	23	Sioux	*	*
	Fayette	6	Wapello	21	2.9
	Henry	9	Webster	17	2.2
	Jackson	7	Winneshiek	*	*
	Jasper	11	<b>Total</b>	251	1.9
MSA Counties	Benton	*	Linn	30	0.8
	Black Hawk	55	Madison	*	*
	Bremer	10	Mills	*	*
	Dallas	6	Polk	153	2.0
	Dubuque	16	Pottawattamie	42	2.4
	Grundy	*	Scott	16	0.5
	Guthrie	*	Story	17	1.1
	Harrison	*	Warren	8	0.9
	Johnson	9	Washington	7	1.6
	Jones	*	Woodbury	31	1.5
			<b>Total</b>	417	1.3
<b>State Total</b>		829			

<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

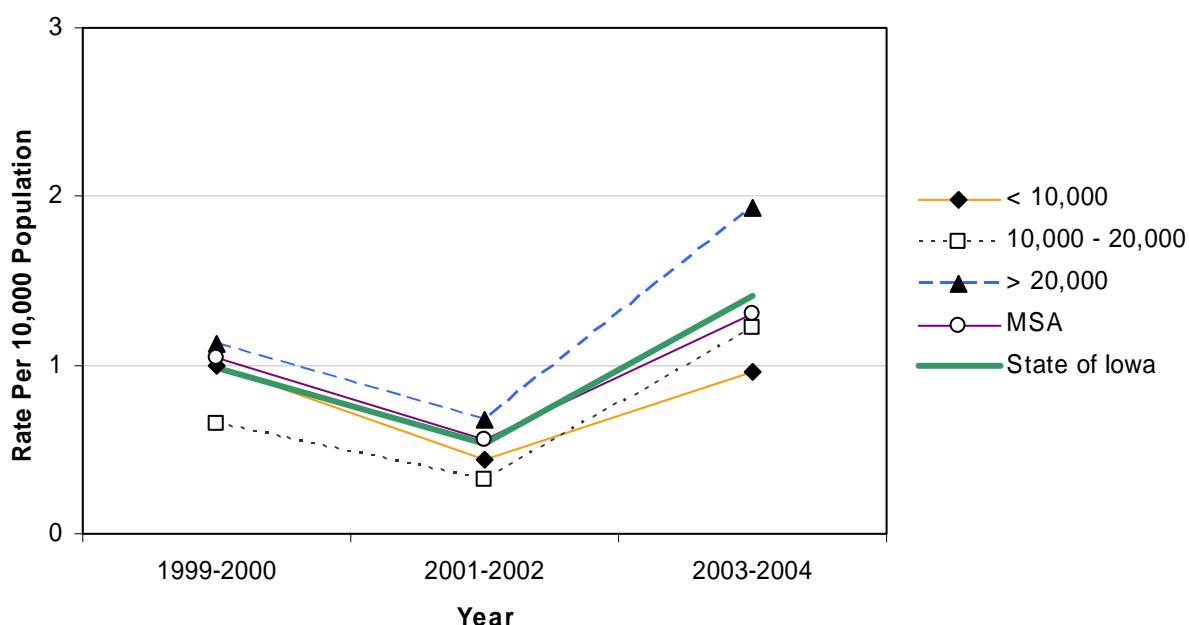
## Other Adult Admissions 1999-2004

### Crude Rates



## Other Adolescent Admissions 1999-2004

### Crude Rates



**Marriages 2002-2003**

County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	
Counties with 2004 Population < 10,000	Adair	87	5.4 (87)	Monona	115	5.9 (74)
	Adams	60	6.8 (39)	Monroe	116	7.4 (19)
	Audubon	67	5.1 (94)	Osceola	69	5.1 (96)
	Clarke	134	7.3 (24)	Palo Alto	120	6.1 (67)
	Davis	122	7.1 (28)	Pocahontas	88	5.3 (91)
	Decatur	116	6.7 (43)	Ringgold	68	6.4 (63)
	Fremont	116	7.4 (20)	Taylor	107	7.9 (15)
	Howard	128	6.5 (57)	Van Buren	88	5.7 (84)
	Ida	109	7.2 (25)	Wayne	114	8.6 (06)
	Lucas	121	6.4 (62)	Worth	85	5.5 (86)
			<b>Total</b>	2,030	6.5	
Counties with 2004 Population 10,000 – 20,000	Allamakee	204	7.0 (32)	Hardin	295	8.0 (12)
	Appanoose	236	8.7 (05)	Humboldt	133	6.6 (56)
	Butler	161	5.4 (89)	Iowa	203	6.4 (61)
	Calhoun	106	4.9 (97)	Jefferson	185	5.8 (79)
	Cass	205	7.1 (27)	Keokuk	129	5.7 (82)
	Cedar	194	5.3 (90)	Kossuth	220	6.7 (50)
	Cherokee	169	6.7 (46)	Louisa	116	4.7 (99)
	Chickasaw	906	35.4 (01)	Lyon	155	6.6 (53)
	Clay	218	6.4 (60)	Mitchell	132	6.1 (68)
	Clayton	259	7.1 (30)	Montgomery	160	7.0 (31)
	Crawford	198	5.8 (75)	O'Brien	171	5.8 (77)
	Delaware	249	6.8 (41)	Page	226	6.9 (37)
	Dickinson	343	10.4 (02)	Poweshiek	221	5.8 (76)
	Emmet	145	6.7 (45)	Sac	150	6.8 (40)
	Floyd	196	5.9 (73)	Shelby	165	6.4 (58)
	Franklin	123	5.8 (81)	Tama	215	6.0 (72)
	Greene	154	7.6 (16)	Union	220	9.1 (04)
	Hamilton	198	6.1 (69)	Winnebago	168	7.3 (22)
	Hancock	122	5.1 (93)	<b>Total</b>	7,791	7.2
Counties with 2004 Population > 20,000	Boone	345	6.6 (55)	Lee	612	8.3 (08)
	Buchanan	241	5.8 (80)	Mahaska	297	6.7 (49)
	Buena Vista	306	7.5 (17)	Marion	518	8.0 (13)
	Carroll	342	8.1 (11)	Marshall	577	7.4 (21)
	Cerro Gordo	717	7.9 (14)	Muscatine	689	8.2 (10)
	Clinton	667	6.7 (47)	Plymouth	299	6.0 (70)
	Des Moines	580	7.0 (33)	Sioux	438	6.8 (38)
	Fayette	240	5.6 (85)	Wapello	589	8.2 (09)
	Henry	252	6.2 (65)	Webster	561	7.1 (29)
	Jackson	290	7.2 (26)	Winneshiek	289	6.8 (42)
	Jasper	437	5.8 (78)	<b>Total</b>	9,286	7.1
MSA Counties	Benton	297	5.7 (83)	Linn	2,590	6.6 (52)
	Black Hawk	1,689	6.7 (48)	Madison	242	8.3 (07)
	Bremer	310	6.6 (51)	Mills	143	4.8 (98)
	Dallas	893	9.8 (03)	Polk	5,367	6.9 (35)
	Dubuque	1,355	7.5 (18)	Pottawattamie	1,220	6.9 (36)
	Grundy	133	5.4 (88)	Scott	2,323	7.3 (23)
	Guthrie	159	7.0 (34)	Story	1,019	6.3 (64)
	Harrison	164	5.2 (92)	Warren	563	6.7 (44)
	Johnson	1,380	6.0 (71)	Washington	272	6.4 (59)
	Jones	268	6.6 (54)	Woodbury	1,283	6.2 (66)
			<b>Total</b>	21,670	6.8	
	<b>State Total</b>	40,777	6.9			

<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 2002-2003**

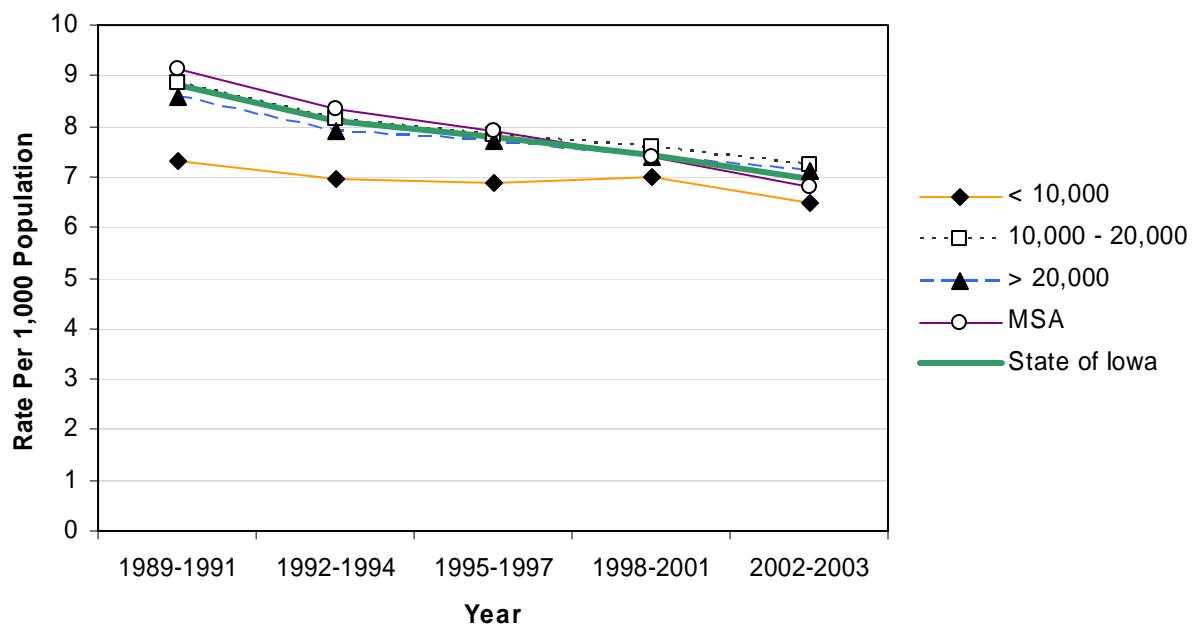
	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with 2004 Population < 10,000	Adair	51	3.2 (36)	Monona	62	3.2 (39)
	Adams	40	4.6 (02)	Monroe	50	3.2 (35)
	Audubon	28	2.1 (83)	Osceola	28	2.1 (85)
	Clarke	57	3.1 (44)	Palo Alto	55	2.8 (62)
	Davis	63	3.7 (16)	Pocahontas	53	3.2 (38)
	Decatur	55	3.2 (33)	Ringgold	33	3.1 (46)
	Fremont	63	4.0 (08)	Taylor	37	2.7 (66)
	Howard	40	2.0 (87)	Van Buren	47	3.0 (50)
	Ida	49	3.2 (32)	Wayne	7	0.5 (98)
	Lucas	62	3.3 (25)	Worth	34	2.2 (80)
				<b>Total</b>	914	2.9
Counties with 2004 Population 10,000 - 20,000	Allamakee	73	2.5 (74)	Hardin	132	3.6 (17)
	Appanoose	7	0.3 (99)	Humboldt	63	3.1 (42)
	Butler	72	2.4 (75)	Iowa	103	3.2 (31)
	Calhoun	51	2.4 (77)	Jefferson	144	4.5 (04)
	Cass	106	3.7 (14)	Keokuk	29	1.3 (97)
	Cedar	123	3.4 (21)	Kossuth	89	2.7 (67)
	Cherokee	38	1.5 (96)	Louisa	67	2.7 (64)
	Chickasaw	53	2.1 (84)	Lyon	38	1.6 (95)
	Clay	119	3.5 (18)	Mitchell	55	2.5 (72)
	Clayton	74	2.0 (88)	Montgomery	98	4.3 (06)
	Crawford	108	3.2 (37)	O'Brien	96	3.3 (27)
	Delaware	86	2.4 (78)	Page	127	3.9 (10)
	Dickinson	95	2.9 (58)	Poweshiek	123	3.3 (29)
	Emmet	70	3.2 (30)	Sac	60	2.7 (65)
	Floyd	102	3.1 (47)	Shelby	85	3.3 (22)
	Franklin	63	2.9 (55)	Tama	99	2.8 (63)
	Greene	76	3.8 (13)	Union	109	4.5 (03)
	Hamilton	126	3.9 (11)	Winnebago	61	2.7 (68)
	Hancock	39	1.6 (94)	Wright	86	3.1 (45)
				<b>Total</b>	3,145	2.9
Counties with 2004 Population > 20,000	Boone	193	3.7 (15)	Lee	221	3.0 (52)
	Buchanan	136	3.3 (28)	Mahaska	142	3.2 (34)
	Buena Vista	119	2.9 (57)	Marion	187	2.9 (60)
	Carroll	101	2.4 (76)	Marshall	256	3.3 (26)
	Cerro Gordo	345	3.8 (12)	Muscatine	402	4.8 (01)
	Clinton	293	2.9 (56)	Plymouth	108	2.2 (81)
	Des Moines	273	3.3 (24)	Sioux	131	2.0 (86)
	Fayette	109	2.5 (71)	Wapello	185	2.6 (69)
	Henry	121	3.0 (51)	Webster	273	3.4 (19)
	Jackson	126	3.1 (43)	Winneshiek	107	2.5 (73)
	Jasper	125	1.7 (93)	<b>Total</b>	3,953	3.0
MSA Counties	Benton	134	2.6 (70)	Linn	1,296	3.3 (23)
	Black Hawk	506	2.0 (89)	Madison	128	4.4 (05)
	Bremer	89	1.9 (90)	Mills	90	3.0 (49)
	Dallas	208	2.3 (79)	Polk	2,376	3.1 (48)
	Dubuque	535	3.0 (54)	Pottawattamie	759	4.3 (07)
	Grundy	53	2.1 (82)	Scott	1,002	3.1 (41)
	Guthrie	65	2.9 (61)	Story	298	1.9 (91)
	Harrison	99	3.2 (40)	Warren	249	3.0 (53)
	Johnson	422	1.8 (92)	Washington	122	2.9 (59)
	Jones	138	3.4 (20)	Woodbury	817	4.0 (09)
				<b>Total</b>	9,386	2.9
	<b>State Total</b>	17,398	3.0			

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

Source: Iowa Department of Public Health, Vital Statistics

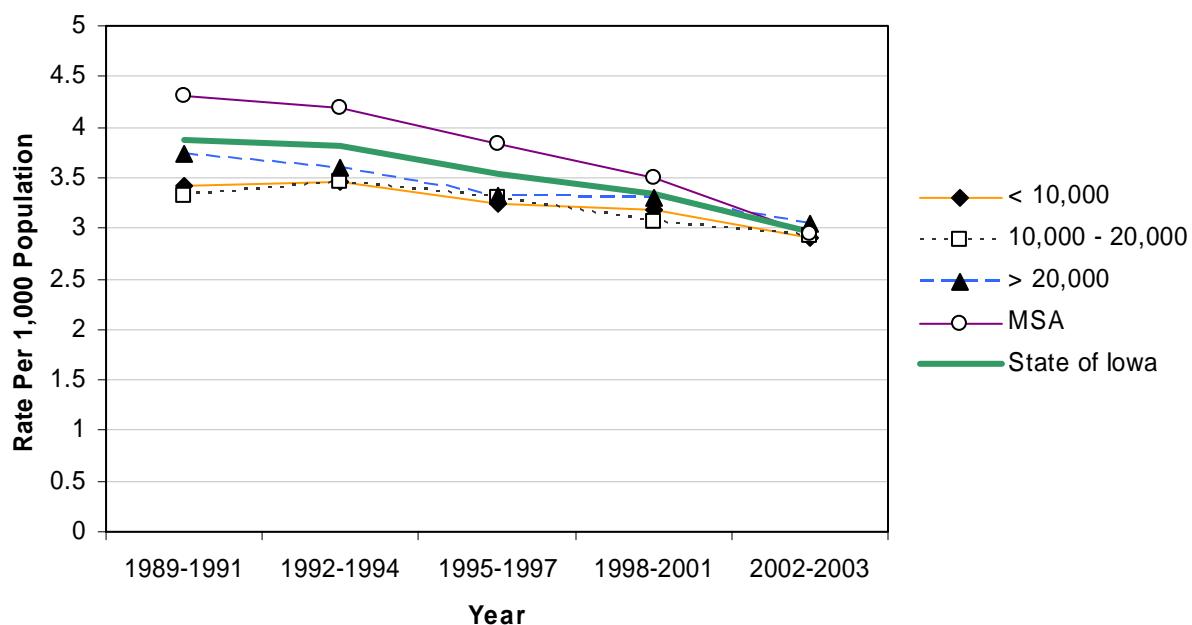
## Marriages 1989-2003

### Crude Rates



## Dissolutions 1989-2003

### Crude Rates



**Domestic Abuse Cases<sup>1</sup> 2002-2003**

	County	#	Crude <sup>2</sup>	County	#	Crude <sup>2</sup>
Counties with 2004 Population < 10,000	Adair	12	7.5	Monona	49	25.0
	Adams	14	16.0	Monroe	37	23.6
	Audubon	*	*	Osceola	14	10.3
	Clarke	12	6.5	Palo Alto	16	8.1
	Davis	24	14.0	Pocahontas	16	9.6
	Decatur	*	*	Ringgold	*	*
	Fremont	5	3.2	Taylor	10	7.4
	Howard	17	8.6	Van Buren	8	5.1
	Ida	9	5.9	Wayne	19	14.3
	Lucas	30	15.8	Worth	*	*
				<b>Total</b>	292	9.3
Counties with 2004 Population 10,000 - 20,000	Allamakee	*	*	Hardin	36	9.8
	Appanoose	84	31.0	Humboldt	20	9.9
	Butler	*	*	Iowa	15	4.7
	Calhoun	26	12.1	Jefferson	36	11.3
	Cass	52	18.1	Keokuk	*	*
	Cedar	27	7.4	Kossuth	15	4.5
	Cherokee	38	15.1	Louisa	18	7.4
	Chickasaw	9	3.5	Lyon	15	6.4
	Clay	58	17.0	Mitchell	10	4.6
	Clayton	12	3.3	Montgomery	90	39.6
	Crawford	63	18.6	O'Brien	33	11.2
	Delaware	20	5.5	Page	54	16.4
	Dickinson	29	8.8	Poweshiek	68	18.0
	Emmet	64	29.7	Sac	15	6.8
	Floyd	43	13.0	Shelby	*	*
	Franklin	*	*	Tama	44	12.3
	Greene	*	*	Union	28	11.6
	Hamilton	69	21.1	Winnebago	9	3.9
	Hancock	26	11.0	Wright	50	18.0
				<b>Total</b>	1,185	11.0
Counties with 2004 Population > 20,000	Boone	105	20.1	Lee	249	33.8
	Buchanan	55	13.2	Mahaska	95	21.4
	Buena Vista	132	32.6	Marion	89	13.7
	Carroll	37	8.8	Marshall	288	36.7
	Cerro Gordo	267	29.5	Muscatine	161	19.1
	Clinton	23	2.3	Plymouth	49	9.9
	Des Moines	329	39.8	Sioux	14	2.2
	Fayette	104	24.2	Wapello	239	33.3
	Henry	44	10.9	Webster	108	13.6
	Jackson	26	6.4	Winneshiek	28	6.6
	Jasper	98	13.0	<b>Total</b>	2,540	19.5
MSA Counties	Benton	48	9.2	Linn	1,532	39.2
	Black Hawk	842	33.4	Madison	10	3.4
	Bremer	12	2.6	Mills	52	17.6
	Dallas	101	11.1	Polk	2,475	32.0
	Dubuque	129	7.2	Pottawattamie	1,000	56.6
	Grundy	15	6.1	Scott	2,001	62.8
	Guthrie	*	*	Story	224	13.9
	Harrison	52	16.6	Warren	150	17.9
	Johnson	399	17.4	Washington	36	8.5
	Jones	32	7.9	Woodbury	1,348	65.2
				<b>Total</b>	10,458-62	32.9-33.0
<b>State Total</b>		14,475	24.6			

<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<sup>1</sup> 2002-2003**

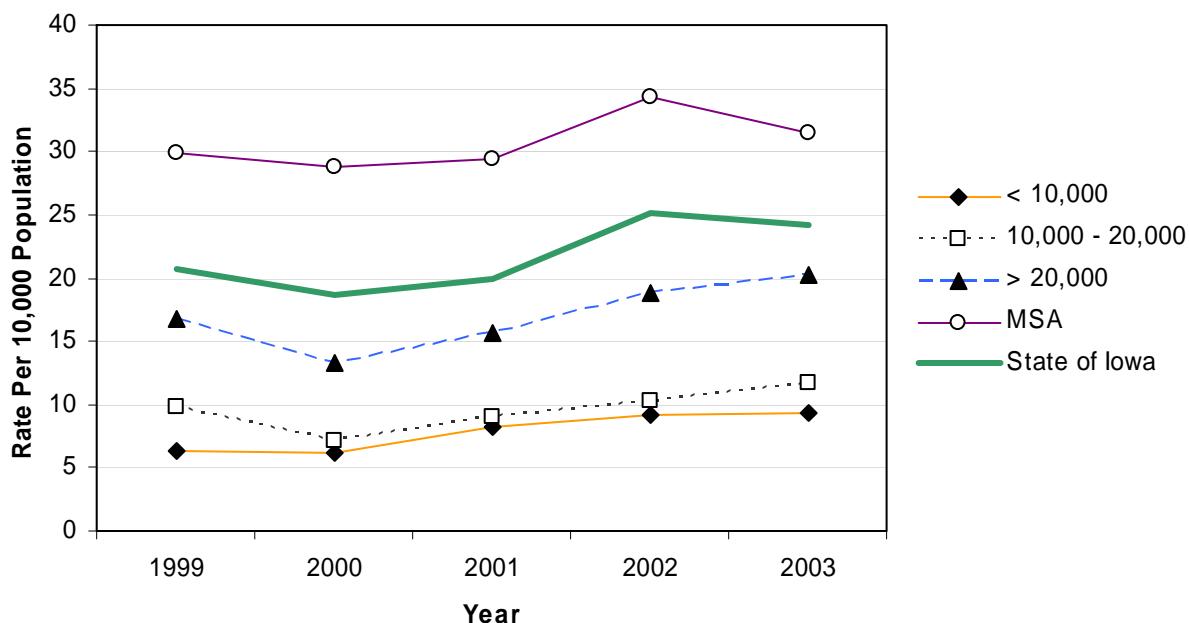
County	#	Crude <sup>2</sup>	County	#	Crude <sup>2</sup>	
Counties with 2004 Population < 10,000	Adair	34	21.3	Monona	203	103.7
	Adams	11	12.5	Monroe	56	35.8
	Audubon	15	11.5	Osceola	77	56.4
	Clarke	136	74.0	Palo Alto	19	9.7
	Davis	34	19.8	Pocahontas	60	36.0
	Decatur	48	27.9	Ringgold	7	6.6
	Fremont	17	10.9	Taylor	26	19.1
	Howard	103	52.4	Van Buren	39	25.1
	Ida	29	19.1	Wayne	41	30.8
	Lucas	60	31.6	Worth	23	14.8
			<b>Total</b>	1,038	33.1	
Counties with 2004 Population 10,000 – 20,000	Allamakee	26	8.9	Hardin	129	35.1
	Appanoose	192	70.9	Humboldt	82	40.5
	Butler	25	8.3	Iowa	161	50.6
	Calhoun	102	47.4	Jefferson	118	36.9
	Cass	143	49.9	Keokuk	15	6.6
	Cedar	166	45.6	Kossuth	51	15.4
	Cherokee	135	53.5	Louisa	150	61.3
	Chickasaw	65	25.4	Lyon	98	41.8
	Clay	247	72.5	Mitchell	57	26.2
	Clayton	140	38.1	Montgomery	83	36.6
	Crawford	160	47.2	O'Brien	113	38.4
	Delaware	151	41.4	Page	102	31.0
	Dickinson	55	16.7	Poweshiek	105	27.8
	Emmet	157	72.8	Sac	62	28.2
	Floyd	80	24.1	Shelby	5	1.9
	Franklin	85	39.8	Tama	200	55.9
	Greene	*	*	Union	51	21.2
	Hamilton	175	53.6	Winnebago	50	21.9
	Hancock	63	26.6	<b>Total</b>	3,901-5	36.2-36.3
Counties with 2004 Population > 20,000	Boone	64	12.2	Lee	275	37.3
	Buchanan	168	40.2	Mahaska	150	33.7
	Buena Vista	257	63.4	Marion	325	49.9
	Carroll	150	35.5	Marshall	334	42.6
	Cerro Gordo	647	71.4	Muscatine	606	72.0
	Clinton	103	10.3	Plymouth	170	34.4
	Des Moines	426	51.5	Sioux	191	29.8
	Fayette	208	48.4	Wapello	381	53.1
	Henry	137	33.9	Webster	258	32.5
	Jackson	105	25.9	Winneshiek	175	41.1
	Jasper	390	51.8	<b>Total</b>	5,520	42.4
MSA Counties	Benton	266	50.7	Linn	2,186	55.9
	Black Hawk	1,096	43.4	Madison	49	16.9
	Bremer	196	42.0	Mills	97	32.8
	Dallas	441	48.5	Polk	2,829	36.6
	Dubuque	1,281	71.2	Pottawattamie	673	38.1
	Grundy	112	45.3	Scott	1,237	38.8
	Guthrie	9	3.9	Story	948	58.9
	Harrison	180	57.5	Warren	416	49.8
	Johnson	1,800	78.7	Washington	180	42.5
	Jones	142	34.9	Woodbury	1,457	70.5
			<b>Total</b>	15,595	49.0	
<b>State Total</b>		26,054-8	44.2-44.3			

<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

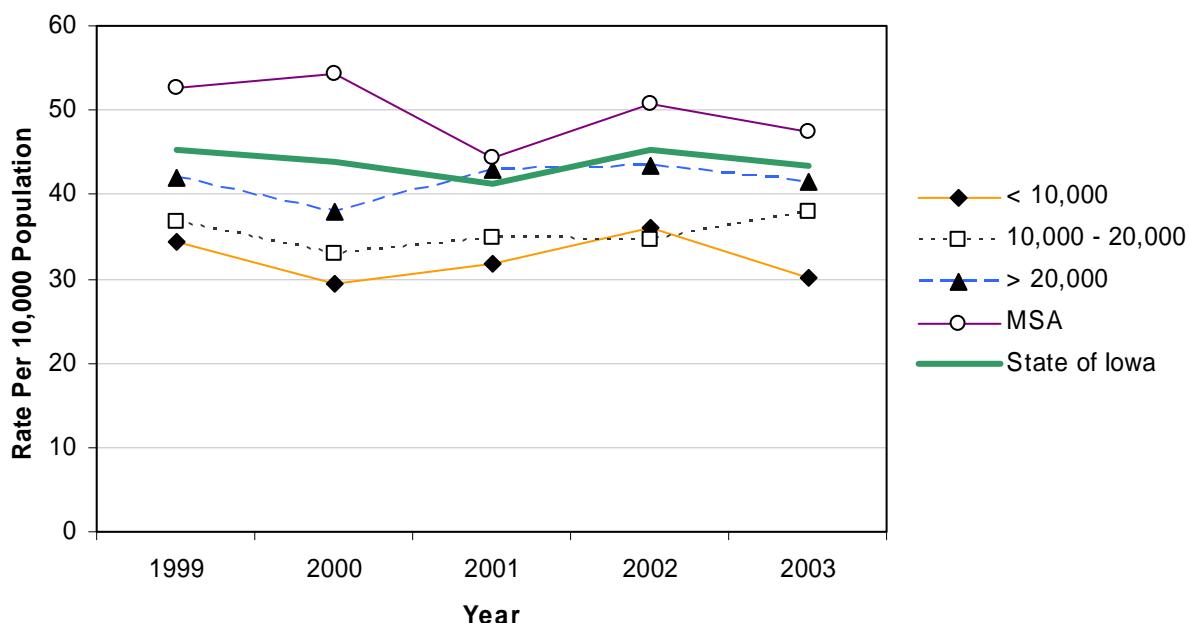
## Domestic Abuse Cases 1999-2003

### Crude Rates



## Driving Under the Influence Arrests 1999-2003

### Crude Rates



**Juvenile Arrests<sup>1</sup> 2002-2003**

County	#	Crude <sup>2</sup>	County	#	Crude <sup>2</sup>	
Counties with 2004 Population < 10,000	Adair	14	8.8	Monona	90	46.0
	Adams	61	69.5	Monroe	108	69.0
	Audubon	18	13.8	Osceola	114	83.5
	Clarke	82	44.6	Palo Alto	6	3.1
	Davis	47	27.3	Pocahontas	6	3.6
	Decatur	*	*	Ringgold	*	*
	Fremont	*	*	Taylor	*	*
	Howard	256	130.1	Van Buren	7	4.5
	Ida	5	3.3	Wayne	39	29.3
	Lucas	128	67.4	Worth	9	5.8
			<b>Total</b>	994	31.7	
Counties with 2004 Population 10,000 – 20,000	Allamakee	8	2.8	Hardin	374	101.9
	Appanoose	410	151.5	Humboldt	35	17.3
	Butler	*	*	Iowa	91	28.6
	Calhoun	11	5.1	Jefferson	91	28.5
	Cass	191	66.6	Keokuk	*	*
	Cedar	82	22.5	Kossuth	163	49.3
	Cherokee	262	103.9	Louisa	62	25.3
	Chickasaw	12	4.7	Lyon	143	61.0
	Clay	405	118.9	Mitchell	91	41.9
	Clayton	13	3.5	Montgomery	197	86.8
	Crawford	74	21.8	O'Brien	97	33.0
	Delaware	215	59.0	Page	112	34.1
	Dickinson	37	11.3	Poweshiek	117	30.9
	Emmet	*	*	Sac	60	27.3
	Floyd	141	42.5	Shelby	26	10.1
	Franklin	39	18.2	Tama	118	33.0
	Greene	*	*	Union	48	19.9
	Hamilton	198	60.7	Winnebago	38	16.6
	Hancock	75	31.6	Wright	98	35.3
			<b>Total</b>	4,135	38.4	
Counties with 2004 Population > 20,000	Boone	275	52.5	Lee	876	118.8
	Buchanan	244	58.4	Mahaska	341	76.7
	Buena Vista	469	115.7	Marion	273	41.9
	Carroll	243	57.6	Marshall	1,126	143.5
	Cerro Gordo	1,415	156.1	Muscatine	1,125	133.6
	Clinton	118	11.8	Plymouth	281	56.8
	Des Moines	1,228	148.5	Sioux	171	26.7
	Fayette	82	19.1	Wapello	1,095	152.5
	Henry	197	48.8	Webster	851	107.0
	Jackson	184	45.4	Winneshiek	157	36.9
	Jasper	427	56.7	<b>Total</b>	11,178	85.8
MSA Counties	Benton	99	18.9	Linn	2,581	66.0
	Black Hawk	2,476	98.1	Madison	24	8.3
	Bremer	169	36.2	Mills	146	49.3
	Dallas	528	58.0	Polk	5,367	69.4
	Dubuque	1,430	79.5	Pottawattamie	2,584	146.3
	Grundy	99	40.1	Scott	4,441	139.4
	Guthrie	*	*	Story	1,057	65.7
	Harrison	36	11.5	Warren	417	49.9
	Johnson	1,666	72.9	Washington	5	1.2
	Jones	113	27.8	Woodbury	3,267	158.1
			<b>Total</b>	26,505-9	83.3-83.4	
<b>State Total</b>		42,812	72.8			

<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 Vandalism<sup>1</sup> 2002-2003**

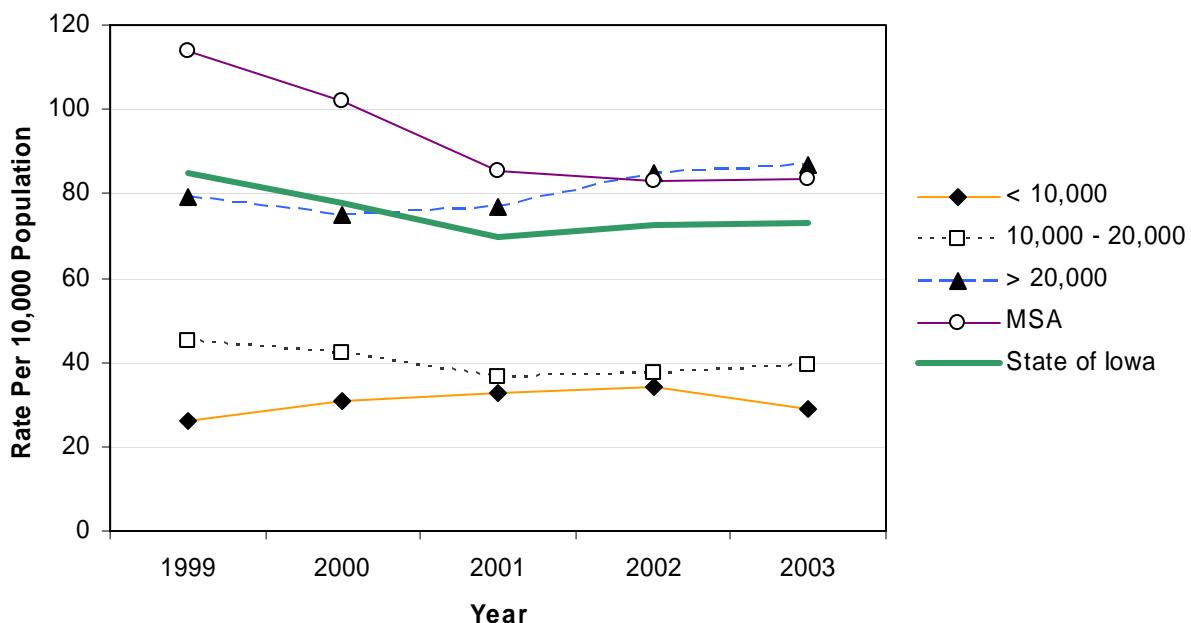
County	#	Crude <sup>2</sup>	County	#	Crude <sup>2</sup>	
Counties with 2004 Population < 10,000	Adair	*	*	Monona	11	5.6
	Adams	48	54.7	Monroe	5	3.2
	Audubon	*	*	Osceola	5	3.7
	Clarke	7	3.8	Palo Alto	*	*
	Davis	*	*	Pocahontas	*	*
	Decatur	*	*	Ringgold	*	*
	Fremont	*	*	Taylor	*	*
	Howard	56	28.5	Van Buren	*	*
	Ida	*	*	Wayne	*	*
	Lucas	11	5.8	Worth	*	*
			<b>Total</b>	151	4.8	
Counties with 2004 Population 10,000 - 20,000	Allamakee	*	*	Hardin	9	2.5
	Appanoose	25	9.2	Humboldt	*	*
	Butler	*	*	Iowa	*	*
	Calhoun	*	*	Jefferson	5	1.6
	Cass	17	5.9	Keokuk	*	*
	Cedar	6	1.6	Kossuth	11	3.3
	Cherokee	41	16.3	Louisa	*	*
	Chickasaw	*	*	Lyon	33	14.1
	Clay	41	12.0	Mitchell	15	6.9
	Clayton	*	*	Montgomery	17	7.5
	Crawford	*	*	O'Brien	9	3.1
	Delaware	17	4.7	Page	*	*
	Dickinson	8	2.4	Poweshiek	*	*
	Emmet	*	*	Sac	*	*
	Floyd	12	3.6	Shelby	5	1.9
	Franklin	*	*	Tama	*	*
	Greene	*	*	Union	6	2.5
	Hamilton	21	6.4	Winnebago	*	*
	Hancock	12	5.1	Wright	6	2.2
			<b>Total</b>	335	3.1	
Counties with 2004 Population > 20,000	Boone	30	5.7	Lee	79	10.7
	Buchanan	29	6.9	Mahaska	38	8.5
	Buena Vista	42	10.4	Marion	27	4.1
	Carroll	24	5.7	Marshall	59	7.5
	Cerro Gordo	130	14.3	Muscatine	50	5.9
	Clinton	*	*	Plymouth	24	4.9
	Des Moines	74	8.9	Sioux	21	3.3
	Fayette	8	1.9	Wapello	140	19.5
	Henry	17	4.2	Webster	57	7.2
	Jackson	22	5.4	Winneshiek	*	*
	Jasper	25	3.3	<b>Total</b>	903	6.9
MSA Counties	Benton	*	*	Linn	209	5.3
	Black Hawk	179	7.1	Madison	*	*
	Bremer	6	1.3	Mills	24	8.1
	Dallas	31	3.4	Polk	385	5.0
	Dubuque	59	3.3	Pottawattamie	224	12.7
	Grundy	14	5.7	Scott	272	8.5
	Guthrie	*	*	Story	77	4.8
	Harrison	*	*	Warren	45	5.4
	Johnson	85	3.7	Washington	*	*
	Jones	12	3.0	Woodbury	260	12.6
			<b>Total</b>	1,888	5.9	
	<b>State Total</b>	3,277	5.6			

<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

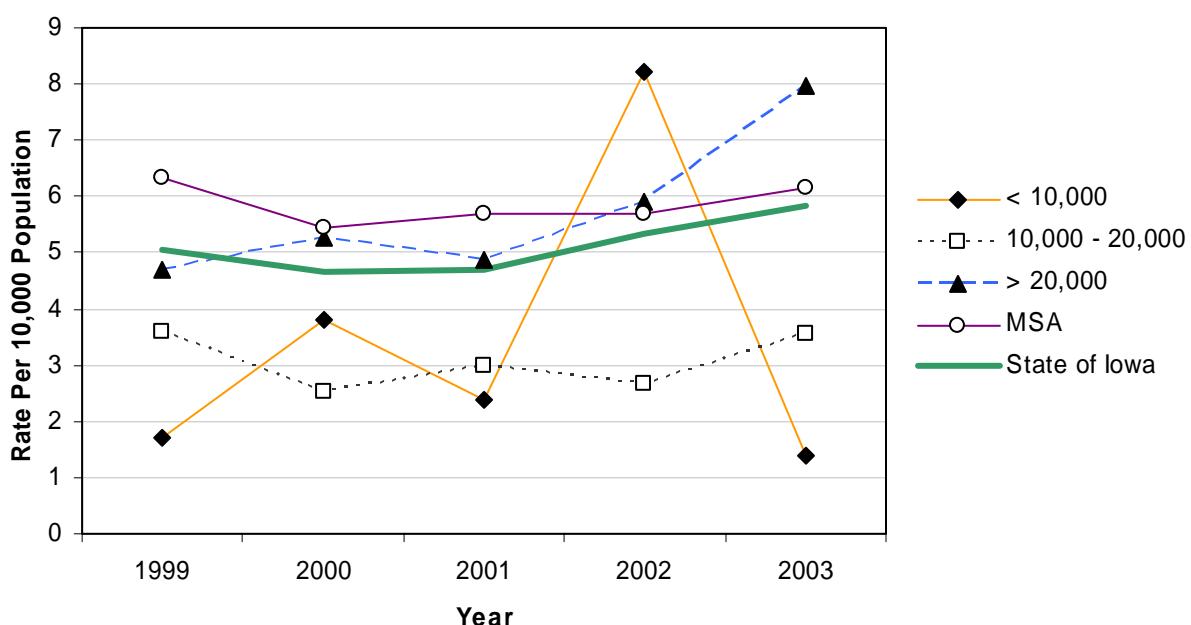
## Juvenile Arrests 1999-2003

### Crude Rates



## Juvenile Vandalism 1999-2003

### 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) multiple births; (2) cigarette smoking during pregnancy; (3) substance abuse immediately prior to conception and during pregnancy (including alcohol abuse); (4) maternal age extremes; and (5) short inter-pregnancy interval.

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<sup>1</sup>

- ✓ 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.

<sup>1</sup>Source: March of Dimes perinatal statistics: [www.marchofdimes.com/peristats](http://www.marchofdimes.com/peristats)

**Live Births 2002-2003**

	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with 2004 Population < 10,000	Adair	155	9.7 (91)	Monona	200	10.2 (81)
	Adams	89	10.1 (84)	Monroe	175	11.2 (53)
	Audubon	118	9.0 (96)	Osceola	154	11.3 (48)
	Clarke	245	13.3 (16)	Palo Alto	225	11.5 (45)
	Davis	244	14.2 (07)	Pocahontas	143	8.6 (99)
	Decatur	180	10.5 (77)	Ringgold	117	10.9 (62)
	Fremont	167	10.7 (70)	Taylor	135	9.9 (87)
	Howard	211	10.7 (68)	Van Buren	169	10.9 (64)
	Ida	168	11.1 (57)	Wayne	157	11.8 (40)
	Lucas	208	11.0 (61)	Worth	153	9.9 (89)
				<b>Total</b>	3,413	10.9
Counties with 2004 Population 10,000 - 20,000	Allamakee	356	12.3 (30)	Hardin	403	11.0 (60)
	Appanoose	336	12.4 (27)	Humboldt	215	10.6 (73)
	Butler	317	10.5 (75)	Iowa	376	11.8 (39)
	Calhoun	185	8.6 (98)	Jefferson	295	9.2 (92)
	Cass	298	10.4 (78)	Keokuk	271	11.9 (38)
	Cedar	388	10.6 (71)	Kossuth	329	10.0 (86)
	Cherokee	230	9.1 (95)	Louisa	340	13.9 (11)
	Chickasaw	284	11.1 (54)	Lyon	321	13.7 (14)
	Clay	412	12.1 (32)	Mitchell	246	11.3 (47)
	Clayton	390	10.6 (74)	Montgomery	254	11.2 (52)
	Crawford	457	13.5 (15)	O'Brien	327	11.1 (55)
	Delaware	428	11.7 (42)	Page	337	10.3 (80)
	Dickinson	334	10.2 (83)	Poweshiek	386	10.2 (82)
	Emmet	281	13.0 (21)	Sac	202	9.2 (93)
	Floyd	357	10.8 (66)	Shelby	280	10.9 (63)
	Franklin	241	11.3 (49)	Tama	459	12.8 (23)
	Greene	204	10.1 (85)	Union	282	11.7 (43)
	Hamilton	360	11.0 (58)	Winnebago	222	9.7 (90)
	Hancock	218	9.2 (94)	Wright	342	12.3 (28)
				<b>Total</b>	11,963	11.1
Counties with 2004 Population > 20,000	Boone	610	11.7 (44)	Lee	797	10.8 (65)
	Buchanan	602	14.4 (05)	Mahaska	531	11.9 (35)
	Buena Vista	506	12.5 (25)	Marion	815	12.5 (24)
	Carroll	506	12.0 (34)	Marshall	1,111	14.2 (08)
	Cerro Gordo	996	11.0 (59)	Muscatine	1,244	14.8 (03)
	Clinton	1,122	11.3 (50)	Plymouth	608	12.3 (29)
	Des Moines	993	12.0 (33)	Sioux	921	14.4 (06)
	Fayette	444	10.3 (79)	Wapello	936	13.0 (20)
	Henry	434	10.8 (67)	Webster	948	11.9 (36)
	Jackson	432	10.7 (69)	Winneshiek	376	8.8 (97)
	Jasper	897	11.9 (37)	<b>Total</b>	15,829	12.2
MSA Counties	Benton	636	12.1 (31)	Linn	5,505	14.1 (10)
	Black Hawk	3,149	12.5 (26)	Madison	402	13.8 (12)
	Bremer	497	10.6 (72)	Mills	332	11.2 (51)
	Dallas	1,197	13.2 (18)	Polk	12,511	16.2 (01)
	Dubuque	2,382	13.2 (17)	Pottawattamie	2,437	13.8 (13)
	Grundy	244	9.9 (88)	Scott	4,508	14.2 (09)
	Guthrie	299	13.1 (19)	Story	1,834	11.4 (46)
	Harrison	347	11.1 (56)	Warren	985	11.8 (41)
	Johnson	2,957	12.9 (22)	Washington	623	14.7 (04)
	Jones	428	10.5 (76)	Woodbury	3,216	15.6 (02)
				<b>Total</b>	44,489	14.0
	<b>State Total</b>	75,694	12.9			

<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 2002-2003**

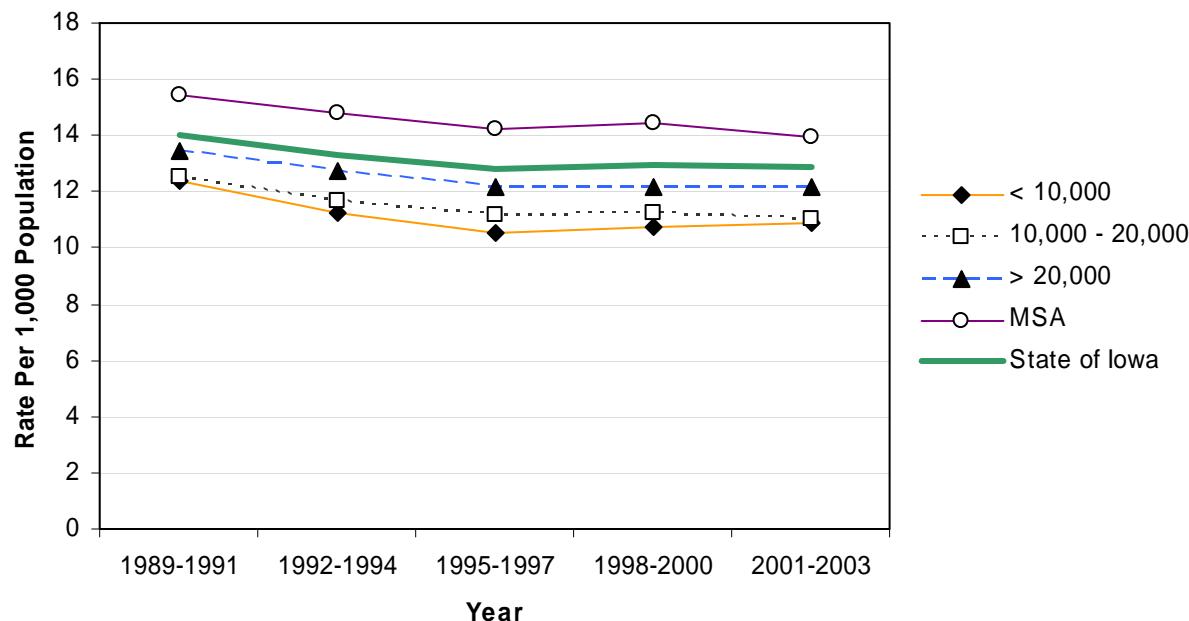
County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	
Counties with 2004 Population < 10,000	Adair	29	187.1 (90)	Monona	82	410.0 (03)
	Adams	21	236.0 (73)	Monroe	52	297.1 (31)
	Audubon	36	305.1 (28)	Osceola	39	253.2 (59)
	Clarke	89	363.3 (14)	Palo Alto	52	231.1 (76)
	Davis	30	123.0 (98)	Pocahontas	30	209.8 (85)
	Decatur	55	305.6 (26)	Ringgold	34	290.6 (34)
	Fremont	49	293.4 (33)	Taylor	29	214.8 (79)
	Howard	48	227.5 (78)	Van Buren	34	201.2 (87)
	Ida	46	273.8 (45)	Wayne	37	235.7 (74)
	Lucas	64	307.7 (25)	Worth	39	254.9 (57)
			<b>Total</b>	895	262.2	
Counties with 2004 Population 10,000 – 20,000	Allamakee	76	213.5 (82)	Hardin	112	277.9 (44)
	Appanoose	97	288.7 (37)	Humboldt	58	269.8 (50)
	Butler	75	236.6 (72)	Iowa	79	210.1 (84)
	Calhoun	50	270.3 (49)	Jefferson	77	261.0 (54)
	Cass	91	305.4 (27)	Keokuk	72	265.7 (52)
	Cedar	92	237.1 (71)	Kossuth	80	243.2 (69)
	Cherokee	76	330.4 (21)	Louisa	116	341.2 (18)
	Chickasaw	74	260.6 (55)	Lyon	29	90.3 (99)
	Clay	145	351.9 (16)	Mitchell	60	243.9 (68)
	Clayton	106	271.8 (47)	Montgomery	67	263.8 (53)
	Crawford	152	332.6 (19)	O'Brien	79	241.6 (70)
	Delaware	107	250.0 (62)	Page	134	397.6 (06)
	Dickinson	93	278.4 (43)	Poweshiek	111	287.6 (39)
	Emmet	93	331.0 (20)	Sac	51	252.5 (60)
	Floyd	91	254.9 (57)	Shelby	58	207.1 (86)
	Franklin	72	298.8 (30)	Tama	163	355.1 (15)
	Greene	51	250.0 (62)	Union	89	315.6 (23)
	Hamilton	109	302.8 (29)	Winnebago	59	265.8 (51)
	Hancock	51	233.9 (75)	<b>Total</b>	3,307	276.4
Counties with 2004 Population > 20,000	Boone	151	247.5 (64)	Lee	320	401.5 (05)
	Buchanan	138	229.2 (77)	Mahaska	154	290.0 (36)
	Buena Vista	146	288.5 (38)	Marion	154	189.0 (89)
	Carroll	124	245.1 (67)	Marshall	405	364.5 (12)
	Cerro Gordo	340	341.4 (17)	Muscatine	464	373.0 (11)
	Clinton	409	364.5 (13)	Plymouth	149	245.1 (66)
	Des Moines	418	420.9 (02)	Sioux	122	132.5 (97)
	Fayette	139	313.1 (24)	Wapello	362	386.8 (10)
	Henry	112	258.1 (56)	Webster	416	438.8 (01)
	Jackson	128	296.3 (32)	Winneshiek	65	172.9 (94)
	Jasper	245	273.1 (46)	<b>Total</b>	4,961	313.4
MSA Counties	Benton	135	212.3 (83)	Linn	1,577	286.5 (40)
	Black Hawk	1,232	391.2 (09)	Madison	75	186.6 (91)
	Bremer	94	189.1 (88)	Mills	93	280.1 (42)
	Dallas	257	214.7 (80)	Polk	3,633	290.4 (35)
	Dubuque	646	271.2 (48)	Pottawattamie	957	392.7 (08)
	Grundy	42	172.1 (95)	Scott	1,775	393.7 (07)
	Guthrie	74	247.5 (65)	Story	274	149.4 (96)
	Harrison	87	250.7 (61)	Warren	211	214.2 (81)
	Johnson	536	181.3 (93)	Washington	115	184.6 (92)
	Jones	121	282.7 (41)	Woodbury	1,307	406.4 (04)
			<b>Total</b>	13,241	297.6	
	<b>State Total</b>	22,404	296.0			

<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

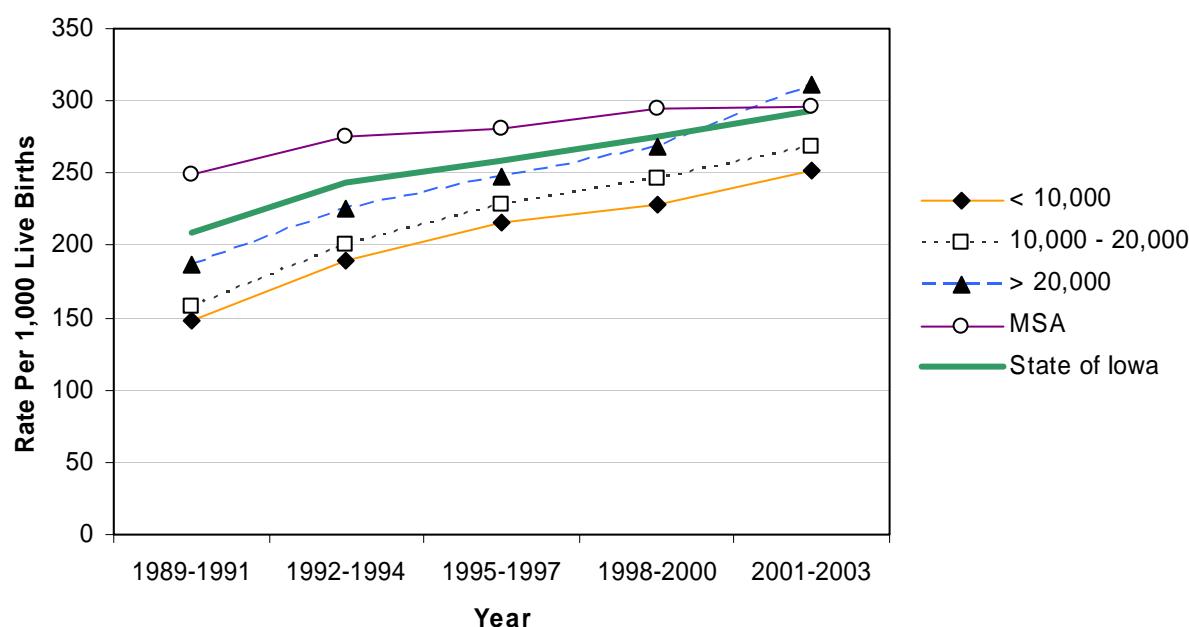
## Live Births by County Group 1989-2003

**Crude Rates**



## Out-of-Wedlock Births by County Group 1989-2003

**Crude Rates**



**Mothers Under Age 20 2002-2003**

County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	
Counties with 2004 Population < 10,000	Adair	10	64.5 (83)	Monona	28	140.0 (05)
	Adams	7	78.7 (62)	Monroe	18	102.9 (34)
	Audubon	13	110.2 (20)	Osceola	14	90.9 (50)
	Clarke	38	155.1 (02)	Palo Alto	9	40.0 (95)
	Davis	12	49.2 (90)	Pocahontas	13	90.9 (50)
	Decatur	21	116.7 (16)	Ringgold	19	162.4 (01)
	Fremont	14	83.8 (59)	Taylor	7	51.9 (89)
	Howard	18	85.3 (56)	Van Buren	13	76.9 (66)
	Ida	17	101.2 (38)	Wayne	23	146.5 (03)
	Lucas	22	105.8 (28)	Worth	17	111.1 (18)
			<b>Total</b>	333	97.6	
Counties with 2004 Population 10,000 – 20,000	Allamakee	39	109.6 (21)	Hardin	38	94.3 (46)
	Appanoose	34	101.2 (38)	Humboldt	22	102.3 (36)
	Butler	22	69.4 (78)	Iowa	22	58.5 (87)
	Calhoun	14	75.7 (67)	Jefferson	23	78.0 (63)
	Cass	33	110.7 (19)	Keokuk	25	92.3 (47)
	Cedar	17	43.8 (94)	Kossuth	23	69.9 (76)
	Cherokee	21	91.3 (49)	Louisa	37	108.8 (22)
	Chickasaw	21	73.9 (70)	Lyon	11	34.3 (97)
	Clay	34	82.5 (60)	Mitchell	19	77.2 (64)
	Clayton	34	87.2 (53)	Montgomery	25	98.4 (42)
	Crawford	48	105.0 (31)	O'Brien	31	94.8 (45)
	Delaware	36	84.1 (58)	Page	42	124.6 (12)
	Dickinson	23	68.9 (79)	Poweshiek	31	80.3 (61)
	Emmet	29	103.2 (33)	Sac	20	99.0 (41)
	Floyd	27	75.6 (68)	Shelby	20	71.4 (74)
	Franklin	31	128.6 (09)	Tama	49	106.8 (27)
	Greene	22	107.8 (25)	Union	36	127.7 (10)
	Hamilton	35	97.2 (44)	Winnebago	19	85.6 (55)
	Hancock	23	105.5 (29)	Wright	35	102.3 (35)
			<b>Total</b>	1,071	89.5	
Counties with 2004 Population > 20,000	Boone	47	77.0 (65)	Lee	92	115.4 (17)
	Buchanan	44	73.1 (71)	Mahaska	56	105.5 (30)
	Buena Vista	55	108.7 (23)	Marion	54	66.3 (82)
	Carroll	31	61.3 (86)	Marshall	148	133.2 (07)
	Cerro Gordo	100	100.4 (40)	Muscatine	148	119.0 (15)
	Clinton	150	133.7 (06)	Plymouth	41	67.4 (81)
	Des Moines	123	123.9 (13)	Sioux	58	63.0 (85)
	Fayette	46	103.6 (32)	Wapello	132	141.0 (04)
	Henry	40	92.2 (48)	Webster	122	128.7 (08)
	Jackson	31	71.8 (73)	Winneshiek	18	47.9 (92)
	Jasper	91	101.4 (37)	<b>Total</b>	1,627	102.8
MSA Counties	Benton	29	45.6 (93)	Linn	383	69.6 (77)
	Black Hawk	342	108.6 (24)	Madison	29	72.1 (72)
	Bremer	17	34.2 (98)	Mills	28	84.3 (57)
	Dallas	58	48.5 (91)	Polk	1,102	88.1 (52)
	Dubuque	164	68.8 (80)	Pottawattamie	306	125.6 (11)
	Grundy	14	57.4 (88)	Scott	482	106.9 (26)
	Guthrie	26	87.0 (54)	Story	51	27.8 (99)
	Harrison	22	63.4 (84)	Warren	73	74.1 (69)
	Johnson	114	38.6 (96)	Washington	44	70.6 (75)
	Jones	42	98.1 (43)	Woodbury	389	121.0 (14)
			<b>Total</b>	3,715	83.5	
	<b>State Total</b>	6,746	89.1			

<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

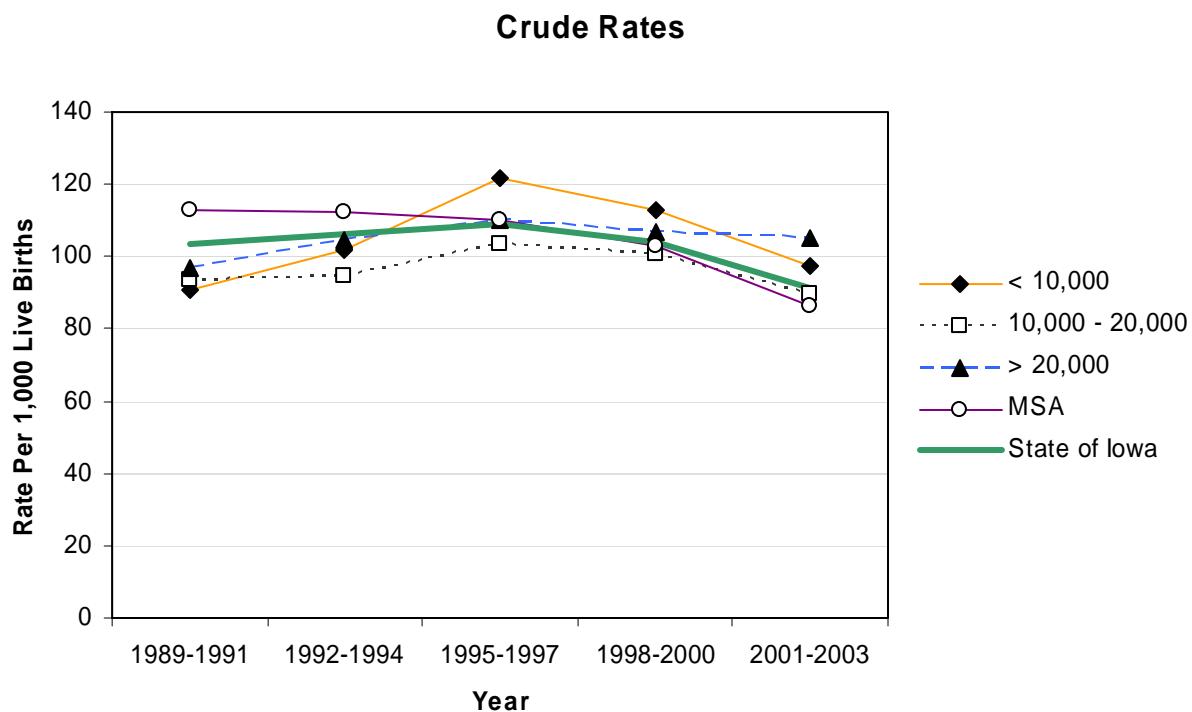
**Low Birth Weight (<2500 Grams) 2002-2003**

County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Counties with 2004 Population < 10,000	Adair	*	Monona	17	85.0
	Adams	9	Monroe	14	80.0
	Audubon	*	Osceola	*	*
	Clarke	10	Palo Alto	17	75.6
	Davis	15	Pocahontas	9	62.9
	Decatur	8	Ringgold	9	76.9
	Fremont	6	Taylor	*	*
	Howard	8	Van Buren	6	35.5
	Ida	19	Wayne	16	101.9
	Lucas	12	Worth	6	39.2
			<b>Total</b>	194	56.8
Counties with 2004 Population 10,000 - 20,000	Allamakee	13	Hardin	25	62.0
	Appanoose	28	Humboldt	12	55.8
	Butler	18	Iowa	31	82.4
	Calhoun	8	Jefferson	17	57.6
	Cass	21	Keokuk	10	36.9
	Cedar	31	Kossuth	17	51.7
	Cherokee	18	Louisa	18	52.9
	Chickasaw	14	Lyon	19	59.2
	Clay	36	Mitchell	17	69.1
	Clayton	15	Montgomery	22	86.6
	Crawford	33	O'Brien	11	33.6
	Delaware	18	Page	37	109.8
	Dickinson	28	Poweshiek	19	49.2
	Emmet	17	Sac	10	49.5
	Floyd	25	Shelby	23	82.1
	Franklin	16	Tama	38	82.8
	Greene	13	Union	24	85.1
	Hamilton	21	Winnebago	11	49.5
	Hancock	16	Wright	21	61.4
			<b>Total</b>	771	64.4
Counties with 2004 Population > 20,000	Boone	42	Lee	57	71.5
	Buchanan	47	Mahaska	23	43.3
	Buena Vista	32	Marion	53	65.0
	Carroll	34	Marshall	79	71.1
	Cerro Gordo	57	Muscatine	74	59.5
	Clinton	96	Plymouth	44	72.4
	Des Moines	70	Sioux	46	49.9
	Fayette	21	Wapello	69	73.7
	Henry	25	Webster	55	58.0
	Jackson	26	Winneshiek	22	58.5
	Jasper	70	<b>Total</b>	1,042	65.8
MSA Counties	Benton	38	Linn	349	63.4
	Black Hawk	227	Madison	24	59.7
	Bremer	29	Mills	20	60.2
	Dallas	76	Polk	865	69.1
	Dubuque	133	Pottawattamie	224	91.9
	Grundy	7	Scott	349	77.4
	Guthrie	27	Story	93	50.7
	Harrison	34	Warren	50	50.8
	Johnson	155	Washington	34	54.6
	Jones	32	Woodbury	240	74.6
			<b>Total</b>	3,006	67.6
	<b>State Total</b>	5,013			

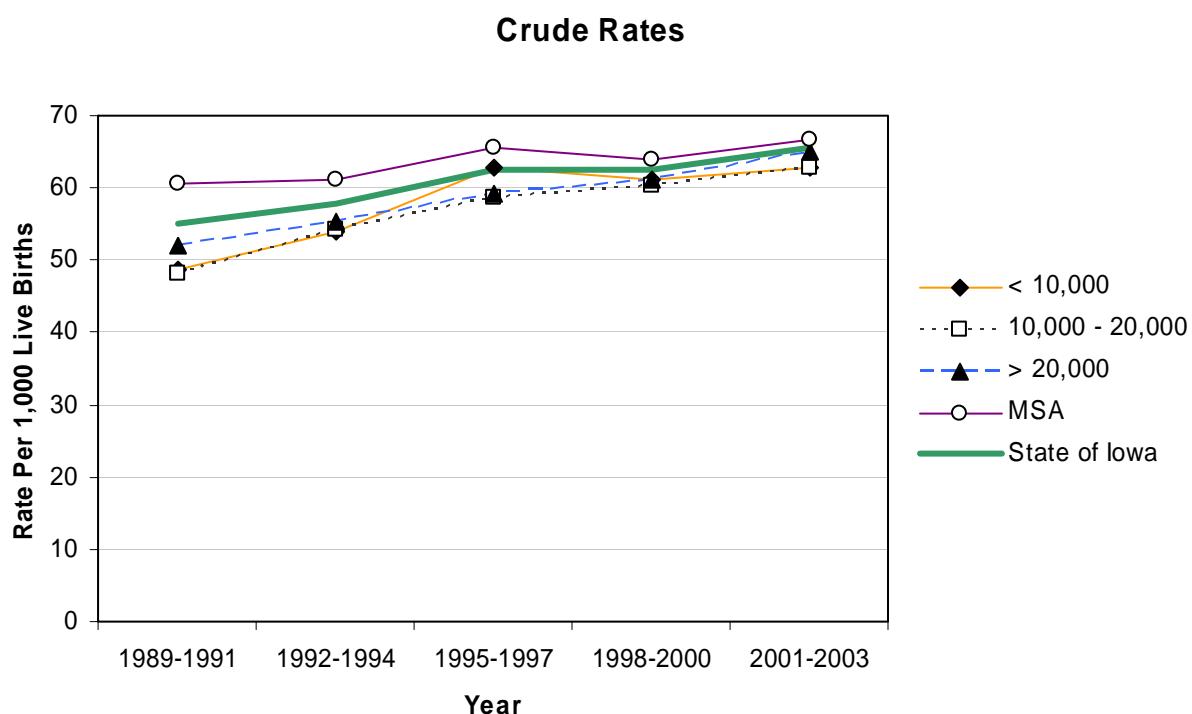
<sup>1</sup>Rates per 1,000 live births

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

## Mothers Under Age 20 by County Group 1989-2003



## Low Birth Weight (<2500 grams) by County Group 1989-2003



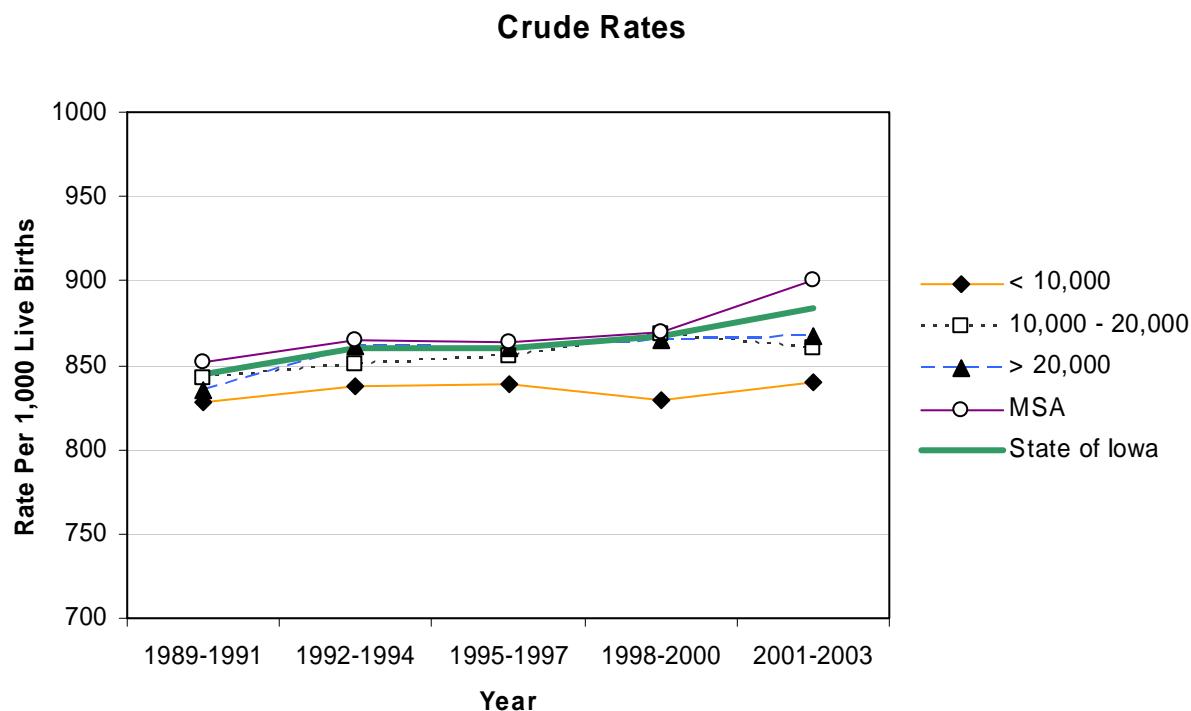
**Mothers Who Began Prenatal Care in the First Trimester 2002-2003**

	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with 2004 Population < 10,000	Adair	132	851.6 (65)	Monona	179	895.0 (40)
	Adams	83	932.6 (12)	Monroe	157	897.1 (37)
	Audubon	104	881.4 (47)	Osceola	133	863.6 (59)
	Clarke	203	828.6 (81)	Palo Alto	206	915.6 (21)
	Davis	157	643.4 (99)	Pocahontas	123	860.1 (60)
	Decatur	141	783.3 (90)	Ringgold	97	829.1 (80)
	Fremont	145	868.3 (57)	Taylor	111	822.2 (85)
	Howard	174	824.6 (82)	Van Buren	128	757.4 (96)
	Ida	157	934.5 (08)	Wayne	132	840.8 (76)
	Lucas	173	831.7 (79)	Worth	129	843.1 (74)
				<b>Total</b>	2,864	839.1
Counties with 2004 Population 10,000 - 20,000	Allamakee	298	837.1 (78)	Hardin	358	888.3 (45)
	Appanoose	300	892.9 (42)	Humboldt	183	851.2 (66)
	Butler	289	911.7 (25)	Iowa	352	936.2 (07)
	Calhoun	162	875.7 (54)	Jefferson	228	772.9 (92)
	Cass	262	879.2 (49)	Keokuk	245	904.1 (29)
	Cedar	358	922.7 (17)	Kossuth	295	896.7 (38)
	Cherokee	210	913.0 (24)	Louisa	300	882.4 (46)
	Chickasaw	242	852.1 (64)	Lyon	274	853.6 (62)
	Clay	357	866.5 (58)	Mitchell	175	711.4 (98)
	Clayton	333	853.8 (61)	Montgomery	223	878.0 (50)
	Crawford	358	783.4 (89)	O'Brien	287	877.7 (51)
	Delaware	386	901.9 (33)	Page	310	919.9 (19)
	Dickinson	304	910.2 (26)	Poweshiek	356	922.3 (18)
	Emmet	215	765.1 (93)	Sac	180	891.1 (44)
	Floyd	269	753.5 (97)	Shelby	252	900.0 (34)
	Franklin	183	759.3 (95)	Tama	376	819.2 (86)
	Greene	178	872.5 (55)	Union	239	847.5 (69)
	Hamilton	323	897.2 (36)	Winnebago	188	846.8 (72)
	Hancock	185	848.6 (68)	Wright	277	809.9 (88)
				<b>Total</b>	10,310	861.8
Counties with 2004 Population > 20,000	Boone	563	923.0 (16)	Lee	699	877.0 (52)
	Buchanan	496	823.9 (84)	Mahaska	475	894.5 (41)
	Buena Vista	394	778.7 (91)	Marion	745	914.1 (23)
	Carroll	472	932.8 (11)	Marshall	847	762.4 (94)
	Cerro Gordo	834	837.3 (77)	Muscatine	1,110	892.3 (43)
	Clinton	976	869.9 (56)	Plymouth	575	945.7 (04)
	Des Moines	836	841.9 (75)	Sioux	834	905.5 (28)
	Fayette	398	896.4 (39)	Wapello	766	818.4 (87)
	Henry	395	910.1 (27)	Webster	803	847.0 (71)
	Jackson	388	898.1 (35)	Winneshiek	310	824.5 (83)
	Jasper	809	901.9 (32)	<b>Total</b>	13,725	867.1
MSA Counties	Benton	598	940.3 (05)	Linn	5,122	930.4 (14)
	Black Hawk	2,917	926.3 (15)	Madison	387	962.7 (02)
	Bremer	479	963.8 (01)	Mills	291	876.5 (53)
	Dallas	1,095	914.8 (22)	Polk	11,293	902.6 (31)
	Dubuque	2,151	903.0 (30)	Pottawattamie	2,059	844.9 (73)
	Grundy	232	950.8 (03)	Scott	3,834	850.5 (67)
	Guthrie	275	919.7 (20)	Story	1,711	932.9 (10)
	Harrison	296	853.0 (63)	Warren	924	938.1 (06)
	Johnson	2,760	933.4 (09)	Washington	528	847.5 (70)
	Jones	399	932.2 (13)	Woodbury	2,832	880.6 (48)
				<b>Total</b>	40,183	903.2
	<b>State Total</b>	67,082	886.2			

<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 by County Group 1989-2003



## Mothers Who Smoked During Pregnancy 2002-2003

	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>2</sup> )
Counties with 2004 Population < 10,000	Adair	31	200.0 (26)	Monona	48	240.0 (14)
	Adams	23	258.4 (07)	Monroe	36	205.7 (25)
	Audubon	18	152.5 (65)	Osceola	21	136.4 (78)
	Clarke	68	277.6 (02)	Palo Alto	39	173.3 (47)
	Davis	13	53.3 (99)	Pocahontas	40	279.7 (01)
	Decatur	43	238.9 (16)	Ringgold	23	196.6 (29)
	Fremont	42	251.5 (09)	Taylor	25	185.2 (35)
	Howard	23	109.0 (87)	Van Buren	26	153.8 (63)
	Ida	43	256.0 (08)	Wayne	33	210.2 (24)
	Lucas	56	269.2 (03)	Worth	18	117.6 (83)
				<b>Total</b>	669	196
Counties with 2004 Population 10,000 - 20,000	Allamakee	54	151.7 (66)	Hardin	71	176.2 (44)
	Appanoose	81	241.1 (13)	Humboldt	32	148.8 (69)
	Butler	55	173.5 (46)	Iowa	44	117.0 (84)
	Calhoun	25	135.1 (79)	Jefferson	32	108.5 (88)
	Cass	72	241.6 (12)	Keokuk	51	188.2 (34)
	Cedar	57	146.9 (70)	Kossuth	45	136.8 (77)
	Cherokee	55	239.1 (15)	Louisa	51	150.0 (68)
	Chickasaw	52	183.1 (37)	Lyon	33	102.8 (91)
	Clay	80	194.2 (31)	Mitchell	25	101.6 (92)
	Clayton	59	151.3 (67)	Montgomery	47	185.0 (36)
	Crawford	82	179.4 (42)	O'Brien	54	165.1 (57)
	Delaware	77	179.9 (40)	Page	89	264.1 (06)
	Dickinson	51	152.7 (64)	Poweshiek	76	196.9 (28)
	Emmet	63	224.2 (20)	Sac	28	138.6 (75)
	Floyd	50	140.1 (72)	Shelby	46	164.3 (58)
	Franklin	32	132.8 (80)	Tama	78	169.9 (53)
	Greene	46	225.5 (19)	Union	61	216.3 (22)
	Hamilton	60	166.7 (55)	Winnebago	38	171.2 (50)
	Hancock	37	169.7 (54)	<b>Total</b>	2,056	171.9
Counties with 2004 Population > 20,000	Boone	111	182.0 (38)	Lee	190	238.4 (17)
	Buchanan	84	139.5 (73)	Mahaska	121	227.9 (18)
	Buena Vista	39	77.1 (95)	Marion	148	181.6 (39)
	Carroll	36	71.1 (96)	Marshall	179	161.1 (59)
	Cerro Gordo	178	178.7 (43)	Muscatine	215	172.8 (48)
	Clinton	272	242.4 (11)	Plymouth	80	131.6 (81)
	Des Moines	247	248.7 (10)	Sioux	60	65.1 (97)
	Fayette	85	191.4 (33)	Wapello	155	165.6 (56)
	Henry	74	170.5 (52)	Webster	253	266.9 (04)
	Jackson	76	175.9 (45)	Winneshiek	40	106.4 (90)
	Jasper	179	199.6 (27)	<b>Total</b>	2,822	178.3
MSA Counties	Benton	91	143.1 (71)	Linn	883	160.4 (60)
	Black Hawk	540	171.5 (49)	Madison	62	154.2 (62)
	Bremer	55	110.7 (86)	Mills	70	210.8 (23)
	Dallas	129	107.8 (89)	Polk	1,744	139.4 (74)
	Dubuque	302	126.8 (82)	Pottawattamie	649	266.3 (05)
	Grundy	28	114.8 (85)	Scott	872	193.4 (32)
	Guthrie	51	170.6 (51)	Story	142	77.4 (94)
	Harrison	76	219.0 (21)	Warren	136	138.1 (76)
	Johnson	169	57.2 (98)	Washington	61	97.9 (93)
	Jones	77	179.9 (40)	Woodbury	510	158.6 (61)
				<b>Total</b>	6,647	149.4
	<b>State Total</b>	12,194	161.1			

<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

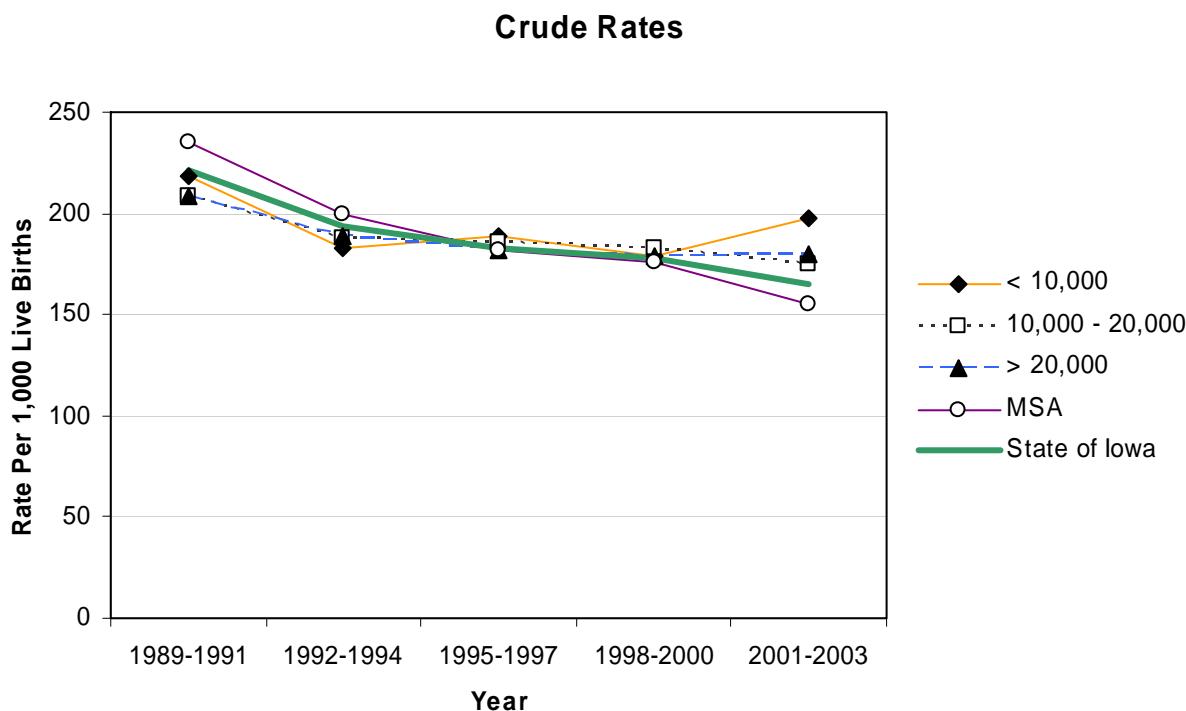
**Mothers Who Drank During Pregnancy 2002-2003**

County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Counties with 2004 Population < 10,000	Adair	*	Monona	*	*
	Adams	*	Monroe	*	*
	Audubon	*	Osceola	*	*
	Clarke	*	Palo Alto	*	*
	Davis	*	Pocahontas	*	*
	Decatur	*	Ringgold	*	*
	Fremont	*	Taylor	*	*
	Howard	*	Van Buren	*	*
	Ida	*	Wayne	*	*
	Lucas	*	Worth	*	*
			<b>Total</b>	26	7.6
Counties with 2004 Population 10,000 – 20,000	Allamakee	*	Hardin	*	*
	Appanoose	5	Humboldt	*	*
	Butler	*	Iowa	*	*
	Calhoun	*	Jefferson	*	*
	Cass	*	Keokuk	*	*
	Cedar	*	Kossuth	*	*
	Cherokee	*	Louisa	*	*
	Chickasaw	*	Lyon	*	*
	Clay	*	Mitchell	*	*
	Clayton	*	Montgomery	*	*
	Crawford	*	O'Brien	*	*
	Delaware	5	Page	6	17.8
	Dickinson	*	Poweshiek	5	13.0
	Emmet	*	Sac	*	*
	Floyd	*	Shelby	*	*
	Franklin	*	Tama	6	13.1
	Greene	*	Union	*	*
	Hamilton	*	Winnebago	*	*
	Hancock	*	<b>Total</b>	87	7.3
Counties with 2004 Population > 20,000	Boone	*	Lee	9	11.3
	Buchanan	7	Mahaska	*	*
	Buena Vista	*	Marion	5	6.1
	Carroll	*	Marshall	7	6.3
	Cerro Gordo	*	Muscatine	8	6.4
	Clinton	6	Plymouth	*	*
	Des Moines	9	Sioux	6	6.5
	Fayette	*	Wapello	5	5.3
	Henry	*	Webster	10	10.5
	Jackson	*	Winneshiek	6	16.0
	Jasper	*	<b>Total</b>	110	6.9
MSA Counties	Benton	12	Linn	79	14.4
	Black Hawk	20	Madison	*	*
	Bremer	*	Mills	*	*
	Dallas	10	Polk	111	8.9
	Dubuque	16	Pottawattamie	23	9.4
	Grundy	*	Scott	40	8.9
	Guthrie	*	Story	17	9.3
	Harrison	6	Warren	8	8.1
	Johnson	24	Washington	5	8.0
	Jones	*	Woodbury	13	4.0
			<b>Total</b>	391	8.8
<b>State Total</b>		614		8.1	

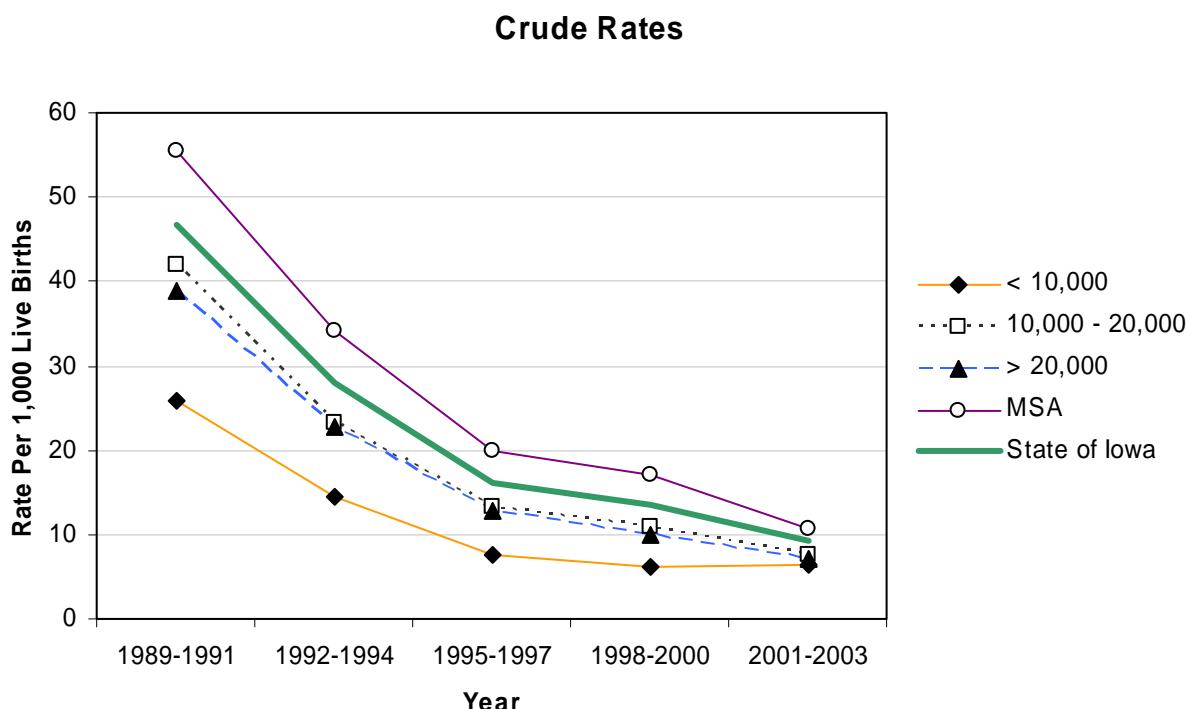
<sup>1</sup>Rates per 1,000 live births

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

## Mothers Who Smoked During Pregnancy by County Group 1989-2003



## Mothers Who Drank During Pregnancy by County Group 1989-2003



**Fetal Deaths 2002-2003**

County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Adair	*	*	Monona	*	*
Adams	*	*	Monroe	*	*
Audubon	*	*	Osceola	*	*
Clarke	*	*	Palo Alto	*	*
Davis	*	*	Pocahontas	*	*
Decatur	*	*	Ringgold	*	*
Fremont	*	*	Taylor	*	*
Howard	*	*	Van Buren	*	*
Ida	*	*	Wayne	*	*
Lucas	*	*	Worth	*	*
			<b>Total</b>	19	5.6
<b>Counties with 2004 Population &lt; 10,000</b>					
Allamakee	*	*	Hardin	*	*
Appanoose	*	*	Humboldt	*	*
Butler	*	*	Iowa	*	*
Calhoun	*	*	Jefferson	*	*
Cass	*	*	Keokuk	*	*
Cedar	*	*	Kossuth	*	*
Cherokee	*	*	Louisa	*	*
Chickasaw	*	*	Lyon	*	*
Clay	*	*	Mitchell	*	*
Clayton	7	17.9	Montgomery	*	*
Crawford	*	*	O'Brien	*	*
Delaware	*	*	Page	*	*
Dickinson	*	*	Poweshiek	*	*
Emmet	*	*	Sac	*	*
Floyd	*	*	Shelby	*	*
Franklin	*	*	Tama	*	*
Greene	*	*	Union	*	*
Hamilton	*	*	Winnebago	*	*
Hancock	*	*	<b>Total</b>	55	4.6
<b>Counties with 2004 Population 10,000 – 20,000</b>					
Boone	*	*	Lee	6	7.5
Buchanan	8	13.3	Mahaska	6	11.3
Buena Vista	*	*	Marion	*	*
Carroll	*	*	Marshall	5	4.5
Cerro Gordo	5	5.0	Muscatine	*	*
Clinton	5	4.5	Plymouth	5	8.2
Des Moines	5	5.0	Sioux	*	*
Fayette	*	*	Wapello	*	*
Henry	*	*	Webster	7	7.4
Jackson	*	*	Winneshiek	*	*
Jasper	*	*	<b>Total</b>	74	4.7
<b>Counties with 2004 Population &gt; 20,000</b>					
Benton	*	*	Linn	38	6.9
Black Hawk	20	6.4	Madison	*	*
Bremer	*	*	Mills	*	*
Dallas	8	6.7	Polk	59	4.7
Dubuque	12	5.0	Pottawattamie	19	7.8
Grundy	*	*	Scott	26	5.8
Guthrie	*	*	Story	9	4.9
Harrison	*	*	Warren	*	*
Johnson	19	6.4	Washington	*	*
Jones	*	*	Woodbury	21	6.5
			<b>Total</b>	253	5.7
<b>State Total</b>	401	5.3			

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

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

**Neonatal Deaths 2002-2003**

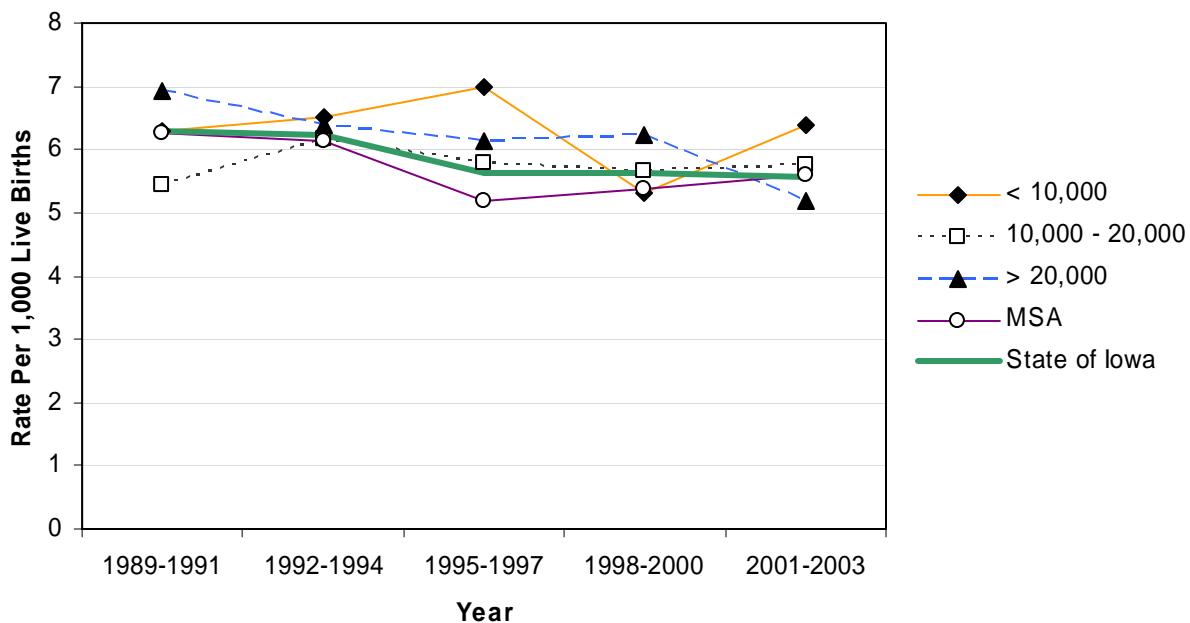
County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>	
Counties with 2004 Population < 10,000	Adair	*	*	Monona	*	*
	Adams	*	*	Monroe	*	*
	Audubon	*	*	Osceola	*	*
	Clarke	*	*	Palo Alto	*	*
	Davis	*	*	Pocahontas	*	*
	Decatur	*	*	Ringgold	*	*
	Fremont	*	*	Taylor	*	*
	Howard	*	*	Van Buren	*	*
	Ida	*	*	Wayne	*	*
	Lucas	*	*	Worth	*	*
			<b>Total</b>	12	3.5	
Counties with 2004 Population 10,000 - 20,000	Allamakee	*	*	Hardin	*	*
	Appanoose	*	*	Humboldt	*	*
	Butler	*	*	Iowa	*	*
	Calhoun	*	*	Jefferson	*	*
	Cass	*	*	Keokuk	*	*
	Cedar	*	*	Kossuth	*	*
	Cherokee	*	*	Louisa	*	*
	Chickasaw	*	*	Lyon	*	*
	Clay	*	*	Mitchell	*	*
	Clayton	*	*	Montgomery	*	*
	Crawford	*	*	O'Brien	*	*
	Delaware	5	11.7	Page	*	*
	Dickinson	*	*	Poweshiek	*	*
	Emmet	*	*	Sac	*	*
	Floyd	*	*	Shelby	*	*
	Franklin	*	*	Tama	*	*
	Greene	*	*	Union	*	*
	Hamilton	*	*	Winnebago	*	*
	Hancock	*	*	Wright	*	*
			<b>Total</b>	41	3.4	
Counties with 2004 Population > 20,000	Boone	*	*	Lee	*	*
	Buchanan	*	*	Mahaska	*	*
	Buena Vista	*	*	Marion	*	*
	Carroll	*	*	Marshall	*	*
	Cerro Gordo	5	5.0	Muscatine	*	*
	Clinton	7	6.2	Plymouth	*	*
	Des Moines	*	*	Sioux	*	*
	Fayette	*	*	Wapello	*	*
	Henry	*	*	Webster	*	*
	Jackson	*	*	Winneshiek	*	*
	Jasper	*	*	<b>Total</b>	58	3.7
MSA Counties	Benton	*	*	Linn	22	4.0
	Black Hawk	10	3.2	Madison	*	*
	Bremer	*	*	Mills	*	*
	Dallas	6	5.0	Polk	45	3.6
	Dubuque	7	2.9	Pottawattamie	12	4.9
	Grundy	*	*	Scott	12	2.7
	Guthrie	*	*	Story	5	2.7
	Harrison	*	*	Warren	5	5.1
	Johnson	8	2.7	Washington	5	8.0
	Jones	*	*	Woodbury	9	2.8
			<b>Total</b>	157	3.5	
<b>State Total</b>		268	3.5			

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

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

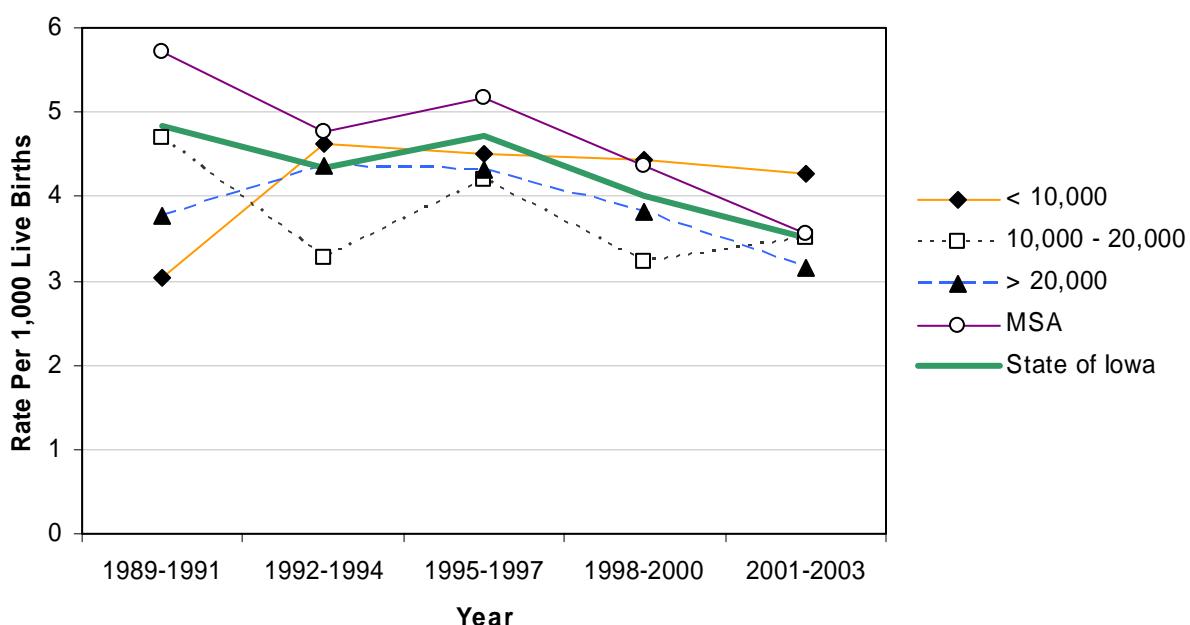
## Fetal Deaths by County Group 1989-2003

### Crude Rates



## Neonatal Deaths by County Group 1989-2003

### Crude Rates



**Perinatal Deaths 2002-2003**

County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>	
Counties with 2004 Population < 10,000	Adair	*	*	Monona	*	*
	Adams	*	*	Monroe	*	*
	Audubon	*	*	Osceola	*	*
	Clarke	*	*	Palo Alto	*	*
	Davis	*	*	Pocahontas	*	*
	Decatur	*	*	Ringgold	*	*
	Fremont	*	*	Taylor	*	*
	Howard	*	*	Van Buren	*	*
	Ida	*	*	Wayne	*	*
	Lucas	*	*	Worth	*	*
			<b>Total</b>	31	9.1	
Counties with 2004 Population 10,000 - 20,000	Allamakee	*	*	Hardin	*	*
	Appanoose	*	*	Humboldt	*	*
	Butler	*	*	Iowa	*	*
	Calhoun	*	*	Jefferson	*	*
	Cass	*	*	Keokuk	*	*
	Cedar	*	*	Kossuth	*	*
	Cherokee	*	*	Louisa	*	*
	Chickasaw	*	*	Lyon	*	*
	Clay	*	*	Mitchell	*	*
	Clayton	8	20.5	Montgomery	*	*
	Crawford	*	*	O'Brien	*	*
	Delaware	7	16.4	Page	*	*
	Dickinson	*	*	Poweshiek	*	*
	Emmet	*	*	Sac	*	*
	Floyd	*	*	Shelby	*	*
	Franklin	*	*	Tama	5	10.9
	Greene	*	*	Union	*	*
	Hamilton	*	*	Winnebago	*	*
	Hancock	*	*	Wright	*	*
			<b>Total</b>	96	8.0	
Counties with 2004 Population > 20,000	Boone	*	*	Lee	8	10.0
	Buchanan	12	19.9	Mahaska	7	13.2
	Buena Vista	6	11.9	Marion	8	9.8
	Carroll	5	9.9	Marshall	5	4.5
	Cerro Gordo	10	10.0	Muscatine	*	*
	Clinton	12	10.7	Plymouth	6	9.9
	Des Moines	8	8.1	Sioux	*	*
	Fayette	5	11.3	Wapello	6	6.4
	Henry	*	*	Webster	11	11.6
	Jackson	6	13.9	Winneshiek	*	*
	Jasper	*	*	<b>Total</b>	132	8.3
MSA Counties	Benton	*	*	Linn	60	10.9
	Black Hawk	30	9.5	Madison	5	12.4
	Bremer	*	*	Mills	*	*
	Dallas	14	11.7	Polk	104	8.3
	Dubuque	19	8.0	Pottawattamie	31	12.7
	Grundy	*	*	Scott	38	8.4
	Guthrie	*	*	Story	14	7.6
	Harrison	*	*	Warren	7	7.1
	Johnson	27	9.1	Washington	8	12.8
	Jones	7	16.4	Woodbury	30	9.3
			<b>Total</b>	410	9.2	
<b>State Total</b>		669	8.8			

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

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

**Infant Deaths 2002-2003**

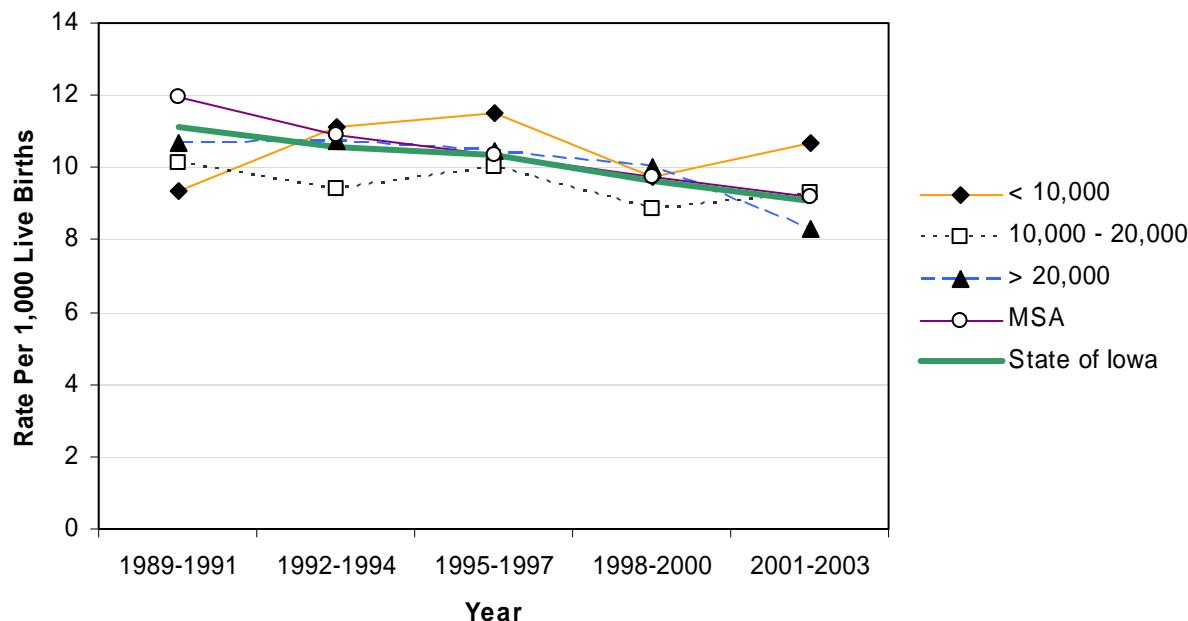
County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Adair	*	*	Monona	*	*
Adams	*	*	Monroe	*	*
Audubon	*	*	Osceola	*	*
Clarke	*	*	Palo Alto	*	*
Davis	*	*	Pocahontas	*	*
Decatur	*	*	Ringgold	*	*
Fremont	*	*	Taylor	*	*
Howard	*	*	Van Buren	*	*
Ida	*	*	Wayne	*	*
Lucas	*	*	Worth	*	*
			<b>Total</b>	16	4.7
Counties with 2004 Population 10,000 – 20,000	Allamakee	*	Hardin	*	*
	Appanoose	*	Humboldt	*	*
	Butler	*	Iowa	*	*
	Calhoun	*	Jefferson	*	*
	Cass	*	Keokuk	*	*
	Cedar	*	Kossuth	*	*
	Cherokee	*	Louisa	*	*
	Chickasaw	*	Lyon	*	*
	Clay	*	Mitchell	*	*
	Clayton	*	Montgomery	*	*
	Crawford	*	O'Brien	*	*
	Delaware	6	Page	*	*
	Dickinson	5	Poweshiek	*	*
	Emmet	*	Sac	*	*
	Floyd	*	Shelby	*	*
	Franklin	*	Tama	*	*
	Greene	*	Union	*	*
	Hamilton	*	Winnebago	*	*
	Hancock	*	Wright	*	*
			<b>Total</b>	56	4.7
Counties with 2004 Population > 20,000	Boone	*	Lee	6	7.5
	Buchanan	*	Mahaska	*	*
	Buena Vista	*	Marion	*	*
	Carroll	*	Marshall	5	4.5
	Cerro Gordo	6	Muscatine	*	*
	Clinton	8	Plymouth	*	*
	Des Moines	8	Sioux	*	*
	Fayette	*	Wapello	*	*
	Henry	*	Webster	9	9.5
	Jackson	*	Winneshiek	*	*
	Jasper	6	<b>Total</b>	93	5.9
	Benton	*	Linn	30	5.4
	Black Hawk	21	Madison	5	12.4
MSA Counties	Bremer	*	Mills	*	*
	Dallas	6	Polk	73	5.8
	Dubuque	11	Pottawattamie	19	7.8
	Grundy	*	Scott	25	5.5
	Guthrie	*	Story	6	3.3
	Harrison	*	Warren	5	5.1
	Johnson	8	Washington	8	12.8
	Jones	*	Woodbury	22	6.8
			<b>Total</b>	249	5.6
	<b>State Total</b>	414			

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

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

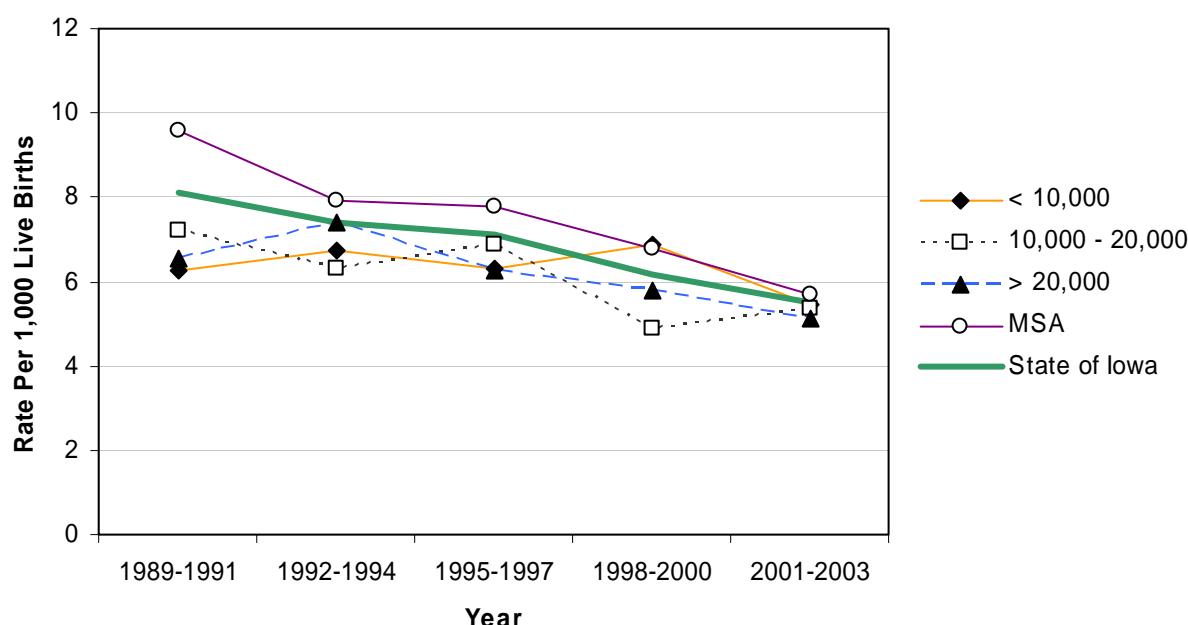
## Perinatal Deaths by County Group 1989-2003

**Crude Rates**



## Infant Deaths by County Group 1989-2003

**Crude Rates**



**Congenital Malformations 2002-2003**

County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>
Counties with 2004 Population < 10,000	Adair	*	Monona	*	*
	Adams	*	Monroe	*	*
	Audubon	*	Osceola	*	*
	Clarke	*	Palo Alto	8	35.6
	Davis	*	Pocahontas	*	*
	Decatur	*	Ringgold	*	*
	Fremont	*	Taylor	*	*
	Howard	5	Van Buren	*	*
	Ida	5	Wayne	*	*
	Lucas	*	Worth	*	*
			<b>Total</b>	53	15.5
Counties with 2004 Population 10,000 – 20,000	Allamakee	15	Hardin	9	22.3
	Appanoose	14	Humboldt	*	*
	Butler	*	Iowa	9	23.9
	Calhoun	*	Jefferson	7	23.7
	Cass	*	Keokuk	*	*
	Cedar	11	Kossuth	14	42.6
	Cherokee	*	Louisa	*	*
	Chickasaw	*	Lyon	7	21.8
	Clay	11	Mitchell	5	20.3
	Clayton	5	Montgomery	*	*
	Crawford	6	O'Brien	*	*
	Delaware	6	Page	10	29.7
	Dickinson	7	Poweshiek	6	15.5
	Emmet	*	Sac	*	*
	Floyd	*	Shelby	*	*
	Franklin	*	Tama	*	*
	Greene	6	Union	5	17.7
	Hamilton	*	Winnebago	*	*
	Hancock	7	Wright	*	*
			<b>Total</b>	204	17.1
Counties with 2004 Population > 20,000	Boone	15	Lee	15	18.8
	Buchanan	6	Mahaska	6	11.3
	Buena Vista	5	Marion	18	22.1
	Carroll	*	Marshall	14	12.6
	Cerro Gordo	6	Muscatine	13	10.5
	Clinton	16	Plymouth	5	8.2
	Des Moines	19	Sioux	14	15.2
	Fayette	*	Wapello	20	21.4
	Henry	8	Webster	13	13.7
	Jackson	*	Winneshiek	*	*
	Jasper	12	<b>Total</b>	220	13.9
MSA Counties	Benton	*	Linn	44	8.0
	Black Hawk	17	Madison	*	*
	Bremer	*	Mills	*	*
	Dallas	10	Polk	84	6.7
	Dubuque	19	Pottawattamie	36	14.8
	Grundy	*	Scott	51	11.3
	Guthrie	*	Story	21	11.5
	Harrison	7	Warren	11	11.2
	Johnson	22	Washington	13	20.9
	Jones	5	Woodbury	14	4.4
			<b>Total</b>	364	8.2
<b>State Total</b>		841		11.1	

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

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

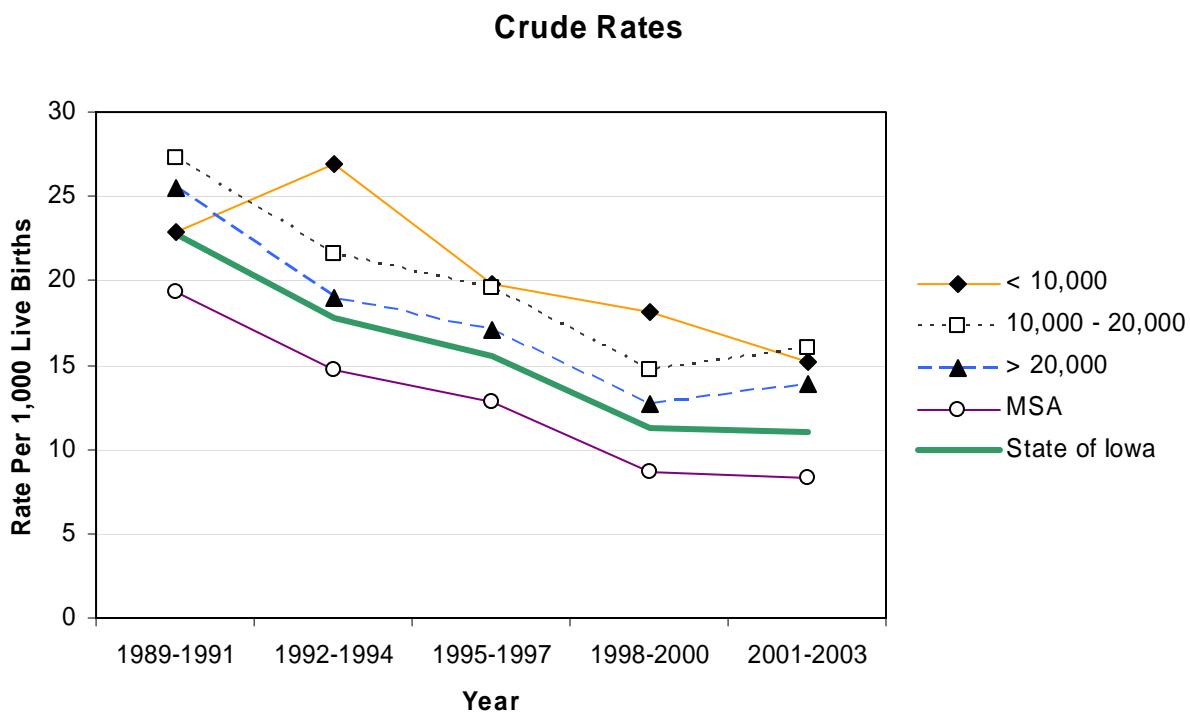
**Birth Defects 2000-2002**

County	#	Crude <sup>1</sup>	County	#	Crude <sup>1</sup>	
Counties with 2004 Population < 10,000	Adair	8	38.6	Monona	10	31.4
	Adams	11	90.2	Monroe	11	41.4
	Audubon	6	38.5	Osceola	8	36.4
	Clarke	15	43.9	Palo Alto	12	37.2
	Davis	19	51.6	Pocahontas	12	55.0
	Decatur	16	59.7	Ringgold	5	26.9
	Fremont	5	20.3	Taylor	9	37.2
	Howard	9	27.2	Van Buren	14	51.7
	Ida	11	44.9	Wayne	13	52.2
	Lucas	13	38.9	Worth	12	50.4
			<b>Total</b>	219	42.5	
Counties with 2004 Population 10,000 - 20,000	Allamakee	19	37.0	Hardin	27	42.9
	Appanoose	29	66.5	Humboldt	10	30.9
	Butler	24	51.6	Iowa	29	53.5
	Calhoun	16	53.2	Jefferson	25	56.1
	Cass	27	58.6	Keokuk	19	44.9
	Cedar	18	31.1	Kossuth	25	50.9
	Cherokee	20	52.9	Louisa	22	42.1
	Chickasaw	19	42.9	Lyon	*	*
	Clay	21	35.2	Mitchell	11	26.8
	Clayton	23	39.2	Montgomery	17	41.0
	Crawford	25	39.6	O'Brien	16	31.7
	Delaware	24	37.3	Page	23	46.1
	Dickinson	13	26.9	Poweshiek	27	44.6
	Emmet	7	18.4	Sac	13	40.0
	Floyd	20	35.5	Shelby	17	40.5
	Franklin	13	36.1	Tama	38	53.7
	Greene	19	63.8	Union	34	85.2
	Hamilton	22	40.0	Winnebago	14	36.9
	Hancock	23	61.3	Wright	17	35.0
			<b>Total</b>	766-770	42.6-42.7	
Counties with 2004 Population > 20,000	Boone	41	45.7	Lee	47	38.4
	Buchanan	38	41.9	Mahaska	34	41.0
	Buena Vista	31	42.6	Marion	83	69.9
	Carroll	22	30.2	Marshall	62	37.9
	Cerro Gordo	65	43.1	Muscatine	73	38.0
	Clinton	66	36.7	Plymouth	25	28.0
	Des Moines	63	40.5	Sioux	32	23.0
	Fayette	33	51.5	Wapello	84	64.2
	Henry	35	48.6	Webster	100	68.3
	Jackson	25	36.3	Winneshiek	12	20.3
	Jasper	73	53.1	<b>Total</b>	1,044	43.5
MSA Counties	Benton	34	36.4	Linn	369	44.4
	Black Hawk	255	53.7	Madison	24	41.7
	Bremer	27	36.3	Mills	15	30.1
	Dallas	79	46.6	Polk	840	45.5
	Dubuque	151	42.5	Pottawattamie	121	33.7
	Grundy	22	57.1	Scott	226	33.1
	Guthrie	15	36.0	Story	87	31.2
	Harrison	22	42.0	Warren	65	43.0
	Johnson	153	36.5	Washington	29	31.3
	Jones	21	33.2	Woodbury	166	33.8
			<b>Total</b>	2,721	41.1	
<b>State Total</b>		4,750-4	41.8-41.9			

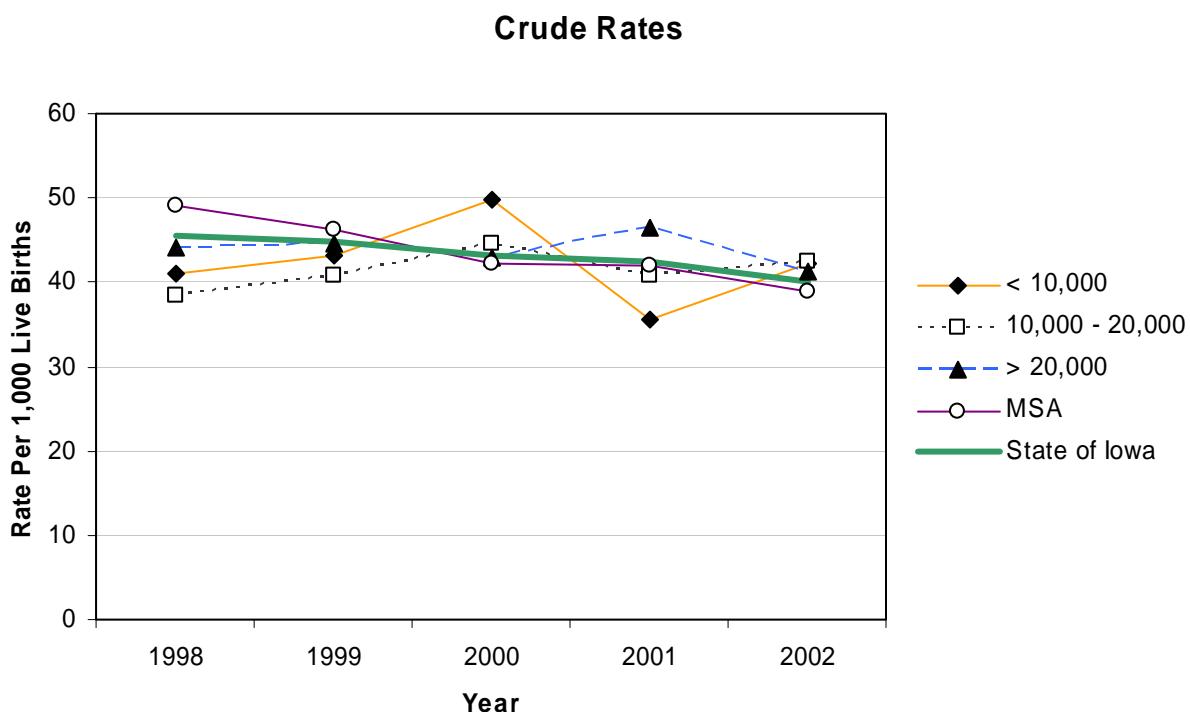
<sup>1</sup>Rates per 1,000 live births

Source: Iowa Birth Defects Registry, The University of Iowa

## Congenital Malformations by County Group 1989-2003



## Birth Defects by County Group 1998-2002



## Selected Birth Defects in Iowa 2000-2002

Defect Name	Defects	Crude <sup>1</sup>
Anencephalus	32	0.28
Aniridia	23	0.20
Anophthalmos Microphthalm	30	0.26
Aortic Valve Stenosis and Atresia	132	1.16
Atrial Septal Defect	786	6.93
Bladder Exstrophy	4	0.04
Cleft Lip	144	1.27
Cleft Palate without Cleft Lip	57	0.50
Club foot without CNS Defect	277	2.44
Coarctation of Aorta	60	0.53
Coloboma Of Eye	21	0.19
Common Truncus	17	0.15
Congenital Arthrogryposis	37	0.33
Congenital Cataract	18	0.16
Conus Arteriosus	114	1.01
Down Syndrome (Trisomy 21)	163	1.44
Encephalocele	10	0.09
Endocardial Cushion Defect	70	0.62
Gastroschisis	51	0.45
Hydrocephalus without Spina Bifida	123	1.08
Hypoplastic Left Heart Syndrome	45	0.40
Lung Agenesis and Hypoplasia	37	0.33
Microcephalus	92	0.81
Omphalocele	28	0.25
Patent Ductus Arteriosus	417	3.68
Pulmonary Artery Anomaly	150	1.32
Pulmonary Valve Stenosis and Atresia	187	1.65
Rectal and Intestinal Atresia and Stenosis	42	0.37
Reduction Deformity of Lower Limbs	34	0.30
Reduction Deformity of Upper Limbs	63	0.56
Renal Agenesis	79	0.70
Spina Bifida without Anencephalus	42	0.37
Tetralogy of Fallot	36	0.32
Tracheo-Esophageal Anomalies	32	0.28
Transposition of Great Arteries	64	0.56
Tricuspid Valve Stenosis and Atresia	261	2.30
Trisomy 13 (Patau's Syndrome)	16	0.14
Trisomy 18 (Edward's Syndrome)	29	0.26
Ventricular Septal Defect	499	4.40

<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. An import case of measles occurred in 2004 in an Iowa resident returning from India. Two additional cases of measles occurred that were traceable to the import case. In 2004-2005, an increase in pertussis cases occurred statewide. Pertussis continues to be a concern with the occurrence of localized outbreaks. 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>1</sup> 2003-2004

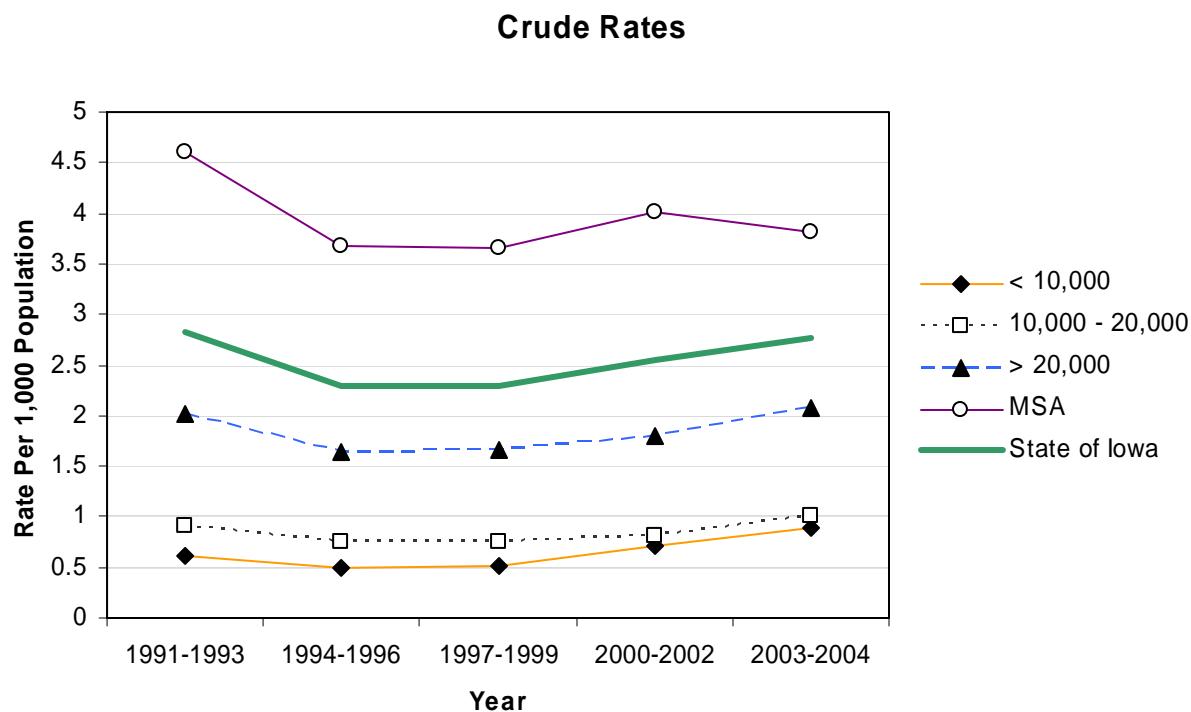
	County	#	Crude <sup>2</sup>		County	#	Crude <sup>2</sup>
<b>Counties with 2004 Population &lt; 10,000</b>	Adair	27	1.7	<b>Counties with 2004 Population 10,000 - 20,000</b>	Monona	17	0.9
	Adams	*	*		Monroe	15	1.0
	Audubon	8	0.6		Osceola	5	0.4
	Clarke	38	2.1		Palo Alto	5	0.3
	Davis	11	0.6		Pocahontas	*	*
	Decatur	22	1.3		Ringgold	18	1.7
	Fremont	12	0.8		Taylor	7	0.5
	Howard	7	0.4		Van Buren	13	0.8
	Ida	8	0.5		Wayne	12	0.9
	Lucas	33	1.7		Worth	14	0.9
					<b>Total</b>	278	0.9
<b>Counties with 2004 Population 10,000 - 20,000</b>	Allamakee	28	1.0	<b>Counties with 2004 Population &gt; 20,000</b>	Hardin	51	1.4
	Appanoose	33	1.2		Humboldt	35	1.7
	Butler	26	0.9		Iowa	48	1.5
	Calhoun	6	0.3		Jefferson	25	0.8
	Cass	16	0.6		Keokuk	24	1.1
	Cedar	33	0.9		Kossuth	18	0.5
	Cherokee	14	0.6		Louisa	62	2.5
	Chickasaw	18	0.7		Lyon	8	0.3
	Clay	44	1.3		Mitchell	6	0.3
	Clayton	25	0.7		Montgomery	36	1.6
	Crawford	40	1.2		O'Brien	25	0.9
	Delaware	29	0.8		Page	21	0.6
	Dickinson	38	1.1		Poweshiek	61	1.6
	Emmet	43	2.0		Sac	11	0.5
	Floyd	22	0.7		Shelby	13	0.5
	Franklin	20	0.9		Tama	62	1.7
	Greene	16	0.8		Union	37	1.5
	Hamilton	17	0.5		Winnebago	17	0.7
	Hancock	19	0.8		Wright	26	0.9
					<b>Total</b>	1,073	1.0
<b>Counties with 2004 Population &gt; 20,000</b>	Boone	93	1.8	<b>MSA Counties</b>	Lee	149	2.0
	Buchanan	61	1.5		Mahaska	93	2.1
	Buena Vista	68	1.7		Marion	66	1.0
	Carroll	25	0.6		Marshall	212	2.7
	Cerro Gordo	165	1.8		Muscatine	254	3.0
	Clinton	219	2.2		Plymouth	41	0.8
	Des Moines	440	5.4		Sioux	44	0.7
	Fayette	47	1.1		Wapello	189	2.6
	Henry	93	2.3		Webster	256	3.2
	Jackson	61	1.5		Winneshiek	29	0.7
	Jasper	84	1.1		<b>Total</b>	2,689	2.1
	Benton	57	1.1		Linn	1,524	3.9
	Black Hawk	1,483	5.9		Madison	18	0.6
	Bremer	62	1.3		Mills	37	1.2
	Dallas	83	0.9		Polk	3,452	4.4
	Dubuque	374	2.1		Pottawattamie	444	2.5
	Grundy	22	0.9		Scott	2,169	6.8
	Guthrie	11	0.5		Story	450	2.8
	Harrison	18	0.6		Warren	95	1.1
	Johnson	909	3.9		Washington	59	1.4
	Jones	34	0.8		Woodbury	945	4.6
					<b>Total</b>	12,246	3.8
<b>State Total</b>		16,286	2.8				

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

<sup>2</sup>Rates per 1,000 population

Source: Disease Prevention Program, Iowa Department of Public Health

## Sexually Transmitted Diseases by County Group 1991-2004



**Selected Infectious Diseases  
State of Iowa  
1996-2004**

	Number of Cases Reported									
	1996	1997	1998	1999	2000	2001	2002	2003	2004	
AIDS	106	109	68	86	92	89	91	76	68	
Campylobacter	339	425	455	467	499	466	425	458	559	
Chlamydia	4,165	4,906	5,173	5,511	5,989	5,716	6,241	6,462	6,956	
Cryptosporidium	75	71	66	56	77	82	48	122	90	
E. coli	123	114	93	114	180	79	121	103	119	
Giardia	410	358	429	377	420	345	313	277	301	
Gonorrhea	1,144	1,309	1,615	1,365	1,394	1,424	1,496	1,544	1,249	
Hepatitis A	346	490	400	161	67	36	66	40	50	
Measles	1	0	0	0	0	0	0	0	3	
Mumps	3	10	11	8	8	1	1	2	2	
Pertussis	32	207	78	111	67	144	157	166	1,066	
Rubella	0	0	0	30	0	1	0	0	0	
Salmonella	335	296	375	260	373	336	507	413	435	
Shigella	151	90	69	74	569	365	122	93	64	
Syphilis (primary or secondary)	22	8	5	9	11	5	10	12	5	
Tuberculosis	70	74	55	58	40	43	34	40	47	

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 1993 through 2002, 64,242 Iowans died from cancer and 152,554 invasive 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 are diagnosed in those 55 years of age and older.

For all sites of cancer incidence during the later 1970s and throughout the 1980s, the age-adjusted rates increased slightly across the county groupings and were highest in MSA counties. The 1996-2002 data show a leveling off of the rates and less of a difference between county groupings. The crude rates show an opposite trend as they are 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). All cancer mortality data show trends similar to all sites incidence; however,

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

- Prostate
- Female Breast
- Lung
- Colorectum

#### MOST COMMON CANCERS IN IOWA

<b>Females</b>	<b>Males</b>
Breast	Prostate
Colorectum	Lung
Lung	Colorectum

#### **Children (0-19)**

Leukemia  
Brain and other central nervous system  
Lymphomas

since the 1990s Iowa has experienced a slight decline in all cancer mortality. Today, less than half of Iowans newly diagnosed with a cancer will die from it. Survival rates, however, vary considerably by cancer site. As the survival rate decreases, the number of cancer deaths gets closer to the number of newly diagnosed cancers. Prostate cancer, the most common cancer in males, had age-adjusted incidence

rates peak in the early 1990s. Prostate cancer mortality has declined in the 1996-2002 period compared with the 1990-1995 period across all county groupings. Breast cancer is the most common cancer in females. Female breast cancer mortality has been declining during the 1990s.

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 2005 Iowa Health Fact Book via a software program called SEER\*Stat, which is provided by the National Cancer Institute.

CANCER INCIDENCE AND MORTALITY

All Cancer Incidence 1993-2002

	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 2004 Population < 10,000	Adair	494	596.5 (49)	403.5 (98)	Monona	770	768.9 (02)	482.4 (29)
	Adams	281	622.6 (38)	413.1 (97)	Monroe	524	649.5 (23)	481.1 (31)
	Audubon	518	754.4 (04)	485.1 (23)	Osceola	422	595.8 (50)	446.1 (79)
	Clarke	492	558.4 (68)	446.5 (78)	Palo Alto	766	749.2 (05)	524.0 (01)
	Davis	495	581.8 (57)	459.0 (63)	Pocahontas	617	697.6 (08)	462.9 (56)
	Decatur	490	576.2 (59)	459.0 (63)	Ringgold	409	755.5 (03)	457.2 (69)
	Fremont	549	682.3 (10)	495.6 (10)	Taylor	443	634.0 (29)	425.3 (93)
	Howard	628	631.6 (33)	459.0 (63)	Van Buren	504	651.1 (20)	479.1 (34)
	Ida	506	633.1 (31)	443.8 (80)	Wayne	547	799.9 (01)	509.1 (02)
	Lucas	608	650.7 (21)	477.9 (36)	Worth	489	617.5 (39)	456.5 (71)
					<b>Total</b>	10,552	659.7	465.0
Counties with 2004 Population 10,000 - 20,000	Allamakee	831	574.2 (62)	429.9 (92)	Hardin	1,281	679.6 (11)	482.8 (27)
	Appanoose	913	666.4 (15)	474.0 (45)	Humboldt	689	661.9 (17)	462.8 (57)
	Butler	1,000	649.7 (22)	465.3 (53)	Iowa	866	562.2 (67)	462.3 (60)
	Calhoun	774	686.3 (09)	458.6 (67)	Jefferson	767	468.3 (94)	421.4 (95)
	Cass	976	658.5 (18)	452.2 (76)	Keokuk	744	649.5 (23)	476.9 (37)
	Cedar	1,032	574.7 (60)	476.5 (38)	Kossuth	1,084	622.7 (37)	459.2 (62)
	Cherokee	883	663.0 (16)	480.5 (33)	Louisa	550	455.9 (95)	422.2 (94)
	Chickasaw	720	546.1 (72)	437.4 (87)	Lyon	700	594.3 (51)	466.7 (51)
	Clay	1,054	602.7 (47)	486.1 (21)	Mitchell	695	636.8 (28)	439.9 (84)
	Clayton	1,148	611.2 (43)	474.7 (43)	Montgomery	767	649.2 (25)	461.9 (61)
	Crawford	932	553.2 (69)	442.4 (81)	O'Brien	1,029	671.4 (14)	475.0 (42)
	Delaware	874	476.1 (90)	433.3 (90)	Page	1,073	632.6 (32)	456.7 (70)
	Dickinson	1,165	727.2 (06)	508.9 (03)	Poweshiek	1,012	534.9 (78)	435.5 (89)
	Emmet	699	623.2 (36)	468.3 (49)	Sac	828	705.1 (07)	474.1 (44)
	Floyd	1,072	633.3 (30)	464.9 (54)	Shelby	766	581.1 (58)	417.8 (96)
	Franklin	644	591.1 (52)	432.6 (91)	Tama	1,145	637.5 (27)	486.3 (20)
	Greene	667	647.3 (26)	442.1 (82)	Union	746	604.6 (45)	455.7 (72)
	Hamilton	960	587.6 (53)	462.4 (59)	Winnebago	599	510.9 (83)	388.1 (99)
	Hancock	704	583.4 (56)	452.0 (77)	Wright	970	673.6 (13)	464.8 (55)
					<b>Total</b>	33,359	608.3	458.2
Counties with 2004 Population > 20,000	Boone	1,483	574.3 (61)	476.2 (39)	Lee	2,196	572.3 (63)	473.8 (46)
	Buchanan	1,138	539.9 (75)	494.0 (11)	Mahaska	1,196	539.6 (76)	452.5 (75)
	Buena Vista	1,242	608.3 (44)	501.1 (07)	Marion	1,601	507.0 (84)	438.2 (86)
	Carroll	1,317	612.0 (42)	482.5 (28)	Marshall	2,405	615.9 (40)	501.5 (06)
	Cerro Gordo	2,723	584.1 (54)	471.7 (48)	Muscatine	2,037	490.6 (89)	484.2 (25)
	Clinton	2,883	569.5 (64)	485.8 (22)	Plymouth	1,399	569.5 (64)	493.0 (14)
	Des Moines	2,483	583.7 (55)	484.7 (24)	Sioux	1,581	501.6 (87)	467.7 (50)
	Fayette	1,329	602.9 (46)	457.5 (68)	Wapello	2,274	630.8 (34)	502.7 (05)
	Henry	1,038	516.7 (81)	462.7 (58)	Webster	2,439	612.2 (41)	495.8 (09)
	Jackson	1,210	598.1 (48)	491.1 (16)	Winneshiek	1,045	492.5 (88)	441.0 (83)
	Jasper	1,990	546.8 (71)	458.7 (66)	<b>Total</b>	37,009	566.5	478.3
MSA Counties	Benton	1,329	538.9 (77)	476.2 (39)	Linn	8,751	469.3 (93)	482.3 (30)
	Black Hawk	6,534	513.2 (82)	490.0 (17)	Madison	738	541.1 (74)	465.8 (52)
	Bremer	1,245	534.8 (79)	455.4 (73)	Mills	712	505.0 (85)	483.8 (26)
	Dallas	1,781	471.9 (92)	491.8 (15)	Polk	15,892	436.1 (96)	476.1 (41)
	Dubuque	4,852	545.5 (73)	504.4 (04)	Pottawattamie	4,455	518.3 (80)	493.8 (12)
	Grundy	801	652.5 (19)	480.7 (32)	Scott	7,461	473.9 (91)	499.4 (08)
	Guthrie	766	679.3 (12)	478.2 (35)	Story	2,771	353.8 (98)	452.8 (74)
	Harrison	970	629.6 (35)	493.8 (12)	Warren	1,654	416.8 (97)	439.3 (85)
	Johnson	3,452	320.6 (99)	473.4 (47)	Washington	1,129	550.1 (70)	435.7 (88)
	Jones	1,141	562.3 (66)	489.5 (19)	Woodbury	5,200	503.3 (86)	490.0 (17)
					<b>Total</b>	71,634	467.4	482.3
	<b>State Total</b>	152,554	527.1	475				

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

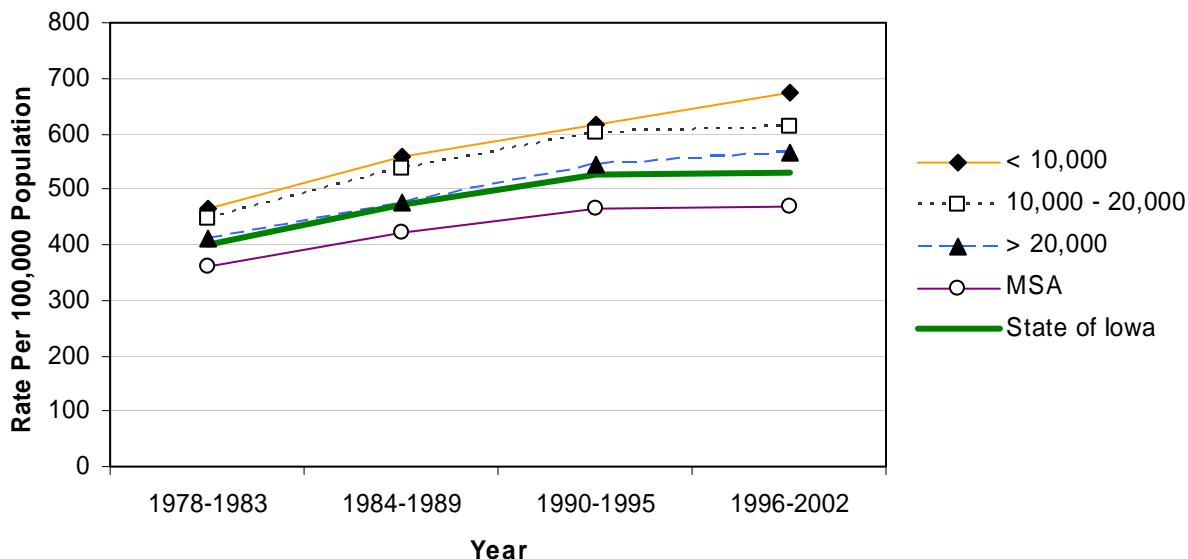
<sup>2</sup>Adjusted to year 2000 population

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

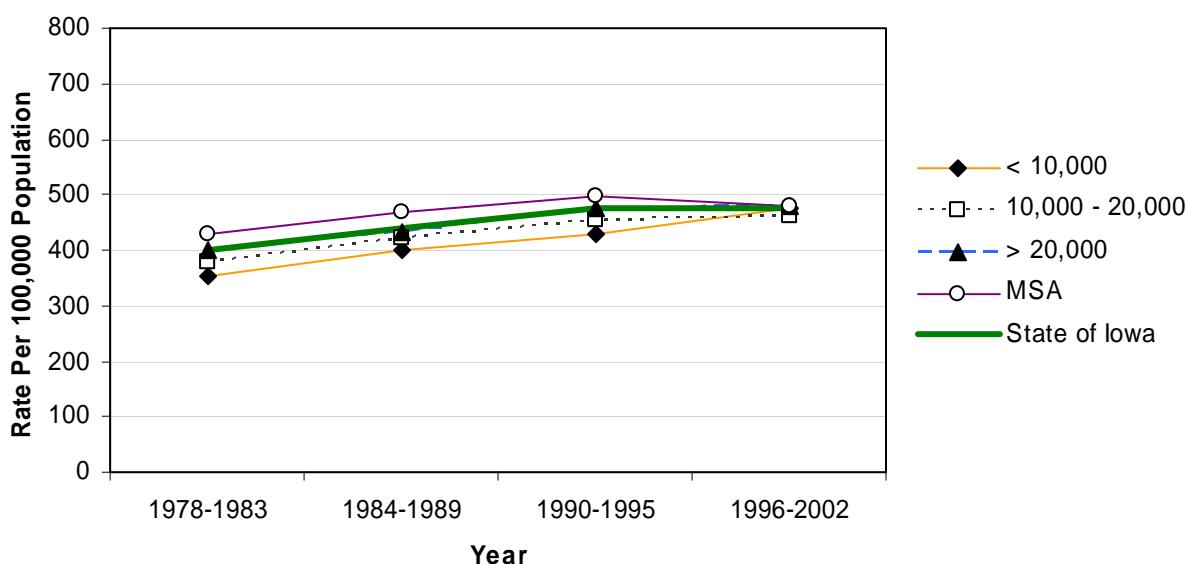
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## All Cancer Incidence by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



## CANCER INCIDENCE AND MORTALITY

## All Cancer Mortality 1993-2002

	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 2004 Population < 10,000	Adair	241	291.0 (16)	171.4 (84)	Monona	375	374.5 (01)	210.1 (08)
	Adams	125	277.0 (24)	175.5 (79)	Monroe	237	293.7 (14)	204.8 (10)
	Audubon	205	298.5 (10)	180.0 (67)	Osceola	167	235.8 (67)	168.5 (91)
	Clarke	215	244.0 (56)	181.8 (61)	Palo Alto	345	337.4 (04)	219.1 (04)
	Davis	200	235.1 (68)	175.8 (78)	Pocahontas	260	294.0 (12)	181.1 (63)
	Decatur	220	258.7 (45)	195.3 (31)	Ringgold	177	326.9 (05)	179.9 (68)
	Fremont	278	345.5 (02)	238.8 (01)	Taylor	188	269.1 (33)	157.7 (98)
	Howard	283	284.6 (20)	184.7 (55)	Van Buren	212	273.9 (28)	193.9 (35)
	Ida	207	259.0 (44)	169.2 (89)	Wayne	234	342.2 (03)	199.7 (17)
	Lucas	243	260.0 (42)	181.5 (62)	Worth	207	261.4 (38)	175.9 (77)
					<b>Total</b>	4,619	288.8	188.4
	Allamakee	344	237.7 (65)	167.0 (94)	Hardin	585	310.3 (07)	201.7 (14)
	Appanoose	337	246.0 (53)	167.4 (92)	Humboldt	285	273.8 (29)	173.9 (80)
	Butler	458	297.6 (11)	198.8 (19)	Iowa	372	241.5 (58)	184.1 (56)
	Calhoun	346	306.8 (08)	184.8 (54)	Jefferson	315	192.3 (91)	170.2 (85)
	Cass	415	280.0 (22)	177.9 (74)	Keokuk	301	262.8 (36)	179.9 (68)
	Cedar	442	246.2 (52)	189.4 (42)	Kossuth	448	257.4 (46)	177.0 (75)
	Cherokee	349	262.0 (37)	180.3 (66)	Louisa	250	207.2 (87)	185.5 (52)
	Chickasaw	306	232.1 (72)	173.9 (80)	Lyon	283	240.3 (60)	176.5 (76)
	Clay	395	225.9 (78)	172.9 (82)	Mitchell	308	282.2 (21)	178.9 (70)
	Clayton	481	256.1 (47)	185.4 (53)	Montgomery	327	276.8 (25)	187.6 (46)
	Crawford	375	222.6 (83)	166.4 (95)	O'Brien	413	269.5 (32)	178.5 (71)
	Delaware	380	207.0 (88)	182.5 (59)	Page	466	274.7 (27)	182.2 (60)
	Dickinson	467	291.5 (15)	193.5 (36)	Poweshiek	454	240.0 (62)	178.0 (73)
	Emmet	301	268.4 (34)	186.1 (51)	Sac	345	293.8 (13)	180.6 (64)
	Floyd	468	276.5 (26)	191.6 (37)	Shelby	324	245.8 (54)	167.1 (93)
	Franklin	260	238.7 (63)	158.8 (97)	Tama	455	253.3 (50)	183.1 (58)
	Greene	278	269.8 (31)	170.1 (86)	Union	345	279.6 (23)	196.9 (24)
	Hamilton	425	260.1 (41)	194.3 (34)	Winnebago	285	243.1 (57)	168.8 (90)
	Hancock	281	232.9 (70)	169.9 (87)	Wright	451	313.2 (06)	196.3 (27)
					<b>Total</b>	14,120	257.5	180.9
Counties with 2004 Population 10,000 - 20,000	Boone	616	238.6 (64)	186.6 (49)	Lee	1,050	273.6 (30)	218.6 (05)
	Buchanan	499	236.7 (66)	208.1 (09)	Mahaska	512	231.0 (73)	187.4 (47)
	Buena Vista	521	255.2 (48)	197.5 (21)	Marion	712	225.5 (79)	187.0 (48)
	Carroll	572	265.8 (35)	194.9 (32)	Marshall	1,136	290.9 (17)	226.1 (02)
	Cerro Gordo	1,189	255.1 (49)	194.7 (33)	Muscatine	836	201.3 (89)	196.4 (25)
	Clinton	1,216	240.2 (61)	199.1 (18)	Plymouth	564	229.6 (74)	189.2 (43)
	Des Moines	1,040	244.5 (55)	195.6 (30)	Sioux	556	176.4 (96)	154.1 (99)
	Fayette	576	261.3 (39)	188.7 (45)	Wapello	1,034	286.8 (18)	218.3 (06)
	Henry	450	224.0 (82)	191.4 (38)	Webster	1,033	259.3 (43)	199.9 (16)
	Jackson	528	261.0 (40)	204.1 (11)	Winneshiek	448	211.1 (85)	178.1 (72)
	Jasper	854	234.7 (69)	191.1 (40)	<b>Total</b>	15,942	244.0	197.1
Counties with 2004 Population > 20,000	Benton	574	232.8 (71)	197.2 (22)	Linn	3,568	191.3 (92)	196.2 (28)
	Black Hawk	2,709	212.8 (84)	198.6 (20)	Madison	329	241.2 (59)	196.1 (29)
	Bremer	525	225.5 (79)	180.5 (65)	Mills	281	199.3 (90)	190.8 (41)
	Dallas	718	190.2 (94)	196.4 (25)	Polk	6,682	183.4 (95)	202.5 (13)
	Dubuque	1,999	224.7 (81)	200.8 (15)	Pottawattamie	1,951	227.0 (77)	215.4 (07)
	Grundy	310	252.5 (51)	172.8 (83)	Scott	3,001	190.6 (93)	202.9 (12)
	Guthrie	322	285.6 (19)	186.3 (50)	Story	1,062	135.6 (98)	169.7 (88)
	Harrison	461	299.2 (09)	221.3 (03)	Warren	691	174.1 (97)	183.4 (57)
	Johnson	1,289	119.7 (99)	189.0 (44)	Washington	471	229.5 (76)	165.7 (96)
	Jones	466	229.6 (74)	191.3 (39)	Woodbury	2,152	208.3 (86)	197.2 (22)
					<b>Total</b>	29,561	192.9	197.4
	<b>State Total</b>	64,242	222.0	192.6				

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

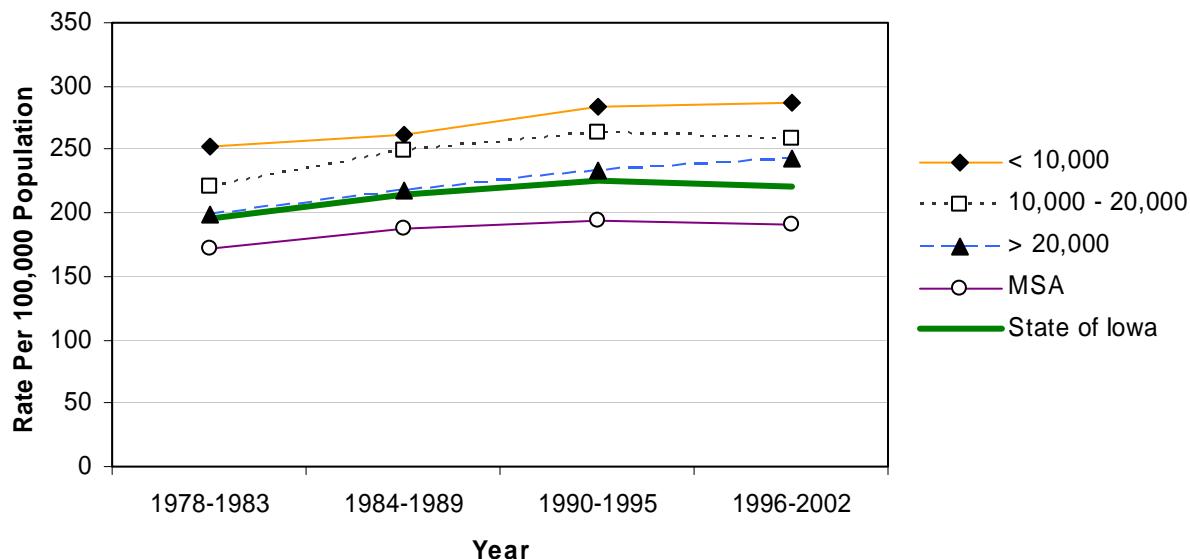
<sup>2</sup>Adjusted to year 2000 population

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

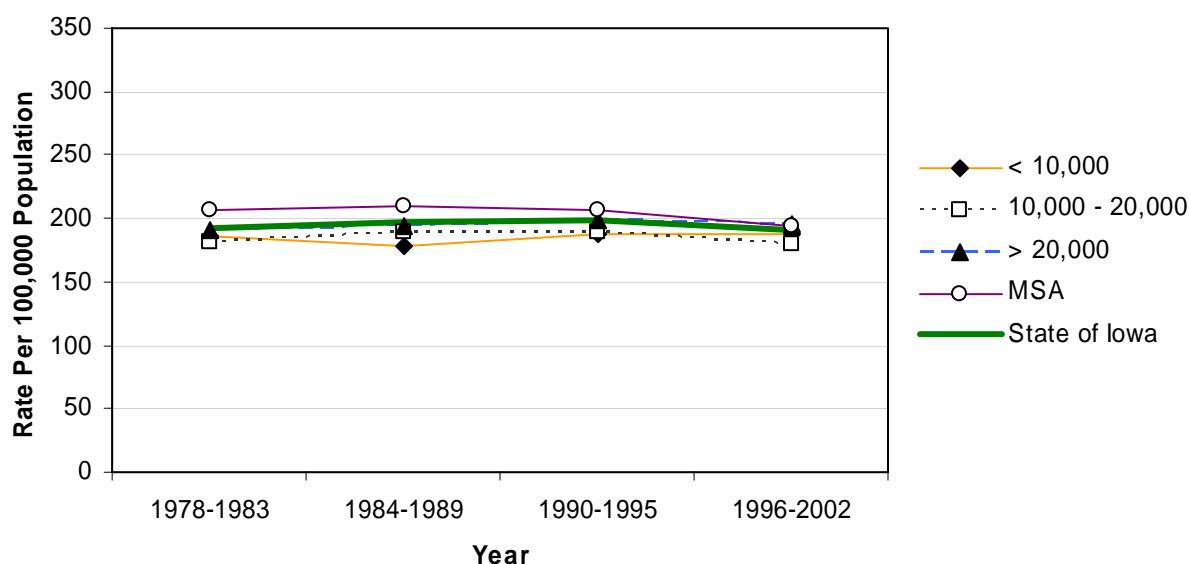
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## All Cancer Mortality by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



## CANCER INCIDENCE AND MORTALITY

## Prostate Cancer Incidence 1993-2002

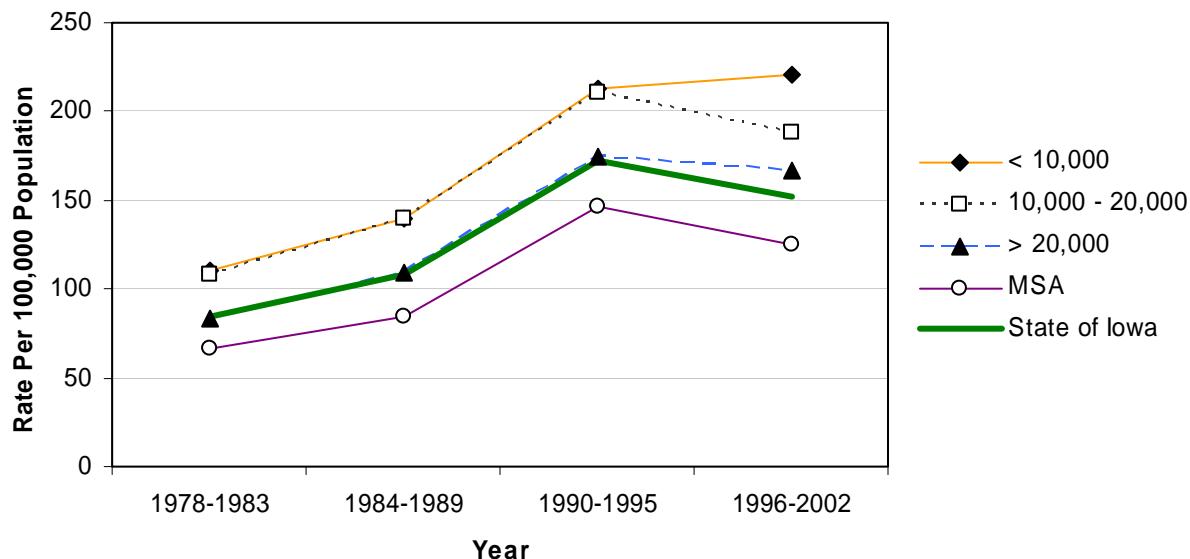
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with 2004 Population  < 10,000	Adair	95	235.2 (13)	167.5 (36)	Monona	113	233.9 (14)	156.7 (53)
	Adams	39	175.5 (58)	124.0 (94)	Monroe	79	201.5 (30)	162.9 (41)
	Audubon	91	276.6 (05)	182.8 (12)	Osceola	61	177.0 (55)	147.5 (70)
	Clarke	85	198.5 (35)	169.8 (30)	Palo Alto	142	285.6 (02)	218.9 (02)
	Davis	88	209.8 (24)	182.2 (13)	Pocahontas	116	268.5 (06)	191.6 (08)
	Decatur	69	166.6 (65)	137.2 (84)	Ringgold	73	279.6 (04)	175.4 (24)
	Fremont	57	146.3 (82)	116.1 (97)	Taylor	48	142.7 (83)	98.4 (99)
	Howard	90	184.4 (47)	139.0 (80)	Van Buren	92	239.2 (11)	181.1 (17)
	Ida	76	196.4 (37)	146.3 (73)	Wayne	98	300.3 (01)	187.3 (10)
	Lucas	102	225.7 (17)	176.9 (22)	Worth	73	187.1 (42)	150.4 (63)
					<b>Total</b>	1,687	216.8	162.1
Counties with 2004 Population  10,000 - 20,000	Allamakee	145	201.6 (29)	163.6 (40)	Hardin	197	214.5 (23)	167.2 (37)
	Appanoose	148	226.4 (16)	169.6 (31)	Humboldt	111	218.7 (21)	167.7 (34)
	Butler	176	233.0 (15)	181.5 (16)	Iowa	123	164.0 (70)	144.1 (75)
	Calhoun	116	208.3 (27)	152.5 (60)	Jefferson	103	128.7 (91)	138.5 (81)
	Cass	130	181.6 (51)	138.4 (83)	Keokuk	102	183.4 (50)	146.8 (72)
	Cedar	147	166.4 (66)	148.6 (67)	Kossuth	178	209.5 (25)	161.2 (44)
	Cherokee	156	239.2 (11)	186.7 (11)	Louisa	60	99.9 (98)	102.8 (98)
	Chickasaw	101	153.4 (78)	131.4 (90)	Lyon	121	207.8 (28)	178.7 (19)
	Clay	186	220.9 (19)	196.1 (06)	Mitchell	102	191.4 (41)	137.2 (84)
	Clayton	161	173.7 (59)	142.0 (78)	Montgomery	90	161.0 (73)	125.7 (93)
	Crawford	154	184.4 (47)	160.4 (47)	O'Brien	168	225.2 (18)	177.7 (21)
	Delaware	126	138.7 (87)	133.4 (88)	Page	141	166.0 (68)	136.5 (86)
	Dickinson	220	282.8 (03)	206.0 (04)	Poweshiek	126	138.6 (88)	122.6 (96)
	Emmet	140	257.5 (07)	217.9 (03)	Sac	139	242.2 (09)	171.6 (29)
	Floyd	159	195.3 (38)	152.5 (60)	Shelby	128	198.6 (34)	146.9 (71)
	Franklin	96	180.4 (53)	140.1 (79)	Tama	215	244.6 (08)	199.2 (05)
	Greene	100	200.2 (32)	148.9 (66)	Union	87	147.8 (81)	123.4 (95)
	Hamilton	148	184.0 (49)	156.2 (55)	Winnebago	92	161.1 (72)	135.2 (87)
	Hancock	115	194.3 (39)	161.9 (43)	Wright	130	185.9 (46)	138.5 (81)
					<b>Total</b>	5,137	191.8	156.6
Counties with 2004 Population  > 20,000	Boone	217	172.8 (60)	160.4 (47)	Lee	336	177.4 (54)	169.3 (32)
	Buchanan	168	161.0 (73)	166.6 (38)	Mahaska	189	172.2 (63)	159.6 (49)
	Buena Vista	244	241.0 (10)	220.9 (01)	Marion	242	154.2 (77)	143.8 (76)
	Carroll	208	198.9 (33)	176.0 (23)	Marshall	403	209.1 (26)	181.6 (15)
	Cerro Gordo	371	166.2 (67)	149.3 (65)	Muscatine	258	125.7 (93)	143.7 (77)
	Clinton	381	155.5 (76)	147.8 (68)	Plymouth	244	200.7 (31)	188.4 (09)
	Des Moines	334	163.0 (71)	156.3 (54)	Sioux	287	186.2 (44)	192.0 (07)
	Fayette	196	180.9 (52)	150.5 (62)	Wapello	292	167.2 (64)	145.3 (74)
	Henry	142	139.6 (84)	147.8 (68)	Webster	385	196.6 (36)	178.7 (19)
	Jackson	172	172.7 (61)	153.5 (59)	Winneshiek	180	172.7 (61)	165.5 (39)
	Jasper	252	139.0 (86)	128.7 (92)	<b>Total</b>	5,501	171.7	161.2
MSA Counties	Benton	202	164.7 (69)	161.1 (45)	Linn	1,233	135.2 (89)	157.7 (51)
	Black Hawk	979	160.5 (75)	172.0 (28)	Madison	125	186.2 (44)	179.7 (18)
	Bremer	210	186.3 (43)	174.9 (27)	Mills	98	139.1 (85)	154.7 (57)
	Dallas	244	131.4 (90)	162.0 (42)	Polk	2,043	116.0 (95)	150.1 (64)
	Dubuque	763	176.7 (56)	182.0 (14)	Pottawattamie	516	123.4 (94)	131.2 (91)
	Grundy	131	219.2 (20)	175.0 (26)	Scott	971	126.3 (92)	154.3 (58)
	Guthrie	120	217.3 (22)	161.1 (45)	Story	442	110.0 (96)	175.3 (25)
	Harrison	145	192.5 (40)	167.7 (34)	Warren	212	109.8 (97)	131.5 (89)
	Johnson	475	88.6 (99)	158.0 (50)	Washington	174	175.8 (57)	157.7 (51)
	Jones	162	152.1 (79)	156.2 (55)	Woodbury	748	148.3 (80)	169.3 (32)
					<b>Total</b>	9,993	133.4	159.4
	<b>State Total</b>	22,318	157.7	159.8				

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

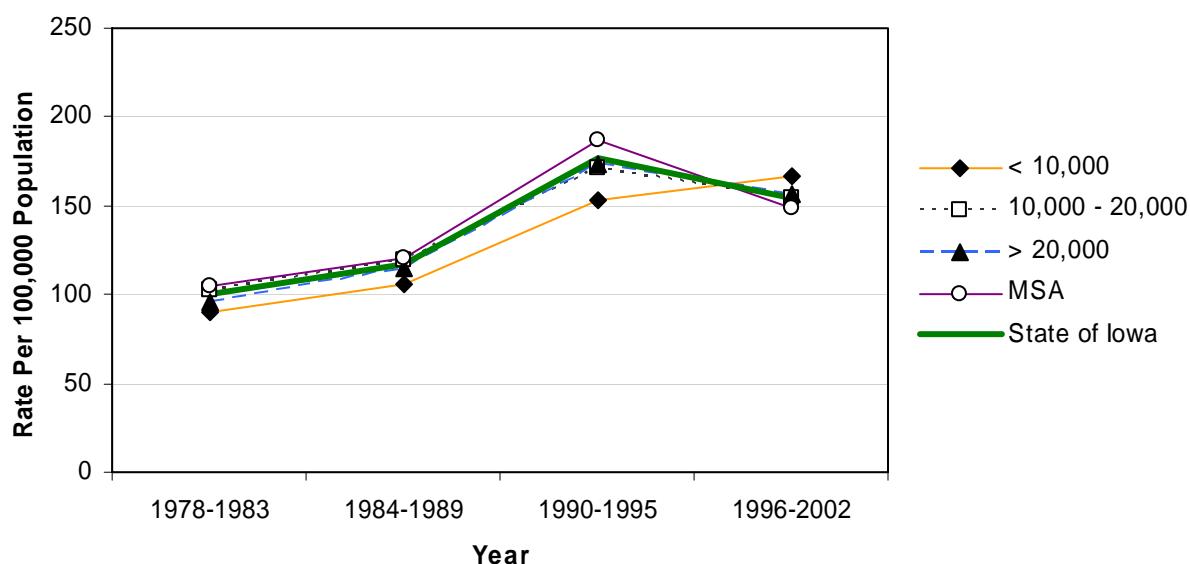
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Prostate Cancer Incidence by County Group 1978-2002

**Crude Rates**



**Age-Adjusted Rates**



CANCER INCIDENCE AND MORTALITY

**Prostate Cancer Mortality 1993-2002**

	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 2004 Population < 10,000	Adair	25	61.9 (06)	40.0 (13)	Monona	36	74.5 (02)	48.8 (03)
	Adams	6	27.0 (78)	19.1 (97)	Monroe	17	43.4 (30)	35.0 (33)
	Audubon	23	69.9 (03)	47.2 (04)	Osceola	9	26.1 (83)	22.3 (93)
	Clarke	15	35.0 (54)	29.7 (71)	Palo Alto	34	68.4 (04)	51.8 (01)
	Davis	18	42.9 (32)	38.4 (19)	Pocahontas	21	48.6 (18)	34.2 (38)
	Decatur	14	33.8 (59)	28.4 (77)	Ringgold	15	57.5 (07)	35.3 (30)
	Fremont	19	48.8 (16)	37.6 (24)	Taylor	17	50.5 (14)	32.1 (55)
	Howard	27	55.3 (09)	39.4 (17)	Van Buren	17	44.2 (22)	32.3 (52)
	Ida	24	62.0 (05)	45.7 (05)	Wayne	25	76.6 (01)	43.5 (06)
	Lucas	17	37.6 (44)	29.7 (71)	Worth	13	33.3 (61)	26.3 (85)
					<b>Total</b>	392	50.4	36.9
Counties with 2004 Population 10,000 - 20,000	Allamakee	29	40.3 (36)	35.3 (30)	Hardin	40	43.6 (27)	32.7 (50)
	Appanoose	25	38.2 (41)	28.2 (78)	Humboldt	17	33.5 (60)	25.2 (89)
	Butler	32	42.4 (33)	32.8 (48)	Iowa	27	36.0 (51)	32.2 (54)
	Calhoun	23	41.3 (34)	29.0 (75)	Jefferson	15	18.7 (97)	20.2 (94)
	Cass	31	43.3 (31)	33.0 (47)	Keokuk	19	34.2 (58)	26.2 (86)
	Cedar	32	36.2 (50)	33.6 (43)	Kossuth	19	22.4 (93)	17.1 (99)
	Cherokee	29	44.5 (21)	36.2 (26)	Louisa	11	18.3 (98)	19.8 (96)
	Chickasaw	23	34.9 (55)	30.1 (69)	Lyon	12	20.6 (95)	17.5 (98)
	Clay	26	30.9 (66)	28.5 (76)	Mitchell	20	37.5 (45)	25.0 (90)
	Clayton	34	36.7 (48)	31.0 (61)	Montgomery	15	26.8 (79)	20.2 (94)
	Crawford	27	32.3 (63)	29.8 (70)	O'Brien	29	38.9 (39)	30.4 (66)
	Delaware	25	27.5 (76)	30.4 (66)	Page	42	49.4 (15)	40.4 (12)
	Dickinson	24	30.8 (67)	22.8 (92)	Poweshiek	28	30.8 (67)	27.0 (82)
	Emmet	28	51.5 (13)	42.5 (07)	Sac	28	48.8 (16)	33.8 (41)
	Floyd	36	44.2 (22)	34.6 (36)	Shelby	34	52.8 (10)	38.2 (21)
	Franklin	21	39.5 (37)	31.1 (60)	Tama	33	37.5 (45)	31.0 (61)
	Greene	19	38.0 (43)	27.3 (81)	Union	24	40.8 (35)	34.7 (35)
	Hamilton	23	28.6 (75)	25.8 (87)	Winnebago	30	52.5 (11)	41.3 (09)
	Hancock	26	43.9 (26)	38.2 (21)	Wright	32	45.8 (19)	32.8 (48)
					<b>Total</b>	988	36.9	30.3
Counties with 2004 Population > 20,000	Boone	41	32.7 (62)	31.9 (56)	Lee	56	29.6 (71)	30.9 (64)
	Buchanan	37	35.5 (52)	39.9 (14)	Mahaska	39	35.5 (52)	33.2 (45)
	Buena Vista	44	43.5 (28)	38.9 (18)	Marion	50	31.9 (64)	30.4 (66)
	Carroll	40	38.2 (41)	34.1 (40)	Marshall	85	44.1 (25)	40.6 (11)
	Cerro Gordo	64	28.7 (74)	27.5 (80)	Muscatine	54	26.3 (81)	35.3 (30)
	Clinton	62	25.3 (86)	26.6 (84)	Plymouth	42	34.5 (57)	33.1 (46)
	Des Moines	71	34.6 (56)	35.7 (28)	Sioux	46	29.8 (69)	31.8 (57)
	Fayette	29	26.8 (79)	23.0 (91)	Wapello	64	36.6 (49)	33.6 (43)
	Henry	30	29.5 (72)	32.3 (52)	Webster	72	36.8 (47)	35.8 (27)
	Jackson	44	44.2 (22)	42.5 (07)	Winneshiek	33	31.7 (65)	31.0 (61)
	Jasper	54	29.8 (69)	31.6 (59)	<b>Total</b>	1,057	33.0	33.0
MSA Counties	Benton	32	26.1 (83)	27.0 (82)	Linn	217	23.8 (88)	33.7 (42)
	Black Hawk	180	29.5 (72)	34.9 (34)	Madison	26	38.7 (40)	38.0 (23)
	Bremer	44	39.0 (38)	39.5 (16)	Mills	14	19.9 (96)	25.3 (88)
	Dallas	45	24.2 (87)	34.2 (38)	Polk	397	22.5 (92)	35.7 (28)
	Dubuque	113	26.2 (82)	31.7 (58)	Pottawattamie	95	22.7 (91)	27.7 (79)
	Grundy	26	43.5 (28)	34.4 (37)	Scott	159	20.7 (94)	30.8 (65)
	Guthrie	29	52.5 (11)	39.8 (15)	Story	94	23.4 (89)	41.2 (10)
	Harrison	42	55.8 (08)	49.6 (02)	Warren	49	25.4 (85)	37.2 (25)
	Johnson	70	13.1 (99)	29.7 (71)	Washington	45	45.5 (20)	38.4 (19)
	Jones	29	27.2 (77)	32.4 (51)	Woodbury	116	23.0 (90)	29.4 (74)
					<b>Total</b>	1,822	24.3	33.8
	<b>State Total</b>	4,259	30.1	32.9				

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

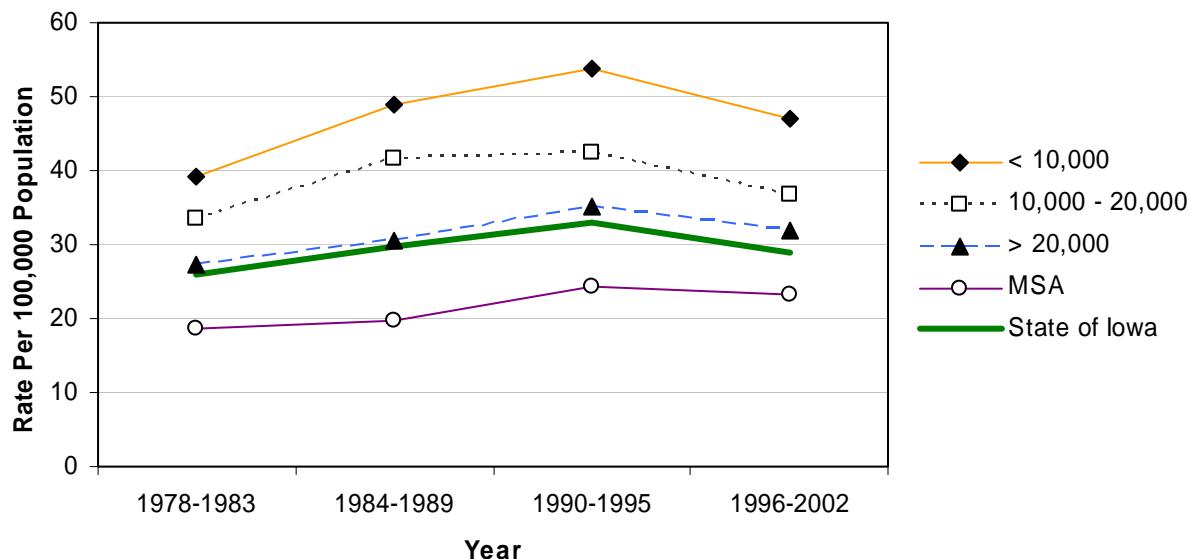
<sup>2</sup>Adjusted to year 2000 population

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

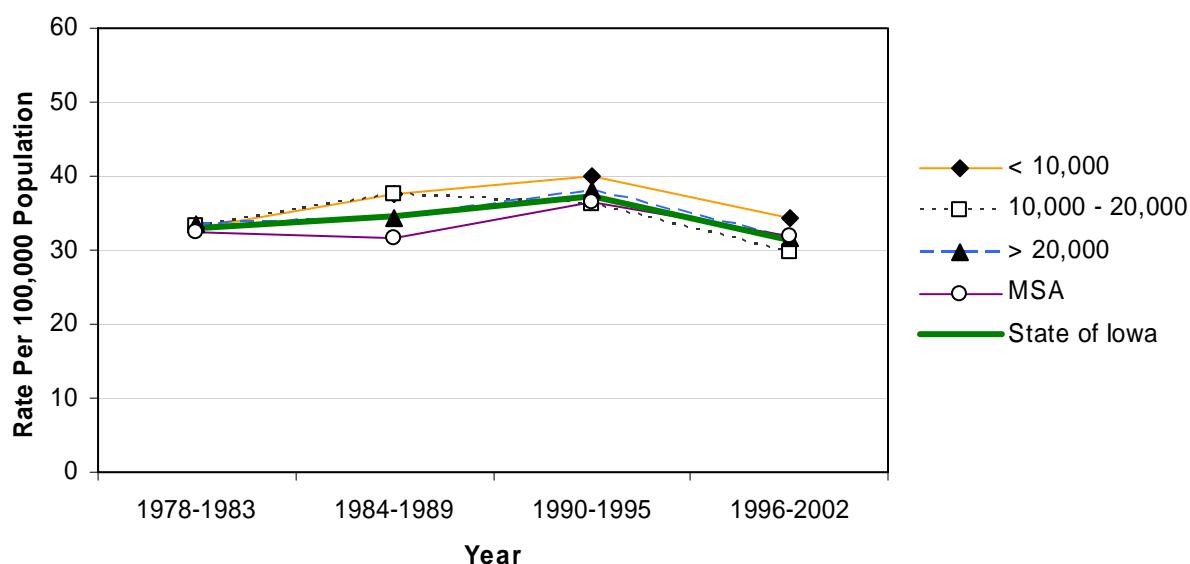
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Prostate Cancer Mortality by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



CANCER INCIDENCE AND MORTALITY

**Lung Cancer Incidence 1993-2002**

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 2004 Population &lt; 10,000</b>				Monona	125	124.8 (01)	75.6 (14)
Adair	71	85.7 (37)	57.0 (67)	Monroe	78	96.7 (17)	70.7 (27)
Adams	44	97.5 (15)	65.4 (44)	Osceola	42	59.3 (90)	45.1 (94)
Audubon	54	78.6 (52)	51.0 (79)	Palo Alto	102	99.8 (12)	65.7 (42)
Clarke	55	62.4 (87)	47.5 (89)	Pocahontas	83	93.8 (23)	62.1 (51)
Davis	67	78.8 (50)	61.2 (52)	Ringgold	57	105.3 (05)	62.2 (50)
Decatur	63	74.1 (62)	58.4 (62)	Taylor	57	81.6 (44)	51.9 (76)
Fremont	86	106.9 (04)	75.1 (18)	Van Buren	65	84.0 (41)	59.5 (58)
Howard	65	65.4 (82)	43.5 (96)	Wayne	79	115.5 (02)	71.2 (24)
Ida	55	68.8 (76)	48.2 (88)	Worth	80	101.0 (10)	73.1 (21)
Lucas	87	93.1 (25)	67.2 (39)	<b>Total</b>	1,415	88.5	60.8
<b>Counties with 2004 Population 10,000 - 20,000</b>				Hardin	163	86.5 (35)	60.1 (55)
Allamakee	105	72.5 (64)	52.6 (75)	Humboldt	86	82.6 (43)	54.4 (71)
Appanoose	118	86.1 (36)	60.1 (55)	Iowa	108	70.1 (71)	56.5 (69)
Butler	103	66.9 (80)	46.4 (90)	Jefferson	89	54.3 (94)	49.9 (84)
Calhoun	101	89.6 (30)	56.8 (68)	Keokuk	117	102.1 (08)	76.5 (09)
Cass	136	91.8 (27)	63.1 (47)	Kossuth	134	77.0 (56)	54.4 (71)
Cedar	132	73.5 (63)	60.4 (54)	Louisa	81	67.1 (79)	61.2 (52)
Cherokee	112	84.1 (40)	59.8 (57)	Lyon	76	64.5 (85)	48.6 (87)
Chickasaw	118	89.5 (31)	69.0 (34)	Mitchell	86	78.8 (50)	51.4 (78)
Clay	121	69.2 (74)	54.9 (70)	Montgomery	112	94.8 (21)	68.2 (35)
Clayton	144	76.7 (57)	58.3 (63)	O'Brien	111	72.4 (65)	50.4 (82)
Crawford	114	67.7 (78)	51.7 (77)	Page	187	110.2 (03)	79.9 (05)
Delaware	118	64.3 (86)	57.4 (65)	Poweshiek	110	58.1 (91)	45.7 (92)
Dickinson	164	102.4 (07)	66.9 (40)	Sac	91	77.5 (53)	51.0 (79)
Emmet	102	90.9 (29)	67.3 (37)	Shelby	91	69.0 (75)	49.1 (86)
Floyd	154	91.0 (28)	65.4 (44)	Tama	136	75.7 (58)	57.6 (64)
Franklin	67	61.5 (88)	43.4 (97)	Union	123	99.7 (13)	76.5 (09)
Greene	82	79.6 (47)	53.5 (74)	Winnebago	60	51.2 (96)	40.3 (98)
Hamilton	153	93.6 (24)	72.4 (22)	<b>Total</b>	4,337	79.1	58.4
Hancock	93	77.1 (54)	59.0 (59)	Wright	139	96.5 (19)	65.0 (46)
<b>Counties with 2004 Population &gt; 20,000</b>				<b>Total</b>	4,337	79.1	58.4
Boone	225	87.1 (34)	70.0 (32)	Lee	384	100.1 (11)	81.1 (03)
Buchanan	158	75.0 (59)	67.9 (36)	Mahaska	187	84.4 (38)	71.2 (24)
Buena Vista	115	56.3 (93)	45.3 (93)	Marion	227	71.9 (66)	62.3 (49)
Carroll	160	74.3 (61)	58.5 (61)	Marshall	396	101.4 (09)	80.5 (04)
Cerro Gordo	454	97.4 (16)	75.8 (13)	Muscatine	295	71.0 (69)	70.1 (31)
Clinton	426	84.2 (39)	70.7 (27)	Plymouth	146	59.4 (89)	50.6 (81)
Des Moines	400	94.0 (22)	78.1 (06)	Sioux	127	40.3 (97)	36.1 (99)
Fayette	170	77.1 (54)	57.4 (65)	Wapello	379	105.1 (06)	82.5 (01)
Henry	150	74.7 (60)	66.8 (41)	Webster	379	95.1 (20)	76.8 (08)
Jackson	181	89.5 (31)	71.4 (23)	Winneshiek	111	52.3 (95)	46.0 (91)
Jasper	335	92.0 (26)	75.6 (14)	<b>Total</b>	5,405	82.7	68.8
<b>MSA Counties</b>				<b>Total</b>	5,405	82.7	68.8
Benton	175	71.0 (69)	62.8 (48)	Linn	1,331	71.4 (68)	73.8 (20)
Black Hawk	1,013	79.6 (47)	75.4 (16)	Madison	111	81.4 (46)	70.8 (26)
Bremer	152	65.3 (83)	54.0 (73)	Mills	96	68.1 (77)	65.7 (42)
Dallas	251	66.5 (81)	70.3 (30)	Polk	2,546	69.9 (73)	77.6 (07)
Dubuque	725	81.5 (45)	73.9 (19)	Pottawattamie	755	87.8 (33)	82.4 (02)
Grundy	86	70.1 (71)	49.2 (85)	Scott	1,128	71.6 (67)	76.0 (12)
Guthrie	112	99.3 (14)	67.3 (37)	Story	297	37.9 (98)	50.0 (83)
Harrison	149	96.7 (17)	75.2 (17)	Warren	258	65.0 (84)	69.1 (33)
Johnson	398	37.0 (99)	58.9 (60)	Washington	118	57.5 (92)	44.7 (95)
Jones	169	83.3 (42)	70.6 (29)	Woodbury	815	78.9 (49)	76.5 (09)
<b>State Total</b>	21,842	75.5	67.3	<b>Total</b>	10,685	69.7	72.3

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

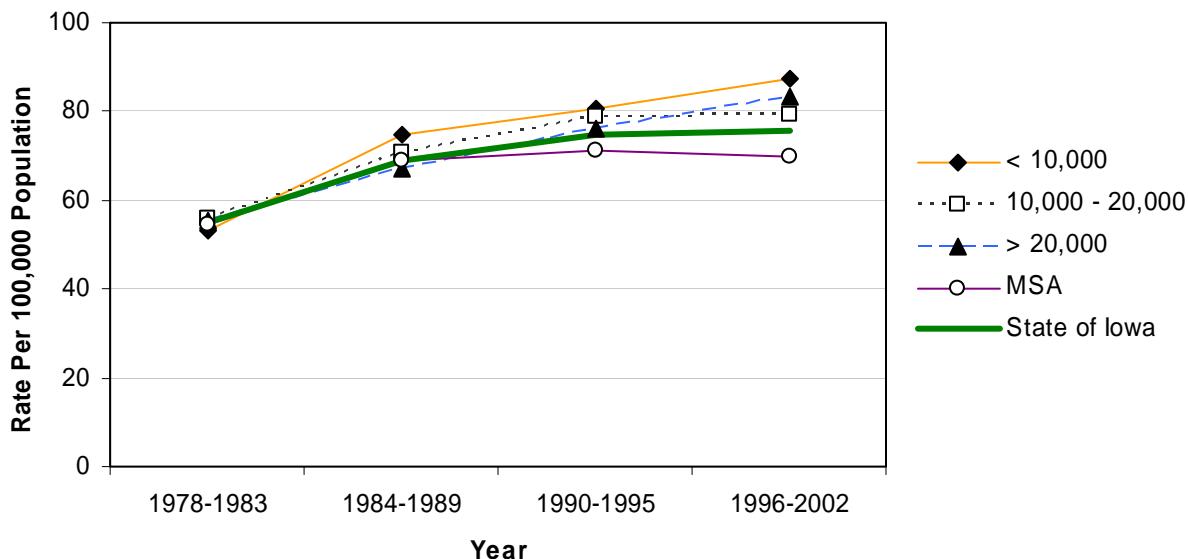
<sup>2</sup>Adjusted to year 2000 population

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

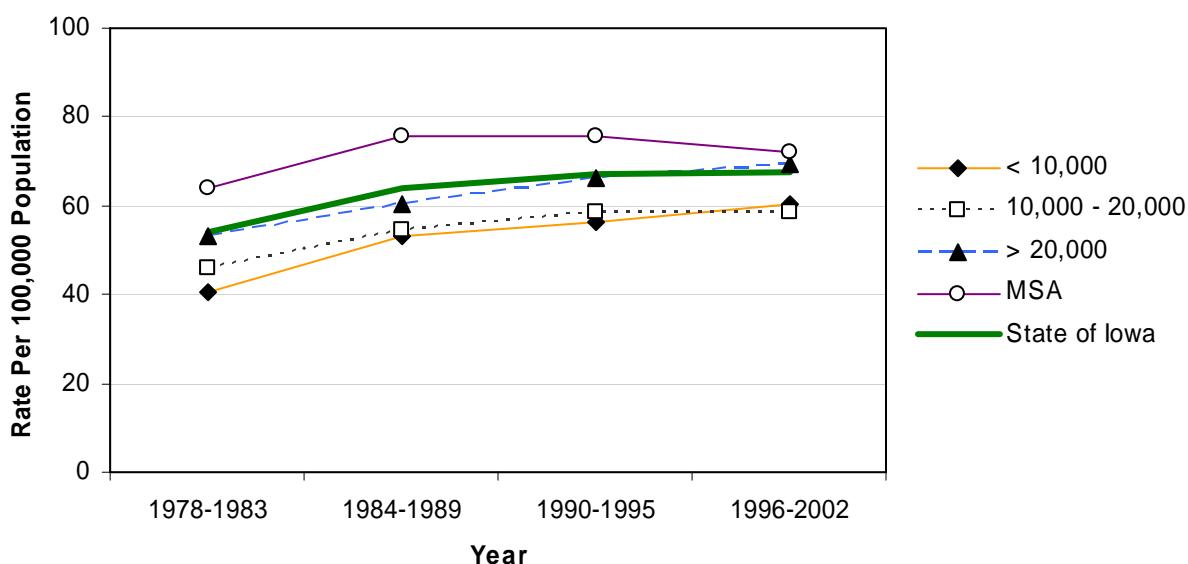
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Lung Cancer Incidence by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



**Lung Cancer Mortality 1993-2002**

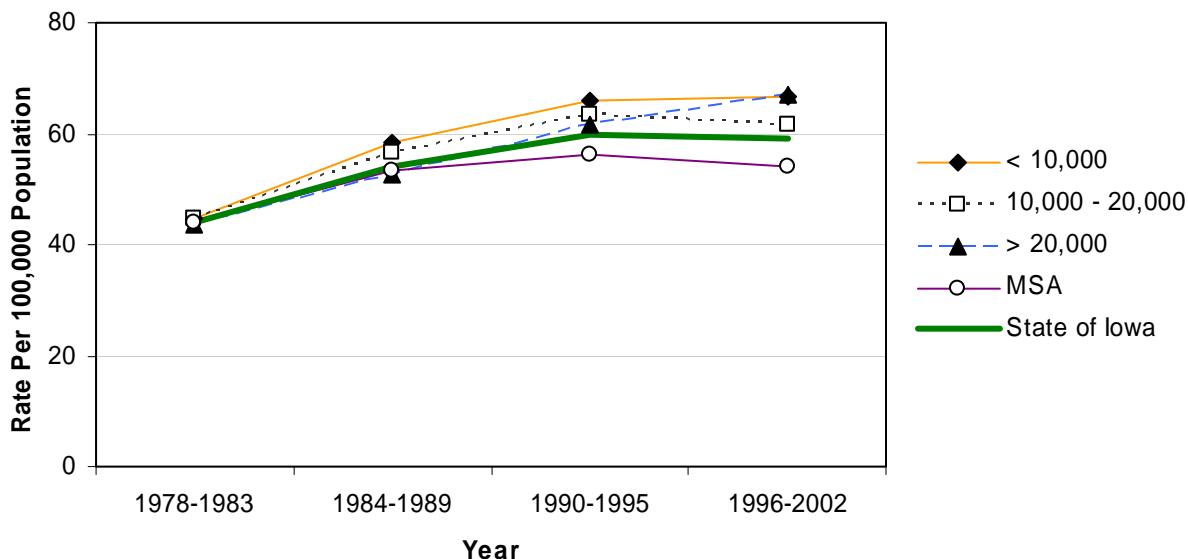
County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
<b>Counties with 2004 Population &lt; 10,000</b>				Monona	101	100.9 (01)	58.2 (15)
Adair	59	71.2 (31)	43.9 (62)	Monroe	62	76.8 (18)	55.1 (27)
Adams	32	70.9 (32)	47.1 (55)	Osceola	39	55.1 (68)	42.0 (69)
Audubon	47	68.4 (38)	44.0 (61)	Palo Alto	67	65.5 (43)	43.0 (63)
Clarke	48	54.5 (70)	39.9 (81)	Pocahontas	67	75.8 (21)	47.0 (56)
Davis	54	63.5 (46)	48.1 (50)	Ringgold	39	72.0 (29)	41.6 (72)
Decatur	46	54.1 (75)	42.1 (67)	Taylor	38	54.4 (71)	32.9 (95)
Fremont	73	90.7 (02)	62.2 (06)	Van Buren	53	68.5 (37)	48.3 (49)
Howard	46	46.3 (89)	29.3 (98)	Wayne	61	89.2 (04)	53.5 (33)
Ida	37	46.3 (89)	30.2 (97)	Worth	60	75.8 (21)	52.6 (36)
Lucas	71	76.0 (20)	55.1 (27)	<b>Total</b>	1,100	68.8	46.0
<b>Counties with 2004 Population 10,000 - 20,000</b>				Hardin	148	78.5 (11)	52.1 (38)
Allamakee	78	53.9 (76)	39.0 (84)	Humboldt	77	74.0 (26)	47.3 (54)
Appanoose	81	59.1 (56)	39.8 (82)	Iowa	82	53.2 (79)	42.1 (67)
Butler	91	59.1 (56)	40.7 (79)	Jefferson	70	42.7 (96)	38.7 (86)
Calhoun	87	77.1 (15)	48.0 (51)	Keokuk	77	67.2 (40)	49.9 (45)
Cass	114	76.9 (17)	50.9 (42)	Kossuth	92	52.9 (81)	36.5 (89)
Cedar	87	48.5 (86)	39.0 (84)	Louisa	64	53.1 (80)	47.9 (52)
Cherokee	79	59.3 (54)	40.8 (78)	Lyon	66	56.0 (64)	41.8 (71)
Chickasaw	90	68.3 (39)	52.3 (37)	Mitchell	72	66.0 (42)	41.1 (76)
Clay	95	54.3 (72)	42.3 (66)	Montgomery	96	81.3 (06)	59.0 (12)
Clayton	111	59.1 (56)	44.1 (60)	O'Brien	83	54.2 (73)	36.4 (90)
Crawford	93	55.2 (67)	41.4 (74)	Page	135	79.6 (09)	55.4 (25)
Delaware	96	52.3 (84)	46.3 (57)	Poweshiek	101	53.4 (78)	40.9 (77)
Dickinson	125	78.0 (12)	50.6 (44)	Sac	75	63.9 (45)	41.4 (74)
Emmet	69	61.5 (50)	45.1 (58)	Shelby	68	51.6 (85)	36.0 (91)
Floyd	127	75.0 (24)	53.6 (32)	Tama	100	55.7 (66)	41.5 (73)
Franklin	59	54.2 (73)	36.7 (88)	Union	93	75.4 (23)	57.3 (21)
Greene	63	61.1 (52)	41.9 (70)	Winnebago	53	45.2 (92)	33.9 (93)
Hamilton	126	77.1 (15)	58.2 (15)	<b>Total</b>	110	76.4 (19)	49.8 (46)
Hancock	70	58.0 (59)	44.3 (59)	<b>Total</b>	3,403	62.1	44.8
<b>Counties with 2004 Population &gt; 20,000</b>				Boone	189	73.2 (28)	58.2 (15)
Buchanan	122	57.9 (60)	51.4 (40)	Lee	315	82.1 (05)	66.0 (03)
Buena Vista	91	44.6 (93)	34.7 (92)	Mahaska	155	69.9 (35)	57.3 (21)
Carroll	138	64.1 (44)	49.6 (47)	Marion	188	59.5 (53)	50.7 (43)
Cerro Gordo	370	79.4 (10)	60.8 (09)	Marshall	351	89.9 (03)	69.9 (01)
Clinton	351	69.3 (36)	57.6 (20)	Muscatine	233	56.1 (62)	55.2 (26)
Des Moines	300	70.5 (34)	57.7 (19)	Plymouth	116	47.2 (87)	40.3 (80)
Fayette	156	70.8 (33)	51.6 (39)	Sioux	95	30.1 (98)	26.5 (99)
Henry	123	61.2 (51)	54.0 (31)	Wapello	292	81.0 (07)	62.7 (04)
Jackson	149	73.6 (27)	58.2 (15)	Webster	308	77.3 (13)	61.6 (08)
Jasper	273	75.0 (24)	60.7 (11)	Winneshiek	93	43.8 (94)	38.3 (87)
<b>Total</b>	4,408	67.5	55.3	<b>Total</b>	8,383	54.7	56.5
<b>MSA Counties</b>				Benton	146	59.2 (55)	51.1 (41)
				Black Hawk	841	66.1 (41)	62.1 (07)
				Bremer	123	52.8 (83)	42.6 (64)
				Dallas	203	53.8 (77)	56.4 (23)
				Dubuque	558	62.7 (49)	56.3 (24)
				Grundy	57	46.4 (88)	31.8 (96)
				Guthrie	91	80.7 (08)	53.0 (34)
				Harrison	119	77.2 (14)	58.7 (13)
				Johnson	283	26.3 (99)	42.6 (64)
				Jones	128	63.1 (48)	53.0 (34)
<b>State Total</b>	17,294	59.8	52.7	<b>Linn</b>	986	52.9 (81)	54.5 (29)

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

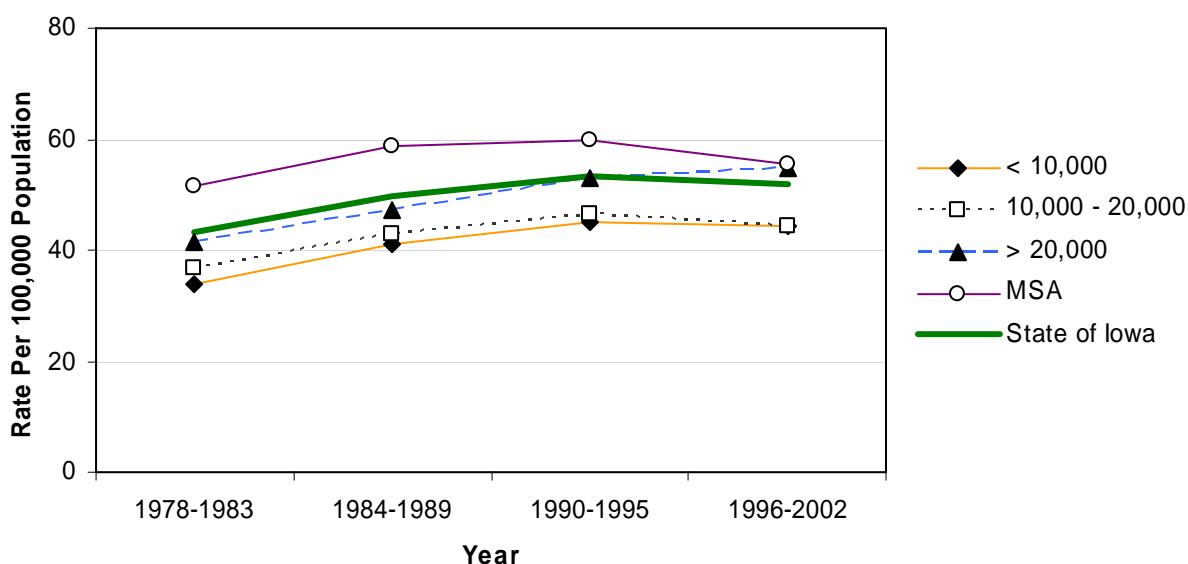
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Lung Cancer Mortality by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



CANCER INCIDENCE AND MORTALITY

**Female Breast Cancer Incidence 1993-2002**

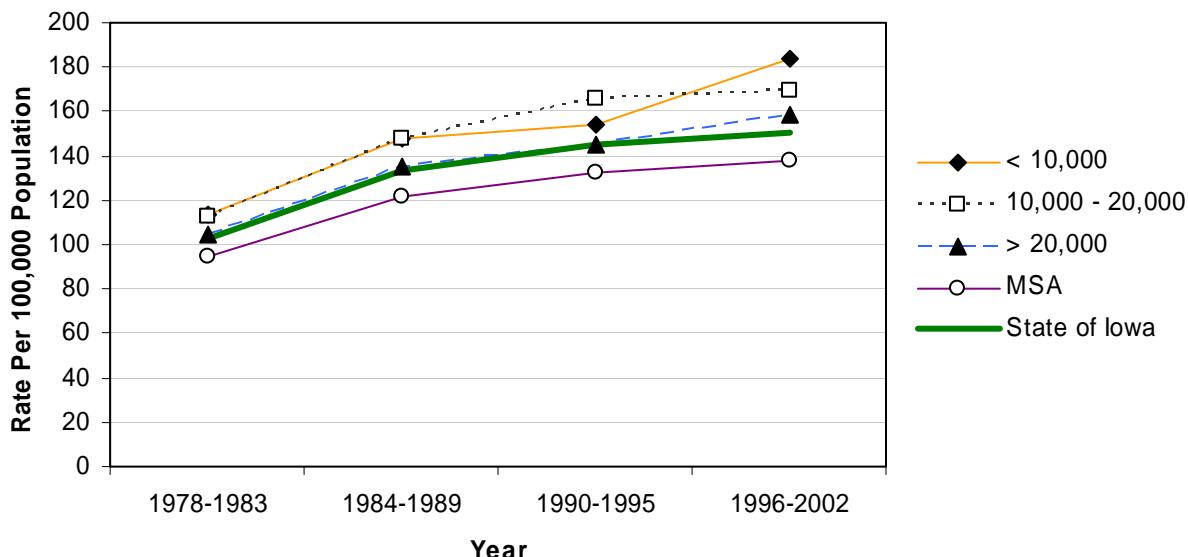
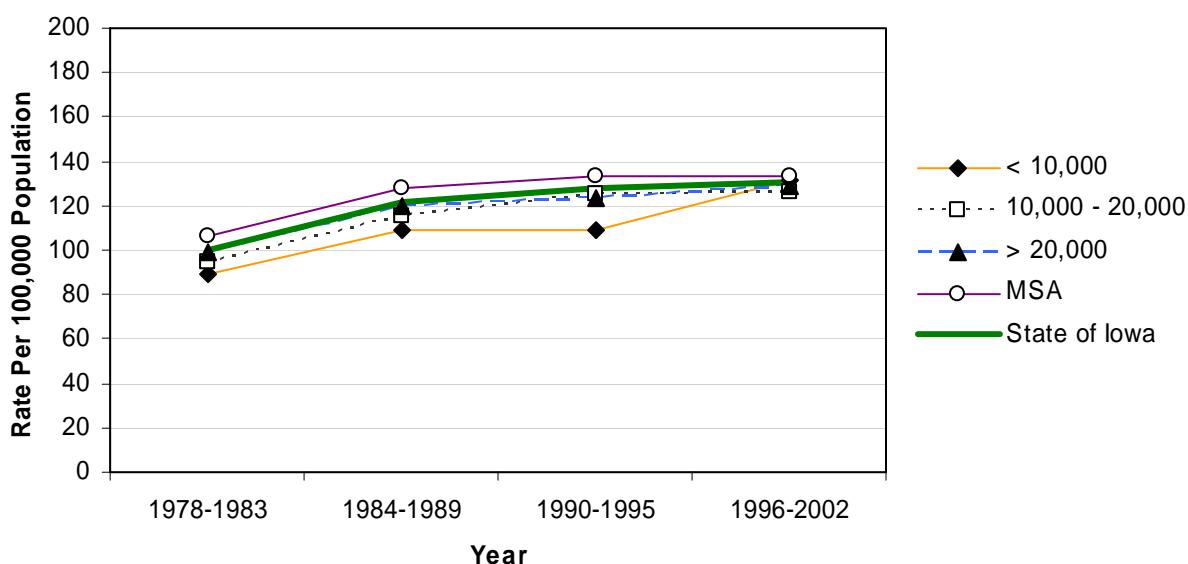
County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	
Counties with 2004 Population < 10,000	Adair	60	141.4 (79)	93.8 (99)	Monona	89	171.7 (34)	118.5 (71)
	Adams	43	187.7 (17)	126.8 (53)	Monroe	61	147.1 (68)	111.7 (87)
	Audubon	65	181.8 (21)	128.5 (46)	Osceola	73	200.8 (06)	149.9 (05)
	Clarke	57	125.8 (93)	101.6 (98)	Palo Alto	97	184.7 (20)	137.9 (21)
	Davis	66	153.0 (58)	116.3 (76)	Pocahontas	76	168.0 (42)	113.0 (83)
	Decatur	54	123.8 (94)	104.5 (96)	Ringgold	55	196.2 (10)	115.2 (79)
	Fremont	96	231.2 (01)	162.1 (03)	Taylor	83	229.0 (03)	167.1 (02)
	Howard	92	181.7 (22)	138.4 (18)	Van Buren	74	190.0 (14)	139.6 (14)
	Ida	82	198.9 (08)	142.3 (10)	Wayne	70	195.8 (11)	130.8 (36)
	Lucas	71	147.1 (68)	107.3 (91)	Worth	68	169.2 (38)	125.6 (57)
				<b>Total</b>	1,432	174.3	125.8	
Counties with 2004 Population 10,000 - 20,000	Allamakee	101	138.7 (83)	106.8 (92)	Hardin	169	174.8 (31)	118.7 (70)
	Appanoose	108	150.7 (61)	106.8 (92)	Humboldt	99	185.6 (19)	138.5 (17)
	Butler	140	178.6 (28)	121.7 (66)	Iowa	117	148.0 (66)	118.5 (71)
	Calhoun	109	191.0 (13)	127.4 (50)	Jefferson	103	123.0 (95)	102.1 (97)
	Cass	176	229.7 (02)	148.4 (06)	Keokuk	88	149.3 (64)	113.4 (81)
	Cedar	141	154.6 (56)	124.1 (61)	Kossuth	153	171.7 (34)	128.0 (47)
	Cherokee	133	195.7 (12)	139.3 (16)	Louisa	81	133.7 (90)	124.2 (60)
	Chickasaw	89	134.9 (88)	111.7 (87)	Lyon	107	179.6 (24)	137.9 (21)
	Clay	172	189.7 (16)	147.7 (07)	Mitchell	94	168.3 (41)	120.0 (67)
	Clayton	162	170.3 (37)	131.2 (32)	Montgomery	105	168.7 (39)	114.7 (80)
	Crawford	125	147.1 (68)	122.2 (65)	O'Brien	163	207.2 (05)	142.8 (08)
	Delaware	120	129.4 (92)	116.0 (77)	Page	147	173.6 (33)	124.1 (61)
	Dickinson	139	168.7 (39)	119.4 (68)	Poweshiek	153	155.7 (55)	123.2 (63)
	Emmet	101	174.8 (31)	128.9 (42)	Sac	120	199.8 (07)	137.6 (23)
	Floyd	157	178.7 (27)	127.9 (48)	Shelby	98	145.4 (74)	109.9 (90)
	Franklin	104	186.6 (18)	128.7 (45)	Tama	148	161.4 (50)	118.3 (73)
	Greene	95	178.9 (25)	131.1 (33)	Union	117	181.3 (23)	136.4 (25)
	Hamilton	125	150.7 (61)	111.0 (89)	Winnebago	90	149.6 (63)	105.6 (95)
	Hancock	110	178.9 (25)	136.3 (26)	Wright	154	207.9 (04)	151.5 (04)
				<b>Total</b>	4,713	168.0	124.8	
Counties with 2004 Population > 20,000	Boone	232	174.9 (30)	140.2 (13)	Lee	276	142.0 (78)	112.1 (85)
	Buchanan	147	138.1 (84)	119.3 (69)	Mahaska	178	159.1 (52)	126.1 (55)
	Buena Vista	171	166.1 (44)	136.8 (24)	Marion	236	148.6 (65)	126.4 (54)
	Carroll	177	160.0 (51)	125.9 (56)	Marshall	322	162.9 (46)	129.7 (40)
	Cerro Gordo	433	178.2 (29)	139.6 (14)	Muscatine	290	138.1 (84)	127.9 (48)
	Clinton	407	155.8 (54)	129.3 (41)	Plymouth	190	153.1 (57)	131.0 (35)
	Des Moines	349	158.3 (53)	125.1 (58)	Sioux	219	136.0 (87)	126.9 (52)
	Fayette	171	152.6 (59)	112.4 (84)	Wapello	318	171.1 (36)	132.9 (31)
	Henry	145	146.2 (72)	124.4 (59)	Webster	338	166.8 (43)	130.7 (37)
	Jackson	155	150.9 (60)	123.1 (64)	Winneshiek	150	139.0 (82)	128.9 (42)
	Jasper	295	161.5 (49)	128.8 (44)	<b>Total</b>	5,199	156.2	127.9
MSA Counties	Benton	152	122.6 (96)	106.2 (94)	Linn	1,258	132.1 (91)	127.4 (50)
	Black Hawk	937	141.3 (80)	130.3 (38)	Madison	112	161.7 (48)	138.3 (19)
	Bremer	195	162.4 (47)	134.1 (28)	Mills	134	190.0 (14)	170.8 (01)
	Dallas	269	140.3 (81)	138.2 (20)	Polk	2,531	134.4 (89)	135.7 (27)
	Dubuque	671	146.6 (71)	131.1 (33)	Pottawattamie	638	144.5 (75)	130.0 (39)
	Grundy	124	196.8 (09)	141.5 (11)	Scott	1,173	145.6 (73)	142.8 (08)
	Guthrie	95	165.1 (45)	113.1 (82)	Story	436	114.4 (98)	134.0 (29)
	Harrison	116	147.3 (67)	117.9 (74)	Warren	243	119.3 (97)	117.4 (75)
	Johnson	566	104.7 (99)	140.9 (12)	Washington	146	137.4 (86)	112.0 (86)
	Jones	137	142.1 (77)	115.9 (78)	Woodbury	758	143.3 (76)	133.3 (30)
				<b>Total</b>	10,691	136.4	132.7	
	<b>State Total</b>	22,035	149.0	129.7				

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

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

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

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

**Female Breast Cancer Incidence by County Group 1978-2002****Crude Rates****Age-Adjusted Rates**

**Female Breast Cancer Mortality 1993-2002**

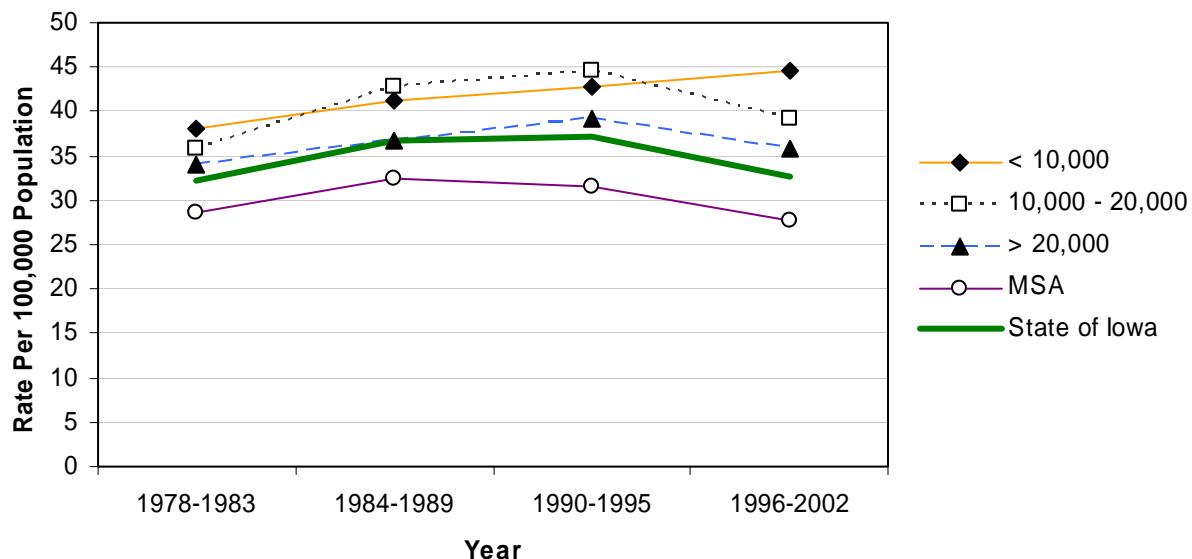
County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	
Counties with 2004 Population < 10,000	Adair	16	37.7 (53)	21.9 (78)	Monona	23	44.4 (29)	22.7 (71)
	Adams	11	48.0 (16)	29.8 (35)	Monroe	17	41.0 (41)	27.4 (49)
	Audubon	12	33.6 (67)	22.5 (73)	Osceola	13	35.8 (58)	20.9 (84)
	Clarke	23	50.8 (08)	39.0 (03)	Palo Alto	27	51.4 (07)	32.1 (20)
	Davis	6	13.9 (99)	9.6 (99)	Pocahontas	15	33.2 (68)	18.5 (92)
	Decatur	17	39.0 (47)	29.1 (36)	Ringgold	9	32.1 (70)	13.2 (96)
	Fremont	30	72.3 (01)	51.3 (01)	Taylor	22	60.7 (03)	38.6 (05)
	Howard	34	67.2 (02)	43.0 (02)	Van Buren	21	53.9 (05)	39.0 (03)
	Ida	22	53.4 (06)	34.9 (10)	Wayne	18	50.4 (10)	31.1 (27)
	Lucas	10	20.7 (95)	14.9 (95)	Worth	14	34.8 (61)	24.4 (69)
				<b>Total</b>	360	43.8	28.4	
Counties with 2004 Population 10,000 - 20,000	Allamakee	32	44.0 (32)	28.3 (41)	Hardin	54	55.9 (04)	35.6 (08)
	Appanoose	20	27.9 (86)	18.6 (91)	Humboldt	20	37.5 (55)	21.0 (82)
	Butler	38	48.5 (12)	27.1 (51)	Iowa	33	41.8 (37)	32.7 (16)
	Calhoun	23	40.3 (44)	21.6 (81)	Jefferson	35	41.8 (37)	34.1 (13)
	Cass	24	31.3 (76)	19.0 (90)	Keokuk	12	20.4 (97)	12.4 (98)
	Cedar	38	41.7 (40)	26.3 (61)	Kossuth	40	44.9 (25)	30.1 (31)
	Cherokee	30	44.1 (31)	28.6 (39)	Louisa	17	28.1 (85)	20.9 (84)
	Chickasaw	27	40.9 (42)	29.9 (33)	Lyon	27	45.3 (24)	31.2 (25)
	Clay	42	46.3 (21)	33.0 (14)	Mitchell	25	44.8 (27)	30.1 (31)
	Clayton	40	42.0 (36)	32.5 (17)	Montgomery	21	33.7 (66)	24.5 (67)
	Crawford	20	23.5 (92)	18.5 (92)	O'Brien	36	45.8 (22)	31.5 (22)
	Delaware	32	34.5 (63)	28.6 (39)	Page	38	44.9 (25)	24.5 (67)
	Dickinson	40	48.5 (12)	31.4 (24)	Poweshiek	31	31.6 (74)	21.8 (80)
	Emmet	27	46.7 (20)	27.7 (45)	Sac	29	48.3 (15)	28.9 (37)
	Floyd	37	42.1 (35)	28.7 (38)	Shelby	12	17.8 (98)	13.1 (97)
	Franklin	27	48.5 (12)	27.0 (53)	Tama	46	50.2 (11)	37.0 (06)
	Greene	20	37.7 (53)	22.2 (77)	Union	27	41.8 (37)	25.9 (62)
	Hamilton	32	38.6 (50)	26.5 (59)	Winnebago	21	34.9 (60)	21.9 (78)
	Hancock	14	22.8 (93)	17.6 (94)	Wright	33	44.5 (28)	27.7 (45)
				<b>Total</b>	1,120	39.9	26.7	
Counties with 2004 Population > 20,000	Boone	37	27.9 (86)	20.7 (86)	Lee	79	40.6 (43)	30.3 (28)
	Buchanan	50	47.0 (18)	36.4 (07)	Mahaska	51	45.6 (23)	34.3 (12)
	Buena Vista	36	35.0 (59)	27.5 (48)	Marion	54	34.0 (65)	26.5 (59)
	Carroll	53	47.9 (17)	32.9 (15)	Marshall	77	38.9 (48)	29.9 (33)
	Cerro Gordo	105	43.2 (34)	32.3 (18)	Muscatine	67	31.9 (72)	28.0 (43)
	Clinton	94	36.0 (57)	27.2 (50)	Plymouth	48	38.7 (49)	31.2 (25)
	Des Moines	65	29.5 (82)	21.0 (82)	Sioux	49	30.4 (80)	24.0 (70)
	Fayette	43	38.4 (51)	25.4 (65)	Wapello	87	46.8 (19)	34.9 (10)
	Henry	34	34.3 (64)	26.9 (55)	Webster	90	44.4 (29)	32.2 (19)
	Jackson	26	25.3 (90)	19.5 (88)	Winneshiek	34	31.5 (75)	22.7 (71)
	Jasper	66	36.1 (56)	26.7 (56)	<b>Total</b>	1,245	37.4	28.2
MSA Counties	Benton	32	25.8 (89)	19.5 (88)	Linn	230	24.1 (91)	22.3 (75)
	Black Hawk	198	29.9 (81)	25.9 (62)	Madison	30	43.3 (33)	31.5 (22)
	Bremer	46	38.3 (52)	27.6 (47)	Mills	28	39.7 (45)	35.2 (09)
	Dallas	61	31.8 (73)	30.2 (29)	Polk	541	28.7 (83)	28.0 (43)
	Dubuque	143	31.3 (76)	25.5 (64)	Pottawattamie	137	31.0 (79)	26.7 (56)
	Grundy	32	50.8 (08)	32.0 (21)	Scott	230	28.5 (84)	27.0 (53)
	Guthrie	20	34.8 (61)	22.3 (75)	Story	86	22.6 (94)	24.6 (66)
	Harrison	31	39.4 (46)	28.2 (42)	Warren	66	32.4 (69)	30.2 (29)
	Johnson	111	20.5 (96)	27.1 (51)	Washington	29	27.3 (88)	19.6 (87)
	Jones	30	31.1 (78)	22.5 (73)	Woodbury	170	32.1 (70)	26.6 (58)
				<b>Total</b>	2,251	28.7	26.3	
	<b>State Total</b>	4,976	33.6	26.9				

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

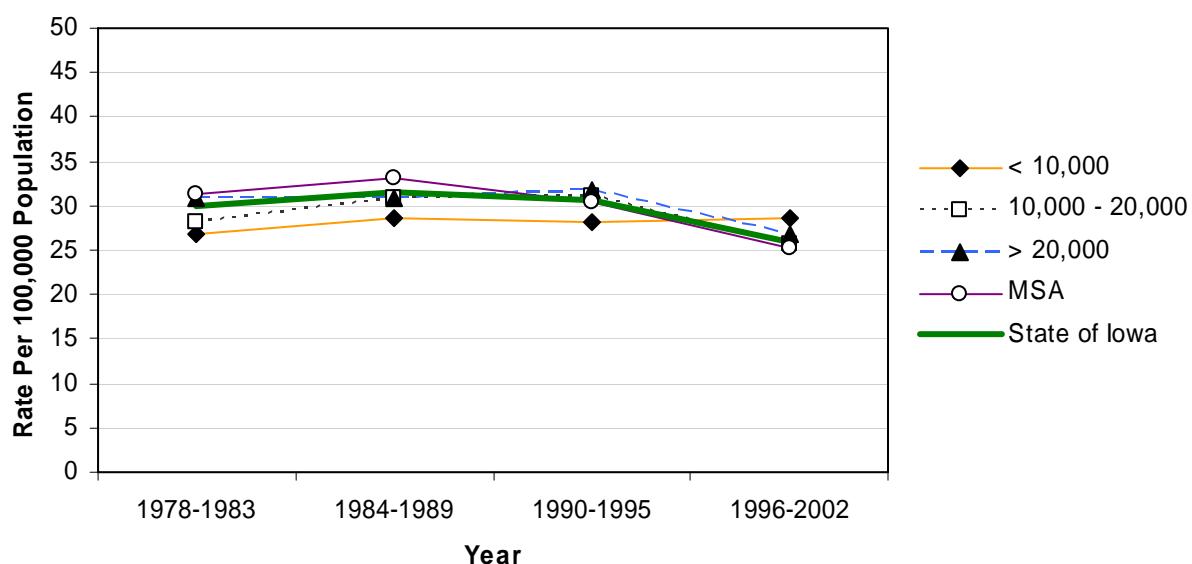
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Female Breast Cancer Mortality by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



**Colorectal Cancer Incidence 1993-2002**

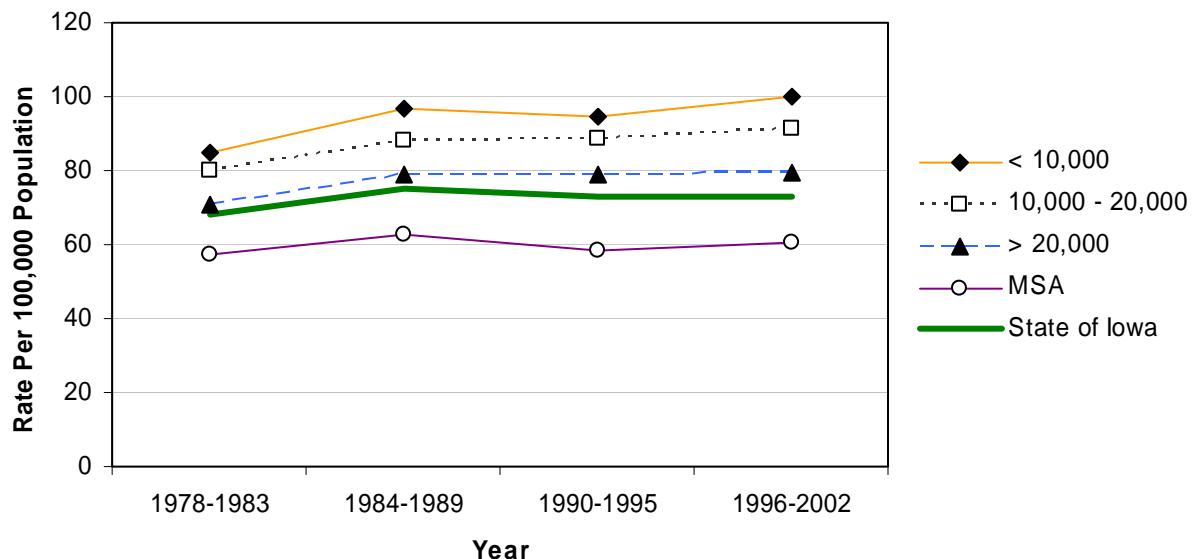
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with 2004 Population < 10,000	Adair	68	82.1 (57)	49.4 (95)	Monona	132	131.8 (01)	71.0 (17)
	Adams	35	77.5 (66)	46.3 (98)	Monroe	56	69.4 (84)	45.3 (99)
	Audubon	83	120.9 (04)	73.6 (13)	Osceola	63	88.9 (45)	58.7 (75)
	Clarke	60	68.1 (86)	50.4 (94)	Palo Alto	122	119.3 (05)	77.2 (05)
	Davis	73	85.8 (50)	60.8 (64)	Pocahontas	105	118.7 (06)	74.8 (10)
	Decatur	79	92.9 (37)	69.8 (23)	Ringgold	51	94.2 (31)	56.0 (84)
	Fremont	89	110.6 (12)	76.6 (06)	Taylor	80	114.5 (08)	69.2 (24)
	Howard	116	116.7 (07)	78.2 (03)	Van Buren	69	89.1 (44)	61.9 (59)
	Ida	79	98.8 (21)	65.0 (43)	Wayne	74	108.2 (14)	63.1 (54)
	Lucas	84	89.9 (41)	60.4 (66)	Worth	67	84.6 (53)	58.7 (75)
					<b>Total</b>	1,585	99.1	64.3
	Allamakee	135	93.3 (35)	67.1 (31)	Hardin	190	100.8 (19)	63.7 (49)
	Appanoose	167	121.9 (03)	80.1 (02)	Humboldt	116	111.4 (10)	70.5 (20)
	Butler	133	86.4 (48)	56.8 (81)	Iowa	121	78.5 (63)	59.1 (74)
	Calhoun	125	110.8 (11)	70.5 (20)	Jefferson	116	70.8 (81)	62.0 (58)
	Cass	139	93.8 (33)	57.6 (77)	Keokuk	111	96.9 (28)	63.8 (48)
	Cedar	120	66.8 (89)	51.6 (93)	Kossuth	161	92.5 (38)	64.2 (46)
	Cherokee	130	97.6 (25)	65.7 (37)	Louisa	77	63.8 (90)	57.4 (78)
	Chickasaw	97	73.6 (74)	55.5 (86)	Lyon	110	93.4 (34)	68.8 (25)
	Clay	139	79.5 (62)	59.3 (72)	Mitchell	119	109.0 (13)	73.7 (12)
	Clayton	173	92.1 (39)	67.4 (30)	Montgomery	145	122.7 (02)	77.9 (04)
	Crawford	137	81.3 (59)	62.9 (55)	O'Brien	163	106.3 (16)	68.6 (27)
	Delaware	131	71.4 (80)	62.5 (56)	Page	141	83.1 (55)	56.3 (82)
	Dickinson	149	93.0 (36)	59.8 (68)	Poweshiek	185	97.8 (24)	75.6 (07)
	Emmet	100	89.2 (42)	59.5 (70)	Sac	131	111.6 (09)	66.5 (33)
	Floyd	139	82.1 (57)	57.1 (80)	Shelby	129	97.9 (23)	66.1 (36)
	Franklin	96	88.1 (46)	60.3 (67)	Tama	171	95.2 (29)	65.4 (40)
	Greene	103	100.0 (20)	59.2 (73)	Union	110	89.2 (42)	61.0 (62)
	Hamilton	122	74.7 (72)	55.8 (85)	Winnebago	74	63.1 (91)	47.8 (97)
	Hancock	94	77.9 (64)	57.4 (78)	Wright	155	107.6 (15)	67.7 (28)
					<b>Total</b>	4,954	90.3	63.3
Counties with 2004 Population 10,000 - 20,000	Boone	195	75.5 (71)	59.8 (68)	Lee	290	75.6 (70)	60.6 (65)
	Buchanan	155	73.5 (75)	65.2 (41)	Mahaska	179	80.8 (60)	64.8 (44)
	Buena Vista	201	98.4 (22)	74.9 (09)	Marion	187	59.2 (94)	48.4 (96)
	Carroll	202	93.9 (32)	68.8 (25)	Marshall	304	77.9 (64)	61.1 (61)
	Cerro Gordo	337	72.3 (79)	55.0 (88)	Muscatine	301	72.5 (77)	70.6 (19)
	Clinton	406	80.2 (61)	65.5 (38)	Plymouth	239	97.3 (27)	81.5 (01)
	Des Moines	386	90.7 (40)	72.6 (14)	Sioux	222	70.4 (82)	64.5 (45)
	Fayette	185	83.9 (54)	59.5 (70)	Wapello	316	87.7 (47)	67.7 (28)
	Henry	154	76.7 (68)	63.9 (47)	Webster	344	86.3 (49)	66.3 (34)
	Jackson	191	94.4 (30)	74.0 (11)	Winneshiek	155	73.1 (76)	63.2 (53)
	Jasper	282	77.5 (66)	63.7 (49)	<b>Total</b>	5,231	80.1	64.7
Counties with 2004 Population > 20,000	Benton	210	85.2 (52)	71.4 (16)	Linn	1,122	60.2 (93)	61.7 (60)
	Black Hawk	866	68.0 (87)	63.3 (52)	Madison	93	68.2 (85)	53.8 (90)
	Bremer	178	76.5 (69)	62.3 (57)	Mills	105	74.5 (73)	70.3 (22)
	Dallas	221	58.6 (95)	60.9 (63)	Polk	1,854	50.9 (96)	56.3 (82)
	Dubuque	645	72.5 (77)	65.2 (41)	Pottawattamie	600	69.8 (83)	66.2 (35)
	Grundy	101	82.3 (56)	54.9 (89)	Scott	967	61.4 (92)	65.5 (38)
	Guthrie	114	101.1 (18)	66.8 (32)	Story	329	42.0 (98)	52.8 (91)
	Harrison	156	101.3 (17)	75.1 (08)	Warren	194	48.9 (97)	52.5 (92)
	Johnson	381	35.4 (99)	55.3 (87)	Washington	200	97.4 (26)	70.9 (18)
	Jones	174	85.7 (51)	71.7 (15)	Woodbury	691	66.9 (88)	63.4 (51)
					<b>Total</b>	9,201	60.0	61.5
	<b>State Total</b>	20,971	72.5	62.9				

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

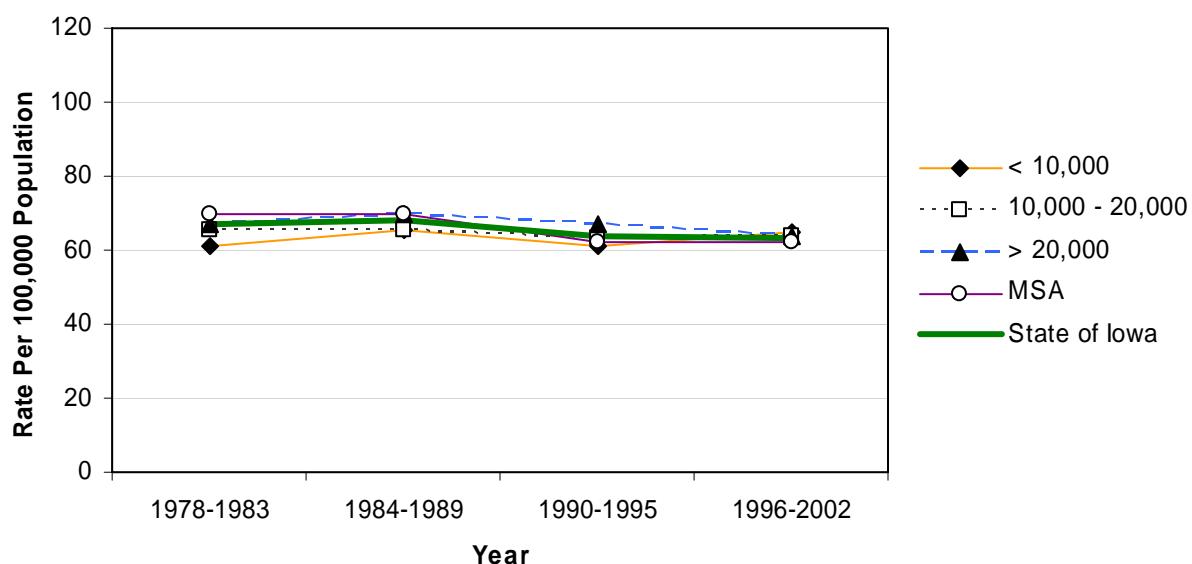
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Colorectal Cancer Incidence by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



**Colorectal Cancer Mortality 1993-2002**

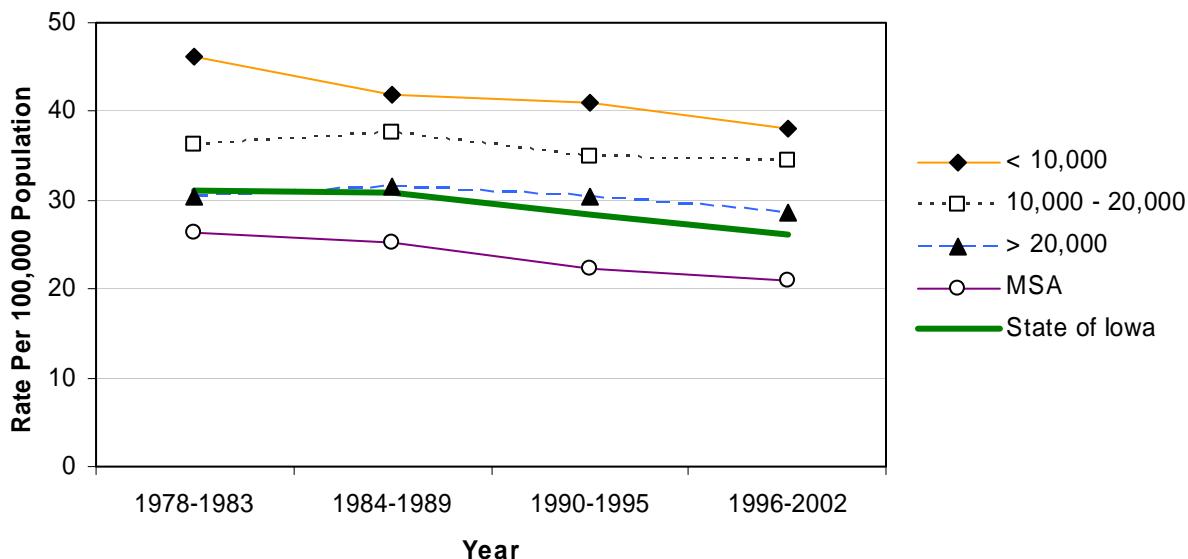
County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	
Counties with 2004 Population < 10,000	Adair	36	43.5 (11)	24.7 (34)	Monona	52	51.9 (02)	26.7 (20)
	Adams	13	28.8 (65)	17.4 (95)	Monroe	28	34.7 (38)	22.4 (55)
	Audubon	18	26.2 (78)	15.6 (97)	Osceola	15	21.2 (95)	12.6 (99)
	Clarke	24	27.2 (72)	18.2 (91)	Palo Alto	48	46.9 (04)	28.8 (10)
	Davis	27	31.7 (50)	21.8 (64)	Pocahontas	38	43.0 (13)	24.6 (35)
	Decatur	41	48.2 (03)	36.8 (01)	Ringgold	22	40.6 (23)	20.2 (77)
	Fremont	37	46.0 (05)	30.3 (05)	Taylor	30	42.9 (14)	23.6 (40)
	Howard	44	44.3 (08)	28.0 (13)	Van Buren	33	42.6 (15)	29.3 (08)
	Ida	33	41.3 (21)	26.1 (27)	Wayne	38	55.6 (01)	29.5 (07)
	Lucas	31	33.2 (43)	20.2 (77)	Worth	19	24.0 (86)	13.7 (98)
				<b>Total</b>	627	39.2	23.9	
Counties with 2004 Population 10,000 - 20,000	Allamakee	59	40.8 (22)	28.3 (12)	Hardin	64	34.0 (40)	19.3 (85)
	Appanoose	60	43.8 (09)	27.7 (14)	Humboldt	34	32.7 (45)	19.4 (84)
	Butler	52	33.8 (41)	22.1 (58)	Iowa	46	29.9 (58)	21.0 (71)
	Calhoun	48	42.6 (15)	25.8 (29)	Jefferson	35	21.4 (94)	18.8 (88)
	Cass	53	35.8 (34)	21.1 (70)	Keokuk	40	34.9 (37)	23.6 (40)
	Cedar	48	26.7 (75)	19.9 (81)	Kossuth	47	27.0 (73)	18.6 (89)
	Cherokee	42	31.5 (52)	20.9 (72)	Louisa	36	29.8 (59)	26.5 (23)
	Chickasaw	32	24.3 (84)	17.9 (93)	Lyon	43	36.5 (30)	26.5 (23)
	Clay	56	32.0 (48)	22.4 (55)	Mitchell	35	32.1 (47)	21.9 (63)
	Clayton	79	42.1 (20)	29.1 (09)	Montgomery	37	31.3 (54)	18.5 (90)
	Crawford	61	36.2 (32)	26.4 (25)	O'Brien	53	34.6 (39)	22.0 (62)
	Delaware	72	39.2 (26)	34.2 (02)	Page	48	28.3 (70)	19.3 (85)
	Dickinson	58	36.2 (32)	22.7 (49)	Poweshiek	80	42.3 (19)	29.9 (06)
	Emmet	33	29.4 (61)	19.2 (87)	Sac	53	45.1 (07)	27.7 (14)
	Floyd	53	31.3 (54)	20.9 (72)	Shelby	56	42.5 (17)	26.7 (20)
	Franklin	39	35.8 (34)	23.4 (42)	Tama	66	36.7 (29)	23.4 (42)
	Greene	47	45.6 (06)	24.9 (33)	Union	47	38.1 (27)	24.6 (35)
	Hamilton	47	28.8 (65)	21.7 (65)	Winnebago	29	24.7 (81)	16.6 (96)
	Hancock	40	33.1 (44)	24.4 (37)	Wright	61	42.4 (18)	26.1 (27)
				<b>Total</b>	1,889	34.4	23.2	
Counties with 2004 Population > 20,000	Boone	76	29.4 (61)	22.6 (51)	Lee	125	32.6 (46)	25.2 (31)
	Buchanan	60	28.5 (67)	24.3 (38)	Mahaska	63	28.4 (68)	22.6 (51)
	Buena Vista	89	43.6 (10)	32.9 (03)	Marion	71	22.5 (89)	17.9 (93)
	Carroll	87	40.4 (24)	28.7 (11)	Marshall	119	30.5 (57)	23.2 (45)
	Cerro Gordo	124	26.6 (76)	19.6 (83)	Muscatine	97	23.4 (87)	22.5 (53)
	Clinton	140	27.7 (71)	22.5 (53)	Plymouth	82	33.4 (42)	27.2 (17)
	Des Moines	135	31.7 (50)	25.1 (32)	Sioux	78	24.7 (81)	21.3 (68)
	Fayette	65	29.5 (60)	21.6 (66)	Wapello	133	36.9 (28)	26.9 (18)
	Henry	58	28.9 (64)	22.7 (49)	Webster	98	24.6 (83)	18.2 (91)
	Jackson	71	35.1 (36)	26.3 (26)	Winneshiek	62	29.2 (63)	23.8 (39)
	Jasper	98	26.9 (74)	22.1 (58)	<b>Total</b>	1,931	29.6	23.2
MSA Counties	Benton	79	32.0 (48)	26.6 (22)	Linn	406	21.8 (90)	22.2 (57)
	Black Hawk	277	21.8 (90)	20.0 (80)	Madison	35	25.7 (79)	20.4 (75)
	Bremer	62	26.6 (76)	21.4 (67)	Mills	40	28.4 (68)	26.8 (19)
	Dallas	86	22.8 (88)	23.4 (42)	Polk	669	18.4 (97)	20.3 (76)
	Dubuque	223	25.1 (80)	22.1 (58)	Pottawattamie	207	24.1 (85)	22.9 (48)
	Grundy	38	31.0 (56)	20.8 (74)	Scott	340	21.6 (92)	23.1 (47)
	Guthrie	41	36.4 (31)	23.2 (45)	Story	135	17.2 (98)	21.2 (69)
	Harrison	67	43.5 (11)	31.1 (04)	Warren	83	20.9 (96)	22.1 (58)
	Johnson	135	12.5 (99)	20.2 (77)	Washington	81	39.5 (25)	27.6 (16)
	Jones	64	31.5 (52)	25.7 (30)	Woodbury	222	21.5 (93)	19.9 (81)
				<b>Total</b>	3,290	21.5	21.8	
	<b>State Total</b>	7,737	26.7	22.6				

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

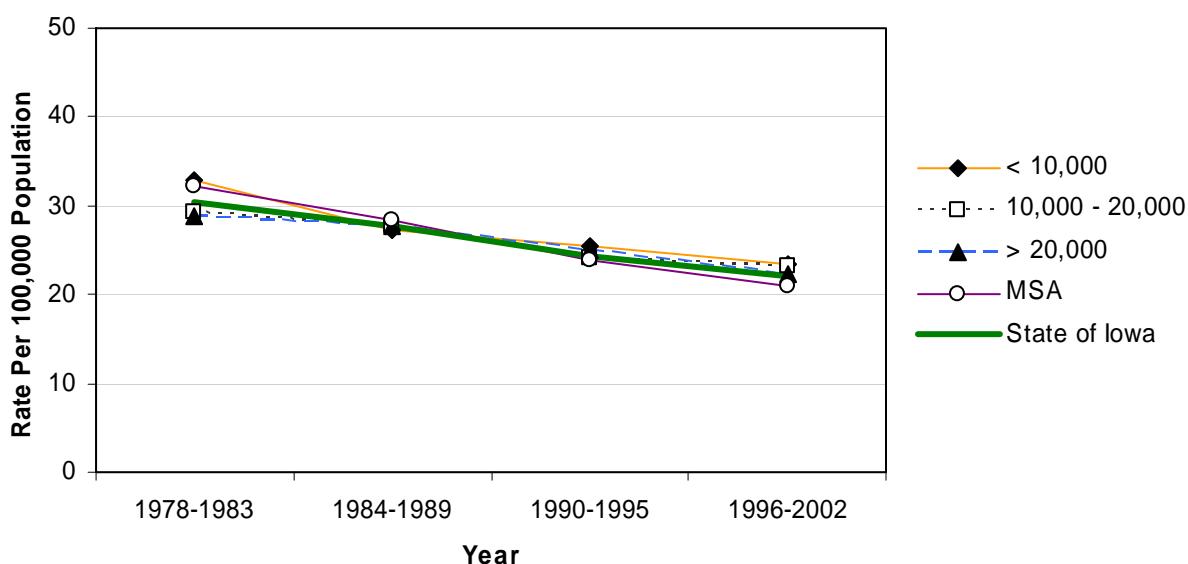
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Colorectal Cancer Mortality by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



**Non-Hodgkin's Lymphoma Incidence 1993-2002**

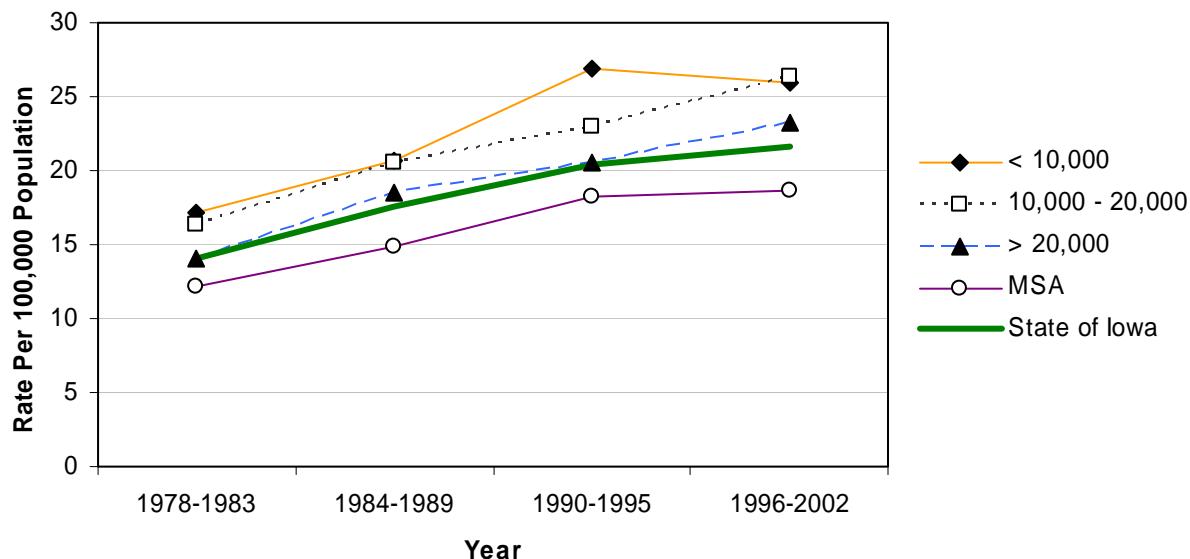
County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
<b>Counties with 2004 Population &lt; 10,000</b>				Monona	30	30.0 (08)	19.6 (40)
Adair	23	27.8 (21)	21.9 (17)	Monroe	23	28.5 (12)	20.7 (28)
Adams	11	24.4 (41)	14.8 (88)	Osceola	22	31.1 (07)	22.6 (11)
Audubon	14	20.4 (76)	14.1 (93)	Palo Alto	23	22.5 (60)	15.7 (82)
Clarke	20	22.7 (59)	18.2 (60)	Pocahontas	22	24.9 (37)	20.1 (34)
Davis	18	21.2 (73)	17.9 (64)	Ringgold	15	27.7 (22)	16.7 (75)
Decatur	31	36.5 (01)	30.1 (01)	Taylor	13	18.6 (86)	10.0 (99)
Fremont	16	19.9 (80)	14.7 (91)	Van Buren	19	24.5 (40)	19.7 (37)
Howard	20	20.1 (78)	14.3 (92)	Wayne	24	35.1 (02)	24.6 (06)
Ida	20	25.0 (36)	14.8 (88)	Worth	21	26.5 (33)	18.9 (50)
Lucas	22	23.5 (50)	17.7 (67)	<b>Total</b>	407	25.4	18.3
<b>Counties with 2004 Population 10,000 - 20,000</b>				Hardin	45	23.9 (44)	16.7 (75)
Allamakee	30	20.7 (74)	15.0 (86)	Humboldt	25	24.0 (43)	16.6 (78)
Appanoose	34	24.8 (38)	17.1 (72)	Iowa	41	26.6 (31)	21.1 (26)
Butler	43	27.9 (19)	20.2 (33)	Jefferson	33	20.1 (78)	18.4 (56)
Calhoun	32	28.4 (14)	18.5 (54)	Keokuk	32	27.9 (19)	19.3 (44)
Cass	41	27.7 (22)	20.1 (34)	Kossuth	47	27.0 (25)	21.1 (26)
Cedar	48	26.7 (30)	21.2 (24)	Louisa	20	16.6 (94)	15.7 (82)
Cherokee	31	23.3 (52)	17.1 (72)	Lyon	34	28.9 (09)	22.8 (09)
Chickasaw	43	32.6 (05)	25.2 (03)	Mitchell	38	34.8 (03)	25.0 (04)
Clay	46	26.3 (34)	22.2 (14)	Montgomery	27	22.9 (55)	15.1 (85)
Clayton	43	22.9 (55)	17.9 (64)	O'Brien	41	26.8 (28)	18.2 (60)
Crawford	33	19.6 (82)	15.5 (84)	Page	27	15.9 (95)	10.7 (98)
Delaware	29	15.8 (96)	14.8 (88)	Poweshiek	52	27.5 (24)	22.7 (10)
Dickinson	46	28.7 (10)	21.3 (21)	Sac	26	22.1 (64)	14.9 (87)
Emmet	26	23.2 (53)	17.4 (70)	Shelby	37	28.1 (18)	18.8 (52)
Floyd	45	26.6 (31)	19.2 (45)	Tama	51	28.4 (14)	22.1 (15)
Franklin	26	23.9 (44)	16.6 (78)	Union	35	28.4 (14)	21.3 (21)
Greene	22	21.4 (69)	13.2 (96)	Winnebago	37	31.6 (06)	23.2 (08)
Hamilton	44	26.9 (26)	22.0 (16)	<b>Total</b>	1,385	25.3	18.9
Hancock	34	28.2 (17)	21.2 (24)				
<b>Counties with 2004 Population &gt; 20,000</b>				Boone	49	19.0 (84)	16.1 (81)
Buchanan	39	18.5 (87)	16.6 (78)	Lee	97	25.3 (35)	21.4 (20)
Buena Vista	45	22.0 (66)	18.0 (63)	Mahaska	44	19.9 (80)	16.7 (75)
Carroll	73	33.9 (04)	28.4 (02)	Marion	70	22.2 (62)	19.6 (40)
Cerro Gordo	103	22.1 (64)	18.3 (57)	Marshall	85	21.8 (67)	18.2 (60)
Clinton	121	23.9 (44)	20.3 (31)	Muscatine	93	22.4 (61)	22.3 (13)
Des Moines	100	23.5 (50)	19.6 (40)	Plymouth	60	24.4 (41)	21.5 (19)
Fayette	52	23.6 (48)	18.3 (57)	Sioux	70	22.2 (62)	20.3 (31)
Henry	43	21.4 (69)	19.1 (46)	Wapello	97	26.9 (26)	21.6 (18)
Jackson	48	23.7 (47)	19.1 (46)	Webster	91	22.8 (57)	19.1 (46)
Jasper	83	22.8 (57)	19.5 (43)	Winneshiek	41	19.3 (83)	16.8 (74)
<b>Total</b>	1,504	23.0	19.6				
<b>MSA Counties</b>				Benton	66	26.8 (28)	23.3 (07)
				Black Hawk	262	20.6 (75)	19.7 (37)
				Bremer	47	20.2 (77)	17.5 (68)
				Dallas	81	21.5 (68)	22.6 (11)
				Dubuque	206	23.2 (53)	21.3 (21)
				Grundy	29	23.6 (48)	17.8 (66)
				Guthrie	24	21.3 (72)	13.8 (94)
				Harrison	38	24.7 (39)	18.9 (50)
				Johnson	158	14.7 (97)	20.5 (30)
				Jones	58	28.6 (11)	25.0 (04)
<b>State Total</b>	6,175	21.3	19.3	<b>Total</b>	2,879	18.8	19.3

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

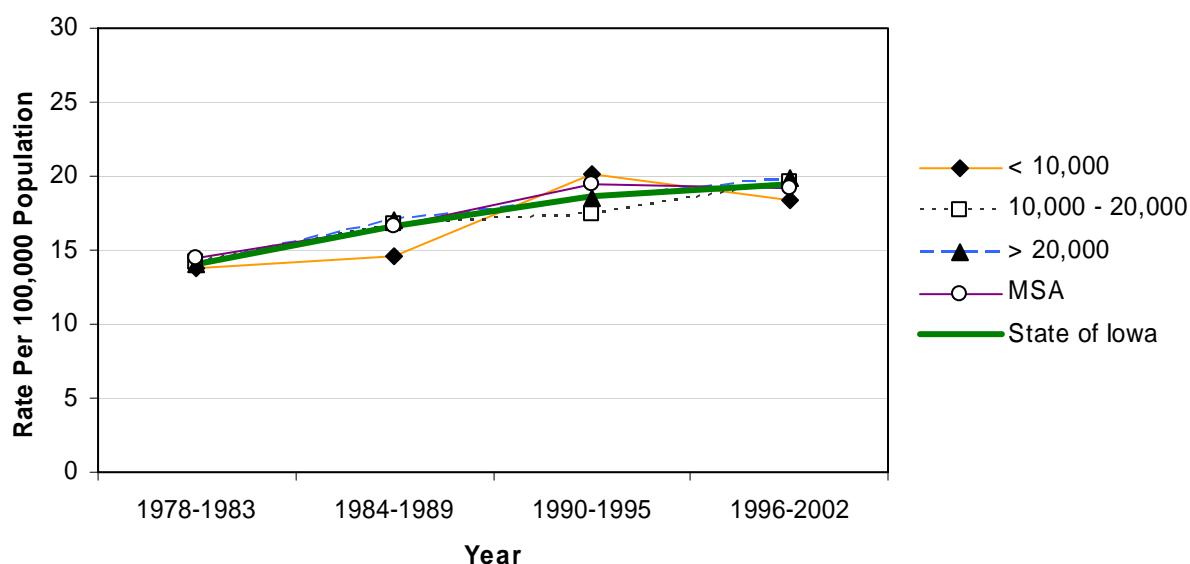
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Non-Hodgkin's Lymphoma Incidence by County Group 1978-2002

**Crude Rates**



**Age Adjusted Rates**



**Non-Hodgkin's Lymphoma Mortality 1993-2002**

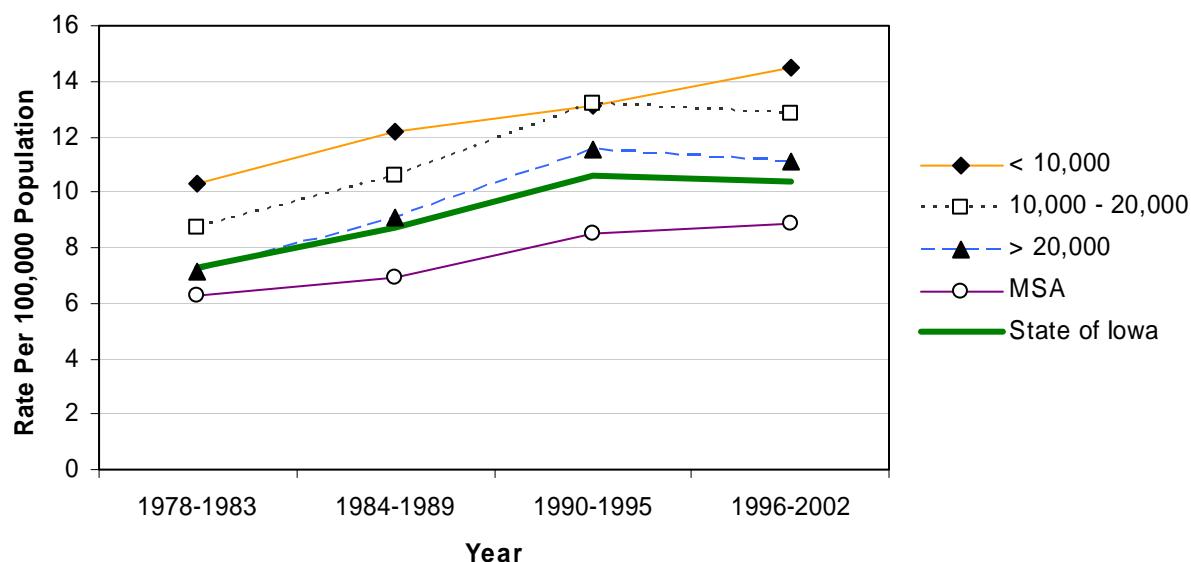
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>		County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with 2004 Population < 10,000	Adair	15	18.1	11.4		Monona	14	14.0	7.5
	Adams	8	17.7	11.1		Monroe	8	9.9	6.9
	Audubon	*	*	*		Osceola	10	14.1	9.6
	Clarke	13	14.8	12.1		Palo Alto	22	21.5	15.0
	Davis	10	11.8	9.0		Pocahontas	13	14.7	9.2
	Decatur	13	15.3	11.6		Ringgold	11	20.3	11.0
	Fremont	13	16.2	12.7		Taylor	5	7.2	3.1
	Howard	8	8.0	5.5		Van Buren	7	9.0	7.1
	Ida	8	10.0	6.1		Wayne	12	17.5	10.9
	Lucas	12	12.8	9.4		Worth	14	17.7	11.3
						<b>Total</b>	216-220	13.5-13.8	9.2-9.5
Counties with 2004 Population 10,000 - 20,000	Allamakee	13	9.0	5.9		Hardin	23	12.2	7.8
	Appanoose	16	11.7	7.6		Humboldt	10	9.6	6.0
	Butler	18	11.7	7.7		Iowa	31	20.1	14.8
	Calhoun	19	16.8	11.1		Jefferson	19	11.6	10.7
	Cass	17	11.5	7.3		Keokuk	19	16.6	10.2
	Cedar	25	13.9	10.6		Kossuth	24	13.8	10.4
	Cherokee	16	12.0	8.2		Louisa	10	8.3	7.1
	Chickasaw	17	12.9	9.2		Lyon	16	13.6	10.1
	Clay	25	14.3	10.7		Mitchell	17	15.6	9.0
	Clayton	16	8.5	6.2		Montgomery	19	16.1	9.4
	Crawford	11	6.5	5.0		O'Brien	20	13.0	7.8
	Delaware	16	8.7	7.7		Page	22	13.0	8.0
	Dickinson	23	14.4	9.8		Poweshiek	21	11.1	8.3
	Emmet	14	12.5	8.2		Sac	10	8.5	4.8
	Floyd	31	18.3	13.4		Shelby	14	10.6	6.5
	Franklin	11	10.1	6.6		Tama	20	11.1	8.0
	Greene	11	10.7	6.8		Union	16	13.0	8.4
	Hamilton	22	13.5	10.2		Winnebago	19	16.2	11.5
	Hancock	18	14.9	10.9		Wright	22	15.3	8.8
						<b>Total</b>	691	12.6	8.7
Counties with 2004 Population > 20,000	Boone	27	10.5	7.8		Lee	53	13.8	11.3
	Buchanan	29	13.8	12.1		Mahaska	17	7.7	6.1
	Buena Vista	26	12.7	9.9		Marion	35	11.1	9.3
	Carroll	30	13.9	10.2		Marshall	43	11.0	8.6
	Cerro Gordo	45	9.7	7.2		Muscatine	33	7.9	7.8
	Clinton	61	12.0	9.8		Plymouth	29	11.8	9.3
	Des Moines	57	13.4	10.7		Sioux	28	8.9	7.4
	Fayette	24	10.9	7.8		Wapello	51	14.1	10.3
	Henry	27	13.4	11.3		Webster	44	11.0	8.4
	Jackson	20	9.9	7.6		Winneshiek	20	9.4	7.9
	Jasper	45	12.4	10.2		<b>Total</b>	744	11.4	9.1
MSA Counties	Benton	29	11.8	9.2		Linn	167	9.0	9.2
	Black Hawk	117	9.2	8.5		Madison	15	11.0	10.0
	Bremer	26	11.2	9.0		Mills	9	6.4	6.2
	Dallas	33	8.7	9.2		Polk	319	8.8	9.6
	Dubuque	106	11.9	10.4		Pottawattamie	83	9.7	9.3
	Grundy	17	13.8	8.9		Scott	133	8.4	9.0
	Guthrie	13	11.5	6.8		Story	57	7.3	8.9
	Harrison	20	13.0	8.7		Warren	23	5.8	6.1
	Johnson	68	6.3	9.9		Washington	23	11.2	8.9
	Jones	23	11.3	9.1		Woodbury	101	9.8	9.2
						<b>Total</b>	1,382	9.0	9.2
	<b>State Total</b>	3,033-7	10.4-10.5	9.0-9.1					

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

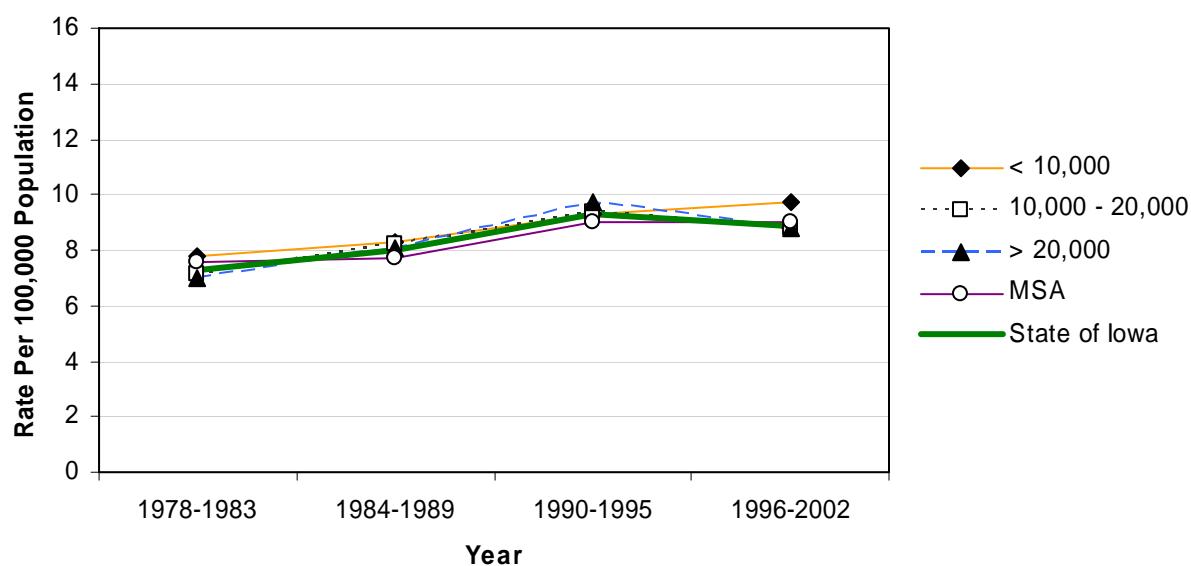
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Non-Hodgkin's Lymphoma Mortality by County Group 1978-2002

**Crude Rates**



**Age-Adjusted Rates**



CANCER INCIDENCE AND MORTALITY

**Leukemia Incidence 1993-2002**

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 2004 Population < 10,000	Adair	18	21.7 (31)	15.5 (46)	Monona	28	28.0 (06)	19.9 (09)
	Adams	6	13.3 (85)	9.6 (95)	Monroe	19	23.5 (20)	17.2 (20)
	Audubon	21	30.6 (02)	16.7 (27)	Osceola	12	16.9 (63)	13.9 (64)
	Clarke	16	18.2 (54)	13.9 (64)	Palo Alto	28	27.4 (07)	20.1 (07)
	Davis	9	10.6 (98)	9.0 (98)	Pocahontas	22	24.9 (13)	17.7 (15)
	Decatur	11	12.9 (90)	10.3 (90)	Ringgold	13	24.0 (16)	14.5 (56)
	Fremont	25	31.1 (01)	22.9 (01)	Taylor	16	22.9 (22)	15.1 (52)
	Howard	19	19.1 (48)	12.8 (76)	Van Buren	17	22.0 (27)	14.2 (60)
	Ida	18	22.5 (25)	17.7 (15)	Wayne	14	20.5 (38)	13.4 (73)
	Lucas	12	12.8 (91)	9.6 (95)	Worth	10	12.6 (93)	9.7 (92)
					<b>Total</b>	334	20.9	14.8
	Allamakee	24	16.6 (65)	12.2 (82)	Hardin	50	26.5 (09)	18.5 (11)
	Appanoose	19	13.9 (84)	9.7 (92)	Humboldt	25	24.0 (16)	16.6 (30)
Counties with 2004 Population 10,000 - 20,000	Butler	41	26.6 (08)	20.1 (07)	Iowa	24	15.6 (74)	11.7 (84)
	Calhoun	28	24.8 (14)	16.3 (34)	Jefferson	32	19.5 (44)	17.5 (17)
	Cass	21	14.2 (82)	8.6 (99)	Keokuk	25	21.8 (28)	15.0 (53)
	Cedar	46	25.6 (10)	20.5 (04)	Kossuth	38	21.8 (28)	16.2 (35)
	Cherokee	23	17.3 (61)	12.2 (82)	Louisa	16	13.3 (85)	12.3 (80)
	Chickasaw	19	14.4 (79)	10.5 (88)	Lyon	17	14.4 (79)	10.4 (89)
	Clay	32	18.3 (53)	13.9 (64)	Mitchell	22	20.2 (40)	16.4 (32)
	Clayton	33	17.6 (56)	13.7 (69)	Montgomery	25	21.2 (35)	14.4 (58)
	Crawford	36	21.4 (33)	17.0 (24)	O'Brien	43	28.1 (05)	20.2 (06)
	Delaware	28	15.3 (77)	13.7 (69)	Page	28	16.5 (66)	10.2 (91)
	Dickinson	35	21.8 (28)	14.8 (55)	Poweshiek	41	21.7 (31)	17.1 (23)
	Emmet	16	14.3 (81)	9.7 (92)	Sac	23	19.6 (43)	13.7 (69)
	Floyd	36	21.3 (34)	15.3 (49)	Shelby	23	17.4 (59)	12.6 (78)
	Franklin	18	16.5 (66)	12.8 (76)	Tama	32	17.8 (55)	14.1 (62)
	Greene	26	25.2 (12)	16.4 (32)	Union	19	15.4 (76)	11.3 (85)
	Hamilton	47	28.8 (04)	21.8 (03)	Winnebago	26	22.2 (26)	17.2 (20)
	Hancock	23	19.1 (48)	14.2 (60)	Wright	35	24.3 (15)	15.9 (41)
					<b>Total</b>	1,095	20.0	14.7
Counties with 2004 Population > 20,000	Boone	59	22.8 (23)	18.3 (13)	Lee	75	19.5 (44)	16.5 (31)
	Buchanan	37	17.6 (56)	16.0 (38)	Mahaska	29	13.1 (89)	10.8 (87)
	Buena Vista	43	21.1 (36)	18.4 (12)	Marion	65	20.6 (37)	17.4 (18)
	Carroll	42	19.5 (44)	15.2 (50)	Marshall	75	19.2 (47)	15.6 (43)
	Cerro Gordo	93	20.0 (41)	16.2 (35)	Muscatine	65	15.7 (73)	15.6 (43)
	Clinton	82	16.2 (70)	14.3 (59)	Plymouth	50	20.4 (39)	17.2 (20)
	Des Moines	101	23.7 (19)	19.6 (10)	Sioux	53	16.8 (64)	15.2 (50)
	Fayette	64	29.0 (03)	22.6 (02)	Wapello	68	18.9 (52)	15.0 (53)
	Henry	35	17.4 (59)	15.8 (42)	Webster	76	19.1 (48)	16.0 (38)
	Jackson	46	22.7 (24)	18.0 (14)	Winneshiek	33	15.6 (74)	13.9 (64)
	Jasper	69	19.0 (51)	15.6 (43)	<b>Total</b>	1,260	19.3	16.3
MSA Counties	Benton	49	19.9 (42)	17.0 (24)	Linn	225	12.1 (95)	12.3 (80)
	Black Hawk	181	14.2 (82)	13.3 (74)	Madison	24	17.6 (56)	15.4 (48)
	Bremer	35	15.0 (78)	13.1 (75)	Mills	23	16.3 (69)	16.0 (38)
	Dallas	62	16.4 (68)	16.7 (27)	Polk	462	12.7 (92)	13.7 (69)
	Dubuque	118	13.3 (85)	12.4 (79)	Pottawattamie	149	17.3 (61)	16.7 (27)
	Grundy	31	25.3 (11)	20.3 (05)	Scott	210	13.3 (85)	14.0 (63)
	Guthrie	27	23.9 (18)	16.2 (35)	Story	91	11.6 (96)	14.5 (56)
	Harrison	19	12.3 (94)	9.3 (97)	Warren	41	10.3 (99)	10.9 (86)
	Johnson	122	11.3 (97)	17.0 (24)	Washington	48	23.4 (21)	17.3 (19)
	Jones	32	15.8 (72)	13.8 (68)	Woodbury	167	16.2 (70)	15.5 (46)
					<b>Total</b>	2,116	13.8	14.1
	<b>State Total</b>	4,805	16.6	14.8				

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

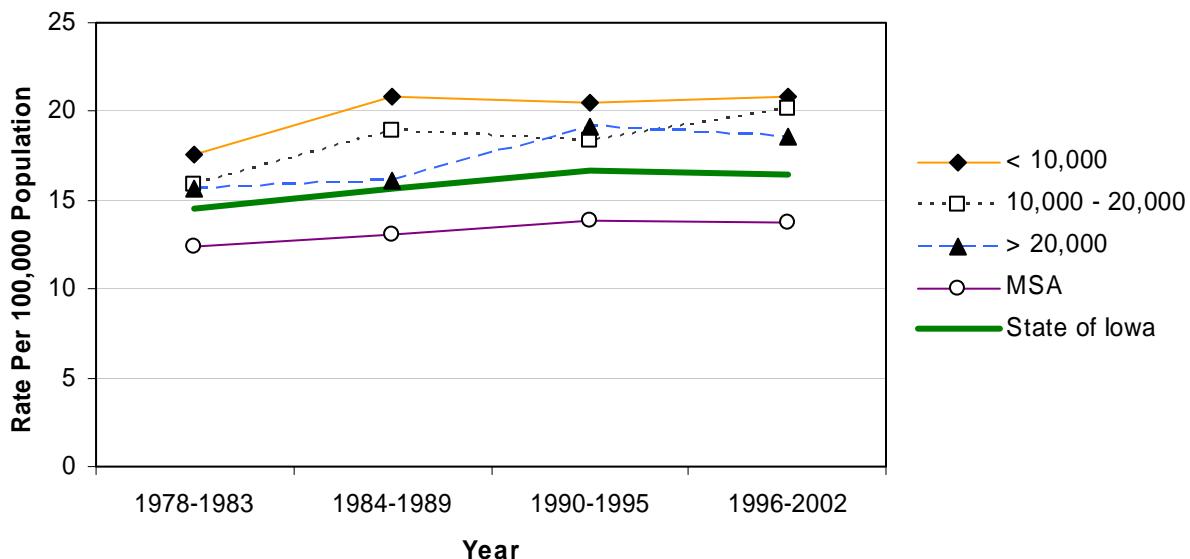
<sup>2</sup>Adjusted to year 2000 population

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

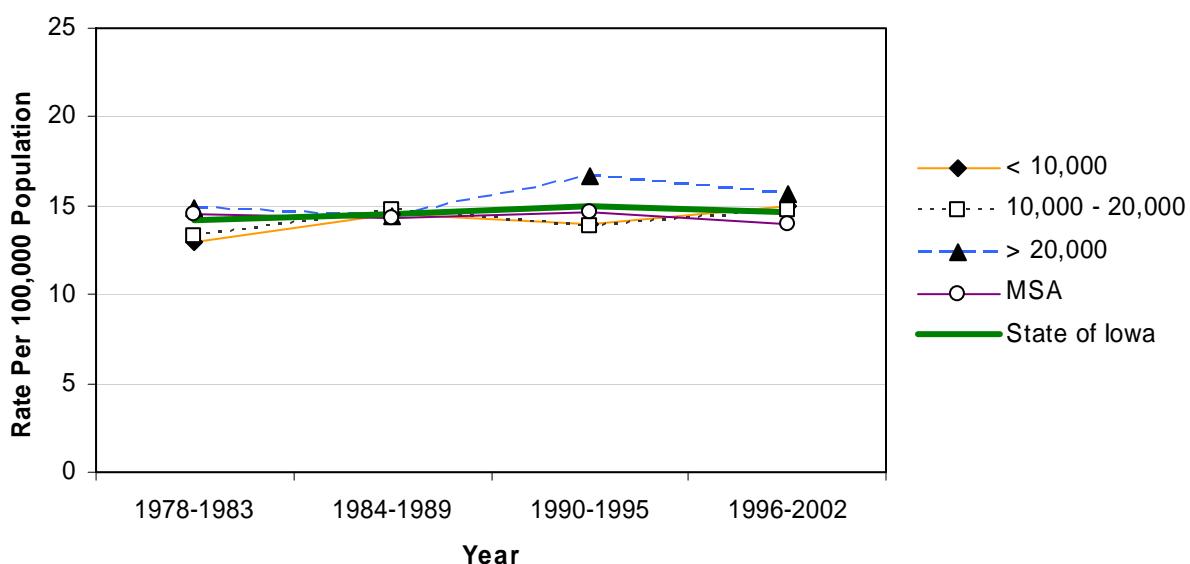
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Leukemia Incidence by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



**Leukemia Mortality 1993-2002**

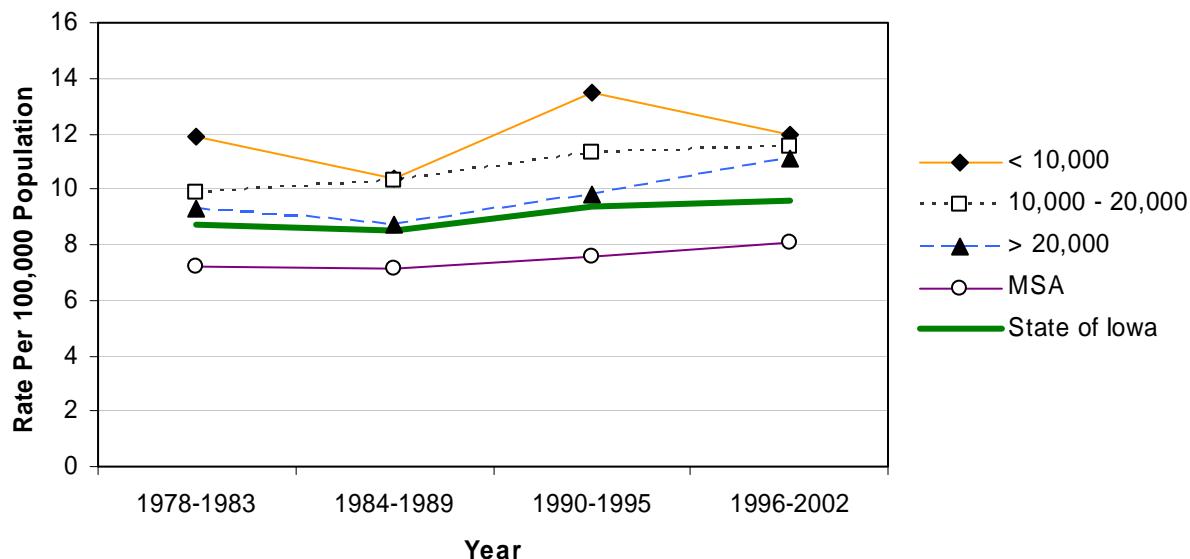
County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	
Counties with 2004 Population < 10,000	Adair	11	13.3	7.5	Monona	15	15.0	8.9
	Adams	*	*	*	Monroe	13	16.1	12.3
	Audubon	17	24.8	12.2	Osceola	10	14.1	11.4
	Clarke	12	13.6	9.2	Palo Alto	11	10.8	6.9
	Davis	11	12.9	9.5	Pocahontas	16	18.1	12.0
	Decatur	6	7.1	5.3	Ringgold	*	*	*
	Fremont	15	18.6	13.9	Taylor	11	15.7	9.5
	Howard	10	10.1	6.3	Van Buren	6	7.8	5.7
	Ida	7	8.8	4.9	Wayne	*	*	*
	Lucas	15	16.1	10.1	Worth	10	12.6	9.9
					<b>Total</b>	206	12.9	8.4
Counties with 2004 Population 10,000 - 20,000	Allamakee	14	9.7	6.2	Hardin	26	13.8	9.4
	Appanoose	7	5.1	3.5	Humboldt	20	19.2	13.3
	Butler	25	16.2	11.8	Iowa	12	7.8	4.8)
	Calhoun	17	15.1	8.9	Jefferson	10	6.1	5.3
	Cass	12	8.1	4.7	Keokuk	11	9.6	7.0
	Cedar	19	10.6	8.1	Kossuth	33	19.0	12.8
	Cherokee	13	9.8	6.3	Louisa	12	9.9	8.5
	Chickasaw	15	11.4	8.0	Lyon	17	14.4	10.1
	Clay	15	8.6	6.0	Mitchell	13	11.9	8.2
	Clayton	20	10.6	7.6	Montgomery	22	18.6	11.3
	Crawford	16	9.5	7.2	O'Brien	27	17.6	11.5
	Delaware	14	7.6	6.9	Page	16	9.4	5.9
	Dickinson	20	12.5	8.4	Poweshiek	25	13.2	8.9
	Emmet	13	11.6	7.0	Sac	9	7.7	6.1
	Floyd	13	7.7	4.8	Shelby	15	11.4	8.6
	Franklin	11	10.1	6.9	Tama	19	10.6	8.1
	Greene	11	10.7	5.6	Union	17	13.8	9.4
	Hamilton	21	12.9	9.4	Winnebago	17	14.5	11.1
	Hancock	13	10.8	7.4	Wright	24	16.7	9.7
					<b>Total</b>	634	11.6	8.0
Counties with 2004 Population > 20,000	Boone	37	14.3	11.0	Lee	41	10.7	8.6
	Buchanan	25	11.9	10.6	Mahaska	16	7.2	5.5
	Buena Vista	23	11.3	9.3	Marion	48	15.2	12.7
	Carroll	24	11.2	8.2	Marshall	41	10.5	8.0
	Cerro Gordo	55	11.8	8.8	Muscatine	37	8.9	8.9
	Clinton	43	8.5	7.3	Plymouth	25	10.2	8.1
	Des Moines	49	11.5	8.8	Sioux	35	11.1	9.9
	Fayette	29	13.2	9.7	Wapello	42	11.7	8.9
	Henry	19	9.5	8.1	Webster	42	10.5	8.1
	Jackson	24	11.9	9.0	Winneshiek	19	9.0	7.2
	Jasper	42	11.5	9.0	<b>Total</b>	716	11.0	8.8
MSA Counties	Benton	32	13.0	10.8	Linn	146	7.8	8.0
	Black Hawk	107	8.4	7.8	Madison	16	11.7	9.6
	Bremer	19	8.2	6.4	Mills	9	6.4	6.1
	Dallas	34	9.0	9.3	Polk	270	7.4	8.1
	Dubuque	73	8.2	7.5	Pottawattamie	80	9.3	8.9
	Grundy	21	17.1	11.3	Scott	110	7.0	7.4
	Guthrie	11	9.8	6.4	Story	51	6.5	8.0
	Harrison	14	9.1	6.4	Warren	33	8.3	8.8
	Johnson	82	7.6	11.8	Washington	25	12.2	7.8
	Jones	16	7.9	6.7	Woodbury	91	8.8	8.2
				<b>Total</b>	1,240	8.1	8.2	
	<b>State Total</b>	2,796	9.7	8.3				

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

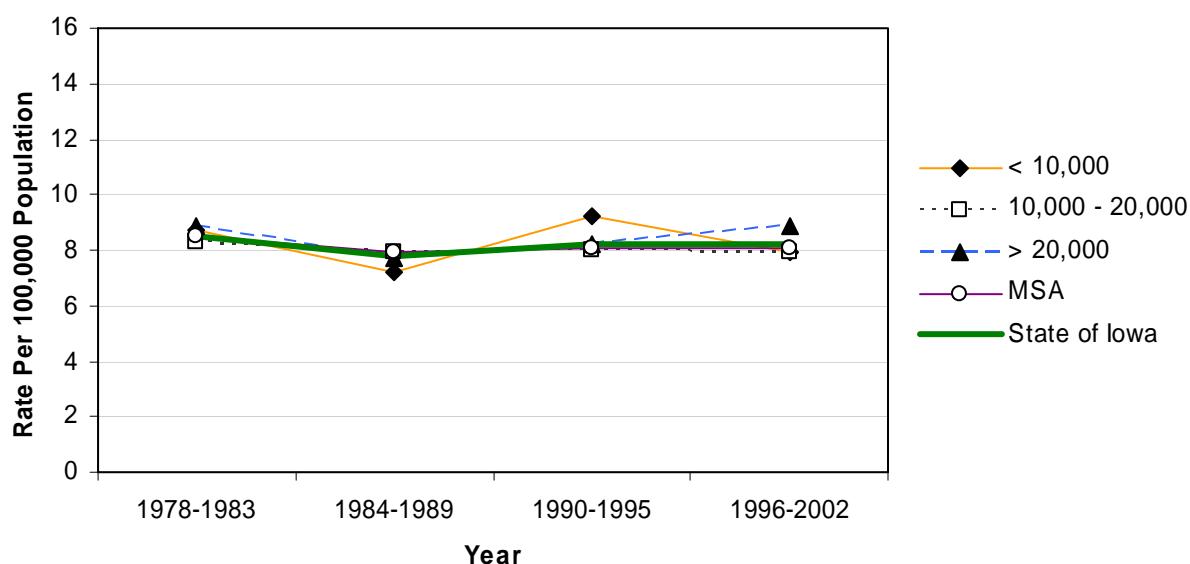
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Leukemia Mortality by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



**Skin Melanoma Incidence 1993-2002**

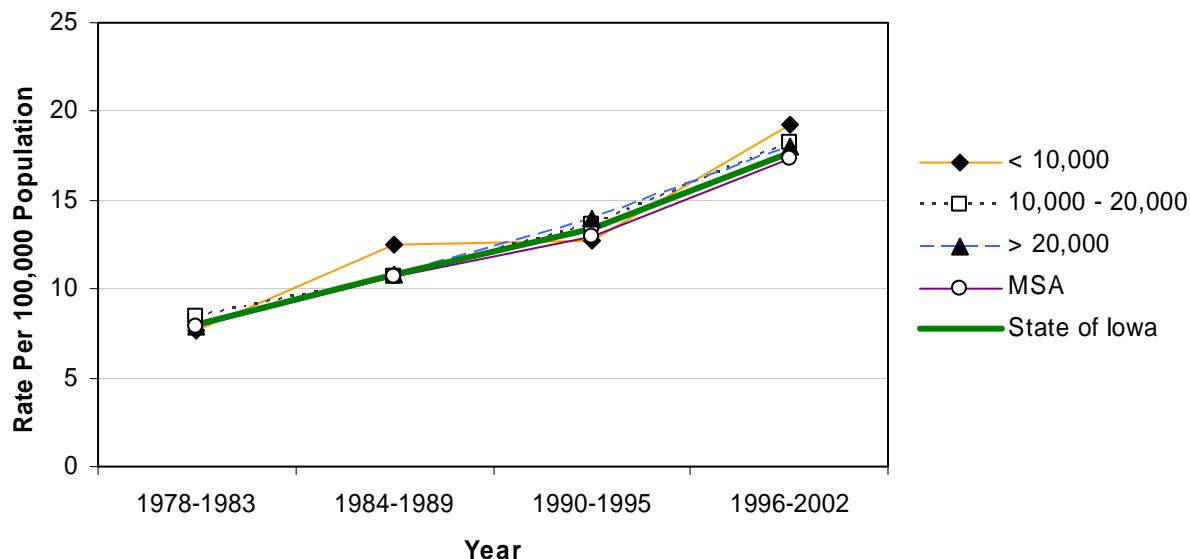
County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	
Counties with 2004 Population  <b>&lt; 10,000</b>	Adair	10	12.1 (91)	8.2 (97)	Monona	19	19.0 (29)	14.9 (53)
	Adams	9	19.9 (23)	18.4 (19)	Monroe	15	18.6 (35)	15.2 (47)
	Audubon	12	17.5 (39)	11.9 (77)	Osceola	7	9.9 (97)	7.6 (98)
	Clarke	20	22.7 (12)	17.7 (23)	Palo Alto	10	9.8 (98)	8.8 (95)
	Davis	14	16.5 (52)	15.2 (47)	Pocahontas	7	7.9 (99)	5.5 (99)
	Decatur	16	18.8 (32)	15.9 (39)	Ringgold	8	14.8 (67)	9.7 (92)
	Fremont	11	13.7 (78)	11.8 (80)	Taylor	12	17.2 (44)	14.8 (54)
	Howard	24	24.1 (06)	23.5 (04)	Van Buren	18	23.3 (11)	19.0 (17)
	Ida	20	25.0 (02)	20.8 (08)	Wayne	9	13.2 (83)	11.3 (85)
	Lucas	22	23.5 (09)	20.6 (09)	Worth	18	22.7 (12)	17.6 (24)
				<b>Total</b>	281	17.6	14.4	
Counties with 2004 Population  <b>10,000 - 20,000</b>	Allamakee	27	18.7 (34)	15.2 (47)	Hardin	31	16.4 (54)	14.4 (60)
	Appanoose	29	21.2 (17)	15.6 (45)	Humboldt	13	12.5 (89)	8.7 (96)
	Butler	29	18.8 (32)	16.1 (36)	Iowa	27	17.5 (39)	15.9 (39)
	Calhoun	17	15.1 (64)	13.0 (68)	Jefferson	21	12.8 (85)	11.7 (82)
	Cass	22	14.8 (67)	11.6 (83)	Keokuk	13	11.3 (94)	9.7 (92)
	Cedar	42	23.4 (10)	22.1 (06)	Kossuth	30	17.2 (44)	14.8 (54)
	Cherokee	28	21.0 (19)	17.0 (32)	Louisa	24	19.9 (23)	19.9 (11)
	Chickasaw	18	13.7 (78)	12.9 (69)	Lyon	23	19.5 (25)	17.8 (22)
	Clay	22	12.6 (88)	11.2 (87)	Mitchell	26	23.8 (07)	18.1 (21)
	Clayton	31	16.5 (52)	13.3 (66)	Montgomery	16	13.5 (81)	11.8 (80)
	Crawford	18	10.7 (96)	9.4 (94)	O'Brien	23	15.0 (65)	11.9 (77)
	Delaware	30	16.3 (57)	16.1 (36)	Page	36	21.2 (17)	16.6 (33)
	Dickinson	40	25.0 (02)	22.1 (06)	Poweshiek	21	11.1 (95)	10.6 (91)
	Emmet	16	14.3 (74)	11.3 (85)	Sac	25	21.3 (15)	16.2 (35)
	Floyd	40	23.6 (08)	19.6 (12)	Shelby	22	16.7 (49)	14.8 (54)
	Franklin	16	14.7 (70)	12.5 (72)	Tama	30	16.7 (49)	15.3 (46)
	Greene	19	18.4 (37)	15.0 (52)	Union	18	14.6 (72)	12.3 (76)
	Hamilton	25	15.3 (63)	13.5 (65)	Winnebago	19	16.2 (58)	15.7 (42)
	Hancock	17	14.1 (75)	12.4 (73)	Wright	23	16.0 (60)	10.7 (89)
				<b>Total</b>	927	16.9	14.6	
Counties with 2004 Population  <b>&gt; 20,000</b>	Boone	55	21.3 (15)	19.4 (13)	Lee	64	16.7 (49)	15.1 (50)
	Buchanan	52	24.7 (04)	24.9 (01)	Mahaska	31	14.0 (76)	12.7 (71)
	Buena Vista	25	12.2 (90)	11.9 (77)	Marion	43	13.6 (80)	12.4 (73)
	Carroll	37	17.2 (44)	15.7 (42)	Marshall	80	20.5 (20)	18.4 (19)
	Cerro Gordo	89	19.1 (27)	17.2 (29)	Muscatine	61	14.7 (70)	14.7 (57)
	Clinton	101	20.0 (22)	18.5 (18)	Plymouth	28	11.4 (93)	10.7 (89)
	Des Moines	62	14.6 (72)	13.1 (67)	Sioux	61	19.4 (26)	19.3 (15)
	Fayette	41	18.6 (35)	14.5 (59)	Wapello	69	19.1 (27)	17.4 (26)
	Henry	37	18.4 (37)	16.6 (33)	Webster	51	12.8 (85)	11.4 (84)
	Jackson	34	16.8 (48)	15.7 (42)	Winneshiek	25	11.8 (92)	10.8 (88)
	Jasper	59	16.2 (58)	14.4 (60)	<b>Total</b>	1,105	16.9	15.6
MSA Counties	Benton	42	17.0 (47)	15.9 (39)	Linn	355	19.0 (29)	19.3 (15)
	Black Hawk	223	17.5 (39)	17.3 (28)	Madison	19	13.9 (77)	13.6 (63)
	Bremer	52	22.3 (14)	20.0 (10)	Mills	18	12.8 (85)	12.4 (73)
	Dallas	62	16.4 (54)	17.1 (30)	Polk	474	13.0 (84)	13.6 (63)
	Dubuque	155	17.4 (43)	17.4 (26)	Pottawattamie	114	13.3 (82)	12.9 (69)
	Grundy	35	28.5 (01)	24.3 (02)	Scott	247	15.7 (62)	16.1 (36)
	Guthrie	23	20.4 (21)	17.6 (24)	Story	149	19.0 (29)	23.7 (03)
	Harrison	23	14.9 (66)	14.0 (62)	Warren	65	16.4 (54)	17.1 (30)
	Johnson	172	16.0 (60)	19.4 (13)	Washington	36	17.5 (39)	14.6 (58)
	Jones	50	24.6 (05)	23.0 (05)	Woodbury	153	14.8 (67)	15.1 (50)
				<b>Total</b>	2,467	16.1	16.5	
	<b>State Total</b>	4,780	16.5	15.8				

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

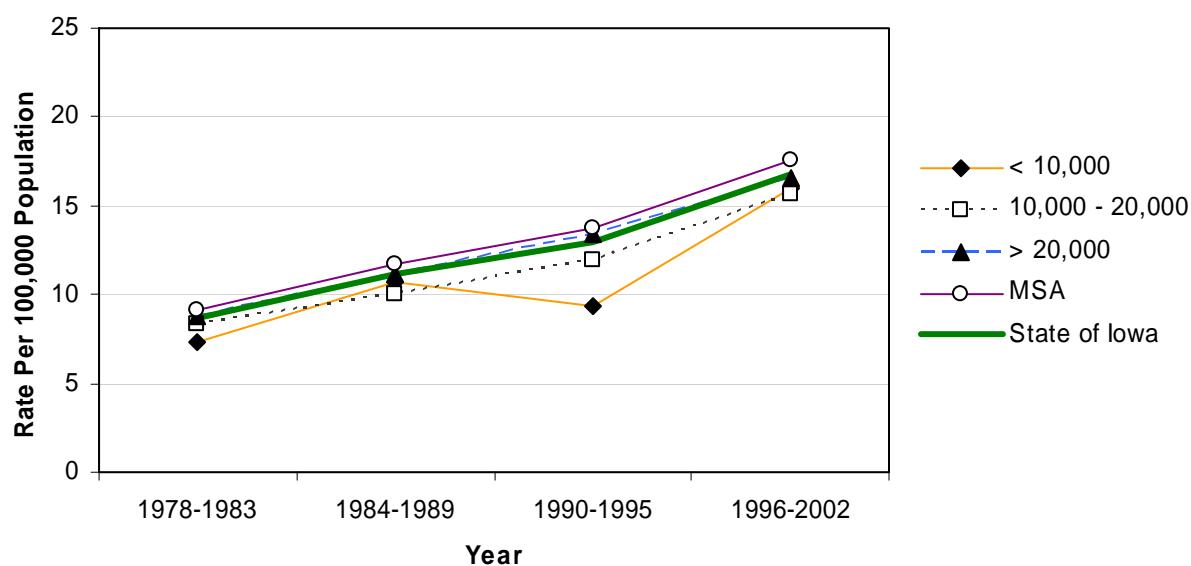
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Skin Melanoma Incidence by County Group 1978-2002

Crude Rates



Age-Adjusted Rates



**Skin Melanoma Mortality 1993-2002**

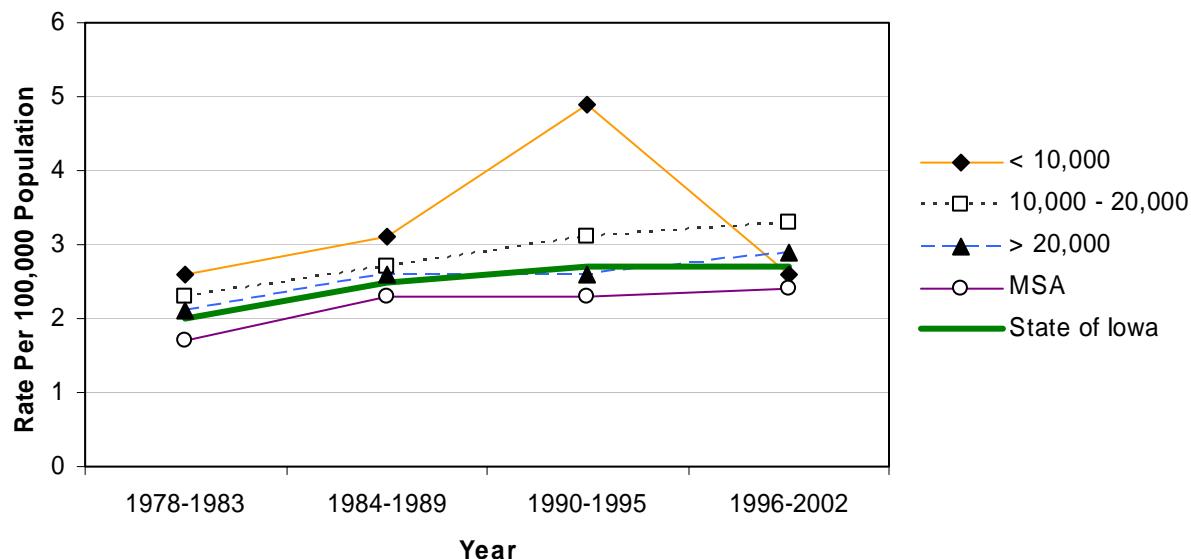
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>		County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with 2004 Population < 10,000	Adair	*	*	*		Monona	5	5.0	2.7
	Adams	*	*	*		Monroe	*	*	*
	Audubon	*	*	*		Osceola	*	*	*
	Clarke	*	*	*		Palo Alto	*	*	*
	Davis	*	*	*		Pocahontas	*	*	*
	Decatur	*	*	*		Ringgold	*	*	*
	Fremont	*	*	*		Taylor	*	*	*
	Howard	5	5.0	4.2		Van Buren	*	*	*
	Ida	*	*	*		Wayne	*	*	*
	Lucas	5	5.4	5.2		Worth	5	6.3	4.8
						<b>Total</b>	54	3.4	2.7
Counties with 2004 Population 10,000 - 20,000	Allamakee	5	3.5	2.6		Hardin	*	*	*
	Appanoose	*	*	*		Humboldt	*	*	*
	Butler	*	*	*		Iowa	*	*	*
	Calhoun	*	*	*		Jefferson	*	*	*
	Cass	5	3.4	2.3		Keokuk	*	*	*
	Cedar	12	6.7	5.5		Kossuth	*	*	*
	Cherokee	*	*	*		Louisa	*	*	*
	Chickasaw	*	*	*		Lyon	5	4.2	3.6
	Clay	9	5.1	4.5		Mitchell	*	*	*
	Clayton	*	*	*		Montgomery	5	4.2	3.4
	Crawford	*	*	*		O'Brien	8	5.2	3.5
	Delaware	*	*	*		Page	*	*	*
	Dickinson	9	5.6	3.8		Poweshiek	9	4.8	4.7
	Emmet	*	*	*		Sac	*	*	*
	Floyd	*	*	*		Shelby	8	6.1	5.4
	Franklin	*	*	*		Tama	6	3.3	3.2
	Greene	6	5.8	3.8		Union	7	5.7	4.2
	Hamilton	5	3.1	2.4		Winnebago	*	*	*
	Hancock	*	*	*		Wright	*	*	*
						<b>Total</b>	176	3.2	2.5
Counties with 2004 Population > 20,000	Boone	6	2.3	2.0		Lee	12	3.1	2.6
	Buchanan	9	4.3	4.0		Mahaska	*	*	*
	Buena Vista	10	4.9	4.6		Marion	10	3.2	2.9
	Carroll	*	*	*		Marshall	15	3.8	3.5
	Cerro Gordo	8	1.7	1.4		Muscatine	9	2.2	2.2
	Clinton	12	2.4	2.2		Plymouth	7	2.8	2.4
	Des Moines	22	5.2	4.3		Sioux	8	2.5	2.5
	Fayette	10	4.5	3.4		Wapello	8	2.2	1.9
	Henry	*	*	*		Webster	11	2.8	2.3
	Jackson	5	2.5	2.2		Winneshiek	*	*	*
	Jasper	7	1.9	1.9		<b>Total</b>	183	2.8	2.5
MSA Counties	Benton	9	3.6	3.1		Linn	41	2.2	2.2
	Black Hawk	30	2.4	2.3		Madison	*	*	*
	Bremer	5	2.1	2.1		Mills	*	*	*
	Dallas	*	*	*		Polk	92	2.5	2.7
	Dubuque	20	2.2	2.2		Pottawattamie	25	2.9	2.8
	Grundy	7	5.7	4.2		Scott	41	2.6	2.7
	Guthrie	*	*	*		Story	12	1.5	1.9
	Harrison	9	5.8	4.9		Warren	9	2.3	2.4
	Johnson	26	2.4	3.6		Washington	*	*	*
	Jones	*	*	*		Woodbury	20	1.9	1.9
						<b>Total</b>	367	2.4	2.5
	<b>State Total</b>	780	2.7	2.5					

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

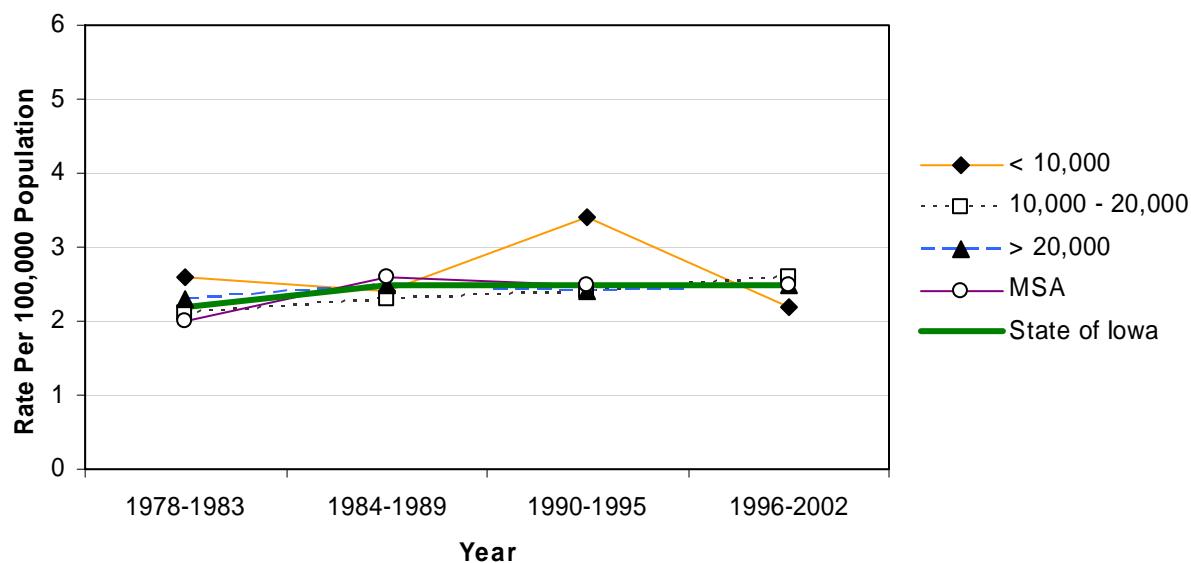
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Skin Melanoma Mortality by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



## CANCER INCIDENCE AND MORTALITY

**Oral Cavity (Excluding Lip) Cancer Incidence 1993-2002**

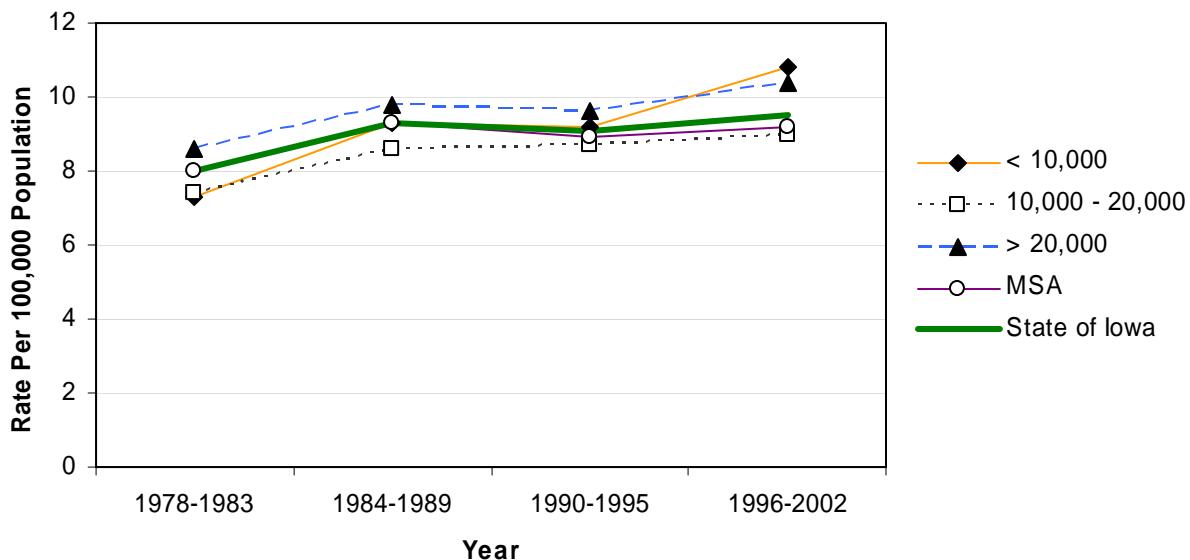
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>		County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with 2004 Population < 10,000	Adair	*	*	*		Monona	14	14.0	10.8
	Adams	10	22.2	16.2		Monroe	15	18.6	15.3
	Audubon	5	7.3	5.3		Osceola	9	12.7	10.7
	Clarke	14	15.9	13.3		Palo Alto	10	9.8	8.1
	Davis	*	*	*		Pocahontas	7	7.9	6.7
	Decatur	10	11.8	10.9		Ringgold	6	11.1	7.0
	Fremont	*	*	*		Taylor	9	12.9	9.3
	Howard	12	12.1	11.0		Van Buren	*	*	*
	Ida	10	12.5	8.6		Wayne	9	13.2	12.9
	Lucas	12	12.8	10.5		Worth	10	12.6	10.5
						<b>Total</b>	175	10.9	8.8
Counties with 2004 Population 10,000 - 20,000	Allamakee	17	11.7	9.7		Hardin	25	13.3	9.9
	Appanoose	16	11.7	9.8		Humboldt	8	7.7	6.1
	Butler	17	11.0	8.8		Iowa	8	5.2	4.5
	Calhoun	9	8.0	6.5		Jefferson	13	7.9	7.3
	Cass	16	10.8	7.3		Keokuk	14	12.2	10.2
	Cedar	16	8.9	8.2		Kossuth	21	12.1	9.5
	Cherokee	15	11.3	8.7		Louisa	*	*	*
	Chickasaw	*	*	*		Lyon	10	8.5	7.0
	Clay	17	9.7	8.7		Mitchell	*	*	*
	Clayton	23	12.2	10.3		Montgomery	13	11.0	8.8
	Crawford	20	11.9	10.3		O'Brien	15	9.8	7.3
	Delaware	9	4.9	5.1		Page	11	6.5	4.1
	Dickinson	10	6.2	4.1		Poweshiek	17	9.0	7.3
	Emmet	12	10.7	9.9		Sac	13	11.1	9.0
	Floyd	15	8.9	7.1		Shelby	8	6.1	4.6
	Franklin	9	8.3	7.0		Tama	19	10.6	8.4
	Greene	12	11.6	8.0		Union	16	13.0	10.3
	Hamilton	17	10.4	9.2		Winnebago	9	7.7	5.0
	Hancock	11	9.1	7.9		Wright	12	8.3	5.3
						<b>Total</b>	505	9.2	7.5
Counties with 2004 Population > 20,000	Boone	27	10.5	9.4		Lee	53	13.8	11.8
	Buchanan	18	8.5	7.9		Mahaska	18	8.1	7.1
	Buena Vista	21	10.3	9.6		Marion	32	10.1	9.4
	Carroll	19	8.8	7.1		Marshall	39	10.0	8.3
	Cerro Gordo	66	14.2	11.7		Muscatine	25	6.0	6.0
	Clinton	61	12.0	10.6		Plymouth	27	11.0	10.3
	Des Moines	50	11.8	10.0		Sioux	24	7.6	7.7
	Fayette	22	10.0	8.2		Wapello	44	12.2	10.1
	Henry	18	9.0	8.7		Webster	40	10.0	9.1
	Jackson	21	10.4	8.9		Winneshiek	23	10.8	9.9
	Jasper	25	6.9	5.8		<b>Total</b>	673	10.3	9.1
MSA Counties	Benton	15	6.1	5.8		Linn	181	9.7	10.0
	Black Hawk	127	10.0	9.9		Madison	10	7.3	6.8
	Bremer	25	10.7	8.6		Mills	10	7.1	6.7
	Dallas	35	9.3	9.7		Polk	313	8.6	9.3
	Dubuque	94	10.6	9.9		Pottawattamie	88	10.2	10.0
	Grundy	19	15.5	13.0		Scott	149	9.5	9.9
	Guthrie	11	9.8	7.8		Story	44	5.6	7.2
	Harrison	19	12.3	10.3		Warren	30	7.6	7.9
	Johnson	79	7.3	10.2		Washington	20	9.7	8.8
	Jones	18	8.9	8.2		Woodbury	93	9.0	9.2
						<b>Total</b>	1,380	9.0	9.4
	<b>State Total</b>	2,733	9.4	8.8					

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

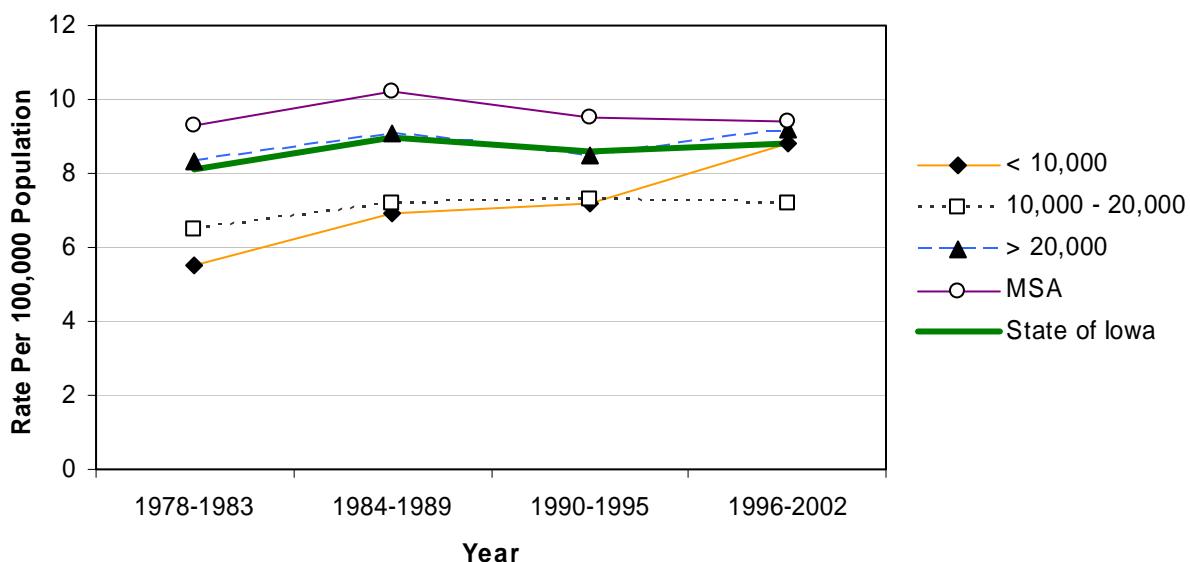
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Oral Cavity (Excluding Lip) Cancer Incidence by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



**Oral Cavity (Excluding Lip) Cancer Mortality 1993-2002**

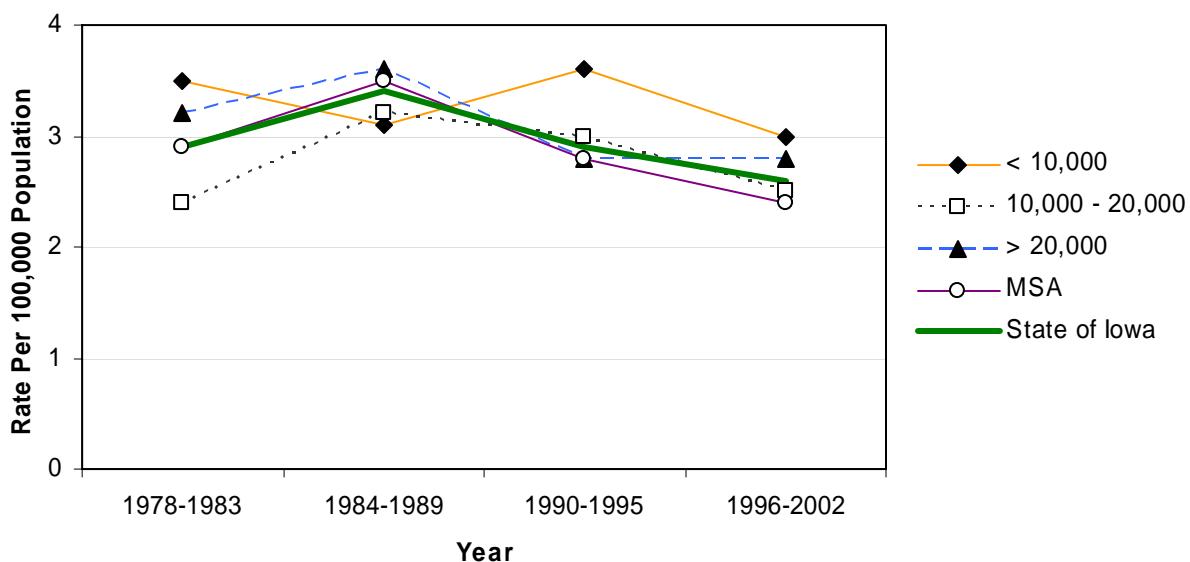
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>		County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with 2004 Population < 10,000	Adair	*	*	*		Monona	*	*	*
	Adams	*	*	*		Monroe	*	*	*
	Audubon	*	*	*		Osceola	*	*	*
	Clarke	*	*	*		Palo Alto	*	*	*
	Davis	*	*	*		Pocahontas	*	*	*
	Decatur	*	*	*		Ringgold	*	*	*
	Fremont	*	*	*		Taylor	*	*	*
	Howard	5	5.0	3.7		Van Buren	*	*	*
	Ida	5	6.3	3.3		Wayne	*	*	*
	Lucas	*	*	*		Worth	*	*	*
						<b>Total</b>	50	3.1	2.1
Counties with 2004 Population 10,000 - 20,000	Allamakee	5	3.5	2.3		Hardin	8	4.2	2.5
	Appanoose	6	4.4	4.3		Humboldt	*	*	*
	Butler	5	3.2	2.3		Iowa	*	*	*
	Calhoun	*	*	*		Jefferson	*	*	*
	Cass	*	*	*		Keokuk	*	*	*
	Cedar	*	*	*		Kossuth	9	5.2	3.6
	Cherokee	*	*	*		Louisa	*	*	*
	Chickasaw	*	*	*		Lyon	*	*	*
	Clay	5	2.9	2.2		Mitchell	*	*	*
	Clayton	*	*	*		Montgomery	*	*	*
	Crawford	5	3.0	2.2		O'Brien	*	*	*
	Delaware	*	*	*		Page	*	*	*
	Dickinson	7	4.4	2.7		Poweshiek	*	*	*
	Emmet	*	*	*		Sac	5	4.3	2.6
	Floyd	*	*	*		Shelby	6	4.6	3.1
	Franklin	*	*	*		Tama	6	3.3	2.6
	Greene	*	*	*		Union	5	4.1	3.0
	Hamilton	*	*	*		Winnebago	5	4.3	3.2
	Hancock	*	*	*		Wright	*	*	*
						<b>Total</b>	142	2.6	1.8
Counties with 2004 Population > 20,000	Boone	6	2.3	2.0		Lee	15	3.9	3.2
	Buchanan	5	2.4	2.0		Mahaska	*	*	*
	Buena Vista	*	*	*		Marion	7	2.2	1.9
	Carroll	8	3.7	2.5		Marshall	13	3.3	2.5
	Cerro Gordo	18	3.9	3.0		Muscatine	6	1.4	1.4
	Clinton	17	3.4	2.8		Plymouth	7	2.8	2.2
	Des Moines	12	2.8	2.3		Sioux	5	1.6	1.4
	Fayette	6	2.7	1.9		Wapello	15	4.2	3.3
	Henry	7	3.5	3.3		Webster	14	3.5	2.8
	Jackson	*	*	*		Winneshiek	8	3.8	3.4
	Jasper	7	1.9	1.6		<b>Total</b>	184	2.8	2.3
MSA Counties	Benton	*	*	*		Linn	45	2.4	2.5
	Black Hawk	35	2.7	2.7		Madison	5	3.7	3.4
	Bremer	8	3.4	3.0		Mills	*	*	*
	Dallas	11	2.9	2.9		Polk	84	2.3	2.5
	Dubuque	26	2.9	2.7		Pottawattamie	24	2.8	2.7
	Grundy	6	4.9	4.1		Scott	45	2.9	3.0
	Guthrie	*	*	*		Story	15	1.9	2.4
	Harrison	7	4.5	3.9		Warren	7	1.8	1.9
	Johnson	18	1.7	2.6		Washington	8	3.9	3.3
	Jones	*	*	*		Woodbury	31	3.0	3.0
						<b>Total</b>	387	2.5	2.6
<b>State Total</b>		763	2.6	2.3					

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

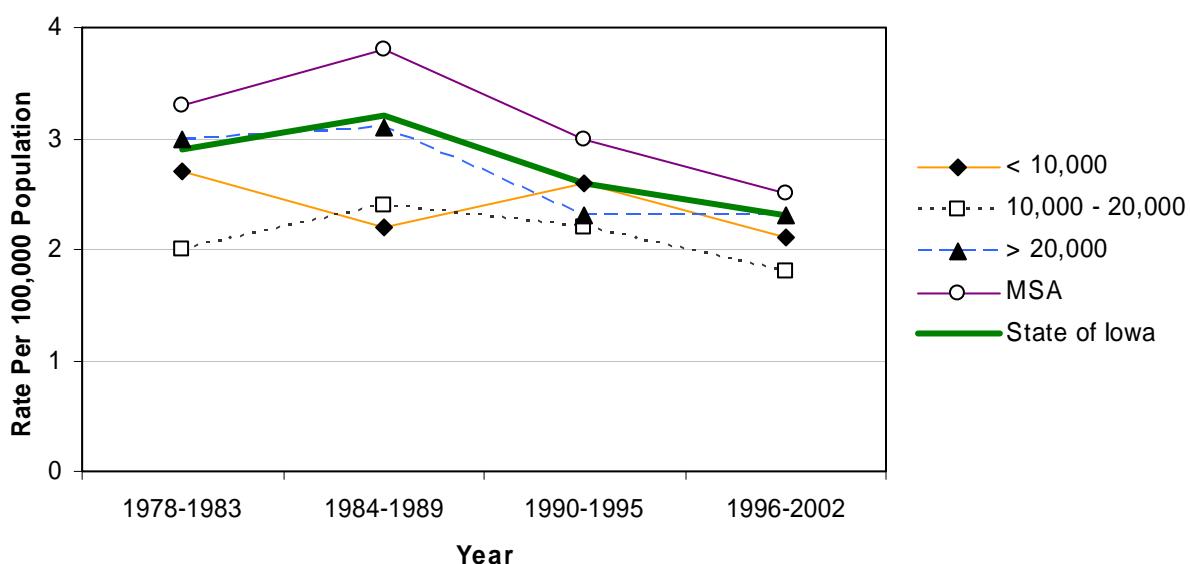
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Oral Cavity (Excluding Lip) Cancer Mortality by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



**Cervical Cancer Incidence 1993-2002**

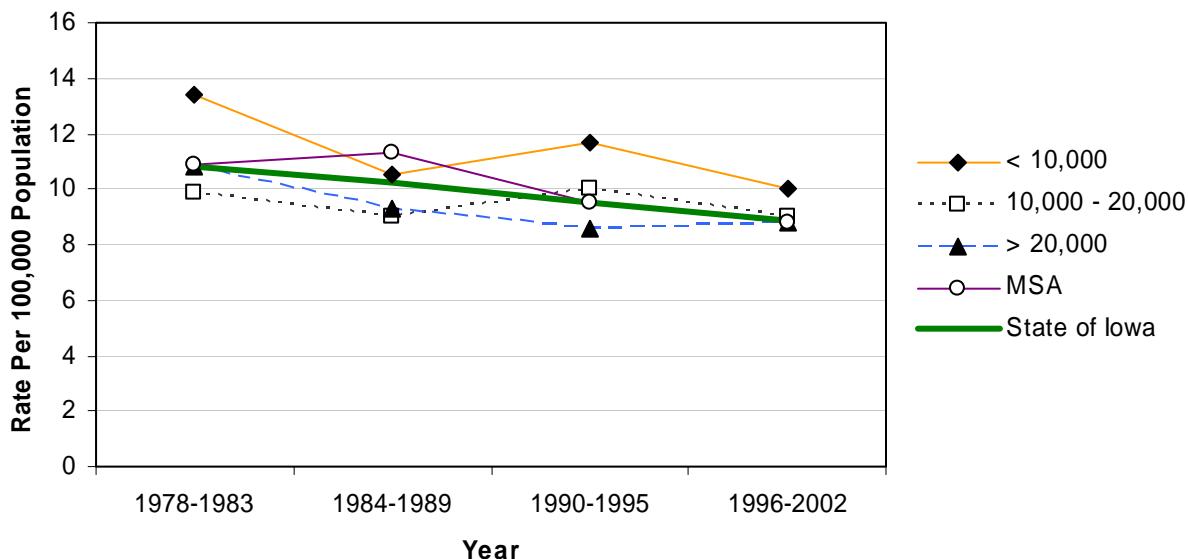
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>		County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with 2004 Population < 10,000	Adair	6	14.1	15.0		Monona	*	*	*
	Adams	*	*	*		Monroe	*	*	*
	Audubon	*	*	*		Osceola	*	*	*
	Clarke	7	15.5	15.3		Palo Alto	*	*	*
	Davis	*	*	*		Pocahontas	*	*	*
	Decatur	6	13.8	15.2		Ringgold	*	*	*
	Fremont	10	24.1	25.4		Taylor	*	*	*
	Howard	*	*	*		Van Buren	*	*	*
	Ida	*	*	*		Wayne	*	*	*
	Lucas	*	*	*		Worth	8	19.9	18.7
						<b>Total</b>	84	10.2	10.0
Counties with 2004 Population 10,000 - 20,000	Allamakee	5	6.9	6.7		Hardin	14	14.5	13.3
	Appanoose	11	15.4	15.8		Humboldt	5	9.4	7.4
	Butler	*	*	*		Iowa	*	*	*
	Calhoun	*	*	*		Jefferson	10	11.9	10.5
	Cass	8	10.4	11.8		Keokuk	5	8.5	8.4
	Cedar	8	8.8	8.2		Kossuth	6	6.7	7.5
	Cherokee	5	7.4	6.2		Louisa	6	9.9	9.1
	Chickasaw	8	12.1	11.6		Lyon	*	*	*
	Clay	10	11.0	9.7		Mitchell	*	*	*
	Clayton	9	9.5	10.2		Montgomery	5	8.0	6.9
	Crawford	8	9.4	10.1		O'Brien	9	11.4	14.1
	Delaware	6	6.5	6.3		Page	12	14.2	13.4
	Dickinson	9	10.9	10.4		Poweshiek	11	11.2	10.4
	Emmet	7	12.1	11.0		Sac	9	15.0	16.3
	Floyd	7	8.0	7.4		Shelby	5	7.4	8.4
	Franklin	*	*	*		Tama	*	*	*
	Greene	5	9.4	7.8		Union	7	10.8	10.8
	Hamilton	5	6.0	5.2		Winnebago	*	*	*
	Hancock	5	8.1	7.5		<b>Total</b>	248	8.8	8.5
Counties with 2004 Population > 20,000	Boone	14	10.6	11.2		Lee	14	7.2	7.3
	Buchanan	14	13.2	13.4		Mahaska	14	12.5	13.7
	Buena Vista	16	15.5	14.7		Marion	9	5.7	5.7
	Carroll	14	12.7	12.6		Marshall	17	8.6	7.3
	Cerro Gordo	22	9.1	8.5		Muscatine	29	13.8	13.5
	Clinton	18	6.9	7.0		Plymouth	*	*	*
	Des Moines	17	7.7	7.3		Sioux	8	5.0	5.5
	Fayette	11	9.8	9.6		Wapello	19	10.2	8.5
	Henry	9	9.1	9.0		Webster	21	10.4	9.2
	Jackson	4	3.9	4.2		Winneshiek	7	6.5	7.1
	Jasper	15	8.2	8.1		<b>Total</b>	292-296	8.8-8.9	8.6-8.7
MSA Counties	Benton	13	10.5	11.2		Linn	93	9.8	9.6
	Black Hawk	56	8.4	8.9		Madison	7	10.1	9.8
	Bremer	*	*	*		Mills	7	9.9	9.4
	Dallas	17	8.9	8.3		Polk	172	9.1	8.9
	Dubuque	36	7.9	8.0		Pottawattamie	55	12.5	12.4
	Grundy	5	7.9	8.7		Scott	71	8.8	8.7
	Guthrie	8	13.9	14.2		Story	26	6.8	8.0
	Harrison	8	10.2	10.4		Warren	15	7.4	7.1
	Johnson	35	6.5	7.6		Washington	10	9.4	9.1
	Jones	6	6.2	6.1		Woodbury	54	10.2	10.3
						<b>Total</b>	694-698	8.8-8.9	8.9-9.0
	<b>State Total</b>	1,323	8.9	8.8					

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

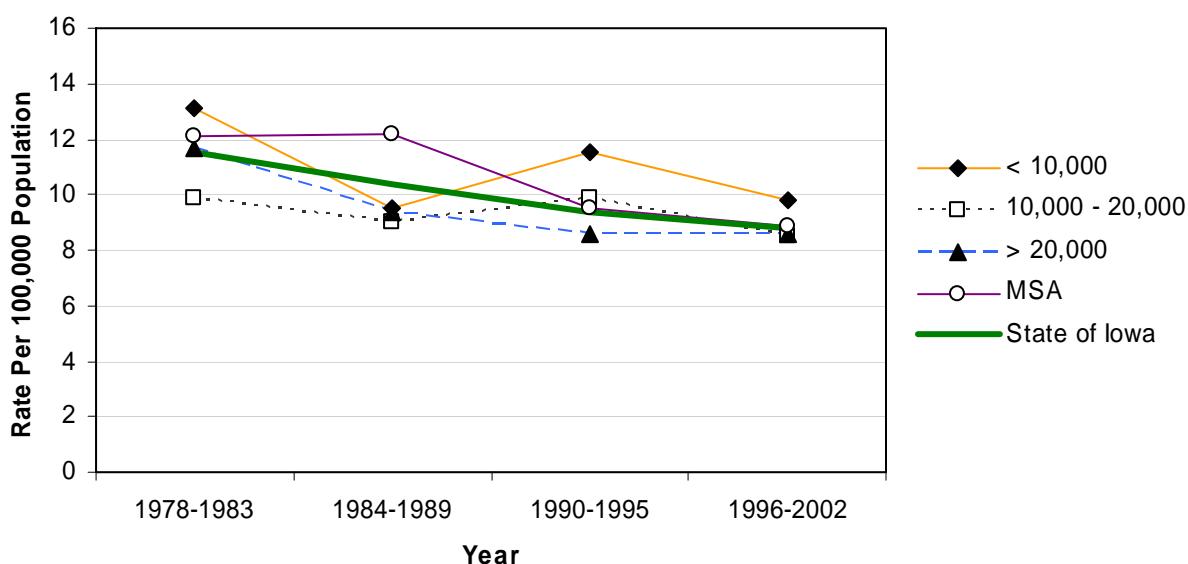
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Cervical Cancer Incidence by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



**Cervical Cancer Mortality 1993-2002**

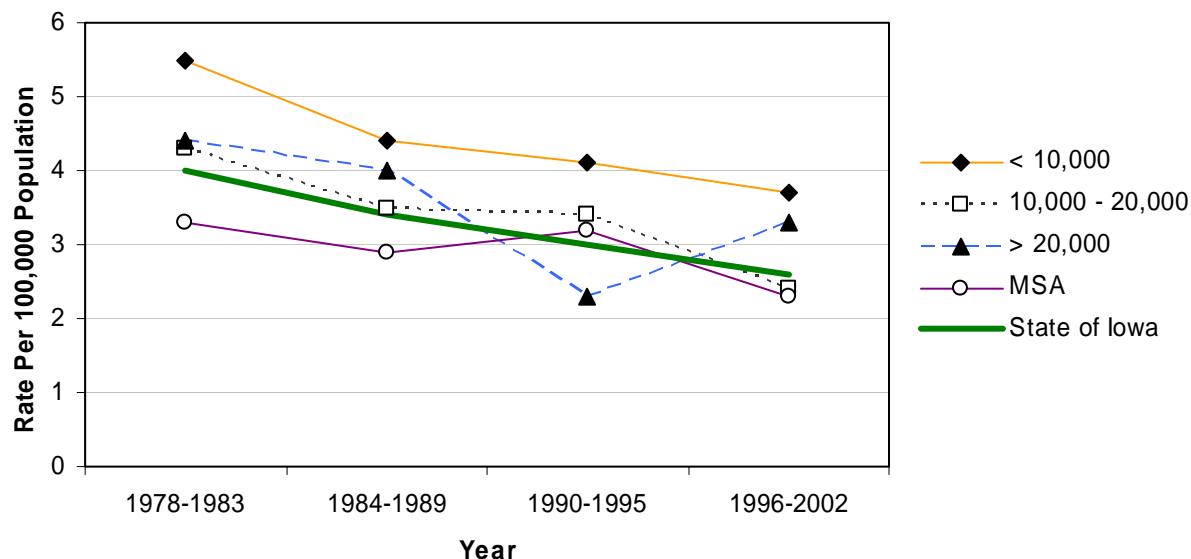
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with 2004 Population < 10,000	Adair	*	*	*	Monona	*	*	*
	Adams	*	*	*	Monroe	*	*	*
	Audubon	*	*	*	Osceola	*	*	*
	Clarke	*	*	*	Palo Alto	*	*	*
	Davis	*	*	*	Pocahontas	*	*	*
	Decatur	*	*	*	Ringgold	*	*	*
	Fremont	*	*	*	Taylor	*	*	*
	Howard	*	*	*	Van Buren	*	*	*
	Ida	*	*	*	Wayne	*	*	*
	Lucas	*	*	*	Worth	*	*	*
	<b>Total</b>	31	3.8	2.8				
Counties with 2004 Population 10,000 - 20,000	Allamakee	*	*	*	Hardin	*	*	*
	Appanoose	*	*	*	Humboldt	*	*	*
	Butler	*	*	*	Iowa	*	*	*
	Calhoun	*	*	*	Jefferson	6	7.2	6.5
	Cass	*	*	*	Keokuk	*	*	*
	Cedar	*	*	*	Kossuth	*	*	*
	Cherokee	*	*	*	Louisa	*	*	*
	Chickasaw	*	*	*	Lyon	*	*	*
	Clay	*	*	*	Mitchell	*	*	*
	Clayton	*	*	*	Montgomery	*	*	*
	Crawford	*	*	*	O'Brien	*	*	*
	Delaware	*	*	*	Page	*	*	*
	Dickinson	*	*	*	Poweshiek	*	*	*
	Emmet	*	*	*	Sac	*	*	*
	Floyd	*	*	*	Shelby	*	*	*
	Franklin	*	*	*	Tama	*	*	*
	Greene	*	*	*	Union	*	*	*
	Hamilton	*	*	*	Winnebago	*	*	*
	Hancock	*	*	*	Wright	6	8.1	5.7
					<b>Total</b>	71	2.5	2.2
Counties with 2004 Population > 20,000	Boone	6	4.5	4.7	Lee	*	*	*
	Buchanan	*	*	*	Mahaska	8	7.2	6.9
	Buena Vista	8	7.8	6.1	Marion	*	*	*
	Carroll	*	*	*	Marshall	5	2.5	2.0
	Cerro Gordo	8	3.3	2.8	Muscatine	10	4.8	4.4
	Clinton	5	1.9	1.9	Plymouth	*	*	*
	Des Moines	6	2.7	2.0	Sioux	*	*	*
	Fayette	5	4.5	4.1	Wapello	7	3.8	2.9
	Henry	*	*	*	Webster	5	2.5	1.9
	Jackson	*	*	*	Winneshiek	*	*	*
	Jasper	*	*	*	<b>Total</b>	99	3.0	2.7
MSA Counties	Benton	*	*	*	Linn	22	2.3	2.3
	Black Hawk	17	2.6	2.4	Madison	*	*	*
	Bremer	*	*	*	Mills	*	*	*
	Dallas	*	*	*	Polk	45	2.4	2.4
	Dubuque	12	2.6	2.6	Pottawattamie	16	3.6	3.4
	Grundy	*	*	*	Scott	25	3.1	3.0
	Guthrie	*	*	*	Story	*	*	*
	Harrison	*	*	*	Warren	*	*	*
	Johnson	10	1.8	2.4	Washington	*	*	*
	Jones	*	*	*	Woodbury	16	3.0	2.6
					<b>Total</b>	196	2.5	2.5
	<b>State Total</b>	397	2.7	2.5				

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

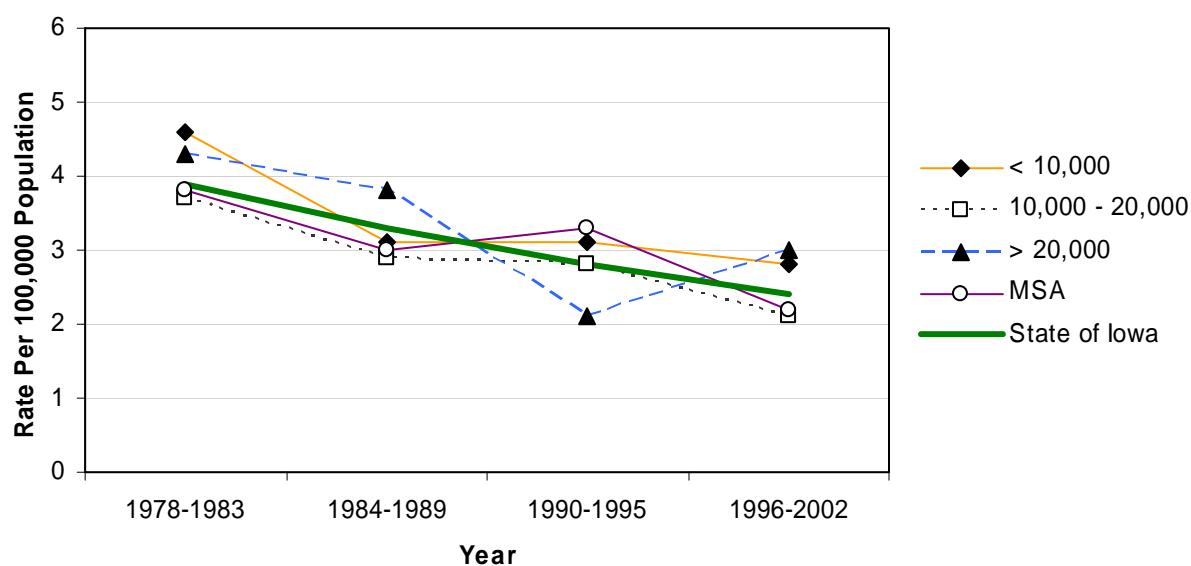
Source: Iowa Cancer Registry via NCI's SEER\*Stat Program

## Cervical Cancer Mortality by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates





## Injury Mortality

Transportation-related mortality accounted for 5,070 deaths in Iowa from 1993 to 2002, 91% of which were motor vehicle fatalities. 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 variation across years for each county group. The state's mortality rate from burns has decreased since 1979. In general, drowning deaths have consistently decreased across all county levels since 1979. Deaths from all other unintentional injuries are difficult to compare for 1999-2002 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 1999-2002 and preceding years could be due, in part, to changes in the method of mortality classification. Therefore, one should compare rates from 1999-2002 and preceding years with caution. The ICD-9 and ICD-10 codes used for each type of Injury Mortality are listed in Appendix III.

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 1993-2002**

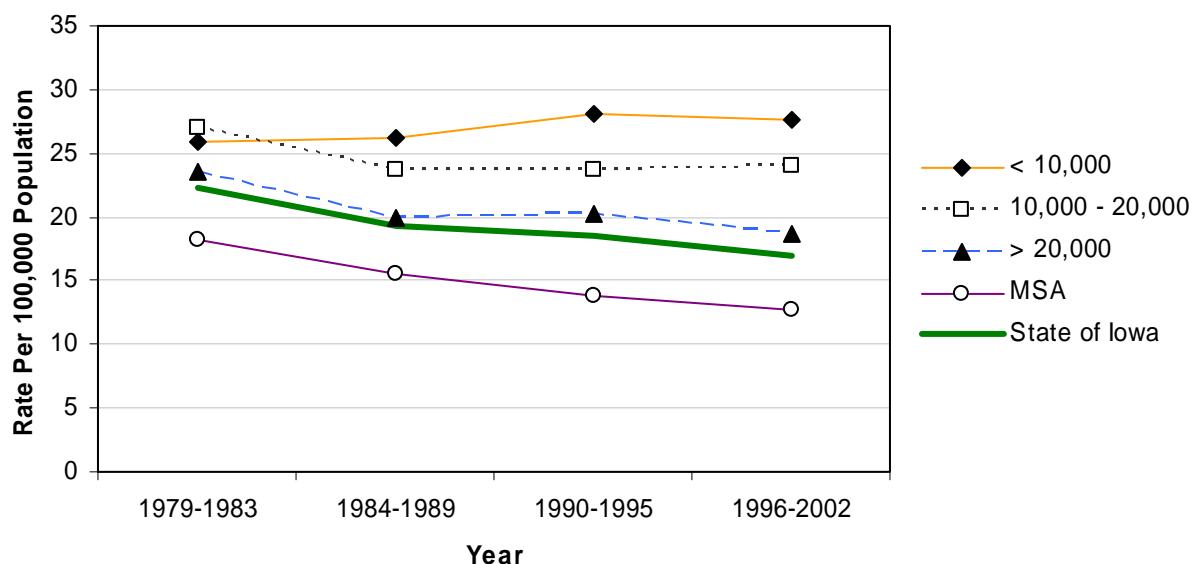
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with 2004 Population <b>&lt; 10,000</b>	Adair	26	31.4 (11)	29.8 (16)	Monona	30	30.0 (13)	33.8 (08)
	Adams	13	28.8 (16)	31.8 (12)	Monroe	29	35.9 (05)	37.5 (05)
	Audubon	13	18.9 (71)	14.5 (90)	Osceola	20	28.2 (18)	30.2 (15)
	Clarke	21	23.8 (35)	25.9 (26)	Palo Alto	24	23.5 (37)	23.6 (36)
	Davis	34	40.0 (03)	40.4 (03)	Pocahontas	20	22.6 (40)	21.8 (47)
	Decatur	27	31.7 (10)	29.6 (17)	Ringgold	11	20.3 (62)	17.6 (76)
	Fremont	20	24.9 (31)	27.7 (21)	Taylor	19	27.2 (19)	30.5 (13)
	Howard	16	16.1 (86)	17.0 (78)	Van Buren	29	37.5 (04)	38.5 (04)
	Ida	24	30.0 (12)	32.7 (09)	Wayne	34	49.7 (01)	55.3 (01)
	Lucas	25	26.8 (20)	24.6 (32)	Worth	17	21.5 (47)	21.0 (54)
					<b>Total</b>	452	28.3	28.9
	Allamakee	31	21.4 (48)	22.7 (40)	Hardin	39	20.7 (56)	19.5 (65)
	Appanoose	39	28.5 (17)	29.4 (19)	Humboldt	23	22.1 (42)	22.7 (38)
	Butler	30	19.5 (67)	21.1 (52)	Iowa	40	26.0 (24)	28.3 (20)
	Calhoun	16	14.2 (91)	15.9 (86)	Jefferson	36	22.0 (44)	21.6 (49)
	Cass	43	29.0 (15)	30.4 (14)	Keokuk	51	44.5 (02)	44.0 (02)
	Cedar	45	25.1 (28)	24.9 (31)	Kossuth	44	25.3 (27)	25.5 (28)
	Cherokee	35	26.3 (22)	26.7 (22)	Louisa	36	29.8 (14)	29.5 (18)
	Chickasaw	33	25.0 (29)	26.4 (23)	Lyon	24	20.4 (61)	19.8 (63)
	Clay	26	14.9 (89)	15.2 (89)	Mitchell	28	25.7 (26)	22.2 (42)
	Clayton	65	34.6 (07)	35.4 (07)	Montgomery	24	20.3 (63)	19.9 (62)
	Crawford	55	32.6 (09)	32.1 (10)	O'Brien	29	18.9 (72)	18.9 (67)
	Delaware	38	20.7 (55)	20.0 (59)	Page	35	20.6 (57)	18.6 (72)
	Dickinson	31	19.4 (68)	18.9 (68)	Poweshiek	38	20.1 (66)	18.8 (69)
	Emmet	28	25.0 (30)	25.1 (30)	Sac	41	34.9 (06)	31.8 (11)
	Floyd	39	23.0 (38)	22.4 (41)	Shelby	27	20.5 (59)	21.9 (45)
	Franklin	24	22.0 (43)	21.3 (51)	Tama	62	34.5 (08)	37.3 (06)
	Greene	21	20.4 (60)	21.0 (53)	Union	26	21.1 (53)	21.5 (50)
	Hamilton	40	24.5 (33)	24.1 (34)	Winnebago	31	26.4 (21)	25.4 (29)
	Hancock	22	18.2 (75)	16.6 (81)	Wright	37	25.7 (25)	26.1 (25)
					<b>Total</b>	1,332	24.3	24.2
Counties with 2004 Population <b>10,000 - 20,000</b>	Boone	56	21.7 (46)	22.1 (43)	Lee	85	22.2 (41)	22.0 (44)
	Buchanan	46	21.8 (45)	21.9 (46)	Mahaska	45	20.3 (64)	19.6 (64)
	Buena Vista	37	18.1 (76)	16.9 (79)	Marion	61	19.3 (70)	19.1 (66)
	Carroll	49	22.8 (39)	23.1 (37)	Marshall	70	17.9 (78)	18.4 (74)
	Cerro Gordo	82	17.6 (82)	17.5 (77)	Muscatine	69	16.6 (84)	16.9 (80)
	Clinton	105	20.7 (54)	20.6 (56)	Plymouth	44	17.9 (79)	18.7 (70)
	Des Moines	72	16.9 (83)	16.4 (82)	Sioux	56	17.8 (81)	16.0 (85)
	Fayette	47	21.3 (51)	21.0 (55)	Wapello	77	21.4 (50)	21.7 (48)
	Henry	43	21.4 (49)	20.4 (58)	Webster	72	18.1 (77)	17.7 (75)
	Jackson	48	23.7 (36)	24.1 (35)	Winneshiek	38	17.9 (80)	15.6 (88)
	Jasper	59	16.2 (85)	16.3 (83)	<b>Total</b>	1,261	19.3	19.0
MSA Counties	Benton	38	15.4 (88)	16.1 (84)	Linn	208	11.2 (97)	11.1 (97)
	Black Hawk	183	14.4 (90)	14.0 (91)	Madison	33	24.2 (34)	25.6 (27)
	Bremer	47	20.2 (65)	18.5 (73)	Mills	29	20.6 (58)	20.5 (57)
	Dallas	73	19.3 (69)	19.9 (61)	Polk	459	12.6 (93)	12.7 (93)
	Dubuque	98	11.0 (98)	10.9 (98)	Pottawattamie	135	15.7 (87)	15.7 (87)
	Grundy	26	21.2 (52)	22.7 (39)	Scott	184	11.7 (95)	11.8 (95)
	Guthrie	21	18.6 (73)	19.9 (60)	Story	94	12.0 (94)	12.0 (94)
	Harrison	38	24.7 (32)	24.5 (33)	Warren	45	11.3 (96)	11.5 (96)
	Johnson	86	8.0 (99)	7.9 (99)	Washington	38	18.5 (74)	18.6 (71)
	Jones	53	26.1 (23)	26.2 (24)	Woodbury	137	13.3 (92)	13.1 (92)
					<b>Total</b>	2,025	13.2	13.0
	<b>State Total</b>	5,070	17.5	17.1				

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

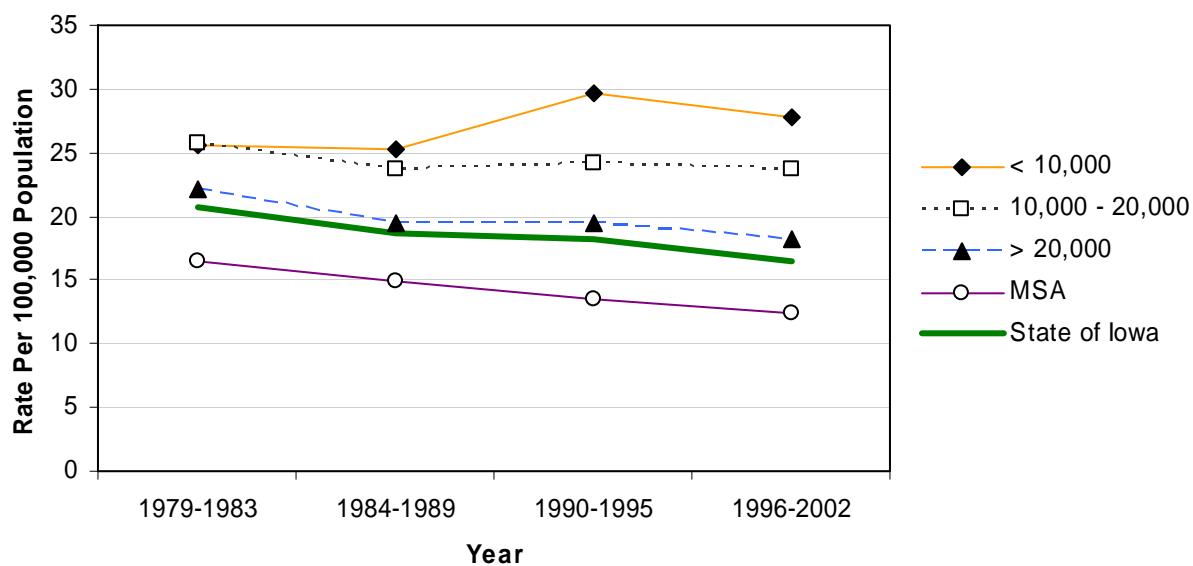
Source: Iowa Department of Public Health via Iowa Cancer Registry

## All Transportation Mortality by County Group 1979-2002

### Crude Rates



### Age-Adjusted Rates



**Motor Vehicle Traffic Mortality 1993-2002**

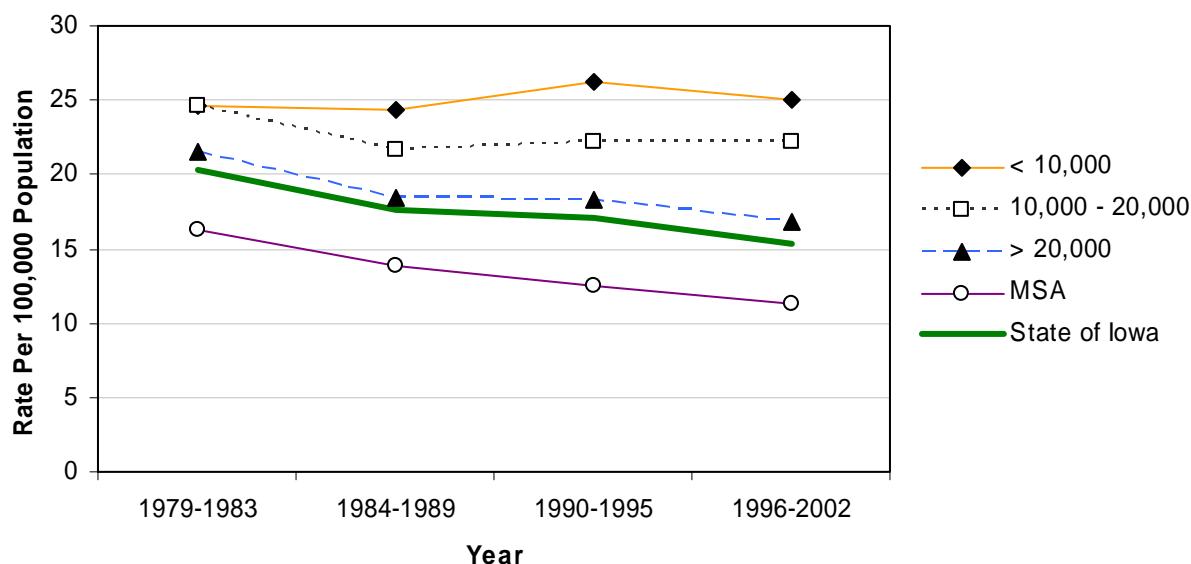
County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
<b>Counties with 2004 Population &lt; 10,000</b>				Monona	28	28.0 (12)	32.0 (07)
Adair	25	30.2 (09)	28.6 (14)	Monroe	25	31.0 (08)	31.8 (08)
Adams	11	24.4 (22)	28.1 (15)	Osceola	18	25.4 (18)	26.4 (20)
Audubon	12	17.5 (72)	13.9 (88)	Palo Alto	21	20.5 (44)	20.9 (42)
Clarke	21	23.8 (27)	25.9 (22)	Pocahontas	19	21.5 (37)	20.5 (44)
Davis	33	38.8 (03)	39.1 (03)	Ringgold	11	20.3 (45)	17.6 (66)
Decatur	25	29.4 (10)	27.2 (18)	Taylor	18	25.8 (17)	29.2 (11)
Fremont	19	23.6 (28)	26.5 (19)	Van Buren	27	34.9 (04)	35.4 (04)
Howard	14	14.1 (88)	14.4 (84)	Wayne	30	43.9 (01)	49.9 (01)
Ida	21	26.3 (16)	29.8 (09)	Worth	15	18.9 (59)	18.1 (60)
Lucas	20	21.4 (38)	21.0 (41)	<b>Total</b>	413	25.8	26.5
<b>Counties with 2004 Population 10,000 - 20,000</b>				Allamakee	29	20.0 (50)	21.4 (39)
Appanoose	38	27.7 (14)	29.0 (13)	Hardin	36	19.1 (56)	17.5 (67)
Butler	26	16.9 (75)	18.9 (55)	Humboldt	21	20.2 (47)	19.7 (49)
Calhoun	14	12.4 (91)	14.0 (85)	Iowa	36	23.4 (30)	25.9 (21)
Cass	41	27.7 (15)	29.1 (12)	Jefferson	35	21.4 (39)	21.1 (40)
Cedar	43	23.9 (26)	23.8 (28)	Keokuk	48	41.9 (02)	41.6 (02)
Cherokee	32	24.0 (25)	24.5 (25)	Kossuth	42	24.1 (24)	24.0 (27)
Chickasaw	32	24.3 (23)	25.8 (23)	Louisa	34	28.2 (11)	27.9 (16)
Clay	25	14.3 (85)	14.5 (83)	Lyon	21	17.8 (69)	17.5 (69)
Clayton	61	32.5 (05)	33.2 (06)	Mitchell	27	24.7 (19)	21.5 (38)
Crawford	47	27.9 (13)	27.7 (17)	Montgomery	23	19.5 (52)	18.8 (57)
Delaware	37	20.2 (48)	19.4 (52)	O'Brien	27	17.6 (71)	17.6 (65)
Dickinson	29	18.1 (63)	17.3 (70)	Page	32	18.9 (60)	17.0 (72)
Emmet	25	22.3 (34)	23.0 (32)	Poweshiek	36	19.0 (57)	18.0 (61)
Floyd	38	22.5 (33)	21.7 (37)	Sac	38	32.4 (06)	29.7 (10)
Franklin	23	21.1 (42)	20.3 (47)	Shelby	25	19.0 (58)	20.5 (45)
Greene	19	18.4 (62)	19.7 (50)	Tama	56	31.2 (07)	34.0 (05)
Hamilton	38	23.3 (32)	22.8 (33)	Union	25	20.3 (46)	20.7 (43)
Hancock	19	15.7 (80)	14.0 (86)	Winnebago	29	24.7 (20)	23.4 (29)
				<b>Total</b>	1,241	22.6	22.5
<b>Counties with 2004 Population &gt; 20,000</b>				Boone	52	20.1 (49)	20.5 (46)
Buchanan	38	18.0 (66)	17.9 (62)	Lee	69	18.0 (68)	17.9 (63)
Buena Vista	36	17.6 (70)	16.5 (73)	Mahaska	43	19.4 (53)	18.7 (58)
Carroll	47	21.8 (36)	22.5 (35)	Marion	57	18.0 (64)	17.7 (64)
Cerro Gordo	74	15.9 (79)	15.8 (78)	Marshall	62	15.9 (78)	16.2 (75)
Clinton	97	19.2 (54)	19.0 (54)	Muscatine	65	15.7 (81)	15.9 (76)
Des Moines	61	14.3 (84)	13.9 (87)	Plymouth	40	16.3 (77)	17.1 (71)
Fayette	44	20.0 (51)	19.6 (51)	Sioux	54	17.1 (73)	15.5 (80)
Henry	42	20.9 (43)	19.9 (48)	Wapello	67	18.6 (61)	18.9 (56)
Jackson	43	21.3 (40)	21.8 (36)	Webster	65	16.3 (76)	15.9 (77)
Jasper	52	14.3 (86)	14.6 (82)	Winneshiek	32	15.1 (82)	13.1 (91)
				<b>Total</b>	1,140	17.5	17.1
<b>MSA Counties</b>				Benton	35	14.2 (87)	14.7 (81)
				Black Hawk	172	13.5 (90)	13.2 (90)
				Bremer	42	18.0 (65)	16.3 (74)
				Dallas	64	17.0 (74)	17.5 (68)
				Dubuque	79	8.9 (98)	8.8 (98)
				Grundy	26	21.2 (41)	22.7 (34)
				Guthrie	17	15.1 (83)	15.8 (79)
				Harrison	36	23.4 (31)	23.2 (31)
				Johnson	80	7.4 (99)	7.3 (99)
				Jones	50	24.6 (21)	24.6 (24)
				<b>State Total</b>	4,622	16.0	15.5

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

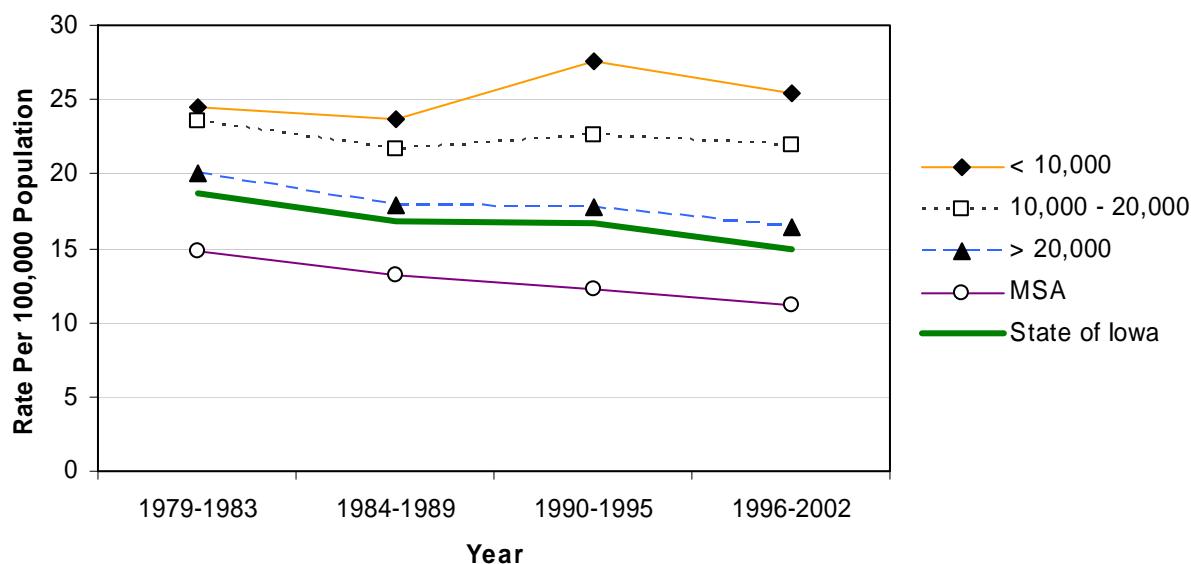
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Motor Vehicle Traffic Mortality by County Group 1979-2002

### Crude Rates



### Age-Adjusted Rates



**Suicides 1993-2002**

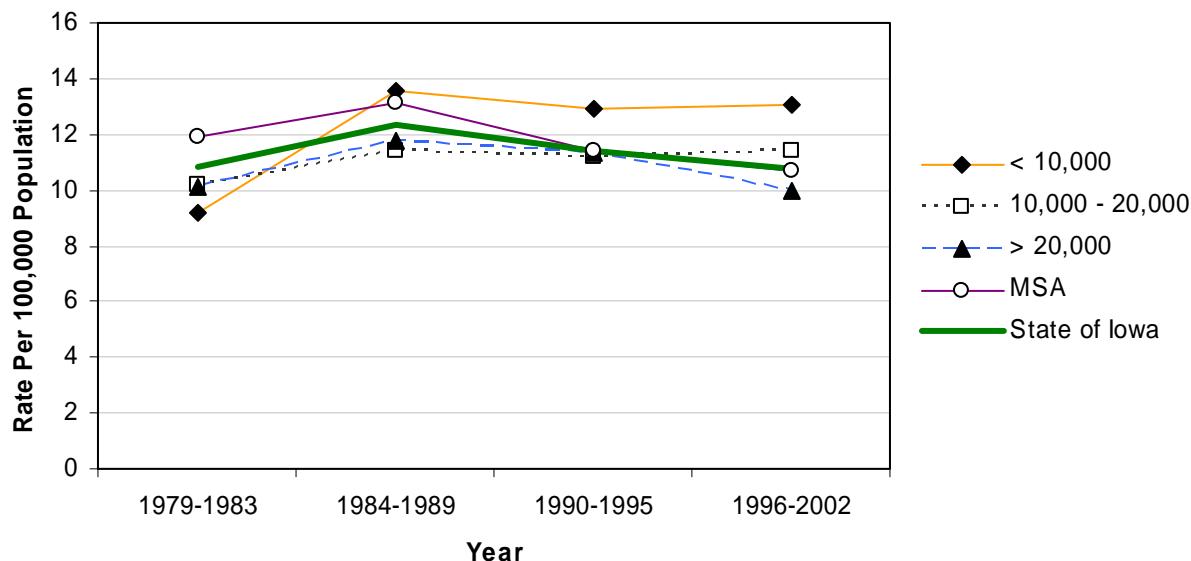
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with 2004 Population < 10,000	Adair	7	8.5 (79)	7.2 (92)	Monona	15	15.0 (12)	14.6 (13)
	Adams	5	11.1 (49)	11.7 (36)	Monroe	17	21.1 (02)	22.4 (01)
	Audubon	5	7.3 (92)	5.5 (95)	Osceola	11	15.5 (10)	15.8 (10)
	Clarke	13	14.8 (15)	14.4 (17)	Palo Alto	8	7.8 (86)	8.1 (84)
	Davis	11	12.9 (26)	11.3 (46)	Pocahontas	11	12.4 (31)	11.4 (41)
	Decatur	11	12.9 (25)	12.7 (25)	Ringgold	5	9.2 (73)	8.5 (78)
	Fremont	8	9.9 (62)	10.3 (63)	Taylor	8	11.4 (40)	8.3 (82)
	Howard	10	10.1 (60)	11.4 (44)	Van Buren	13	16.8 (06)	15.9 (09)
	Ida	5	6.3 (95)	6.0 (94)	Wayne	6	8.8 (76)	8.3 (83)
	Lucas	15	16.1 (08)	16.2 (08)	Worth	13	16.4 (07)	18.2 (04)
					<b>Total</b>	197	12.3	12.0
	Allamakee	16	11.1 (51)	10.7 (53)	Hardin	19	10.1 (59)	9.7 (68)
	Appanoose	17	12.4 (32)	11.8 (34)	Humboldt	22	21.1 (01)	21.6 (02)
	Butler	13	8.4 (80)	9.1 (74)	Iowa	14	9.1 (74)	9.6 (70)
	Calhoun	11	9.8 (68)	10.4 (60)	Jefferson	31	18.9 (03)	18.7 (03)
	Cass	14	9.4 (70)	10.4 (59)	Keokuk	17	14.8 (13)	12.9 (23)
	Cedar	20	11.1 (48)	11.3 (47)	Kossuth	8	4.6 (98)	4.5 (98)
	Cherokee	15	11.3 (46)	10.8 (51)	Louisa	13	10.8 (54)	10.5 (56)
	Chickasaw	15	11.4 (41)	12.6 (27)	Lyon	8	6.8 (94)	7.0 (93)
	Clay	21	12.0 (36)	11.0 (49)	Mitchell	12	11.0 (52)	11.0 (50)
	Clayton	27	14.4 (18)	14.6 (15)	Montgomery	18	15.2 (11)	15.5 (11)
	Crawford	13	7.7 (87)	8.3 (81)	O'Brien	15	9.8 (66)	10.4 (58)
	Delaware	15	8.2 (82)	8.7 (76)	Page	16	9.4 (71)	9.4 (73)
	Dickinson	21	13.1 (23)	13.1 (22)	Poweshiek	24	12.7 (28)	12.3 (28)
	Emmet	10	8.9 (75)	7.9 (86)	Sac	13	11.1 (50)	11.1 (48)
	Floyd	24	14.2 (20)	12.3 (29)	Shelby	13	9.9 (64)	10.5 (57)
	Franklin	9	8.3 (81)	9.5 (72)	Tama	32	17.8 (05)	17.6 (06)
	Greene	13	12.6 (29)	12.2 (31)	Union	23	18.6 (04)	18.2 (05)
	Hamilton	17	10.4 (57)	10.2 (64)	Winnebago	11	9.4 (72)	9.5 (71)
	Hancock	12	9.9 (61)	10.3 (62)	Wright	11	7.6 (90)	7.5 (89)
					<b>Total</b>	623	11.4	11.3
Counties with 2004 Population 10,000 - 20,000	Boone	32	12.4 (33)	12.2 (30)	Lee	56	14.6 (17)	14.6 (14)
	Buchanan	27	12.8 (27)	13.7 (19)	Mahaska	17	7.7 (88)	8.0 (85)
	Buena Vista	16	7.8 (85)	8.4 (79)	Marion	27	8.5 (77)	8.9 (75)
	Carroll	21	9.8 (67)	9.7 (69)	Marshall	48	12.3 (34)	12.6 (26)
	Cerro Gordo	53	11.4 (42)	11.4 (43)	Muscatine	41	9.9 (63)	9.9 (66)
	Clinton	62	12.2 (35)	11.9 (33)	Plymouth	20	8.1 (83)	8.6 (77)
	Des Moines	63	14.8 (14)	14.5 (16)	Sioux	16	5.1 (97)	4.7 (97)
	Fayette	16	7.3 (93)	7.4 (90)	Wapello	48	13.3 (22)	13.1 (21)
	Henry	11	5.5 (96)	5.3 (96)	Webster	45	11.3 (45)	11.4 (42)
	Jackson	32	15.8 (09)	16.3 (07)	Winneshiek	9	4.2 (99)	3.8 (99)
	Jasper	27	7.4 (91)	7.2 (91)	<b>Total</b>	687	10.5	10.5
MSA Counties	Benton	21	8.5 (78)	8.3 (80)	Linn	214	11.5 (39)	11.3 (45)
	Black Hawk	125	9.8 (65)	10.0 (65)	Madison	20	14.7 (16)	14.8 (12)
	Bremer	29	12.5 (30)	11.8 (35)	Mills	15	10.6 (56)	11.6 (37)
	Dallas	36	9.5 (69)	9.8 (67)	Polk	421	11.6 (38)	11.6 (38)
	Dubuque	95	10.7 (55)	10.7 (52)	Pottawattamie	119	13.8 (21)	13.9 (18)
	Grundy	16	13.0 (24)	12.7 (24)	Scott	178	11.3 (44)	11.5 (40)
	Guthrie	16	14.2 (19)	13.1 (20)	Story	60	7.7 (89)	7.7 (88)
	Harrison	18	11.7 (37)	12.0 (32)	Warren	45	11.3 (43)	11.5 (39)
	Johnson	87	8.1 (84)	7.8 (87)	Washington	23	11.2 (47)	10.5 (55)
	Jones	22	10.8 (53)	10.6 (54)	Woodbury	107	10.4 (58)	10.3 (61)
					<b>Total</b>	1,667	10.9	10.8
	<b>State Total</b>	3,174	11.0	10.8				

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

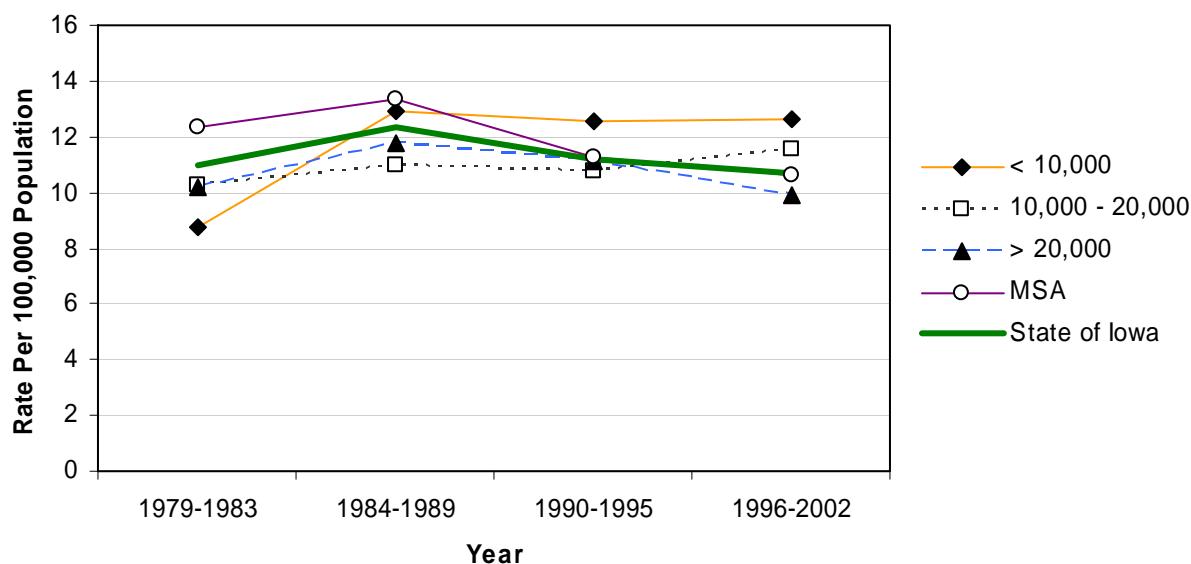
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Suicides by County Group 1979-2002

### Crude Rates



### Age-Adjusted Rates



## Firearms Mortality 1993-2002

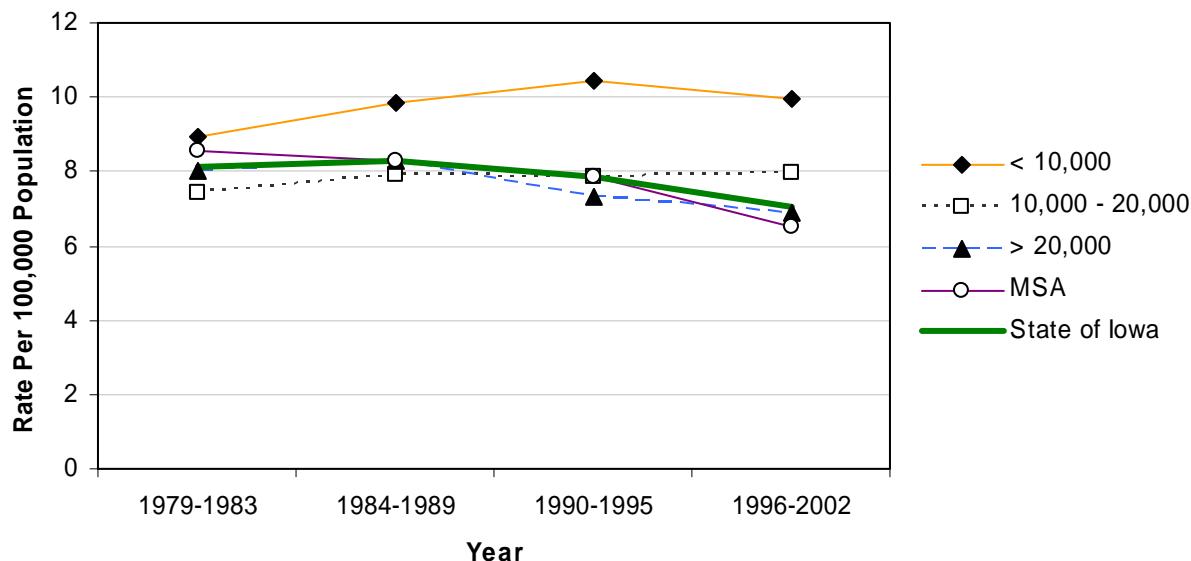
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>		County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with 2004 Population < 10,000	Adair	8	9.7	8.8	Counties with 2004 Population < 10,000	Monona	11	11.0	10.0
	Adams	5	11.1	12.4		Monroe	10	12.4	12.4
	Audubon	*	*	*		Osceola	5	7.1	6.5
	Clarke	9	10.2	9.9		Palo Alto	6	5.9	5.7
	Davis	12	14.1	12.5		Pocahontas	6	6.8	6.0
	Decatur	12	14.1	14.2		Ringgold	6	11.1	10.7
	Fremont	7	8.7	9.7		Taylor	7	10.0	6.8
	Howard	6	6.0	6.9		Van Buren	14	18.1	17.6
	Ida	*	*	*		Wayne	5	7.3	8.8
	Lucas	7	7.5	7.4		Worth	8	10.1	11.5
						<b>Total</b>	151	9.4	9.2
Counties with 2004 Population 10,000 - 20,000	Allamakee	14	9.7	10.6	Counties with 2004 Population 10,000 - 20,000	Hardin	17	9.0	8.1
	Appanoose	12	8.8	8.3		Humboldt	15	14.4	15.0
	Butler	11	7.1	7.2		Iowa	12	7.8	8.2
	Calhoun	6	5.3	5.8		Jefferson	21	12.8	13.4
	Cass	10	6.7	7.2		Keokuk	12	10.5	8.8
	Cedar	19	10.6	11.0		Kossuth	7	4.0	4.1
	Cherokee	8	6.0	5.7		Louisa	8	6.6	6.5
	Chickasaw	11	8.3	8.5		Lyon	6	5.1	6.0
	Clay	11	6.3	5.8		Mitchell	*	*	*
	Clayton	21	11.2	11.1		Montgomery	13	11.0	10.8
	Crawford	8	4.7	4.9		O'Brien	9	5.9	6.7
	Delaware	10	5.4	5.9		Page	12	7.1	6.7
	Dickinson	10	6.2	6.6		Poweshiek	16	8.5	8.0
	Emmet	8	7.1	6.8		Sac	7	6.0	6.2
	Floyd	12	7.1	6.1		Shelby	12	9.1	10.0
	Franklin	8	7.3	8.8		Tama	25	13.9	14.0
	Greene	7	6.8	7.0		Union	13	10.5	11.2
	Hamilton	14	8.6	8.5		Winnebago	8	6.8	6.8
	Hancock	7	5.8	5.5		Wright	7	4.9	5.1
						<b>Total</b>	427-431	7.8-7.9	7.8-7.9
Counties with 2004 Population > 20,000	Boone	18	7.0	6.9	Counties with 2004 Population > 20,000	Lee	31	8.1	8.1
	Buchanan	14	6.6	6.9		Mahaska	13	5.9	6.1
	Buena Vista	11	5.4	6.1		Marion	26	8.2	8.5
	Carroll	14	6.5	6.2		Marshall	35	9.0	9.1
	Cerro Gordo	41	8.8	8.8		Muscatine	25	6.0	6.1
	Clinton	46	9.1	8.7		Plymouth	10	4.1	4.4
	Des Moines	51	12.0	11.8		Sioux	14	4.4	4.0
	Fayette	8	3.6	4.0		Wapello	43	11.9	11.7
	Henry	7	3.5	3.3		Webster	23	5.8	5.7
	Jackson	15	7.4	7.4		Winneshiek	7	3.3	3.2
	Jasper	15	4.1	3.9		<b>Total</b>	467	7.1	7.1
MSA Counties	Benton	15	6.1	6.4	MSA Counties	Linn	110	5.9	5.8
	Black Hawk	72	5.7	5.5		Madison	14	10.3	10.5
	Bremer	13	5.6	5.6		Mills	10	7.1	7.5
	Dallas	29	7.7	8.1		Polk	304	8.3	8.4
	Dubuque	50	5.6	5.6		Pottawattamie	88	10.2	10.2
	Grundy	13	10.6	11.4		Scott	101	6.4	6.5
	Guthrie	11	9.8	9.8		Story	32	4.1	4.3
	Harrison	19	12.3	12.5		Warren	32	8.1	8.1
	Johnson	37	3.4	3.3		Washington	14	6.8	6.5
	Jones	13	6.4	6.3		Woodbury	66	6.4	6.4
						<b>Total</b>	1,043	6.8	6.7
	<b>State Total</b>	2,092	7.2	7.1					

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

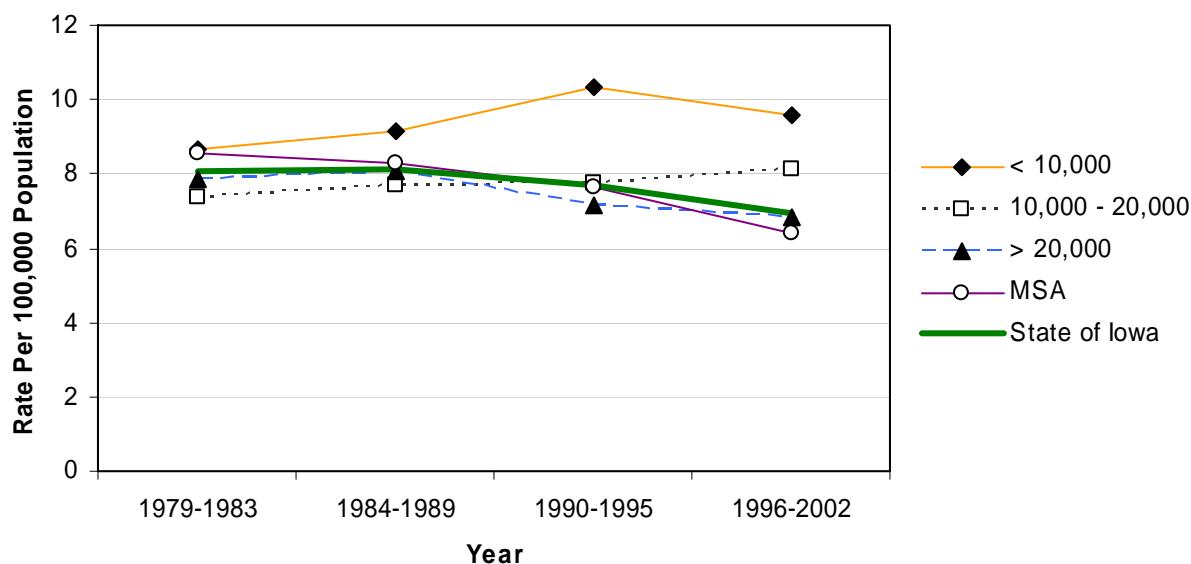
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Firearms Mortality by County Group 1979-2002

### Crude Rates



### Age-Adjusted Rates



## Falls Mortality 1993-2002

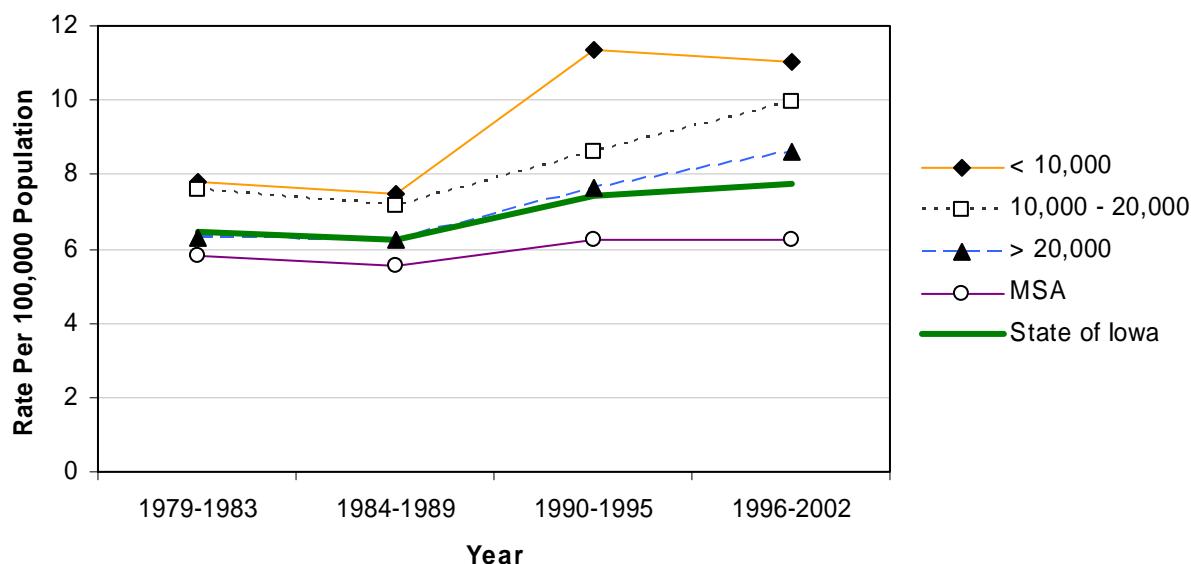
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with 2004 Population < 10,000	Adair	12	14.5	6.3	Monona	9	9.0	5.3
	Adams	8	17.7	9.0	Monroe	7	8.7	5.6
	Audubon	12	17.5	10.7	Osceola	*	*	*
	Clarke	5	5.7	3.3	Palo Alto	12	11.7	7.1
	Davis	12	14.1	8.4	Pocahontas	11	12.4	6.2
	Decatur	7	8.2	8.3	Ringgold	*	*	*
	Fremont	10	12.4	7.6	Taylor	7	10.0	4.4
	Howard	11	11.1	5.3	Van Buren	8	10.3	6.7
	Ida	11	13.8	7.6	Wayne	12	17.5	7.5
	Lucas	9	9.6	5.7	Worth	6	7.6	4.5
					<b>Total</b>	174	10.9	6.1
Counties with 2004 Population 10,000 - 20,000	Allamakee	18	12.4	7.5	Hardin	24	12.7	6.2
	Appanoose	15	10.9	7.6	Humboldt	9	8.6	4.8
	Butler	12	7.8	4.9	Iowa	11	7.1	4.7
	Calhoun	21	18.6	9.1	Jefferson	9	5.5	4.6
	Cass	17	11.5	6.4	Keokuk	17	14.8	7.3
	Cedar	25	13.9	9.1	Kossuth	15	8.6	5.2
	Cherokee	9	6.8	4.0	Louisa	8	6.6	5.5
	Chickasaw	9	6.8	4.8	Lyon	15	12.7	7.3
	Clay	9	5.1	3.3	Mitchell	7	6.4	3.5
	Clayton	20	10.6	6.9	Montgomery	25	21.2	11.2
	Crawford	13	7.7	5.0	O'Brien	8	5.2	3.1
	Delaware	10	5.4	4.3	Page	16	9.4	5.4
	Dickinson	16	10.0	6.0	Poweshiek	27	14.3	8.8
	Emmet	18	16.0	8.2	Sac	16	13.6	6.8
	Floyd	11	6.5	3.5	Shelby	12	9.1	4.8
	Franklin	8	7.3	4.4	Tama	9	5.0	3.2
	Greene	17	16.5	9.0	Union	17	13.8	8.5
	Hamilton	8	4.9	3.2	Winnebago	8	6.8	4.7
	Hancock	9	7.5	4.9	Wright	18	12.5	6.7
					<b>Total</b>	536	9.8	5.9
Counties with 2004 Population > 20,000	Boone	24	9.3	6.1	Lee	32	8.3	5.9
	Buchanan	19	9.0	7.5	Mahaska	19	8.6	6.2
	Buena Vista	15	7.3	4.7	Marion	27	8.5	6.0
	Carroll	21	9.8	6.1	Marshall	39	10.0	7.2
	Cerro Gordo	28	6.0	4.2	Muscatine	24	5.8	5.2
	Clinton	35	6.9	5.6	Plymouth	16	6.5	4.9
	Des Moines	34	8.0	6.1	Sioux	24	7.6	6.2
	Fayette	22	10.0	6.7	Wapello	36	10.0	6.8
	Henry	17	8.5	6.2	Webster	56	14.1	9.1
	Jackson	12	5.9	4.4	Winneshiek	17	8.0	5.4
	Jasper	27	7.4	5.7	<b>Total</b>	544	8.3	6.1
MSA Counties	Benton	15	6.1	4.9	Linn	116	6.2	6.2
	Black Hawk	84	6.6	5.9	Madison	15	11.0	8.0
	Bremer	21	9.0	7.1	Mills	7	5.0	4.7
	Dallas	21	5.6	5.3	Polk	231	6.3	6.9
	Dubuque	49	5.5	4.5	Pottawattamie	47	5.5	5.3
	Grundy	11	9.0	5.2	Scott	100	6.4	6.8
	Guthrie	11	9.8	5.9	Story	37	4.7	5.2
	Harrison	21	13.6	8.7	Warren	26	6.6	6.5
	Johnson	35	3.3	5.0	Washington	26	12.7	6.9
	Jones	13	6.4	4.9	Woodbury	81	7.8	7.1
					<b>Total</b>	967	6.3	6.2
	<b>State Total</b>	2,221	7.7	6.1				

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

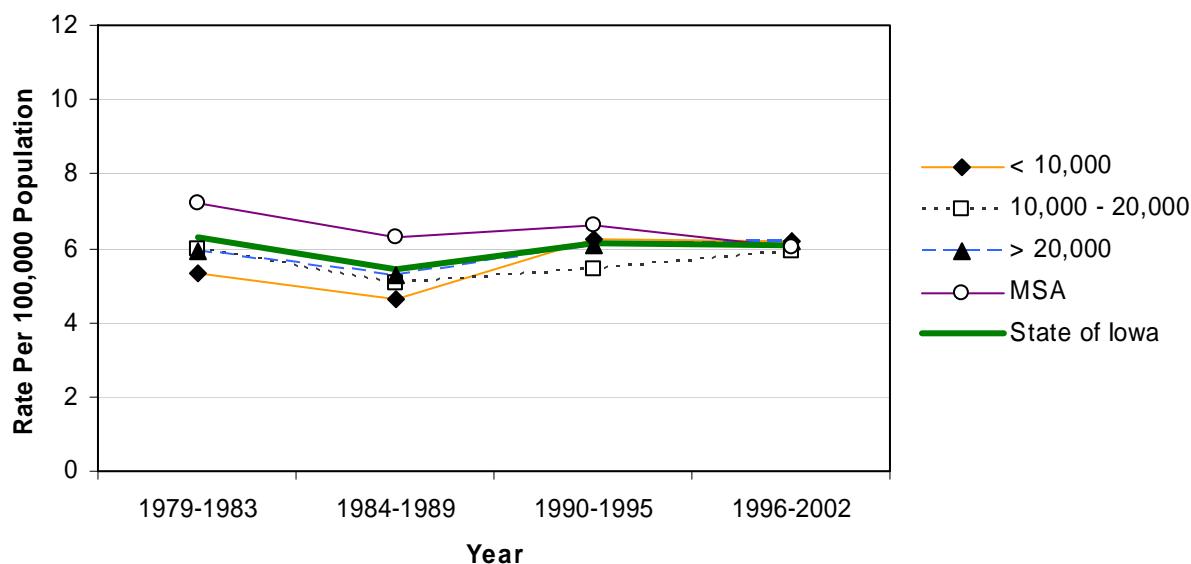
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Falls Mortality by County Group 1979-2002

### Crude Rates



### Age-Adjusted Rates



**Homicides 1993-2002**

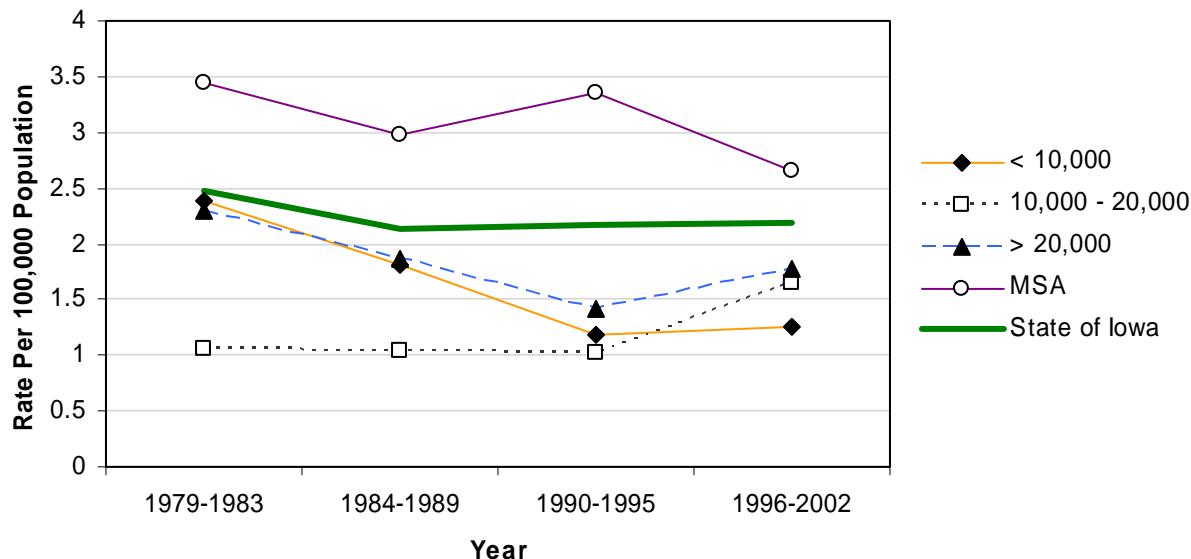
County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with 2004 Population < 10,000	Adair	*	*	Monona	*	*	*
	Adams	*	*	Monroe	*	*	*
	Audubon	*	*	Osceola	*	*	*
	Clarke	*	*	Palo Alto	*	*	*
	Davis	*	*	Pocahontas	*	*	*
	Decatur	*	*	Ringgold	*	*	*
	Fremont	*	*	Taylor	*	*	*
	Howard	*	*	Van Buren	*	*	*
	Ida	*	*	Wayne	*	*	*
	Lucas	*	*	Worth	*	*	*
	<b>Total</b>	19	1.2	<b>Total</b>	19	1.2	1.3
Counties with 2004 Population 10,000 - 20,000	Allamakee	*	*	Hardin	7	3.7	3.8
	Appanoose	*	*	Humboldt	*	*	*
	Butler	*	*	Iowa	*	*	*
	Calhoun	*	*	Jefferson	*	*	*
	Cass	*	*	Keokuk	*	*	*
	Cedar	*	*	Kossuth	*	*	*
	Cherokee	*	*	Louisa	*	*	*
	Chickasaw	*	*	Lyon	*	*	*
	Clay	*	*	Mitchell	*	*	*
	Clayton	*	*	Montgomery	*	*	*
	Crawford	*	*	O'Brien	*	*	*
	Delaware	*	*	Page	*	*	*
	Dickinson	*	*	Poweshiek	5	2.6	2.8
	Emmet	*	*	Sac	*	*	*
	Floyd	*	*	Shelby	*	*	*
	Franklin	5	4.6	Tama	8	4.5	5.0
	Greene	*	*	Union	6	4.9	5.5
	Hamilton	*	*	Winnebago	*	*	*
	Hancock	*	*	Wright	*	*	*
				<b>Total</b>	80	1.5	1.6
Counties with 2004 Population > 20,000	Boone	*	*	Lee	5	1.3	1.3
	Buchanan	*	*	Mahaska	*	*	*
	Buena Vista	*	*	Marion	6	1.9	2.0
	Carroll	*	*	Marshall	11	2.8	2.8
	Cerro Gordo	16	3.4	Muscatine	6	1.4	1.4
	Clinton	7	1.4	Plymouth	*	*	*
	Des Moines	6	1.4	Sioux	5	1.6	1.5
	Fayette	*	*	Wapello	12	3.3	3.6
	Henry	*	*	Webster	8	2.0	2.0
	Jackson	*	*	Winneshiek	*	*	*
	Jasper	*	*	<b>Total</b>	106	1.6	1.7
MSA Counties	Benton	*	*	Linn	31	1.7	1.6
	Black Hawk	29	2.3	Madison	5	3.7	3.7
	Bremer	*	*	Mills	*	*	*
	Dallas	5	1.3	Polk	186	5.1	5.0
	Dubuque	*	*	Pottawattamie	47	5.5	5.6
	Grundy	*	*	Scott	49	3.1	3.1
	Guthrie	*	*	Story	5	0.6	0.8
	Harrison	*	*	Warren	7	1.8	1.7
	Johnson	18	1.7	Washington	*	*	*
	Jones	*	*	Woodbury	33	3.2	3.2
				<b>Total</b>	431	2.8	2.7
	<b>State Total</b>	636	2.2				

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

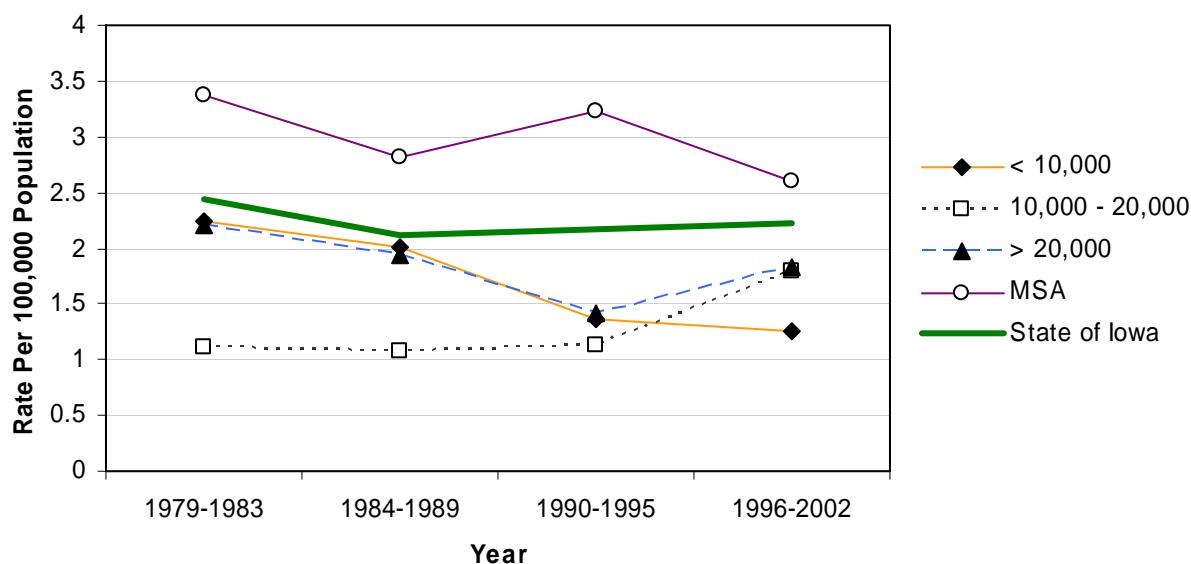
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Homicides by County Group 1979-2002

### Crude Rates



### Age-Adjusted Rates



# Poisoning Mortality 1993-2002

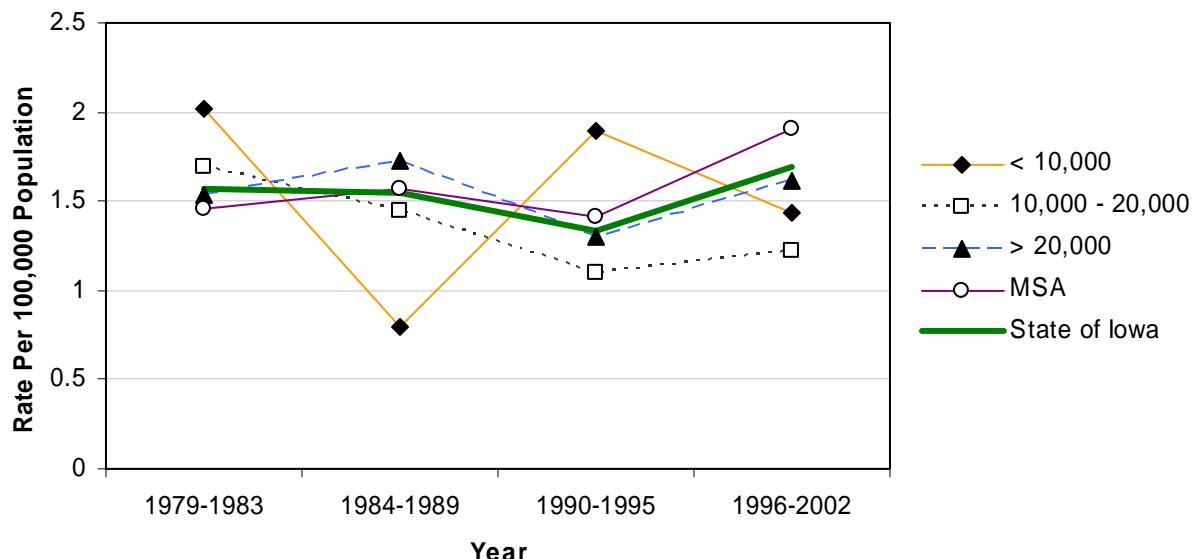
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with 2004 Population < 10,000	Adair	*	*	*	Monona	*	*	*
	Adams	*	*	*	Monroe	*	*	*
	Audubon	*	*	*	Osceola	*	*	*
	Clarke	*	*	*	Palo Alto	*	*	*
	Davis	*	*	*	Pocahontas	*	*	*
	Decatur	*	*	*	Ringgold	*	*	*
	Fremont	*	*	*	Taylor	*	*	*
	Howard	*	*	*	Van Buren	*	*	*
	Ida	*	*	*	Wayne	*	*	*
	Lucas	*	*	*	Worth	*	*	*
	<b>Total</b>	23	1.4	1.3				
Counties with 2004 Population 10,000 - 20,000	Allamakee	*	*	*	Hardin	5	2.7	2.9
	Appanoose	*	*	*	Humboldt	*	*	*
	Butler	*	*	*	Iowa	*	*	*
	Calhoun	*	*	*	Jefferson	*	*	*
	Cass	*	*	*	Keokuk	*	*	*
	Cedar	*	*	*	Kossuth	*	*	*
	Cherokee	5	3.8	3.1	Louisa	*	*	*
	Chickasaw	*	*	*	Lyon	*	*	*
	Clay	*	*	*	Mitchell	*	*	*
	Clayton	*	*	*	Montgomery	*	*	*
	Crawford	*	*	*	O'Brien	*	*	*
	Delaware	*	*	*	Page	*	*	*
	Dickinson	*	*	*	Poweshiek	5	2.6	3.0
	Emmet	*	*	*	Sac	*	*	*
	Floyd	*	*	*	Shelby	*	*	*
	Franklin	*	*	*	Tama	*	*	*
	Greene	*	*	*	Union	*	*	*
	Hamilton	*	*	*	Winnebago	*	*	*
	Hancock	*	*	*	Wright	*	*	*
	<b>Total</b>	61	1.1	1.0				
Counties with 2004 Population > 20,000	Boone	5	1.9	1.9	Lee	8	2.1	2.0
	Buchanan	*	*	*	Mahaska	7	3.2	3.1
	Buena Vista	*	*	*	Marion	*	*	*
	Carroll	*	*	*	Marshall	7	1.8	1.8
	Cerro Gordo	9	1.9	1.8	Muscatine	5	1.2	1.2
	Clinton	6	1.2	1.1	Plymouth	6	2.4	2.6
	Des Moines	8	1.9	1.9	Sioux	*	*	*
	Fayette	9	4.1	4.0	Wapello	6	1.7	1.8
	Henry	*	*	*	Webster	*	*	*
	Jackson	*	*	*	Winneshiek	*	*	*
	Jasper	6	1.6	1.6	<b>Total</b>	103	1.6	1.6
MSA Counties	Benton	*	*	*	Linn	41	2.2	2.1
	Black Hawk	23	1.8	1.8	Madison	*	*	*
	Bremer	*	*	*	Mills	*	*	*
	Dallas	*	*	*	Polk	72	2.0	1.9
	Dubuque	5	0.6	0.6	Pottawattamie	19	2.2	2.2
	Grundy	*	*	*	Scott	32	2.0	2.0
	Guthrie	*	*	*	Story	8	1.0	1.0
	Harrison	*	*	*	Warren	*	*	*
	Johnson	24	2.2	2.2	Washington	*	*	*
	Jones	*	*	*	Woodbury	33	3.2	3.2
	<b>Total</b>	465	1.6	1.6	<b>Total</b>	278	1.8	1.8

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

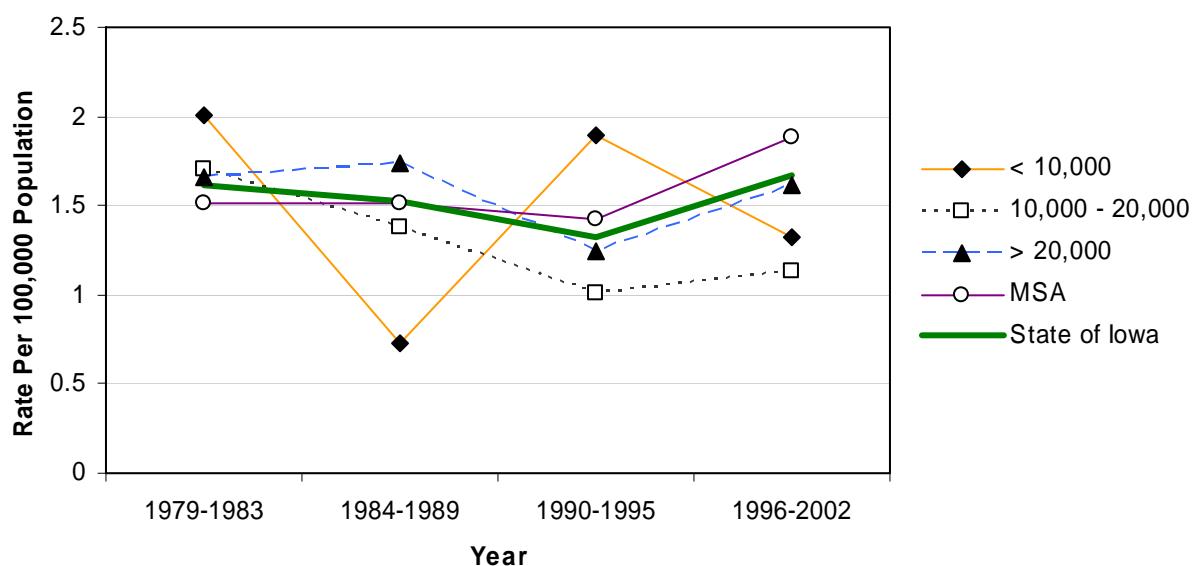
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Poisoning Mortality by County Group 1979-2002

Crude Rates



Age-Adjusted Rates



**Burns Mortality 1993-2002**

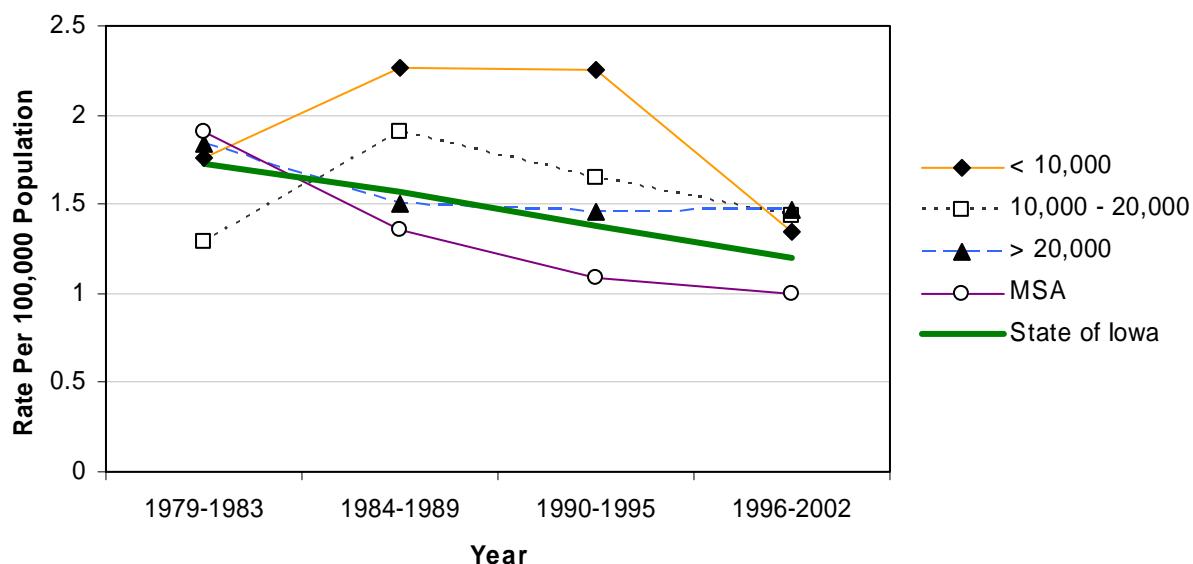
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with 2004 Population < 10,000	Adair	*	*	*	Monona	*	*	*
	Adams	*	*	*	Monroe	*	*	*
	Audubon	*	*	*	Osceola	*	*	*
	Clarke	*	*	*	Palo Alto	*	*	*
	Davis	*	*	*	Pocahontas	*	*	*
	Decatur	*	*	*	Ringgold	*	*	*
	Fremont	*	*	*	Taylor	*	*	*
	Howard	*	*	*	Van Buren	*	*	*
	Ida	*	*	*	Wayne	*	*	*
	Lucas	*	*	*	Worth	*	*	*
					<b>Total</b>	24	1.5	1.3
Counties with 2004 Population 10,000 - 20,000	Allamakee	*	*	*	Hardin	*	*	*
	Appanoose	*	*	*	Humboldt	*	*	*
	Butler	*	*	*	Iowa	*	*	*
	Calhoun	*	*	*	Jefferson	*	*	*
	Cass	*	*	*	Keokuk	*	*	*
	Cedar	*	*	*	Kossuth	*	*	*
	Cherokee	*	*	*	Louisa	5	4.1	4.1
	Chickasaw	*	*	*	Lyon	*	*	*
	Clay	*	*	*	Mitchell	*	*	*
	Clayton	*	*	*	Montgomery	*	*	*
	Crawford	*	*	*	O'Brien	*	*	*
	Delaware	*	*	*	Page	*	*	*
	Dickinson	*	*	*	Poweshiek	*	*	*
	Emmet	*	*	*	Sac	*	*	*
	Floyd	*	*	*	Shelby	*	*	*
	Franklin	*	*	*	Tama	*	*	*
	Greene	*	*	*	Union	*	*	*
	Hamilton	*	*	*	Winnebago	9	7.7	7.6
	Hancock	*	*	*	Wright	*	*	*
					<b>Total</b>	79	1.4	1.3
Counties with 2004 Population > 20,000	Boone	*	*	*	Lee	18	4.7	5.1
	Buchanan	*	*	*	Mahaska	6	2.7	2.7
	Buena Vista	5	2.4	2.5	Marion	5	1.6	1.4
	Carroll	*	*	*	Marshall	5	1.3	1.1
	Cerro Gordo	5	1.1	0.9	Muscatine	5	1.2	1.2
	Clinton	10	2.0	2.0	Plymouth	*	*	*
	Des Moines	6	1.4	1.3	Sioux	*	*	*
	Fayette	*	*	*	Wapello	11	3.1	2.8
	Henry	*	*	*	Webster	5	1.3	1.3
	Jackson	*	*	*	Winneshiek	*	*	*
	Jasper	6	1.6	1.4	<b>Total</b>	107	1.6	1.6
MSA Counties	Benton	*	*	*	Linn	15	0.8	0.8
	Black Hawk	21	1.6	1.6	Madison	*	*	*
	Bremer	*	*	*	Mills	*	*	*
	Dallas	*	*	*	Polk	39	1.1	1.1
	Dubuque	*	*	*	Pottawattamie	7	0.8	0.8
	Grundy	*	*	*	Scott	17	1.1	1.1
	Guthrie	*	*	*	Story	6	0.8	0.9
	Harrison	*	*	*	Warren	*	*	*
	Johnson	10	0.9	1.1	Washington	7	3.4	3.1
	Jones	*	*	*	Woodbury	11	1.1	1.0
					<b>Total</b>	160	1.0	1.0
	<b>State Total</b>	370	1.3	1.2				

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

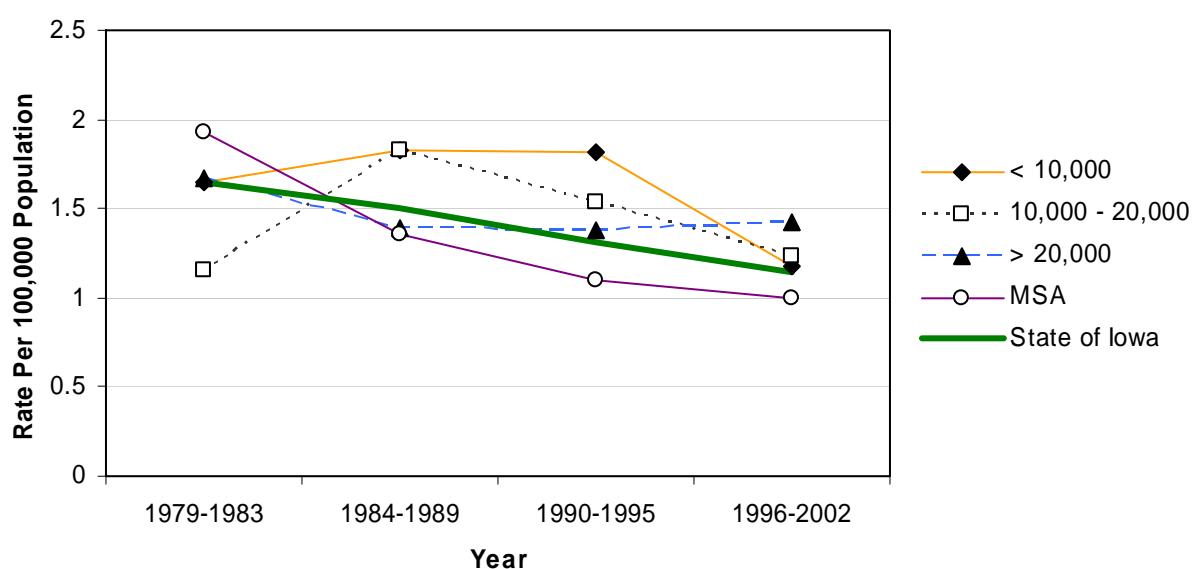
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Burns Mortality by County Group 1979-2002

Crude Rates



Age-Adjusted Rates



**Drowning Mortality 1993-2002**

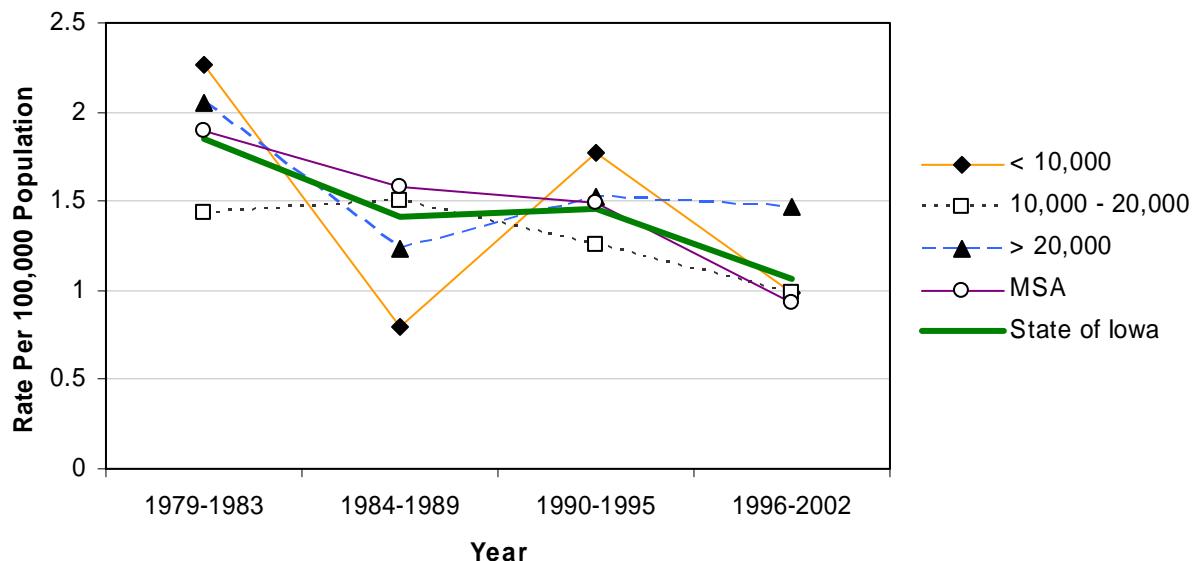
County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with 2004 Population < 10,000	Adair	*	*	Monona	*	*	*
	Adams	*	*	Monroe	*	*	*
	Audubon	*	*	Osceola	*	*	*
	Clarke	*	*	Palo Alto	*	*	*
	Davis	*	*	Pocahontas	*	*	*
	Decatur	*	*	Ringgold	*	*	*
	Fremont	*	*	Taylor	*	*	*
	Howard	*	*	Van Buren	*	*	*
	Ida	*	*	Wayne	*	*	*
	Lucas	*	*	Worth	*	*	*
				<b>Total</b>	20	1.3	1.3
Counties with 2004 Population 10,000 - 20,000	Allamakee	*	*	Hardin	*	*	*
	Appanoose	*	*	Humboldt	*	*	*
	Butler	*	*	Iowa	*	*	*
	Calhoun	*	*	Jefferson	*	*	*
	Cass	*	*	Keokuk	*	*	*
	Cedar	*	*	Kossuth	*	*	*
	Cherokee	*	*	Louisa	6	5.0	4.9
	Chickasaw	*	*	Lyon	*	*	*
	Clay	*	*	Mitchell	*	*	*
	Clayton	*	*	Montgomery	*	*	*
	Crawford	*	*	O'Brien	*	*	*
	Delaware	*	*	Page	*	*	*
	Dickinson	*	*	Poweshiek	*	*	*
	Emmet	*	*	Sac	*	*	*
	Floyd	*	*	Shelby	*	*	*
	Franklin	*	*	Tama	*	*	*
	Greene	*	*	Union	*	*	*
	Hamilton	*	*	Winnebago	*	*	*
	Hancock	*	*	Wright	*	*	*
				<b>Total</b>	60	1.1	1.1
Counties with 2004 Population > 20,000	Boone	*	*	Lee	14	3.6	3.5
	Buchanan	*	*	Mahaska	*	*	*
	Buena Vista	*	*	Marion	*	*	*
	Carroll	*	*	Marshall	7	1.8	2.0
	Cerro Gordo	8	1.7	Muscatine	*	*	*
	Clinton	9	1.8	Plymouth	*	*	*
	Des Moines	7	1.6	Sioux	*	*	*
	Fayette	*	*	Wapello	8	2.2	2.4
	Henry	*	*	Webster	5	1.3	1.4
	Jackson	*	*	Winneshiek	*	*	*
	Jasper	9	2.5	<b>Total</b>	95	1.5	1.5
MSA Counties	Benton	*	*	Linn	17	0.9	0.9
	Black Hawk	10	0.8	Madison	*	*	*
	Bremer	*	*	Mills	*	*	*
	Dallas	10	2.6	Polk	39	1.1	1.0
	Dubuque	5	0.6	Pottawattamie	17	2.0	2.0
	Grundy	*	*	Scott	15	1.0	0.9
	Guthrie	*	*	Story	5	0.6	0.7
	Harrison	*	*	Warren	*	*	*
	Johnson	9	0.8	Washington	*	*	*
	Jones	6	3.0	Woodbury	12	1.2	1.2
				<b>Total</b>	156	1.0	1.0
	<b>State Total</b>	331	1.1				

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

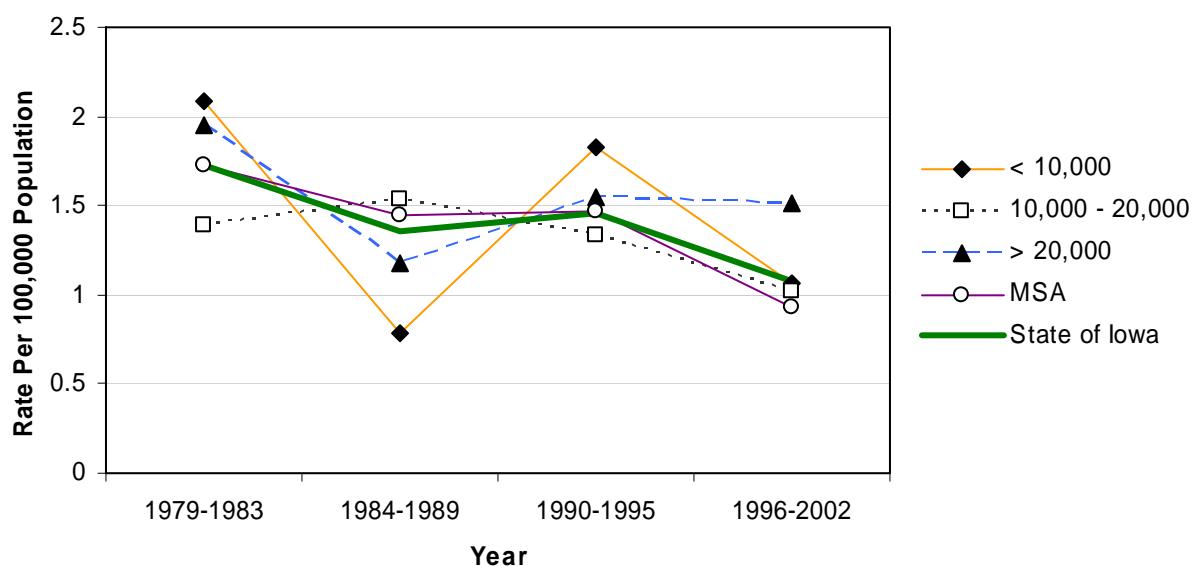
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Drowning Mortality by County Group 1979-2002

Crude Rates



Age-Adjusted Rates



# All Other Unintentional Mortality 1993-2002

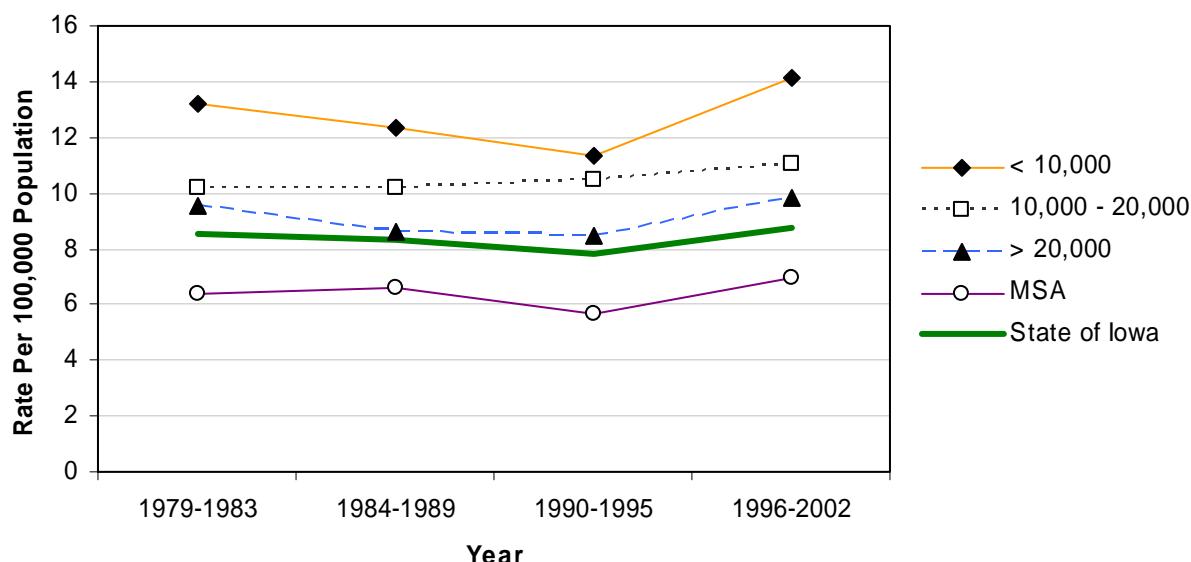
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
<b>Counties with 2004 Population &lt; 10,000</b>	Adair	8	9.7 (59)	6.5 (70)	Monona	16	16.0 (12)	10.9 (16)
	Adams	6	13.3 (21)	10.0 (27)	Monroe	6	7.4 (80)	5.1 (95)
	Audubon	9	13.1 (23)	7.0 (62)	Osceola	5	7.1 (84)	6.3 (74)
	Clarke	11	12.5 (31)	10.6 (20)	Palo Alto	14	13.7 (20)	10.2 (25)
	Davis	16	18.8 (04)	14.1 (04)	Pocahontas	6	6.8 (85)	5.7 (86)
	Decatur	16	18.8 (03)	16.2 (02)	Ringgold	9	16.6 (08)	13.5 (05)
	Fremont	13	16.2 (11)	12.5 (09)	Taylor	14	20.0 (02)	11.2 (14)
	Howard	13	13.1 (24)	9.8 (28)	Van Buren	19	24.5 (01)	19.1 (01)
	Ida	15	18.8 (05)	15.3 (03)	Wayne	8	11.7 (37)	8.6 (44)
	Lucas	7	7.5 (79)	5.5 (91)	Worth	9	11.4 (39)	8.5 (45)
					<b>Total</b>	220	13.8	10.2
<b>Counties with 2004 Population 10,000 - 20,000</b>	Allamakee	19	13.1 (22)	9.2 (33)	Hardin	27	14.3 (18)	10.3 (24)
	Appanoose	9	6.6 (89)	5.3 (93)	Humboldt	9	8.6 (64)	6.2 (78)
	Butler	20	13.0 (27)	9.4 (30)	Iowa	16	10.4 (51)	7.2 (59)
	Calhoun	11	9.8 (58)	6.2 (79)	Jefferson	11	6.7 (86)	6.1 (81)
	Cass	24	16.2 (10)	11.4 (12)	Keokuk	16	14.0 (19)	10.6 (19)
	Cedar	15	8.4 (69)	6.5 (69)	Kossuth	19	10.9 (46)	8.6 (40)
	Cherokee	13	9.8 (57)	8.2 (49)	Louisa	15	12.4 (33)	11.5 (11)
	Chickasaw	14	10.6 (49)	7.8 (56)	Lyon	6	5.1 (97)	3.3 (99)
	Clay	15	8.6 (67)	6.5 (71)	Mitchell	16	14.7 (16)	11.2 (15)
	Clayton	22	11.7 (36)	8.9 (37)	Montgomery	13	11.0 (45)	7.0 (64)
	Crawford	19	11.3 (42)	9.3 (31)	O'Brien	16	10.4 (50)	8.2 (48)
	Delaware	10	5.4 (94)	5.0 (96)	Page	26	15.3 (14)	9.3 (32)
	Dickinson	20	12.5 (32)	8.7 (39)	Poweshiek	21	11.1 (44)	8.4 (46)
	Emmet	19	16.9 (07)	11.8 (10)	Sac	6	5.1 (96)	3.7 (98)
	Floyd	16	9.5 (61)	7.3 (58)	Shelby	19	14.4 (17)	8.9 (36)
	Franklin	13	11.9 (34)	8.0 (53)	Tama	15	8.4 (70)	6.6 (68)
	Greene	8	7.8 (75)	5.5 (92)	Union	16	13.0 (28)	10.0 (26)
	Hamilton	13	8.0 (73)	6.0 (83)	Winnebago	20	17.1 (06)	11.2 (13)
	Hancock	12	9.9 (52)	8.0 (54)	Wright	18	12.5 (30)	9.1 (35)
					<b>Total</b>	597	10.9	8.1
<b>Counties with 2004 Population &gt; 20,000</b>	Boone	30	11.6 (38)	8.6 (42)	Lee	33	8.6 (66)	7.0 (63)
	Buchanan	20	9.5 (60)	8.6 (41)	Mahaska	16	7.2 (81)	5.5 (90)
	Buena Vista	20	9.8 (54)	8.1 (52)	Marion	40	12.7 (29)	10.9 (17)
	Carroll	28	13.0 (26)	10.3 (23)	Marshall	44	11.3 (43)	9.1 (34)
	Cerro Gordo	33	7.1 (83)	5.7 (85)	Muscatine	33	7.9 (74)	7.5 (57)
	Clinton	38	7.5 (78)	6.8 (66)	Plymouth	24	9.8 (56)	8.8 (38)
	Des Moines	36	8.5 (68)	6.7 (67)	Sioux	28	8.9 (62)	8.2 (50)
	Fayette	18	8.2 (71)	5.6 (88)	Wapello	39	10.8 (47)	8.6 (43)
	Henry	32	15.9 (13)	13.2 (06)	Webster	52	13.1 (25)	10.4 (21)
	Jackson	20	9.9 (53)	7.9 (55)	Winneshiek	16	7.5 (77)	6.0 (82)
	Jasper	29	8.0 (72)	7.1 (60)	<b>Total</b>	629	9.6	8.0
<b>MSA Counties</b>	Benton	28	11.4 (40)	9.5 (29)	Linn	107	5.7 (93)	5.8 (84)
	Black Hawk	111	8.7 (63)	8.3 (47)	Madison	20	14.7 (15)	12.7 (07)
	Bremer	18	7.7 (76)	6.3 (77)	Mills	16	11.3 (41)	10.7 (18)
	Dallas	25	6.6 (88)	6.4 (73)	Polk	190	5.2 (95)	5.6 (89)
	Dubuque	52	5.8 (92)	5.2 (94)	Pottawattamie	54	6.3 (91)	6.1 (80)
	Grundy	12	9.8 (55)	6.3 (76)	Scott	105	6.7 (87)	7.0 (65)
	Guthrie	8	7.1 (82)	4.4 (97)	Story	39	5.0 (98)	5.6 (87)
	Harrison	25	16.2 (09)	12.5 (08)	Warren	25	6.3 (90)	6.4 (72)
	Johnson	51	4.7 (99)	7.1 (61)	Washington	22	10.7 (48)	6.3 (75)
	Jones	24	11.8 (35)	10.4 (22)	Woodbury	89	8.6 (65)	8.1 (51)
					<b>Total</b>	1,021	6.7	6.6
<b>State Total</b>		2,467	8.5	7.4				

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

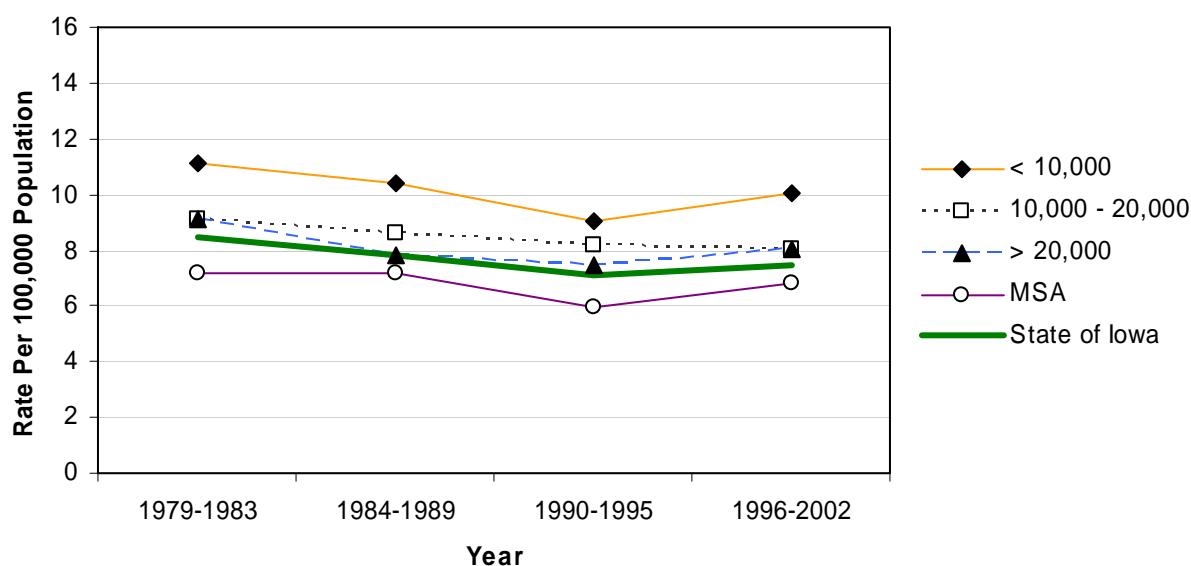
Source: Iowa Department of Public Health via Iowa Cancer Registry

## All Other Unintentional Mortality by County Group 1979-2002

### 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 340 deaths for youth aged 0-14 from 1993-2002. Of these, 90% were due to motor vehicle traffic death. In the 15-19 age range, 696 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 during 1996 through 2002, the mortality rate in the most rural of counties was about double that of the state. Tables other than transportation are not presented due to the small number of events in both age ranges.

The cause of death data are 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 1993-2002**

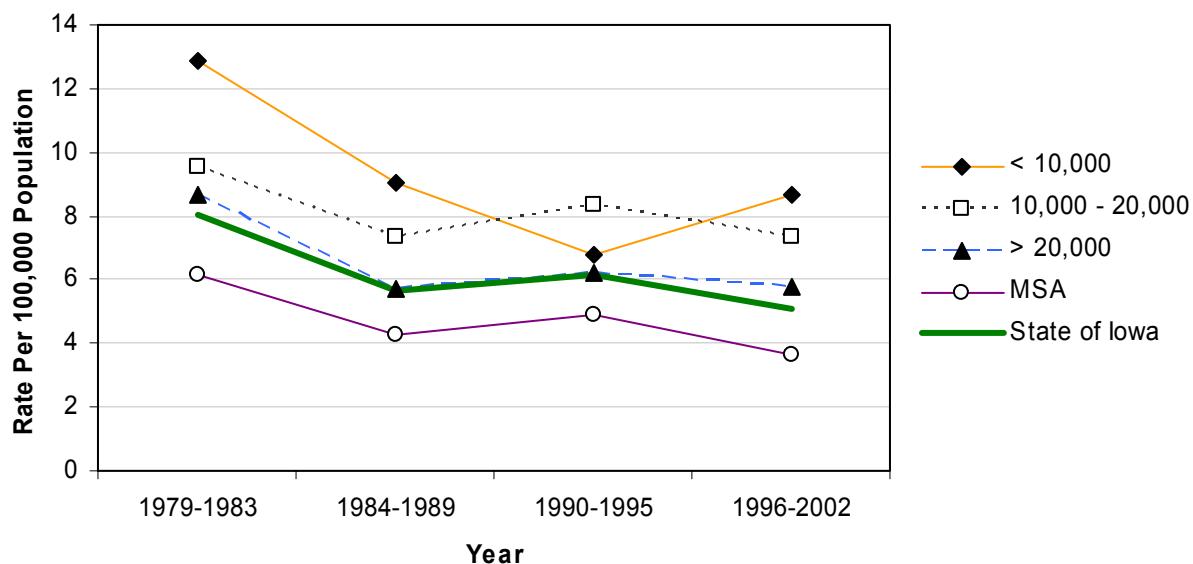
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with 2004 Population < 10,000	Adair	*	*	*	Monona	*	*	*
	Adams	*	*	*	Monroe	*	*	*
	Audubon	*	*	*	Osceola	*	*	*
	Clarke	*	*	*	Palo Alto	*	*	*
	Davis	*	*	*	Pocahontas	*	*	*
	Decatur	*	*	*	Ringgold	*	*	*
	Fremont	*	*	*	Taylor	*	*	*
	Howard	*	*	*	Van Buren	*	*	*
	Ida	*	*	*	Wayne	*	*	*
	Lucas	*	*	*	Worth	*	*	*
					<b>Total</b>	27	8.5	8.3
Counties with 2004 Population 10,000 - 20,000	Allamakee	*	*	*	Hardin	*	*	*
	Appanoose	*	*	*	Humboldt	*	*	*
	Butler	*	*	*	Iowa	*	*	*
	Calhoun	*	*	*	Jefferson	*	*	*
	Cass	*	*	*	Keokuk	5	21.0	22.0
	Cedar	*	*	*	Kossuth	*	*	*
	Cherokee	5	18.9	18.7	Louisa	*	*	*
	Chickasaw	*	*	*	Lyon	*	*	*
	Clay	*	*	*	Mitchell	*	*	*
	Clayton	*	*	*	Montgomery	*	*	*
	Crawford	7	19.9	20.5	O'Brien	*	*	*
	Delaware	*	*	*	Page	*	*	*
	Dickinson	*	*	*	Poweshiek	*	*	*
	Emmet	*	*	*	Sac	5	21.4	19.4
	Floyd	*	*	*	Shelby	*	*	*
	Franklin	*	*	*	Tama	*	*	*
	Greene	*	*	*	Union	*	*	*
	Hamilton	*	*	*	Winnebago	*	*	*
	Hancock	*	*	*	Wright	*	*	*
					<b>Total</b>	88	7.9	7.9
Counties with 2004 Population > 20,000	Boone	11	21.3	21.8	Lee	6	7.8	7.7
	Buchanan	*	*	*	Mahaska	5	10.8	10.7
	Buena Vista	*	*	*	Marion	*	*	*
	Carroll	*	*	*	Marshall	8	10.2	10.2
	Cerro Gordo	*	*	*	Muscatine	6	6.5	6.5
	Clinton	*	*	*	Plymouth	*	*	*
	Des Moines	5	5.8	5.9	Sioux	8	11.3	11.1
	Fayette	*	*	*	Wapello	9	13.0	13.0
	Henry	*	*	*	Webster	*	*	*
	Jackson	*	*	*	Winneshiek	*	*	*
	Jasper	5	6.8	6.7	<b>Total</b>	92	6.8	6.8
MSA Counties	Benton	*	*	*	Linn	17	4.3	4.4
	Black Hawk	16	6.5	6.5	Madison	*	*	*
	Bremer	*	*	*	Mills	*	*	*
	Dallas	5	5.8	5.7	Polk	31	4.0	4.0
	Dubuque	5	2.7	2.6	Pottawattamie	7	3.8	3.8
	Grundy	*	*	*	Scott	12	3.5	3.5
	Guthrie	*	*	*	Story	*	*	*
	Harrison	*	*	*	Warren	*	*	*
	Johnson	6	3.3	3.3	Washington	*	*	*
	Jones	*	*	*	Woodbury	12	5.1	5.1
					<b>Total</b>	133	4.2	4.2
	<b>State Total</b>	340	5.7	5.7				

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

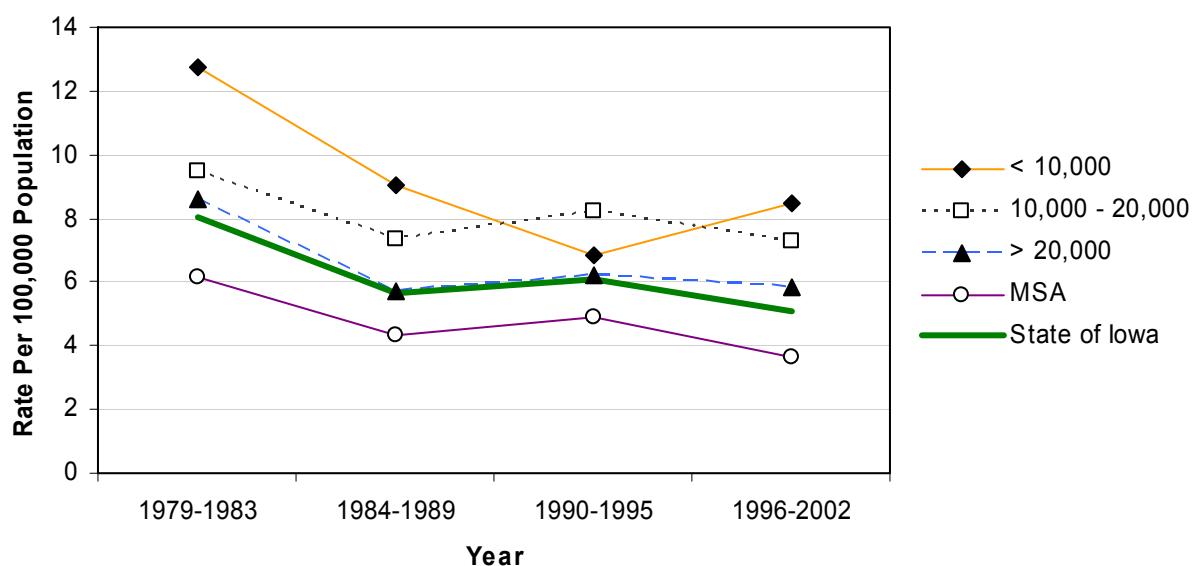
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Age 0-14: All Transportation Mortality by County Group 1979-2002

**Crude Rates**



**Age-Adjusted Rates**



**Age 15-19: All Transportation Mortality 1993-2002**

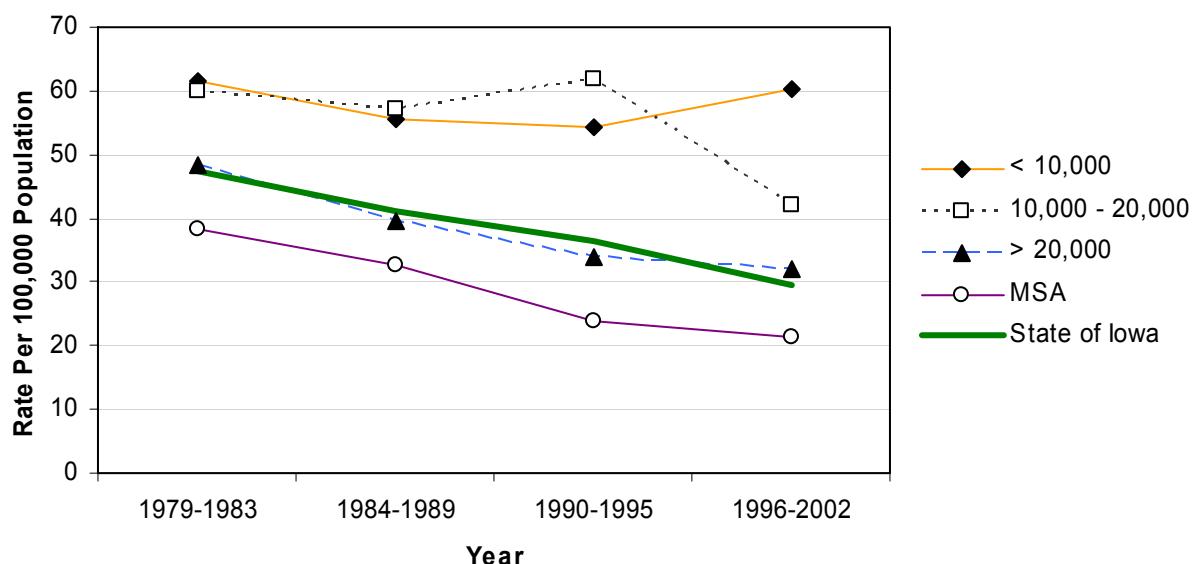
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with 2004 Population < 10,000	Adair	*	*	*	Monona	*	*	*
	Adams	*	*	*	Monroe	*	*	*
	Audubon	*	*	*	Osceola	*	*	*
	Clarke	*	*	*	Palo Alto	*	*	*
	Davis	5	79.5	79.5	Pocahontas	*	*	*
	Decatur	6	69.3	69.3	Ringgold	*	*	*
	Fremont	6	107.0	107.0	Taylor	*	*	*
	Howard	*	*	*	Van Buren	*	*	*
	Ida	7	119.1	119.1	Wayne	11	241.0	241.0
	Lucas	*	*	*	Worth	*	*	*
					<b>Total</b>	72	62.1	62.1
Counties with 2004 Population 10,000 - 20,000	Allamakee	8	77.8	77.8	Hardin	*	*	*
	Appanoose	6	63.4	63.4	Humboldt	*	*	*
	Butler	8	73.0	73.0	Iowa	*	*	*
	Calhoun	*	*	*	Jefferson	6	50.6	50.6
	Cass	9	87.2	87.2	Keokuk	9	108.1	108.1
	Cedar	6	46.6	46.6	Kossuth	13	96.4	96.4
	Cherokee	*	*	*	Louisa	8	91.9	91.9
	Chickasaw	*	*	*	Lyon	5	55.8	55.8
	Clay	*	*	*	Mitchell	6	76.5	76.5
	Clayton	18	130.1	130.1	Montgomery	5	61.2	61.2
	Crawford	*	*	*	O'Brien	6	51.6	51.6
	Delaware	17	114.8	114.8	Page	*	*	*
	Dickinson	*	*	*	Poweshiek	6	36.1	36.1
	Emmet	*	*	*	Sac	5	61.4	61.4
	Floyd	*	*	*	Shelby	*	*	*
	Franklin	*	*	*	Tama	*	*	*
	Greene	*	*	*	Union	*	*	*
	Hamilton	*	*	*	Winnebago	*	*	*
	Hancock	6	64.8	64.8	Wright	*	*	*
					<b>Total</b>	201	49.4	49.4
Counties with 2004 Population > 20,000	Boone	7	38.9	38.9	Lee	6	22.8	22.8
	Buchanan	7	41.5	41.5	Mahaska	*	*	*
	Buena Vista	*	*	*	Marion	9	35.4	35.4
	Carroll	8	48.2	48.2	Marshall	8	28.7	28.7
	Cerro Gordo	12	35.3	35.3	Muscatine	5	16.5	16.5
	Clinton	13	35.4	35.4	Plymouth	7	34.7	34.7
	Des Moines	9	29.7	29.7	Sioux	18	54.9	54.9
	Fayette	*	*	*	Wapello	7	27.0	27.0
	Henry	6	40.2	40.2	Webster	*	*	*
	Jackson	10	67.1	67.1	Winneshiek	5	22.7	22.7
	Jasper	9	37.3	37.3	<b>Total</b>	159	31.9	31.9
MSA Counties	Benton	7	40.5	40.5	Linn	36	27.0	27.0
	Black Hawk	16	15.1	15.1	Madison	9	89.6	89.6
	Bremer	5	23.7	23.7	Mills	5	47.0	47.0
	Dallas	8	31.1	31.1	Polk	61	25.2	25.2
	Dubuque	14	19.9	19.9	Pottawattamie	11	17.3	17.3
	Grundy	*	*	*	Scott	28	24.4	24.4
	Guthrie	*	*	*	Story	6	7.0	7.0
	Harrison	6	54.5	54.5	Warren	6	18.4	18.4
	Johnson	15	14.8	14.8	Washington	*	*	*
	Jones	10	72.1	72.1	Woodbury	16	20.6	20.6
					<b>Total</b>	264	22.6	22.6
	<b>State Total</b>	696	31.8	31.8				

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

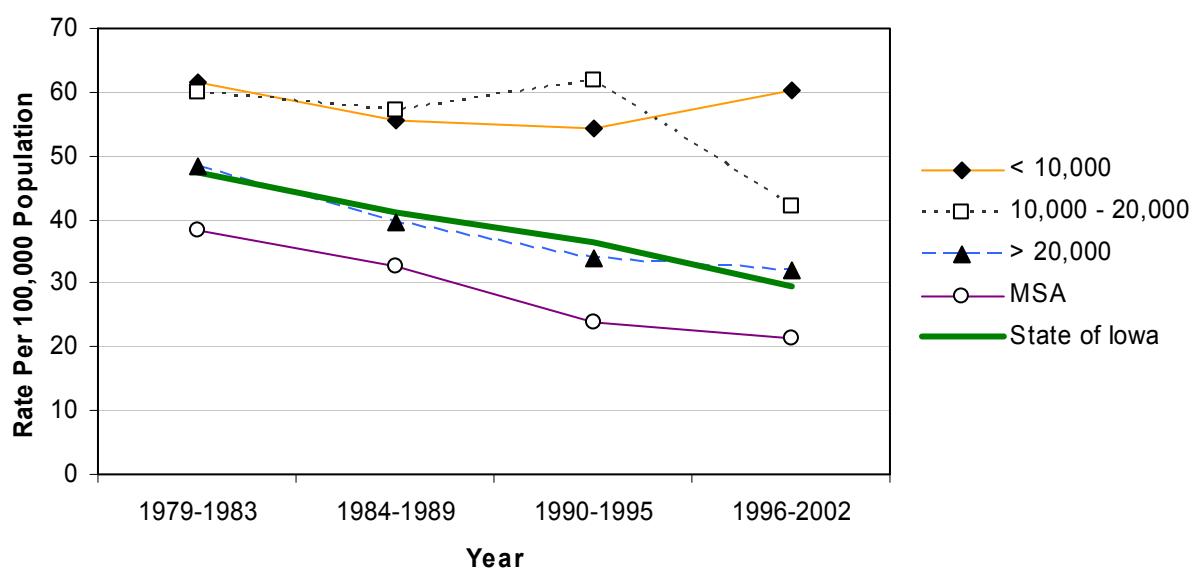
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Age 15-19: All Transportation Mortality by County Group 1979-2002

### Crude Rates



### Age-Adjusted Rates



**Age 0-14: Motor Vehicle Traffic Mortality 1993-2002**

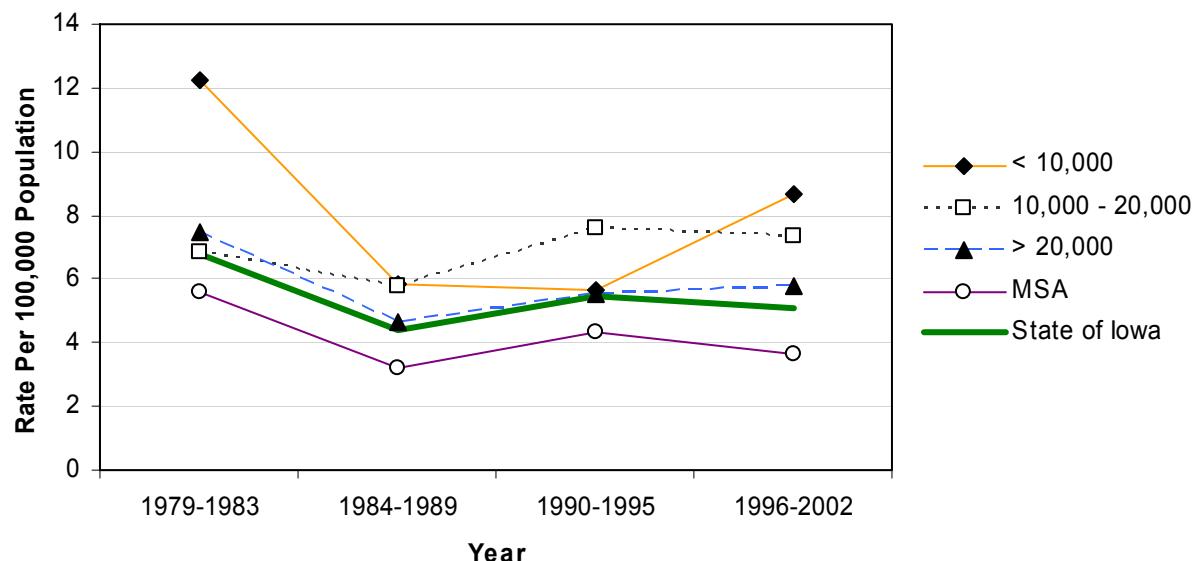
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with 2004 Population < 10,000	Adair	*	*	*	Monona	*	*	*
	Adams	*	*	*	Monroe	*	*	*
	Audubon	*	*	*	Osceola	*	*	*
	Clarke	*	*	*	Palo Alto	*	*	*
	Davis	*	*	*	Pocahontas	*	*	*
	Decatur	*	*	*	Ringgold	*	*	*
	Fremont	*	*	*	Taylor	*	*	*
	Howard	*	*	*	Van Buren	*	*	*
	Ida	*	*	*	Wayne	*	*	*
	Lucas	*	*	*	Worth	*	*	*
	<b>Total</b>	22	6.9	6.8				
Counties with 2004 Population 10,000 - 20,000	Allamakee	*	*	*	Hardin	*	*	*
	Appanoose	*	*	*	Humboldt	*	*	*
	Butler	*	*	*	Iowa	*	*	*
	Calhoun	*	*	*	Jefferson	*	*	*
	Cass	*	*	*	Keokuk	5	21.0	22.0
	Cedar	*	*	*	Kossuth	*	*	*
	Cherokee	5	18.9	18.7	Louisa	*	*	*
	Chickasaw	*	*	*	Lyon	*	*	*
	Clay	*	*	*	Mitchell	*	*	*
	Clayton	*	*	*	Montgomery	*	*	*
	Crawford	7	19.9	20.5	O'Brien	*	*	*
	Delaware	*	*	*	Page	*	*	*
	Dickinson	*	*	*	Poweshiek	*	*	*
	Emmet	*	*	*	Sac	5	21.4	19.4
	Floyd	*	*	*	Shelby	*	*	*
	Franklin	*	*	*	Tama	*	*	*
	Greene	*	*	*	Union	*	*	*
	Hamilton	*	*	*	Winnebago	*	*	*
	Hancock	*	*	*	Wright	*	*	*
	<b>Total</b>	82	7.4	7.4				
Counties with 2004 Population > 20,000	Boone	11	21.3	21.8	Lee	6	7.8	7.7
	Buchanan	*	*	*	Mahaska	5	10.8	10.7
	Buena Vista	*	*	*	Marion	*	*	*
	Carroll	*	*	*	Marshall	7	8.9	8.8
	Cerro Gordo	*	*	*	Muscatine	5	5.4	5.4
	Clinton	*	*	*	Plymouth	*	*	*
	Des Moines	*	*	*	Sioux	7	9.9	9.6
	Fayette	*	*	*	Wapello	9	13.0	13.0
	Henry	*	*	*	Webster	*	*	*
	Jackson	*	*	*	Winneshiek	*	*	*
	Jasper	*	*	*	<b>Total</b>	85	6.3	6.3
MSA Counties	Benton	*	*	*	Linn	15	3.8	3.8
	Black Hawk	15	6.1	6.1	Madison	*	*	*
	Bremer	*	*	*	Mills	*	*	*
	Dallas	*	*	*	Polk	28	3.6	3.6
	Dubuque	*	*	*	Pottawattamie	*	*	*
	Grundy	*	*	*	Scott	11	3.2	3.2
	Guthrie	*	*	*	Story	*	*	*
	Harrison	*	*	*	Warren	*	*	*
	Johnson	6	3.3	3.3	Washington	*	*	*
	Jones	*	*	*	Woodbury	12	5.1	5.1
	<b>Total</b>	307	5.2	5.2	<b>Total</b>	118	3.7	3.7

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

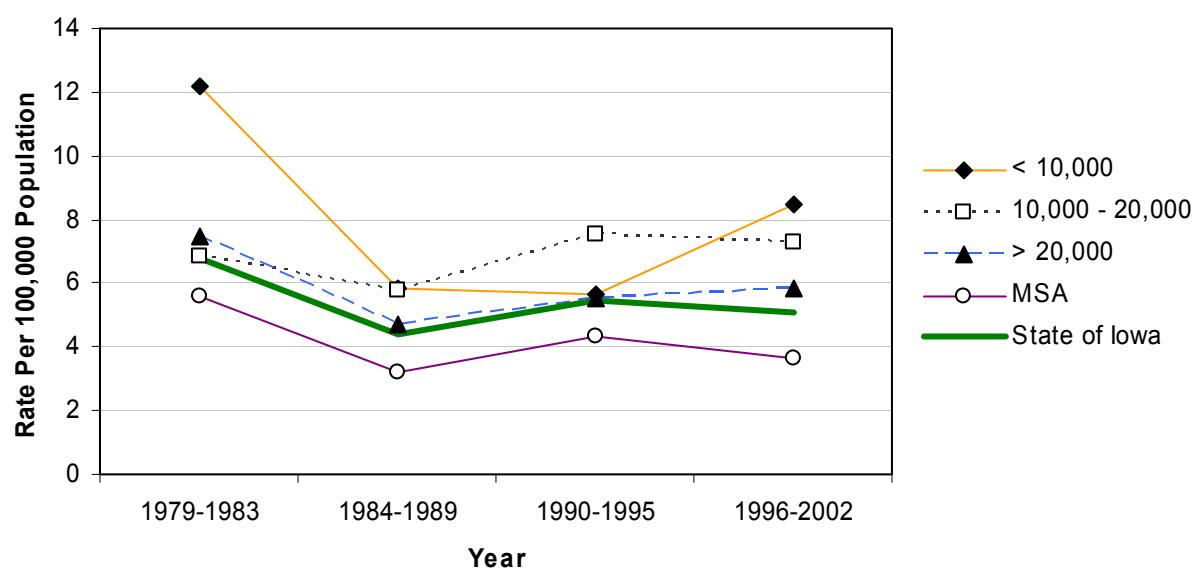
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Age 0-14: Motor Vehicle Traffic Mortality by County Group 1979-2002

### Crude Rates



### Age-Adjusted Rates



**Age 15-19: Motor Vehicle Traffic Mortality 1993-2002**

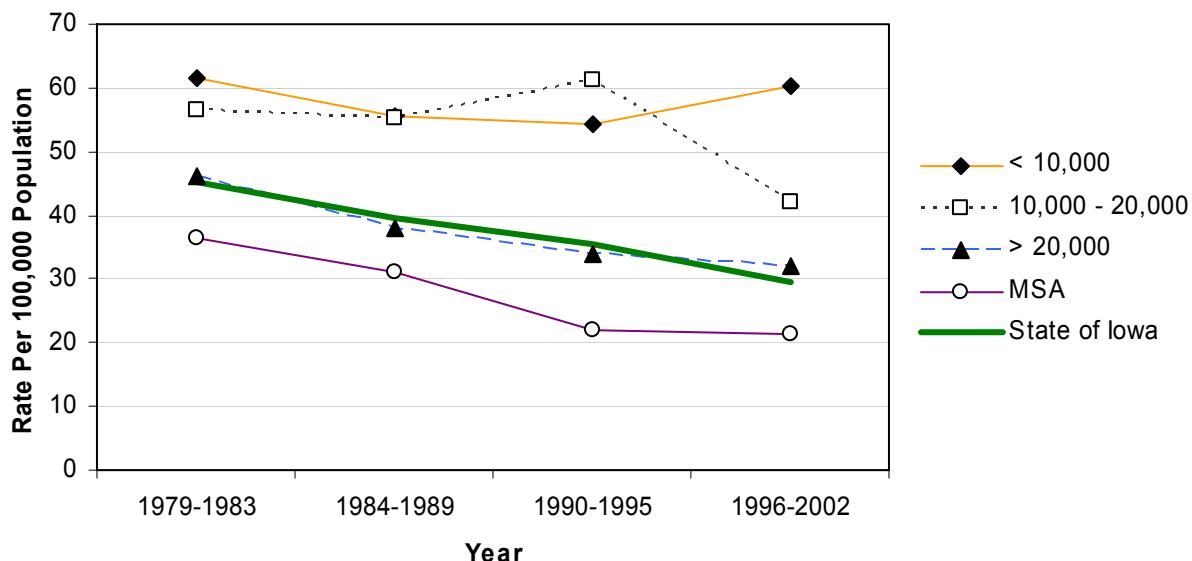
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>		County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with 2004 Population < 10,000	Adair	*	*	*		Monona	*	*	*
	Adams	*	*	*		Monroe	*	*	*
	Audubon	*	*	*		Osceola	*	*	*
	Clarke	*	*	*		Palo Alto	*	*	*
	Davis	5	79.5	79.5		Pocahontas	*	*	*
	Decatur	6	69.3	69.3		Ringgold	*	*	*
	Fremont	6	107.0	107.0		Taylor	*	*	*
	Howard	*	*	*		Van Buren	*	*	*
	Ida	7	119.1	119.1		Wayne	11	241.0	241.0
	Lucas	*	*	*		Worth	*	*	*
						<b>Total</b>	70	60.3	60.3
Counties with 2004 Population 10,000 - 20,000	Allamakee	8	77.8	77.8		Hardin	*	*	*
	Appanoose	6	63.4	63.4		Humboldt	*	*	*
	Butler	8	73.0	73.0		Iowa	*	*	*
	Calhoun	*	*	*		Jefferson	6	50.6	50.6
	Cass	9	87.2	87.2		Keokuk	9	108.1	108.1
	Cedar	6	46.6	46.6		Kossuth	13	96.4	96.4
	Cherokee	*	*	*		Louisa	8	91.9	91.9
	Chickasaw	*	*	*		Lyon	*	*	*
	Clay	*	*	*		Mitchell	6	76.5	76.5
	Clayton	18	130.1	130.1		Montgomery	5	61.2	61.2
	Crawford	*	*	*		O'Brien	6	51.6	51.6
	Delaware	17	114.8	114.8		Page	*	*	*
	Dickinson	*	*	*		Poweshiek	6	36.1	36.1
	Emmet	*	*	*		Sac	5	61.4	61.4
	Floyd	*	*	*		Shelby	*	*	*
	Franklin	*	*	*		Tama	*	*	*
	Greene	*	*	*		Union	*	*	*
	Hamilton	*	*	*		Winnebago	*	*	*
	Hancock	6	64.8	64.8		Wright	*	*	*
						<b>Total</b>	196	48.2	48.2
Counties with 2004 Population > 20,000	Boone	7	38.9	38.9		Lee	6	22.8	22.8
	Buchanan	6	35.6	35.6		Mahaska	*	*	*
	Buena Vista	*	*	*		Marion	9	35.4	35.4
	Carroll	8	48.2	48.2		Marshall	8	28.7	28.7
	Cerro Gordo	12	35.3	35.3		Muscatine	5	16.5	16.5
	Clinton	12	32.7	32.7		Plymouth	7	34.7	34.7
	Des Moines	9	29.7	29.7		Sioux	18	54.9	54.9
	Fayette	*	*	*		Wapello	7	27.0	27.0
	Henry	6	40.2	40.2		Webster	*	*	*
	Jackson	8	53.7	53.7		Winneshiek	5	22.7	22.7
	Jasper	9	37.3	37.3		<b>Total</b>	155	31.1	31.1
MSA Counties	Benton	6	34.7	34.7		Linn	34	25.5	25.5
	Black Hawk	16	15.1	15.1		Madison	8	79.7	79.7
	Bremer	5	23.7	23.7		Mills	5	47.0	47.0
	Dallas	8	31.1	31.1		Polk	58	24.0	24.0
	Dubuque	12	17.0	17.0		Pottawattamie	10	15.8	15.8
	Grundy	*	*	*		Scott	28	24.4	24.4
	Guthrie	*	*	*		Story	6	7.0	7.0
	Harrison	5	45.4	45.4		Warren	6	18.4	18.4
	Johnson	14	13.8	13.8		Washington	*	*	*
	Jones	9	64.9	64.9		Woodbury	16	20.6	20.6
						<b>Total</b>	251	21.5	21.5
	<b>State Total</b>	672	30.7	30.7					

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

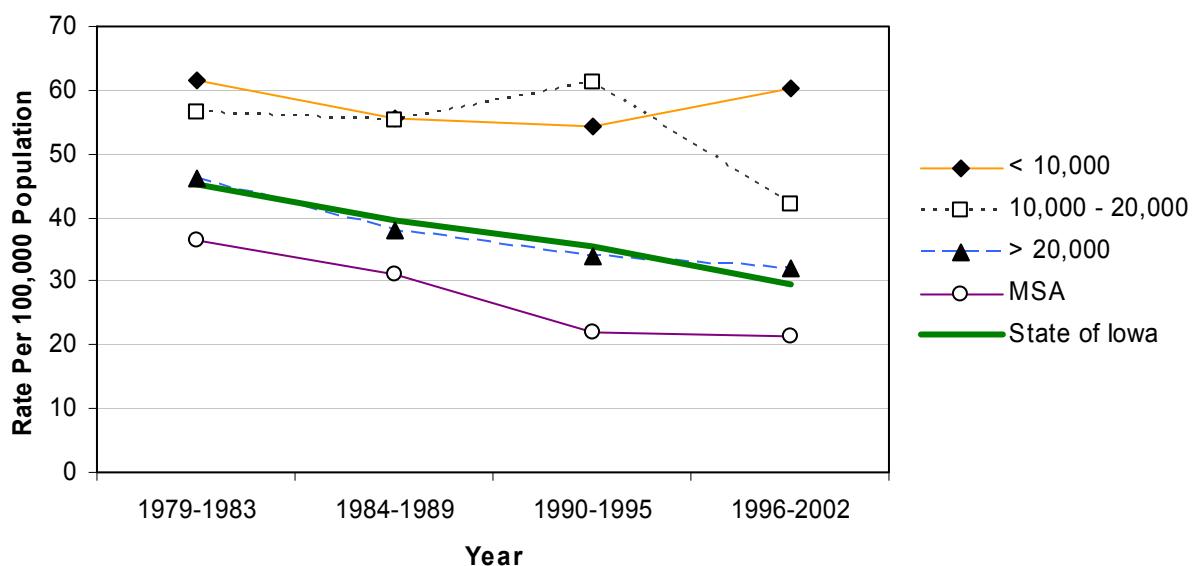
Source: Iowa Department of Public Health via Iowa Cancer Registry

## Age 15-19: Motor Vehicle Traffic Mortality by County Group 1979-2002

### Crude Rates

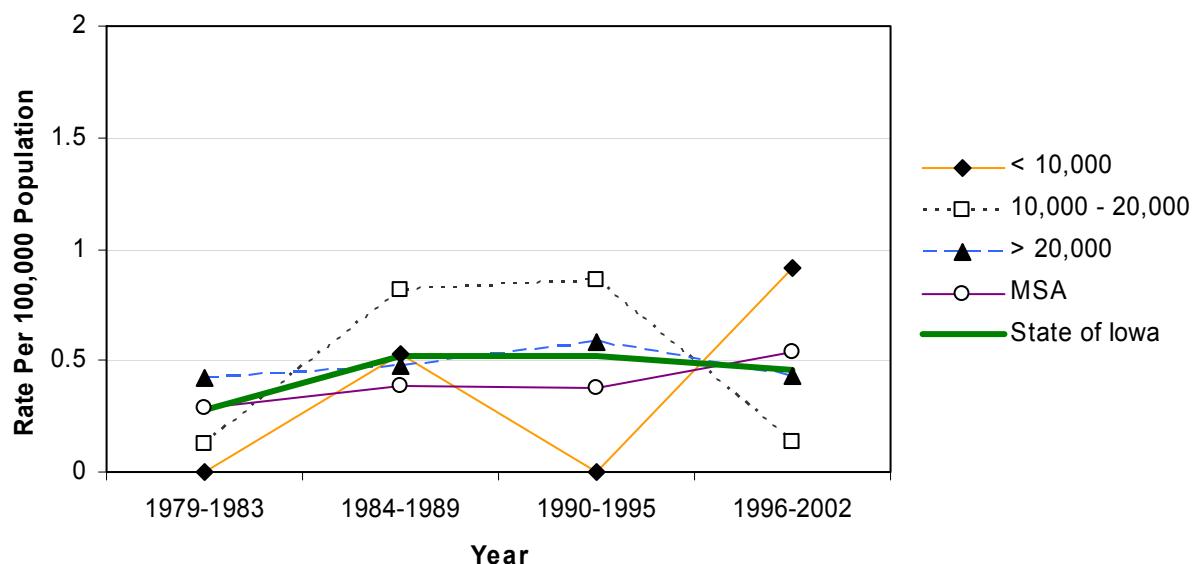


### Age-Adjusted Rates

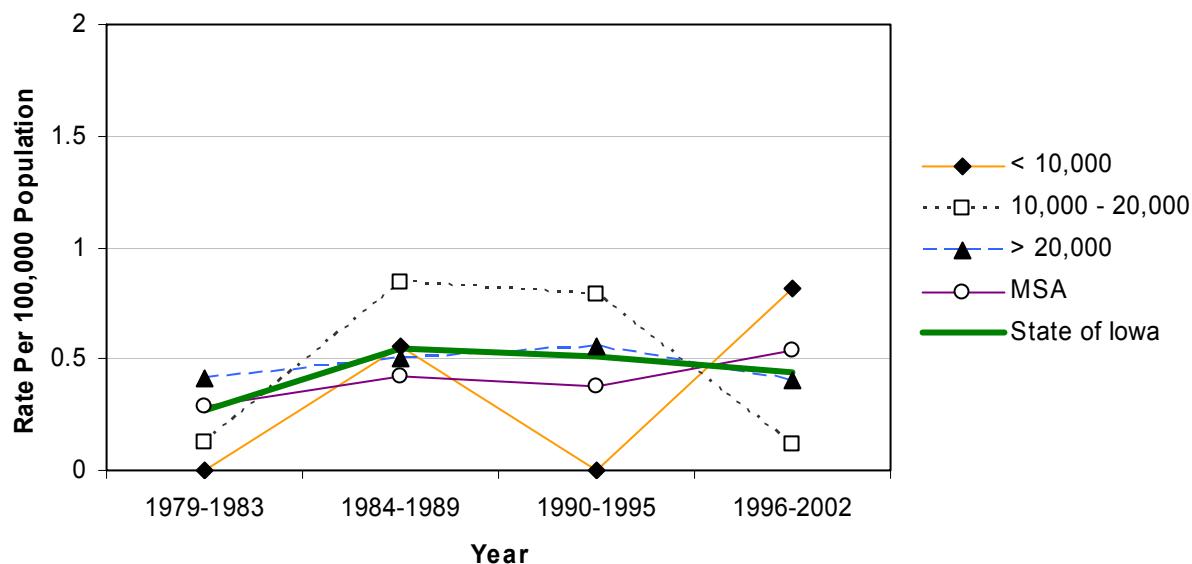


## Age 0-14: Suicides by County Group 1979-2002

### Crude Rates

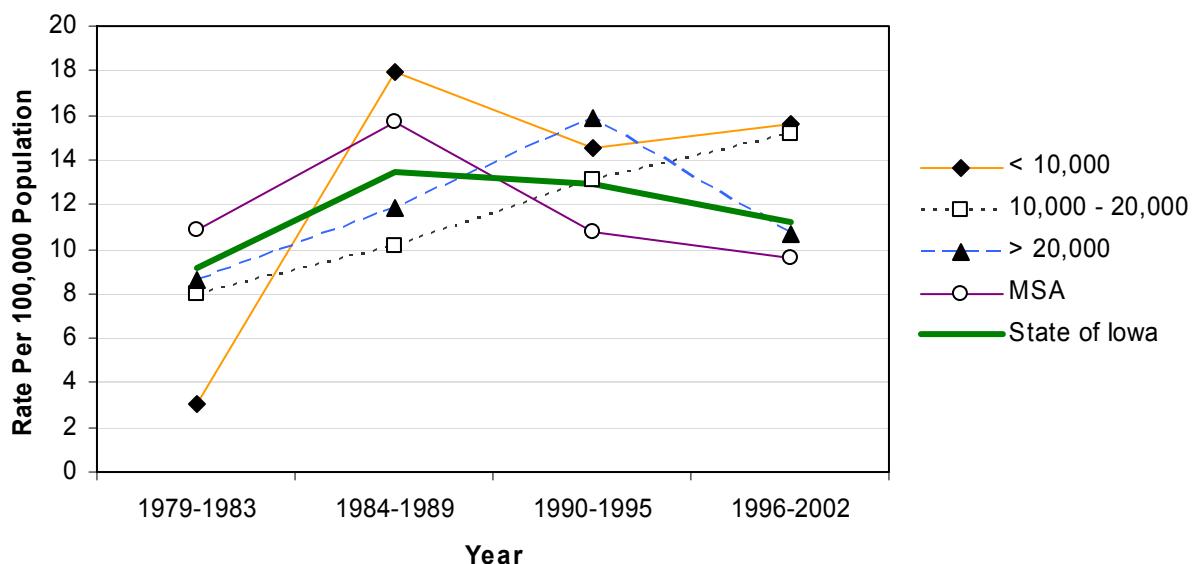


### Age-Adjusted Rates

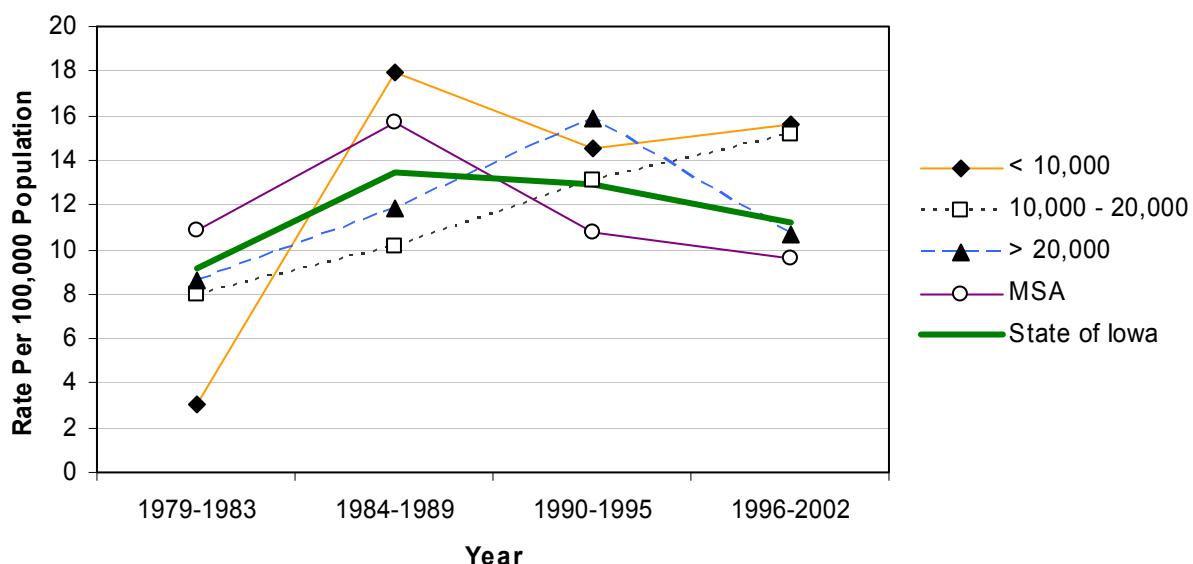


## Age 15-19: Suicides by County Group 1979-2002

**Crude Rates**

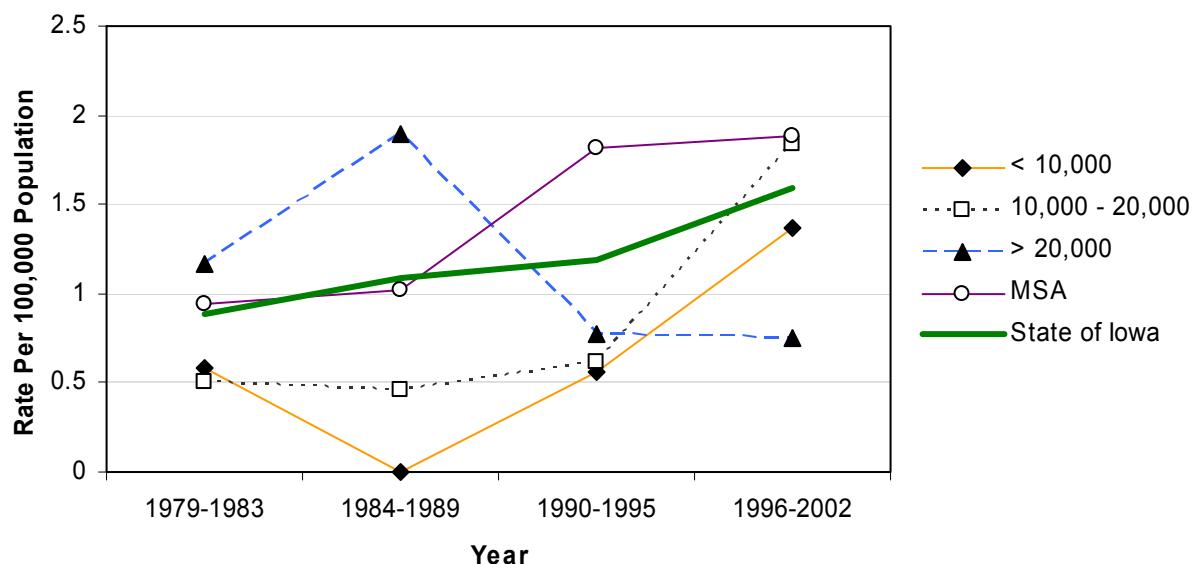


**Age-Adjusted Rates**

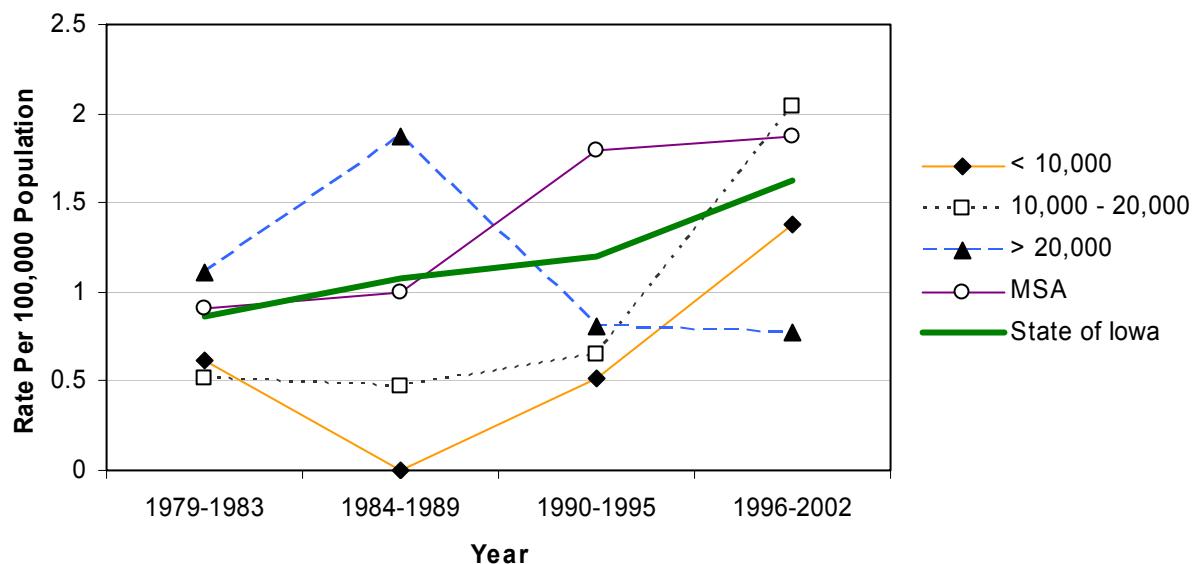


## Age 0-14: Homicides by County Group 1979-2002

**Crude Rates**

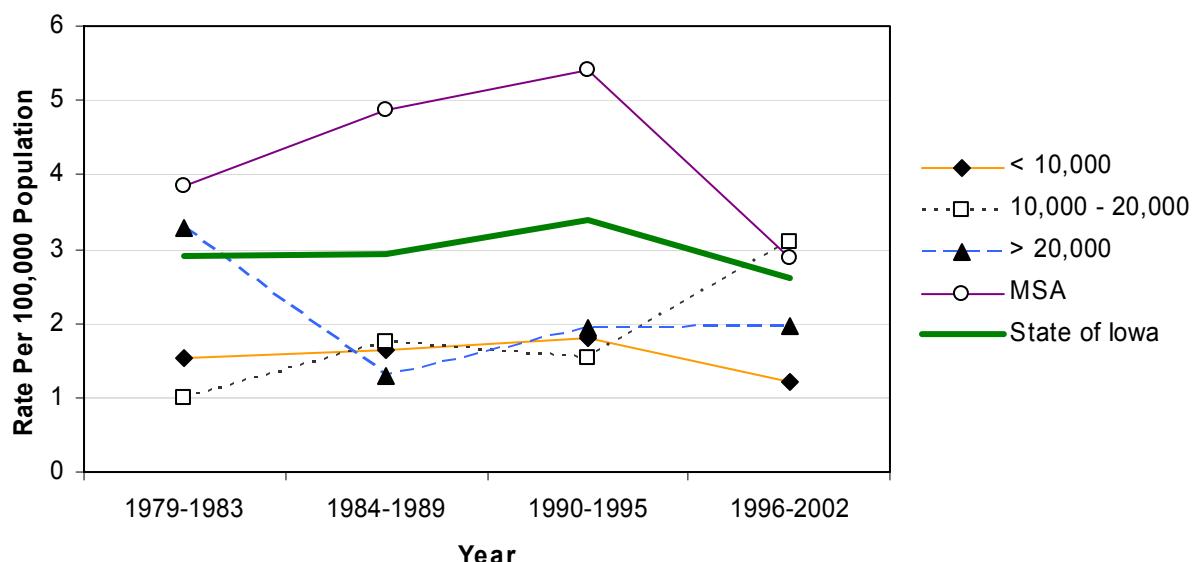


**Age-Adjusted Rates**

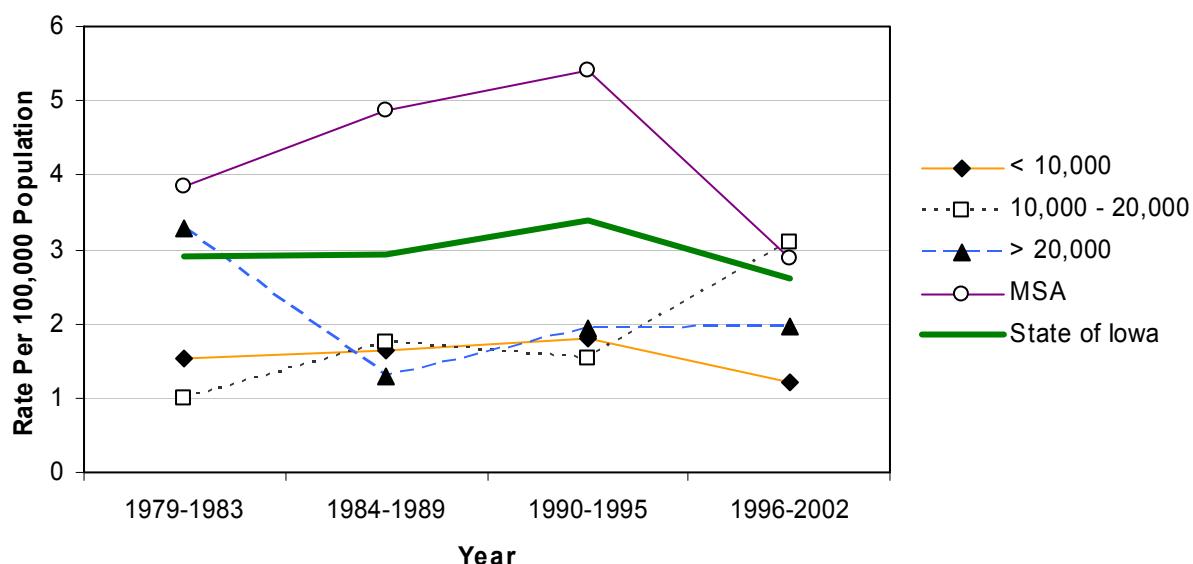


## Age 15-19: Homicides by County Group 1979-2002

**Crude Rates**



**Age-Adjusted Rates**





## 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 310 deaths per 100,000 persons (crude rate) between 1993 and 2002. 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 240 per 100,000 by the 1996-2002 time period.

Stroke is currently the third leading cause of death in Iowa, with a crude mortality rate of 76 per 100,000 from 1993 to 2002. From 1978 through 1990, Iowa experienced a steady decline in age-adjusted stroke mortality, but it remained relatively constant between 1990 and 2002. The age-adjusted mortality rates for chronic obstructive pulmonary disease (COPD), currently the fourth leading cause of death, have been increasing over time with the larger counties experiencing the highest rates. The crude rates of this disease have also been increasing over time, but the smaller counties are experiencing the highest rates because COPD is a disease primarily of the elderly, a greater percent of the small county population. Age-adjusted death rates for pneumonia and influenza, the fifth leading cause of death, show a slight decline in the 1996-2002 period compared with the 1990-1995 period in each county grouping. Crude 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 SEER\*Stat software program provided by the National Cancer Institute.

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

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

## OTHER MORTALITY

## All Causes Mortality 1993-2002

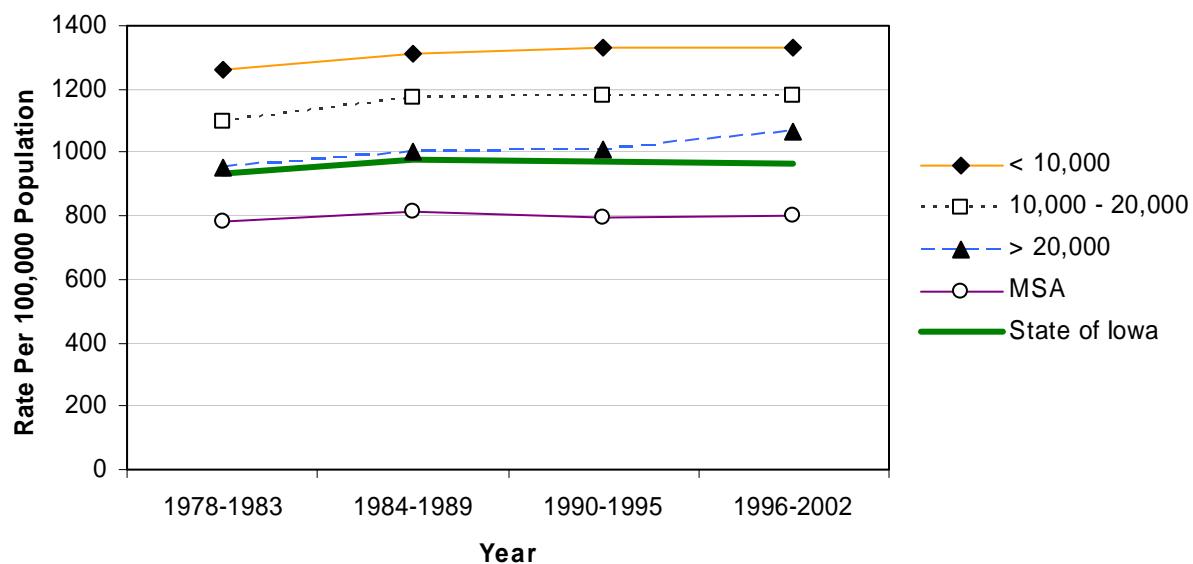
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with 2004 Population < 10,000	Adair	1,171	1414.0 (08)	759.8 (68)	Monona	1,623	1620.7 (01)	853.9 (17)
	Adams	614	1360.4 (13)	835.5 (25)	Monroe	1,035	1282.8 (26)	850.6 (20)
	Audubon	962	1401.0 (09)	731.1 (90)	Osceola	847	1195.8 (42)	780.7 (57)
	Clarke	997	1131.5 (54)	770.1 (64)	Palo Alto	1,403	1372.2 (12)	823.8 (31)
	Davis	972	1142.5 (52)	785.0 (53)	Pocahontas	1,155	1305.9 (23)	759.2 (70)
	Decatur	1,051	1235.8 (33)	854.3 (16)	Ringgold	832	1536.8 (03)	805.5 (37)
	Fremont	1,148	1426.7 (05)	928.5 (02)	Taylor	973	1392.5 (10)	763.8 (67)
	Howard	1,310	1317.5 (20)	786.7 (49)	Van Buren	1,028	1328.1 (17)	879.0 (08)
	Ida	1,083	1355.0 (15)	839.1 (24)	Wayne	1,092	1597.0 (02)	871.0 (12)
	Lucas	1,144	1224.3 (37)	779.2 (58)	Worth	1,014	1280.4 (28)	793.2 (44)
					<b>Total</b>	21,454	1341.3	811.4
Counties with 2004 Population 10,000 - 20,000	Allamakee	1,686	1164.9 (50)	776.9 (61)	Hardin	2,492	1322.0 (18)	785.7 (50)
	Appanoose	1,801	1314.5 (22)	826.4 (28)	Humboldt	1,234	1185.5 (44)	733.8 (86)
	Butler	1,941	1261.1 (29)	784.5 (54)	Iowa	1,685	1093.8 (62)	759.4 (69)
	Calhoun	1,606	1424.1 (06)	785.2 (51)	Jefferson	1,500	915.8 (85)	766.6 (65)
	Cass	1,989	1342.0 (16)	806.3 (36)	Keokuk	1,351	1179.4 (46)	750.7 (76)
	Cedar	1,759	979.6 (79)	718.2 (94)	Kossuth	2,051	1178.2 (47)	758.9 (71)
	Cherokee	1,637	1229.2 (35)	798.7 (40)	Louisa	1,153	955.8 (80)	812.3 (34)
	Chickasaw	1,452	1101.4 (61)	787.5 (48)	Lyon	1,251	1062.0 (67)	719.6 (92)
	Clay	1,815	1037.8 (69)	741.4 (80)	Mitchell	1,436	1315.7 (21)	734.4 (84)
	Clayton	2,243	1194.1 (43)	828.0 (27)	Montgomery	1,726	1460.9 (04)	874.9 (09)
	Crawford	1,724	1023.3 (72)	732.7 (87)	O'Brien	1,903	1241.6 (32)	731.8 (89)
	Delaware	1,574	857.5 (91)	732.0 (88)	Page	2,307	1360.1 (14)	847.1 (22)
	Dickinson	1,818	1134.8 (53)	738.0 (82)	Poweshiek	2,133	1127.5 (56)	777.9 (60)
	Emmet	1,366	1217.9 (38)	778.1 (59)	Sac	1,664	1417.0 (07)	793.9 (43)
	Floyd	2,088	1233.6 (34)	784.2 (55)	Shelby	1,603	1216.0 (39)	756.0 (74)
	Franklin	1,371	1258.4 (30)	790.5 (45)	Tama	2,129	1185.4 (45)	797.8 (41)
	Greene	1,334	1294.6 (25)	746.3 (79)	Union	1,580	1280.5 (27)	853.3 (18)
	Hamilton	1,747	1069.2 (66)	756.9 (72)	Winnebago	1,437	1225.7 (36)	770.8 (63)
	Hancock	1,316	1090.6 (63)	738.0 (82)	Wright	1,999	1388.2 (11)	789.4 (47)
					<b>Total</b>	64,901	1183.5	774.9
Counties with 2004 Population > 20,000	Boone	3,024	1171.1 (48)	839.5 (23)	Lee	4,403	1147.4 (51)	892.0 (06)
	Buchanan	2,112	1001.9 (74)	862.2 (14)	Mahaska	2,189	987.7 (75)	754.6 (75)
	Buena Vista	2,151	1053.5 (68)	750.1 (77)	Marion	3,250	1029.1 (70)	796.7 (42)
	Carroll	2,373	1102.7 (59)	747.7 (78)	Marshall	5,082	1301.5 (24)	983.5 (01)
	Cerro Gordo	5,215	1118.7 (58)	825.9 (29)	Muscatine	3,750	903.1 (87)	853.0 (19)
	Clinton	5,462	1078.9 (64)	872.0 (11)	Plymouth	2,420	985.0 (76)	766.4 (66)
	Des Moines	4,365	1026.1 (71)	789.8 (46)	Sioux	2,486	788.7 (95)	648.6 (99)
	Fayette	2,578	1169.5 (49)	785.2 (51)	Wapello	4,379	1214.8 (40)	884.1 (07)
	Henry	2,043	1016.9 (73)	802.4 (39)	Webster	4,785	1201.0 (41)	866.7 (13)
	Jackson	2,230	1102.2 (60)	834.2 (26)	Winneshiek	1,843	868.6 (90)	676.5 (97)
	Jasper	3,566	979.8 (78)	781.2 (56)	<b>Total</b>	69,706	1067.0	820.9
MSA Counties	Benton	2,200	892.1 (88)	724.2 (91)	Linn	13,965	748.9 (97)	756.5 (73)
	Black Hawk	11,588	910.1 (86)	825.4 (30)	Madison	1,539	1128.4 (55)	847.4 (21)
	Bremer	2,283	980.6 (77)	734.1 (85)	Mills	1,327	941.3 (83)	894.5 (05)
	Dallas	3,048	807.5 (93)	803.9 (38)	Polk	27,399	752.0 (96)	819.9 (32)
	Dubuque	8,465	951.6 (81)	812.1 (35)	Pottawattamie	8,123	945.1 (82)	910.3 (04)
	Grundy	1,321	1076.0 (65)	688.6 (96)	Scott	12,874	817.7 (92)	873.3 (10)
	Guthrie	1,415	1254.8 (31)	774.8 (62)	Story	4,395	561.2 (98)	659.3 (98)
	Harrison	2,031	1318.2 (19)	912.3 (03)	Warren	3,134	789.7 (94)	816.3 (33)
	Johnson	4,927	457.5 (99)	705.4 (95)	Washington	2,311	1125.9 (57)	740.7 (81)
	Jones	1,800	887.0 (89)	719.2 (93)	Woodbury	9,624	931.4 (84)	858.5 (15)
	<b>State Total</b>	279,830	966.8	801.8	<b>Total</b>	123,769	807.5	806.6

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

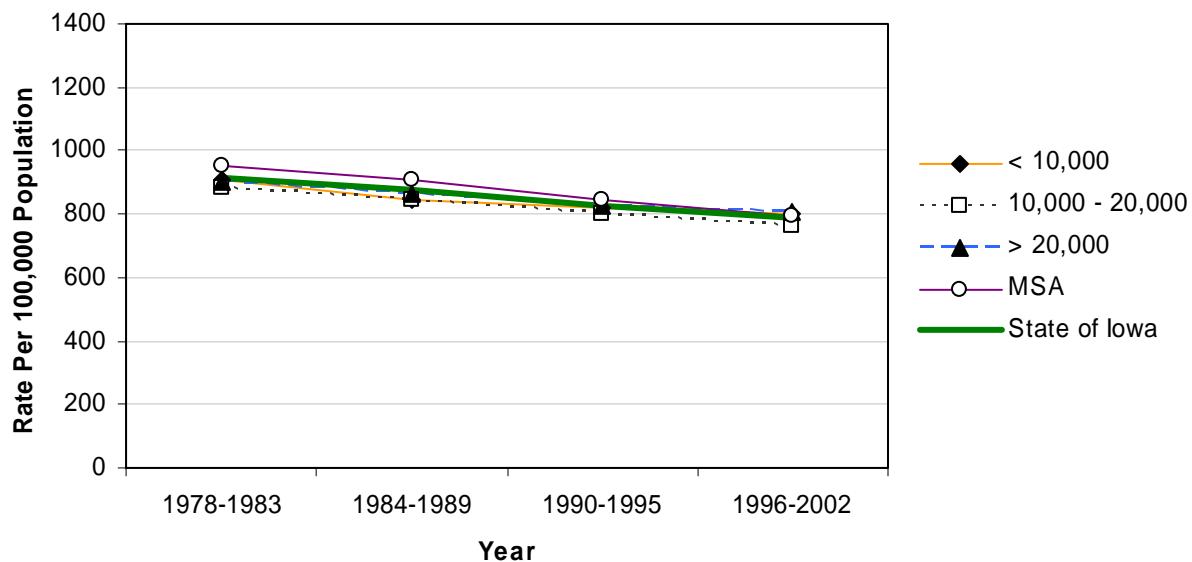
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## All Causes Mortality by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



**Heart Disease Mortality 1993-2002**

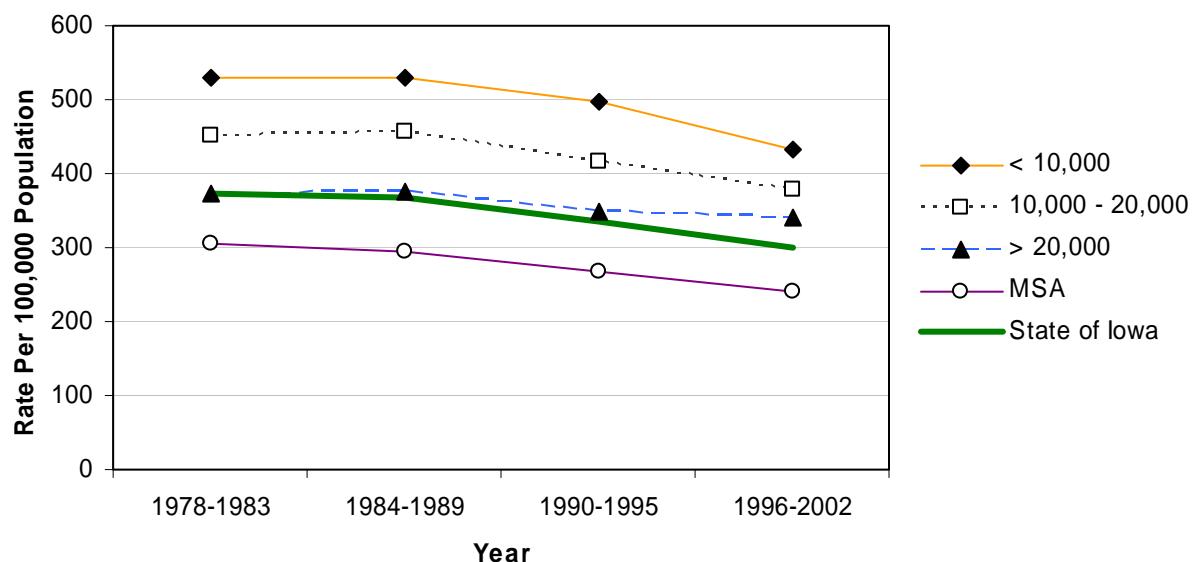
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with 2004 Population < 10,000	Adair	364	439.5 (16)	227.1 (75)	Monona	477	476.3 (10)	232.8 (67)
	Adams	198	438.7 (17)	253.7 (42)	Monroe	342	423.9 (26)	267.0 (23)
	Audubon	275	400.5 (40)	203.4 (90)	Osceola	393	554.8 (03)	332.8 (02)
	Clarke	347	393.8 (42)	254.5 (40)	Palo Alto	394	385.3 (47)	217.1 (81)
	Davis	343	403.2 (39)	257.4 (37)	Pocahontas	362	409.3 (37)	228.7 (73)
	Decatur	361	424.5 (25)	271.2 (19)	Ringgold	330	609.6 (01)	298.4 (11)
	Fremont	337	418.8 (32)	261.5 (30)	Taylor	320	458.0 (14)	244.7 (50)
	Howard	394	396.3 (41)	233.1 (66)	Van Buren	333	430.2 (21)	270.9 (20)
	Ida	422	528.0 (05)	303.9 (07)	Wayne	351	513.3 (07)	263.8 (29)
	Lucas	506	541.5 (04)	317.1 (05)	Worth	343	433.1 (18)	249.7 (48)
					<b>Total</b>	7,192	449.7	256.6
	Allamakee	434	299.9 (83)	195.6 (96)	Hardin	880	466.9 (12)	260.5 (32)
	Appanoose	809	590.5 (02)	346.8 (01)	Humboldt	426	409.2 (38)	241.8 (55)
	Butler	605	393.1 (44)	230.6 (71)	Iowa	477	309.6 (77)	205.3 (89)
	Calhoun	479	424.8 (24)	227.3 (74)	Jefferson	487	297.3 (84)	239.5 (59)
	Cass	638	430.5 (20)	241.9 (54)	Keokuk	406	354.4 (58)	214.6 (86)
	Cedar	495	275.7 (87)	195.9 (95)	Kossuth	590	338.9 (64)	210.6 (88)
	Cherokee	569	427.2 (22)	265.0 (25)	Louisa	381	315.8 (74)	261.1 (31)
	Chickasaw	556	421.7 (28)	288.2 (13)	Lyon	445	377.8 (52)	247.3 (49)
	Clay	545	311.6 (76)	215.8 (82)	Mitchell	542	496.6 (09)	252.4 (43)
	Clayton	630	335.4 (66)	226.4 (77)	Montgomery	498	421.5 (29)	229.5 (72)
	Crawford	578	343.1 (61)	236.3 (64)	O'Brien	661	431.3 (19)	234.7 (65)
	Delaware	476	259.3 (90)	217.9 (80)	Page	779	459.3 (13)	267.8 (22)
	Dickinson	617	385.1 (48)	238.4 (63)	Poweshiek	665	351.5 (59)	231.3 (70)
	Emmet	424	378.0 (51)	232.3 (68)	Sac	485	413.0 (34)	221.0 (79)
	Floyd	716	423.0 (27)	256.4 (38)	Shelby	620	470.3 (11)	273.2 (18)
	Franklin	457	419.5 (31)	254.2 (41)	Tama	697	388.1 (45)	243.3 (52)
	Greene	464	450.3 (15)	244.2 (51)	Union	631	511.4 (08)	313.8 (06)
	Hamilton	582	356.2 (56)	239.3 (60)	Winnebago	482	411.1 (35)	240.8 (56)
	Hancock	494	409.4 (36)	264.9 (26)	Wright	567	393.7 (43)	213.7 (87)
					<b>Total</b>	21,287	388.2	241.5
Counties with 2004 Population 10,000 - 20,000	Boone	1,081	418.6 (33)	281.3 (15)	Lee	1,461	380.7 (49)	287.3 (14)
	Buchanan	750	355.8 (57)	298.7 (10)	Mahaska	719	324.4 (71)	239.3 (60)
	Buena Vista	679	332.6 (69)	226.5 (76)	Marion	976	309.1 (79)	231.5 (69)
	Carroll	717	333.2 (68)	215.1 (84)	Marshall	1,472	377.0 (53)	277.9 (16)
	Cerro Gordo	1,724	369.8 (54)	264.4 (27)	Muscatine	1,111	267.6 (89)	250.5 (47)
	Clinton	2,131	420.9 (30)	331.3 (04)	Plymouth	843	343.1 (61)	255.4 (39)
	Des Moines	1,367	321.3 (73)	240.3 (57)	Sioux	744	236.0 (96)	189.5 (97)
	Fayette	855	387.9 (46)	252.3 (44)	Wapello	1,368	379.5 (50)	270.2 (21)
	Henry	676	336.5 (65)	258.0 (36)	Webster	1,700	426.7 (23)	298.2 (12)
	Jackson	721	356.4 (55)	259.5 (33)	Winneshiek	550	259.2 (91)	196.5 (94)
	Jasper	1,207	331.7 (70)	258.8 (35)	<b>Total</b>	22,852	349.8	261.0
Counties with 2004 Population > 20,000	Benton	759	307.8 (80)	238.7 (62)	Linn	3,770	202.2 (97)	203.4 (90)
	Black Hawk	3,599	282.7 (85)	251.6 (46)	Madison	417	305.7 (81)	223.0 (78)
	Bremer	817	350.9 (60)	251.7 (45)	Mills	456	323.5 (72)	303.3 (08)
	Dallas	917	243.0 (93)	239.9 (58)	Polk	8,752	240.2 (94)	263.9 (28)
	Dubuque	2,752	309.4 (78)	259.1 (34)	Pottawattamie	2,684	312.3 (75)	301.3 (09)
	Grundy	410	334.0 (67)	200.9 (92)	Scott	3,892	247.2 (92)	265.4 (24)
	Guthrie	316	280.2 (86)	172.7 (99)	Story	1,333	170.2 (98)	198.9 (93)
	Harrison	796	516.6 (06)	331.6 (03)	Warren	938	236.3 (95)	243.3 (52)
	Johnson	1,259	116.9 (99)	185.5 (98)	Washington	700	341.0 (63)	215.1 (84)
	Jones	558	275.0 (88)	215.6 (83)	Woodbury	3,112	301.2 (82)	273.7 (17)
					<b>Total</b>	38,237	249.5	247.8
	<b>State Total</b>	89,568	309.5	250.2				

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

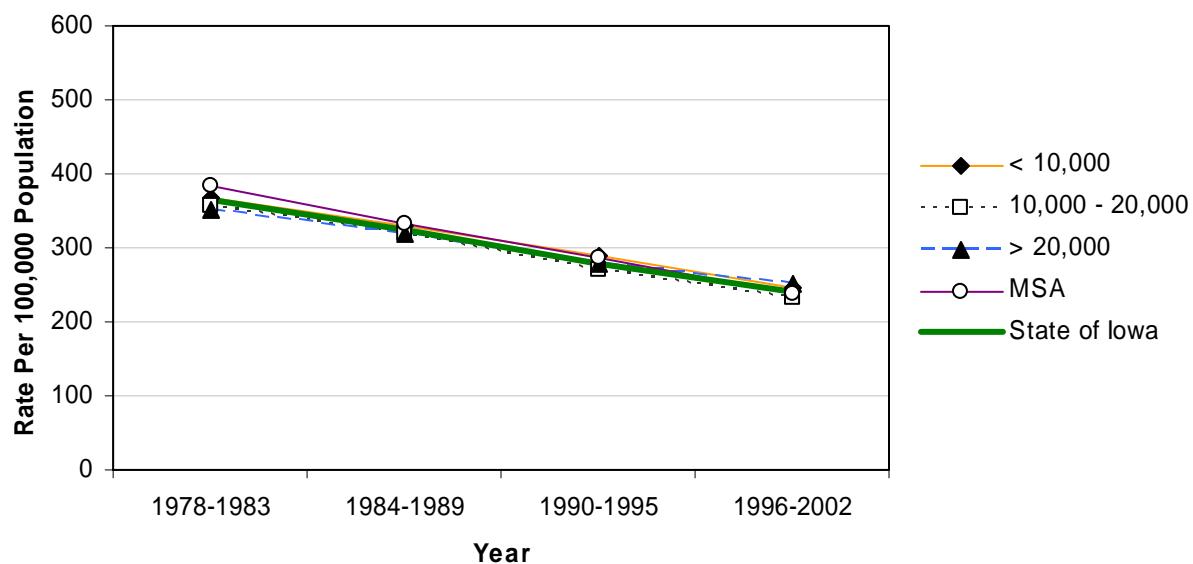
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## Heart Disease Mortality by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



## OTHER MORTALITY

**Stroke Mortality 1993-2002**

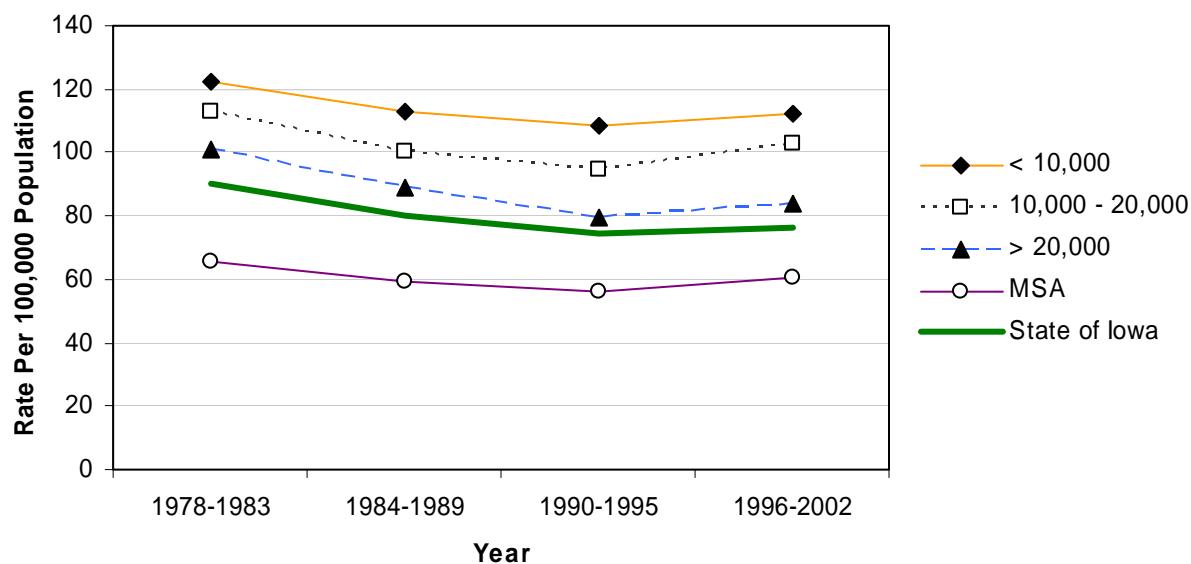
County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	
Counties with 2004 Population < 10,000	Adair	77	93.0 (46)	47.2 (89)	Monona	116	115.8 (17)	53.3 (67)
	Adams	51	113.0 (20)	64.6 (28)	Monroe	87	107.8 (26)	63.4 (29)
	Audubon	82	119.4 (16)	54.1 (64)	Osceola	57	80.5 (68)	48.2 (85)
	Clarke	83	94.2 (44)	59.8 (43)	Palo Alto	148	144.7 (03)	75.6 (08)
	Davis	71	83.5 (57)	53.3 (67)	Pocahontas	125	141.3 (06)	71.7 (13)
	Decatur	83	97.6 (40)	61.6 (34)	Ringgold	55	101.6 (37)	50.2 (79)
	Fremont	111	137.9 (07)	79.3 (05)	Taylor	74	105.9 (29)	51.2 (77)
	Howard	112	112.6 (21)	58.0 (51)	Van Buren	82	105.9 (29)	61.1 (37)
	Ida	83	103.8 (33)	58.0 (51)	Wayne	108	157.9 (02)	72.2 (11)
	Lucas	62	66.3 (84)	39.3 (98)	Worth	104	131.3 (09)	73.7 (10)
				<b>Total</b>	1,771	110.7	59.8	
	Allamakee	190	131.3 (09)	80.9 (03)	Hardin	208	110.3 (22)	58.1 (50)
	Appanoose	115	83.9 (56)	48.5 (84)	Humboldt	75	72.1 (79)	41.4 (97)
	Butler	210	136.4 (08)	76.7 (06)	Iowa	177	114.9 (19)	71.4 (14)
	Calhoun	139	123.3 (13)	60.6 (39)	Jefferson	158	96.5 (42)	74.5 (09)
	Cass	182	122.8 (15)	65.3 (27)	Keokuk	94	82.1 (62)	45.2 (92)
	Cedar	192	106.9 (28)	71.1 (16)	Kossuth	201	115.5 (18)	66.9 (23)
	Cherokee	130	97.6 (40)	57.2 (55)	Louisa	91	75.4 (76)	60.8 (38)
	Chickasaw	103	78.1 (72)	50.6 (78)	Lyon	117	99.3 (38)	61.4 (35)
	Clay	145	82.9 (60)	54.0 (65)	Mitchell	118	108.1 (25)	52.9 (71)
	Clayton	205	109.1 (24)	68.8 (20)	Montgomery	189	160.0 (01)	84.9 (01)
	Crawford	116	68.9 (81)	47.3 (88)	O'Brien	152	99.2 (39)	52.4 (73)
	Delaware	121	65.9 (85)	53.7 (66)	Page	186	109.7 (23)	62.0 (33)
	Dickinson	146	91.1 (49)	55.3 (59)	Poweshiek	239	126.3 (12)	79.5 (04)
	Emmet	86	76.7 (74)	45.2 (92)	Sac	168	143.1 (05)	69.1 (19)
	Floyd	161	95.1 (43)	54.3 (63)	Shelby	105	79.7 (71)	45.1 (94)
	Franklin	113	103.7 (34)	59.8 (43)	Tama	159	88.5 (51)	53.3 (67)
	Greene	148	143.6 (04)	68.8 (20)	Union	105	85.1 (55)	52.2 (75)
	Hamilton	83	50.8 (95)	35.3 (99)	Winnebago	152	129.7 (11)	70.7 (18)
	Hancock	130	107.7 (27)	65.7 (26)	<b>Total</b>	5,586	101.9	60.2
Counties with 2004 Population 10,000 - 20,000	Boone	206	79.8 (70)	52.4 (73)	Lee	311	81.0 (65)	59.7 (46)
	Buchanan	143	67.8 (82)	56.1 (57)	Mahaska	178	80.3 (69)	56.6 (56)
	Buena Vista	165	80.8 (67)	52.1 (76)	Marion	269	85.2 (54)	60.0 (42)
	Carroll	195	90.6 (50)	54.6 (62)	Marshall	365	93.5 (45)	66.9 (23)
	Cerro Gordo	489	104.9 (32)	72.0 (12)	Muscatine	271	65.3 (86)	60.3 (40)
	Clinton	391	77.2 (73)	59.8 (43)	Plymouth	199	81.0 (65)	57.4 (54)
	Des Moines	349	82.0 (63)	59.2 (47)	Sioux	197	62.5 (89)	49.1 (82)
	Fayette	228	103.4 (35)	62.4 (31)	Wapello	371	102.9 (36)	68.4 (22)
	Henry	212	105.5 (31)	76.5 (07)	Webster	368	92.4 (47)	61.4 (35)
	Jackson	168	83.0 (59)	58.3 (49)	Winneshiek	141	66.5 (83)	47.6 (86)
	Jasper	251	69.0 (80)	52.7 (72)	<b>Total</b>	5,467	83.7	60.0
Counties with 2004 Population > 20,000	Benton	133	53.9 (94)	41.8 (95)	Linn	1,023	54.9 (93)	54.9 (61)
	Black Hawk	1,044	82.0 (63)	71.4 (14)	Madison	118	86.5 (52)	57.9 (53)
	Bremer	194	83.3 (58)	58.5 (48)	Mills	69	48.9 (96)	45.9 (90)
	Dallas	243	64.4 (88)	62.3 (32)	Polk	1,642	45.1 (97)	49.4 (81)
	Dubuque	769	86.5 (52)	70.9 (17)	Pottawattamie	489	56.9 (91)	55.2 (60)
	Grundy	113	92.0 (48)	53.1 (70)	Scott	1,187	75.4 (76)	81.5 (02)
	Guthrie	93	82.5 (61)	47.6 (86)	Story	341	43.5 (98)	49.9 (80)
	Harrison	116	75.3 (78)	49.1 (82)	Warren	256	64.5 (87)	66.4 (25)
	Johnson	423	39.3 (99)	62.8 (30)	Washington	155	75.5 (75)	45.3 (91)
	Jones	112	55.2 (92)	41.7 (96)	Woodbury	641	62.0 (90)	55.4 (58)
				<b>Total</b>	9,161	59.8	58.6	
	<b>State Total</b>	21,985	76.0	59.5				

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

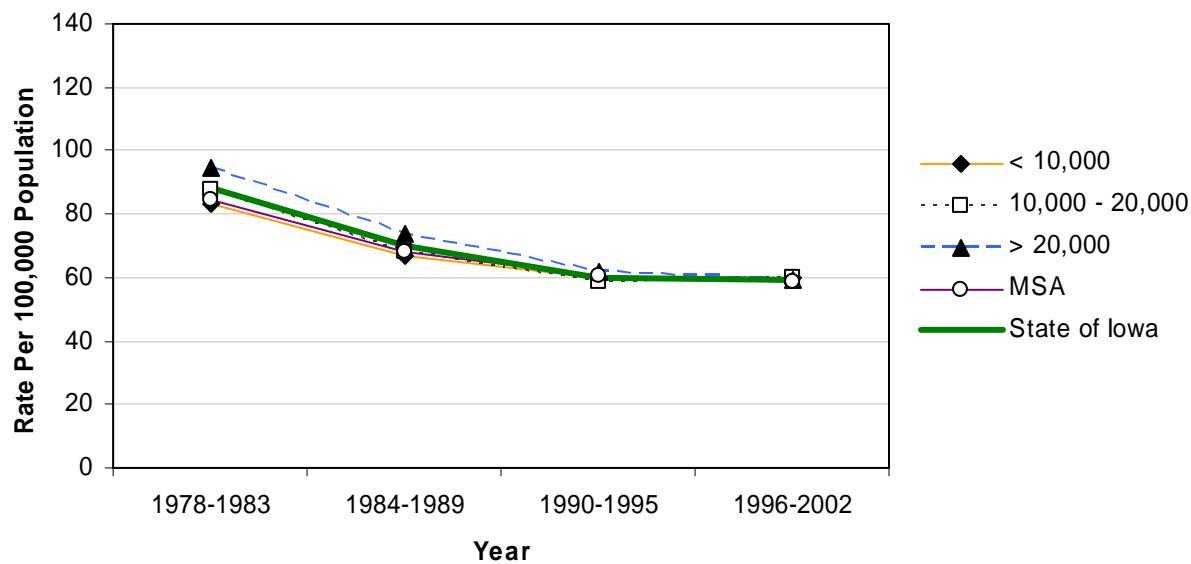
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## Stroke Mortality by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



## OTHER MORTALITY

**Chronic Obstructive Pulmonary Disease Mortality 1993-2002**

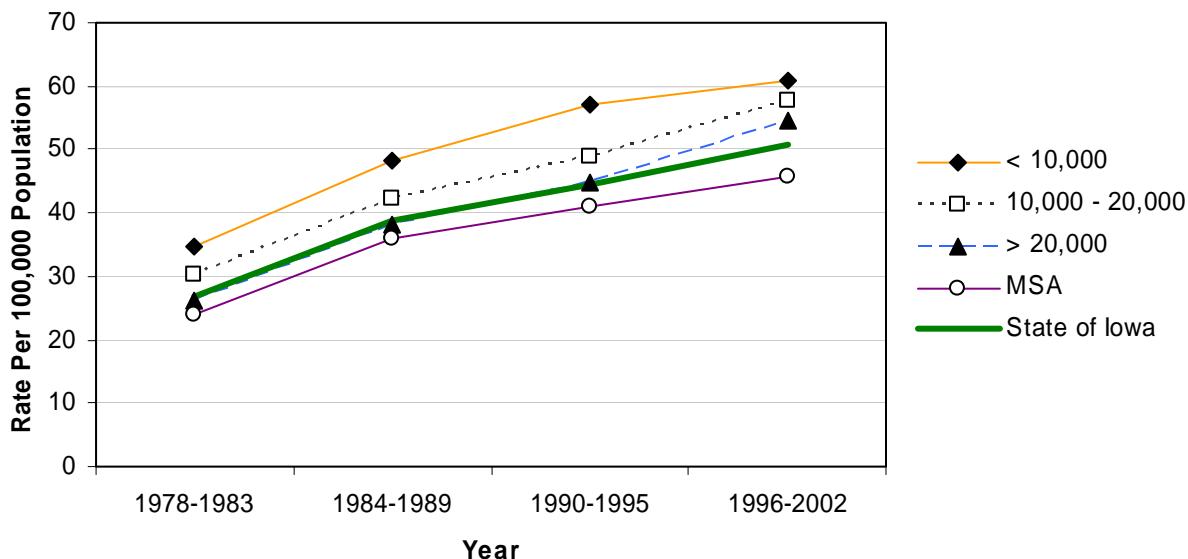
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with 2004 Population  <b>&lt; 10,000</b>	Adair	48	58.0 (35)	31.7 (75)	Monona	97	96.9 (01)	52.0 (07)
	Adams	24	53.2 (48)	30.7 (79)	Monroe	53	65.7 (15)	42.1 (28)
	Audubon	51	74.3 (08)	36.5 (56)	Osceola	24	33.9 (95)	21.9 (99)
	Clarke	41	46.5 (73)	32.7 (72)	Palo Alto	75	73.4 (11)	40.3 (33)
	Davis	39	45.8 (74)	30.3 (81)	Pocahontas	46	52.0 (52)	30.2 (82)
	Decatur	43	50.6 (58)	37.7 (49)	Ringgold	40	73.9 (10)	38.4 (44)
	Fremont	76	94.4 (03)	58.1 (03)	Taylor	57	81.6 (06)	41.2 (30)
	Howard	57	57.3 (38)	33.0 (69)	Van Buren	39	50.4 (59)	32.0 (74)
	Ida	52	65.1 (19)	37.8 (48)	Wayne	39	57.0 (39)	31.3 (77)
	Lucas	45	48.2 (66)	31.4 (76)	Worth	44	55.6 (41)	34.0 (62)
					<b>Total</b>	990	61.9	36.7
Counties with 2004 Population  <b>10,000 - 20,000</b>	Allamakee	65	44.9 (77)	29.8 (84)	Hardin	103	54.6 (43)	31.3 (77)
	Appanoose	65	47.4 (70)	29.3 (86)	Humboldt	65	62.4 (24)	38.5 (42)
	Butler	95	61.7 (27)	37.7 (49)	Iowa	77	50.0 (61)	35.5 (57)
	Calhoun	75	66.5 (13)	39.2 (37)	Jefferson	65	39.7 (87)	34.3 (60)
	Cass	131	88.4 (04)	54.1 (06)	Keokuk	70	61.1 (28)	38.2 (46)
	Cedar	104	57.9 (36)	42.5 (27)	Kossuth	87	50.0 (61)	30.1 (83)
	Cherokee	80	60.1 (31)	38.4 (44)	Louisa	45	37.3 (93)	32.9 (70)
	Chickasaw	86	65.2 (18)	45.1 (21)	Lyon	39	33.1 (96)	22.1 (98)
	Clay	109	62.3 (26)	44.5 (23)	Mitchell	48	44.0 (80)	23.9 (96)
	Clayton	110	58.6 (33)	38.8 (39)	Montgomery	113	95.6 (02)	60.2 (02)
	Crawford	91	54.0 (44)	37.1 (53)	O'Brien	99	64.6 (22)	35.4 (58)
	Delaware	82	44.7 (78)	37.3 (52)	Page	126	74.3 (08)	45.5 (19)
	Dickinson	86	53.7 (46)	33.1 (68)	Poweshiek	118	62.4 (24)	45.0 (22)
	Emmet	44	39.2 (88)	26.9 (93)	Sac	80	68.1 (12)	38.2 (46)
	Floyd	91	53.8 (45)	33.7 (65)	Shelby	62	47.0 (71)	28.5 (88)
	Franklin	49	45.0 (76)	27.9 (92)	Tama	92	51.2 (54)	33.5 (66)
	Greene	67	65.0 (20)	33.8 (64)	Union	71	57.5 (37)	38.5 (42)
	Hamilton	73	44.7 (78)	29.5 (85)	Winnebago	44	37.5 (92)	25.4 (95)
	Hancock	47	38.9 (89)	26.0 (94)	Wright	85	59.0 (32)	32.8 (71)
					<b>Total</b>	3,039	55.4	35.8
Counties with 2004 Population  <b>&gt; 20,000</b>	Boone	138	53.4 (47)	38.7 (40)	Lee	196	51.1 (56)	39.3 (36)
	Buchanan	111	52.7 (50)	45.3 (20)	Mahaska	90	40.6 (86)	30.5 (80)
	Buena Vista	102	50.0 (61)	33.9 (63)	Marion	148	46.9 (72)	37.0 (55)
	Carroll	141	65.5 (17)	43.1 (25)	Marshall	325	83.2 (05)	62.0 (01)
	Cerro Gordo	265	56.8 (40)	41.4 (29)	Muscatine	220	53.0 (49)	50.7 (09)
	Clinton	255	50.4 (59)	39.6 (34)	Plymouth	106	43.1 (83)	33.2 (67)
	Des Moines	180	42.3 (85)	32.7 (72)	Sioux	89	28.2 (97)	23.2 (97)
	Fayette	134	60.8 (29)	39.5 (35)	Wapello	238	66.0 (14)	47.2 (15)
	Henry	91	45.3 (75)	34.8 (59)	Webster	257	64.5 (23)	45.9 (16)
	Jackson	133	65.7 (15)	48.4 (13)	Winneshiek	79	37.2 (94)	28.5 (88)
	Jasper	159	43.7 (81)	34.1 (61)	<b>Total</b>	3,457	52.9	40.2
MSA Counties	Benton	119	48.3 (65)	38.7 (40)	Linn	925	49.6 (64)	50.7 (09)
	Black Hawk	646	50.7 (57)	45.6 (17)	Madison	65	47.7 (69)	37.5 (51)
	Bremer	88	37.8 (91)	28.4 (90)	Mills	74	52.5 (51)	50.6 (11)
	Dallas	162	42.9 (84)	43.5 (24)	Polk	1,399	38.4 (90)	42.8 (26)
	Dubuque	428	48.1 (67)	40.9 (32)	Pottawattamie	500	58.2 (34)	54.7 (05)
	Grundy	59	48.1 (67)	28.9 (87)	Scott	807	51.3 (53)	55.1 (04)
	Guthrie	68	60.3 (30)	37.1 (53)	Story	182	23.2 (99)	28.0 (91)
	Harrison	100	64.9 (21)	45.6 (17)	Warren	173	43.6 (82)	47.3 (14)
	Johnson	258	24.0 (98)	39.2 (37)	Washington	157	76.5 (07)	48.8 (12)
	Jones	104	51.2 (54)	41.2 (30)	Woodbury	575	55.6 (41)	51.6 (08)
					<b>Total</b>	6,889	44.9	45.4
	<b>State Total</b>	14,375	49.7	41.2				

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

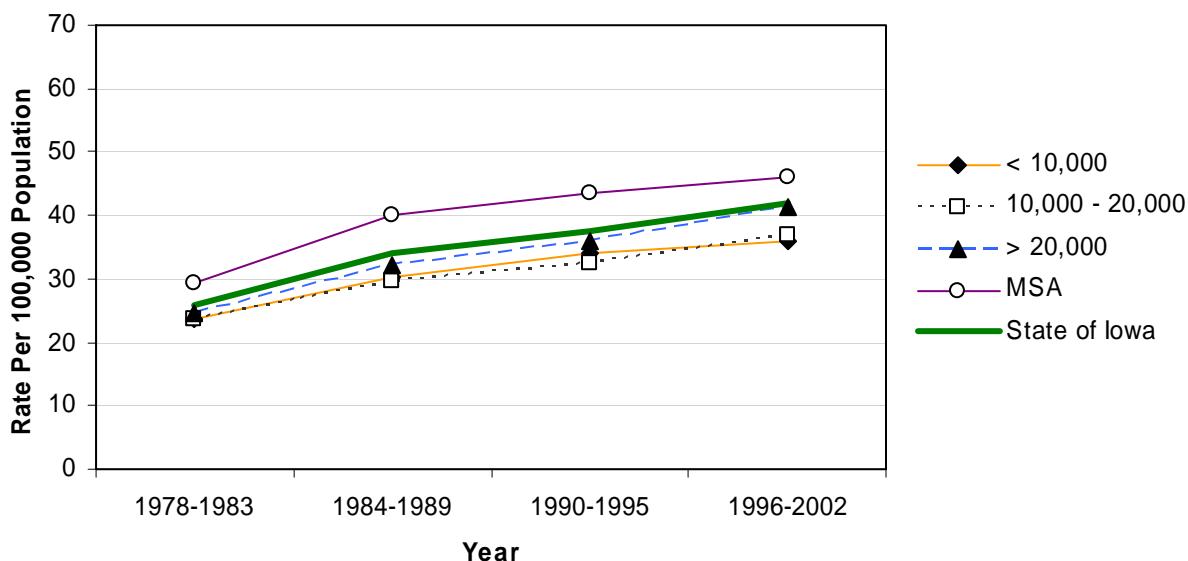
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## Chronic Obstructive Pulmonary Disease Mortality by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



## OTHER MORTALITY

**Pneumonia/Influenza Mortality 1993-2002**

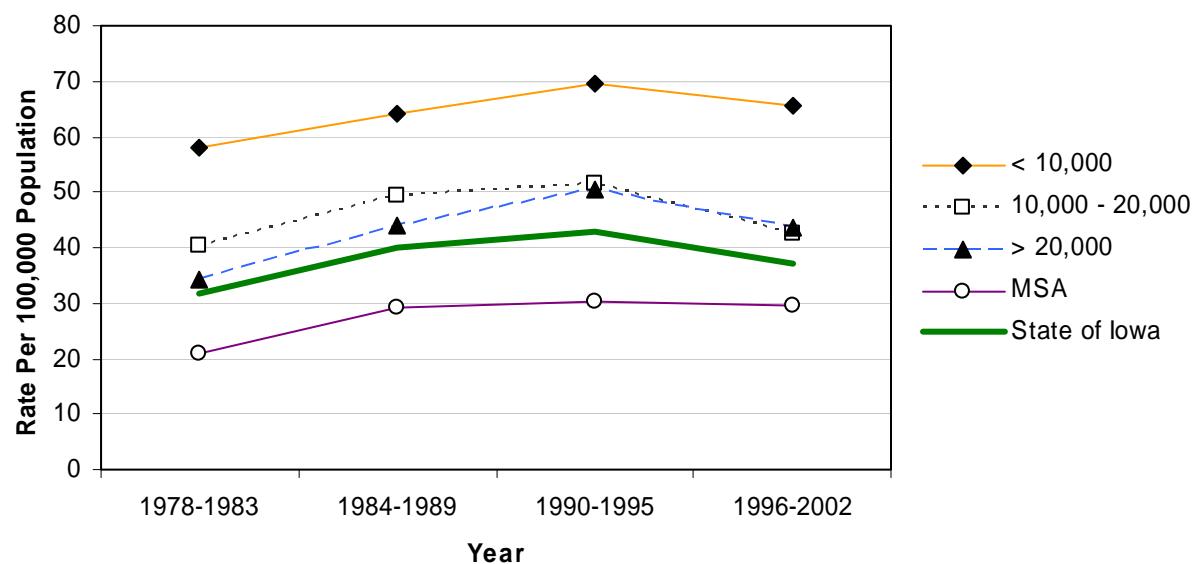
County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	
Counties with 2004 Population < 10,000	Adair	170	205.3 (01)	88.3 (01)	Monona	79	78.9 (05)	35.5 (21)
	Adams	17	37.7 (68)	19.3 (88)	Monroe	49	60.7 (17)	35.5 (21)
	Audubon	29	42.2 (60)	18.7 (91)	Osceola	38	53.6 (31)	31.6 (34)
	Clarke	45	51.1 (40)	29.1 (43)	Palo Alto	54	52.8 (35)	28.3 (52)
	Davis	47	55.2 (27)	34.3 (25)	Pocahontas	62	70.1 (08)	36.0 (20)
	Decatur	74	87.0 (02)	52.2 (02)	Ringgold	19	35.1 (73)	16.7 (96)
	Fremont	68	84.5 (03)	48.6 (04)	Taylor	44	63.0 (13)	28.3 (52)
	Howard	57	57.3 (19)	30.4 (39)	Van Buren	53	68.5 (10)	40.5 (10)
	Ida	42	52.5 (36)	28.5 (49)	Wayne	50	73.1 (06)	32.5 (32)
	Lucas	44	47.1 (47)	25.4 (67)	Worth	34	42.9 (57)	23.7 (74)
					<b>Total</b>	1,075	67.2	34.9
Counties with 2004 Population 10,000 - 20,000	Allamakee	57	39.4 (64)	23.7 (74)	Hardin	80	42.4 (59)	22.1 (81)
	Appanoose	75	54.7 (29)	31.3 (35)	Humboldt	58	55.7 (26)	30.5 (38)
	Butler	73	47.4 (45)	27.2 (59)	Iowa	88	57.1 (20)	34.1 (26)
	Calhoun	71	63.0 (13)	28.7 (47)	Jefferson	59	36.0 (72)	29.2 (41)
	Cass	68	45.9 (53)	25.3 (68)	Keokuk	60	52.4 (37)	28.4 (51)
	Cedar	50	27.8 (89)	18.4 (92)	Kossuth	82	47.1 (47)	28.5 (49)
	Cherokee	62	46.6 (50)	28.0 (56)	Louisa	62	51.4 (39)	40.0 (13)
	Chickasaw	32	24.3 (96)	15.9 (98)	Lyon	37	31.4 (82)	19.0 (89)
	Clay	59	33.7 (77)	22.1 (81)	Mitchell	27	24.7 (94)	12.0 (99)
	Clayton	103	54.8 (28)	33.2 (29)	Montgomery	66	55.9 (24)	29.0 (44)
	Crawford	44	26.1 (92)	16.7 (96)	O'Brien	87	56.8 (21)	28.1 (55)
	Delaware	64	34.9 (74)	28.3 (52)	Page	118	69.6 (09)	40.3 (11)
	Dickinson	64	39.9 (63)	24.5 (71)	Poweshiek	70	37.0 (71)	22.6 (79)
	Emmet	46	41.0 (61)	22.0 (84)	Sac	94	80.0 (04)	40.2 (12)
	Floyd	77	45.5 (55)	26.9 (61)	Shelby	69	52.3 (38)	27.7 (57)
	Franklin	42	38.6 (66)	22.7 (78)	Tama	84	46.8 (49)	26.7 (63)
	Greene	39	37.8 (67)	18.4 (92)	Union	37	30.0 (85)	18.0 (95)
	Hamilton	61	37.3 (69)	25.2 (69)	Winnebago	58	49.5 (44)	26.3 (64)
	Hancock	52	43.1 (56)	26.8 (62)	Wright	96	66.7 (11)	33.7 (28)
					<b>Total</b>	2,471	45.1	26.5
Counties with 2004 Population > 20,000	Boone	122	47.2 (46)	30.9 (36)	Lee	177	46.1 (52)	33.1 (30)
	Buchanan	56	26.6 (91)	22.1 (81)	Mahaska	74	33.4 (79)	23.2 (77)
	Buena Vista	87	42.6 (58)	27.2 (59)	Marion	198	62.7 (15)	44.5 (07)
	Carroll	122	56.7 (22)	34.0 (27)	Marshall	207	53.0 (34)	37.5 (18)
	Cerro Gordo	217	46.6 (50)	32.1 (33)	Muscatine	221	53.2 (33)	47.7 (05)
	Clinton	155	30.6 (84)	23.9 (73)	Plymouth	69	28.1 (87)	19.8 (87)
	Des Moines	171	40.2 (62)	28.8 (45)	Sioux	117	37.1 (70)	28.6 (48)
	Fayette	123	55.8 (25)	32.7 (31)	Wapello	225	62.4 (16)	41.4 (09)
	Henry	107	53.3 (32)	38.1 (17)	Webster	289	72.5 (07)	46.3 (06)
	Jackson	103	50.9 (41)	35.3 (23)	Winneshiek	71	33.5 (78)	24.3 (72)
	Jasper	123	33.8 (76)	25.6 (66)	<b>Total</b>	3,034	46.4	32.9
MSA Counties	Benton	69	28.0 (88)	21.4 (86)	Linn	462	24.8 (93)	24.7 (70)
	Black Hawk	274	21.5 (98)	18.8 (90)	Madison	79	57.9 (18)	37.5 (18)
	Bremer	64	27.5 (90)	18.4 (92)	Mills	79	56.0 (23)	52.2 (02)
	Dallas	172	45.6 (54)	43.5 (08)	Polk	1,153	31.6 (81)	34.4 (24)
	Dubuque	442	49.7 (42)	39.3 (14)	Pottawattamie	270	31.4 (82)	30.6 (37)
	Grundy	67	54.6 (30)	30.3 (40)	Scott	380	24.1 (97)	26.1 (65)
	Guthrie	56	49.7 (42)	28.8 (45)	Story	193	24.6 (95)	27.3 (58)
	Harrison	53	34.4 (75)	22.6 (79)	Warren	154	38.8 (65)	39.3 (14)
	Johnson	161	15.0 (99)	23.6 (76)	Washington	136	66.3 (12)	38.8 (16)
	Jones	58	28.6 (86)	21.5 (85)	Woodbury	340	32.9 (80)	29.2 (41)
					<b>Total</b>	4,662	30.4	29.5
	<b>State Total</b>	11,242	38.8	30.0				

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

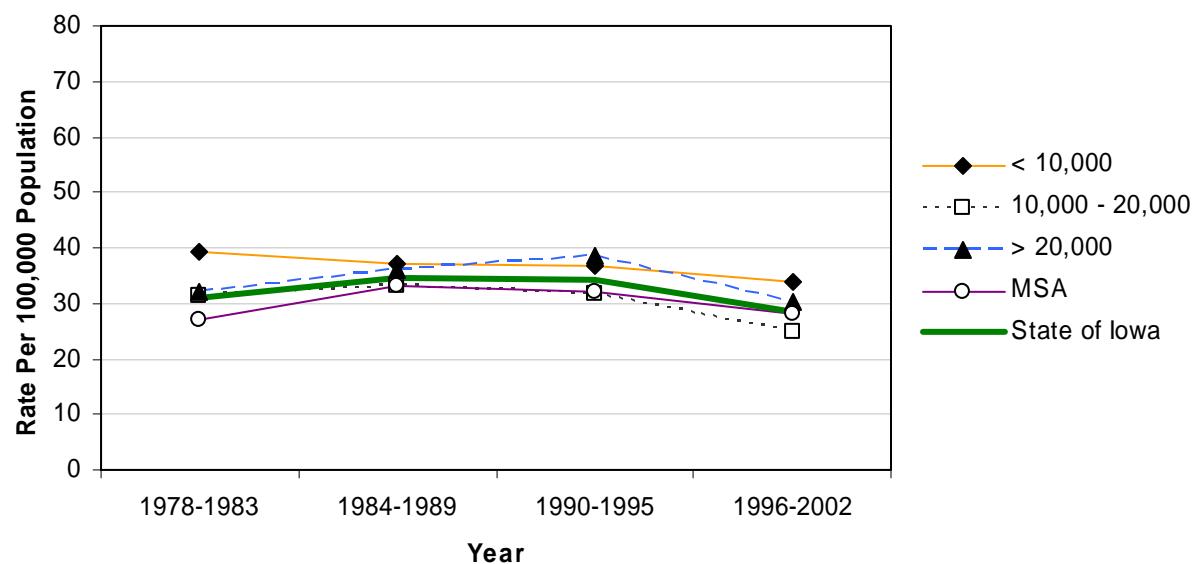
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## Pneumonia/Influenza Mortality by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



## Diabetes Mellitus Mortality 1993-2002

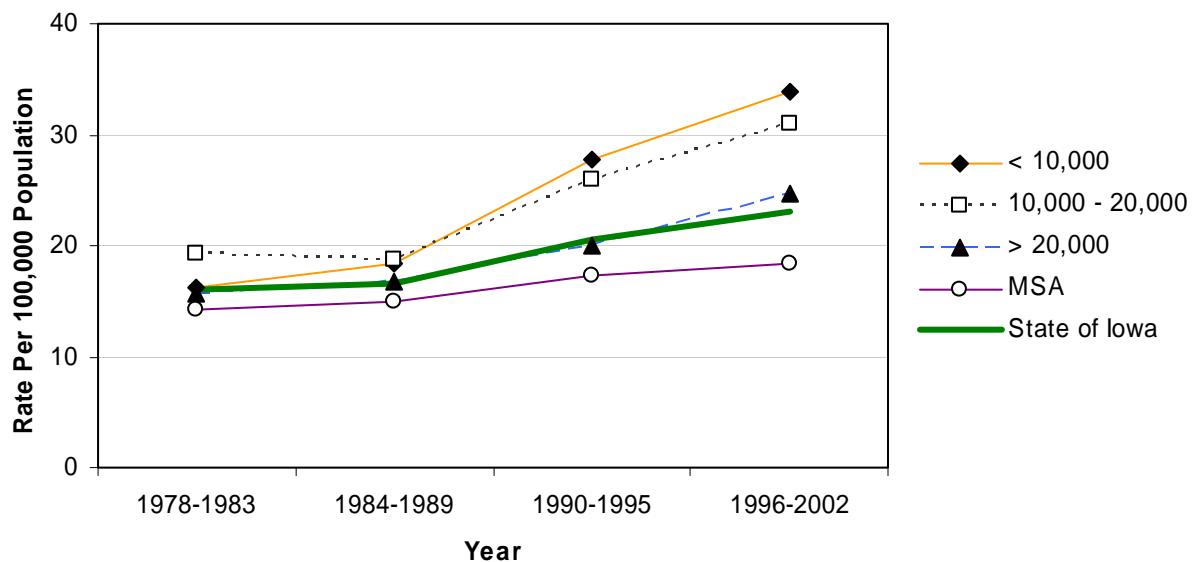
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )		County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
<b>Counties with 2004 Population &lt; 10,000</b>	Adair	25	30.2 (33)	16.2 (72)		Monona	58	57.9 (01)	31.0 (03)
	Adams	12	26.6 (48)	19.1 (52)		Monroe	9	11.2 (98)	7.8 (99)
	Audubon	27	39.3 (13)	22.6 (28)		Osceola	18	25.4 (53)	17.3 (60)
	Clarke	18	20.4 (77)	13.1 (90)		Palo Alto	36	35.2 (23)	23.1 (24)
	Davis	37	43.5 (08)	30.2 (04)		Pocahontas	22	24.9 (55)	15.6 (76)
	Decatur	15	17.6 (86)	11.9 (94)		Ringgold	25	46.2 (07)	26.3 (10)
	Fremont	27	33.6 (25)	21.3 (35)		Taylor	30	42.9 (09)	25.6 (13)
	Howard	27	27.2 (47)	16.2 (72)		Van Buren	33	42.6 (10)	26.7 (09)
	Ida	37	46.3 (06)	26.2 (11)		Wayne	36	52.6 (02)	27.0 (08)
	Lucas	17	18.2 (85)	10.5 (97)		Worth	18	22.7 (69)	13.2 (89)
						<b>Total</b>	527	32.9	20.1
<b>Counties with 2004 Population 10,000 - 20,000</b>	Allamakee	33	22.8 (67)	15.0 (82)		Hardin	63	33.4 (26)	19.3 (48)
	Appanoose	34	24.8 (56)	15.2 (81)		Humboldt	29	27.9 (44)	19.1 (52)
	Butler	42	27.3 (46)	16.5 (67)		Iowa	51	33.1 (27)	23.0 (25)
	Calhoun	45	39.9 (12)	21.2 (37)		Jefferson	46	28.1 (42)	24.8 (17)
	Cass	62	41.8 (11)	24.7 (18)		Keokuk	43	37.5 (16)	25.1 (15)
	Cedar	54	30.1 (35)	21.8 (33)		Kossuth	41	23.6 (61)	15.6 (76)
	Cherokee	39	29.3 (41)	19.4 (47)		Louisa	24	19.9 (79)	16.4 (69)
	Chickasaw	22	16.7 (88)	11.3 (96)		Lyon	30	25.5 (51)	17.2 (63)
	Clay	48	27.4 (45)	20.3 (41)		Mitchell	27	24.7 (57)	14.2 (84)
	Clayton	56	29.8 (38)	22.2 (29)		Montgomery	55	46.6 (04)	28.6 (05)
	Crawford	65	38.6 (14)	26.0 (12)		O'Brien	45	29.4 (40)	17.2 (63)
	Delaware	38	20.7 (75)	17.4 (59)		Page	60	35.4 (22)	22.0 (30)
	Dickinson	49	30.6 (32)	19.7 (45)		Poweshiek	44	23.3 (62)	17.7 (58)
	Emmet	52	46.4 (05)	27.8 (06)		Sac	42	35.8 (20)	21.3 (35)
	Floyd	33	19.5 (80)	12.9 (91)		Shelby	32	24.3 (59)	15.6 (76)
	Franklin	28	25.7 (50)	16.3 (71)		Tama	62	34.5 (24)	23.2 (23)
	Greene	17	16.5 (89)	12.0 (93)		Union	44	35.7 (21)	24.6 (20)
	Hamilton	82	50.2 (03)	33.9 (01)		Winnebago	35	29.9 (37)	19.9 (43)
	Hancock	32	26.5 (49)	18.1 (56)		Wright	54	37.5 (16)	22.0 (30)
						<b>Total</b>	1,658	30.2	19.9
<b>Counties with 2004 Population &gt; 20,000</b>	Boone	78	30.2 (33)	22.7 (27)		Lee	86	22.4 (70)	17.0 (65)
	Buchanan	80	38.0 (15)	32.2 (02)		Mahaska	48	21.7 (73)	17.3 (60)
	Buena Vista	67	32.8 (29)	23.0 (25)		Marion	75	23.7 (60)	18.8 (54)
	Carroll	45	20.9 (74)	13.9 (86)		Marshall	129	33.0 (28)	25.6 (13)
	Cerro Gordo	115	24.7 (57)	19.2 (50)		Muscatine	68	16.4 (90)	15.7 (75)
	Clinton	103	20.3 (78)	16.5 (67)		Plymouth	77	31.3 (31)	24.4 (21)
	Des Moines	66	15.5 (93)	12.1 (92)		Sioux	80	25.4 (53)	21.1 (39)
	Fayette	62	28.1 (42)	19.3 (48)		Wapello	134	37.2 (18)	27.1 (07)
	Henry	46	22.9 (66)	19.2 (50)		Webster	51	12.8 (96)	9.9 (98)
	Jackson	37	18.3 (84)	13.7 (87)		Winneshiek	47	22.2 (72)	17.3 (60)
	Jasper	71	19.5 (80)	15.4 (80)		<b>Total</b>	1,565	24.0	18.7
<b>MSA Counties</b>	Benton	63	25.5 (51)	21.2 (37)		Linn	357	19.1 (82)	19.5 (46)
	Black Hawk	285	22.4 (70)	20.3 (41)		Madison	41	30.1 (35)	23.7 (22)
	Bremer	39	16.8 (87)	13.4 (88)		Mills	23	16.3 (92)	15.6 (76)
	Dallas	62	16.4 (90)	16.4 (69)		Polk	562	15.4 (94)	16.8 (66)
	Dubuque	183	20.6 (76)	17.8 (57)		Pottawattamie	198	23.0 (64)	22.0 (30)
	Grundy	28	22.8 (67)	14.5 (83)		Scott	234	14.9 (95)	15.9 (74)
	Guthrie	26	23.1 (63)	14.0 (85)		Story	76	9.7 (99)	11.6 (95)
	Harrison	56	36.3 (19)	24.7 (18)		Warren	75	18.9 (83)	19.9 (43)
	Johnson	128	11.9 (97)	18.8 (54)		Washington	61	29.7 (39)	20.5 (40)
	Jones	65	32.0 (30)	25.0 (16)		Woodbury	238	23.0 (64)	21.4 (34)
						<b>Total</b>	2,800	18.3	18.4
	<b>State Total</b>	6,550	22.6	19.0					

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

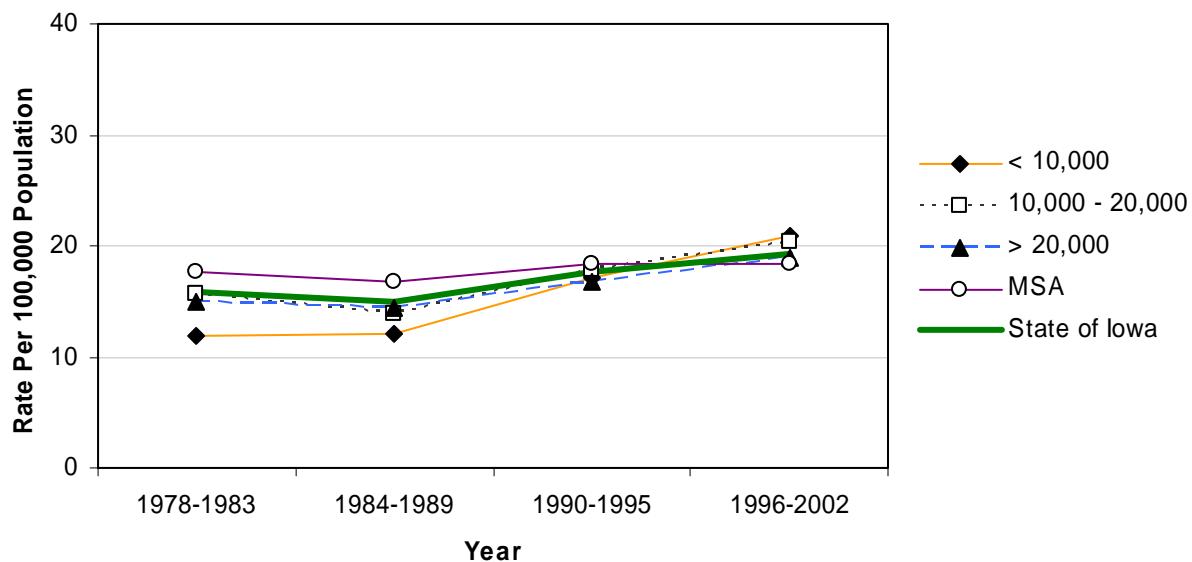
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## Diabetes Mellitus Mortality by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



## OTHER MORTALITY

**Atherosclerosis Mortality 1993-2002**

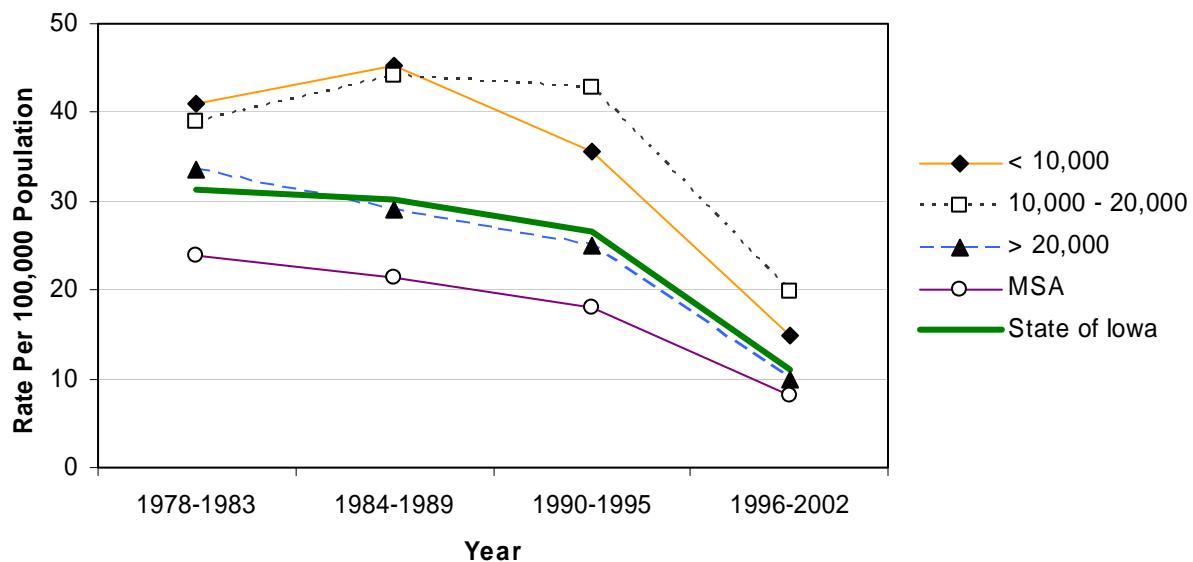
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with 2004 Population < 10,000	Adair	36	43.5	18.0	Monona	12	12.0	4.8
	Adams	*	*	*	Monroe	40	49.6	27.4
	Audubon	21	30.6	13.7	Osceola	*	*	*
	Clarke	*	*	*	Palo Alto	6	5.9	2.8
	Davis	6	7.1	4.1	Pocahontas	24	27.1	13.8
	Decatur	13	15.3	9.0	Ringgold	*	*	*
	Fremont	7	8.7	5.5	Taylor	7	10.0	4.1
	Howard	7	7.0	3.7	Van Buren	25	32.3	16.9
	Ida	*	*	*	Wayne	25	36.6	15.5
	Lucas	10	10.7	5.9	Worth	5	6.3	3.6
		<b>Total</b>		255	<b>15.9</b>		8.0	
Counties with 2004 Population 10,000 - 20,000	Allamakee	49	33.9	20.7	Hardin	12	6.4	4.2
	Appanoose	24	17.5	9.2	Humboldt	8	7.7	4.2
	Butler	46	29.9	16.3	Iowa	16	10.4	5.9
	Calhoun	52	46.1	20.0	Jefferson	15	9.2	7.0
	Cass	51	34.4	16.6	Keokuk	9	7.9	4.6
	Cedar	14	7.8	5.0	Kossuth	134	77.0	43.6
	Cherokee	55	41.3	23.8	Louisa	10	8.3	6.8
	Chickasaw	17	12.9	8.0	Lyon	*	*	*
	Clay	13	7.4	4.7	Mitchell	15	13.7	6.8
	Clayton	28	14.9	9.2	Montgomery	27	22.9	10.6
	Crawford	11	6.5	4.1	O'Brien	20	13.0	6.4
	Delaware	16	8.7	6.8	Page	8	4.7	2.5
	Dickinson	13	8.1	4.8	Poweshiek	9	4.8	2.8
	Emmet	*	*	*	Sac	106	90.3	41.7
	Floyd	152	89.8	47.9	Shelby	11	8.3	4.3
	Franklin	134	123.0	67.9	Tama	12	6.7	3.6
	Greene	21	20.4	9.9	Union	14	11.3	6.3
	Hamilton	16	9.8	6.1	Winnebago	9	7.7	4.2
	Hancock	6	5.0	3.3	Wright	11	7.6	3.5
		<b>Total</b>		1,169	<b>21.3</b>		12.0	
Counties with 2004 Population > 20,000	Boone	42	16.3	9.9	Lee	31	8.1	5.7
	Buchanan	16	7.6	6.0	Mahaska	77	34.7	23.6
	Buena Vista	37	18.1	11.1	Marion	23	7.3	4.8
	Carroll	30	13.9	8.1	Marshall	44	11.3	7.8
	Cerro Gordo	34	7.3	4.9	Muscatine	23	5.5	4.9
	Clinton	43	8.5	6.4	Plymouth	27	11.0	7.7
	Des Moines	19	4.5	3.1	Sioux	13	4.1	3.1
	Fayette	16	7.3	4.2	Wapello	19	5.3	3.5
	Henry	15	7.5	4.9	Webster	22	5.5	3.5
	Jackson	66	32.6	22.2	Winneshiek	22	10.4	7.2
	Jasper	57	15.7	11.8	<b>Total</b>	676	10.3	7.1
MSA Counties	Benton	*	*	*	Linn	163	8.7	8.6
	Black Hawk	64	5.0	4.3	Madison	*	*	*
	Bremer	19	8.2	5.6	Mills	11	7.8	7.1
	Dallas	26	6.9	6.6	Polk	179	4.9	5.3
	Dubuque	130	14.6	11.8	Pottawattamie	50	5.8	5.7
	Grundy	6	4.9	2.6	Scott	145	9.2	9.9
	Guthrie	275	243.9	132.5	Story	32	4.1	4.7
	Harrison	16	10.4	7.1	Warren	32	8.1	7.9
	Johnson	58	5.4	8.7	Washington	53	25.8	13.9
	Jones	9	4.4	3.4	Woodbury	76	7.4	6.4
					<b>Total</b>		1,350	
	<b>State Total</b>		3,450	11.9	8.8		8.5	

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

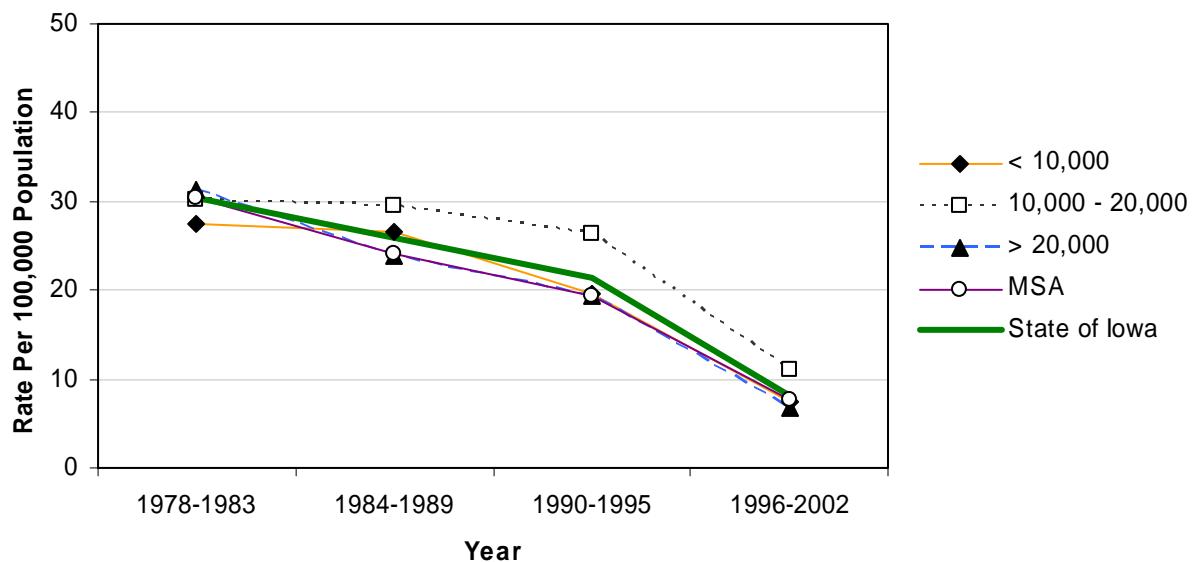
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## Atherosclerosis Mortality by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



## OTHER MORTALITY

**Infectious/Parasitic Mortality 1993-2002**

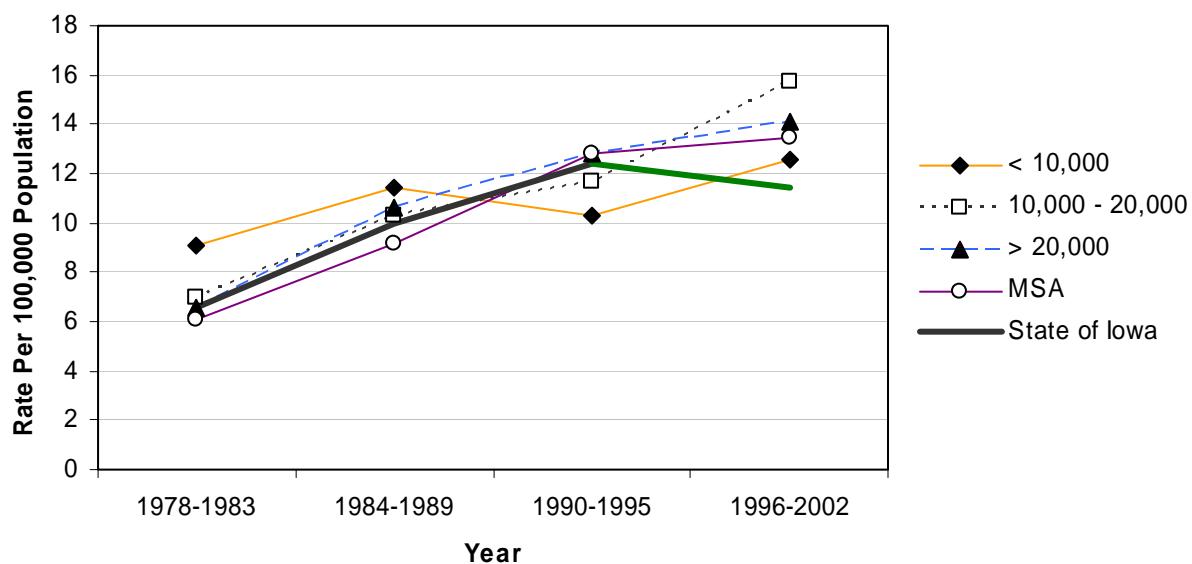
	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )	County	#	Crude <sup>1</sup> (Rank <sup>3</sup> )	Adjusted <sup>1,2</sup> (Rank <sup>3</sup> )
Counties with 2004 Population < 10,000	Adair	12	14.5 (34)	8.9 (61)	Monona	17	17.0 (14)	10.0 (45)
	Adams	5	11.1 (67)	6.9 (81)	Monroe	15	18.6 (08)	13.9 (07)
	Audubon	11	16.0 (21)	8.4 (66)	Osceola	6	8.5 (87)	5.6 (94)
	Clarke	14	15.9 (23)	10.3 (42)	Palo Alto	14	13.7 (41)	8.0 (70)
	Davis	5	5.9 (99)	6.0 (91)	Pocahontas	15	17.0 (14)	10.5 (37)
	Decatur	7	8.2 (91)	6.4 (87)	Ringgold	8	14.8 (31)	8.5 (65)
	Fremont	12	14.9 (30)	9.6 (52)	Taylor	19	27.2 (01)	16.1 (04)
	Howard	10	10.1 (77)	7.9 (74)	Van Buren	20	25.8 (02)	17.6 (02)
	Ida	6	7.5 (92)	5.6 (94)	Wayne	9	13.2 (45)	8.0 (70)
	Lucas	14	15.0 (29)	10.4 (39)	Worth	12	15.2 (27)	9.6 (52)
					<b>Total</b>	231	14.4	9.5
Counties with 2004 Population 10,000 - 20,000	Allamakee	17	11.7 (58)	8.1 (69)	Hardin	35	18.6 (08)	11.4 (29)
	Appanoose	21	15.3 (26)	11.8 (21)	Humboldt	7	6.7 (96)	4.8 (99)
	Butler	16	10.4 (73)	6.9 (81)	Iowa	25	16.2 (17)	11.5 (27)
	Calhoun	21	18.6 (08)	11.1 (31)	Jefferson	18	11.0 (69)	9.4 (54)
	Cass	19	12.8 (52)	9.0 (58)	Keokuk	21	18.3 (12)	12.0 (20)
	Cedar	16	8.9 (85)	6.6 (85)	Kossuth	35	20.1 (07)	13.4 (11)
	Cherokee	19	14.3 (36)	9.7 (51)	Louisa	14	11.6 (61)	10.3 (42)
	Chickasaw	11	8.3 (90)	6.6 (85)	Lyon	8	6.8 (95)	5.0 (98)
	Clay	17	9.7 (78)	7.7 (78)	Mitchell	10	9.2 (82)	6.2 (90)
	Clayton	30	16.0 (21)	11.8 (21)	Montgomery	19	16.1 (18)	10.2 (44)
	Crawford	19	11.3 (65)	8.7 (64)	O'Brien	16	10.4 (73)	5.9 (92)
	Delaware	20	10.9 (70)	9.4 (54)	Page	36	21.2 (05)	15.2 (06)
	Dickinson	19	11.9 (55)	8.3 (68)	Poweshiek	16	8.5 (87)	6.4 (87)
	Emmet	15	13.4 (43)	8.9 (61)	Sac	14	11.9 (55)	8.0 (70)
	Floyd	20	11.8 (57)	8.4 (66)	Shelby	22	16.7 (16)	11.5 (27)
	Franklin	7	6.4 (98)	5.8 (93)	Tama	25	13.9 (38)	9.8 (48)
	Greene	19	18.4 (11)	12.6 (16)	Union	11	8.9 (85)	6.9 (81)
	Hamilton	35	21.4 (04)	16.1 (04)	Winnebago	20	17.1 (13)	10.4 (39)
	Hancock	14	11.6 (61)	8.0 (70)	Wright	16	11.1 (67)	6.3 (89)
					<b>Total</b>	723	13.2	9.3
Counties with 2004 Population > 20,000	Boone	36	13.9 (38)	11.1 (31)	Lee	78	20.3 (06)	16.3 (03)
	Buchanan	29	13.8 (40)	12.2 (18)	Mahaska	20	9.0 (83)	6.8 (84)
	Buena Vista	21	10.3 (75)	8.8 (63)	Marion	39	12.3 (54)	10.0 (45)
	Carroll	16	7.4 (93)	5.6 (94)	Marshall	63	16.1 (18)	12.9 (13)
	Cerro Gordo	74	15.9 (23)	12.7 (14)	Muscatine	54	13.0 (49)	12.3 (17)
	Clinton	65	12.8 (52)	10.8 (35)	Plymouth	37	15.1 (28)	11.8 (21)
	Des Moines	99	23.3 (03)	18.7 (01)	Sioux	30	9.5 (80)	7.8 (76)
	Fayette	32	14.5 (34)	9.9 (47)	Wapello	42	11.7 (58)	9.0 (58)
	Henry	26	12.9 (50)	11.4 (29)	Webster	58	14.6 (33)	11.7 (24)
	Jackson	26	12.9 (50)	10.6 (36)	Winneshiek	14	6.6 (97)	5.3 (97)
	Jasper	35	9.6 (79)	7.9 (74)	<b>Total</b>	894	13.7	11.1
MSA Counties	Benton	28	11.4 (64)	9.8 (48)	Linn	216	11.6 (61)	11.7 (24)
	Black Hawk	174	13.7 (41)	13.1 (12)	Madison	20	14.7 (32)	11.1 (31)
	Bremer	25	10.7 (71)	9.0 (58)	Mills	20	14.2 (37)	13.7 (10)
	Dallas	40	10.6 (72)	10.4 (39)	Polk	479	13.1 (48)	13.9 (07)
	Dubuque	91	10.2 (76)	9.1 (56)	Pottawattamie	97	11.3 (65)	11.1 (31)
	Grundy	19	15.5 (25)	10.5 (37)	Scott	208	13.2 (45)	13.9 (07)
	Guthrie	15	13.3 (44)	7.8 (76)	Story	66	8.4 (89)	9.8 (48)
	Harrison	18	11.7 (58)	9.1 (56)	Warren	28	7.1 (94)	7.3 (80)
	Johnson	97	9.0 (83)	12.2 (18)	Washington	33	16.1 (18)	11.6 (26)
	Jones	19	9.4 (81)	7.7 (78)	Woodbury	136	13.2 (45)	12.7 (14)
					<b>Total</b>	1,829	11.9	12
	<b>State Total</b>	3,677	12.7	11.1				

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

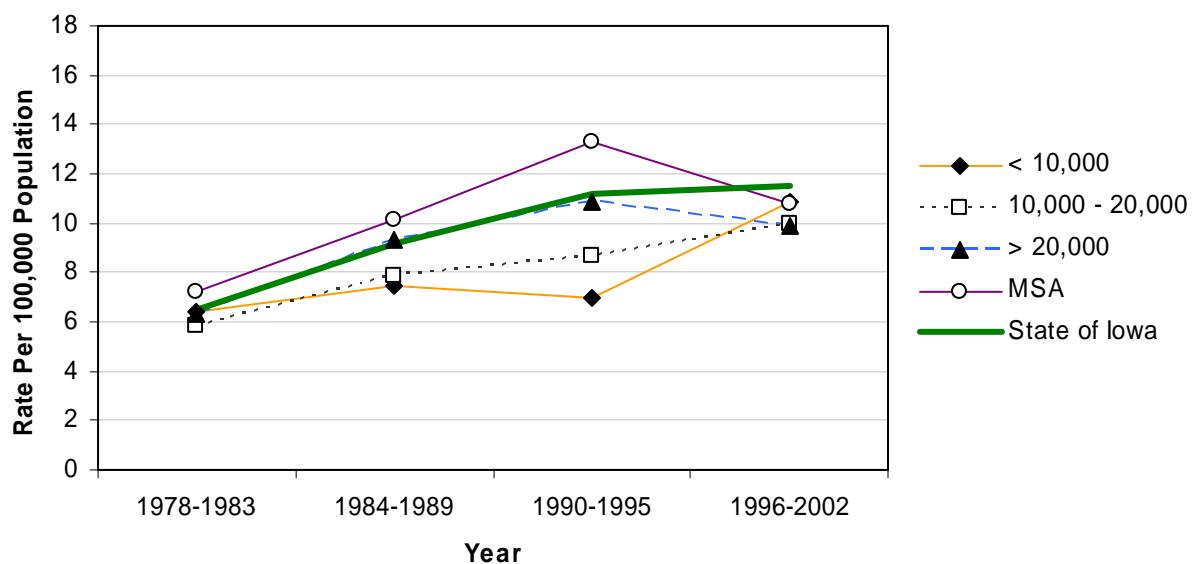
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## Infectious/Parasitic Mortality by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



## OTHER MORTALITY

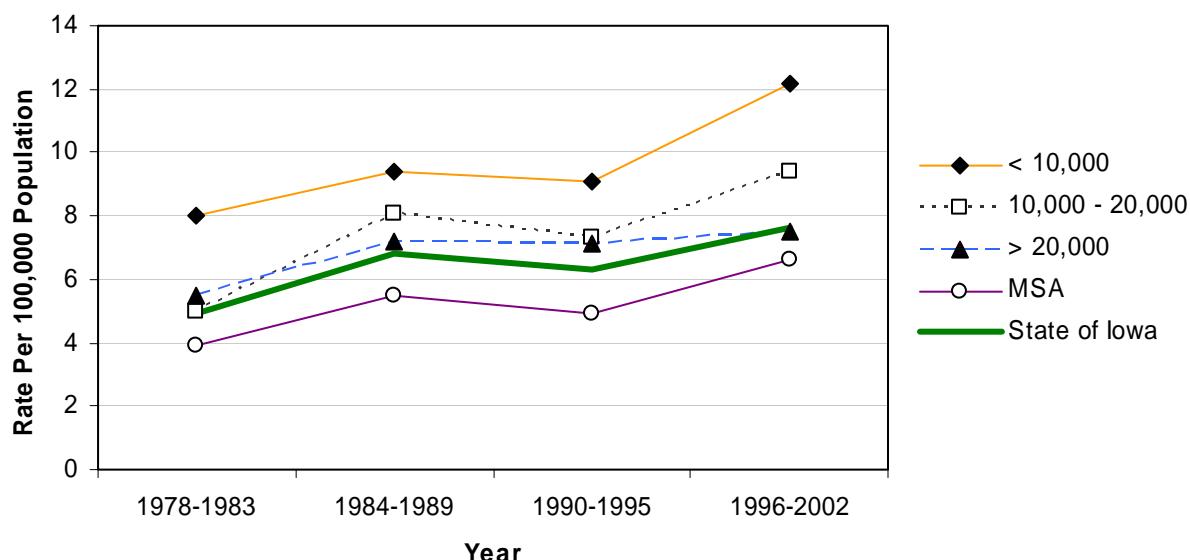
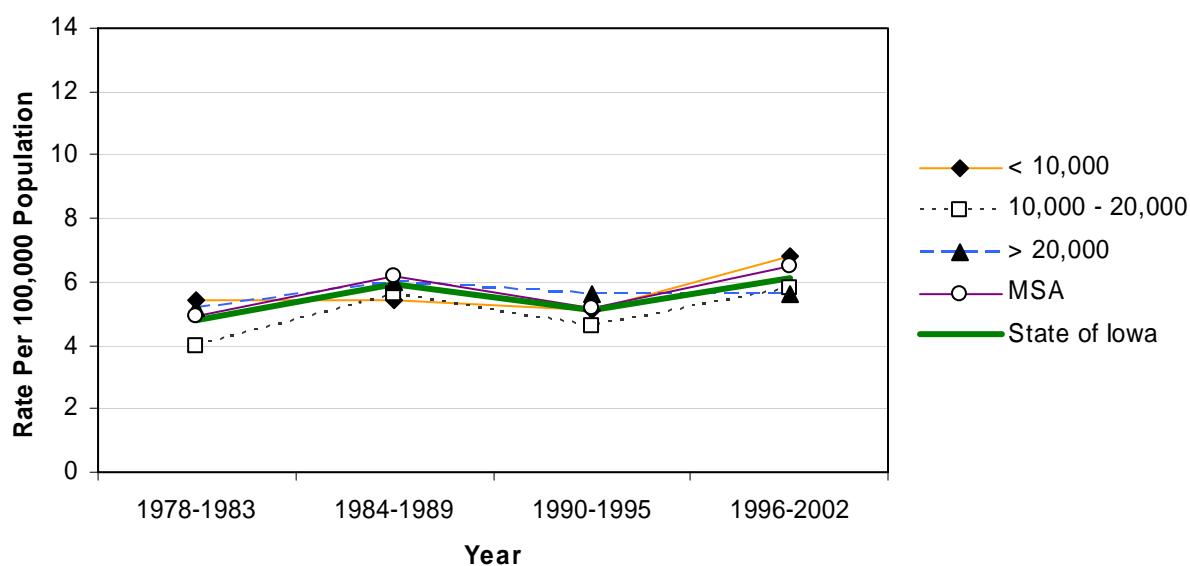
**Nephritis, Nephrotic Syndrome, Nephrosis Mortality 1993-2002**

	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with 2004 Population < 10,000	Adair	10	12.1	7.1	Monona	18	18.0	8.6
	Adams	7	15.5	9.7	Monroe	6	7.4	5.2
	Audubon	14	20.4	8.9	Osceola	*	*	*
	Clarke	10	11.3	6.9	Palo Alto	9	8.8	4.5
	Davis	17	20.0	13.0	Pocahontas	*	*	*
	Decatur	7	8.2	4.9	Ringgold	8	14.8	6.2
	Fremont	10	12.4	7.4	Taylor	6	8.6	5.3
	Howard	15	15.1	8.6	Van Buren	9	11.6	7.5
	Ida	10	12.5	6.6	Wayne	6	8.8	5.0
	Lucas	7	7.5	4.6	Worth	*	*	*
					<b>Total</b>	181	11.3	6.3
Counties with 2004 Population 10,000 - 20,000	Allamakee	14	9.7	5.7	Hardin	20	10.6	6.0
	Appanoose	11	8.0	5.6	Humboldt	10	9.6	5.5
	Butler	14	9.1	5.5	Iowa	14	9.1	6.1
	Calhoun	8	7.1	3.5	Jefferson	7	4.3	3.3
	Cass	13	8.8	4.7	Keokuk	17	14.8	8.3
	Cedar	9	5.0	3.1	Kossuth	15	8.6	5.3
	Cherokee	7	5.3	3.5	Louisa	7	5.8	4.6
	Chickasaw	7	5.3	3.3	Lyon	12	10.2	6.1
	Clay	17	9.7	6.7	Mitchell	6	5.5	2.6
	Clayton	16	8.5	5.3	Montgomery	18	15.2	9.1
	Crawford	12	7.1	4.9	O'Brien	11	7.2	4.1
	Delaware	10	5.4	4.3	Page	26	15.3	9.4
	Dickinson	18	11.2	6.9	Poweshiek	11	5.8	4.0
	Emmet	16	14.3	8.7	Sac	13	11.1	5.8
	Floyd	13	7.7	4.2	Shelby	13	9.9	6.1
	Franklin	*	*	*	Tama	19	10.6	6.3
	Greene	14	13.6	7.8	Union	14	11.3	6.7
	Hamilton	16	9.8	6.8	Winnebago	12	10.2	5.8
	Hancock	*	*	*	Wright	5	3.5	1.8
					<b>Total</b>	473	8.6	5.3
Counties with 2004 Population > 20,000	Boone	27	10.5	7.6	Lee	38	9.9	7.4
	Buchanan	21	10.0	8.2	Mahaska	12	5.4	3.8
	Buena Vista	14	6.9	4.4	Marion	15	4.7	3.5
	Carroll	13	6.0	4.4	Marshall	47	12.0	8.8
	Cerro Gordo	22	4.7	3.5	Muscatine	20	4.8	4.6
	Clinton	31	6.1	4.9	Plymouth	8	3.3	2.4
	Des Moines	45	10.6	7.6	Sioux	24	7.6	6.4
	Fayette	20	9.1	5.8	Wapello	35	9.7	7.3
	Henry	9	4.5	3.2	Webster	30	7.5	5.2
	Jackson	16	7.9	6.1	Winneshiek	18	8.5	6.6
	Jasper	24	6.6	5.0	<b>Total</b>	489	7.5	5.6
MSA Counties	Benton	8	3.2	2.5	Linn	69	3.7	3.7
	Black Hawk	96	7.5	6.8	Madison	11	8.1	5.2
	Bremer	19	8.2	5.5	Mills	18	12.8	12.2
	Dallas	25	6.6	6.7	Polk	247	6.8	7.5
	Dubuque	52	5.8	4.7	Pottawattamie	72	8.4	8.1
	Grundy	12	9.8	6.5	Scott	87	5.5	6.0
	Guthrie	6	5.3	2.9	Story	46	5.9	6.5
	Harrison	14	9.1	6.3	Warren	21	5.3	5.5
	Johnson	33	3.1	4.8	Washington	8	3.9	2.7
	Jones	16	7.9	6.3	Woodbury	77	7.5	6.7
				<b>Total</b>	937	6.1	6.1	
	<b>State Total</b>	2,080	7.2	5.8				

<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

## Nephritis, Nephrotic Syndrome, Nephrosis Mortality by County Group 1978-2002

**Crude Rates****Age-Adjusted Rates**

## OTHER MORTALITY

**Chronic Liver Disease and Cirrhosis Mortality 1993-2002**

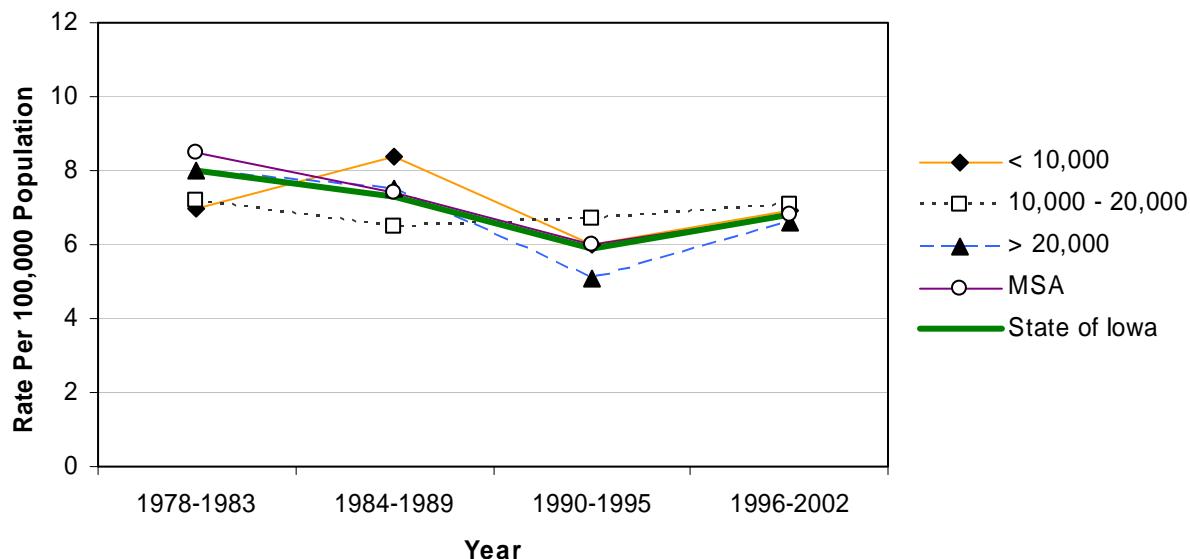
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with 2004 Population < 10,000	Adair	7	8.5	7.3	Monona	9	9.0	5.2
	Adams	8	17.7	15.3	Monroe	9	11.2	8.0
	Audubon	7	10.2	6.8	Osceola	*	*	*
	Clarke	*	*	*	Palo Alto	11	10.8	8.9
	Davis	*	*	*	Pocahontas	7	7.9	6.3
	Decatur	*	*	*	Ringgold	5	9.2	6.7
	Fremont	*	*	*	Taylor	6	8.6	4.9
	Howard	5	5.0	3.9	Van Buren	*	*	*
	Ida	7	8.8	6.6	Wayne	*	*	*
	Lucas	6	6.4	5.3	Worth	9	11.4	9.5
					<b>Total</b>	113	7.1	5.3
Counties with 2004 Population 10,000 - 20,000	Allamakee	17	11.7	8.5	Hardin	12	6.4	5.0
	Appanoose	8	5.8	4.9	Humboldt	*	*	*
	Butler	8	5.2	3.6	Iowa	8	5.2	4.4
	Calhoun	9	8.0	4.3	Jefferson	6	3.7	3.5
	Cass	10	6.7	5.6	Keokuk	7	6.1	4.7
	Cedar	14	7.8	6.5	Kossuth	15	8.6	6.0
	Cherokee	5	3.8	2.6	Louisa	8	6.6	6.1
	Chickasaw	13	9.9	8.6	Lyon	6	5.1	3.9
	Clay	6	3.4	3.3	Mitchell	7	6.4	5.3
	Clayton	15	8.0	5.8	Montgomery	11	9.3	7.1
	Crawford	9	5.3	4.3	O'Brien	13	8.5	6.3
	Delaware	15	8.2	7.6	Page	*	*	*
	Dickinson	12	7.5	6.3	Poweshiek	12	6.3	6.0
	Emmet	11	9.8	7.0	Sac	9	7.7	5.0
	Floyd	8	4.7	3.6	Shelby	7	5.3	4.1
	Franklin	9	8.3	5.4	Tama	18	10.0	9.3
	Greene	7	6.8	4.6	Union	12	9.7	7.8
	Hamilton	9	5.5	4.2	Winnebago	11	9.4	8.1
	Hancock	7	5.8	4.7	Wright	10	6.9	4.9
					<b>Total</b>	372	6.8	5.3
Counties with 2004 Population > 20,000	Boone	21	8.1	7.0	Lee	30	7.8	6.7
	Buchanan	11	5.2	5.2	Mahaska	10	4.5	3.8
	Buena Vista	12	5.9	5.5	Marion	21	6.6	6.1
	Carroll	9	4.2	3.1	Marshall	32	8.2	6.9
	Cerro Gordo	51	10.9	9.1	Muscatine	23	5.5	5.5
	Clinton	37	7.3	6.5	Plymouth	11	4.5	4.1
	Des Moines	23	5.4	4.8	Sioux	8	2.5	2.6
	Fayette	16	7.3	6.2	Wapello	19	5.3	4.4
	Henry	5	2.5	2.1	Webster	30	7.5	6.7
	Jackson	15	7.4	6.3	Winneshiek	9	4.2	3.8
	Jasper	20	5.5	4.6	<b>Total</b>	413	6.3	5.6
MSA Counties	Benton	16	6.5	5.9	Linn	105	5.6	5.8
	Black Hawk	77	6.0	5.9	Madison	5	3.7	3.1
	Bremer	18	7.7	6.0	Mills	9	6.4	6.1
	Dallas	16	4.2	4.4	Polk	318	8.7	9.4
	Dubuque	50	5.6	5.3	Pottawattamie	51	5.9	5.8
	Grundy	7	5.7	3.8	Scott	87	5.5	5.8
	Guthrie	9	8.0	5.8	Story	22	2.8	3.6
	Harrison	14	9.1	7.6	Warren	19	4.8	5.0
	Johnson	28	2.6	3.8	Washington	14	6.8	5.0
	Jones	11	5.4	4.8	Woodbury	95	9.2	9.4
					<b>Total</b>	971	6.3	6.6
	<b>State Total</b>	1,869	6.5	6.0				

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

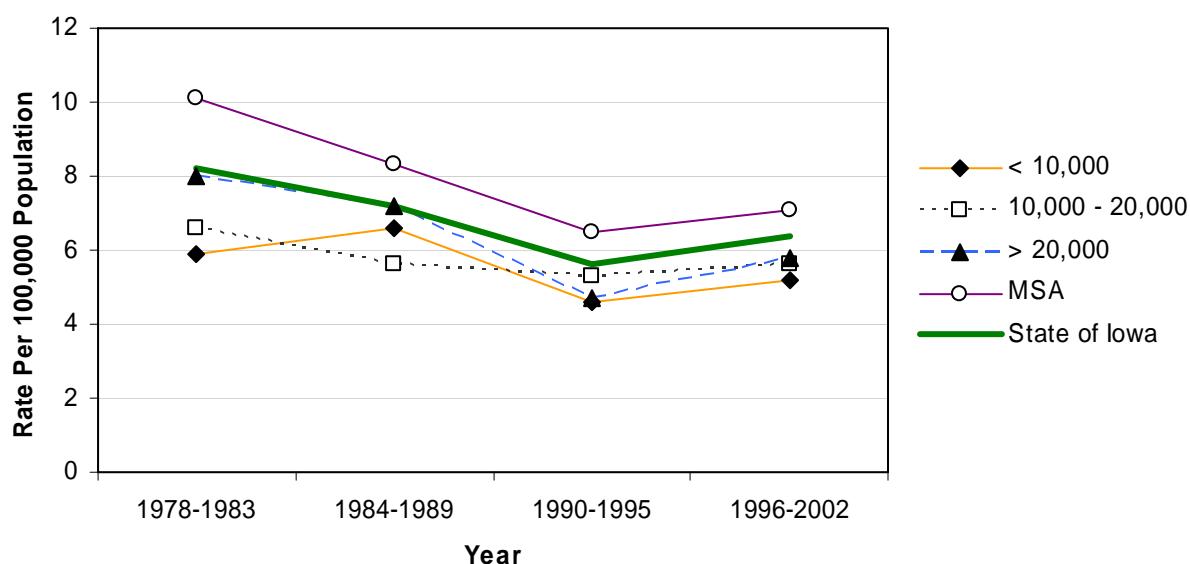
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## Chronic Liver Disease and Cirrhosis Mortality by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



## OTHER MORTALITY

**Congenital Anomalies Mortality 1993-2002**

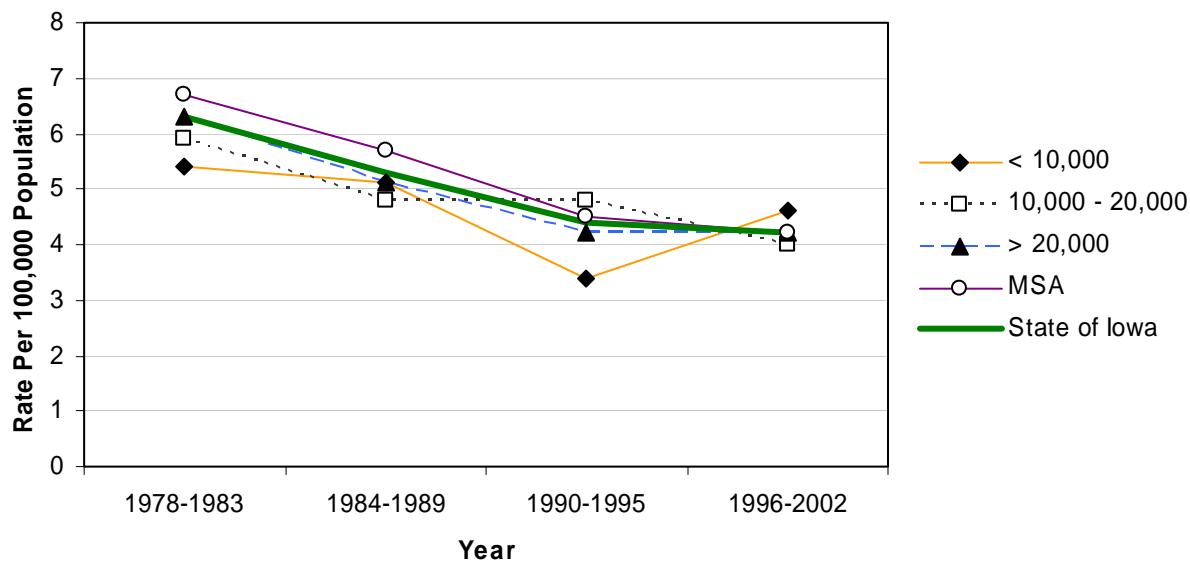
	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with 2004 Population < 10,000	Adair	*	*	*	Monona	*	*	*
	Adams	*	*	*	Monroe	*	*	*
	Audubon	7	10.2	9.2	Osceola	5	7.1	6.9
	Clarke	*	*	*	Palo Alto	6	5.9	5.2
	Davis	*	*	*	Pocahontas	*	*	*
	Decatur	6	7.1	9.2	Ringgold	*	*	*
	Fremont	*	*	*	Taylor	*	*	*
	Howard	5	5.0	4.7	Van Buren	*	*	*
	Ida	7	8.8	10.9	Wayne	7	10.2	12.1
	Lucas	*	*	*	Worth	*	*	*
					<b>Total</b>	74	4.6	4.7
Counties with 2004 Population 10,000 - 20,000	Allamakee	9	6.2	6.6	Hardin	9	4.8	5.1
	Appanoose	5	3.6	3.4	Humboldt	*	*	*
	Butler	*	*	*	Iowa	7	4.5	4.8
	Calhoun	6	5.3	3.3	Jefferson	7	4.3	4.2
	Cass	9	6.1	4.7	Keokuk	*	*	*
	Cedar	6	3.3	3.9	Kossuth	10	5.7	5.9
	Cherokee	7	5.3	5.3	Louisa	*	*	*
	Chickasaw	*	*	*	Lyon	8	6.8	6.8
	Clay	11	6.3	6.2	Mitchell	7	6.4	5.1
	Clayton	7	3.7	3.4	Montgomery	6	5.1	3.9
	Crawford	7	4.2	4.6	O'Brien	6	3.9	4.4
	Delaware	6	3.3	3.4	Page	8	4.7	5.7
	Dickinson	5	3.1	3.5	Poweshiek	6	3.2	3.8
	Emmet	7	6.2	7.6	Sac	5	4.3	4.8
	Floyd	6	3.5	4.1	Shelby	5	3.8	4.7
	Franklin	*	*	*	Tama	6	3.3	3.3
	Greene	*	*	*	Union	7	5.7	6.8
	Hamilton	5	3.1	3.0	Winnebago	*	*	*
	Hancock	*	*	*	<b>Total</b>	231	4.2	4.3
Counties with 2004 Population > 20,000	Boone	12	4.6	4.8	Lee	13	3.4	3.5
	Buchanan	13	6.2	5.8	Mahaska	*	*	*
	Buena Vista	6	2.9	3.3	Marion	8	2.5	2.7
	Carroll	13	6.0	6.0	Marshall	23	5.9	6.1
	Cerro Gordo	28	6.0	6.3	Muscatine	18	4.3	4.2
	Clinton	29	5.7	5.8	Plymouth	15	6.1	5.9
	Des Moines	9	2.1	2.1	Sioux	13	4.1	4.3
	Fayette	9	4.1	3.4	Wapello	17	4.7	4.5
	Henry	11	5.5	6.0	Webster	11	2.8	2.7
	Jackson	9	4.4	4.6	Winneshiek	6	2.8	3.3
	Jasper	14	3.8	4.0	<b>Total</b>	277-281	4.2-4.3	4.4-4.5
MSA Counties	Benton	7	2.8	3.0	Linn	80	4.3	4.3
	Black Hawk	47	3.7	4.1	Madison	7	5.1	4.7
	Bremer	9	3.9	3.5	Mills	9	6.4	6.5
	Dallas	15	4.0	3.9	Polk	172	4.7	4.5
	Dubuque	28	3.1	3.2	Pottawattamie	41	4.8	4.7
	Grundy	*	*	*	Scott	48	3.0	3.1
	Guthrie	*	*	*	Story	28	3.6	4.4
	Harrison	7	4.5	4.3	Warren	13	3.3	3.6
	Johnson	33	3.1	3.7	Washington	9	4.4	4.0
	Jones	*	*	*	Woodbury	72	7.0	6.7
				<b>Total</b>	633	4.1	4.2	
	<b>State Total</b>	1,219	4.2	4.3				

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

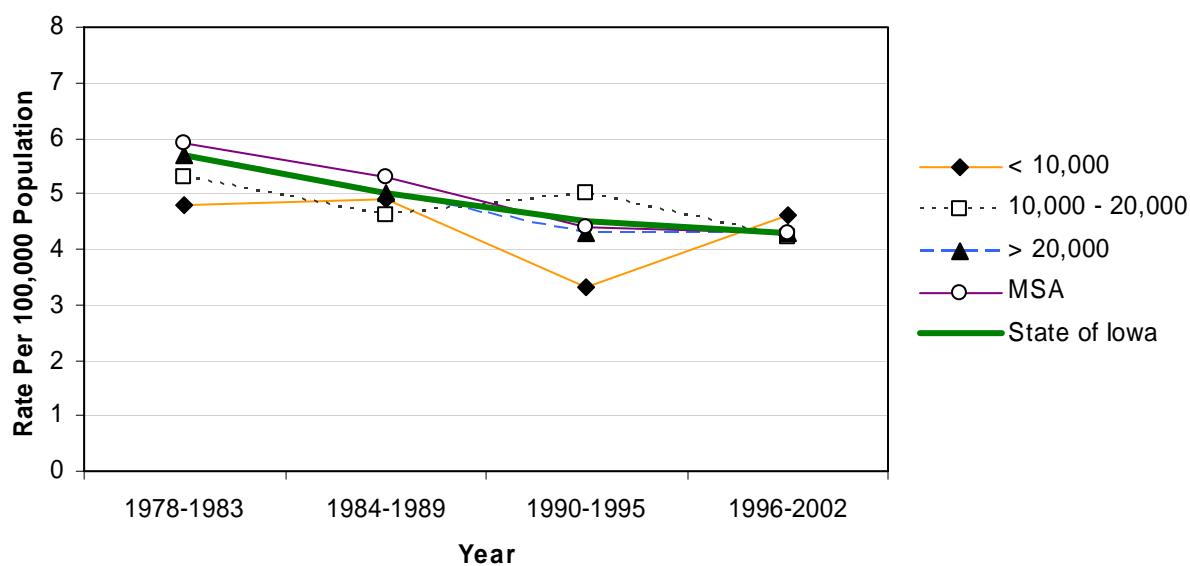
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## Congenital Anomalies Mortality by County Group 1978-2002

### Crude Rates



### Age-Adjusted Rates



## OTHER MORTALITY

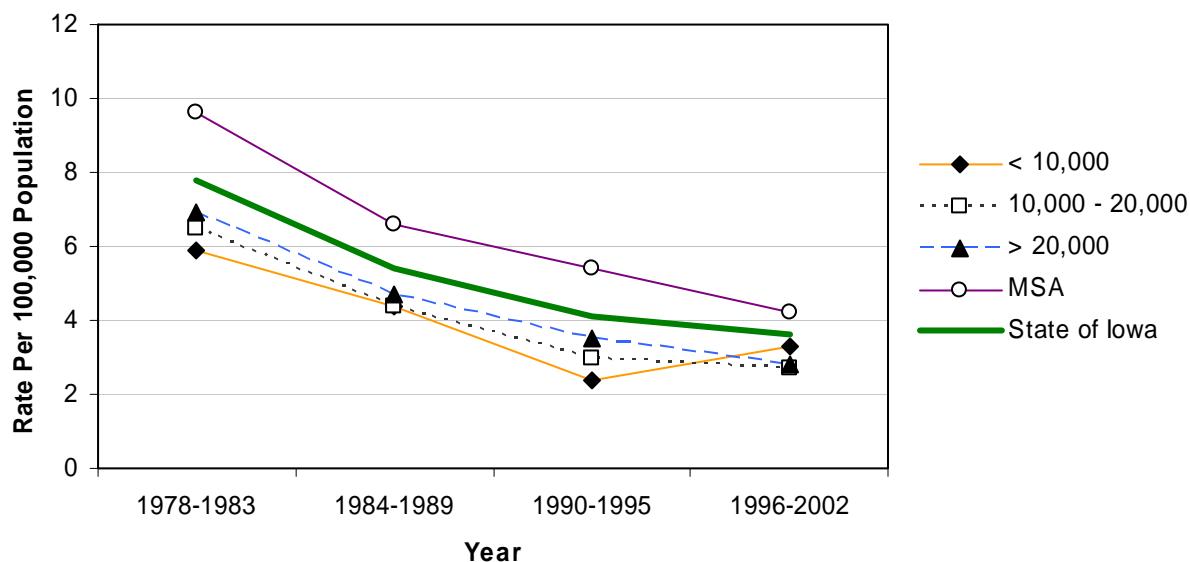
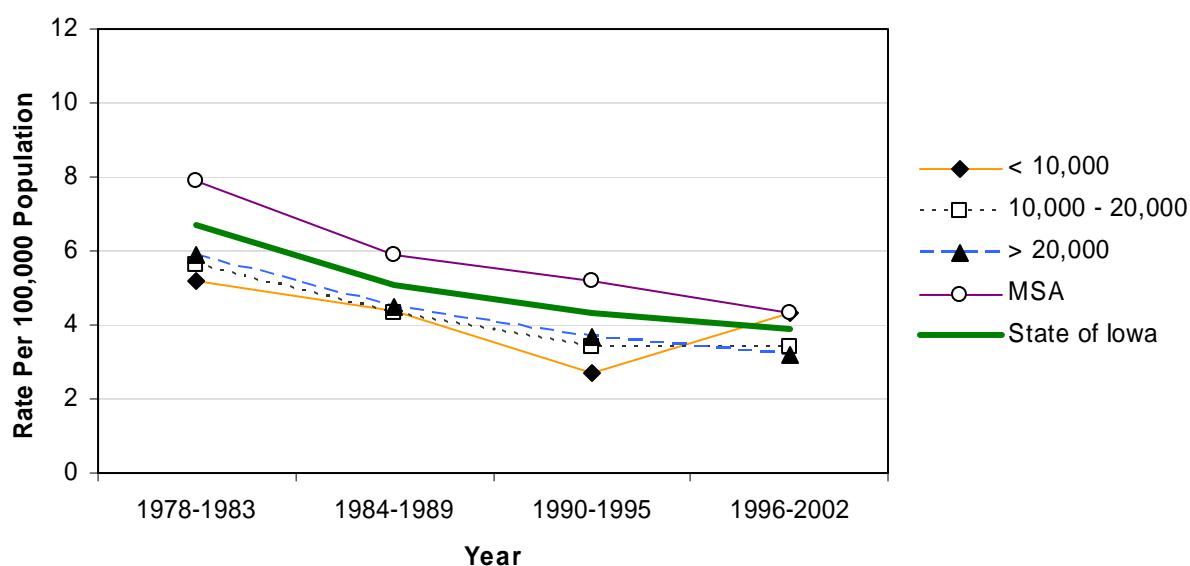
**Conditions Originating in Perinatal Period Mortality 1993-2002**

	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>
Counties with 2004 Population < 10,000	Adair	*	*	*	Monona	*	*	*
	Adams	*	*	*	Monroe	*	*	*
	Audubon	*	*	*	Osceola	*	*	*
	Clarke	*	*	*	Palo Alto	7	6.8	9.1
	Davis	*	*	*	Pocahontas	*	*	*
	Decatur	5	5.9	7.8	Ringgold	*	*	*
	Fremont	*	*	*	Taylor	*	*	*
	Howard	*	*	*	Van Buren	*	*	*
	Ida	7	8.8	11.7	Wayne	*	*	*
	Lucas	*	*	*	Worth	*	*	*
					<b>Total</b>	51	3.2	4.0
Counties with 2004 Population 10,000 - 20,000	Allamakee	6	4.1	5.4	Hardin	*	*	*
	Appanoose	*	*	*	Humboldt	*	*	*
	Butler	*	*	*	Iowa	*	*	*
	Calhoun	*	*	*	Jefferson	5	3.1	4.2
	Cass	*	*	*	Keokuk	*	*	*
	Cedar	*	*	*	Kossuth	6	3.4	4.7
	Cherokee	*	*	*	Louisa	*	*	*
	Chickasaw	*	*	*	Lyon	6	5.1	5.1
	Clay	5	2.9	3.2	Mitchell	6	5.5	6.3
	Clayton	*	*	*	Montgomery	5	4.2	5.5
	Crawford	*	*	*	O'Brien	6	3.9	5.0
	Delaware	6	3.3	3.7	Page	10	5.9	7.7
	Dickinson	*	*	*	Poweshiek	*	*	*
	Emmet	*	*	*	Sac	*	*	*
	Floyd	*	*	*	Shelby	5	3.8	4.9
	Franklin	*	*	*	Tama	*	*	*
	Greene	6	5.8	7.7	Union	5	4.1	5.3
	Hamilton	6	3.7	4.1	Winnebago	*	*	*
	Hancock	*	*	*	Wright	*	*	*
					<b>Total</b>	143	2.6	3.2
Counties with 2004 Population > 20,000	Boone	9	3.5	4.1	Lee	19	5.0	5.9
	Buchanan	8	3.8	3.6	Mahaska	11	5.0	5.2
	Buena Vista	*	*	*	Marion	11	3.5	4.0
	Carroll	9	4.2	4.9	Marshall	14	3.6	3.9
	Cerro Gordo	8	1.7	2.0	Muscatine	9	2.2	2.1
	Clinton	13	2.6	2.9	Plymouth	5	2.0	2.3
	Des Moines	13	3.1	3.4	Sioux	11	3.5	3.6
	Fayette	6	2.7	3.4	Wapello	6	1.7	1.9
	Henry	6	3.0	3.6	Webster	9	2.3	2.5
	Jackson	9	4.4	5.4	Winneshiek	*	*	*
	Jasper	14	3.8	4.3	<b>Total</b>	196	3.0	3.4
MSA Counties	Benton	10	4.1	4.7	Linn	80	4.3	4.2
	Black Hawk	49	3.8	4.4	Madison	6	4.4	4.8
	Bremer	7	3.0	3.9	Mills	6	4.3	5.0
	Dallas	12	3.2	3.1	Polk	191	5.2	4.8
	Dubuque	25	2.8	3.0	Pottawattamie	39	4.5	4.6
	Grundy	5	4.1	5.8	Scott	83	5.3	5.2
	Guthrie	*	*	*	Story	22	2.8	3.4
	Harrison	5	3.2	4.0	Warren	27	6.8	7.4
	Johnson	44	4.1	4.6	Washington	11	5.4	5.4
	Jones	11	5.4	6.8	Woodbury	53	5.1	4.9
					<b>Total</b>	686-690	4.4-4.5	4.6-4.7
	<b>State Total</b>	1,079	3.7	4.1				

<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 1978-2002

**Crude Rates****Age-Adjusted Rates**

## OTHER MORTALITY

**Alzheimer's Disease Mortality 1993-2002**

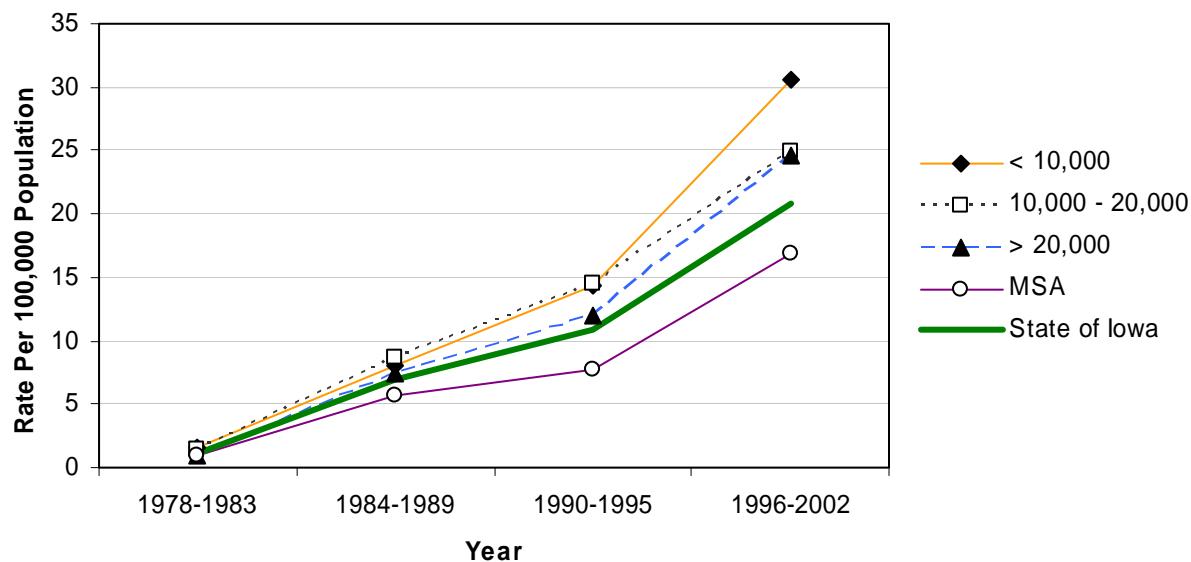
County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	County	#	Crude <sup>1</sup>	Adjusted <sup>1,2</sup>	
Counties with 2004 Population < 10,000	Adair	7	8.5	3.7	Monona	42	41.9	17.9
	Adams	7	15.5	8.4	Monroe	20	24.8	13.6
	Audubon	31	45.1	19.9	Osceola	7	9.9	5.6
	Clarke	37	42.0	24.6	Palo Alto	24	23.5	10.8
	Davis	*	*	Pocahontas	24	27.1	12.8	
	Decatur	23	27.0	17.1	Ringgold	32	59.1	26.1
	Fremont	31	38.5	21.5	Taylor	17	24.3	10.6
	Howard	29	29.2	14.2	Van Buren	14	18.1	10.3
	Ida	22	27.5	13.9	Wayne	14	20.5	8.7
	Lucas	9	9.6	5.4	Worth	23	29.0	14.4
				<b>Total</b>	413-417	25.8-26.0	13.0-13.2	
Counties with 2004 Population 10,000 - 20,000	Allamakee	62	42.8	24.7	Hardin	52	27.6	13.1
	Appanoose	7	5.1	2.6	Humboldt	23	22.1	11.4
	Butler	43	27.9	15.2	Iowa	21	13.6	7.8
	Calhoun	54	47.9	21.7	Jefferson	45	27.5	20.6
	Cass	24	16.2	8.4	Keokuk	15	13.1	6.5
	Cedar	11	6.1	3.7	Kossuth	43	24.7	13.3
	Cherokee	18	13.5	7.8	Louisa	13	10.8	8.5
	Chickasaw	21	15.9	10.2	Lyon	16	13.6	7.8
	Clay	38	21.7	13.7	Mitchell	12	11.0	4.7
	Clayton	42	22.4	13.1	Montgomery	35	29.6	13.2
	Crawford	41	24.3	14.7	O'Brien	28	18.3	8.7
	Delaware	35	19.1	15.0	Page	42	24.8	13.1
	Dickinson	20	12.5	7.3	Poweshiek	48	25.4	14.5
	Emmet	21	18.7	9.7	Sac	21	17.9	8.3
	Floyd	45	26.6	15.2	Shelby	33	25.0	13.1
	Franklin	37	34.0	18.7	Tama	61	34.0	18.9
	Greene	20	19.4	8.9	Union	27	21.9	12.7
	Hamilton	28	17.1	11.0	Winnebago	22	18.8	9.9
	Hancock	21	17.4	10.5	<b>Total</b>	1,206	22.0	12.2
Counties with 2004 Population > 20,000	Boone	109	42.2	25.9	Lee	93	24.2	16.8
	Buchanan	23	10.9	8.8	Mahaska	42	19.0	12.9
	Buena Vista	31	15.2	9.0	Marion	53	16.8	11.3
	Carroll	55	25.6	14.7	Marshall	213	54.6	38.6
	Cerro Gordo	107	23.0	15.0	Muscatine	66	15.9	14.3
	Clinton	73	14.4	10.8	Plymouth	49	19.9	14.1
	Des Moines	57	13.4	9.3	Sioux	52	16.5	12.5
	Fayette	69	31.3	17.9	Wapello	70	19.4	12.5
	Henry	25	12.4	8.7	Webster	64	16.1	10.1
	Jackson	23	11.4	7.7	Winneshiek	32	15.1	10.6
	Jasper	68	18.7	14.0	<b>Total</b>	1,374	21.0	14.6
MSA Counties	Benton	40	16.2	11.6	Linn	223	12.0	11.8
	Black Hawk	182	14.3	12.1	Madison	45	33.0	22.2
	Bremer	75	32.2	20.4	Mills	20	14.2	12.9
	Dallas	53	14.0	13.1	Polk	503	13.8	15.1
	Dubuque	136	15.3	12.1	Pottawattamie	151	17.6	17.2
	Grundy	28	22.8	12.3	Scott	233	14.8	16.1
	Guthrie	19	16.8	9.5	Story	93	11.9	12.9
	Harrison	20	13.0	7.9	Warren	86	21.7	21.5
	Johnson	90	8.4	13.4	Washington	33	16.1	9.3
	Jones	18	8.9	6.6	Woodbury	179	17.3	15.0
				<b>Total</b>	2,227	14.5	14.0	
	<b>State Total</b>	5,220-4	17.9-18.0	13.6-13.7				

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

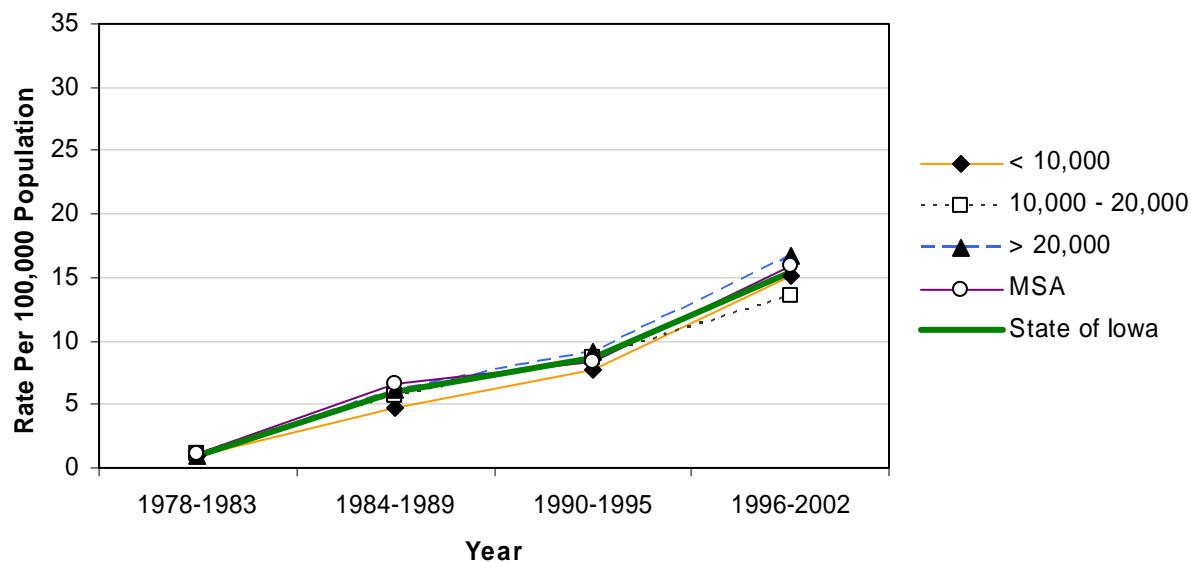
Source: Iowa Department of Public Health via NCHS and NCI's SEER\*Stat Program

## Alzheimer's Disease Mortality by County Group 1978-2002

### 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.

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

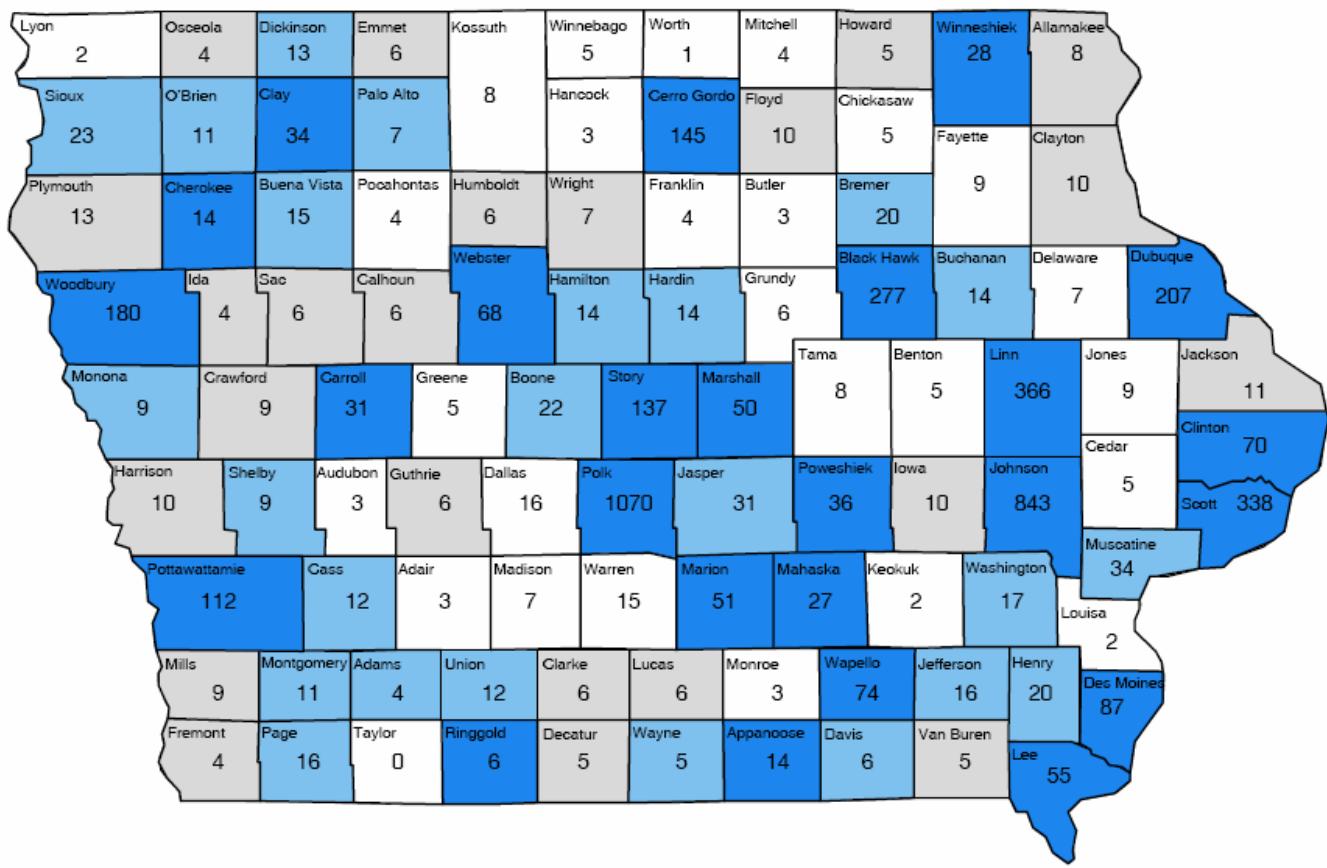
The Board of Nursing enforces and regulates nursing education, nursing practice, and continuing education for nurses. It sets standards, provides evaluation and licensing, and investigates complaints about licensed practical nurses, registered nurses, and advanced registered nurse practitioners. Its 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 collect data about practice, licensing/certification, and other supply information.

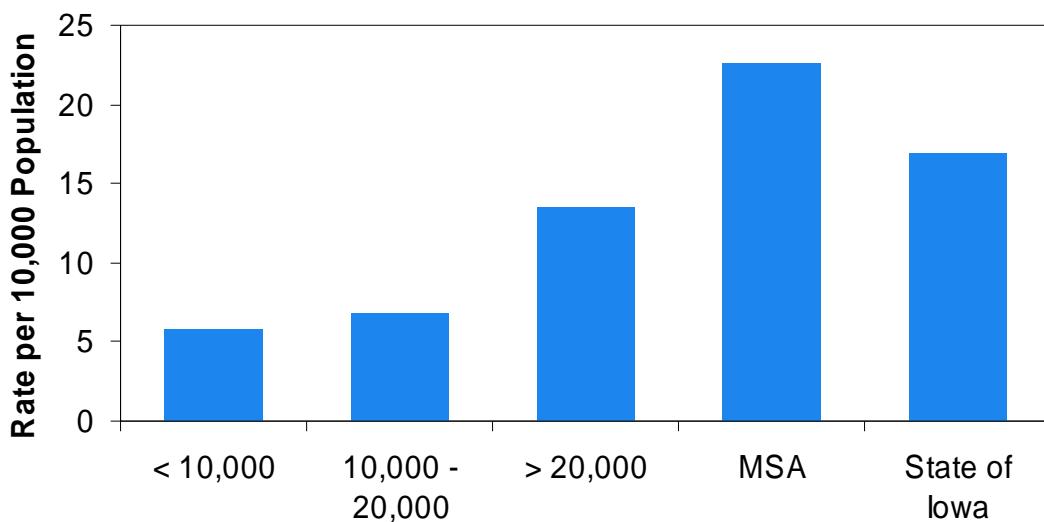
# Total Physicians

2005 Counts and Crude Rates per 10,000 (shaded)



□ 0 - 5      □ 5 - 6.6      □ 6.6 - 10.2      ■ 10.2 - 72.7

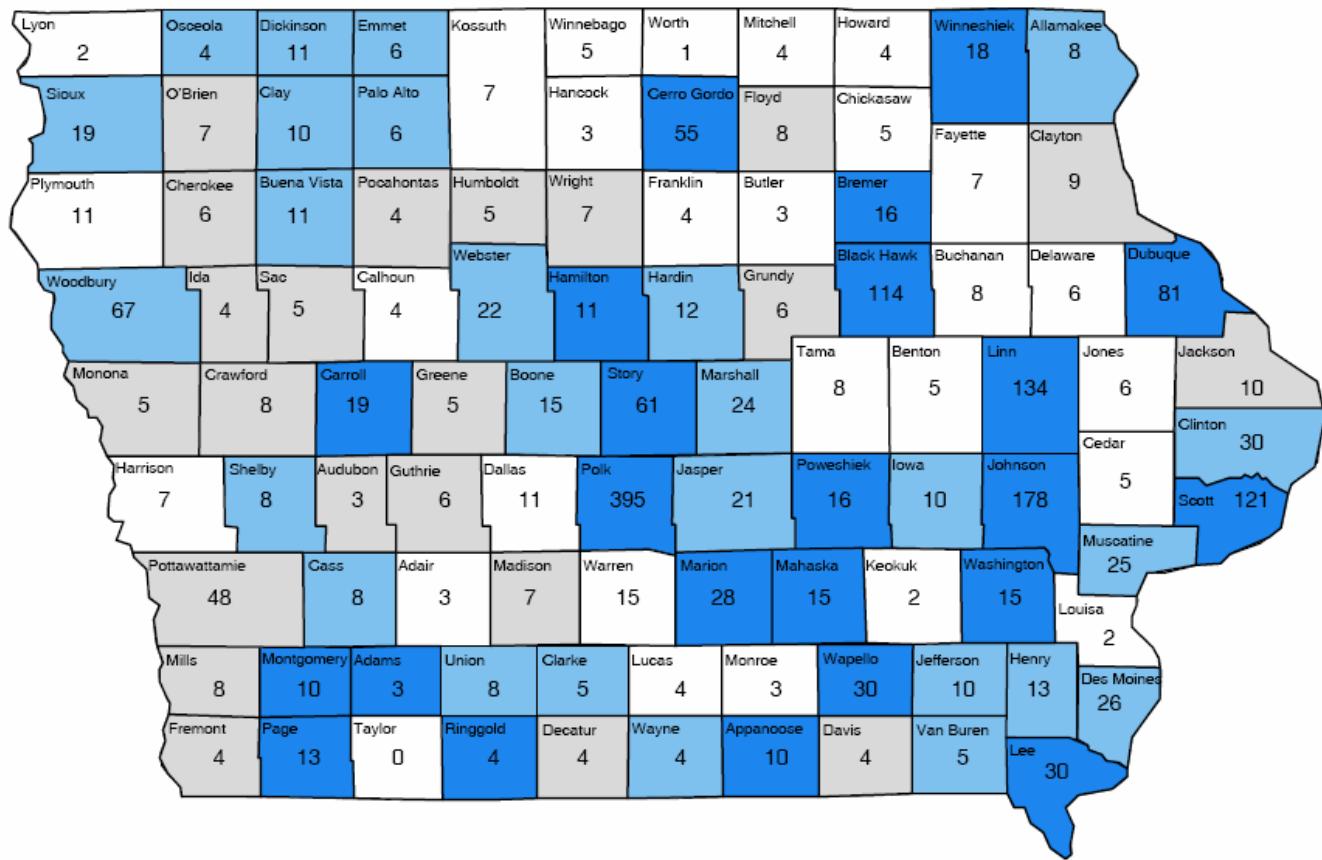
## 2005 Crude Rates by County Group



Source: Office of Statewide Clinical Education Programs, College of Medicine, University of Iowa

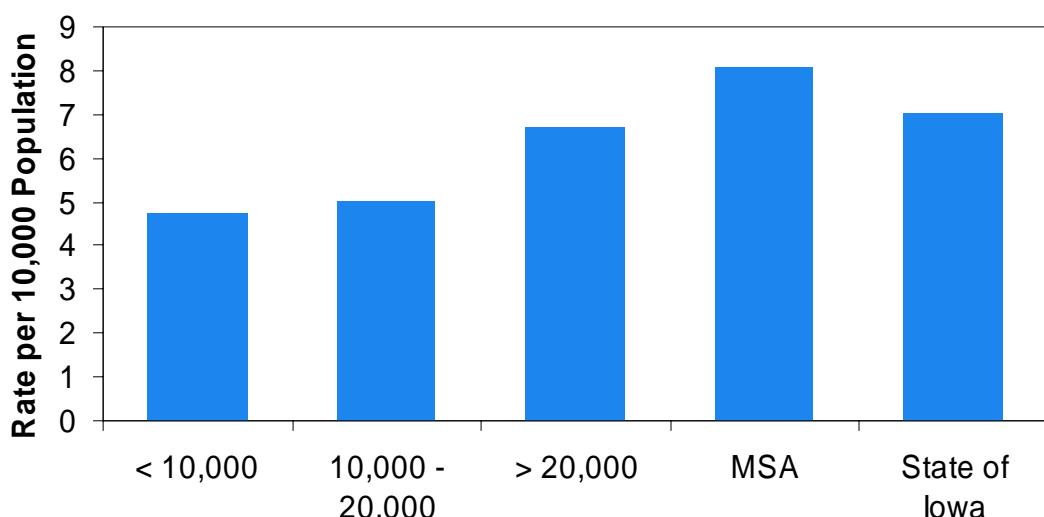
# Primary Care Physicians<sup>1</sup>

2005 Counts and Crude Rates per 10,000 (shaded)



0 – 4.5       4.5 – 5.4       5.4 – 6.7       6.7 – 15.4

## 2005 Crude Rates by County Group

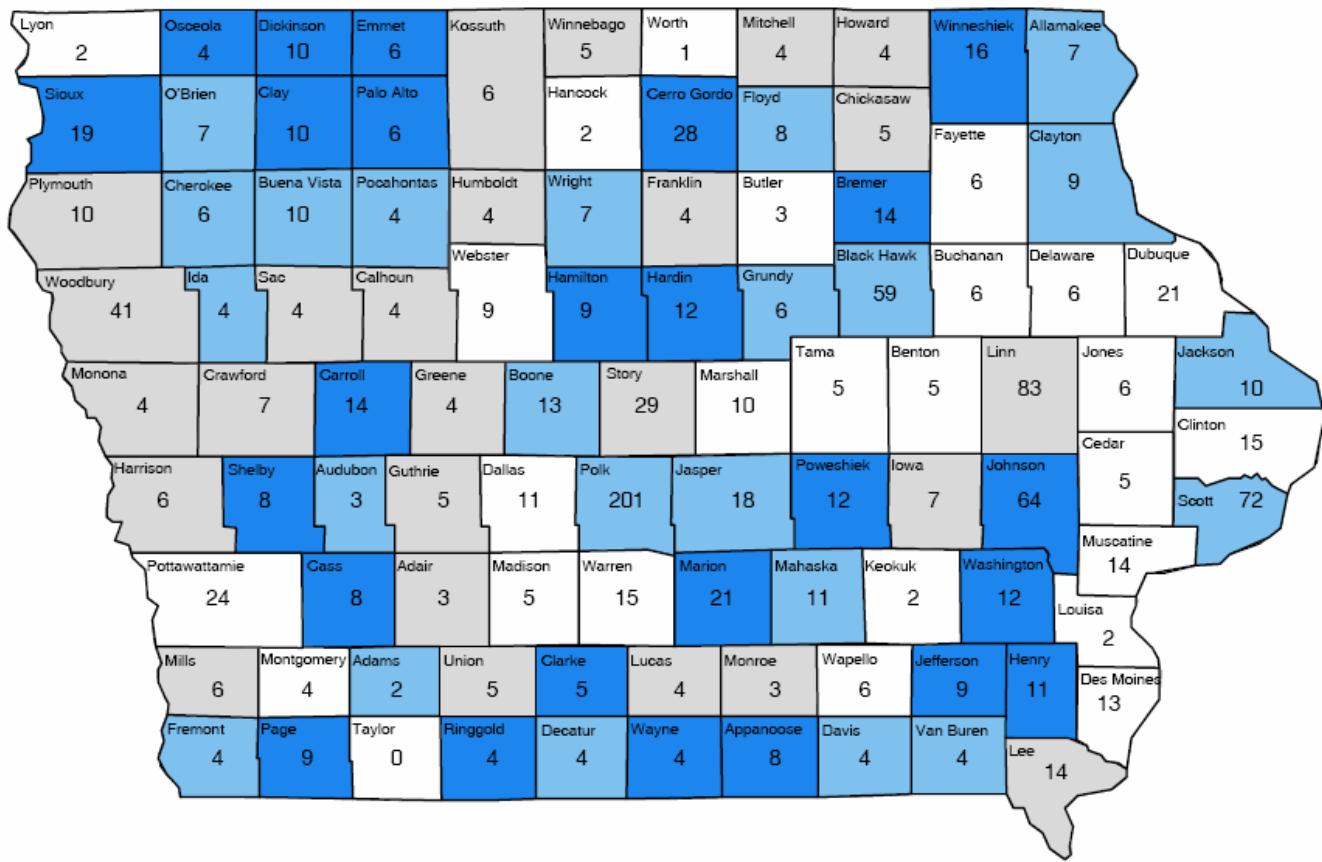


<sup>1</sup>Includes Family Practice, Internal Medicine, Pediatric, and Obstetrics/Gynecology physicians

Source: Office of Statewide Clinical Education Programs, College of Medicine, University of Iowa

# Family Practice Physicians

2005 Counts and Crude Rates per 10,000 (shaded)



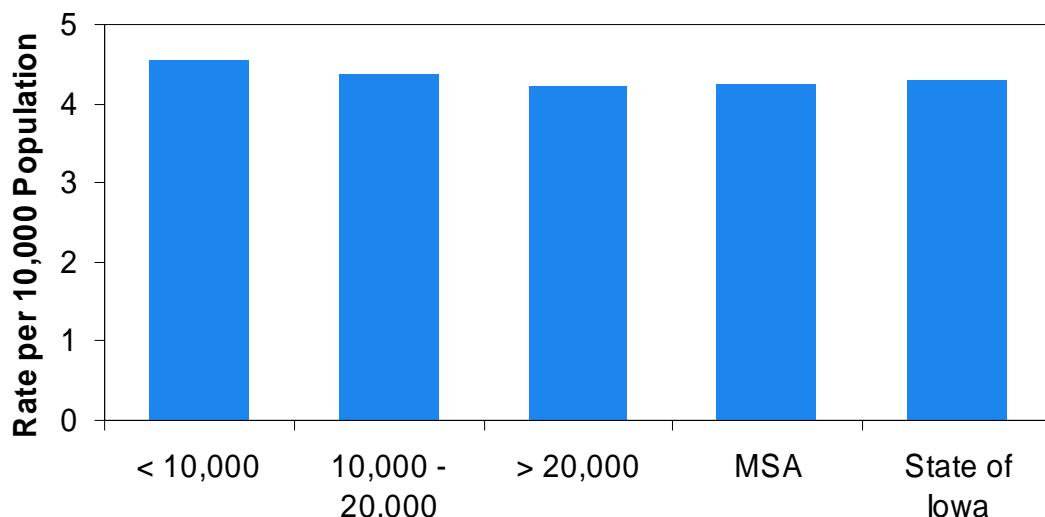
0 – 3.6

3.6 – 4.4

4.4 – 5.4

5.4 – 7.6

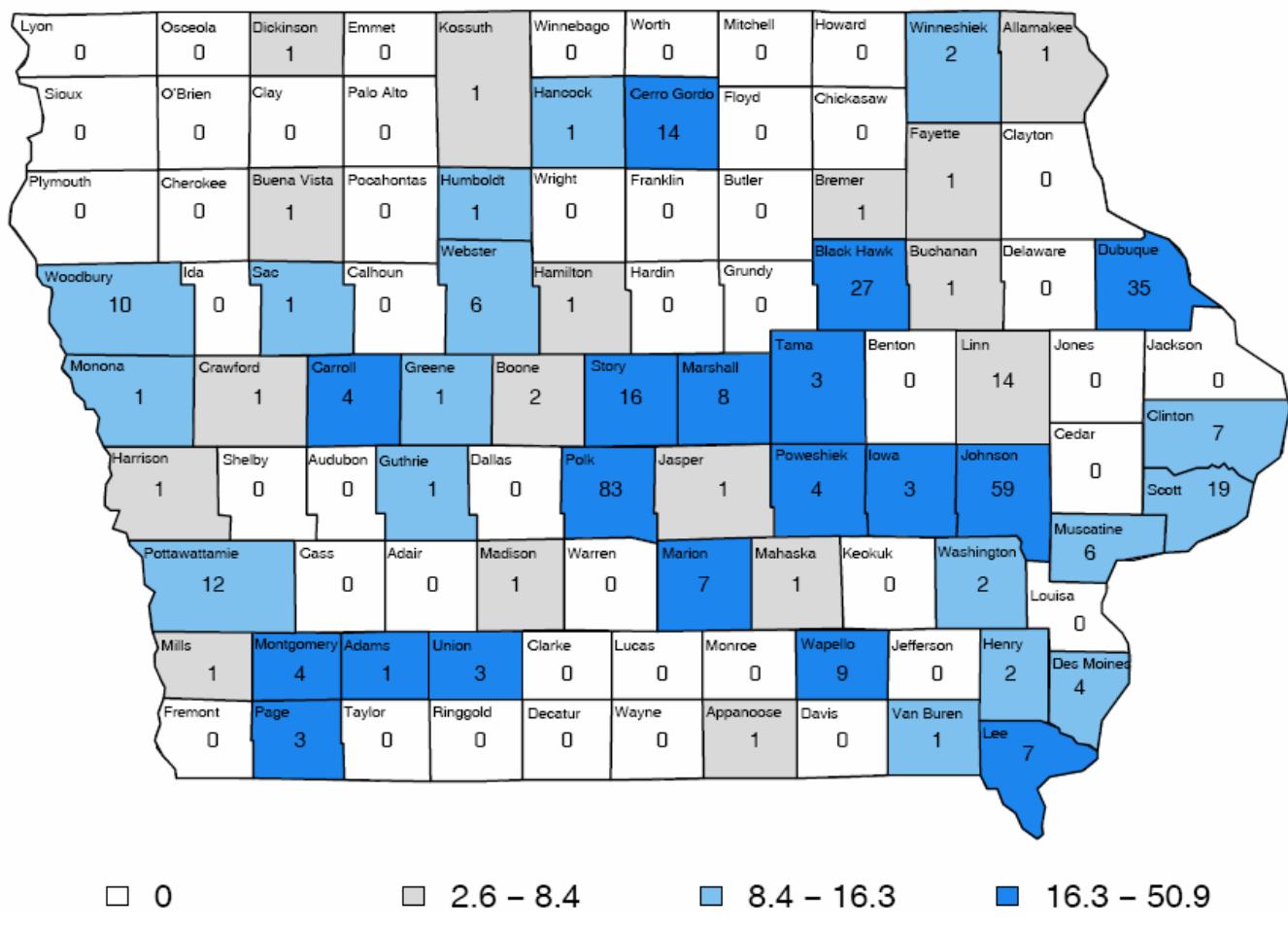
## 2005 Crude Rates by County Group



Source: Office of Statewide Clinical Education Programs, College of Medicine, University of Iowa

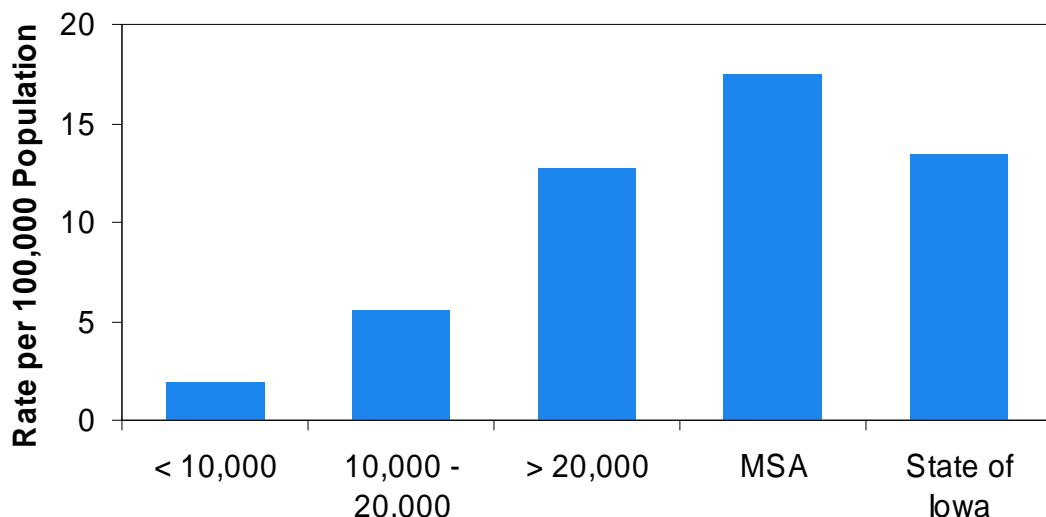
# Internal Medicine Physicians

2005 Counts and Crude Rates per 100,000 (shaded)



□ 0      □ 2.6 – 8.4      □ 8.4 – 16.3      □ 16.3 – 50.9

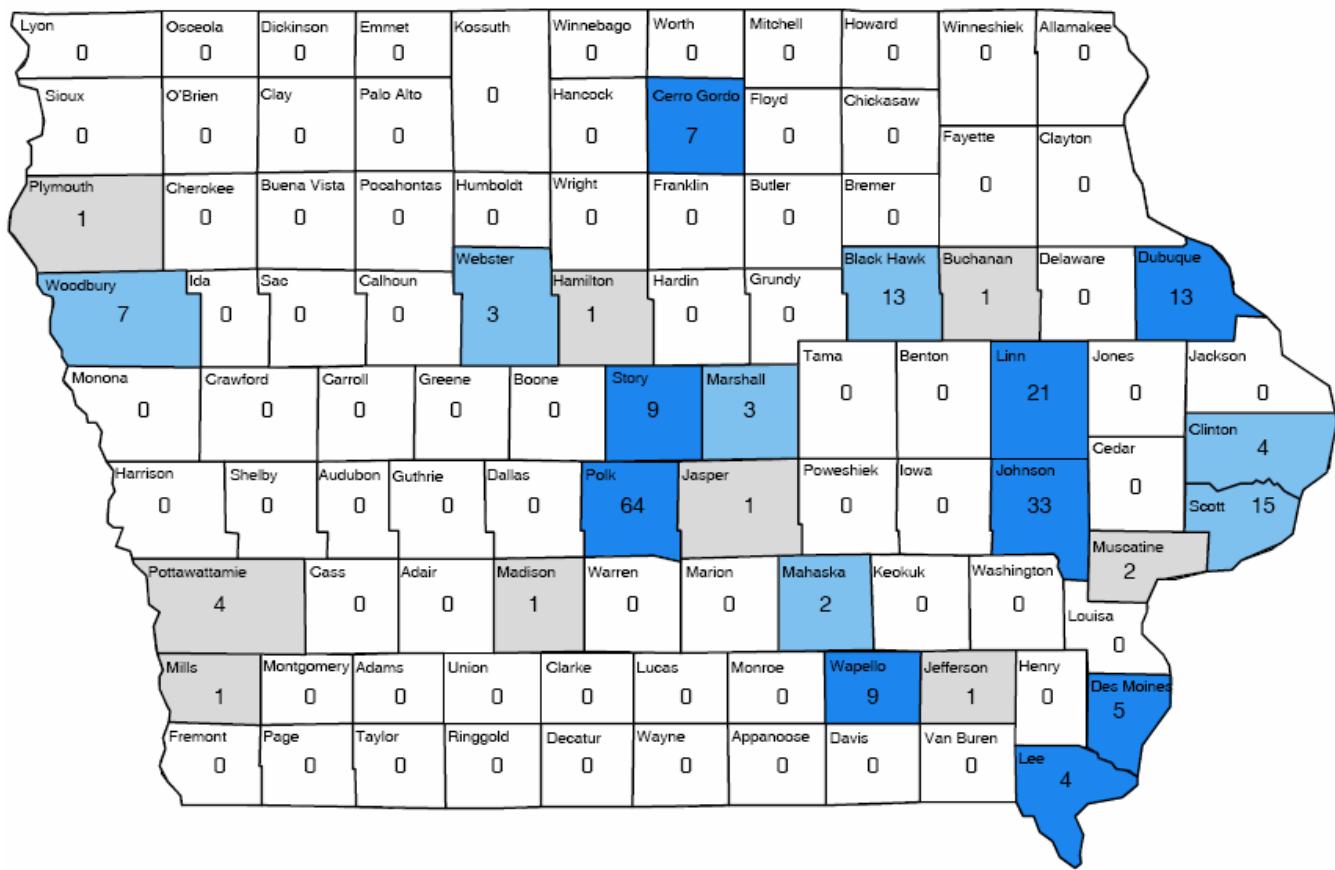
## 2005 Crude Rates by County Group



Source: Office of Statewide Clinical Education Programs, College of Medicine, University of Iowa

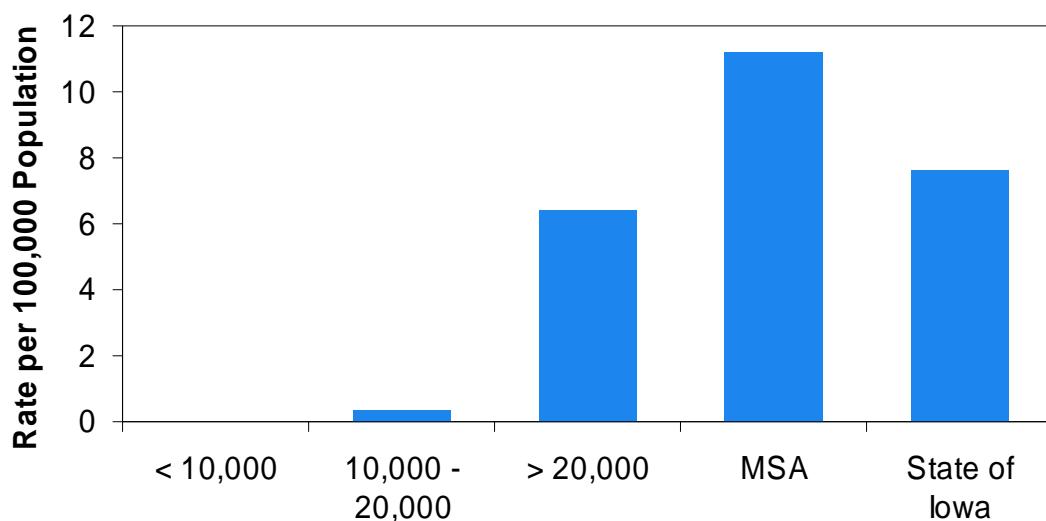
# Pediatric Physicians

2005 Counts and Crude Rates per 100,000 (shaded)



□ 0      □ 2.6 – 6.7      □ 6.7 – 10.6      □ 10.6 – 28.5

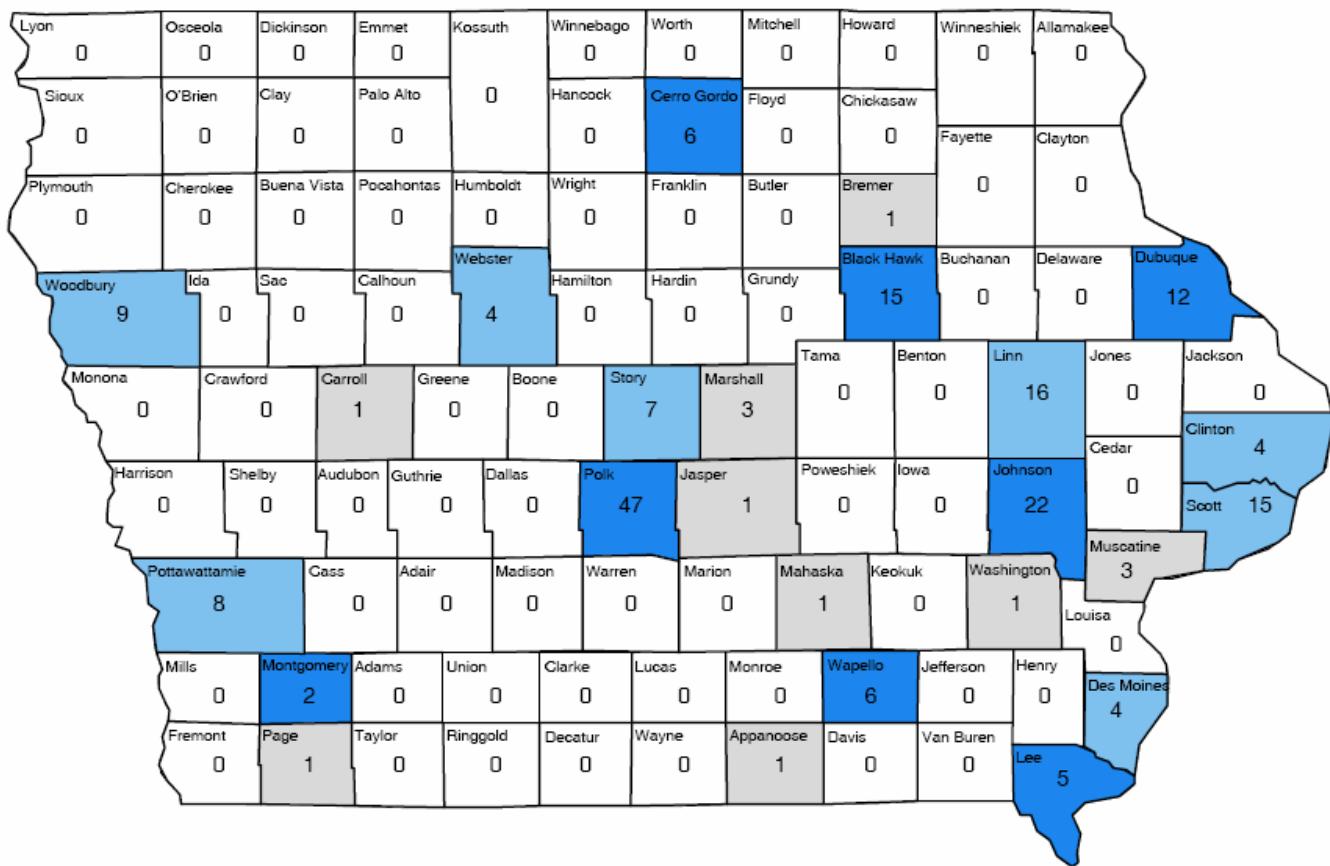
## 2005 Crude Rates by County Group



Source: Office of Statewide Clinical Education Programs, College of Medicine, University of Iowa

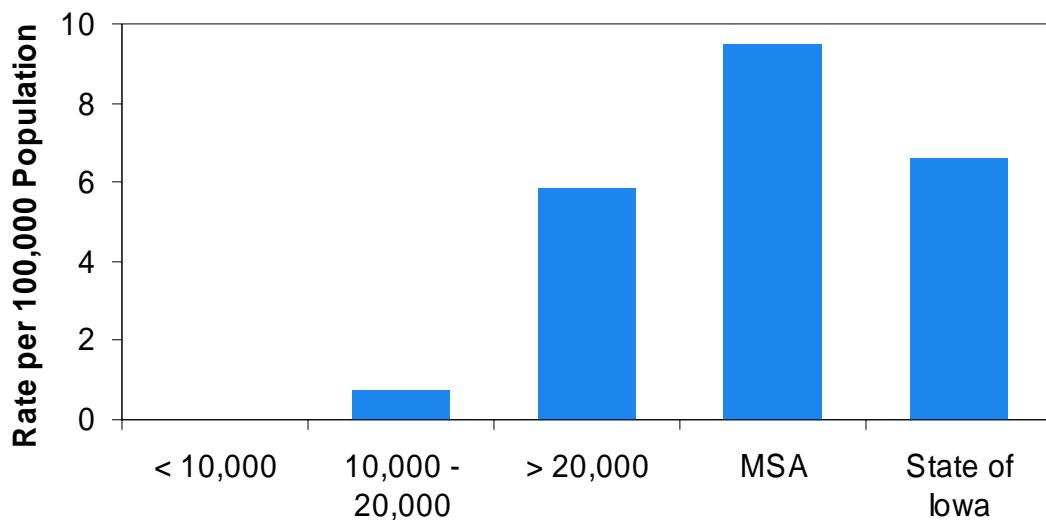
# Obstetrics/Gynecology Physicians

2005 Counts and Crude Rates per 100,000 (shaded)



□ 0 □ 2.6 – 7.6 □ 7.6 – 10.2 □ 10.2 – 19

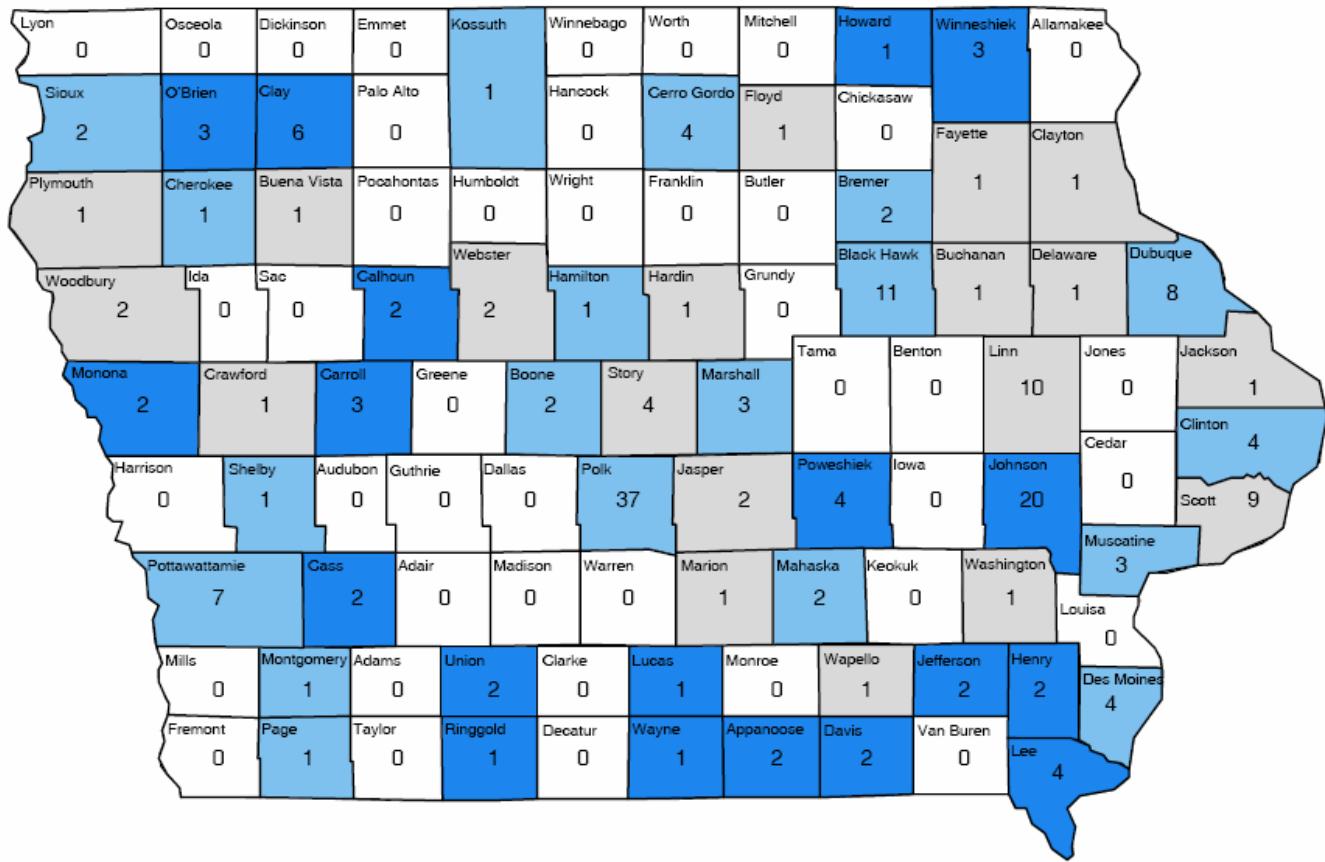
## 2005 Crude Rates by County Group



Source: Office of Statewide Clinical Education Programs, College of Medicine, University of Iowa

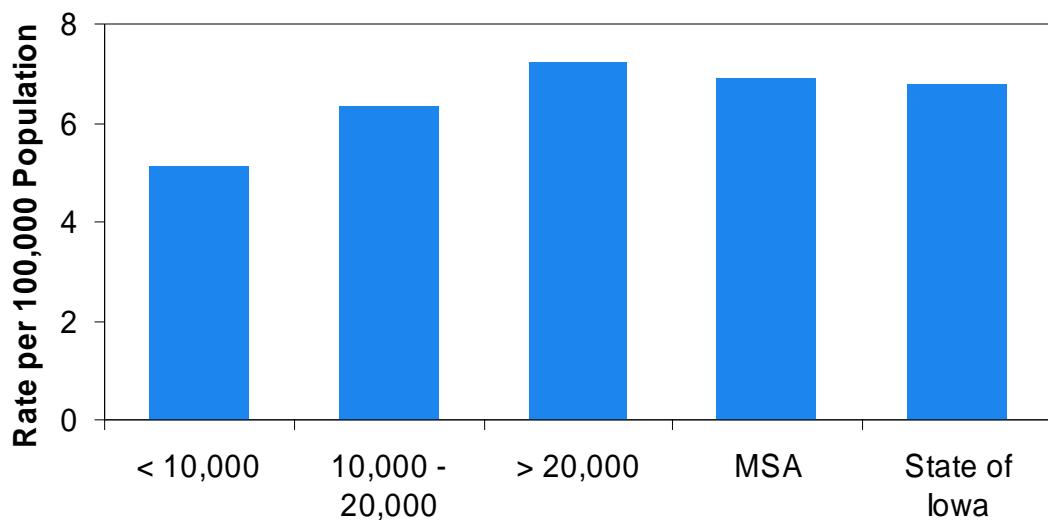
## General Surgeons

2005 Counts and Crude Rates per 100,000 (shaded)



□ 0      □ 1.9 – 6.1      □ 6.1 – 9.8      ■ 9.8 – 35.6

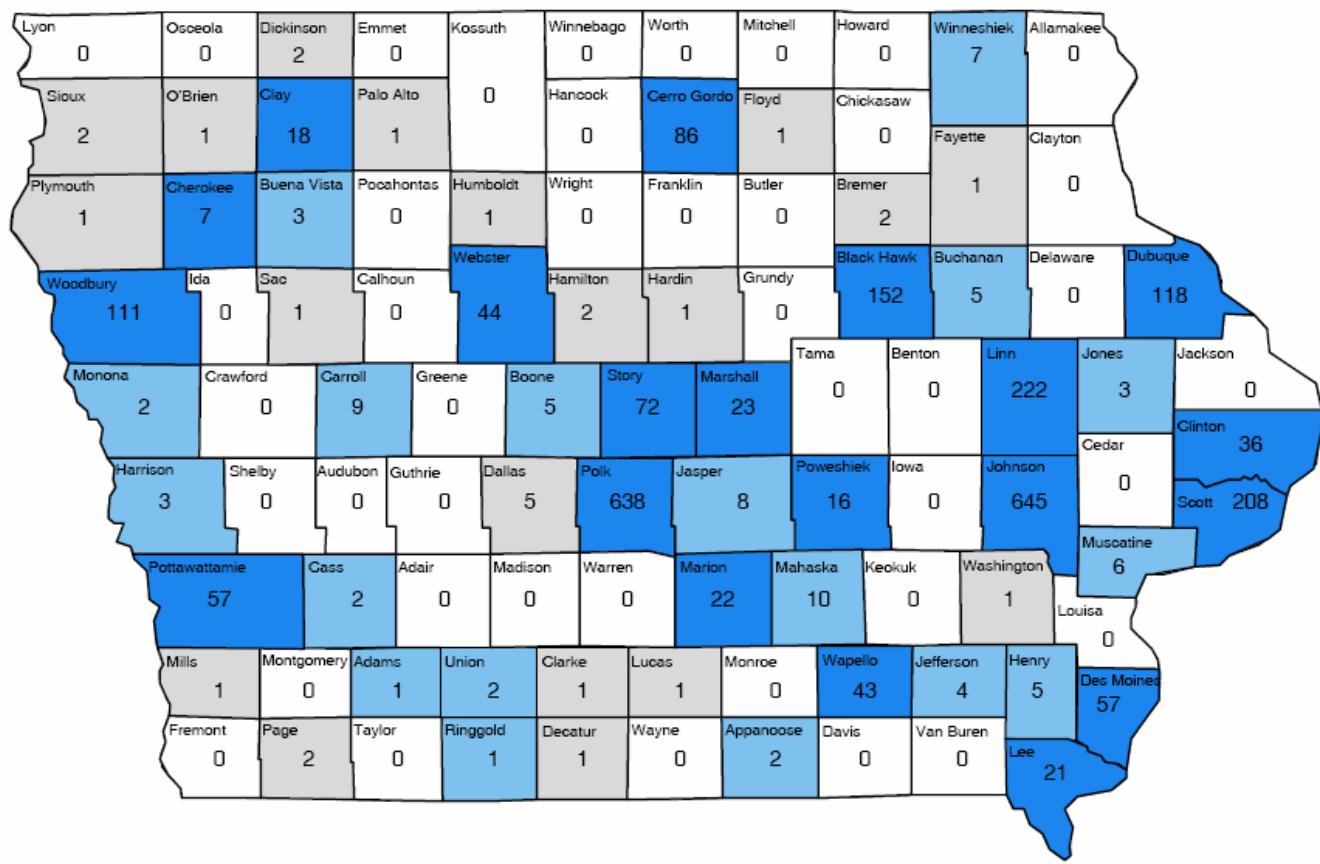
### 2005 Crude Rates by County Group



Source: Office of Statewide Clinical Education Programs, College of Medicine, University of Iowa

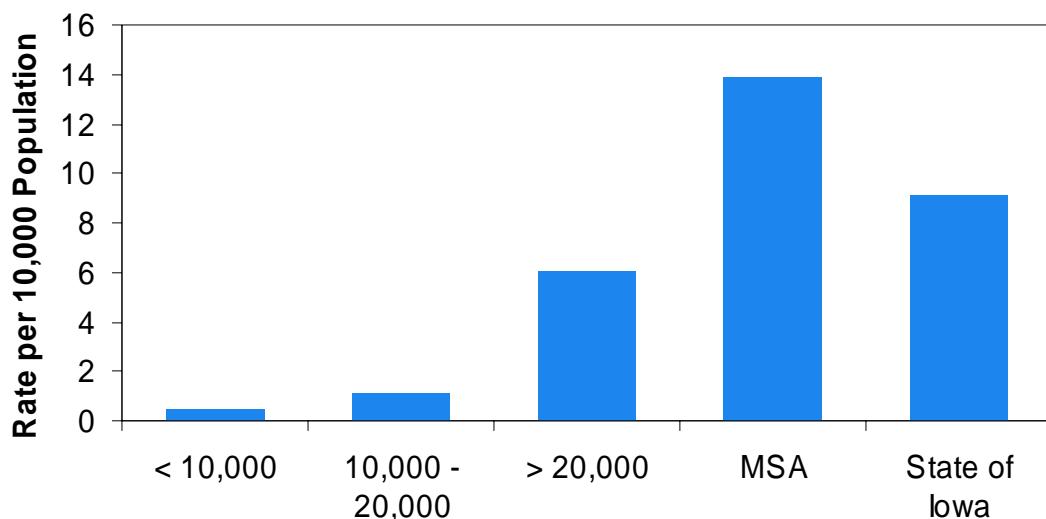
## Other Specialty Physicians

2005 Counts and Crude Rates per 10,000 (shaded)



□ 0      □ 0.4 – 1.4      □ 1.4 – 5.6      □ 5.6 – 55.6

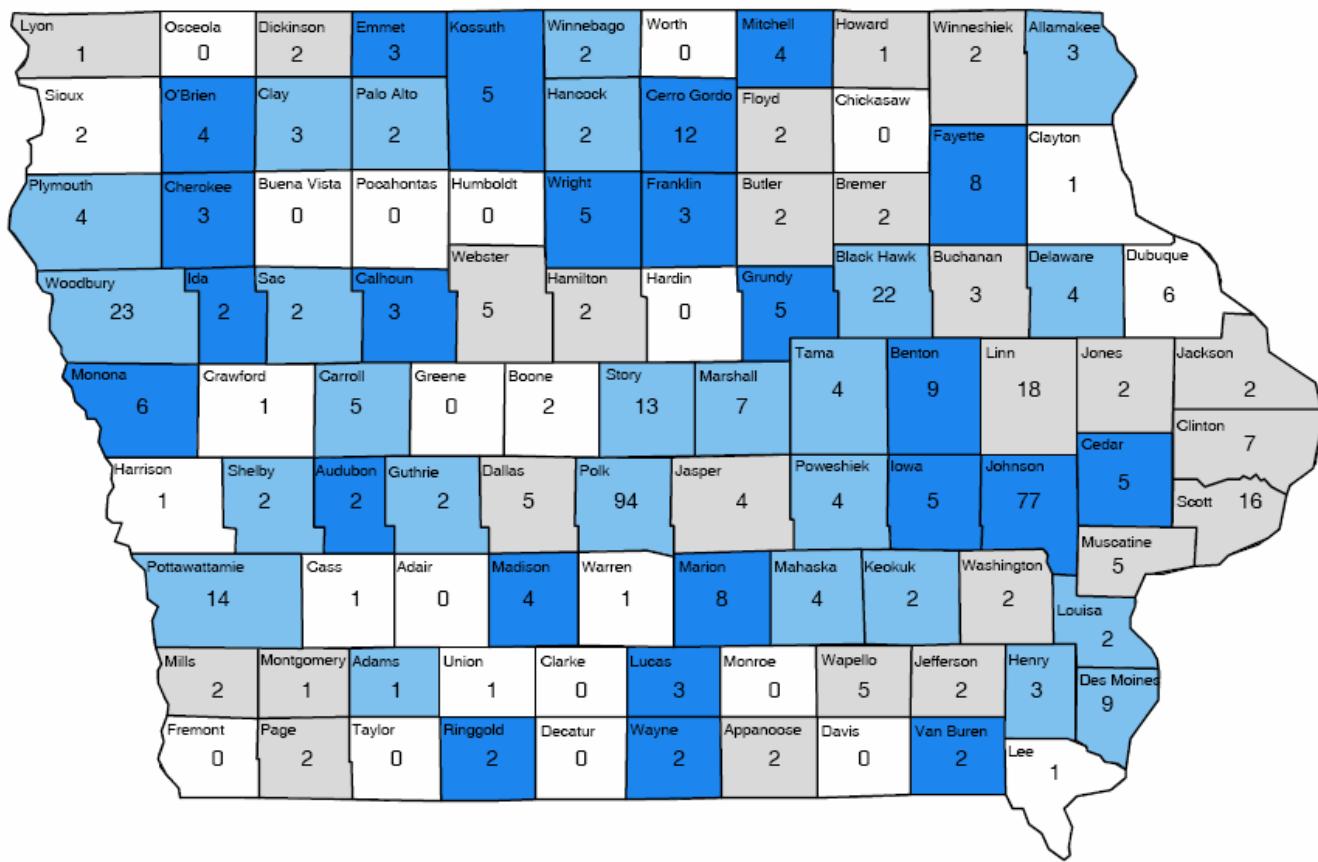
### 2005 Crude Rates by County Group



Source: Office of Statewide Clinical Education Programs, College of Medicine, University of Iowa

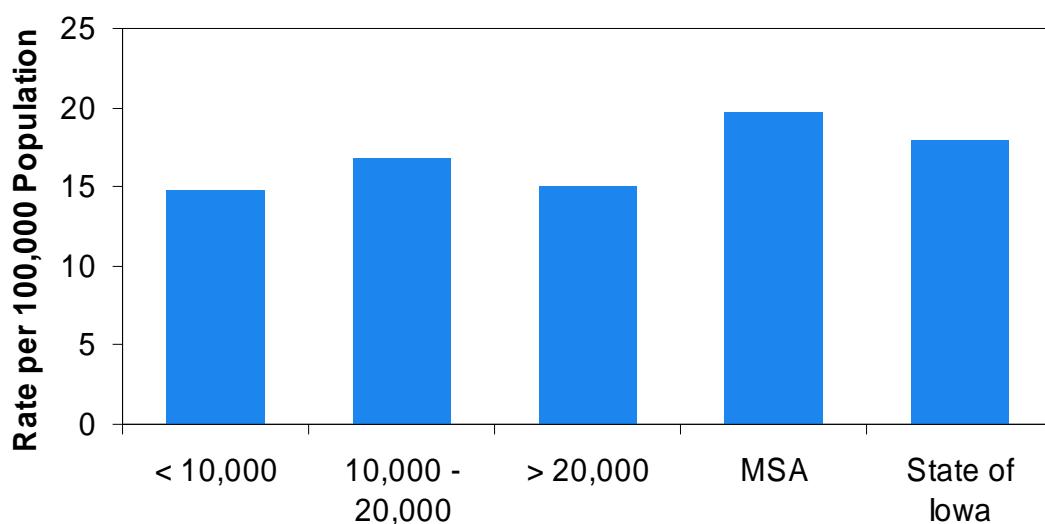
# Physician Assistants

2005 Counts and Crude Rates per 100,000 (shaded)



□ 0 – 8.5      □ 8.5 – 14.7      □ 14.7 – 24      ■ 24 – 66.4

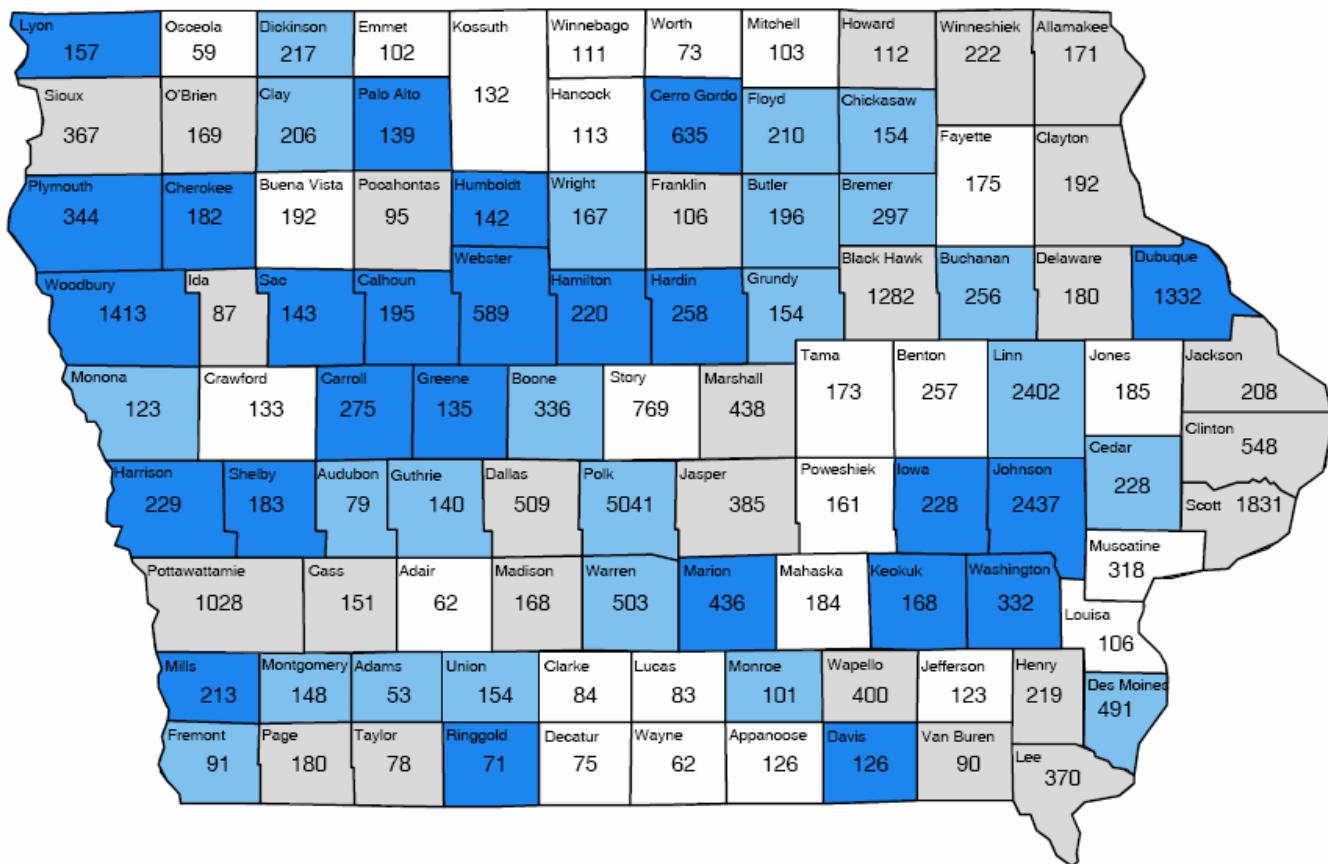
## 2005 Crude Rates by County Group



Source: Office of Statewide Clinical Education Programs, College of Medicine, University of Iowa

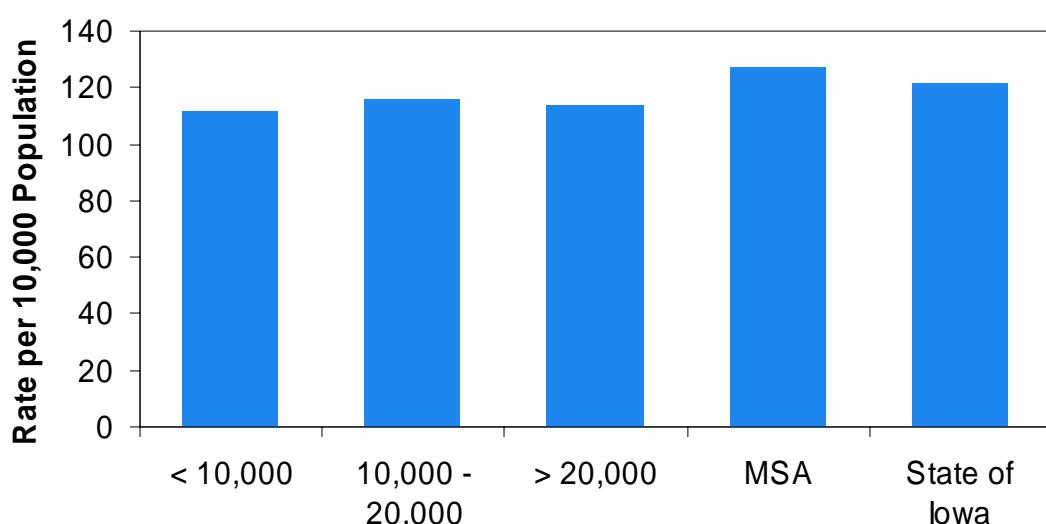
## Registered Nurses

2005 Counts and Crude Rates per 10,000 (shaded)



□ 74.7 – 98.2      □ 98.2 – 117.2      ■ 117.2 – 130.9      ■■ 130.9 – 210

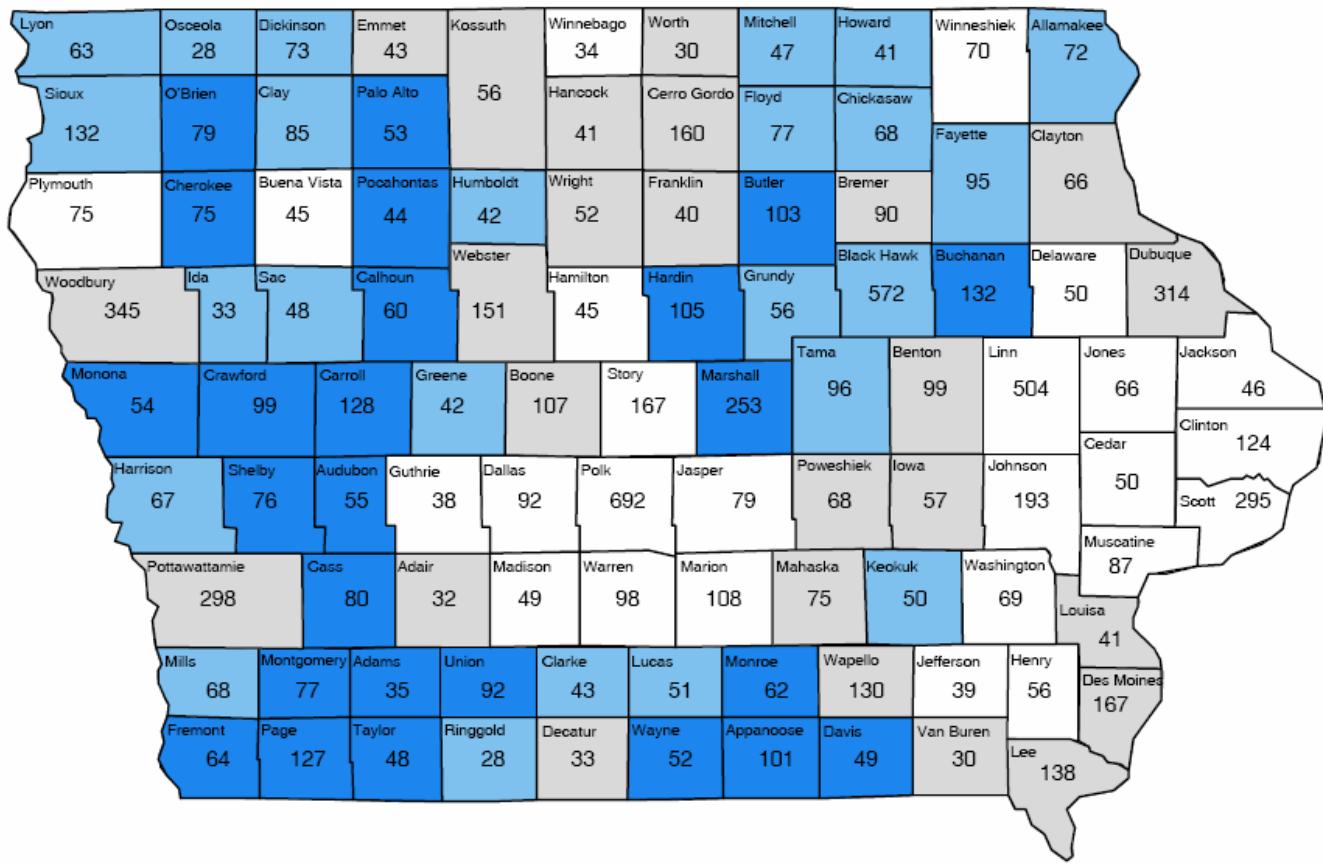
### 2005 Crude Rates by County Group



Source: Board of Nursing, Iowa Department of Public Health

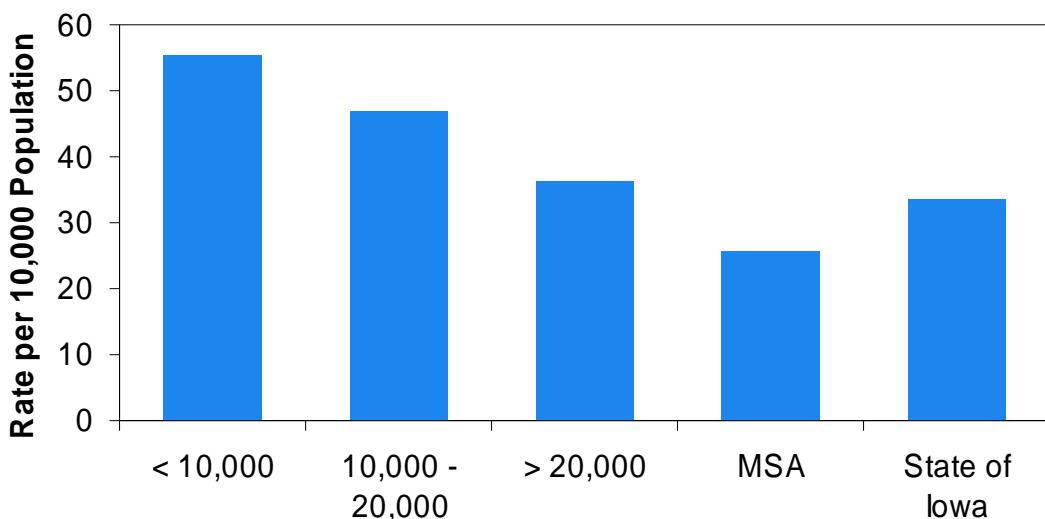
## Licensed Practical Nurses

2005 Counts and Crude Rates per 10,000 (shaded)



□ 16.6 – 33.3      □ 33.3 – 40.9      □ 40.9 – 54.1      □ 54.1 – 84.8

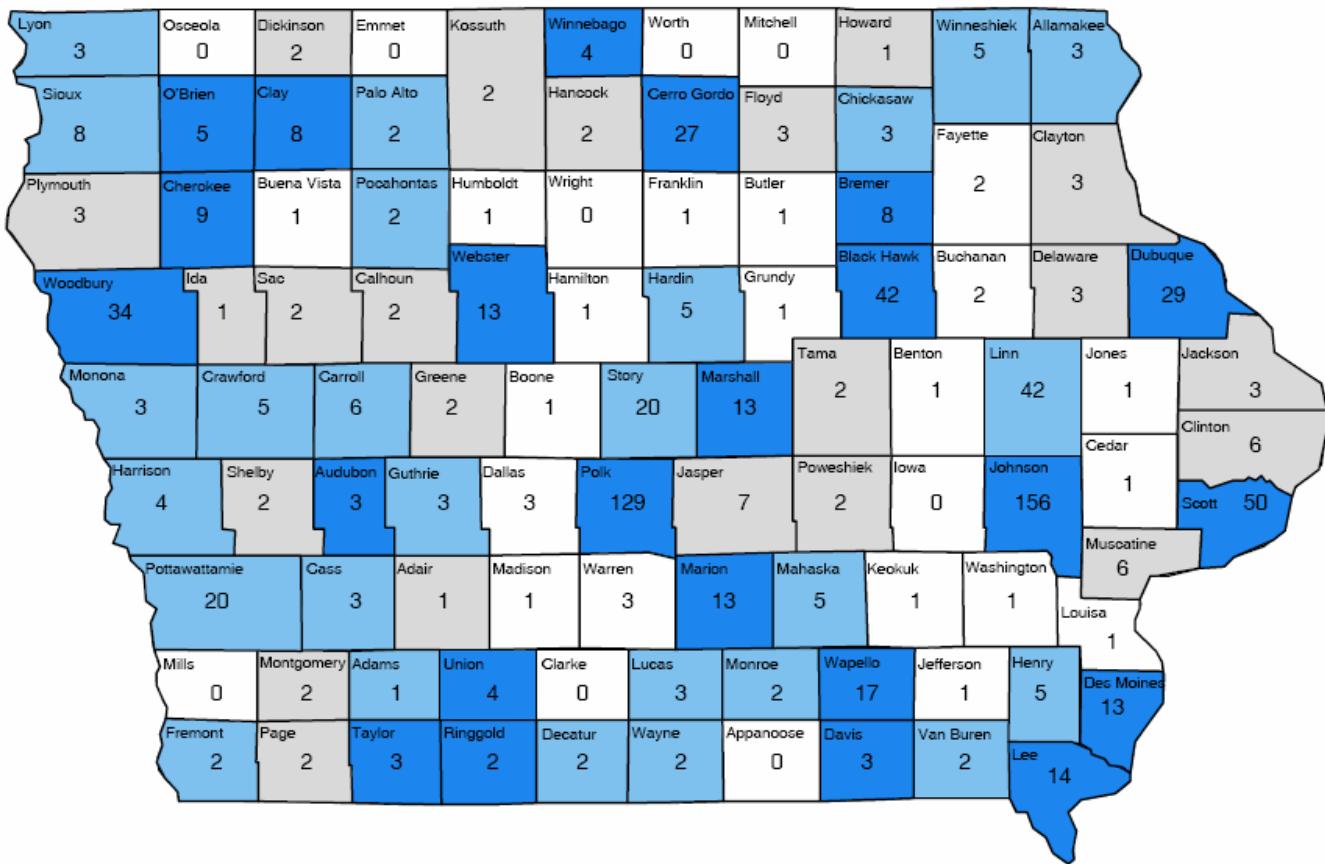
### 2005 Crude Rates by County Group



Source: Board of Nursing, Iowa Department of Public Health

## Advanced Practical Nurses

2005 Counts and Crude Rates per 10,000 (shaded)



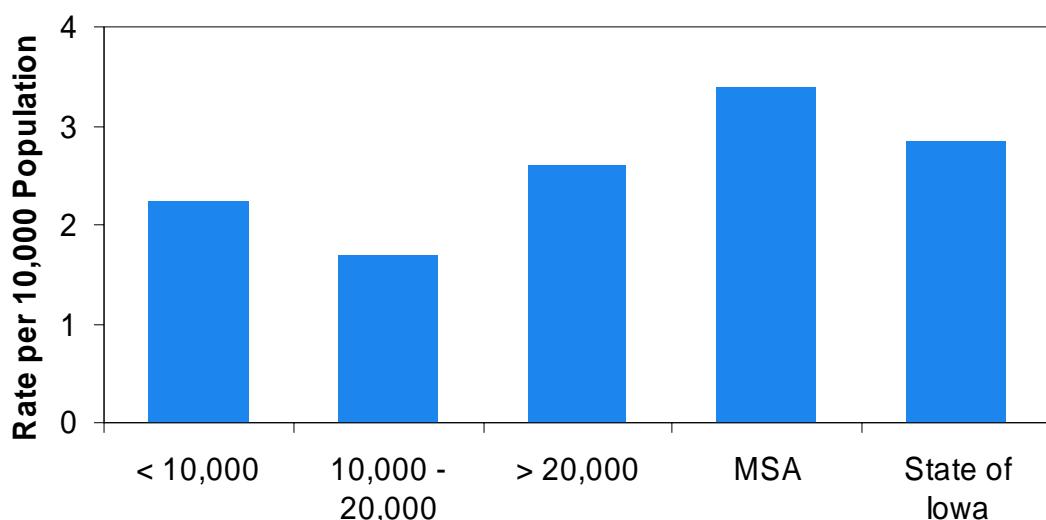
0 – 1

1 – 2

2 – 3.1

3.1 – 13.5

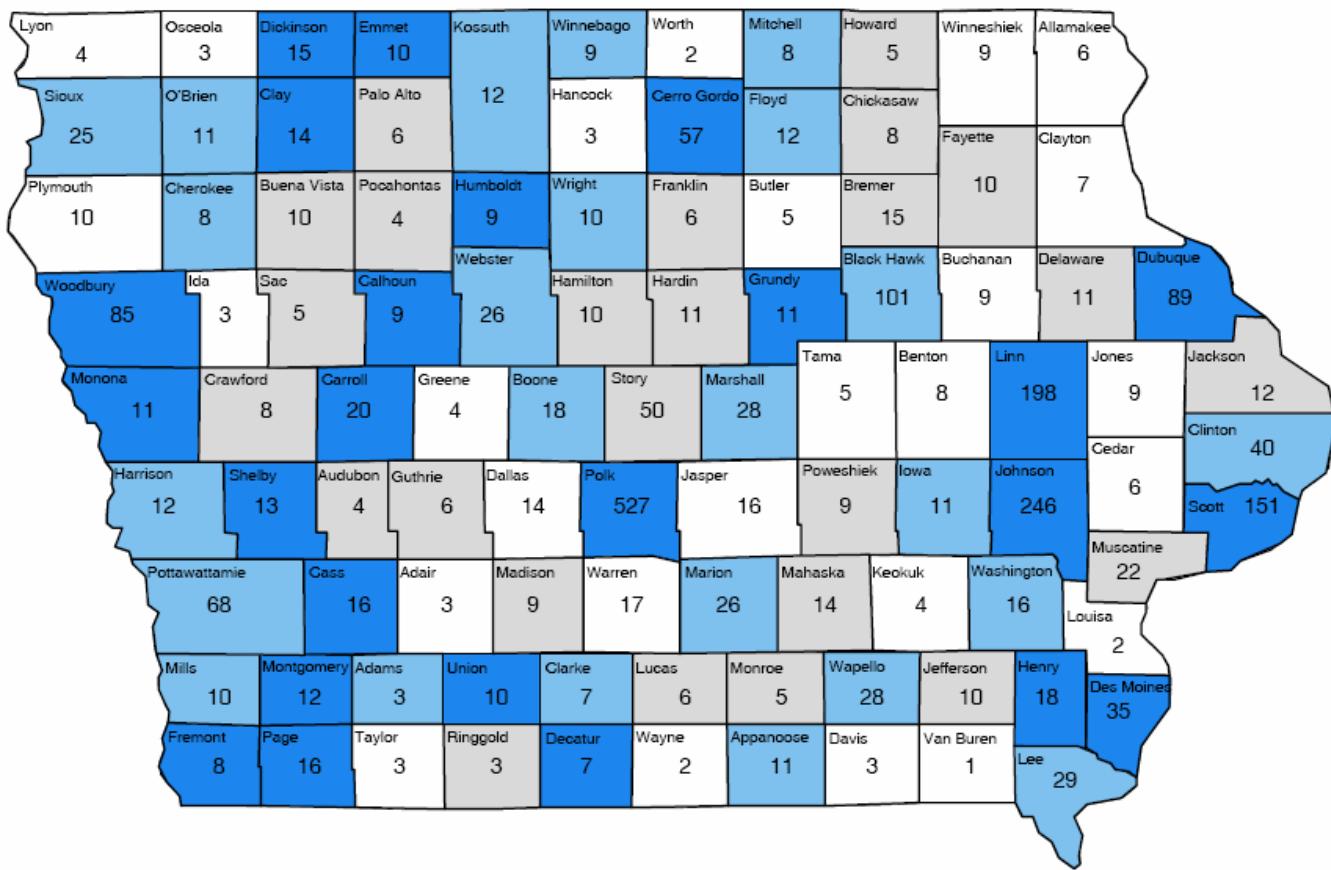
### 2005 Crude Rates by County Group



Source: Board of Nursing, Iowa Department of Public Health

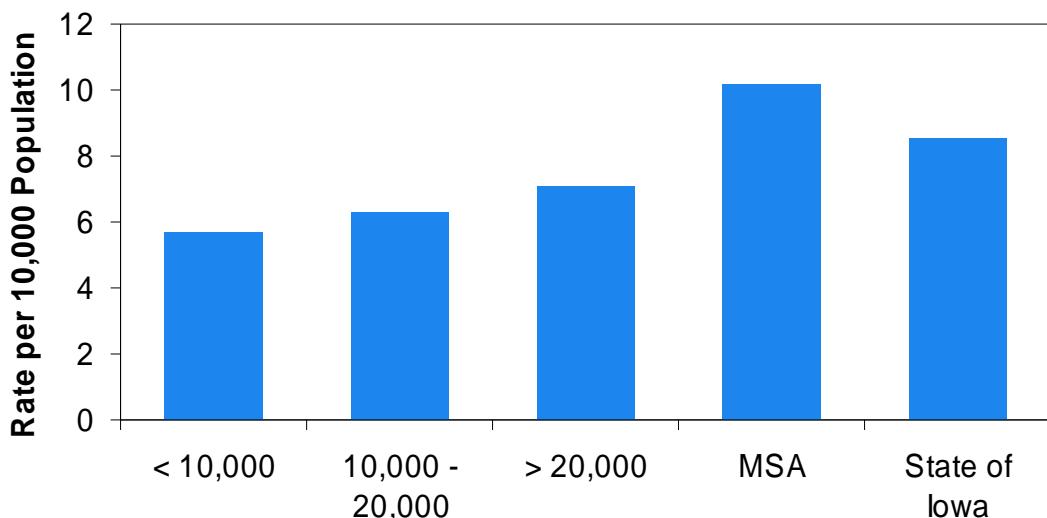
## Pharmacists

2005 Counts and Crude Rates per 10,000 (shaded)



1.2 – 4.5       4.5 – 6.4       6.4 – 8.1       8.1 – 21.2

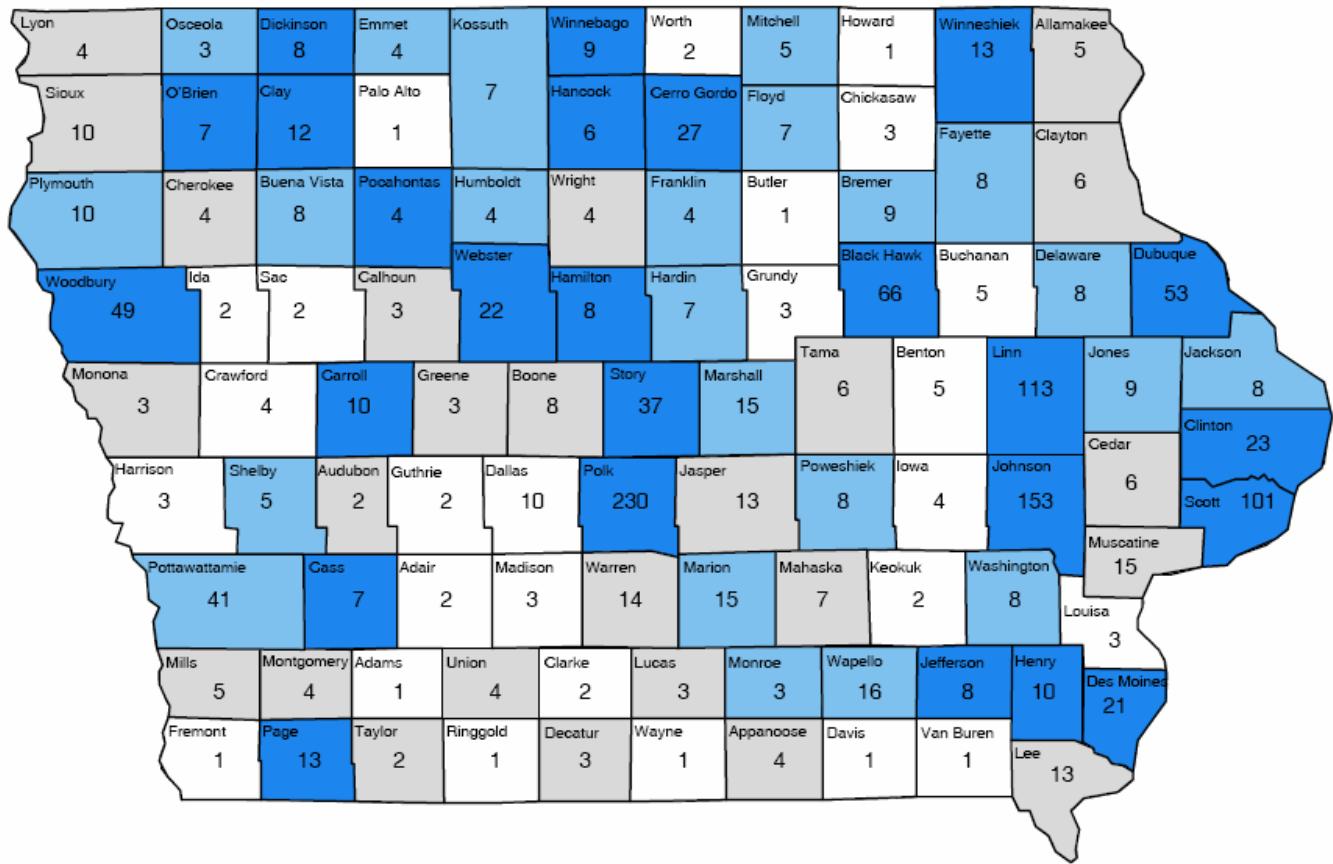
### 2005 Crude Rates by County Group



Source: Office of Statewide Clinical Education Programs, College of Medicine, University of Iowa

## Dentists

### 2005 Counts and Crude Rates per 10,000 (shaded)



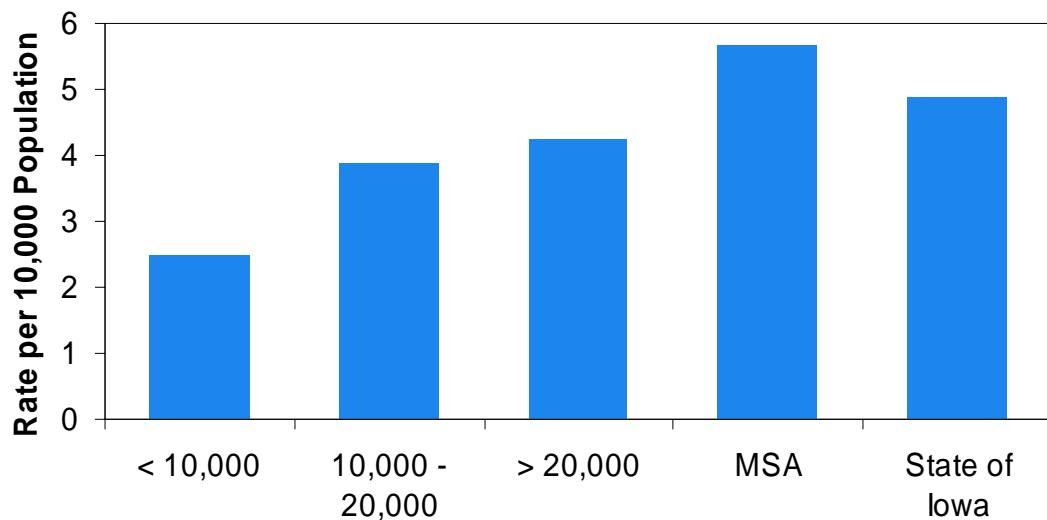
0.6 – 2.7

2.7 – 3.6

3.6 – 4.6

■ 4.6 – 13.2

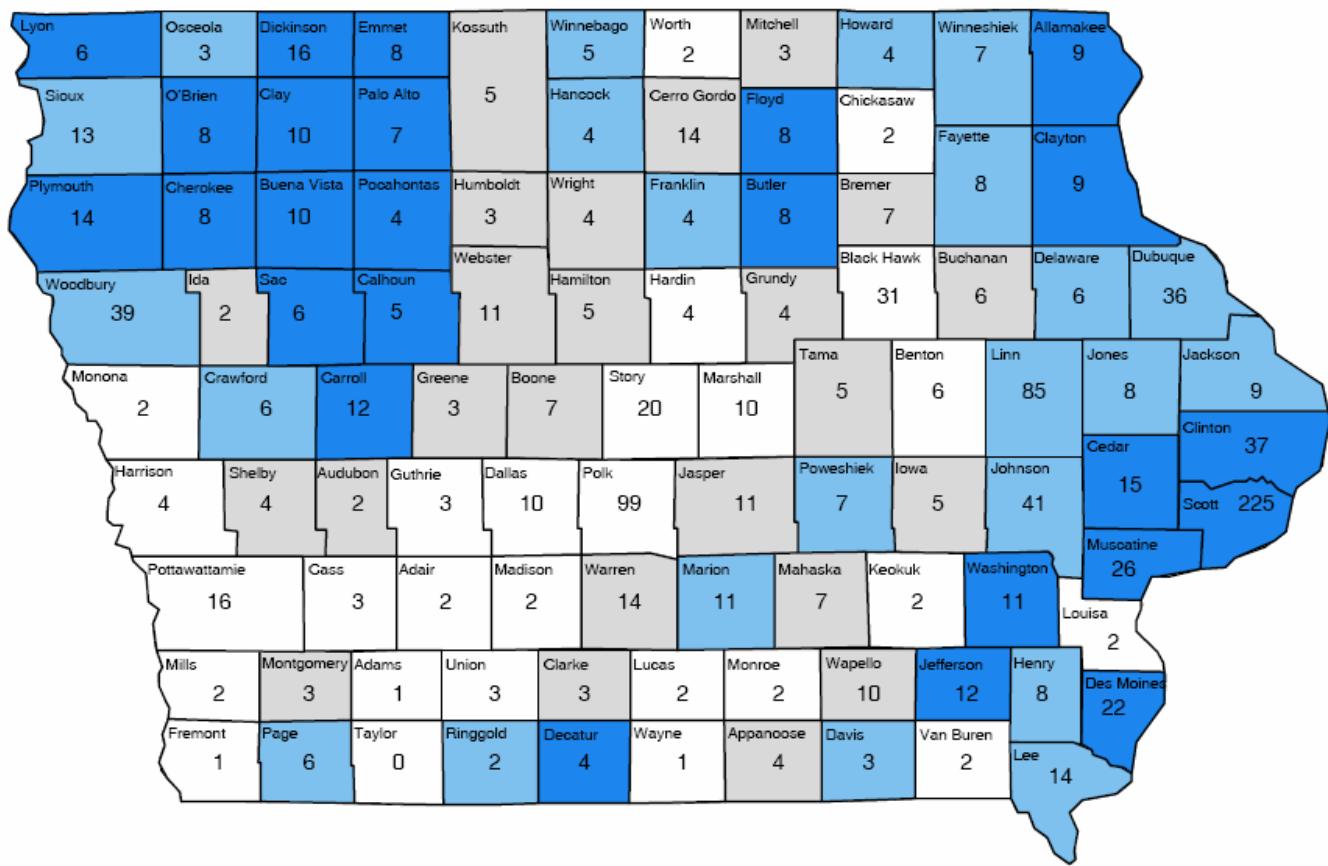
## **2005 Crude Rates by County Group**



Source: Office of Statewide Clinical Education Programs, College of Medicine, University of Iowa

# Chiropractors

2005 Counts and Crude Rates per 10,000 (shaded)



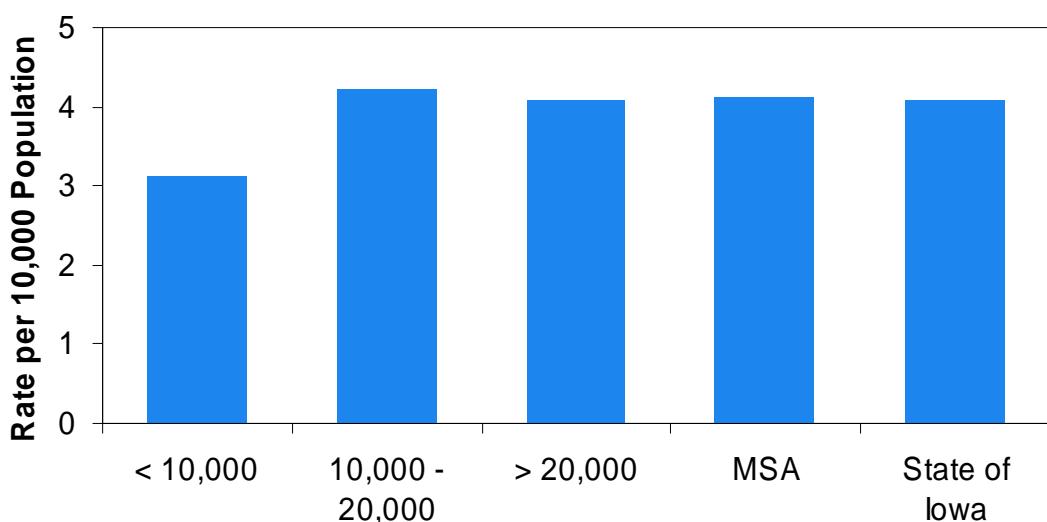
0 - 2.6

2.6 - 3.3

3.3 - 4.6

4.6 - 14.1

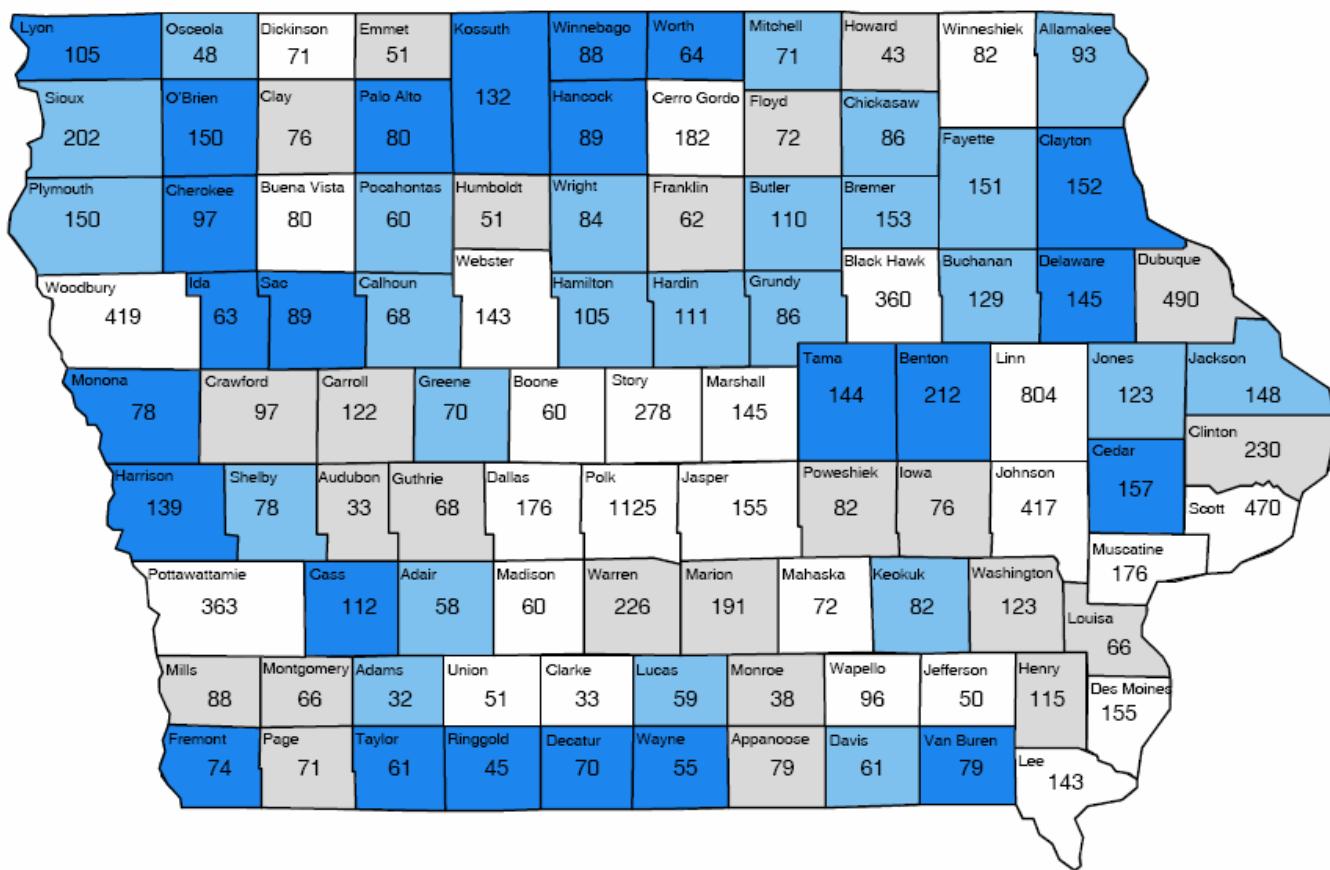
## 2005 Crude Rates by County Group



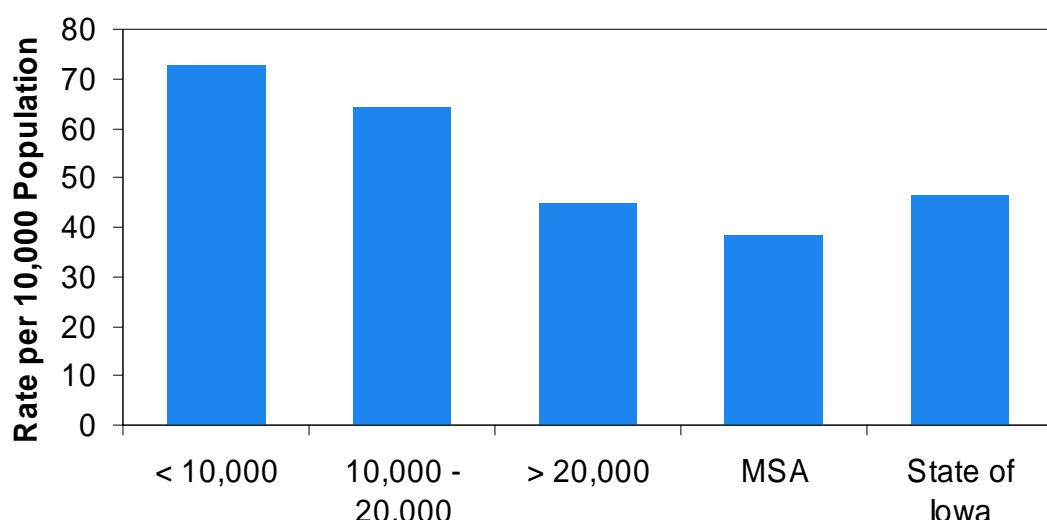
Source: Iowa Department of Public Health

**Emergency Care Providers – Total**

2005 Counts and Crude Rates per 10,000 (shaded)



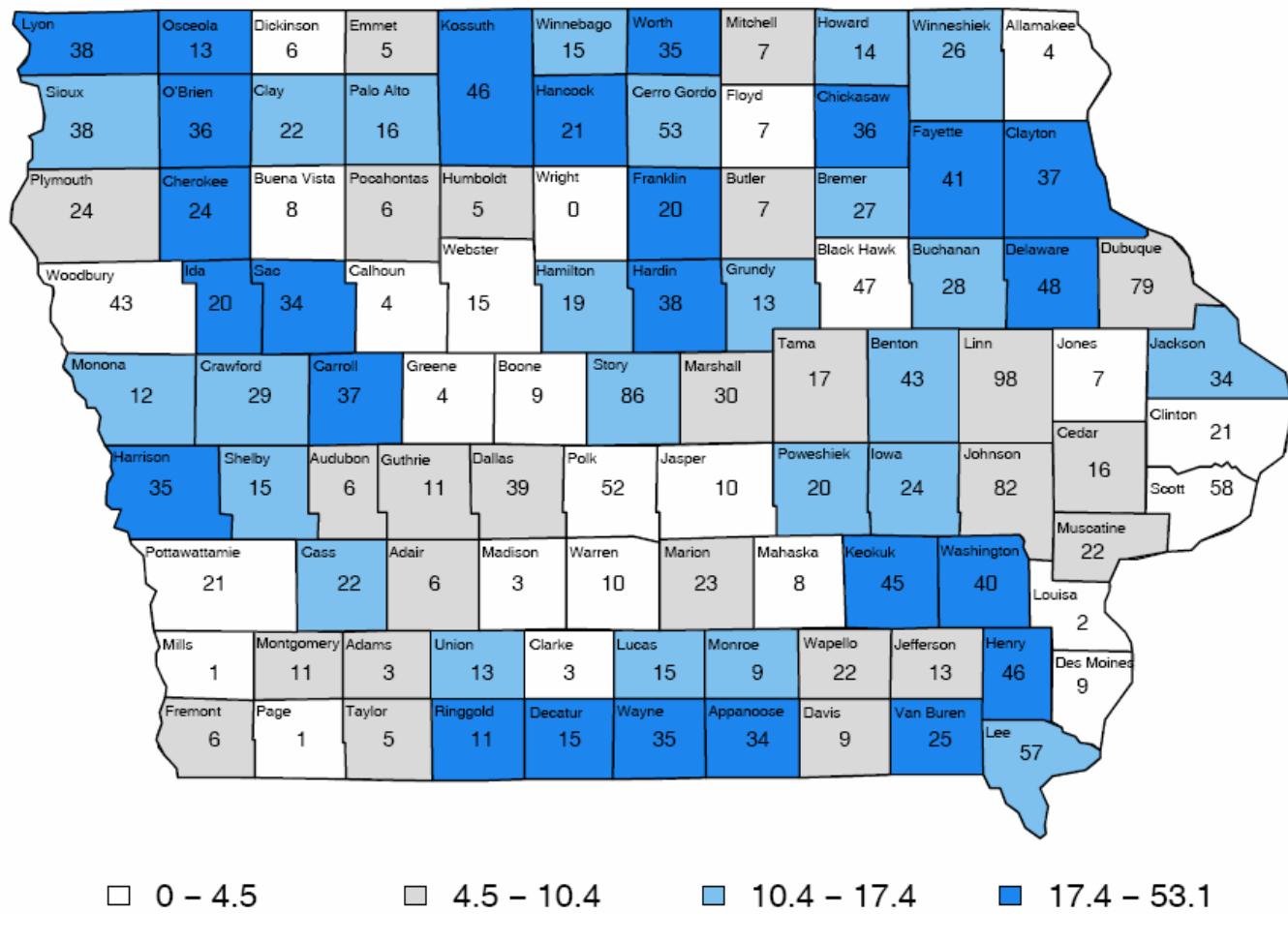
□ 22.6 – 42.6      □ 42.6 – 58.7      ■ 58.7 – 74.1      ■■ 74.1 – 104

**2005 Crude Rates by County Group**

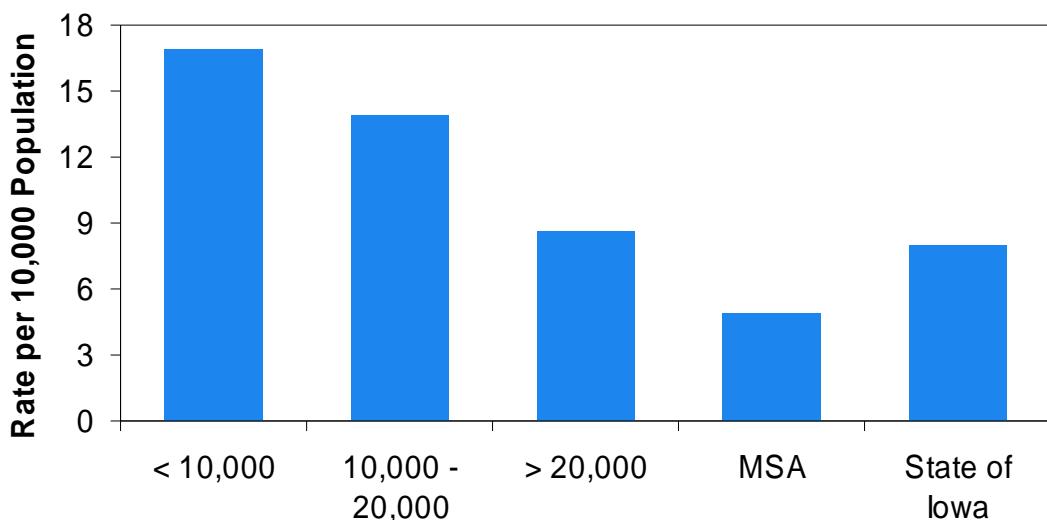
Source: Bureau of Emergency Medical Services, Iowa Department of Public Health

# First Responders

2005 Counts and Crude Rates per 10,000 (shaded)



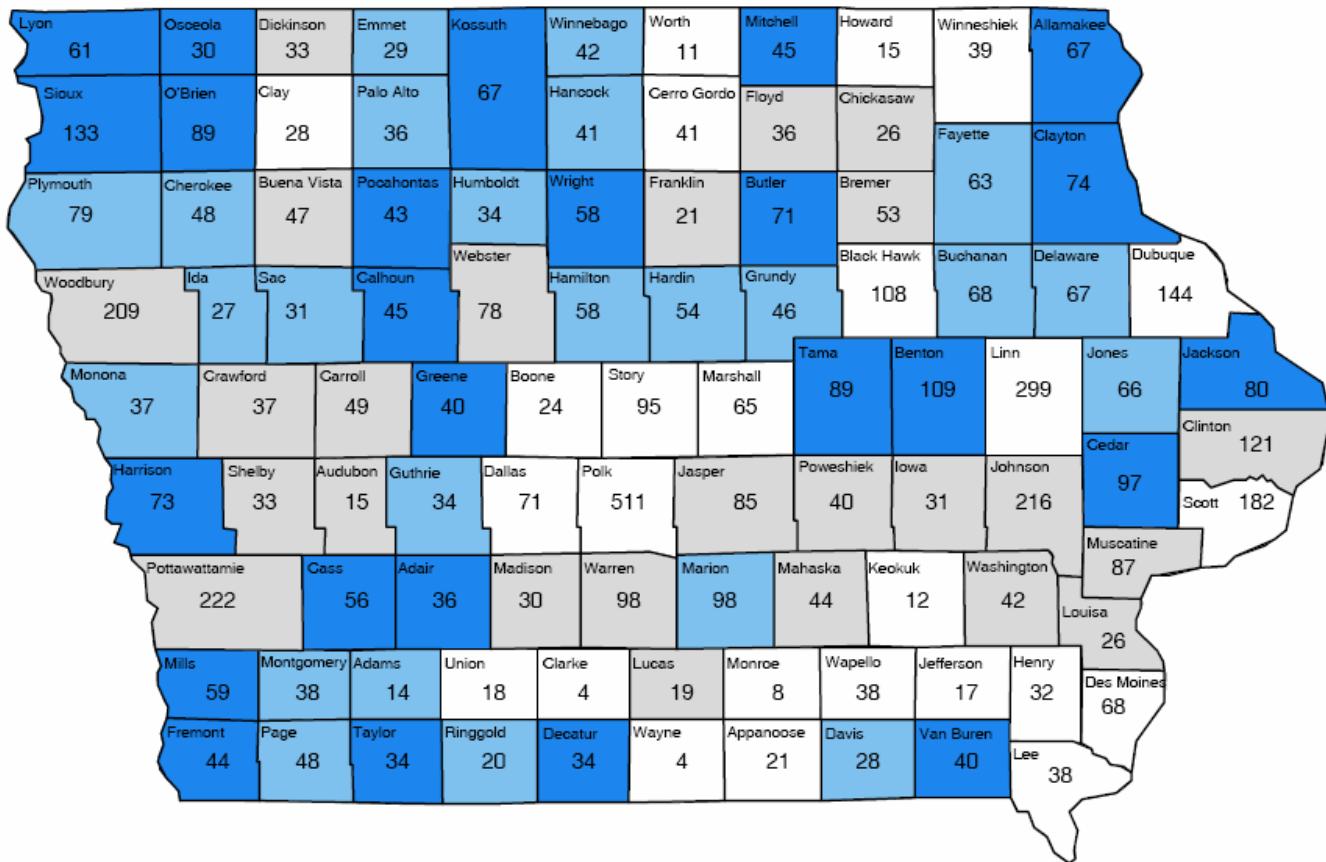
## 2005 Crude Rates by County Group



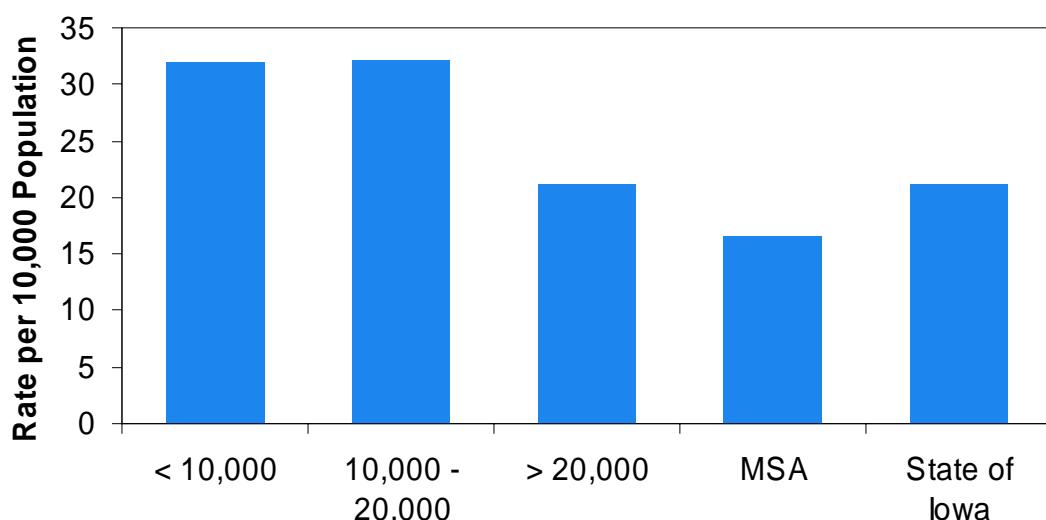
Source: Bureau of Emergency Medical Services, Iowa Department of Public Health

**Emergency Medical Technicians – Basic**

2005 Counts and Crude Rates per 10,000 (shaded)



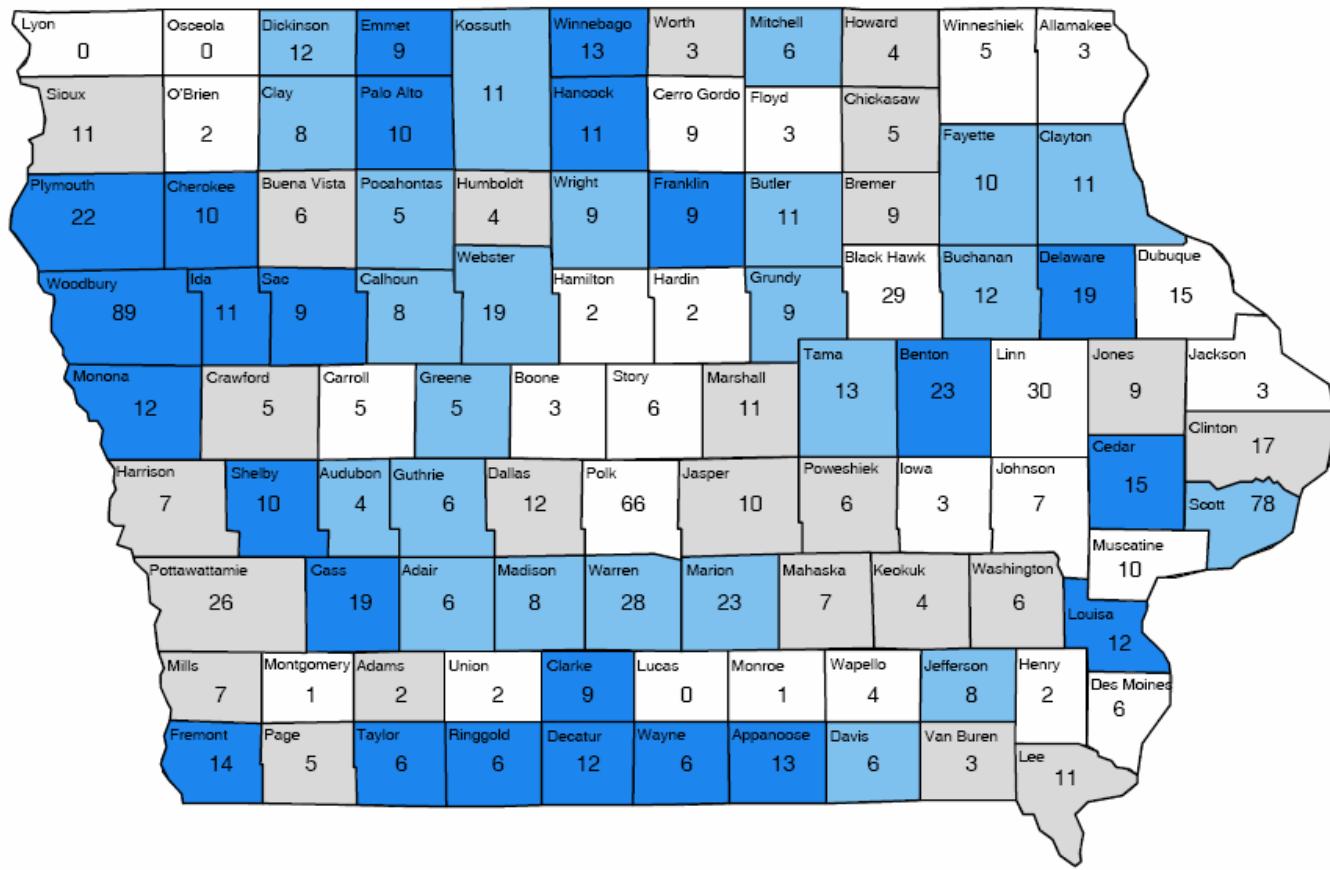
□ 4.3 – 18.6      □ 18.6 – 25.9      ■ 25.9 – 38.9      ■ 38.9 – 61.7

**2005 Crude Rates by County Group**

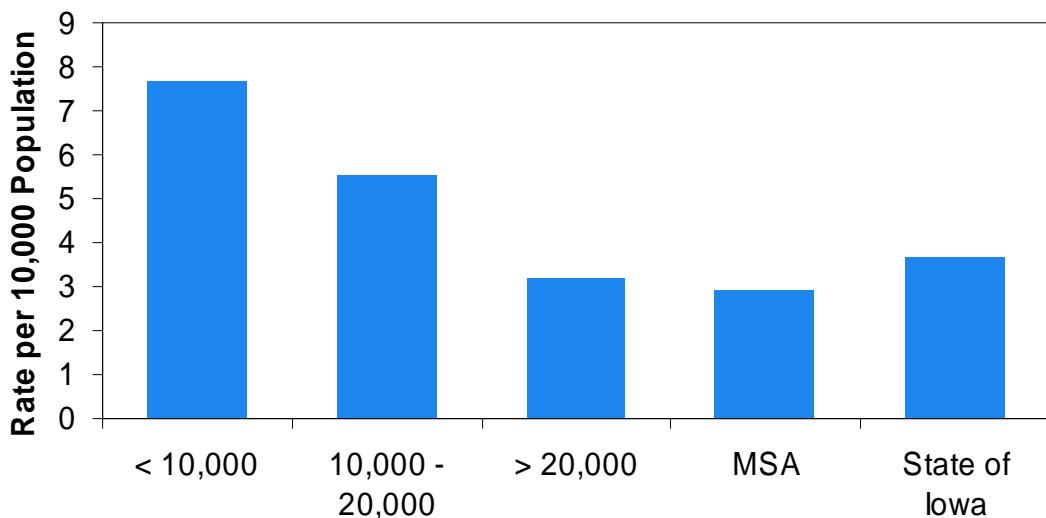
Source: Bureau of Emergency Medical Services, Iowa Department of Public Health

**Emergency Medical Technicians – Intermediate**

2005 Counts and Crude Rates per 10,000 (shaded)



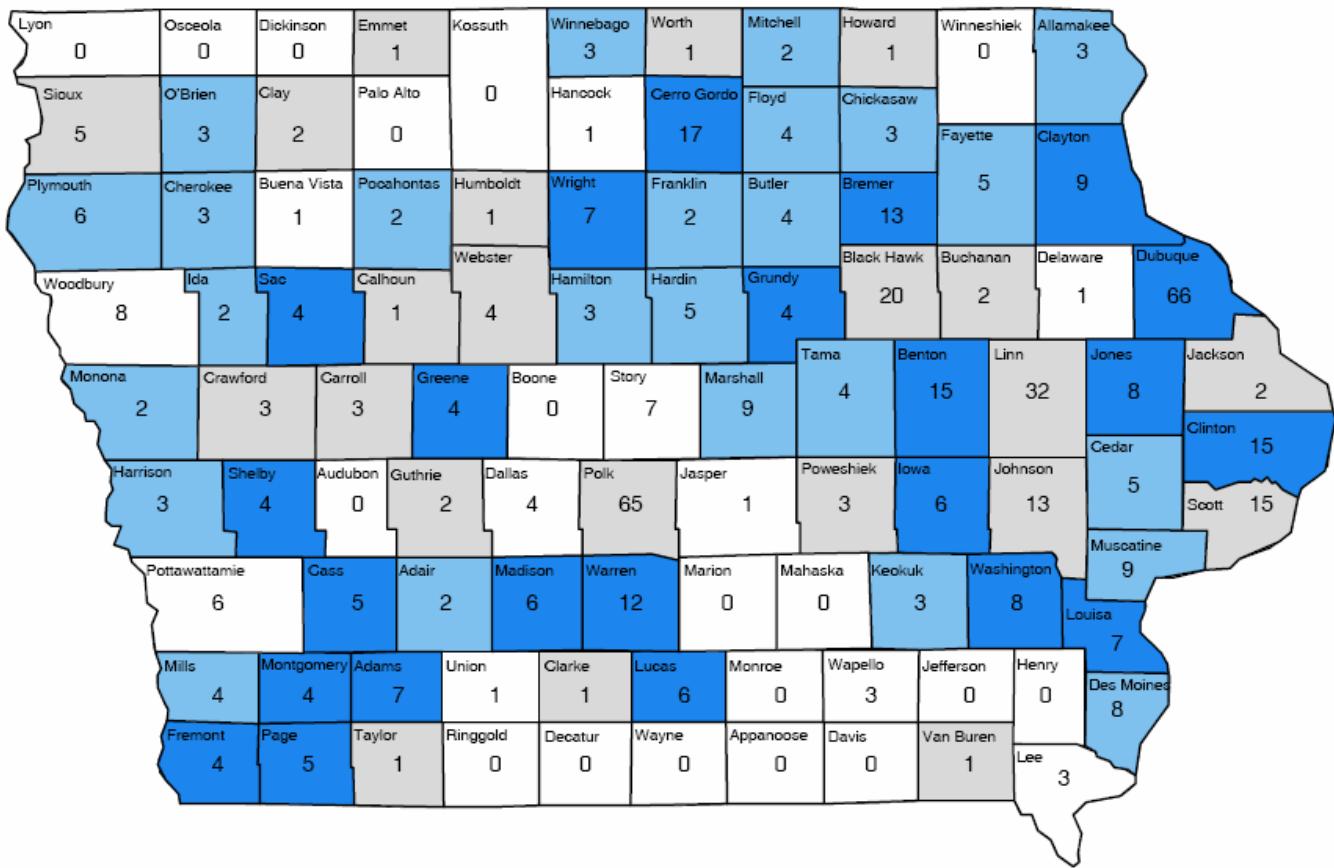
□ 0 – 2.4      □ 2.4 – 4.7      □ 4.7 – 7.6      ■ 7.6 – 18.2

**2005 Crude Rates by County Group**

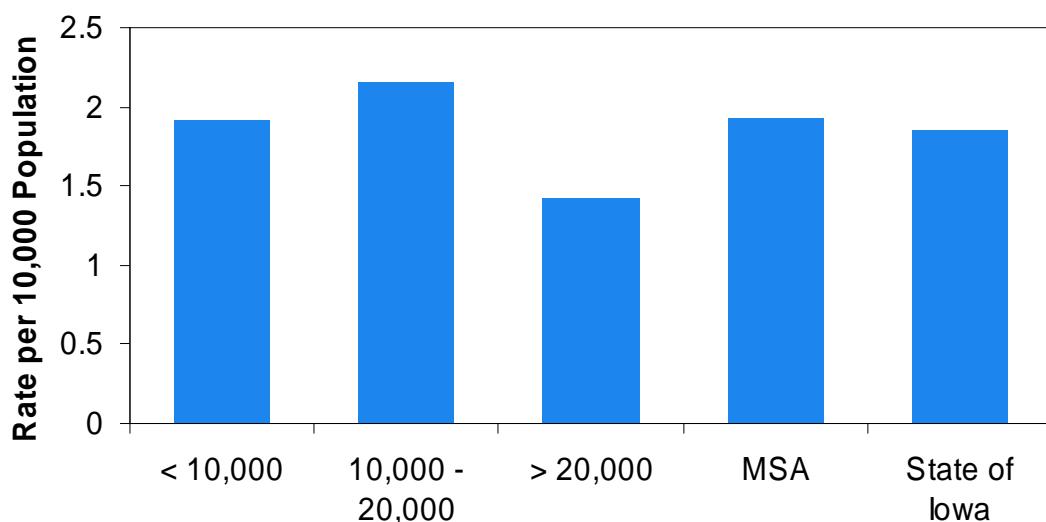
Source: Bureau of Emergency Medical Services, Iowa Department of Public Health

**Emergency Medical Technicians – Paramedics**

2005 Counts and Crude Rates per 10,000 (shaded)



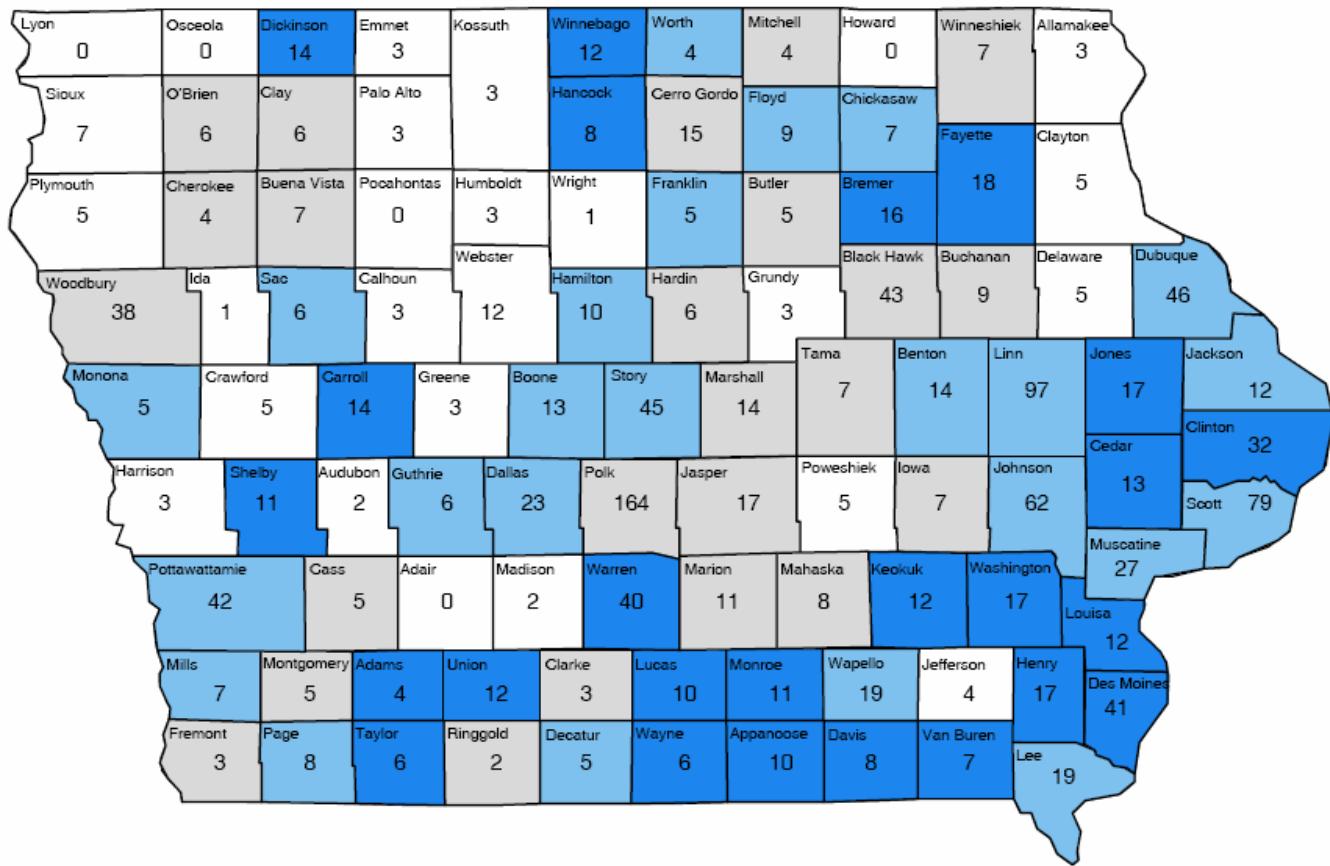
□ 0 – 0.9      □ 0.9 – 1.8      ■ 1.8 – 2.8      ■ 2.8 – 16.3

**2005 Crude Rates by County Group**

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

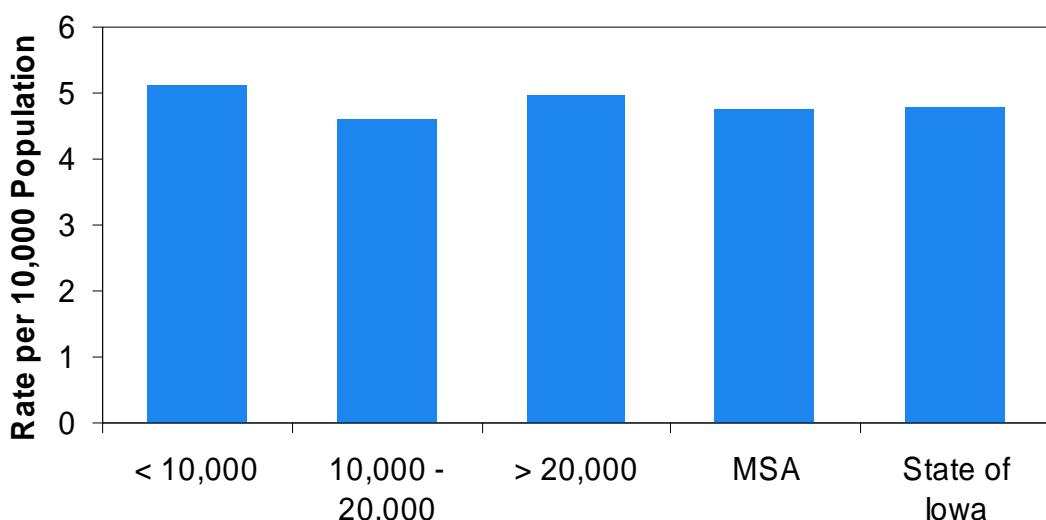
# Emergency Medical Technicians – Paramedic Specialists

2005 Counts and Crude Rates per 10,000 (shaded)



0 – 3.1       3.1 – 4.6       4.6 – 6.4       6.4 – 14

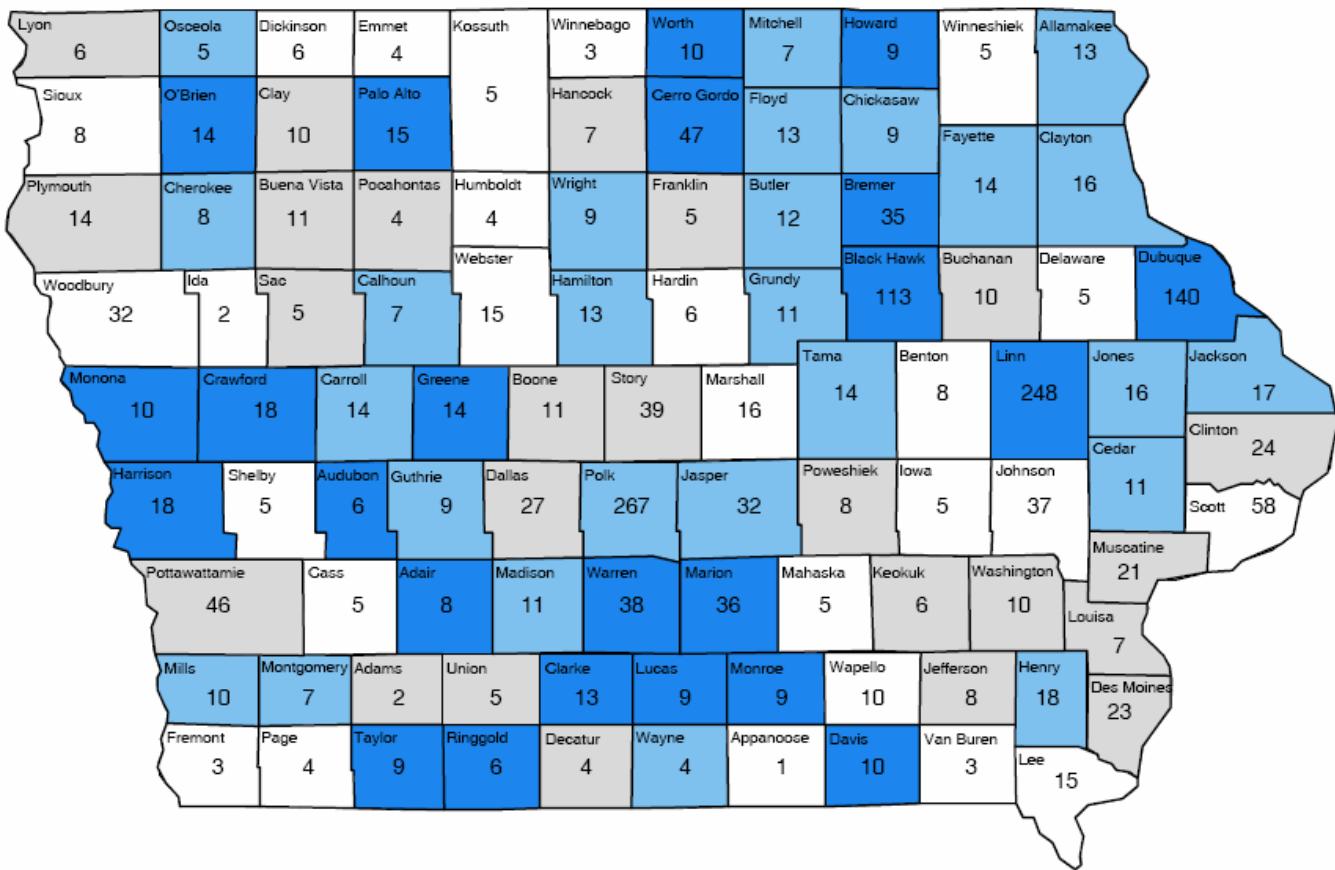
## 2005 Crude Rates by County Group



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

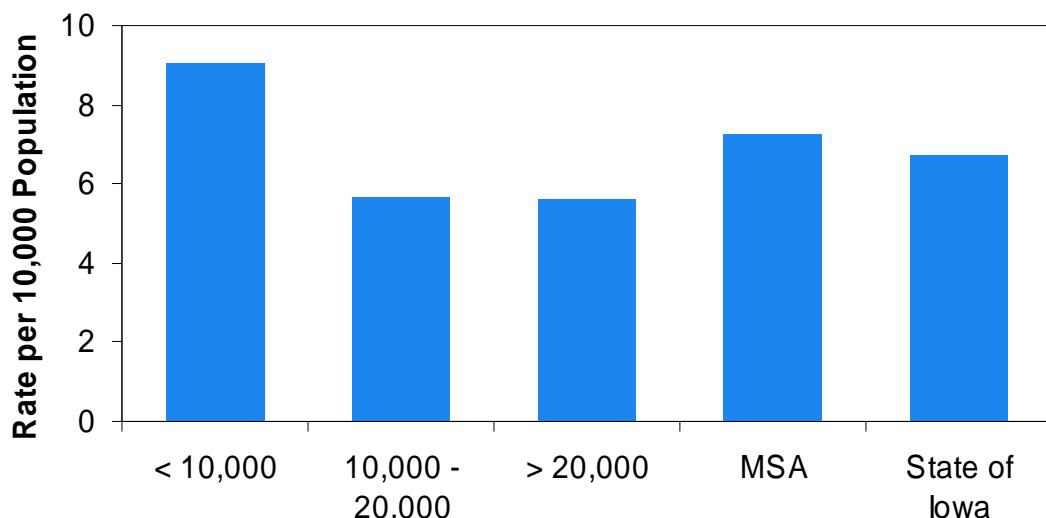
# Iowa Law Enforcement Emergency Care Providers

2005 Counts and Crude Rates per 10,000 (shaded)



□ 0.7 – 4.1      □ 4.1 – 6      □ 6 – 8.9      □ 8.9 – 15.4

## 2005 Crude Rates by County Group



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 2005 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: <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 statewide data for this type of facility are 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.

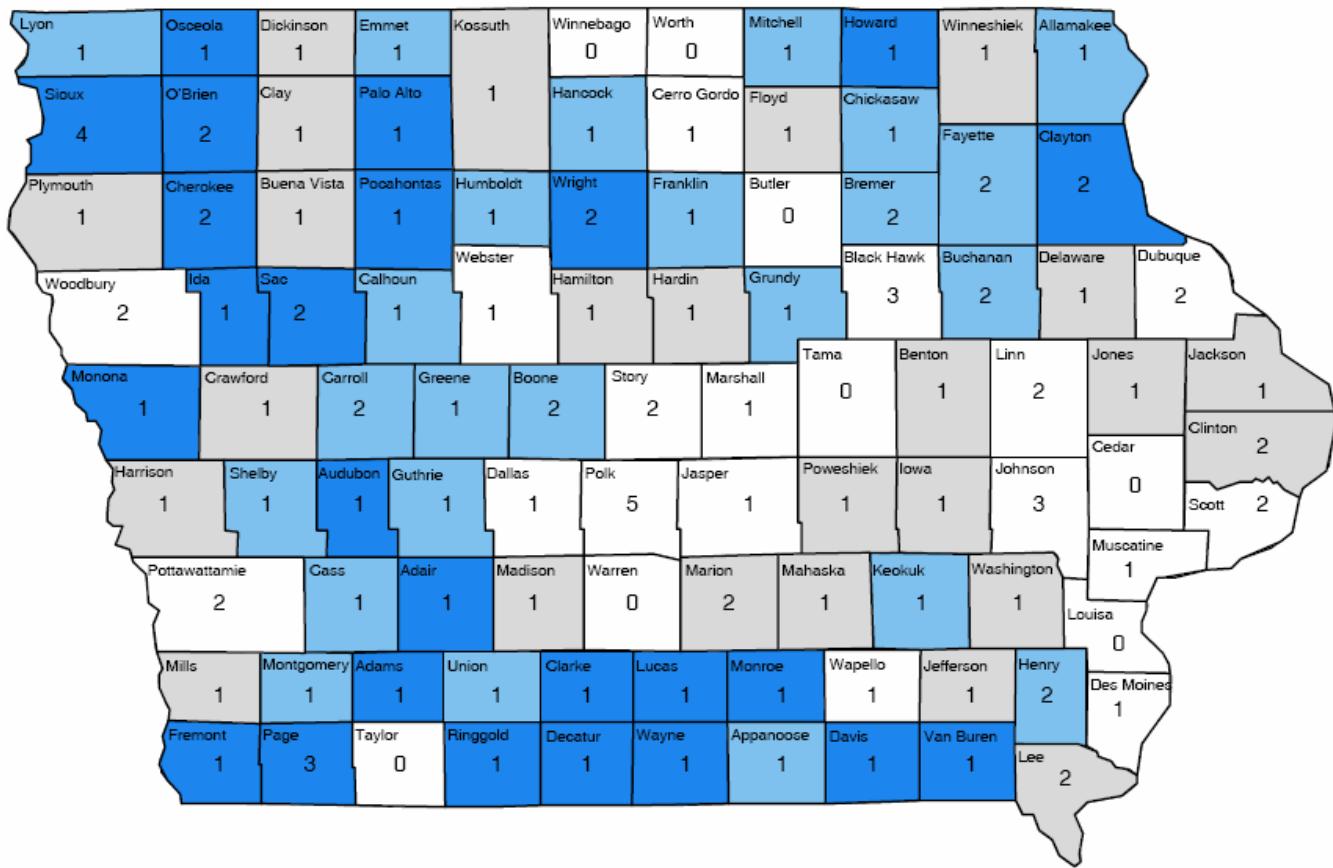
Community Health Centers are funded by Section 330 funds of the Public Health Service Act. Iowa has eight such centers (plus the Des Moines Health Center, which provides similar services). They are required to provide primary health services, dental services, mental health services, prevention, education, 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

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 June of 2005, 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.

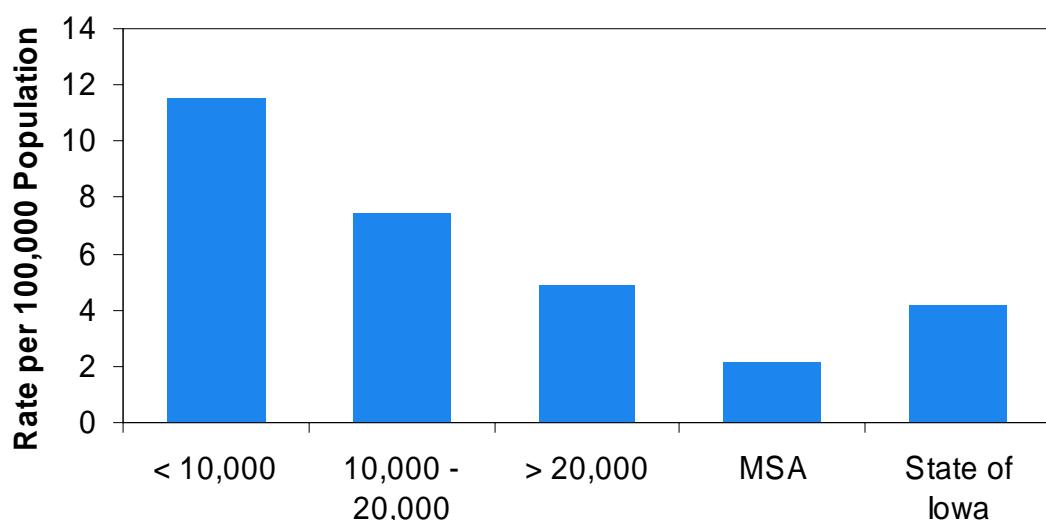
# Hospitals

2005 Counts and Crude Rates per 100,000 (shaded)



□ 0 – 3.3      □ 3.3 – 6.7      ■ 6.7 – 10.1      ■ 10.1 – 23.2

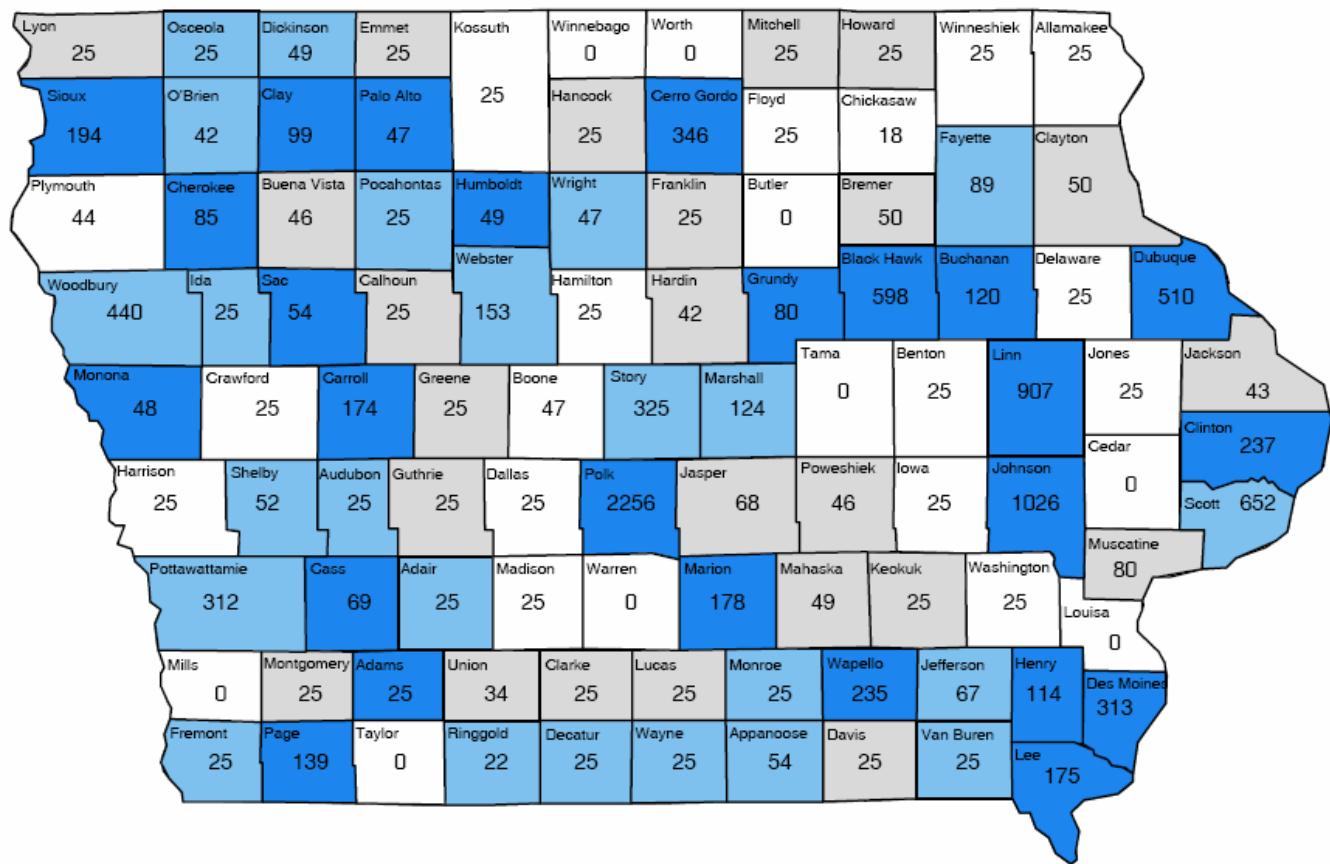
## 2005 Crude Rates by County Group



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

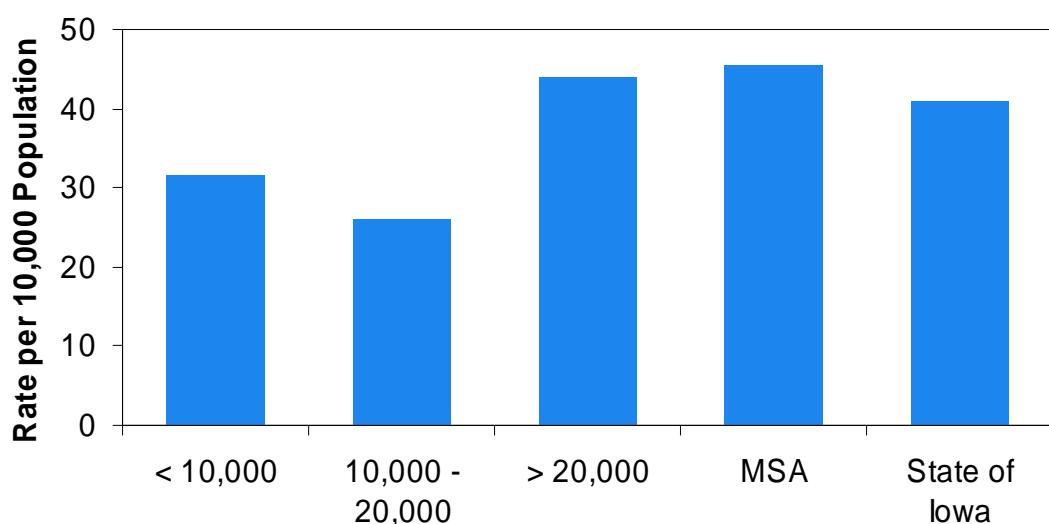
# Hospital Beds

2005 Counts and Crude Rates per 10,000 (shaded)



□ 0 - 17.8      □ 17.8 - 28.8      ■ 28.8 - 44.4      ■ 44.4 - 88.4

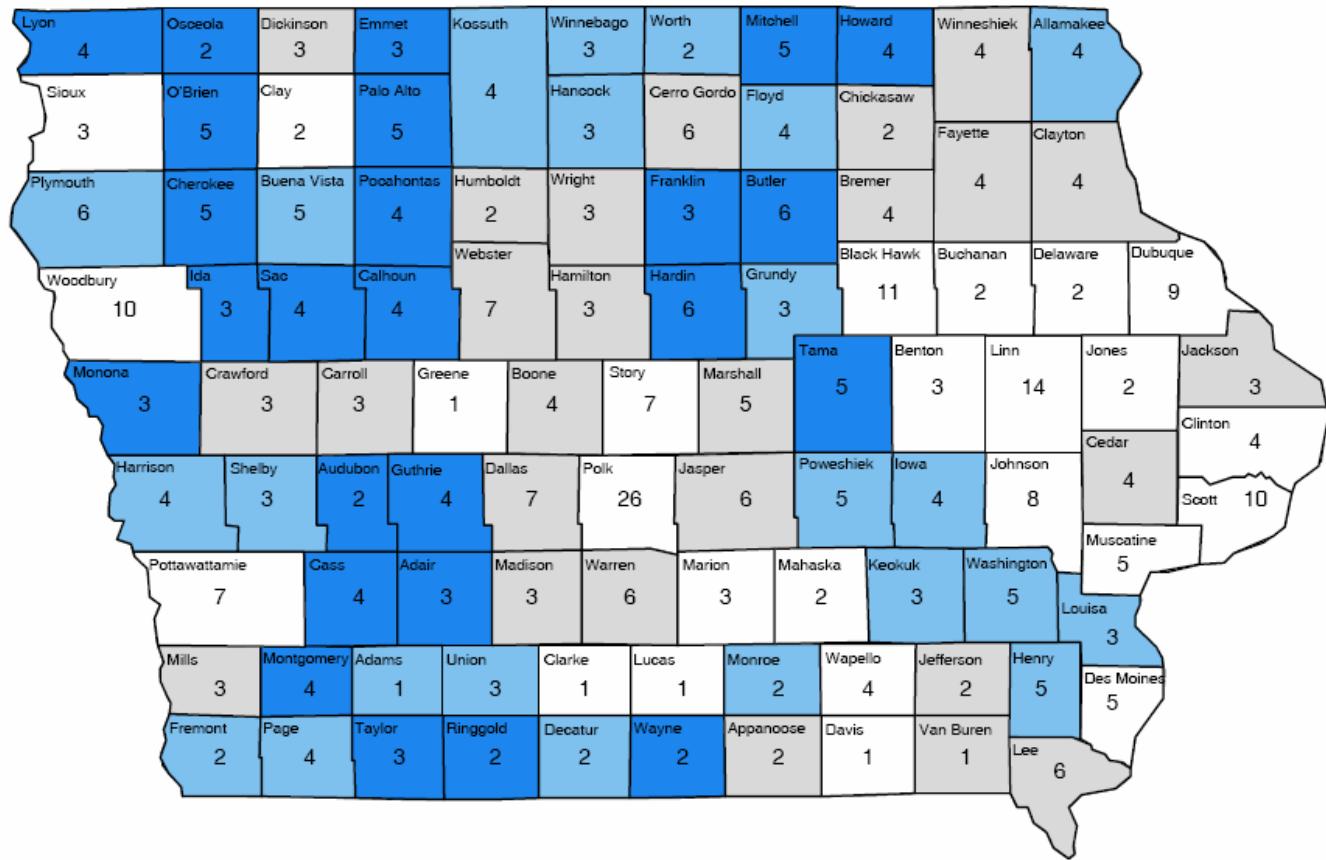
## 2005 Crude Rates by County Group



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

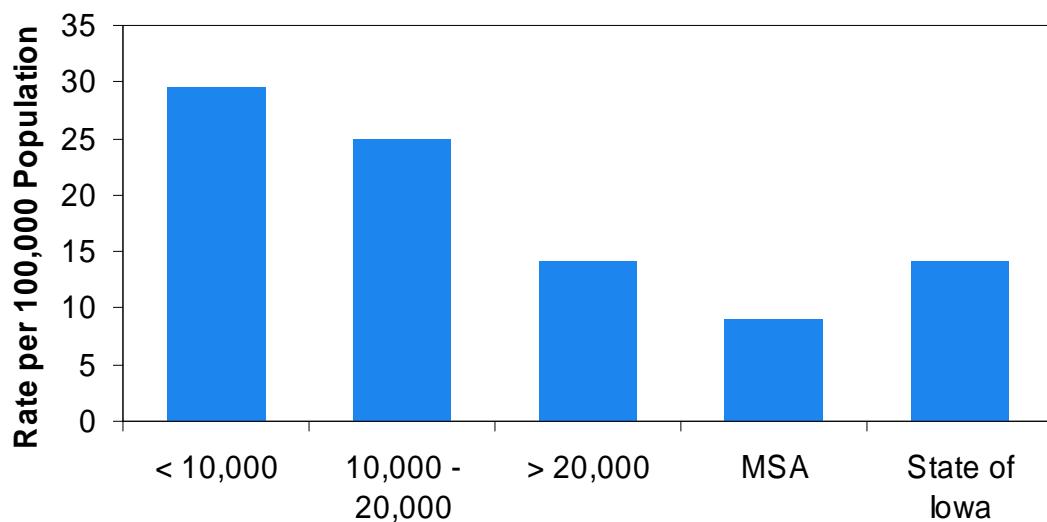
## Nursing Facilities

2005 Counts and Crude Rates per 100,000 (shaded)



□ 6.2 – 12.4      □ 12.4 – 22      □ 22 – 27.5      ■ 27.5 – 51.2

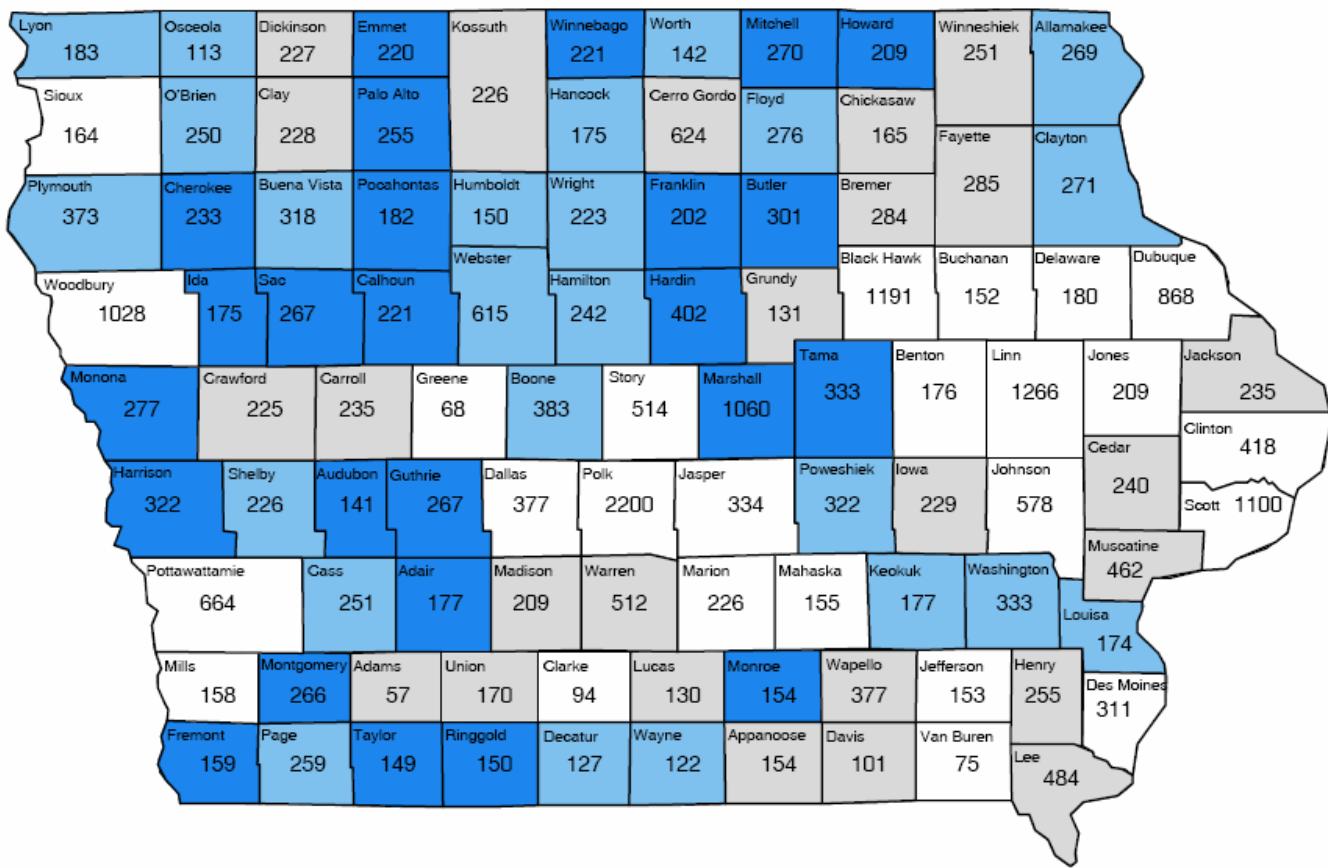
### 2005 Crude Rates by County Group



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

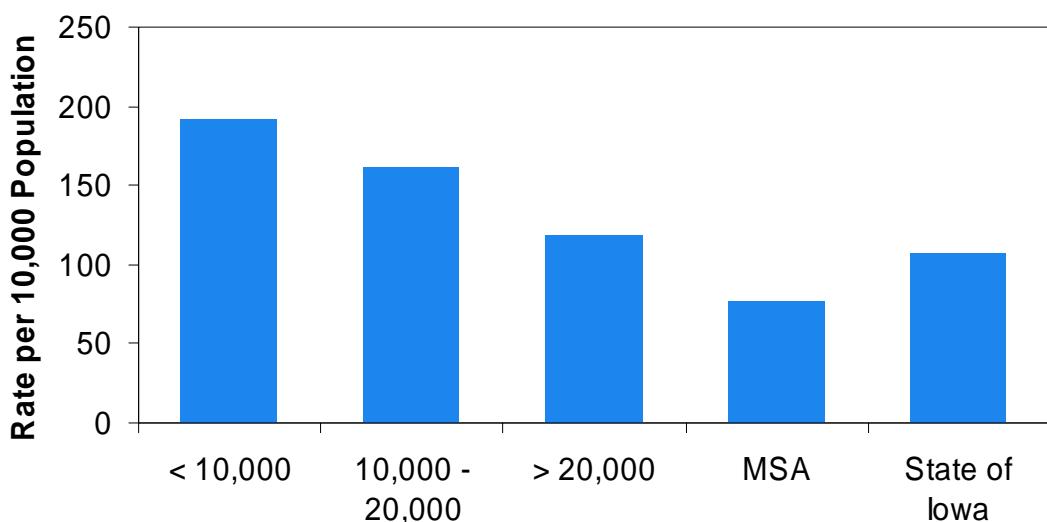
# Nursing Facility Beds

2005 Counts and Crude Rates per 10,000 (shaded)



49.7 – 105.2     105.2 – 142.9     142.9 – 185.3     185.3 – 284.7

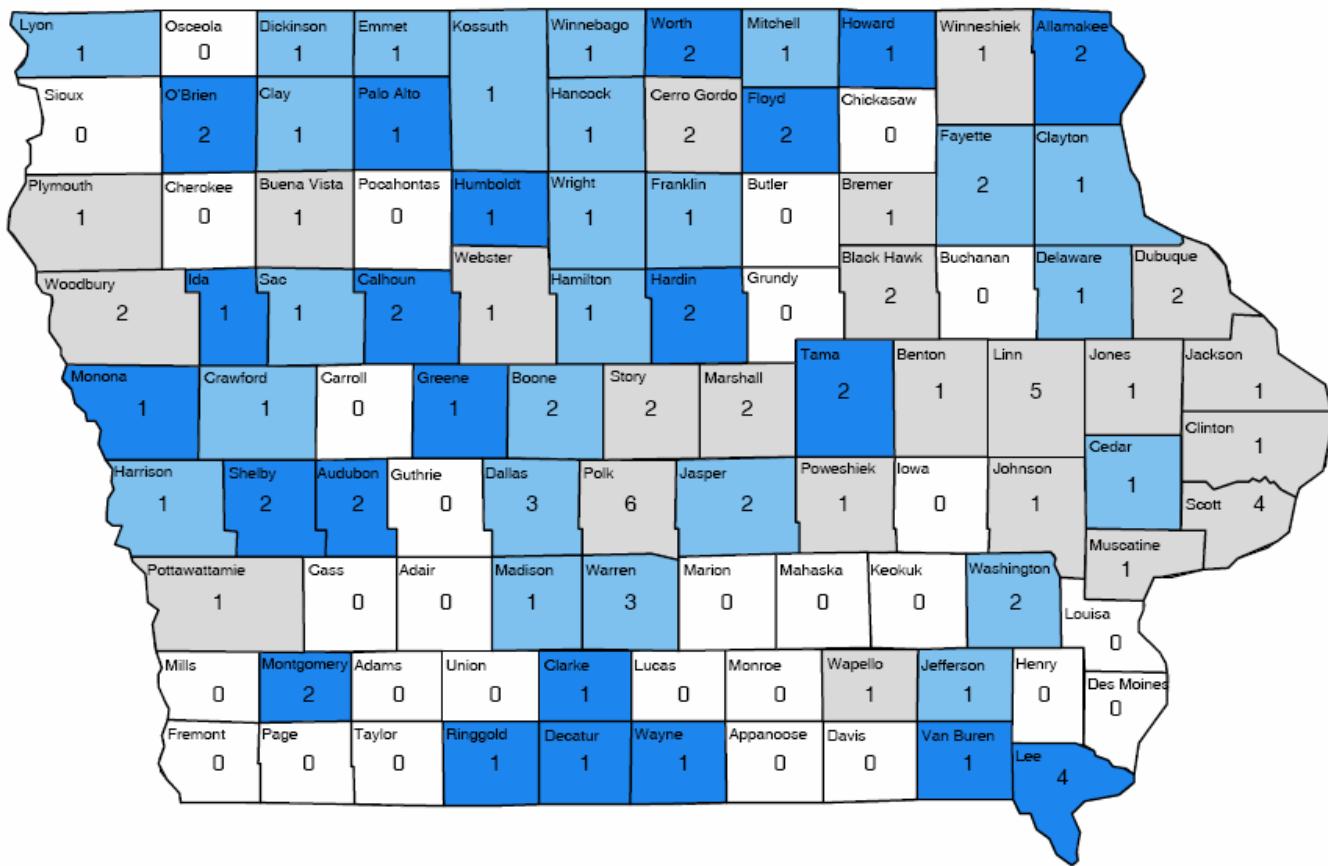
## 2005 Crude Rates by County Group



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

## Chronic Confusion or Dementing Illness Units

2005 Counts and Crude Rates per 100,000 (shaded)



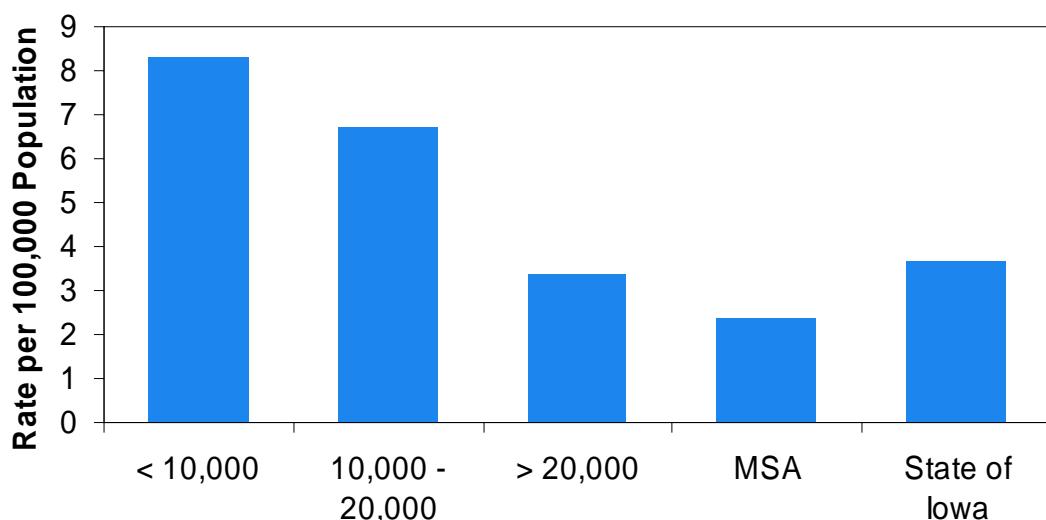
0

0.8 – 5.3

5.3 – 9.5

9.5 – 30.9

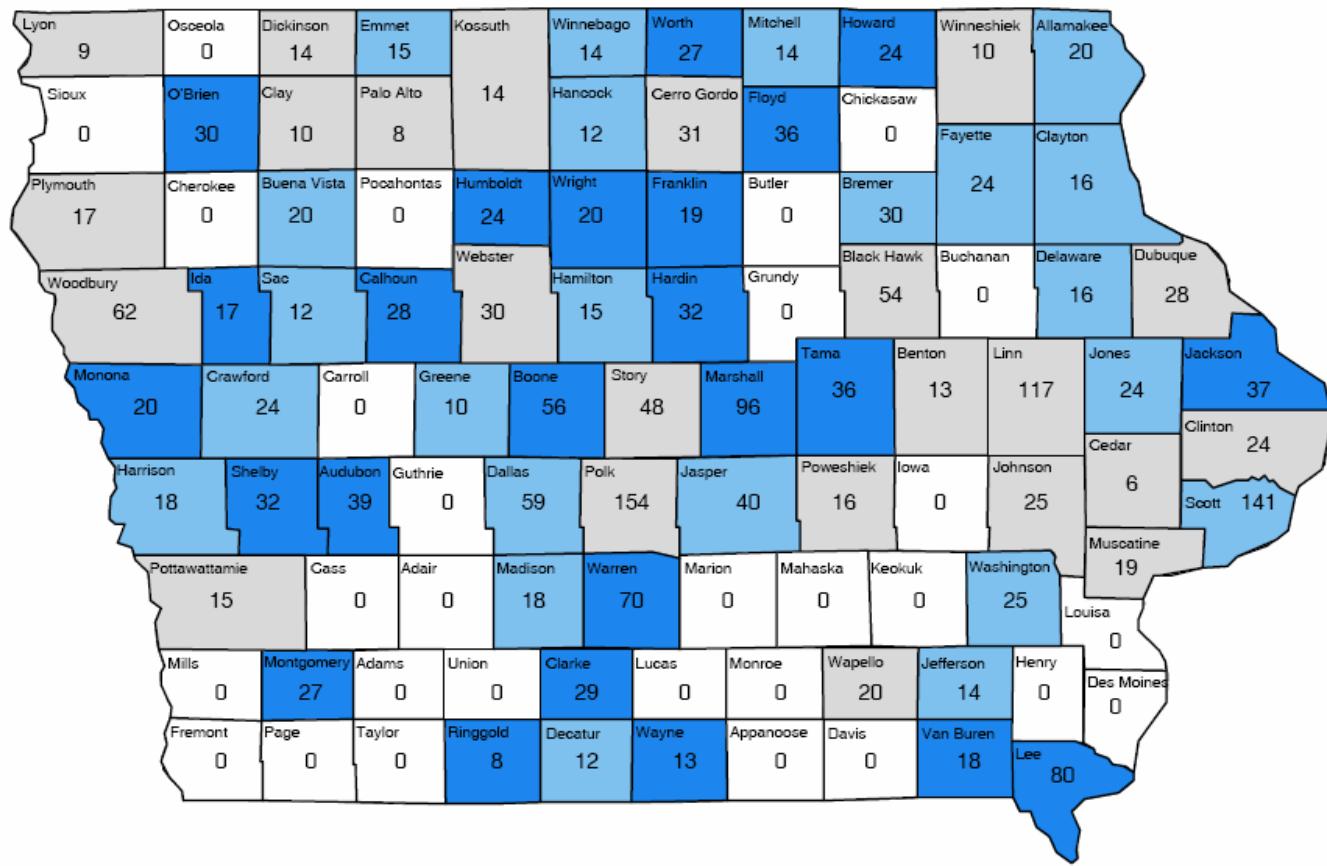
### 2005 Crude Rates by County Group



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

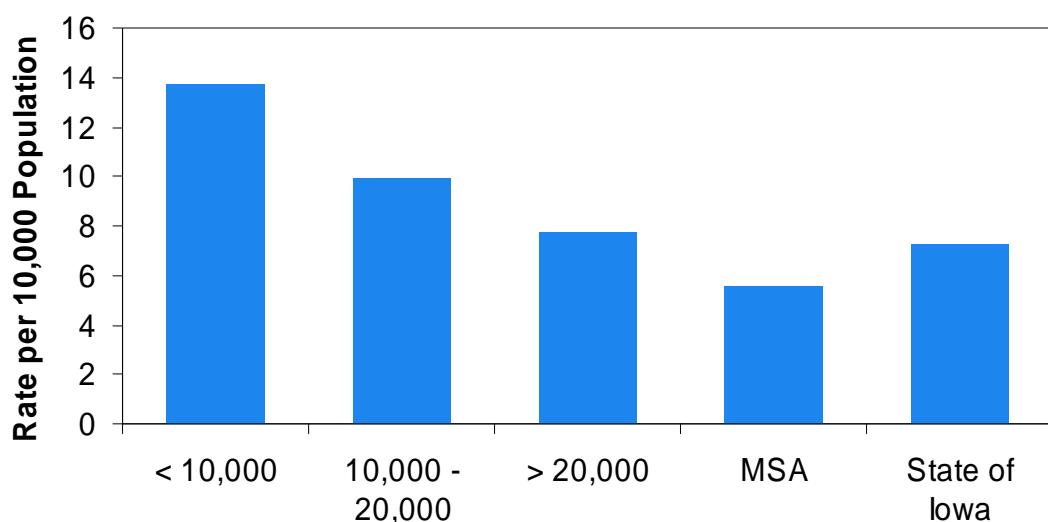
# Beds in Chronic Confusion or Dementing Illness Units

2005 Counts and Crude Rates per 10,000 (shaded)



□ 0 □ 1.6 – 8.7 □ 8.7 – 14.5 □ 14.5 – 60.2

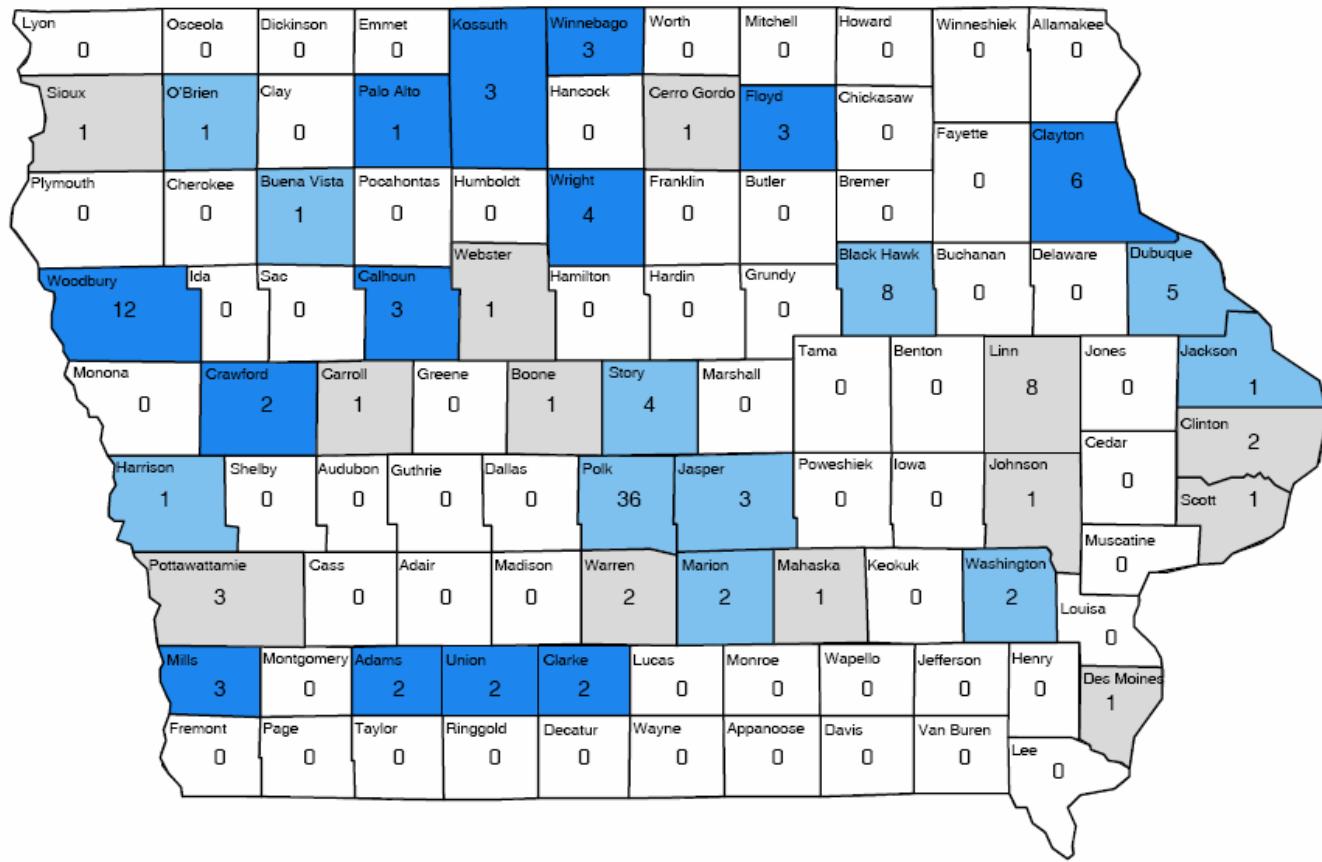
## 2005 Crude Rates by County Group



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

## Intermediate Care Facilities for the Mentally Retarded

2005 Counts and Crude Rates per 100,000 (shaded)



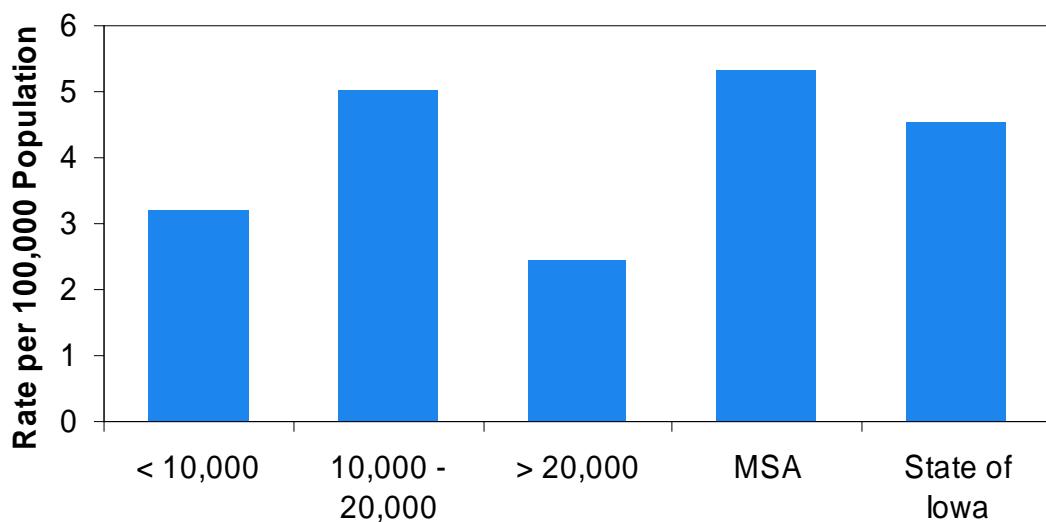
□ 0

□ 0.6 – 4.8

□ 4.8 – 10.1

□ 10.1 – 46.3

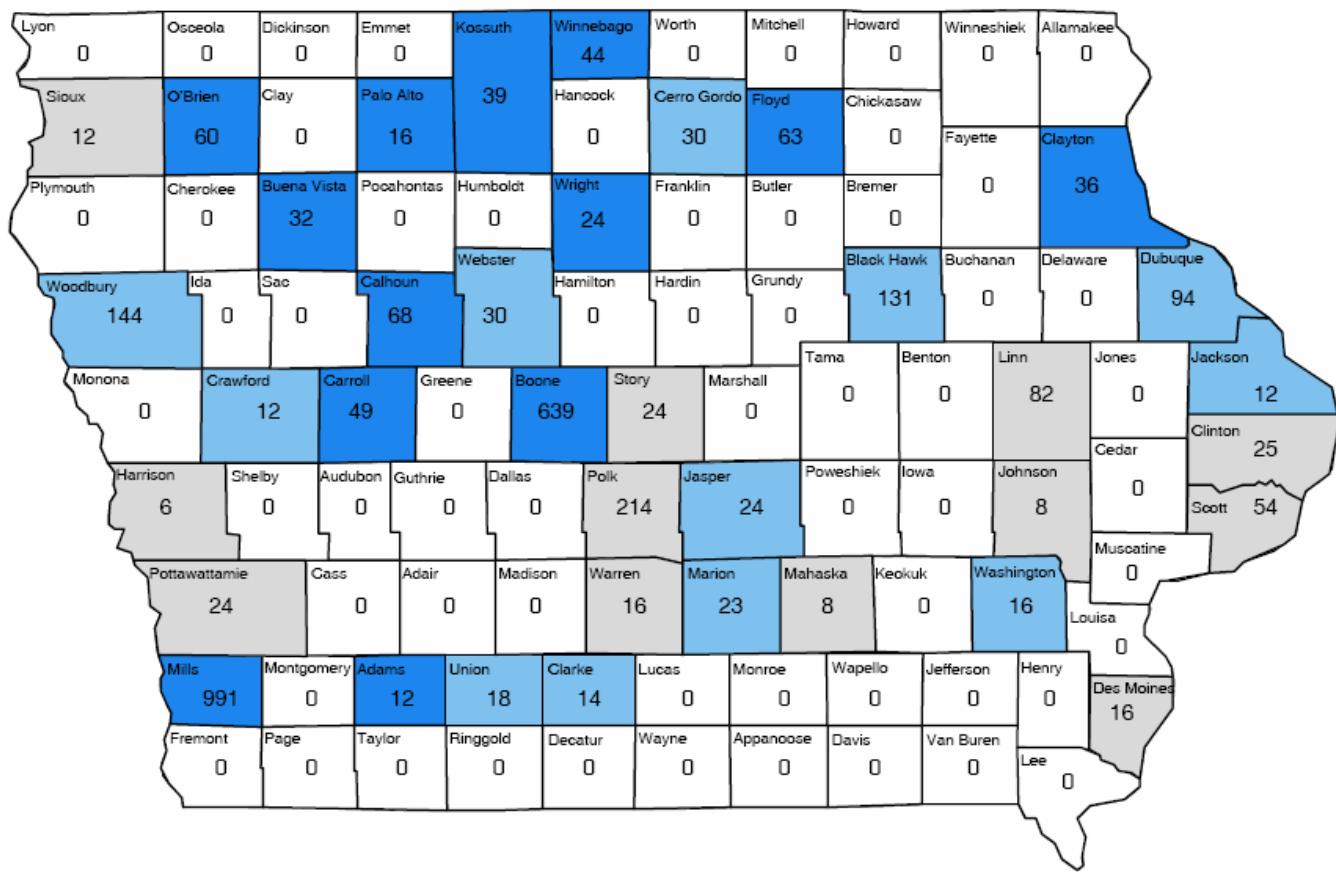
### 2005 Crude Rates by County Group



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

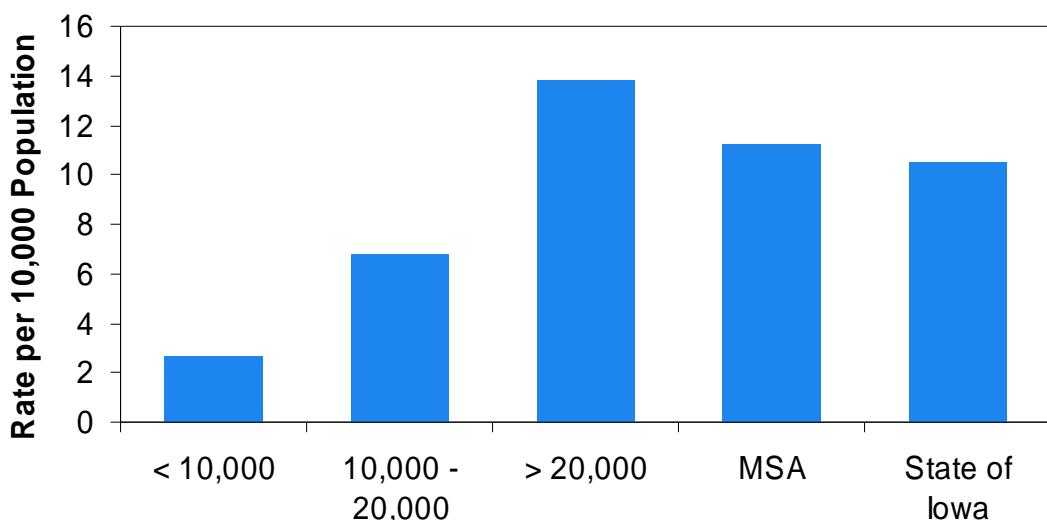
## Intermediate Care Beds for the Mentally Retarded

2005 Counts and Crude Rates per 10,000 (shaded)



0       0.6 – 5.9       5.9 – 15.8       15.8 – 659

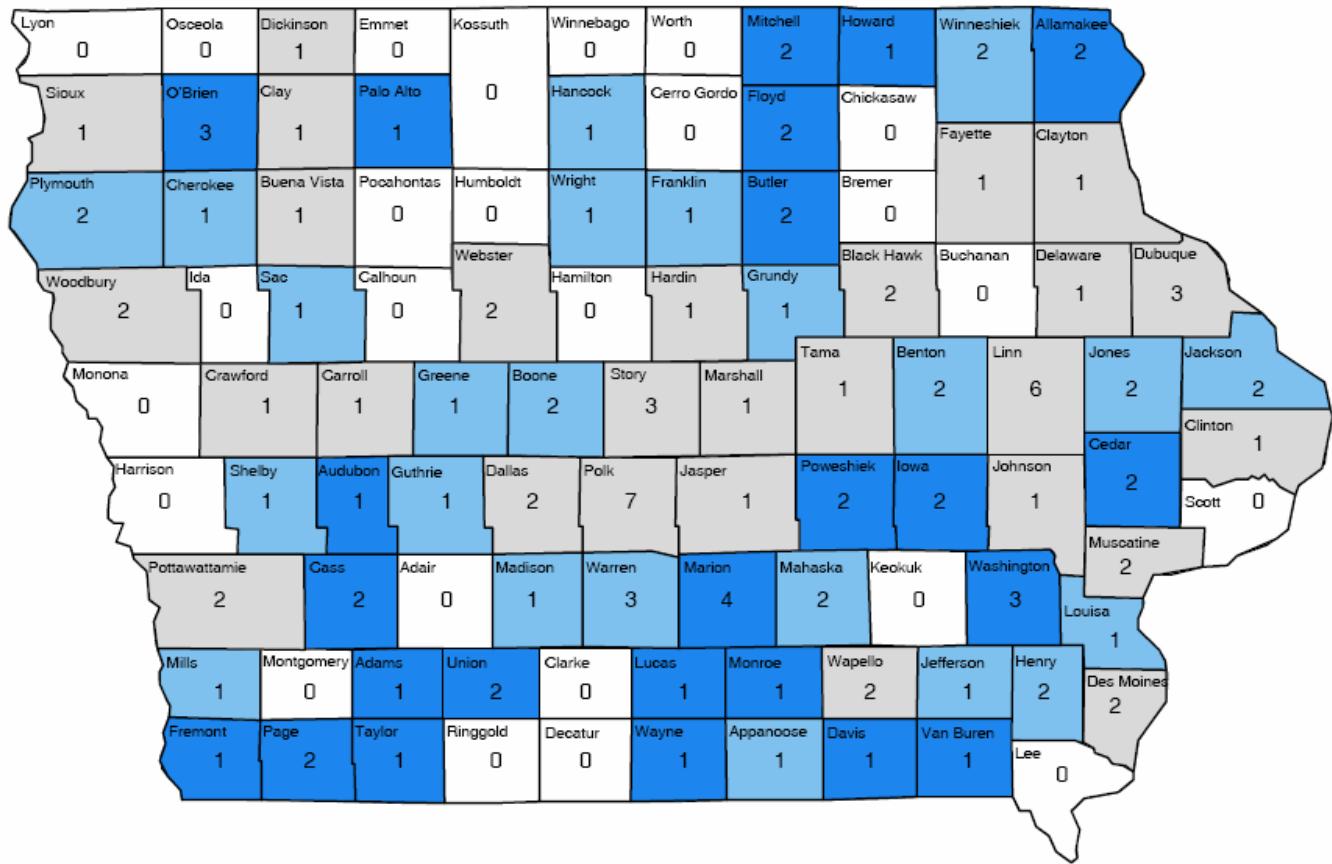
### 2005 Crude Rates by County Group



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

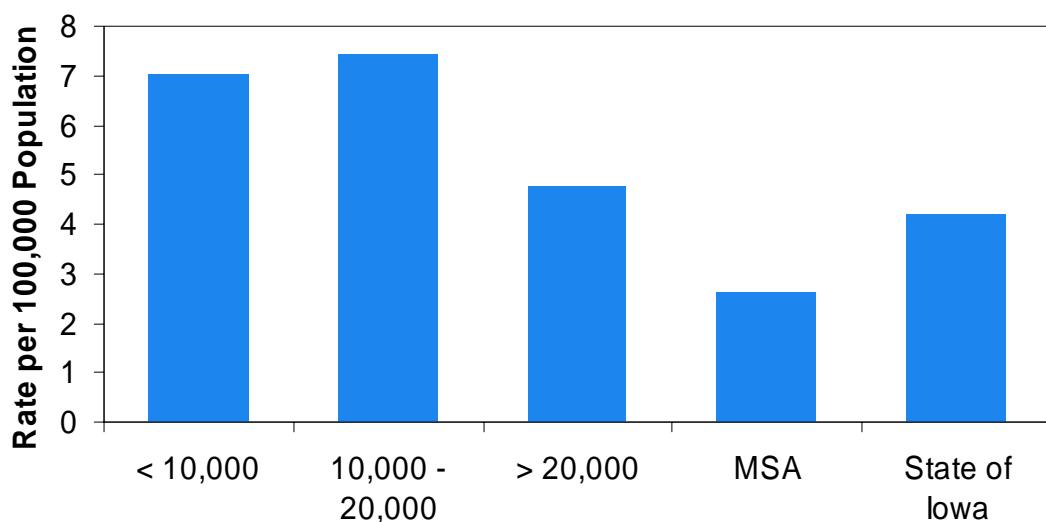
## Residential Care Facilities

2005 Counts and Crude Rates per 100,000 (shaded)



□ 0 – 0.5      □ 0.5 – 6      ■ 6 – 10      ■ 10 – 23.2

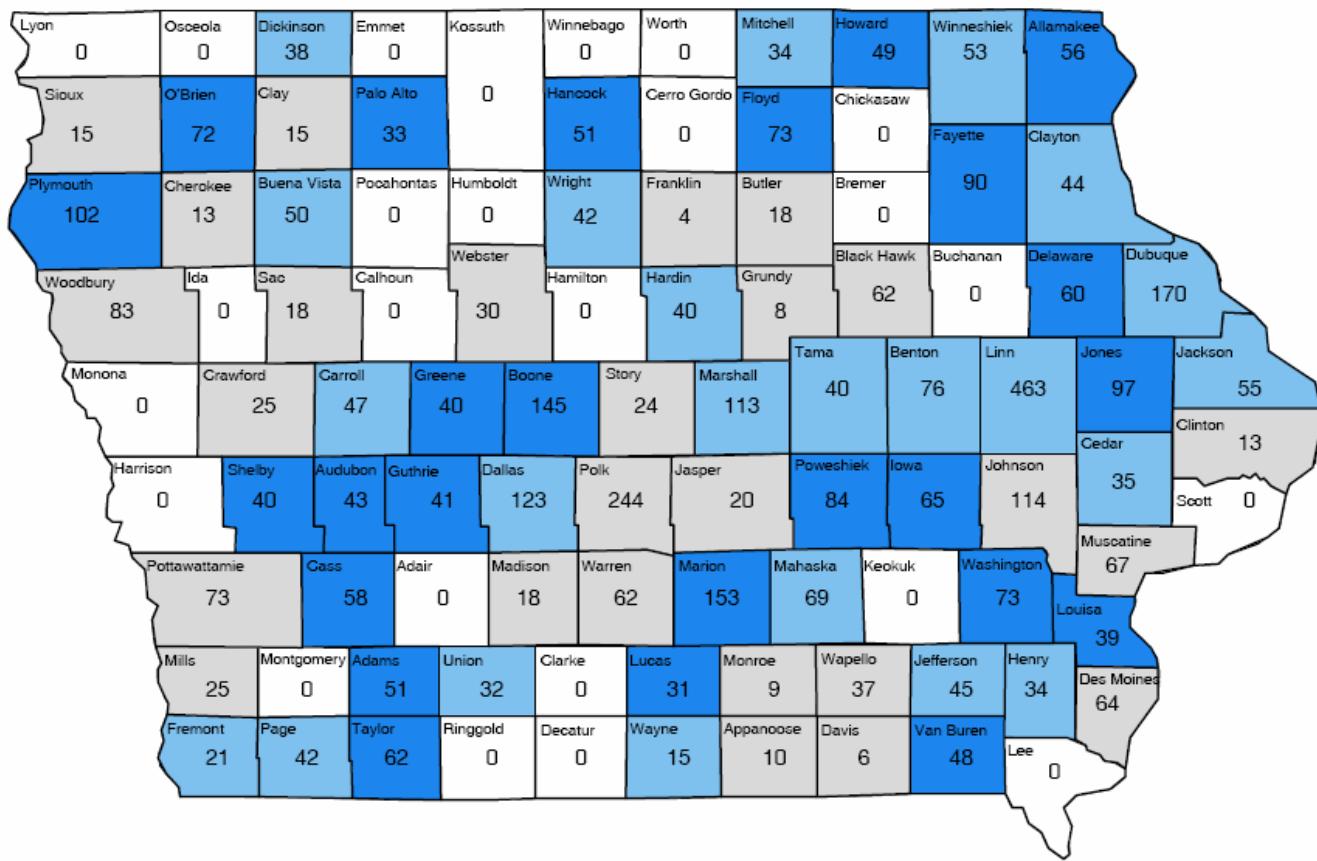
### 2005 Crude Rates by County Group



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

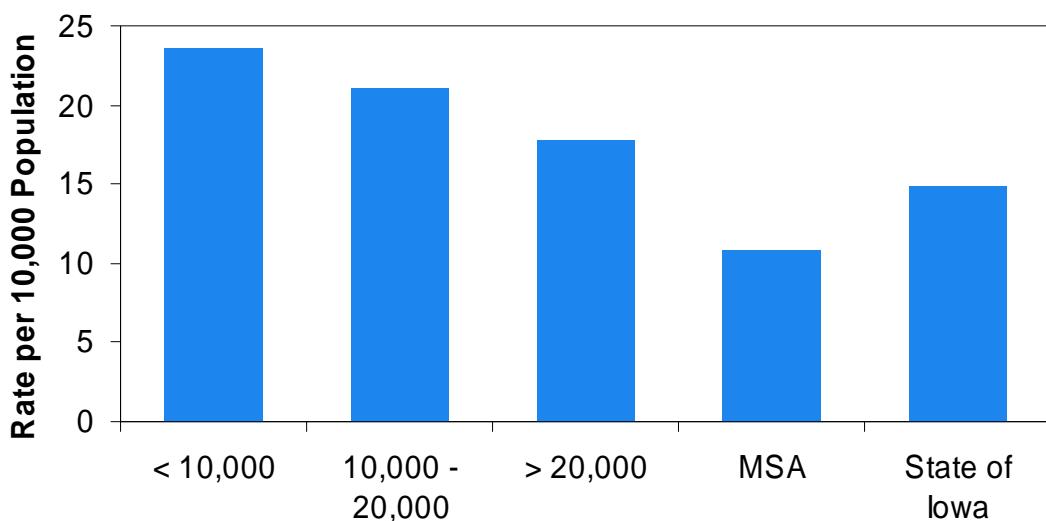
# Beds in Residential Care Facilities

2005 Counts and Crude Rates per 10,000 (shaded)



□ 0 – 1.4      □ 1.4 – 16.7      □ 16.7 – 31.3      ■ 31.3 – 118.1

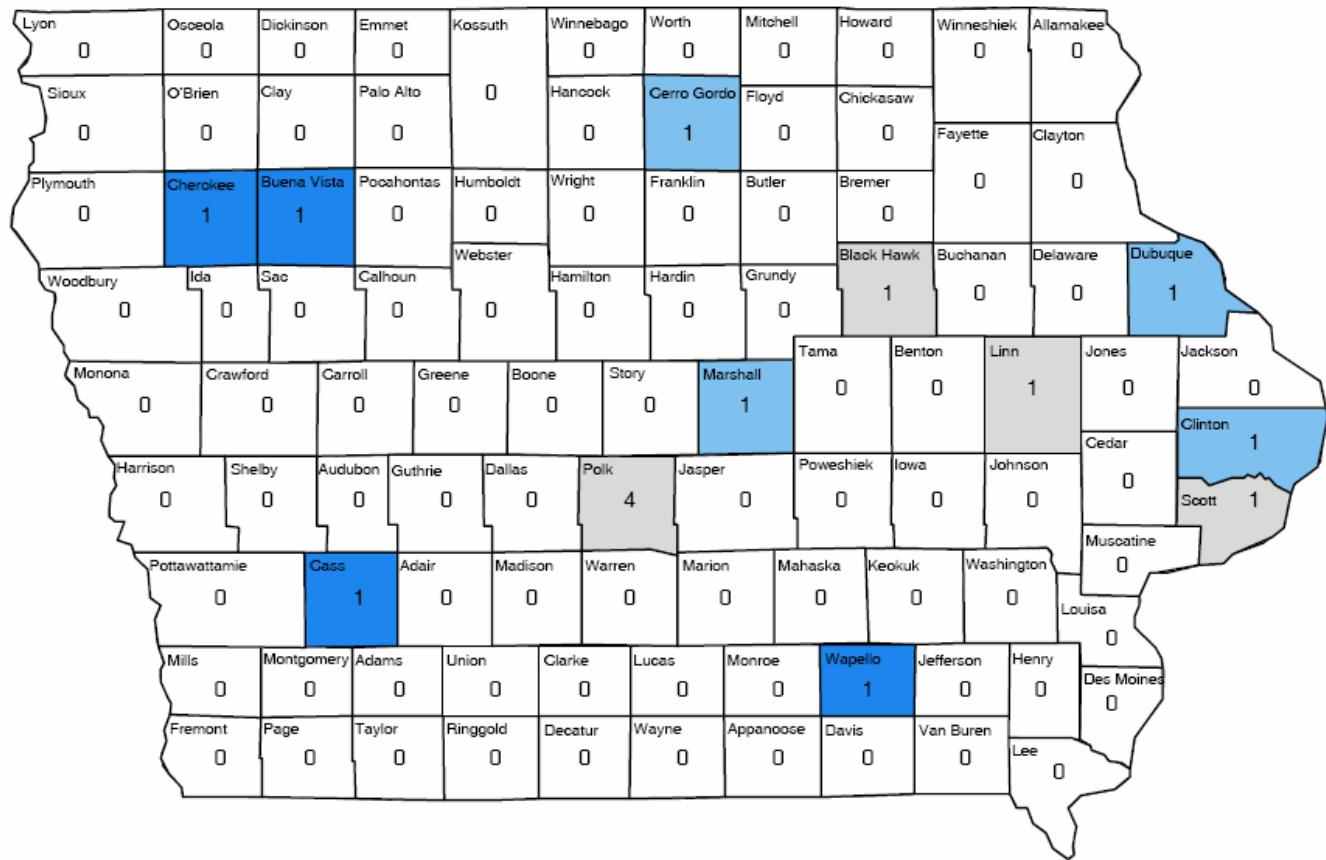
## 2005 Crude Rates by County Group



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

# Residential Care Facilities for Persons with Mental Illness

2005 Counts and Crude Rates per 1,000,000 (shaded)



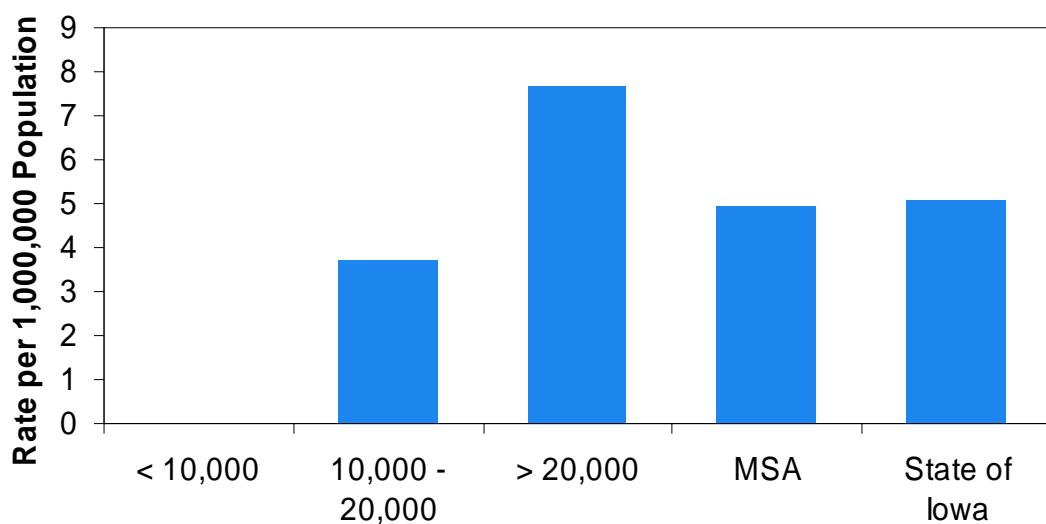
□ 0

□ 5 – 10.7

□ 10.7 – 26

□ 26 – 80.2

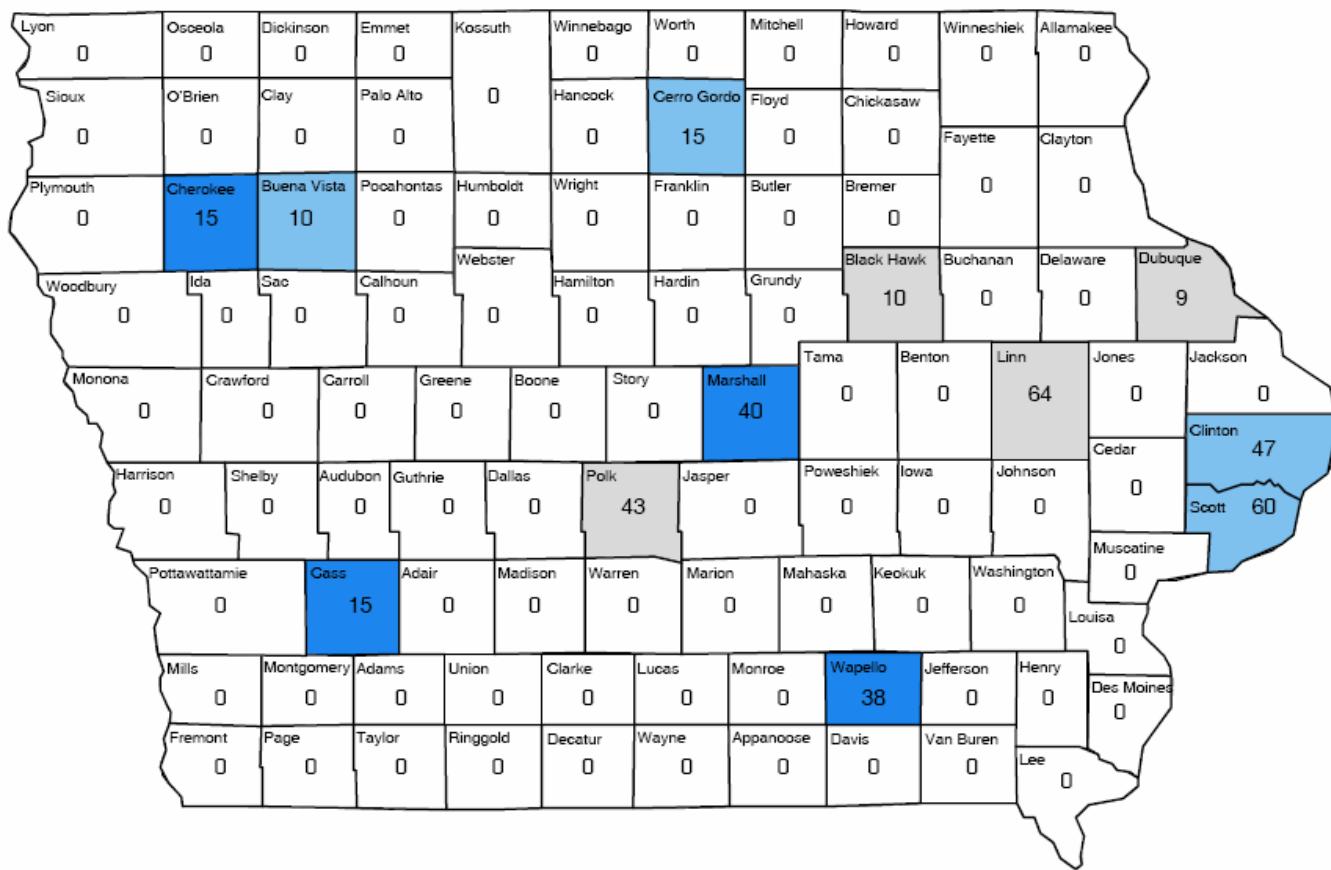
## 2005 Crude Rates by County Group



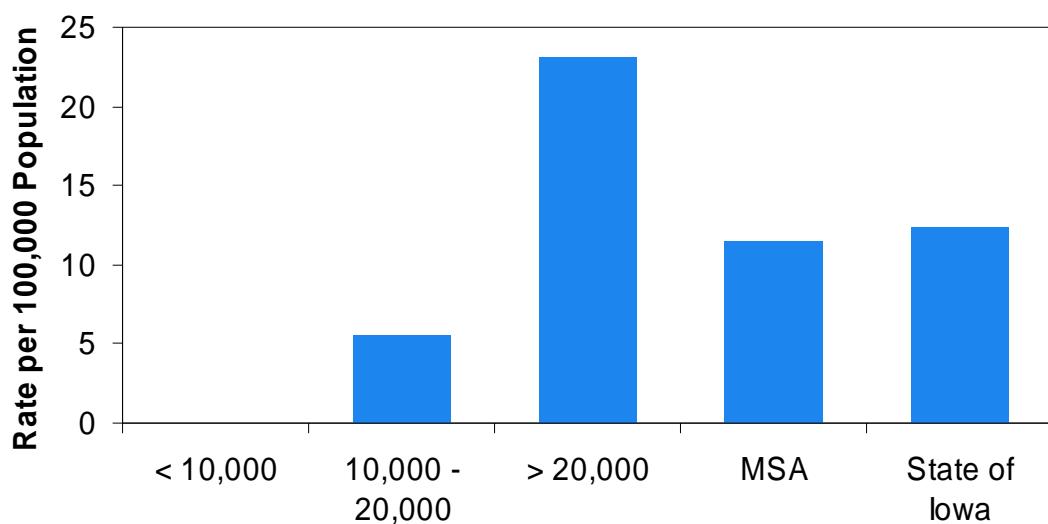
Source: Department of Inspections and Appeals, Iowa Department of Public Health

**Beds in Residential Care Facilities for Persons with Mental Illness**

2005 Counts and Crude Rates per 100,000 (shaded)



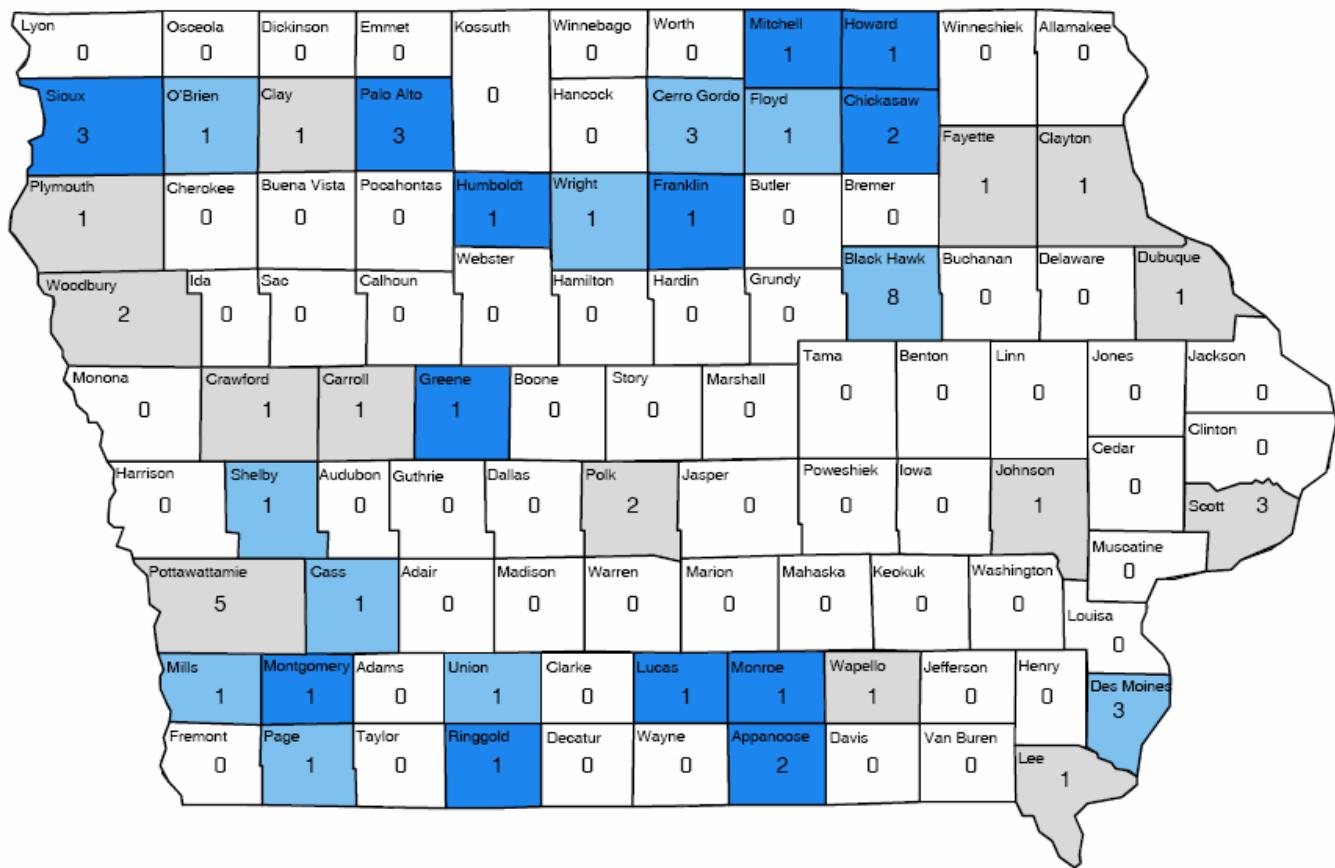
□ 0      □ 7.9 – 33      □ 33 – 96.1      ■ 96.1 – 120.3

**2005 Crude Rates by County Group**

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

## Residential Care Facilities for the Mentally Retarded

2005 Counts and Crude Rates per 100,000 (shaded)



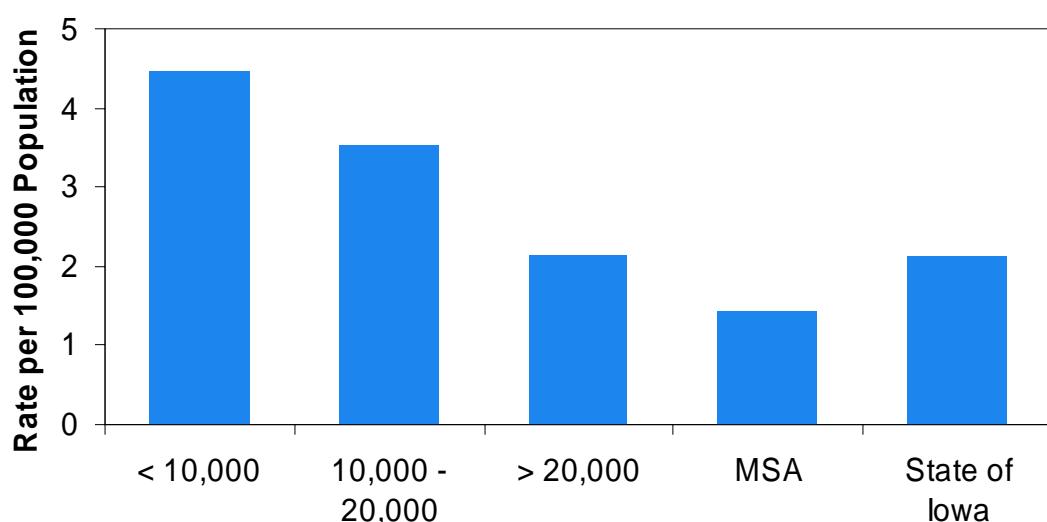
□ 0

□ 0.5 – 6

□ 6 – 8.6

□ 8.6 – 30.7

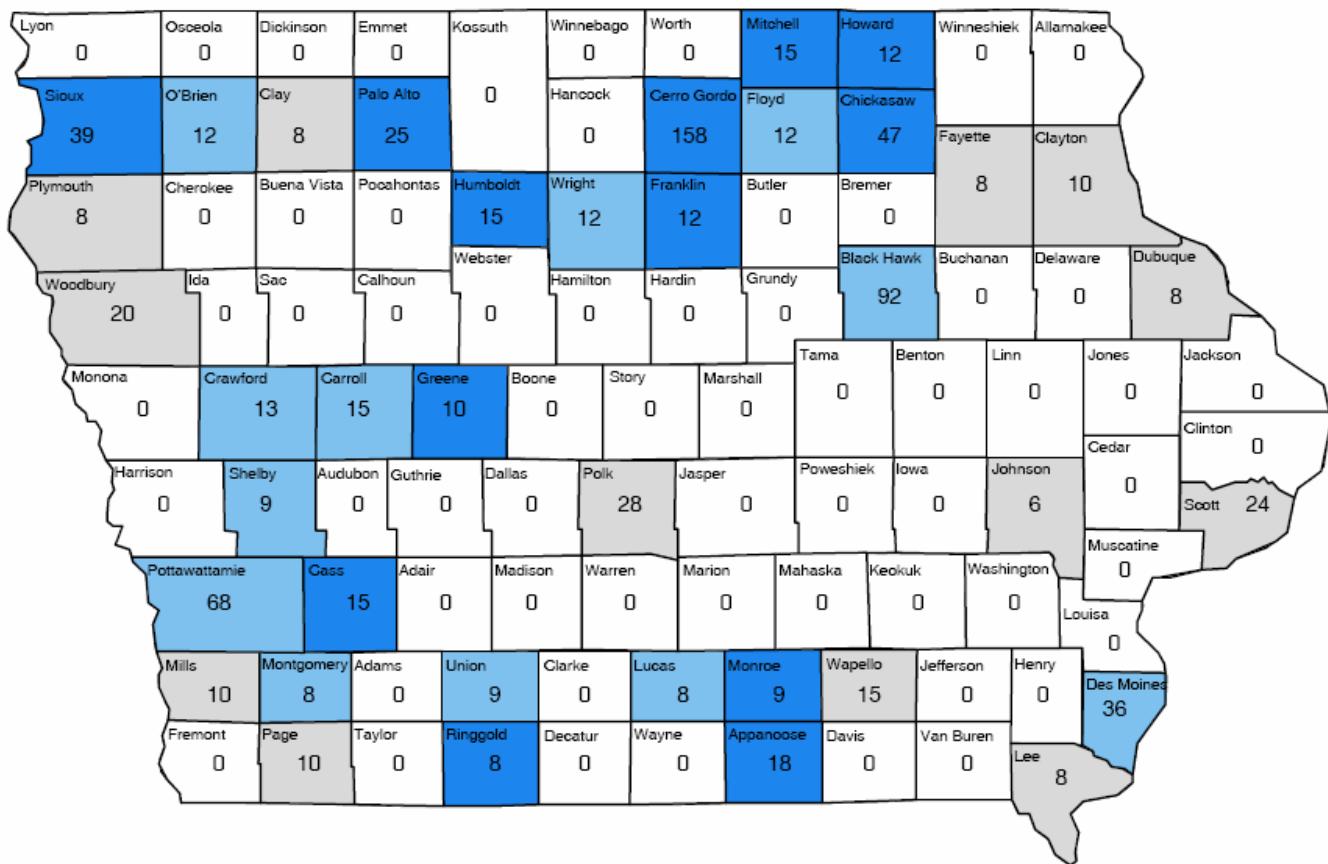
### 2005 Crude Rates by County Group



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

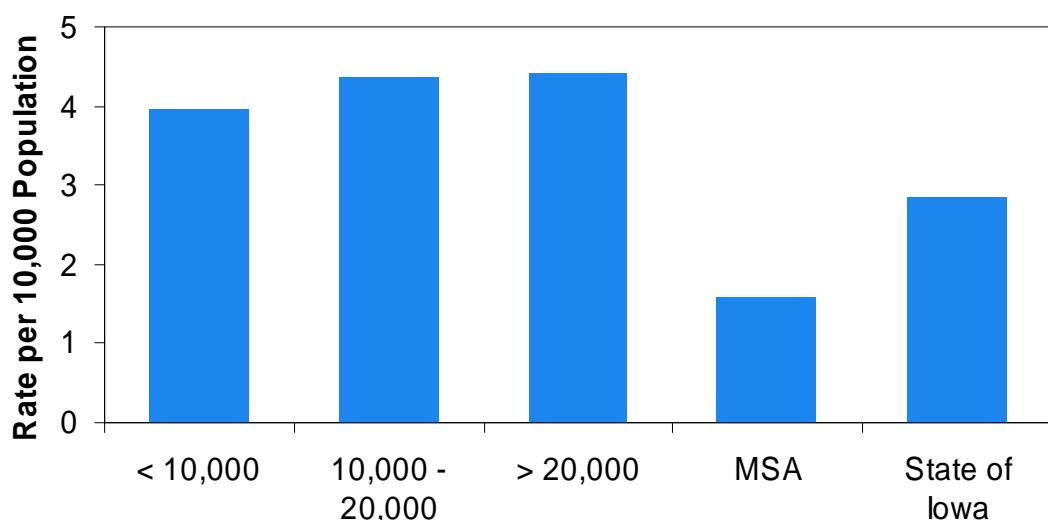
# Beds in Residential Care Facilities for the Mentally Retarded

2005 Counts and Crude Rates per 10,000 (shaded)



□ 0      □ 0.5 – 6.8      □ 6.8 – 9.3      ■ 9.3 – 37.3

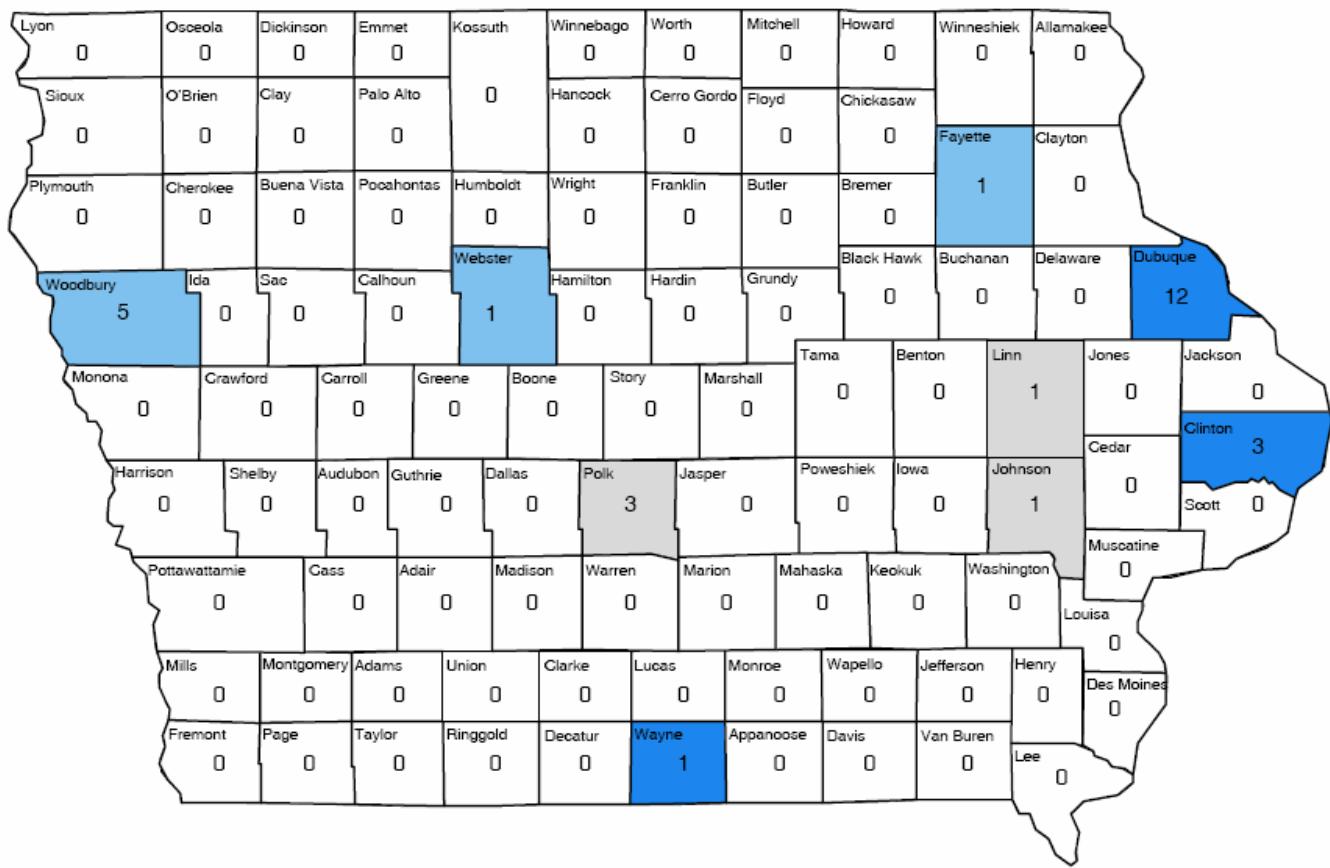
## 2005 Crude Rates by County Group



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

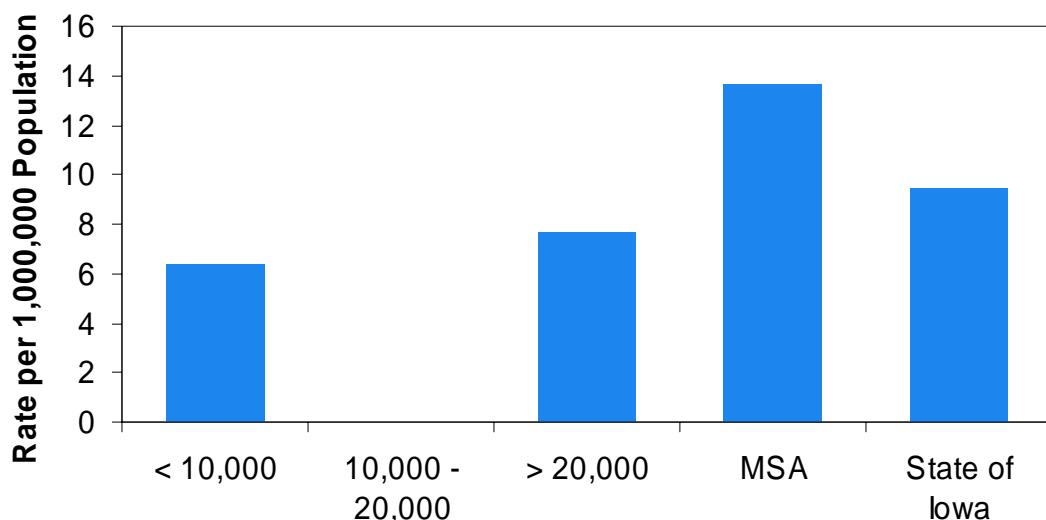
## 3-5 Bed Units for the Mentally Retarded

2005 Counts and Crude Rates per 1,000,000 (shaded)



0       5 – 19.4       19.4 – 51.8       51.8 – 151.7

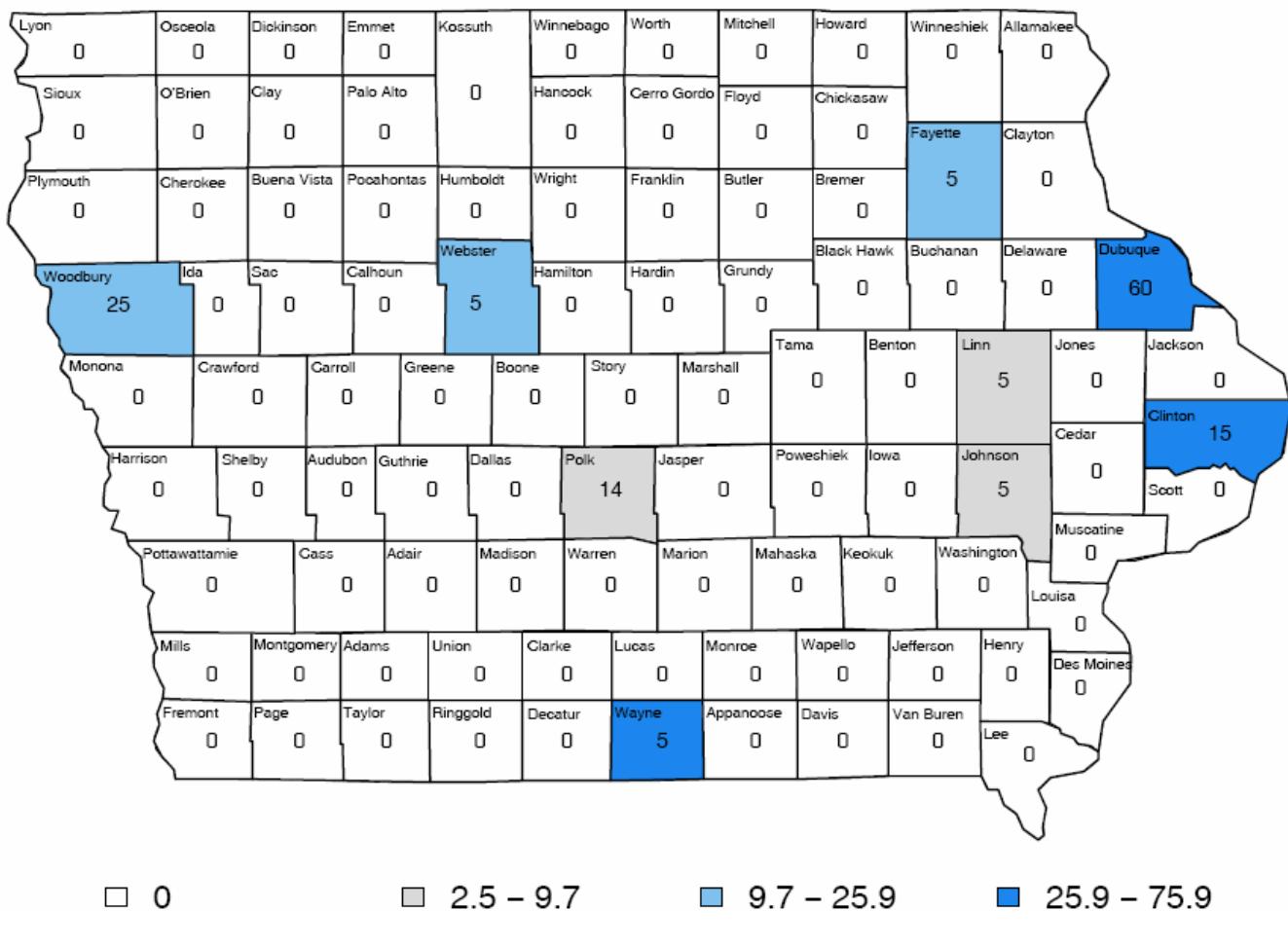
### 2005 Crude Rates by County Group



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

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

2005 Counts and Crude Rates per 100,000 (shaded)

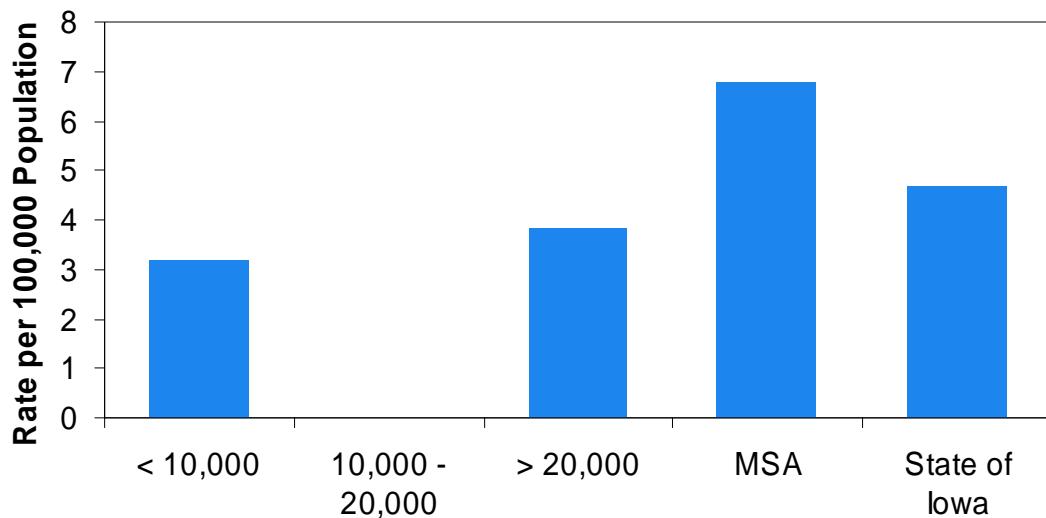


□ 0

□ 2.5 - 9.7

□ 9.7 - 25.9

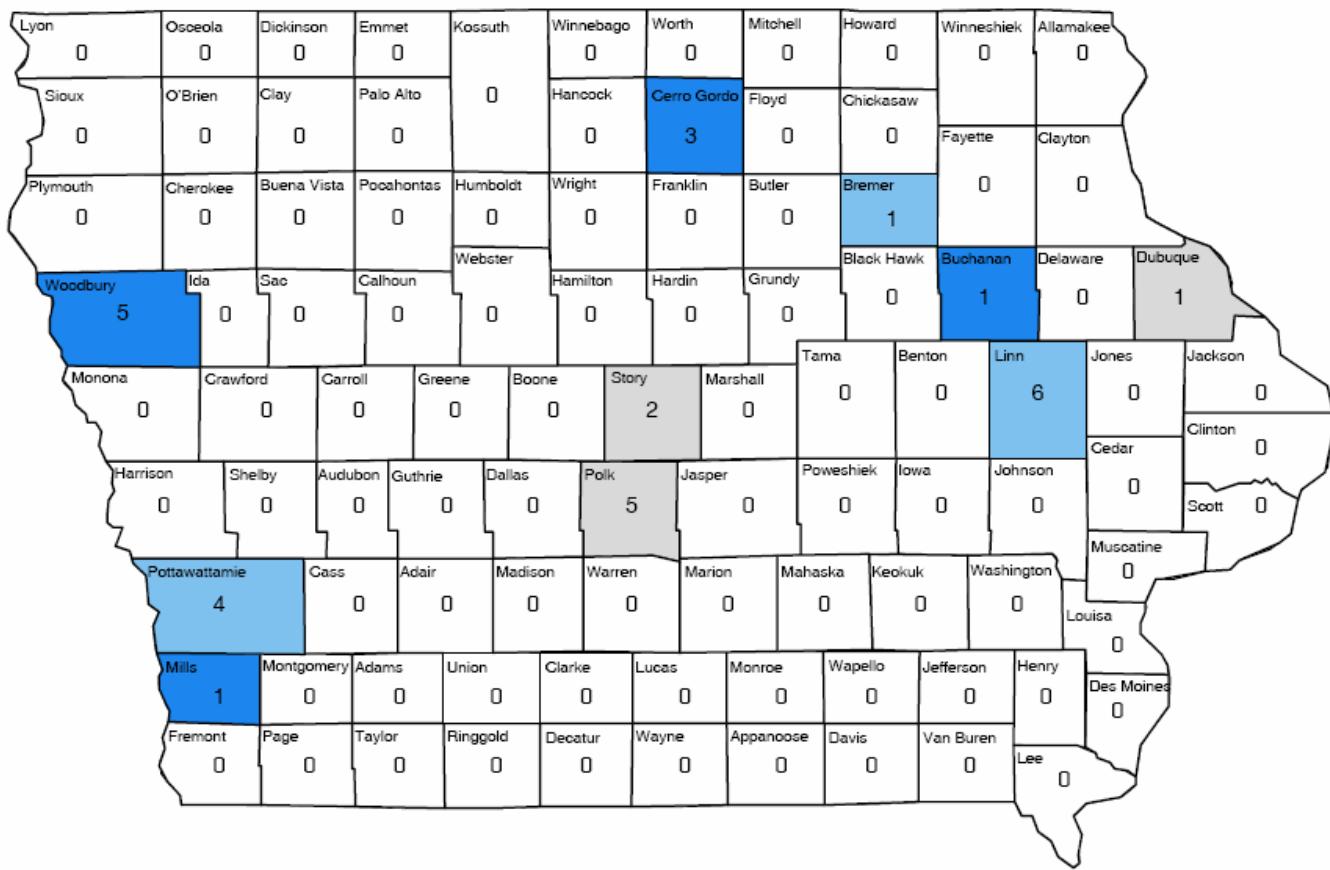
□ 25.9 - 75.9

**2005 Crude Rates by County Group**

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

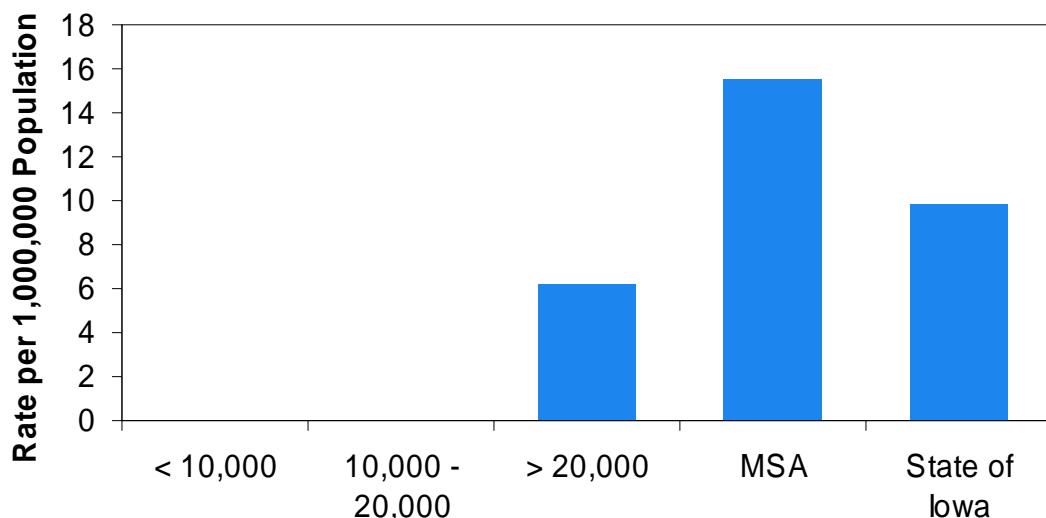
## Psychiatric Medical Institutions for Children

2005 Counts and Crude Rates per 1,000,000 (shaded)



0       10.9 – 30.3       30.3 – 47.4       47.4 – 66.7

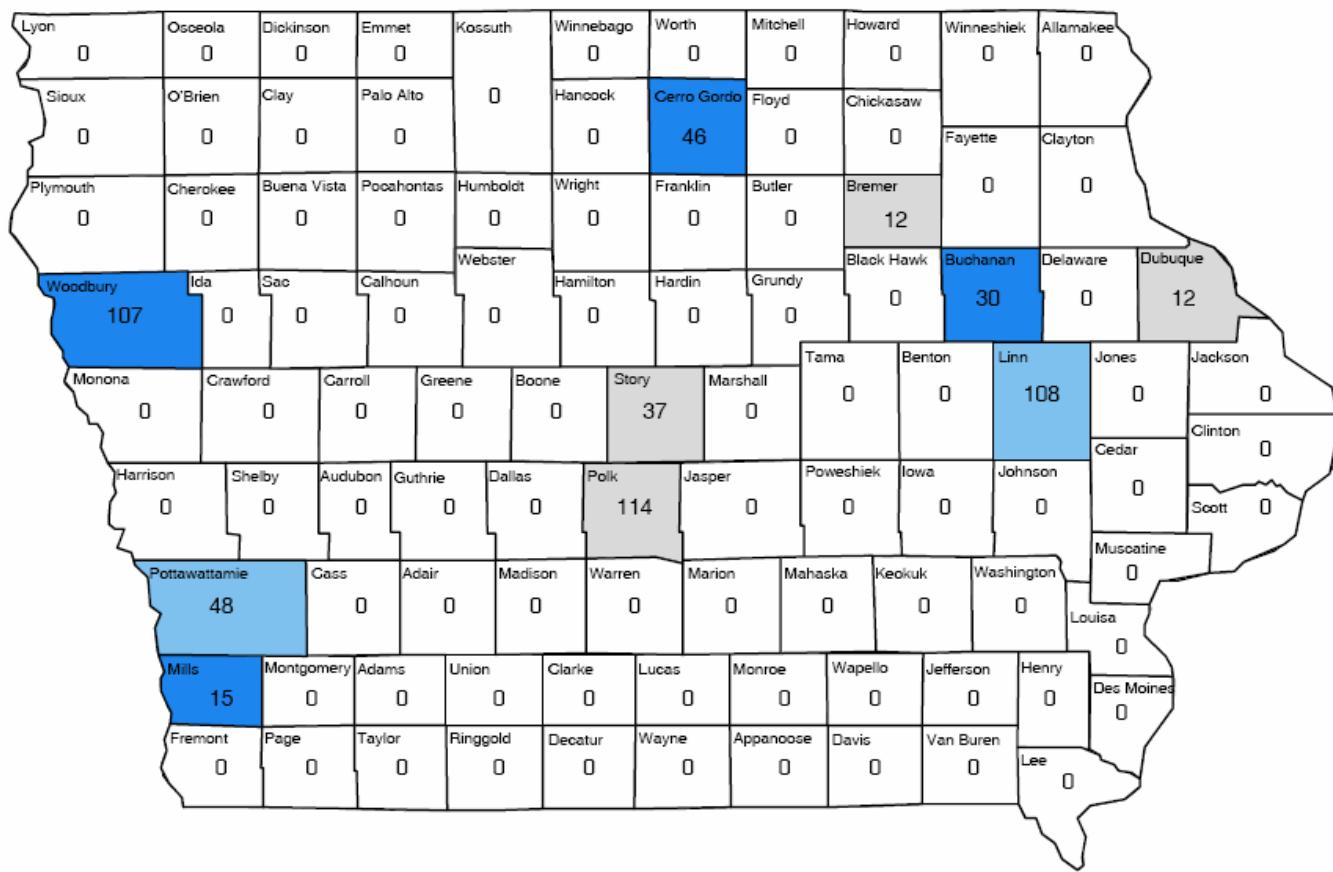
### 2005 Crude Rates by County Group



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

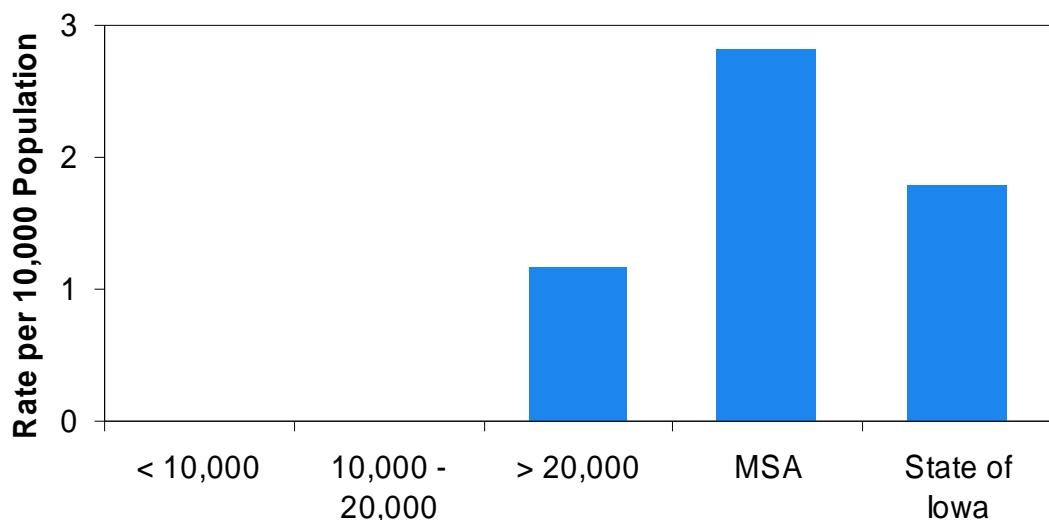
# Beds in Psychiatric Medical Institutions for Children

2005 Counts and Crude Rates per 10,000 (shaded)



□ 0 □ 1.3 - 5.2 □ 5.2 - 9.8 □ 9.8 - 14.3

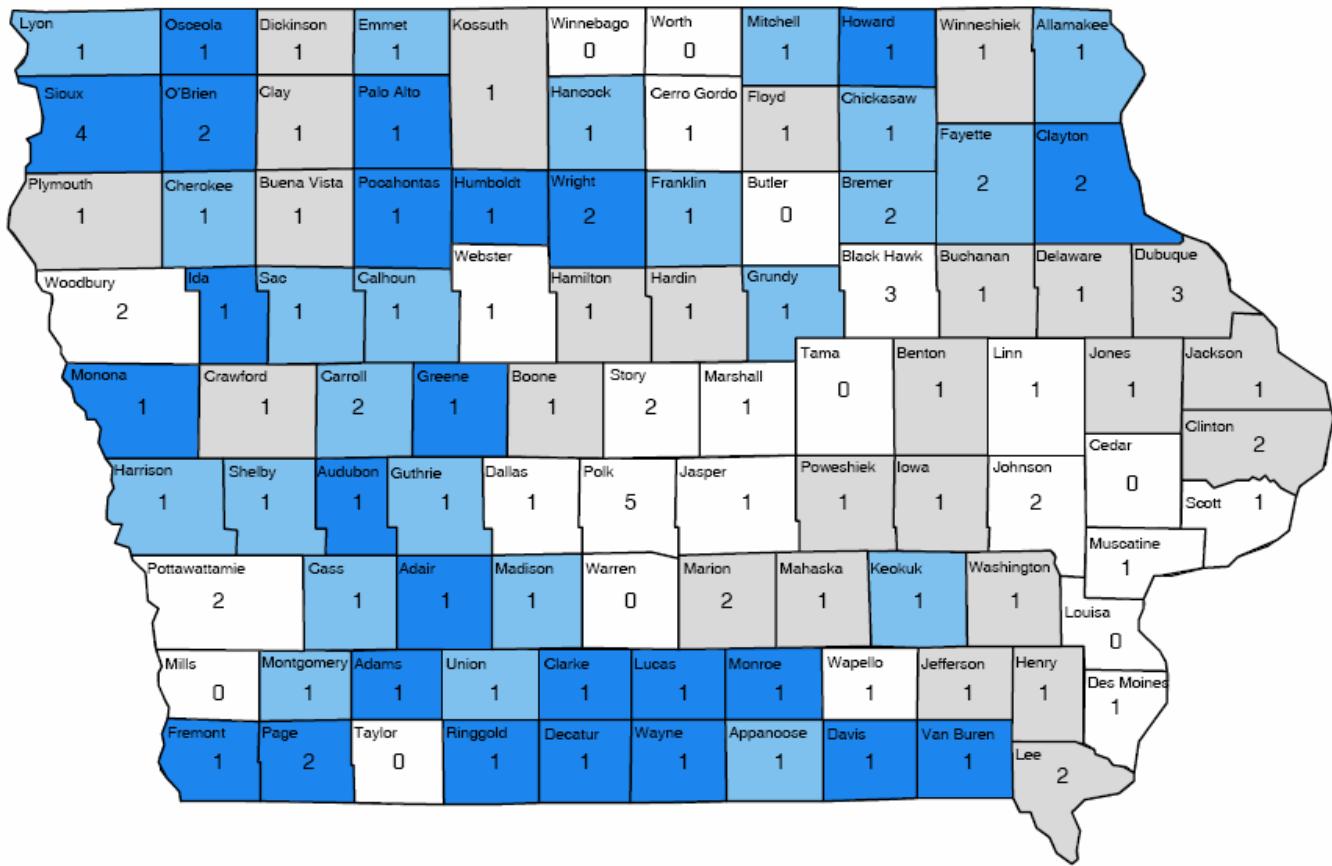
## 2005 Crude Rates by County Group



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

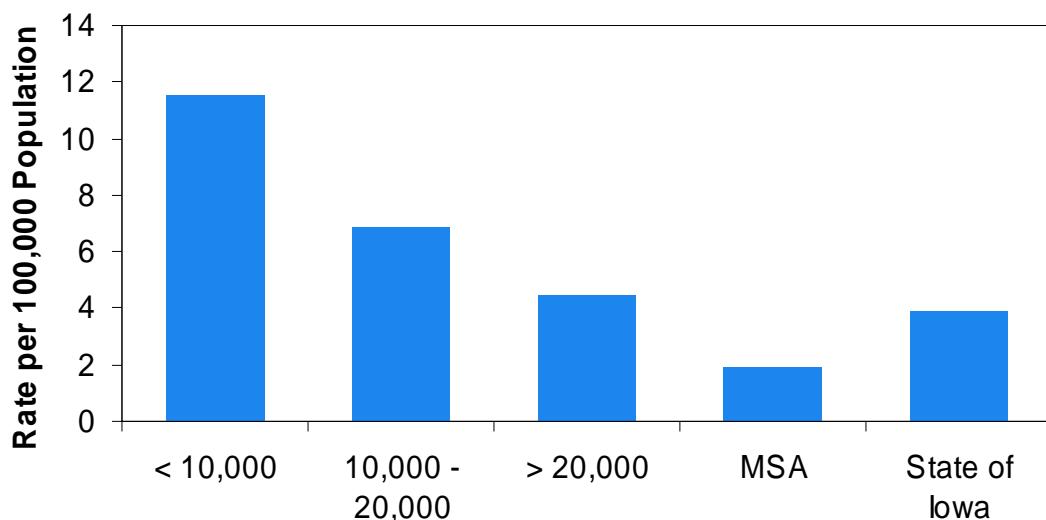
## Total Trauma Care Facilities

2005 Counts and Crude Rates per 100,000 (shaded)



□ 0 – 3.1      □ 3.1 – 6.3      □ 6.3 – 9.8      ■ 9.8 – 23.2

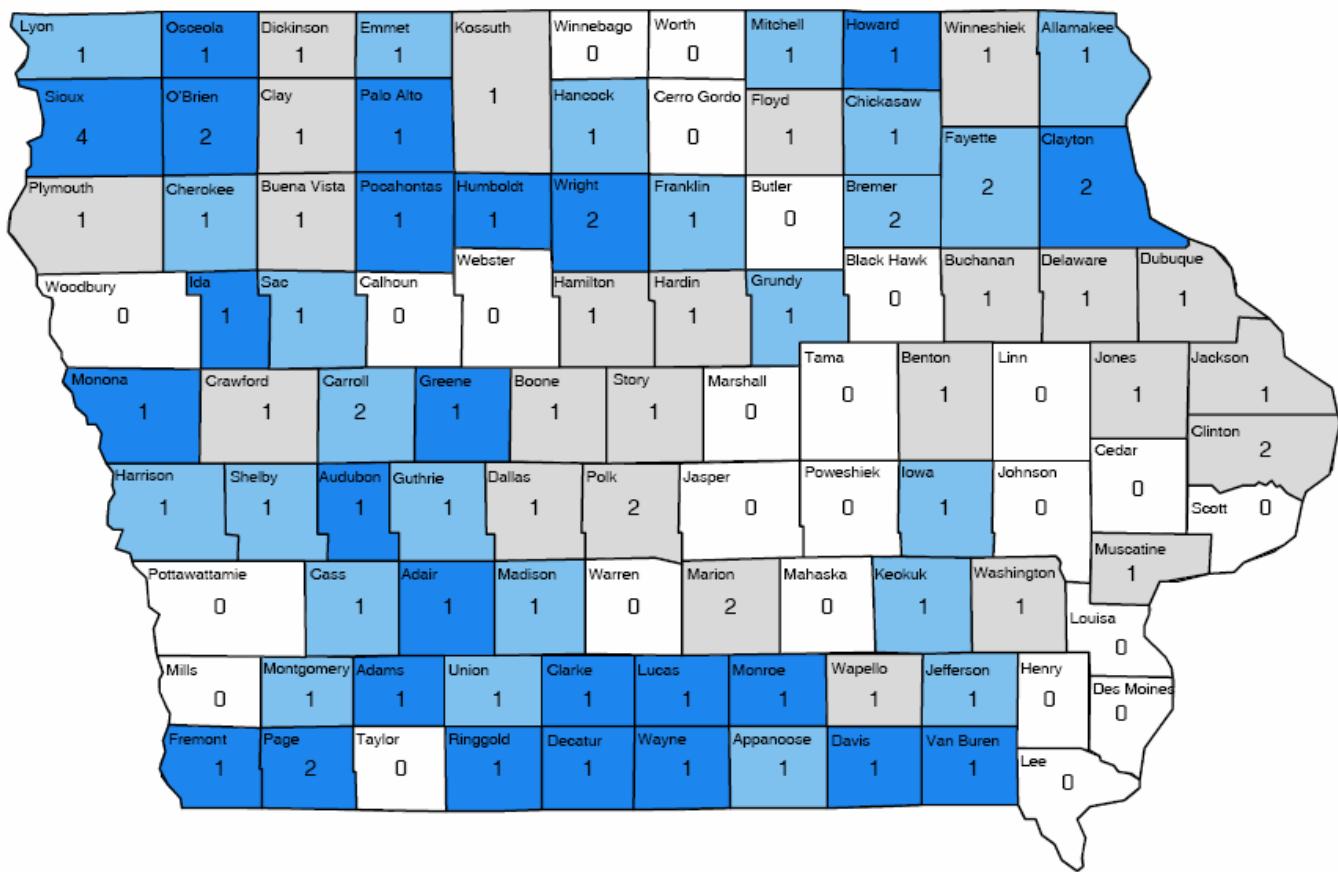
## 2005 Crude Rates by County Group



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

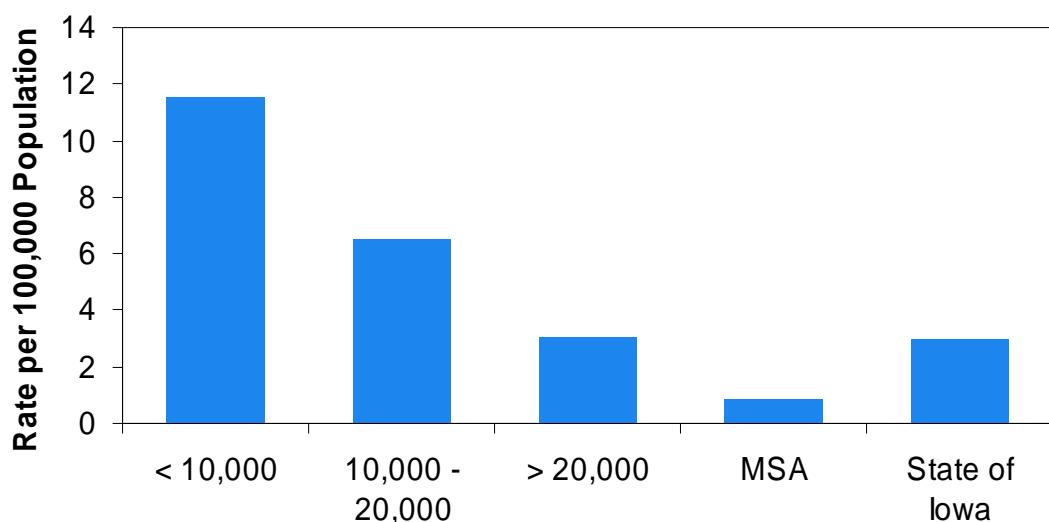
## Community Trauma Care Facilities

2005 Counts and Crude Rates per 100,000 (shaded)



0 - 0.3       0.3 - 6.2       6.2 - 9.8       9.8 - 23.2

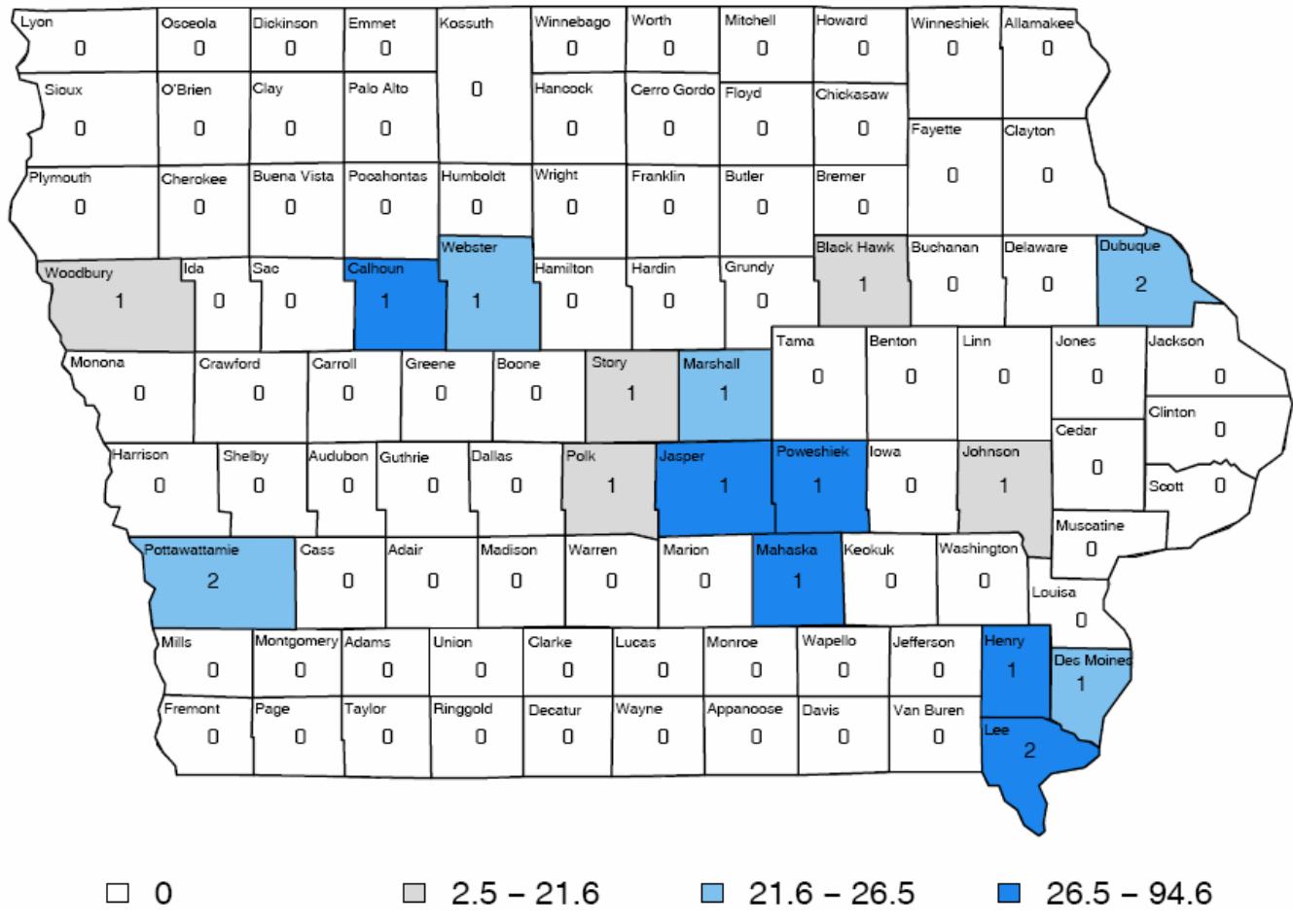
### 2005 Crude Rates by County Group



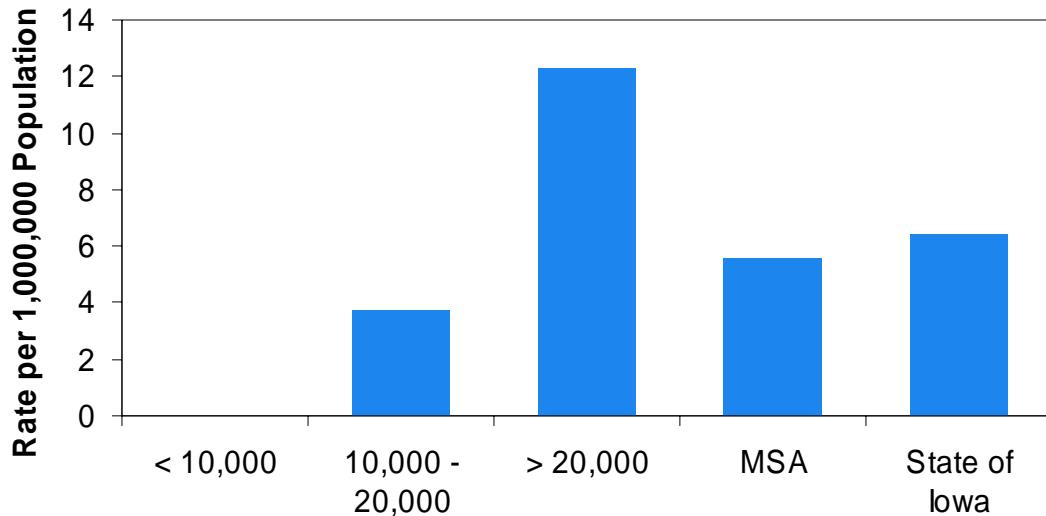
Source: Bureau of Emergency Medical Services, Iowa Department of Public Health

## **Area Trauma Care Facilities**

### 2005 Counts and Crude Rates per 1,000,000 (shaded)



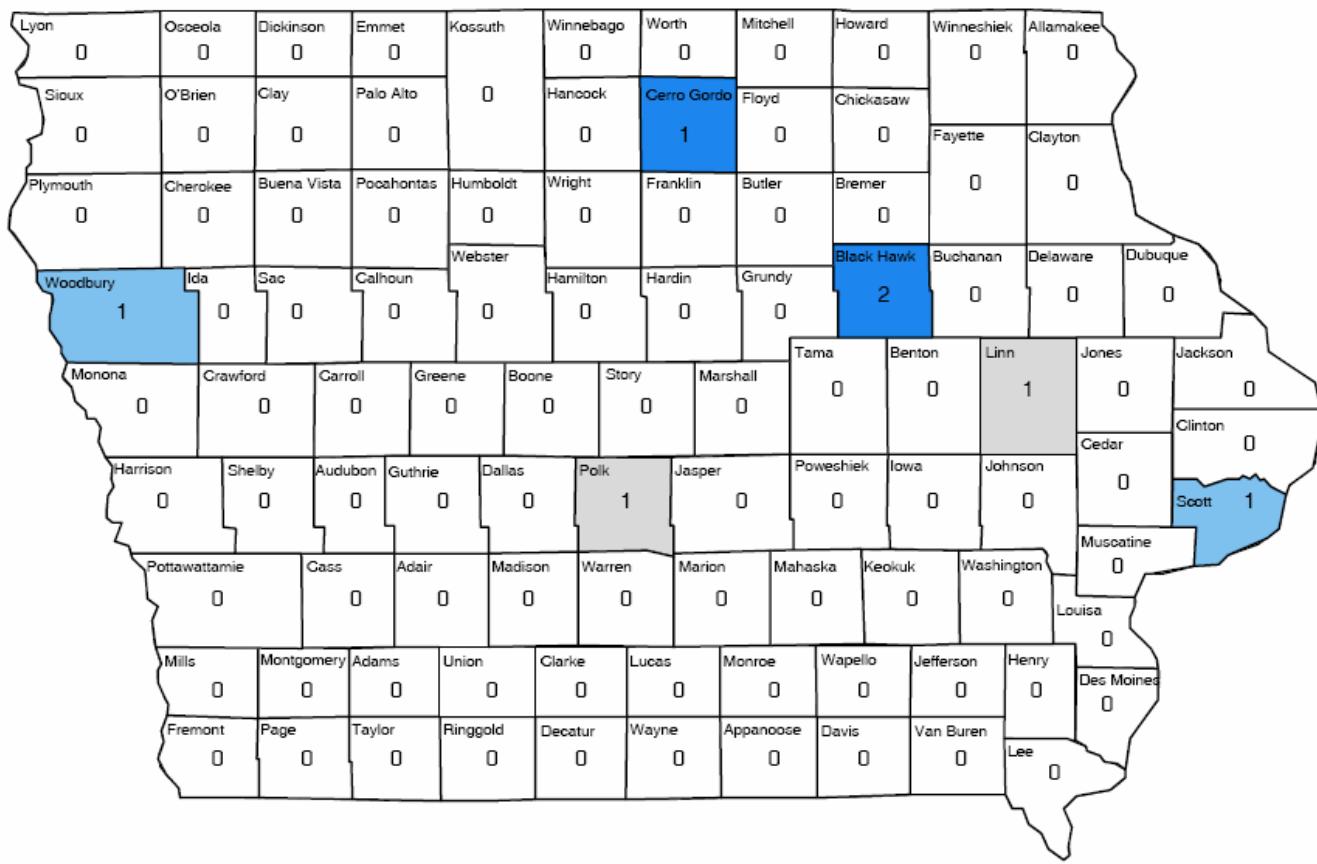
## **2005 Crude Rates by County Group**



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

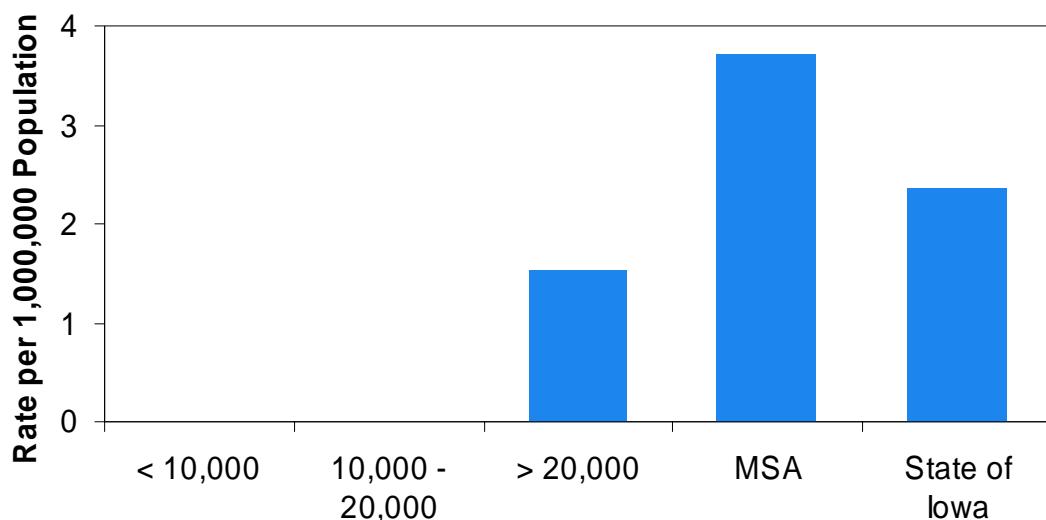
# Regional Trauma Care Facilities

2005 Counts and Crude Rates per 1,000,000 (shaded)



0       2.5 – 5.9       5.9 – 11.6       11.6 – 22.3

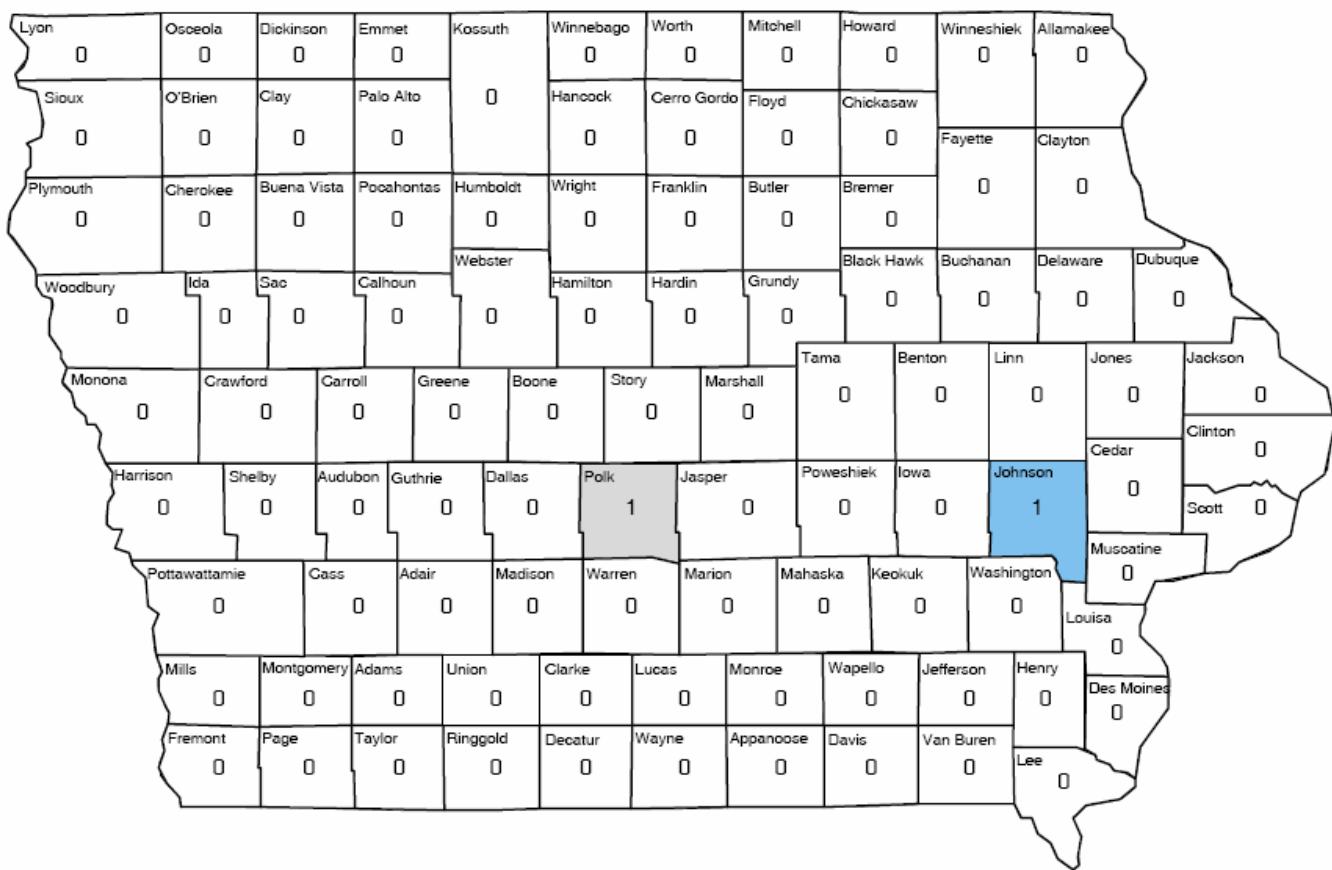
## 2005 Crude Rates by County Group



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

## Resource Trauma Care Facilities

2005 Counts and Crude Rates per 10,000,000 (shaded)

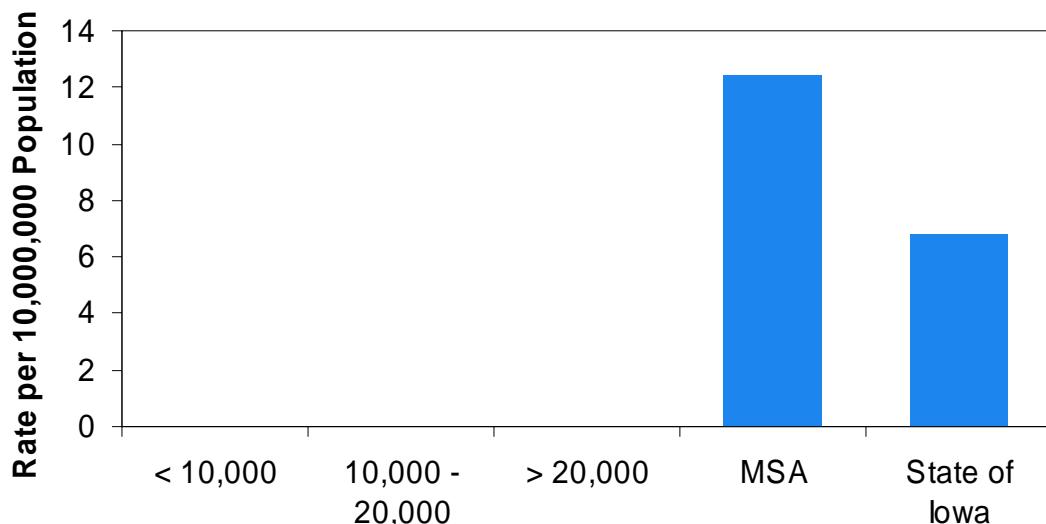


0

25.5

86.2

### 2005 Crude Rates by County Group



Source: Bureau of Emergency Medical Services, 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 June 2005, over 6.4 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 the quality of their drinking water, recreational waters, indoor and outdoor air quality, lead poisoning, safe housing, and hazardous and solid waste.

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.

### ISSUES IN IOWA...

- ✓ Drinking water quality
- ✓ Recreational water quality
- ✓ Indoor and outdoor air quality
- ✓ Lead poisoning
- ✓ Safe housing
- ✓ Hazardous and solid waste

## 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 1997 and 1998 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 greater than or equal to 10 micrograms per deciliter ( $\mu\text{g}/\text{dL}$ ). 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.

*For Iowa children born in 1997-1998, 55.1 percent were tested for lead poisoning, and 8 percent of these children had blood lead levels greater than or equal to 10  $\mu\text{g}/\text{dL}$ .*

Of the children born in Iowa in 1997, 53.1 percent received at least one blood test before their sixth birthday (range by county: 11.9 to 100 percent), and 7.5 percent of these children had blood levels greater than or equal to 10  $\mu\text{g}/\text{dL}$  (range by county: 0 to 22.6 percent). Of the children born in Iowa in 1998, 57.1 percent received at least one blood test before their sixth birthday (range by county: 20.3 to 100 percent), and 7.5 percent of these children had blood levels greater than or equal to 10  $\mu\text{g}/\text{dL}$  (range by county: 2.4 to 20 percent).

## ENVIRONMENTAL HEALTH INDICATORS

**Percent of Children Tested for Blood Lead Poisoning, 1997-1998<sup>1</sup>**

	County	1997	1998	County	1997	1998
Counties with 2004 Population < 10,000	Adair	73.5%	65.8%	Monona	57.8%	49.5%
	Adams	45.5%	64.0%	Monroe	60.0%	68.8%
	Audubon	54.9%	65.3%	Osceola	17.5%	15.8%
	Clarke	50.6%	53.5%	Palo Alto	23.0%	43.9%
	Davis	45.4%	33.3%	Pocahontas	37.7%	31.0%
	Decatur	54.1%	69.6%	Ringgold	72.3%	97.9%
	Fremont	14.9%	33.7%	Taylor	79.7%	87.9%
	Howard	53.2%	52.7%	Van Buren	36.7%	29.9%
	Ida	45.5%	44.4%	Wayne	77.2%	60.7%
	Lucas	96.8%	87.0%	Worth	58.7%	67.8%
				<b>County Grp %</b>	51.6%	54.5%
Counties with 2004 Population 10,000 - 20,000	Allamakee	72.7%	75.0%	Hardin	100.0%	100.0%
	Appanoose	37.6%	41.8%	Humboldt	85.9%	71.0%
	Butler	60.0%	62.3%	Iowa	49.4%	57.5%
	Calhoun	46.4%	56.1%	Jefferson	39.1%	48.8%
	Cass	76.9%	74.3%	Keokuk	53.5%	47.9%
	Cedar	55.1%	58.9%	Kossuth	64.9%	61.3%
	Cherokee	60.6%	61.1%	Louisa	49.5%	52.0%
	Chickasaw	55.4%	65.1%	Lyon	39.4%	37.6%
	Clay	36.5%	44.7%	Mitchell	36.1%	36.6%
	Clayton	56.9%	72.0%	Montgomery	50.0%	51.3%
	Crawford	60.2%	74.6%	O'Brien	31.8%	30.0%
	Delaware	32.7%	38.5%	Page	33.3%	44.2%
	Dickinson	14.2%	20.5%	Poweshiek	44.3%	47.2%
	Emmet	11.9%	21.4%	Sac	27.7%	41.1%
	Floyd	67.9%	61.2%	Shelby	42.1%	53.5%
	Franklin	70.8%	70.5%	Tama	71.0%	78.4%
	Greene	81.8%	85.5%	Union	37.5%	48.1%
	Hamilton	53.8%	61.5%	Winnebago	69.6%	75.6%
	Hancock	55.9%	48.9%	Wright	82.9%	83.2%
				<b>County Grp %</b>	53.4%	57.0%
Counties with 2004 Population > 20,000	Boone	58.1%	54.2%	Lee	50.2%	51.7%
	Buchanan	45.8%	56.0%	Mahaska	59.7%	54.0%
	Buena Vista	18.5%	20.3%	Marion	51.7%	69.2%
	Carroll	42.9%	52.4%	Marshall	100.0%	100.0%
	Cerro Gordo	66.5%	65.5%	Muscatine	58.9%	58.0%
	Clinton	85.1%	85.4%	Plymouth	36.0%	44.1%
	Des Moines	84.2%	87.0%	Sioux	39.7%	38.3%
	Fayette	44.6%	54.9%	Wapello	93.0%	97.2%
	Henry	61.4%	68.0%	Webster	66.7%	74.1%
	Jackson	76.9%	78.8%	Winneshiek	69.0%	77.9%
	Jasper	33.5%	34.3%	<b>County Grp %</b>	62.0%	65.4%
MSA Counties	Benton	39.5%	51.1%	Linn	58.0%	64.9%
	Black Hawk	68.1%	73.0%	Madison	38.5%	45.7%
	Bremer	58.9%	72.4%	Mills	34.0%	51.0%
	Dallas	48.3%	46.1%	Polk	46.5%	50.3%
	Dubuque	69.6%	68.8%	Pottawattamie	20.9%	30.0%
	Grundy	60.9%	68.4%	Scott	75.4%	76.4%
	Guthrie	44.9%	50.8%	Story	50.9%	53.0%
	Harrison	24.6%	33.1%	Warren	32.4%	38.5%
	Johnson	29.6%	36.9%	Washington	40.6%	49.6%
	Jones	48.8%	64.5%	Woodbury	31.3%	30.9%
				<b>County Grp %</b>	49.7%	54.3%
	<b>State %</b>	53.1%	57.1%			

<sup>1</sup>Children born in years 1997, 1998

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

## ENVIRONMENTAL HEALTH INDICATORS

**Elevated Levels of Blood Lead: Children Born in 1997<sup>1</sup>**

County	# Born	# Tested	≥ 10 µg/dL	Total % High	County	# Born	# Tested	≥ 10 µg/dL	Total % High	
Counties with 2004 Population < 10,000	Adair	68	50	4	8.0%	Monona	109	63	10	15.9%
	Adams	33	15	0	0.0%	Monroe	95	57	5	8.8%
	Audubon	82	45	3	6.7%	Osceola	80	14	1	7.1%
	Clarke	83	42	5	11.9%	Palo Alto	122	28	1	3.6%
	Davis	119	54	9	16.7%	Pocahontas	77	29	1	3.4%
	Decatur	98	53	12	22.6%	Ringgold	65	47	9	19.1%
	Fremont	94	14	4	28.6%	Taylor	79	63	10	15.9%
	Howard	124	66	5	7.6%	Van Buren	79	29	3	10.3%
	Ida	99	45	5	11.1%	Wayne	57	44	5	11.4%
	Lucas	95	92	15	16.3%	Worth	75	44	2	4.5%
<b>Total</b>					<b>Total</b>	1,733	894	109	12.2%	
Counties with 2004 Population 10,000 – 20,000	Allamakee	165	120	9	7.5%	Hardin	189	189	30	15.9%
	Appanoose	141	53	4	7.5%	Humboldt	128	110	8	7.3%
	Butler	160	96	9	9.4%	Iowa	156	77	5	6.5%
	Calhoun	97	45	5	11.1%	Jefferson	161	63	2	3.2%
	Cass	160	123	17	13.8%	Keokuk	127	68	14	20.6%
	Cedar	198	109	11	10.1%	Kossuth	174	113	5	4.4%
	Cherokee	142	86	13	15.1%	Louisa	190	94	8	8.5%
	Chickasaw	157	87	4	4.6%	Lyon	137	54	2	3.7%
	Clay	197	72	5	6.9%	Mitchell	133	48	7	14.6%
	Clayton	195	111	14	12.6%	Montgomery	112	56	7	12.5%
	Crawford	211	127	16	12.6%	O'Brien	192	61	9	14.8%
	Delaware	208	68	9	13.2%	Page	171	57	8	14.0%
	Dickinson	169	24	2	8.3%	Poweshiek	192	85	9	10.6%
	Emmet	118	14	0	0.0%	Sac	130	36	8	22.2%
	Floyd	209	142	10	7.0%	Shelby	140	59	2	3.4%
	Franklin	130	92	13	14.1%	Tama	248	176	29	16.5%
	Greene	110	90	5	5.6%	Union	136	51	2	3.9%
	Hamilton	210	113	12	10.6%	Winnebago	135	94	2	2.1%
	Hancock	127	71	2	2.8%	Wright	152	126	16	12.7%
<b>Total</b>					<b>Total</b>	6,107	3,260	333	10.2%	
Counties with 2004 Population > 20,000	Boone	289	168	16	9.5%	Lee	446	224	23	10.3%
	Buchanan	284	130	8	6.2%	Mahaska	258	154	11	7.1%
	Buena Vista	259	48	3	6.3%	Marion	333	172	12	7.0%
	Carroll	238	102	7	6.9%	Marshall	472	472	74	15.7%
	Cerro Gordo	525	349	16	4.6%	Muscatine	570	336	39	11.6%
	Clinton	629	535	50	9.3%	Plymouth	328	118	9	7.6%
	Des Moines	549	462	55	11.9%	Sioux	413	164	19	11.6%
	Fayette	260	116	11	9.5%	Wapello	416	387	38	9.8%
	Henry	241	148	14	9.5%	Webster	520	347	31	8.9%
	Jackson	242	186	14	7.5%	Winneshiek	200	138	11	8.0%
	Jasper	436	146	11	7.5%	<b>Total</b>	7,908	4,902	472	9.6%
	<b>State Total</b>	36,641	19,444	1646	8.5%					
MSA Counties	Benton	281	111	9	8.1%	Linn	2,584	1,498	119	7.9%
	Black Hawk	1,586	1,080	95	8.8%	Madison	169	65	8	12.3%
	Bremer	219	129	5	3.9%	Mills	159	54	3	5.6%
	Dallas	482	233	18	7.7%	Polk	5,685	2,645	122	4.6%
	Dubuque	1,143	796	63	7.9%	Pottawattamie	1,185	248	10	4.0%
	Grundy	128	78	3	3.8%	Scott	2,175	1,639	149	9.1%
	Guthrie	127	57	8	14.0%	Story	846	431	14	3.2%
	Harrison	179	44	8	18.2%	Warren	513	166	2	1.2%
	Johnson	1,274	377	10	2.7%	Washington	254	103	10	9.7%
	Jones	213	104	8	7.7%	Woodbury	1,691	530	68	12.8%
	<b>Total</b>	20,893	10,388	732	7.0%					

<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 1998<sup>1</sup>**

	County	# Born	# Tested	≥ 10 µg/dL	Total % High	County	# Born	# Tested	≥ 10 µg/dL	Total % High
Counties with 2004 Population < 10,000	Adair	76	50	4	8.0%	Monona	99	49	10	20.4%
	Adams	50	32	2	6.3%	Monroe	77	53	3	5.7%
	Audubon	72	47	4	8.5%	Osceola	76	12	1	8.3%
	Clarke	99	53	9	17.0%	Palo Alto	107	47	3	6.4%
	Davis	102	34	3	8.8%	Pocahontas	71	22	3	13.6%
	Decatur	92	64	10	15.6%	Ringgold	47	46	9	19.6%
	Fremont	89	30	1	3.3%	Taylor	66	58	11	19.0%
	Howard	112	59	2	3.4%	Van Buren	107	32	1	3.1%
	Ida	90	40	7	17.5%	Wayne	56	34	6	17.6%
	Lucas	115	100	20	20.0%	Worth	90	61	1	1.6%
						<b>Total</b>	1,693	923	110	11.9%
Counties with 2004 Population 10,000 - 20,000	Allamakee	172	129	19	14.7%	Hardin	206	206	24	11.7%
	Appanoose	153	64	5	7.8%	Humboldt	107	76	9	11.8%
	Butler	162	101	8	7.9%	Iowa	174	100	10	10.0%
	Calhoun	114	64	5	7.8%	Jefferson	172	84	5	6.0%
	Cass	144	107	14	13.1%	Keokuk	142	68	3	4.4%
	Cedar	185	109	11	10.1%	Kossuth	173	106	5	4.7%
	Cherokee	131	80	7	8.8%	Louisa	173	90	7	7.8%
	Chickasaw	126	82	3	3.7%	Lyon	149	56	6	10.7%
	Clay	179	80	1	1.3%	Mitchell	123	45	6	13.3%
	Clayton	207	149	8	5.4%	Montgomery	152	78	6	7.7%
	Crawford	193	144	20	13.9%	O'Brien	160	48	3	6.3%
	Delaware	247	95	15	15.8%	Page	190	84	13	15.5%
	Dickinson	176	36	2	5.6%	Poweshiek	195	92	9	9.8%
	Emmet	126	27	1	3.7%	Sac	112	46	3	6.5%
	Floyd	196	120	9	7.5%	Shelby	142	76	3	3.9%
	Franklin	112	79	9	11.4%	Tama	222	174	28	16.1%
	Greene	110	94	3	3.2%	Union	156	75	11	14.7%
	Hamilton	218	134	12	9.0%	Winnebago	127	96	3	3.1%
	Hancock	135	66	3	4.5%	Wright	149	124	11	8.9%
						<b>Total</b>	6,110	3,484	320	9.2%
Counties with 2004 Population > 20,000	Boone	295	160	10	6.3%	Lee	449	232	19	8.2%
	Buchanan	309	173	11	6.4%	Mahaska	285	154	9	5.8%
	Buena Vista	236	48	3	6.3%	Marion	403	279	12	4.3%
	Carroll	246	129	3	2.3%	Marshall	511	511	84	16.4%
	Cerro Gordo	525	344	20	5.8%	Muscatine	614	356	34	9.6%
	Clinton	677	578	40	6.9%	Plymouth	306	135	12	8.9%
	Des Moines	514	447	53	11.9%	Sioux	400	153	10	6.5%
	Fayette	235	129	10	7.8%	Wapello	391	380	38	10.0%
	Henry	250	170	14	8.2%	Webster	513	380	32	8.4%
	Jackson	236	186	4	2.2%	Winneshiek	208	162	17	10.5%
	Jasper	420	144	5	3.5%	<b>Total</b>	8,023	5,250	440	8.4%
MSA Counties	Benton	325	166	11	6.6%	Linn	2,635	1,710	138	8.1%
	Black Hawk	1,638	1,196	89	7.4%	Madison	164	75	4	5.3%
	Bremer	210	152	8	5.3%	Mills	194	99	4	4.0%
	Dallas	527	243	15	6.2%	Polk	5,898	2,964	125	4.2%
	Dubuque	1,152	793	38	4.8%	Pottawattamie	1,160	348	9	2.6%
	Grundy	136	93	5	5.4%	Scott	2,339	1,787	144	8.1%
	Guthrie	122	62	5	8.1%	Story	860	456	11	2.4%
	Harrison	166	55	4	7.3%	Warren	504	194	5	2.6%
	Johnson	1,275	471	15	3.2%	Washington	284	141	13	9.2%
	Jones	183	118	11	9.3%	Woodbury	1,664	514	68	13.2%
						<b>Total</b>	21,436	11,637	722	6.2%
	<b>State Total</b>	37,262	21,294	1,592	7.5%					

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

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

## ENVIRONMENTAL HEALTH INDICATORS

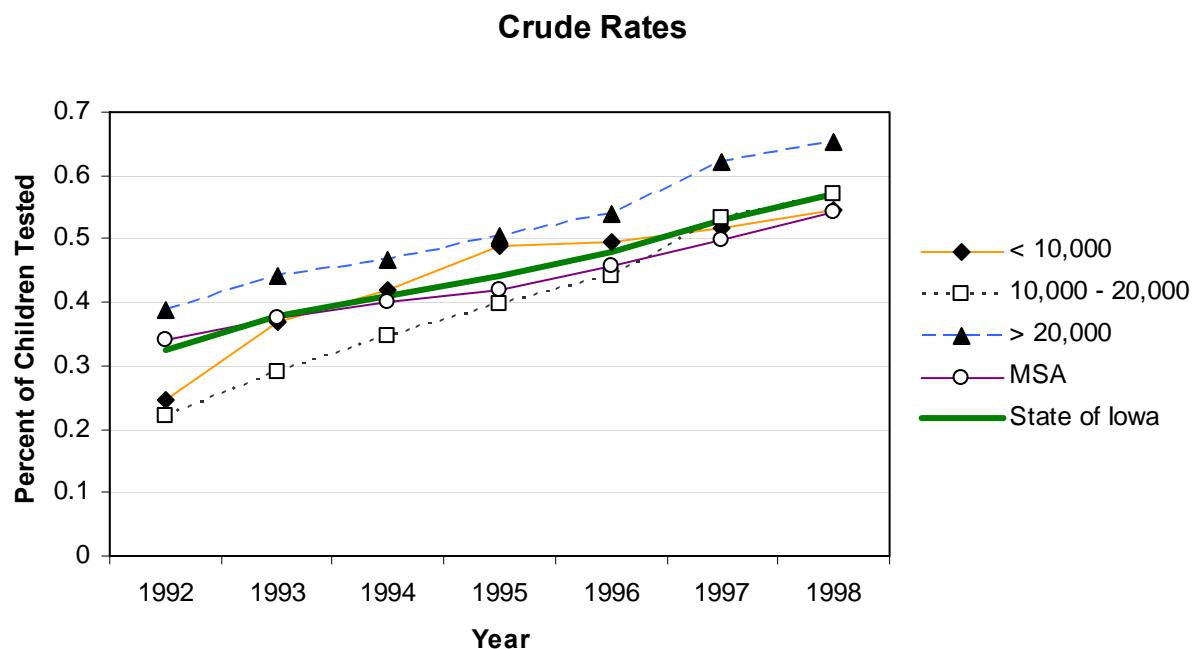
**Elevated Levels of Blood Lead: Children Born in 1997-1998<sup>1</sup>**

County	Number Tested	% with High Levels	County	Number Tested	% with High Levels	
Counties with 2004 Population < 10,000	Adair	100	8.0%	Monona	112	17.9%
	Adams	47	4.3%	Monroe	110	7.3%
	Audubon	92	7.6%	Osceola	26	7.7%
	Clarke	95	14.7%	Palo Alto	75	5.3%
	Davis	88	13.6%	Pocahontas	51	7.8%
	Decatur	117	18.8%	Ringgold	93	19.4%
	Fremont	44	11.4%	Taylor	121	17.4%
	Howard	125	5.6%	Van Buren	61	6.6%
	Ida	85	14.1%	Wayne	78	14.1%
	Lucas	192	18.2%	Worth	105	2.9%
<b>Total</b>			<b>Total</b>	1,817	12.1%	
Counties with 2004 Population 10,000 – 20,000	Allamakee	249	11.2%	Hardin	395	13.7%
	Appanoose	117	7.7%	Humboldt	186	9.1%
	Butler	197	8.6%	Iowa	177	8.5%
	Calhoun	109	9.2%	Jefferson	147	4.8%
	Cass	230	13.5%	Keokuk	136	12.5%
	Cedar	218	10.1%	Kossuth	219	4.6%
	Cherokee	166	12.0%	Louisa	184	8.2%
	Chickasaw	169	4.1%	Lyon	110	7.3%
	Clay	152	3.9%	Mitchell	93	14.0%
	Clayton	260	8.5%	Montgomery	134	9.7%
	Crawford	271	13.3%	O'Brien	109	11.0%
	Delaware	163	14.7%	Page	141	14.9%
	Dickinson	60	6.7%	Poweshiek	177	10.2%
	Emmet	41	2.4%	Sac	82	13.4%
	Floyd	262	7.3%	Shelby	135	3.7%
	Franklin	171	12.9%	Tama	350	16.3%
	Greene	184	4.3%	Union	126	10.3%
	Hamilton	247	9.7%	Winnebago	190	2.6%
	Hancock	137	3.6%	Wright	250	10.8%
<b>Total</b>			<b>Total</b>	6,744	9.7%	
Counties with 2004 Population > 20,000	Boone	328	7.9%	Lee	456	9.2%
	Buchanan	303	6.3%	Mahaska	308	6.5%
	Buena Vista	96	6.3%	Marion	451	5.3%
	Carroll	231	4.3%	Marshall	983	16.1%
	Cerro Gordo	693	5.2%	Muscatine	692	10.5%
	Clinton	1,113	8.1%	Plymouth	253	8.3%
	Des Moines	909	11.9%	Sioux	317	9.1%
	Fayette	245	8.6%	Wapello	767	9.9%
	Henry	318	8.8%	Webster	727	8.7%
	Jackson	372	4.8%	Winneshiek	300	9.3%
	Jasper	290	5.5%	<b>Total</b>	10,152	9.0%
	<b>State Total</b>	40,738	7.9%			
MSA Counties	Benton	277	7.2%	Linn	3,208	8.0%
	Black Hawk	2,276	8.1%	Madison	140	8.6%
	Bremer	281	4.6%	Mills	153	4.6%
	Dallas	476	6.9%	Polk	5,609	4.4%
	Dubuque	1,589	6.4%	Pottawattamie	596	3.2%
	Grundy	171	4.7%	Scott	3,426	8.6%
	Guthrie	119	10.9%	Story	887	2.8%
	Harrison	99	12.1%	Warren	360	1.9%
	Johnson	848	2.9%	Washington	244	9.4%
	Jones	222	8.6%	Woodbury	1,044	13.0%
	<b>Total</b>	22,025	6.6%			

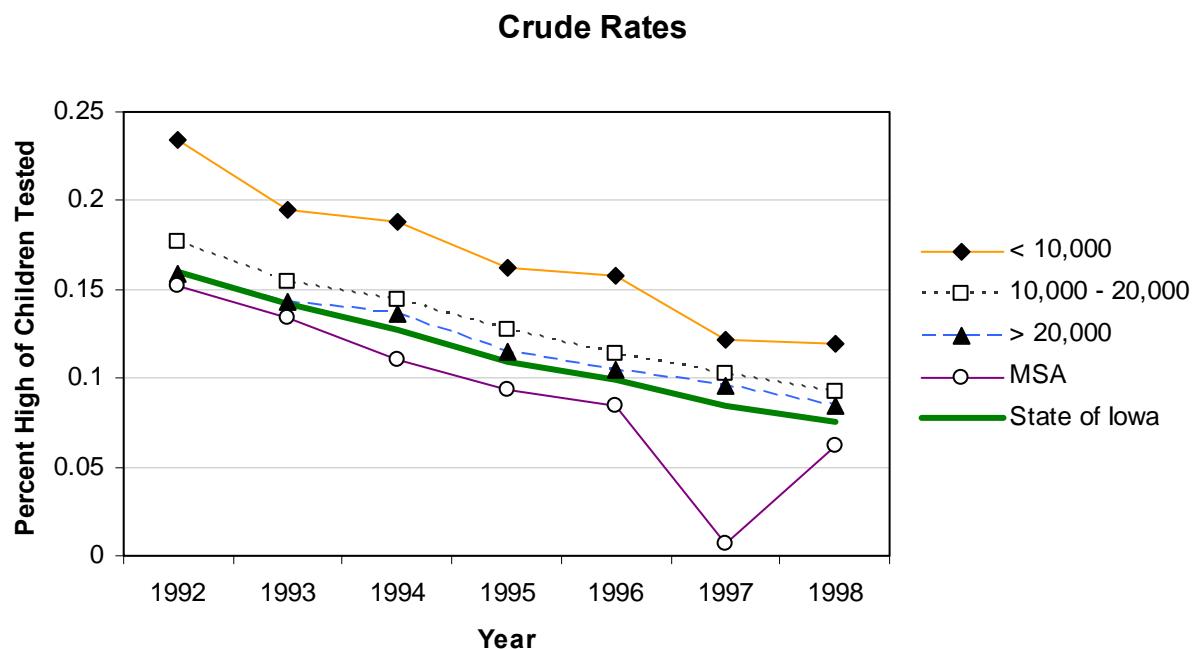
<sup>1</sup>Children tested before six years of age

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

## Tested for Blood Lead: Children Born in 1992-1998



## Elevated Levels of Blood Lead: Children Born in 1992-1998



## **Appendix I: Data Sources**

<b>Fact Book Item</b>	<b>Data Source</b>
<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/brfss/">http://www.cdc.gov/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
Substance Abuse Treatment	Iowa Consortium for Substance Abuse Research
Marriages Dissolutions	Iowa Department of Public Health Vital Statistics
Domestic Abuse Cases Driving Under the Influence	Department of Public Safety, Uniform Crime Report
Juvenile Arrests Juvenile Vandalism	

## 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	
Mothers Who Drank During Pregnancy	
Fetal Deaths	Iowa Department of Public Health, Vital Statistics, Death Certificates
Neonatal Deaths	
Perinatal Deaths	
Infant Deaths	
Congenital Malformations	
Birth Defects	Iowa Center for Congenital and Inherited Disorders, The University of Iowa
Selected Birth Defects in Iowa	

## Infectious Diseases

Sexually Transmitted Diseases	Bureau of Disease Prevention and Immunization 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	
Female Breast	
Colorectum	<i>All cancer mortality data from:</i>
Non-Hodgkin's Lymphoma	"Cause of Death" codes on death certificates filed with Vital Records, Iowa Department of Public Health via NCHS and NCI's SEER*Stat Program, version 6.1.4.
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

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

## Health Care Facilities

Hospitals	Department of Inspections and Appeals via Iowa Department of Public Health
Hospital Beds	
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 Iowa Department of Public Health
Community Trauma Care Facilities	
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
--------------------------	--

## **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.

**Iowa Law Enforcement Emergency Care Provider:** This EMS provider level is for Iowa peace officers who successfully complete a program of training that uses the department approved curriculum and have successfully completed the required testing as outlined in IAC 641—139. This training is not as extensive as the Emergency Medical Technician – Basic (EMT-B) training, but includes basic procedures for helping individuals breathe, CPR, hemorrhage control, immobilization techniques and assistance in child birth.

**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> (1999-2002)
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> (1999-2002)
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>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> (1999-2002)
Heart Disease	390-398, 402, 404-429	390-398, 402, 404-429	I00-I09, 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>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](mailto:rgergely@idph.state.ia.us).

ANNUAL REPORT OF PUBLIC HEALTH NURSING ACTIVITIES: Judy Naber, Center for Public Health Services and Health Improvement, Division of Family and Community Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-7016. Fax: (515) 242-6384. E-mail: [jnaber@idph.state.ia.us](mailto:jnaber@idph.state.ia.us).

BACKFLOW ASSEMBLY TESTER REGISTRATION: Michael Magnant, Division of Environmental Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-8722. Fax: (515) 281-4529. E-mail: [mmagnant@idph.state.ia.us](mailto:mmagnant@idph.state.ia.us).

BARRIERS TO PRENATAL CARE SURVEY: Mary Losch, PhD., Center for Social and Behavioral Research, University of Northern Iowa, Cedar Falls, IA 50614. Phone: 319-273-2105 Email: [mary.losch@uni.edu](mailto:mary.losch@uni.edu).

BEHAVIOR RISK FACTOR SURVEILLANCE SYSTEM (BRFSS): Donald Shepherd (BRFSS Coordinator), State Center for Health Statistics, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-7132. Fax: (515) 281-6475 . E-mail: [dshepher@idph.state.ia.us](mailto:dshepher@idph.state.ia.us).

BIRTHS: Rosemary Hicks, Vital Records, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-4952. Fax: (515) 281-4958. E-mail: [rhicks@idph.state.ia.us](mailto:rhicks@idph.state.ia.us). Jill France, Bureau Chief, Vital Records, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone (515) 281-6762. Fax (515) 281-0479. E-mail: [jfrance@idph.state.ia.us](mailto:jfrance@idph.state.ia.us).

BOARD DISCIPLINARY ORDERS: Constance L. Price, Executive Director, Board of Dental Examiners, 400 SW 8<sup>th</sup> Street, Des Moines, IA 50309. Phone (515) 281-5157. Fax: (515) 281-7969. E-mail: [ibde@bon.state.ia.us](mailto:ibde@bon.state.ia.us).

BOARD OF MEDICAL EXAMINERS ANNUAL REPORTS: Ann Mowery, Iowa State Board of Medical Examiners, Iowa Dept. of Public Health, 400 SW 8<sup>th</sup> Street, Suite C, Des Moines, IA 50309. Phone: (515) 242-6039. Fax: (515) 242-5908. E-mail: [ann.mowery@ibme.state.ia.us](mailto:ann.mowery@ibme.state.ia.us).

CANCER INFORMATION SERVICE: Contact Joan Felkner, University of Iowa for more details. E-mail: [joan-felkner@uiowa.edu](mailto:joan-felkner@uiowa.edu).

CARDIOVASCULAR SCREENING PROGRAM DATA: Arlene Johnson, Division of Health Promotion, Prevention and Addictive Behaviors, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-7097. Fax: (515) 281-4535. E-mail: [ajohnson@idph.state.ia.us](mailto:ajohnson@idph.state.ia.us).

CENTER FOR HEALTH EFFECTS OF ENVIRONMENTAL CONTAMINATION (CHEEC) Data Management Center (CDMC): Pete Weyer, Center for Health Effects of Environmental Contamination, The University of Iowa, 100 Oakdale Campus N203 OH, Iowa City, IA 52242. Phone: (319) 335-4550. Fax: (319) 335-4747. E-mail: [cheec@uiowa.edu](mailto:cheec@uiowa.edu).

CENTRAL REGISTRY FOR BRAIN AND SPINAL CORD INJURIES: Mark McMahon, Bureau of Information Management, Iowa Dept. of Public Health, 401 SW 7<sup>th</sup> Street, Suite D, Des Moines, IA 50309. Phone: (515) 725-0321. Fax: (515) 725-0318. E-mail: [mmcmahon@idph.state.ia.us](mailto:mmcmahon@idph.state.ia.us).

CERTIFIED OUTPATIENT AND DIABETES EDUCATION PROGRAMS, SUMMARY DATA: Melissa Winter, Diabetes Control Program, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 242-6204. Fax: (515) 281-4535. E-mail: [mwinter@idph.state.ia.us](mailto:mwinter@idph.state.ia.us).

CHILD AND FAMILY HOUSEHOLD HEALTH SURVEY: Gretchen Hageman, Bureau of Family Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone (515) 281-7585. Fax (515) 281-6384. E-mail: [ghageman@idph.state.ia.us](mailto:ghageman@idph.state.ia.us).

CHILD HEALTH DATA SYSTEM – CHILD & ADOLESCENT REPORTING SYSTEM (CAReS): Lucia Dhooge, Bureau of Family Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-4653. Fax: (515) 242-6384. E-mail: [ldhooge@idph.state.ia.us](mailto:ldhooge@idph.state.ia.us).

CHILDHOOD LEAD POISONING 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](mailto:rgergely@idph.state.ia.us).

DAY CARE/HEAD START IMMUNIZATION LEVELS: Tina Patterson, Immunization Bureau, Division of Family and Community Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-7053. Fax (800) 831-6292. E-mail: [tpatters@idph.state.ia.us](mailto:tpatters@idph.state.ia.us).

DEATHS: Rosemary Hicks, Vital Records, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-4952. Fax: (515) 281-4958. E-mail: [rhicks@idph.state.ia.us](mailto:rhicks@idph.state.ia.us). Jill France, Bureau Chief, Vital Records, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-6762. Fax: (515) 281-0479. E-mail: [jfrance@idph.state.ia.us](mailto:jfrance@idph.state.ia.us).

DENTAL HEALTH CENTER DATA REPORT: Tracy Rodgers, Division of Family and Community Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-7715. Fax: (515) 242-6384. E-mail: [trodgers@idph.state.ia.us](mailto:trodgers@idph.state.ia.us).

DENTISTS, DENTAL HYGIENISTS, DENTAL ASSISTANTS: Constance L. Price, Executive Director, Board of Dental Examiners, 400 SW 8<sup>th</sup> Street, Des Moines, IA 50309. Phone (515) 281-5157. Fax: (515) 281-7969. E-mail: [ibde@bon.state.ia.us](mailto:ibde@bon.state.ia.us).

DIVORCES: Rosemary Hicks, Vital Records, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-4952. Fax: (515) 281-4958. E-mail: [rhicks@idph.state.ia.us](mailto:rhicks@idph.state.ia.us). Jill France, Bureau Chief, Vital Records, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-6762. Fax (515) 281-0479. E-mail: [jfrance@idph.state.ia.us](mailto:jfrance@idph.state.ia.us).

## APPENDICES

---

**EMERGENCY MEDICAL SERVICES CERTIFICATION DATABASE:** Joe Ferrell, Bureau of Emergency Medical Services, Iowa Dept. of Public Health, 321 E. 12<sup>th</sup> Street , Des Moines, IA 50319-0075. Phone: (515) 725-0319. Fax: (515) 725-0318. E-mail: [jferrell@idph.state.ia.us](mailto:jferrell@idph.state.ia.us).

**EMERGENCY MEDICAL SERVICES SERVICE DATABASE:** Ray Jones, Bureau of Emergency Medical Services, Iowa Dept. of Public Health, 321 E. 12<sup>th</sup> Street, Des Moines, IA 50319-0075. Phone: (515) 725-0322. Fax: (515) 725-0318. E-mail: [rjones@idph.state.ia.us](mailto:rjones@idph.state.ia.us).

**FAMILY PLANNING DATA SYSTEM:** Kathleen Widelski, Nurse Clinician, Bureau of Family Services, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-4907. Fax: (515) 242-6384. E-mail: [kwidelsk@idph.state.ia.us](mailto:kwidelsk@idph.state.ia.us).

**FETAL DEATH:** Rosemary Hicks, Vital Records, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-4952. Fax: (515) 281-4958. E-mail: [rhicks@idph.state.ia.us](mailto:rhicks@idph.state.ia.us). Jill France, Bureau Chief, Vital Records, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-6762. Fax: (515) 281-0479. E-mail: [jfrance@idph.state.ia.us](mailto:jfrance@idph.state.ia.us).

**FLUORIDATED WATER SYSTEMS DATA:** Michael Magnant, Division of Environmental Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-8722. Fax: (515) 281-4529. E-mail: [mmagnant@idph.state.ia.us](mailto:mmagnant@idph.state.ia.us).

**FLUORIDATION CHECK SAMPLES:** Michael Magnant, Division of Environmental Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-8722. Fax: (515) 281-4529. E-mail: [mmagnant@idph.state.ia.us](mailto:mmagnant@idph.state.ia.us).

**FLUORIDATION OPERATION REPORTS:** Michael Magnant, Division of Environmental Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-8722. Fax: (515) 281-4529. E-mail: [mmagnant@idph.state.ia.us](mailto:mmagnant@idph.state.ia.us).

**FLUORIDE STATUS OF COMMUNITY PUBLIC WATER SYSTEMS:** Michael Magnant, Division of Environmental Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-8722. Fax: (515) 281-4529. E-mail: [mmagnant@idph.state.ia.us](mailto:mmagnant@idph.state.ia.us).

**GAMBLING DATA:** Mary Crawford, Division of Health Promotion, Prevention, and Addictive Behaviors, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-8479. Fax: (515) 281-4535. E-mail: [mcrawfor@idph.state.ia.us](mailto:mcrawfor@idph.state.ia.us).

**GENERAL ANESTHESIA AND CONSCIOUS SEDATION PERMITS:** Constance L. Price, Executive Director, Board of Dental Examiners, 400 SW 8<sup>th</sup> Street, Des Moines, IA 50309. Phone (515) 281-5157. Fax: (515) 281-7969. E-mail: [ibde@bon.state.ia.us](mailto:ibde@bon.state.ia.us).

**GOVERNOR'S PRIMARY CARE HPSAs (State Designated):** Carl Kulczyk, Bureau of Rural Health and Primary Care, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-7223. Fax: (515) 242-6384. E-mail: [ckulczyk@idph.state.ia.us](mailto:ckulczyk@idph.state.ia.us).

## APPENDICES

---

GRADE A MILK CERTIFICATION: Kurt Rueber, Division of Environmental Health, Health Engineering Bureau, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-3773. Fax: (515) 281-4529. E-mail: [krueber@idph.state.ia.us](mailto:krueber@idph.state.ia.us).

HAZARDOUS SUBSTANCES EMERGENCY EVENTS SURVEILLANCE (HSEES) SYSTEM: Debbi Cooper, Division of Environmental Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 242-6337. Fax: (515) 281-4529. E-mail: [dcooper@idph.state.ia.us](mailto:dcooper@idph.state.ia.us).

HAZARDOUS WASTE SITE HEALTH ASSESSMENT PROGRAM (formerly the Toxic Substance Evaluation Program): Charles Barton, PhD, State Toxicologist, Division of Environmental Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-6881. Fax: (515) 281-4529. E-mail: [cbarton@idph.state.ia.us](mailto:cbarton@idph.state.ia.us).

HEAD/SPINAL CORD INJURY FATALITIES: Thomas Brown, BS, CBIS-CI, Brain Injury Program Manager, Division of Health Promotion, Prevention and Addictive Behaviors, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-6283. Fax: (515) 281-4535. E-mail: [tbrown@idph.state.ia.us](mailto:tbrown@idph.state.ia.us). Joann Muldoon, MA, MS, State Center for Health Statistics, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 242-5849. Fax: (515) 281-4958. E-mail: [jmuldoon@idph.state.ia.us](mailto:jmuldoon@idph.state.ia.us).

HIV/AIDS REPORTING SYSTEM: Randy Mayer, HIV/AIDS Surveillance Coordinator, Bureau of Disease Prevention, Division of Family and Community Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 242-5150. Fax: (515) 281-4570. E-mail: [rmayer@idph.state.ia.us](mailto:rmayer@idph.state.ia.us).

HOME CARE AIDE GRANT CLAIMS: Julie McMahon, Bureau of Community Services, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-3104. Fax: (515) 242-6384. E-mail: [jmcMahon@idph.state.ia.us](mailto:jmcMahon@idph.state.ia.us).

HOSPITAL DATABASE: Pierce Wilson or Donald Shepherd, State Center for Health Statistics, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-4345 or (515) 281-7132. Fax: (515) 281-6475. E-mail: [dshepher@idph.state.ia.us](mailto:dshepher@idph.state.ia.us), [pwilson@idph.state.ia.us](mailto:pwilson@idph.state.ia.us).

HOSPITAL INPATIENT DATA: Pierce Wilson or Donald Shepherd, State Center for Health Statistics, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-4345 or (515) 281-7132. Fax: (515) 281-6475. E-mail: [dshepher@idph.state.ia.us](mailto:dshepher@idph.state.ia.us), [pwilson@idph.state.ia.us](mailto:pwilson@idph.state.ia.us).

IMMUNIZATION LEVELS OF 2-YEAR-OLDS: Marnell Kretschmer, Immunization Bureau, Division of Family and Community Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-4917. Fax (800) 831-6292. E-mail: [mkretsch@idph.state.ia.us](mailto:mkretsch@idph.state.ia.us). Tina Patterson, Immunization Bureau, Division of Family and Community Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-7053. Fax (800) 831-6292. E-mail: [tpatters@idph.state.ia.us](mailto:tpatters@idph.state.ia.us).

## APPENDICES

---

**INFANT MORTALITY:** Xia Chen, Center for Health Statistics, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-4068. Fax: (515) 281-6475. E-mail: [xchen@idph.state.ia.us](mailto:xchen@idph.state.ia.us).

**INFECTIOUS DISEASE:** Center for Acute Disease Epidemiology, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-6493, (800) 362-2736. Fax: (515) 281-5698. E-mail: [pquinlis@idph.state.ia.us](mailto:pquinlis@idph.state.ia.us).

**IOWA BIRTH DEFECTS REGISTRY:** Paul Romitti, PhD, Director, Iowa Birth Defects Registry, The University of Iowa, 4249 Westlawn Bldg., Iowa City, IA 52242. Phone: (319) 335-8585. Fax: (319) 335-8583. Web site: <http://www.public-health.uiowa.edu/birthdefects/>.

**IOWA CANCER REGISTRY:** Kathleen McKeen, State Health Registry of Iowa, The University of Iowa, 250 FB, Iowa City, IA 52242. Phone: (319) 335-8508. Fax: (319) 335-8610. E-mail: [kathleen-mckeek@uiowa.edu](mailto:kathleen-mckeek@uiowa.edu). Charles Lynch, MD, PhD, Medical Director of Registry of Iowa, The University of Iowa, C 21-L GH., Department of Epidemiology, Iowa City, IA 52242. Phone: (319) 384-5006. Fax: (319) 384-5004. E-mail: [charles-lynch@uiowa.edu](mailto:charles-lynch@uiowa.edu)

**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).

**IOWA SUDDEN INFANT DEATH SYNDROME PROGRAM:** Stephanie Pettit, Bureau of Family Health, Division of Family and Community Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone (515) 281-3108. Fax: (515) 242-6384. E-mail: [spettit@idph.state.ia.us](mailto:spettit@idph.state.ia.us).

**LEAD IN SCHOOLS AND PRESCHOOLS DRINKING WATER TEST RESULTS:** 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](mailto:rgergely@idph.state.ia.us).

**LEAD INSPECTOR AND LEAD ABATEMENT CONTRACTOR CERTIFICATION 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](mailto:rgergely@idph.state.ia.us).

**LICENSED PHYSICIANS:** Ann Mowery, Iowa State Board of Medical Examiners, Iowa Dept. of Public Health, 400 SW 8<sup>th</sup> Street, Suite C, Des Moines, IA 50309. Phone: (515) 242-6039. Fax: (515) 242-5908. E-mail: [ann.mowery@ibme.state.ia.us](mailto:ann.mowery@ibme.state.ia.us).

**LICENSING AND INSPECTION OF RADIATION MATERIALS:** Don Flater, Bureau of Radiological Health, Iowa Dept. of Public Health, 401 SW 7<sup>th</sup> Street, Suite D, Des Moines, IA 50309. Phone: (515) 725-0301. Fax: (515) 725-0318. E-mail: [dflater@idph.state.ia.us](mailto:dflater@idph.state.ia.us).

**MARRIAGES:** Rosemary Hicks, Vital Records, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-4952. Fax: (515) 281-4958. E-mail: [rhicks@idph.state.ia.us](mailto:rhicks@idph.state.ia.us). Jill France, Bureau Chief, Vital Records, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-6762. Fax: (515) 281-0479. E-mail: [jfrance@idph.state.ia.us](mailto:jfrance@idph.state.ia.us).

MATERNAL HEALTH DATA SYSTEM – WOMEN’S HEALTH INFORMATION SYSTEM (WHIS):Stephanie Trusty, Bureau of Family Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-6466. Fax: (515) 242-6384. E-mail: [strusty@idph.state.ia.us](mailto:strusty@idph.state.ia.us).

MEDICAID BIRTH OUTCOMES: Deb Kane Center for Health Statistics, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-. Fax: (515) 281-6475. E-mail: [dkane@idph.state.ia.us](mailto:dkane@idph.state.ia.us)

MEDICAID POPULATIONS HPSAs (Federally Designated): (See [POPULATIONS HPSAs](#)).

MUAs (Federal Medically Underserved Areas, Federally Designated): Carl Kulczyk, Bureau of Rural Health and Primary Care, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-7223. Fax: (515) 242-6384. E-mail: [ckulczyk@idph.state.ia.us](mailto:ckulczyk@idph.state.ia.us).

NEWBORN HEARING – EARLY HEARING DETECTION AND INTERVENTION (EHDI) Denise Ramsey, Bureau of Family Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 282-5639. Fax: (515) 242-6384. E-mail: [Dramsey@idph.state.ia.us](mailto:Dramsey@idph.state.ia.us)

OVERSEAS VACCINE PROVIDERS: Center for Acute Disease Epidemiology, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-6493. Fax: (515) 281-5698. E-mail: [pquinalis@idph.state.ia.us](mailto:pquinalis@idph.state.ia.us).

PEDIATRIC NUTRITION SURVEILLANCE: Susan Pohl, Bureau of Nutrition and WIC, Division of Family and Community Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-4545. Fax: (515) 281-4913. E-mail: [spohl@idph.state.ia.us](mailto:spohl@idph.state.ia.us).

POPULATIONS HPSAs (Federally Designated): Carl Kulczyk, Bureau of Rural Health and Primary Care, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-7223. Fax: (515) 242-6384. E-mail: [ckulczyk@idph.state.ia.us](mailto:ckulczyk@idph.state.ia.us).

RADIOLOGICAL PERMITS TO PRACTICE AND CONTINUING EDUCATION: Charlene Craig, Bureau of Radiological Health, Iowa Dept. of Public Health, 401 SW 7<sup>th</sup> Street, Suite D, Des Moines, IA 50309. Phone: (515) 725-0306. Fax: (515) 725-0318. E-mail: [ccraig@idph.state.ia.us](mailto:ccraig@idph.state.ia.us).

PHARMACY/PHARMACISTS LICENSING: Diana Pirillo, Board of Pharmacy Examiners, 400 SW 8<sup>th</sup> Street, Suite E, Des Moines, IA 50309. Phone: (515) 242-5140. Fax: (515) 281-4609. E-mail: [diana.pirillo@ibpe.state.ia.us](mailto:diana.pirillo@ibpe.state.ia.us).

POLK COUNTY INFANT MORTALITY PREVENTION CENTER: Mary O’Brien, Visiting Nurse Services, Suite 320, 1111 9<sup>th</sup> Street, Des Moines, IA 50314. Phone: (515) 558-9981. Fax: (515) 288-0437. E-mail: [mary@vnsdm.org](mailto:mary@vnsdm.org). Herman Hein, MD, Univ. of Iowa Hospitals, Pediatrics Dept., 200 Hawkins Drive, Iowa City, IA 52242. Phone: (319) 356-2637. Fax: (319) 353-8861. E-mail: [herman-hein@uiowa.edu](mailto:herman-hein@uiowa.edu).

PREGNANCY NUTRITION SURVEILLANCE SYSTEM (PNSS): Angie Tagtow, Bureau of Nutrition and WIC, Division of Family and Community Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-7096. Fax: (515) 281-4913. E-mail: [atagtow@idph.state.ia.us](mailto:atagtow@idph.state.ia.us).

**PREVENTION SERVICE REPORT:** Mary Crawford, Division of Health Promotion, Prevention, and Addictive Behaviors, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-8479. Fax: (515) 281-4535. E-mail: [mcrawfor@idph.state.ia.us](mailto:mcrawfor@idph.state.ia.us).

**PRIMARY CARE HPSAs (Health Professional Shortage Areas, Federally Designated):** Carl Kulczyk, Bureau of Rural Health and Primary Care, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-7223. Fax: (515) 242-6384. E-mail: [ckulczyk@idph.state.ia.us](mailto:ckulczyk@idph.state.ia.us).

**PROFESSIONAL LICENSURE FILES:** Lois Churchill, Bureau Chief, Professional Licensure, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 242-6385 Fax: (515) 281-3121. E-mail: [lchurchi@idph.state.ia.us](mailto:lchurchi@idph.state.ia.us).

**PUBLIC HEALTH NURSING GRANT CLAIMS:** Julie McMahon, Bureau of Community Services, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-3104. Fax: (515) 242-6384. E-mail: [jmcMahon@idph.state.ia.us](mailto:jmcMahon@idph.state.ia.us).

**RADIATION EQUIPMENT REGISTRATION:** Charlene Craig, Bureau of Radiological Health, Iowa Dept. of Public Health, 401 SW 7<sup>th</sup> Street, Suite D, Des Moines, IA 50309. Phone: (515) 725-0306. Fax: (515) 725-0318. E-mail: [ccraig@idph.state.ia.us](mailto:ccraig@idph.state.ia.us).

**RADON DATABASE:** Rick Welke, Division of Environmental Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-4928. Fax: (515) 281-4529. E-mail: [rwelke@idph.state.ia.us](mailto:rwelke@idph.state.ia.us).

**REGISTERED BACKFLOW PREVENTION ASSEMBLY TESTERS:** Michael Magnant, Division of Environmental Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-8722. Fax: (515) 281-4529. E-mail: [mmagnant@idph.state.ia.us](mailto:mmagnant@idph.state.ia.us).

**REGISTERED NURSE, LICENSED PRACTICAL NURSE, ADVANCED REGISTERED NURSE LICENSURE RECORDS:** Board of Nursing, Iowa Dept. of Public Health, RiverPoint Business Park, 400 SW 8<sup>th</sup> Street, Suite B, Des Moines, IA 50309. Phone: (515) 281-3255. Fax: (515) 281-4825. Web site: [www.state.ia.us/nursing](http://www.state.ia.us/nursing). E-mail: [ibon@bon.state.ia.us](mailto:ibon@bon.state.ia.us).

**REGISTERED WATER TREATMENT SYSTEMS:** Bruce Middleton, Division of Environmental Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-4680. Fax: (515) 281-4529. E-mail: [bmiddle@idph.state.ia.us](mailto:bmiddle@idph.state.ia.us). Michael Magnant, Division of Environmental Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-8722. Fax: (515) 281-4529. E-mail: [mmagnant@idph.state.ia.us](mailto:mmagnant@idph.state.ia.us).

**RESIDENT DENTIST LICENSE; DENTAL COLLEGE FACULTY PERMIT:** Constance L. Price, Executive Director, Board of Dental Examiners, 400 SW 8<sup>th</sup> Street, Des Moines, IA 50309. Phone (515) 281-5157. Fax: (515) 281-7969. E-mail: [ibde@bon.state.ia.us](mailto:ibde@bon.state.ia.us).

**RESIDENT LICENSURE AND RENEWAL, MD and DO:** Ann Mowery, Iowa State Board of Medical Examiners, Iowa Dept. of Public Health, 400 SW 8<sup>th</sup> Street, Suite C, Des Moines, IA 50309. Phone: (515) 242-6039. Fax: (515) 242-5908. E-mail: [ann.mowery@ibme.state.ia.us](mailto:ann.mowery@ibme.state.ia.us).

SCHOOL AGE K-12 IMMUNIZATION LEVELS: Marnell Kretschmer, Immunization Bureau, Division of Family and Community Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-4917. Fax (800) 831-6292. E-mail: [mkretsch@idph.state.ia.us](mailto:mkretsch@idph.state.ia.us). Tina Patterson, Immunization Bureau, Division of Family and Community Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-7053. Fax (800) 831-6292. E-mail: [tpatters@idph.state.ia.us](mailto:tpatters@idph.state.ia.us).

SENTINEL PROJECT RESEARCHING AGRICULTURAL INJURY NOTIFICATION SYSTEM (SPRAINS): Mark McMahon, Bureau of Information Management, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50309. Phone: (515) 725-0319. Fax: (515) 725-0318. E-mail: [mmcmahon@idph.state.ia.us](mailto:mmcmahon@idph.state.ia.us).

SEXUALLY TRANSMITTED DISEASES (STDs): Jim Goodrich, Bureau of Infectious Diseases, Division of Family and Community Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 242-5149. Fax: (515) 242-6284. E-mail: [jgoodric@idph.state.ia.us](mailto:jgoodric@idph.state.ia.us).

SPECIAL LICENSURE AND RENEWAL, MD and DO: Ann Mowery, Iowa State Board of Medical Examiners, Iowa Dept. of Public Health, 400 SW 8<sup>th</sup> Street, Suite C, Des Moines, IA 50309. Phone: (515) 242-6039. Fax: (515) 242-5908. E-mail: [ann.mowery@ibme.state.ia.us](mailto:ann.mowery@ibme.state.ia.us).

SUBSTANCE ABUSE TREATMENT DATA: Lonnie Cleland, Division of Health Promotion, Prevention and Addictive Behaviors, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-4643. Fax: (515) 281-4535. E-mail: [lcleland@idph.state.ia.us](mailto:lcleland@idph.state.ia.us).

SWIMMING POOLS: Bruce Middleton, Division of Environmental Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-4680. Fax: (515) 281-4529. E-mail: [bmiddle@idph.state.ia.us](mailto:bmiddle@idph.state.ia.us).

SYSTEM TRAUMA REGISTRY (STR): Kris Baerenwald, 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) 725-0321. Fax: (515) 725-0323. E-mail: [kbaerenw@idph.state.ia.us](mailto:kbaerenw@idph.state.ia.us).

TB MYCOBACTERIA: Alan Lynch, Division of Family and Community Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-7504. Fax: (515) 281-4570. E-mail: [alynch@idph.state.ia.us](mailto:alynch@idph.state.ia.us).

TEMPORARY LICENSURE AND RENEWAL, MD and DO: Ann Mowery, Iowa State Board of Medical Examiners, Iowa Dept. of Public Health, 400 SW 8<sup>th</sup> Street, Suite C, Des Moines, IA 50309. Phone: (515) 242-6039. Fax: (515) 242-5908. E-mail: [ann.mowery@ibme.state.ia.us](mailto:ann.mowery@ibme.state.ia.us).

TOXIC SUBSTANCE EVALUATION PROGRAM: (see [HAZARDOUS WASTE SITE HEALTH ASSESSMENT PROGRAM](#)).

TUBERCULOSIS PROGRAM MEDICATION PROGRAM: Alan Lynch, Division of Family and Community Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-7504. Fax: (515) 281-4570. E-mail: [alynch@idph.state.ia.us](mailto:alynch@idph.state.ia.us).

## APPENDICES

---

TUBERCULOSIS SURVEILLANCE: Alan Lynch, Division of Family and Community Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-7504. Fax: (515) 281-4570. E-mail: [alynch@idph.state.ia.us](mailto:alynch@idph.state.ia.us).

VACCINE, DISTRIBUTION AND ADMINISTRATION: Marnell Kretschmer, Immunization Bureau, Division of Family and Community Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-4917. Fax (800) 831-6292. E-mail: [mkretsche@idph.state.ia.us](mailto:mkretsche@idph.state.ia.us). Tina Patterson, Immunization Bureau, Division of Family and Community Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-7053. Fax (800) 831-6292. E-mail: [tpatters@idph.state.ia.us](mailto:tpatters@idph.state.ia.us).

WIC PARTICIPANTS: Emily Roepsch, Bureau of Nutrition and WIC, Division of Family and Community Health, Iowa Dept. of Public Health, Lucas State Office Building, Des Moines, IA 50319. Phone: (515) 281-3459. Fax: (515) 281-4913. E-mail: [eroepsch@idph.state.ia.us](mailto:eroepsch@idph.state.ia.us).