

Utah Community Health Indicators Report



Office of Public Health Assessment
Center for Health Data
Utah Department of Health

August 2004

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<http://ibis.health.utah.gov/ophapubs.html>

Indicator data may be accessed directly over the Internet at:

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The Utah Community Health Indicators Report was prepared by the Office of Public Health Assessment (OPHA), Center for Health Data, under the direction of Lois M. Haggard, Ph.D. It is the role of OPHA to foster an integrated and objective understanding of Utah's health and health care systems. This understanding is an essential component of health surveillance, policy development, and program planning and evaluation. One aspect of this role is the provision of regular reports of health data, including Behavioral Risk Factors Surveillance System reports; Utah Health Status Survey reports; community health status, small area analysis, and race/ethnicity reports; leading health indicators reports; leading causes of death reports; Healthy People 2010 reports; and periodic additional reports with Utah Department of Health programs.

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Acknowledgments	ii
Introduction	v
A Guide to This Report	vi
Utah’s 42 Leading Health Indicators	
Injury and Violence	
Motor Vehicle Traffic Crash Deaths	1
Homicide	4
Unintentional Injury Deaths	7
Mental Health	
Suicide	10
Poor Mental Health Days.....	13
Lifestyle Risk	
Cigarette Smoking	16
Overweight or Obese	19
Regular Physical Activity	22
Binge Drinking	25
Binge Drinking Among Adolescents	28
Responsible Sexual Behavior	
HIV/AIDS	31
Unintended Pregnancies.....	34
Adolescent Births	37
Syphilis	40
Chlamydia	43
Gonorrhea	46
Environmental Quality	
Air Quality.....	49
Childhood Exposure to Secondhand Smoke.....	52
Foodborne Illness: <i>Salmonella</i>	55
Foodborne Illness: <i>E. coli</i> O157:H7	58
Immunization	
Childhood Immunization 4:3:1:3:3	61
Adult Influenza Immunization	64
Access to Health Care	
Health Insurance Coverage	67
Prenatal Care	70
Asthma Hospitalization Among Children	73
Diabetes Hospitalization Among Adults.....	76
Pneumonia/Influenza Hospitalization Among Seniors.....	79
Regular Source of Care.....	82
Mammography	85

Table of Contents

Chronic Conditions	
Coronary Heart Disease Deaths	88
Stroke Deaths	91
All Cancer Deaths	94
Lung Cancer Deaths	97
Female Breast Cancer Deaths	100
Colorectal Cancer Deaths	103
Hepatitis A.....	106
Tuberculosis	109
Healthy Births	
Infant Deaths	112
Low Birth Weight	115
Children in Poverty	
Childhood Poverty	118
Overall Health Status	
Life Expectancy at Birth	121
Poor Physical Health Days	124
Technical Notes	127
Community Key Maps	143
References	149

The Utah Department of Health exists to protect the public's health through preventing illness, injury, disability, and premature death, assuring access to necessary health care and promoting healthy lifestyles. In the practice of public health, it has become clear that communities can provide key resources in achieving those goals. Individual health is closely linked to community health and the environment, which is why the vision of the nation's Healthy People 2010 initiative has been coined, "Healthy People in Healthy Communities."¹ In addition, community involvement in the planning and implementation of public health interventions brings an understanding of the community history and social context that is crucial to ensure the effectiveness of a public health intervention.

Health differences exist across communities. Although the causes are varied they often accompany differences in income, education, behavior, and urban versus rural living. Regardless of what may underlie the differences, it is important to identify and address the critical health issues that face each community and provide useful health status information to local organizations that serve these communities and neighborhoods.

This report examines the health status of communities at the smallest possible level of geography that the data will allow and, depending on the measure, is reported for a small area, the local health district, or the state. Reporting at a local level will allow public health officials and community leaders to address the specific health issues that confront their neighborhoods and help to inform their decisions on interventions that best address the problem.

National and state health objectives served as a starting point for selecting the 42 measures that appear in this report, and the following sources helped to inform our decisions.

- Healthy People 2000 Health Status Indicators
- Healthy People 2010 Leading Health Indicators
- HRSA/ASTHO/Public Health Foundation Community Health Status Indicator Project
- Utah's Public Health Outcome Measures Report
- Utah Indicators of Child Health and Well-Being

Additionally we were guided by the desire to select a set of indicators that:

- are broad in public health relevance,
- are few in number,
- provide a comprehensive view of community health,
- allow for reporting of data at the community level,
- have data from sources for which state and national benchmarks are available,
- are understandable and acceptable, and
- are outcome-oriented measures that imply interventions.

The list was compiled and finalized after soliciting input from scholars, public health officials, representatives of local community organizations, and others.

Subject matter experts in programs throughout the Utah Department of Health participated in reporting and interpreting the data for each of the community health indicators included in this report. The UDOH also intends to routinely update and publish community health indicator information on the Indicator-Based Information System for Public Health (IBIS-PH) website (<http://ibis.health.utah.gov>) whenever new data are available. We invite readers to think about health promotion priorities in their communities while using this report as a guide. We also recommend contacting state and community health programs for more comprehensive information. The UDOH program contact information for each indicator is found at the bottom of each report page.

A Guide to This Report

Three pages of the report are devoted to each measure. This “Guide” outlines what is covered on each page.

This text defines and describes the measure being addressed.

This text identifies Healthy People 2010 objectives that relate to the measure.

This text describes why this measure is important.

This text explains the risk factors for the measure.

This graph displays data for Utah and U.S. (where available) over time.

Motor Vehicle Traffic Crash Deaths

Definition: Number of motor vehicle traffic crash deaths per 100,000 population (age-adjusted). Deaths are by place of residence, and not by place of occurrence.

Healthy People 2010 Objective 15-15a: Deaths from motor vehicle crashes - (age-adjusted per 100,000 standard population)

- U.S. Target for 2010: 9.2
- State-specific Target: 14.0

Why Is It Important?
Motor vehicle crashes (MVCs) are the leading cause of injury death for all ages. From 2000 to 2002, motor vehicle crashes accounted for an average of 299 deaths annually. In addition, each year more than 30,000 Utahns will be injured and more than \$30 million will be spent on inpatient hospitalizations due to MVCs in Utah.

Risk Factors for Motor Vehicle Traffic Crash Deaths
The most important factors contributing to motor vehicle crash injuries are failure to use seat belts, excessive speed, and driving under the influence of alcohol or drugs. Not using a safety belt or a child safety restraint while traveling in a motor vehicle greatly increases the probability of being injured or killed in a crash. When not using these safety devices, a person is more likely to be ejected from the vehicle or to be thrown against the windshield.

A person's driving ability is affected by a Blood Alcohol Concentration (BAC) as low as .02%. The likelihood of a crash increases significantly over .05%. Alcohol and other drugs were contributing factors in 21.9% of all 2002 Utah motor vehicle crash deaths.

Motor Vehicle Traffic Crash Death Rates, Utah and U.S., 1981-2002

Deaths per 100,000 Population

Legend: - - U.S., — Utah

2002: Utah 14.8, U.S. 13.6

Motor Vehicle Death Ranking, 2000-2002	Rate*
South Jordan	2.1
Magna	4.8
Lehi/Cedar Valley	5.4
St. George	6.0
East Orem	6.0
Coltonwood	6.4
Sandy Center	6.5
Foothill/U of U	6.8
Woods Cross/No. SL	6.9
Holladay	7.4
Wasatch Co.	7.5
Riverton/Draper	7.5
American Fork/Alpine	7.6
Provo South	8.0
Bountiful	8.0
Avenues	8.9
Syracuse/Kaysville	9.4
Pleasant Grove/Lindon	9.6
Farmington/Centerville	9.7
Millcreek	9.8
Glendale	9.8
Riverdale	10.7
Provo/BYU	10.9
Clearfield/Hill AFB	11.0
Utah Co. South	11.1
Summit Co.	12.0
Other Cache/Rich Co.	12.3
Cedar City	12.4
Layton	12.5
West Valley East	12.8
Springville/Spanish Fork	13.0
Keams	13.4
Logan	13.5
Taylorsville	13.8
W. Jordan, Copperton	14.0
Midvale	14.0
West Jordan No.	14.1
Roy/Hooper	14.8
Rose Park	14.8
Downtown Salt Lake	14.9
Ben Lomond	15.1
North Orem	15.5
South Ogden	15.8
West Valley West	15.8
Morgan/E Weber Co.	16.2
Sandy, SE	18.1
Tooele Co.	18.2
Sandy, NE	18.7
Sevier/Piute/Wayne Co.	19.2
West Orem	19.5
Murray	20.5
South Salt Lake	20.7
Other Box Elder Co.	21.1
Downtown Ogden	21.6
Carbon/Emery Co.	21.8
Other Southwest Dist.	22.3
Brigham City	22.9
Other Washington Co.	25.2
Juab/Millard/Sanpete Co.	28.4
TriCounty LHD	35.9
Grand/San Juan Co.	44.9

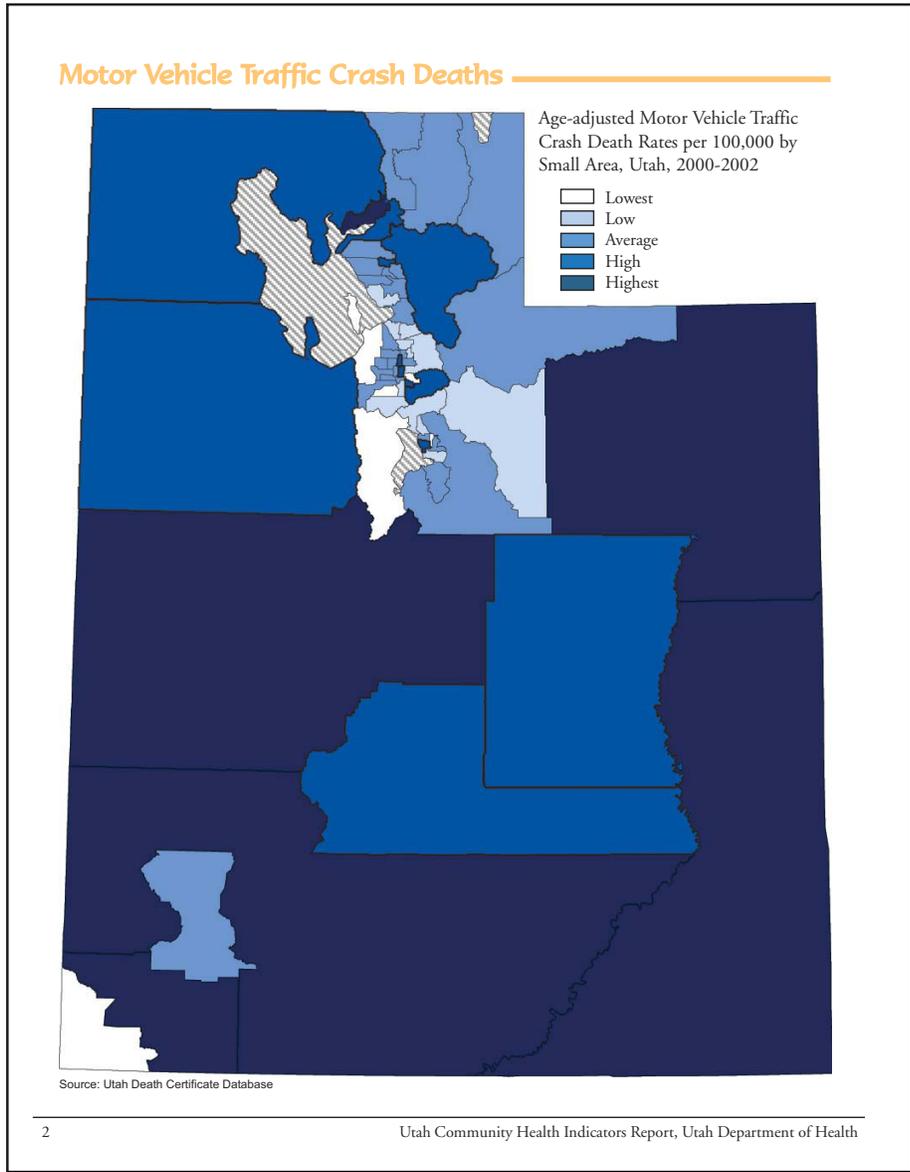
Sources: Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; Utah Governor's Office of Planning and Budget; National Vital Statistics System, National Center for Health Statistics, U.S. Centers for Disease Control and Prevention
Note: Data have been age adjusted to U.S. 2000 standard population; ICD-9 codes E810-819; ICD-10 codes (see Appendix A).
* Age adjusted # of deaths per 100,000.

Contact: Violence and Injury Prevention Program, Utah Department of Health, 801-538-6864, <http://health.utah.gov/vipp/>

A rank order table lists data for each community. The communities are rank ordered (best to worst), and the list is color-coded based on that ranking. Colors are based on five categories, roughly the top 10%, next 20%, middle 40%, next 20%, and bottom 10%. Whenever tied scores spanned two categories, all scores were classified in the higher of the two categories.

A footnote on each page gives UDOH program contact information for the indicator presented on that page.

The second page consists of a map of color-coded areas at the most detailed geographic level for which data were available. The shading indicates the community's ranking, and is identical to the shading used in the rank-order table.



Key maps that label geographic areas and a table with Utah small area definitions appear at the end of the report, starting on page 143.

A Guide to This Report

The last page for each measure is a table of the community data. The left column of each row is shaded to correspond with that community's ranking level.

Crude rates should be used to gauge the true magnitude of the event in the community.

Age-adjusted rates should be used to compare communities on measures that are age-related.

Motor Vehicle Traffic Crash Deaths

Motor Vehicle Traffic Crash Deaths by Small Area
Utah, 2000-2002

Rank	Area of Residence	Average Population	Motor Vehicle Deaths per 100,000 Population		95% Confidence Interval	
			Average Annual Number of Events	Crude Rates	Lower	Upper
	State Total	2,288,068	299	13.1	13.7	(12.8 - 14.7)
57	Brigham City	21,306	4	20.3	22.9	(12.1 - 39.5)
53	Other Box Elder Co.	21,957	5	22.8	21.1	(11.5 - 35.4)
33	Logan	59,888	7	11.1	13.5	(7.8 - 19.8)
27	Other Cache/Rich Co.	35,646	4	11.2	12.3	(6.0 - 22.3)
41	Ben Lomond	44,855	7	15.6	15.1	(9.3 - 23.3)
45	Morgan/East Weber Co.	33,182	5	16.2	16.2	(8.8 - 27.2)
54	Downtown Ogden	28,047	5	19.0	21.6	(12.1 - 35.6)
43	South Ogden	34,593	5	14.5	15.8	(8.7 - 26.2)
38	Royal/Hooper	40,599	5	12.3	14.8	(7.9 - 25.2)
22	Riverdale	25,265	3	10.6	10.7	(4.5 - 21.3)
24	Clearfield/Hill AFB	52,461	5	10.2	11.0	(5.9 - 18.8)
29	Layton	63,293	7	10.5	12.5	(7.3 - 19.9)
17	Syracuse/Kaysville	37,140	3	9.0	9.4	(4.3 - 17.7)
19	Farmington/Centerville	27,862	2	7.2	9.7	(2.2 - 27.1)
9	Woods Cross/North SL	19,359	1	6.9	6.9	(1.8 - 17.9)
14	Bountiful	44,886	4	8.2	8.0	(3.9 - 14.6)
38	Rose Park	32,358	4	13.4	14.8	(7.6 - 26.0)
16	Avenues	21,926	2	9.1	8.9	(3.2 - 19.6)
8	Foothill/U of U	23,221	2	7.2	6.8	(2.1 - 16.4)
2	Magna	23,294	1	4.3	4.8	(0.8 - 15.2)
20	Glendale	26,554	2	8.8	9.8	(3.7 - 21.0)
43	West Valley West	66,932	9	13.9	15.8	(10.2 - 23.4)
30	West Valley East	48,584	6	11.7	12.8	(7.2 - 21.1)
40	Downtown Salt Lake	50,533	6	12.5	14.9	(8.5 - 24.3)
52	South Salt Lake	24,556	4	17.6	20.7	(10.8 - 35.9)
23	Millcreek	57,224	6	10.5	9.8	(5.7 - 15.6)
10	Holladay	44,846	3	6.7	7.4	(3.3 - 14.1)
6	Cottonwood	43,519	3	6.1	6.4	(2.7 - 12.8)
32	Kearns	65,350	9	13.3	13.4	(8.3 - 20.5)
34	Taylorsville	38,109	5	13.1	13.8	(7.4 - 23.3)
51	Murray	30,930	7	22.6	20.5	(12.6 - 31.4)
35	Midvale	28,577	4	14.0	14.0	(7.0 - 24.9)
37	West Jordan No.	44,676	5	11.2	14.1	(6.1 - 27.5)
35	W. Jordan, Copperton	41,743	5	11.2	14.0	(6.7 - 25.6)
1	South Jordan	31,669	1	2.1	2.1	(0.3 - 7.5)
7	Sandy Center	51,861	3	6.4	6.5	(3.0 - 12.1)
48	Sandy, Northeast	25,148	4	17.2	18.7	(9.2 - 33.8)
46	Sandy, Southeast	30,588	4	13.1	18.1	(8.1 - 34.8)
11	Riverton/Draper	62,791	4	5.8	7.5	(3.1 - 15.1)
47	Tooele Co.	43,865	8	17.5	18.2	(11.3 - 27.6)
3	Lehi/Cedar Valley	26,424	2	6.3	5.4	(1.8 - 12.6)
13	American Fork/Alpine	39,620	3	7.6	7.6	(3.3 - 14.8)
18	Pleasant Grove/Lindon	37,851	3	7.9	9.6	(3.6 - 20.7)
42	North Orem	35,731	5	14.0	15.5	(8.2 - 26.6)
50	West Orem	29,543	4	14.7	19.5	(9.6 - 35.2)
4	East Orem	22,141	1	6.0	6.0	(1.5 - 15.8)
29	Provo/BYU	48,704	5	10.3	10.9	(5.3 - 20.0)
14	Provo South	57,318	4	6.4	8.0	(3.0 - 17.1)
31	Springville/Spanish Fork	59,202	6	10.7	13.0	(7.7 - 20.7)
25	Utah Co. South	26,387	3	11.4	11.1	(4.9 - 21.5)
26	Summit Co.	31,104	4	12.9	12.0	(6.2 - 21.0)
11	Wasatch Co.	15,995	1	8.3	7.5	(2.0 - 19.3)
60	TriCounty LHD	41,453	14	33.8	35.9	(25.6 - 48.9)
59	Juab/Millard/Sanpete Co.	44,288	13	28.6	28.4	(19.9 - 39.4)
49	Sevier/Piute/Wayne Co.	23,040	4	16.8	19.2	(10.1 - 33.2)
55	Carbon/Emery Co.	30,716	7	22.8	21.8	(13.4 - 33.5)
61	Grand/San Juan Co.	22,714	9	41.1	44.9	(29.7 - 65.2)
4	St. George	53,715	3	6.2	6.0	(2.7 - 11.3)
58	Other Washington Co.	41,445	10	24.9	25.2	(17.0 - 36.1)
28	Cedar City	29,612	3	9.0	12.4	(4.9 - 25.9)
53	Other Southwest Dist.	21,854	5	24.4	22.3	(12.7 - 38.4)

* Rates have been age adjusted to the U.S. 2000 standard population.
ICD-10 codes: see Appendix A
Source: Utah Death Certificate Database

In this table, geographic areas are listed in the same order each time, either alphabetical order (for health districts and states) or geographic location, north to south (for small areas).

Motor Vehicle Traffic Crash Deaths

Definition: Number of motor vehicle traffic crash deaths per 100,000 population (age-adjusted). Deaths are by place of residence, and not by place of occurrence.

Healthy People 2010 Objective 15-15a: Deaths from motor vehicle crashes - (age-adjusted per 100,000 standard population)

- U.S. Target for 2010: 9.2
- State-specific Target: 14.0

Why Is It Important?

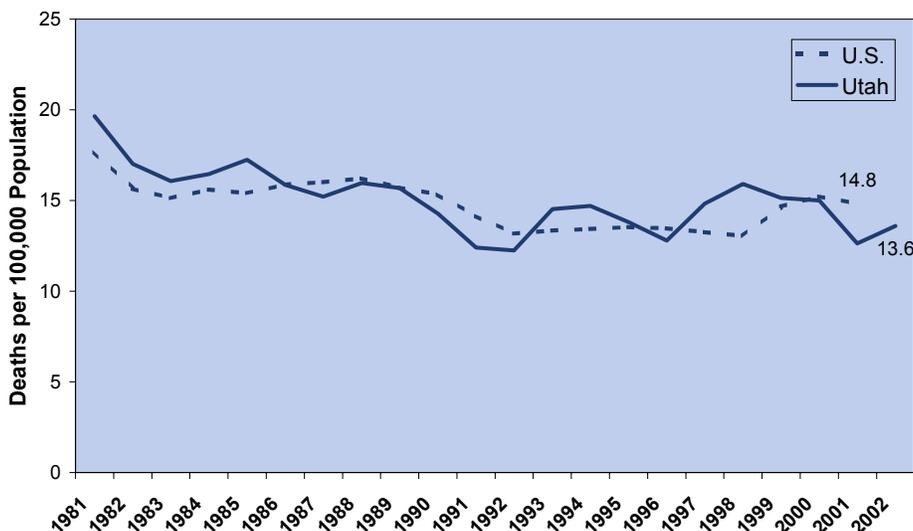
Motor vehicle crashes (MVCs) are the leading cause of injury death for all ages. From 2000 to 2002, motor vehicle crashes accounted for an average of 299 deaths annually. In addition, each year more than 30,000 Utahns will be injured and more than \$30 million will be spent on inpatient hospitalizations due to MVCs in Utah.

Risk Factors for Motor Vehicle Traffic Crash Deaths

The most important factors contributing to motor vehicle crash injuries are failure to use seat belts, excessive speed, and driving under the influence of alcohol or drugs. Not using a safety belt or a child safety restraint while traveling in a motor vehicle greatly increases the probability of being injured or killed in a crash. When not using these safety devices, a person is more likely to be ejected from the vehicle or to be thrown against the windshield.

A person's driving ability is affected by a Blood Alcohol Concentration (BAC) as low as .02%. The likelihood of a crash increases significantly over .05%. Alcohol and other drugs were contributing factors in 21.9% of all 2002 Utah motor vehicle crash deaths.

Motor Vehicle Traffic Crash Death Rates, Utah and U.S., 1981-2002



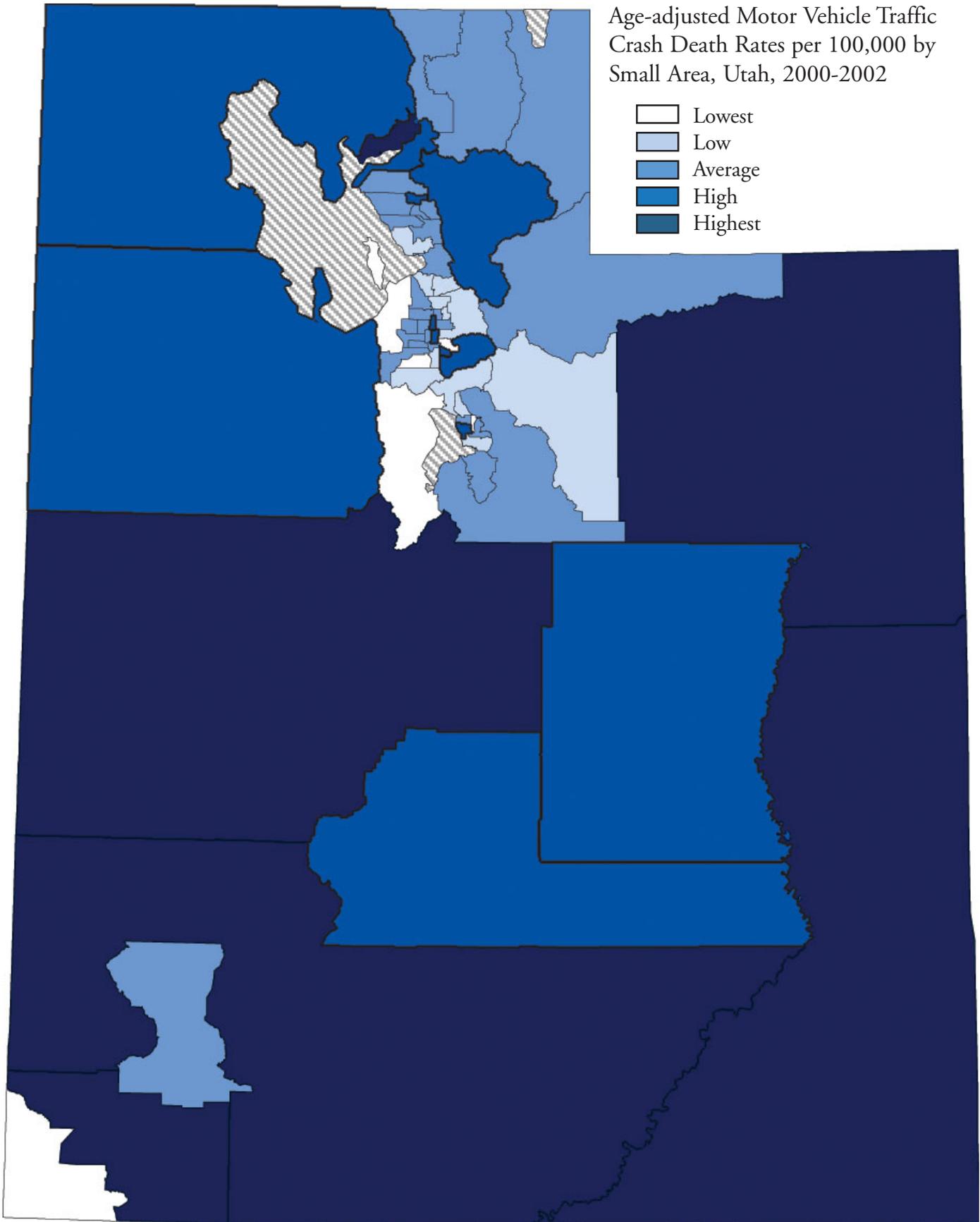
Sources: Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; Utah Governor's Office of Planning and Budget; National Vital Statistics System, National Center for Health Statistics, U.S. Centers for Disease Control and Prevention
 Note: Data have been age adjusted to U.S. 2000 standard population; ICD-9 codes E810-819; ICD-10 codes (see Appendix A).

Motor Vehicle Death Ranking, 2000-2002	Rate*
South Jordan	2.1
Magna	4.8
Lehi/Cedar Valley	5.4
St. George	6.0
East Orem	6.0
Cottonwood	6.4
Sandy Center	6.5
Foothill/U of U	6.8
Woods Cross/No. SL	6.9
Holladay	7.4
Wasatch Co.	7.5
Riverton/Draper	7.5
American Fork/Alpine	7.6
Provo South	8.0
Bountiful	8.0
Avenues	8.9
Syracuse/Kaysville	9.4
Pleasant Grove/Lindon	9.6
Farmington/Centerville	9.7
Millcreek	9.8
Glendale	9.8
Riverdale	10.7
Provo/BYU	10.9
Clearfield/Hill AFB	11.0
Utah Co. South	11.1
Summit Co.	12.0
Other Cache/Rich Co.	12.3
Cedar City	12.4
Layton	12.5
West Valley East	12.8
Springville/Spanish Fork	13.0
Kearns	13.4
Logan	13.5
Taylorsville	13.8
W. Jordan, Copperton	14.0
Midvale	14.0
West Jordan No.	14.1
Roy/Hooper	14.8
Rose Park	14.8
Downtown Salt Lake	14.9
Ben Lomond	15.1
North Orem	15.5
South Ogden	15.8
West Valley West	15.8
Morgan/E Weber Co.	16.2
Sandy, SE	18.1
Tooele Co.	18.2
Sandy, NE	18.7
Sevier/Piute/Wayne Co.	19.2
West Orem	19.5
Murray	20.5
South Salt Lake	20.7
Other Box Elder Co.	21.1
Downtown Ogden	21.6
Carbon/Emery Co.	21.8
Other Southwest Dist.	22.3
Brigham City	22.9
Other Washington Co.	25.2
Juab/Millard/Sanpete Co.	28.4
TriCounty LHD	35.9
Grand/San Juan Co.	44.9

* Age adjusted # of deaths per 100,000.

Motor Vehicle Traffic Crash Deaths

Age-adjusted Motor Vehicle Traffic Crash Death Rates per 100,000 by Small Area, Utah, 2000-2002



Source: Utah Death Certificate Database

Motor Vehicle Traffic Crash Deaths

Motor Vehicle Traffic Crash Deaths by Small Area Utah, 2000-2002

Rank	Area of Residence	Average Population	Motor Vehicle Deaths per 100,000 Population			
			Average Annual Number of Events	Crude Rates	Age Adjusted Rates*	
					Lower	Upper
	State Total	2,288,068	299	13.1	13.7	(12.8 - 14.7)
57	Brigham City	21,306	4	20.3	22.9	(12.1 - 39.5)
53	Other Box Elder Co.	21,957	5	22.8	21.1	(11.5 - 35.4)
33	Logan	59,888	7	11.1	13.5	(7.8 - 21.8)
27	Other Cache/Rich Co.	35,646	4	11.2	12.3	(6.0 - 22.3)
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43	South Ogden	34,593	5	14.5	15.8	(8.7 - 26.2)
38	Roy/Hooper	40,599	5	12.3	14.8	(7.9 - 25.2)
22	Riverdale	25,265	3	10.6	10.7	(4.5 - 21.3)
24	Clearfield/Hill AFB	52,461	5	10.2	11.0	(5.9 - 18.8)
29	Layton	63,293	7	10.5	12.5	(7.3 - 19.9)
17	Syracuse/Kaysville	37,140	3	9.0	9.4	(4.3 - 17.7)
19	Farmington/Centerville	27,882	2	7.2	9.7	(2.2 - 27.1)
9	Woods Cross/North SL	19,359	1	6.9	6.9	(1.8 - 17.9)
14	Bountiful	44,886	4	8.2	8.0	(3.9 - 14.6)
38	Rose Park	32,358	4	13.4	14.8	(7.6 - 26.0)
16	Avenues	21,926	2	9.1	8.9	(3.2 - 19.6)
8	Foothill/U of U	23,221	2	7.2	6.8	(2.1 - 16.4)
2	Magna	23,294	1	4.3	4.8	(0.8 - 15.2)
20	Glendale	26,554	2	8.8	9.8	(3.7 - 21.0)
43	West Valley West	66,932	9	13.9	15.8	(10.2 - 23.4)
30	West Valley East	48,584	6	11.7	12.8	(7.2 - 21.1)
40	Downtown Salt Lake	50,533	6	12.5	14.9	(8.5 - 24.3)
52	South Salt Lake	24,556	4	17.6	20.7	(10.8 - 35.9)
20	Millcreek	57,224	6	10.5	9.8	(5.7 - 15.6)
10	Holladay	44,846	3	6.7	7.4	(3.3 - 14.1)
6	Cottonwood	43,519	3	6.1	6.4	(2.7 - 12.8)
32	Kearns	65,350	9	13.3	13.4	(8.3 - 20.5)
34	Taylorsville	38,109	5	13.1	13.8	(7.4 - 23.3)
51	Murray	30,930	7	22.6	20.5	(12.6 - 31.4)
35	Midvale	28,577	4	14.0	14.0	(7.0 - 24.9)
37	West Jordan No.	44,676	5	11.2	14.1	(6.1 - 27.5)
35	W. Jordan, Copperton	41,743	5	11.2	14.0	(6.7 - 25.6)
1	South Jordan	31,669	1	2.1	2.1	(0.3 - 7.5)
7	Sandy Center	51,861	3	6.4	6.5	(3.0 - 12.1)
48	Sandy, Northeast	25,148	4	17.2	18.7	(9.2 - 33.8)
46	Sandy, Southeast	30,588	4	13.1	18.1	(8.1 - 34.8)
11	Riverton/Draper	62,791	4	5.8	7.5	(3.1 - 15.1)
47	Tooele Co.	43,865	8	17.5	18.2	(11.3 - 27.6)
3	Lehi/Cedar Valley	26,424	2	6.3	5.4	(1.8 - 12.6)
13	American Fork/Alpine	39,620	3	7.6	7.6	(3.3 - 14.8)
18	Pleasant Grove/Lindon	37,851	3	7.9	9.6	(3.6 - 20.7)
42	North Orem	35,731	5	14.0	15.5	(8.2 - 26.6)
50	West Orem	29,543	4	14.7	19.5	(9.6 - 35.2)
4	East Orem	22,141	1	6.0	6.0	(1.5 - 15.8)
23	Provo/BYU	48,704	5	10.3	10.9	(5.3 - 20.0)
14	Provo South	57,318	4	6.4	8.0	(3.0 - 17.1)
31	Springville/Spanish Fork	59,202	6	10.7	13.0	(7.7 - 20.7)
25	Utah Co. South	26,387	3	11.4	11.1	(4.9 - 21.5)
26	Summit Co.	31,104	4	12.9	12.0	(6.2 - 21.0)
11	Wasatch Co.	15,995	1	8.3	7.5	(2.0 - 19.3)
60	TriCounty LHD	41,453	14	33.8	35.9	(25.6 - 48.9)
59	Juab/Millard/Sanpete Co.	44,288	13	28.6	28.4	(19.9 - 39.4)
49	Sevier/Piute/Wayne Co.	23,040	4	18.8	19.2	(10.1 - 33.2)
55	Carbon/Emery Co.	30,716	7	22.8	21.8	(13.4 - 33.5)
61	Grand/San Juan Co.	22,714	9	41.1	44.9	(29.7 - 65.2)
4	St. George	53,715	3	6.2	6.0	(2.7 - 11.3)
58	Other Washington Co.	41,445	10	24.9	25.2	(17.0 - 36.1)
28	Cedar City	29,612	3	9.0	12.4	(4.9 - 25.9)
56	Other Southwest Dist.	21,854	5	24.4	22.3	(12.7 - 36.4)

* Rates have been age adjusted to the U.S. 2000 standard population.

ICD-10 codes: see Appendix A

Source: Utah Death Certificate Database

Homicide

Definition: Number of homicide deaths per 100,000 population (age-adjusted).

Healthy People 2010 Objective 15-32: Homicides (age-adjusted per 100,000 standard population)

- U.S. Target for 2010: 3.0
- State-specific Target: 2.0

Why Is It Important?

Homicide is considered by experts to be a reliable barometer of violent crime and, at a national level, no other crime is measured as accurately and precisely.² Males are most often the victims and the perpetrators in homicides; males were 10 times more likely than females to commit murder.² Most homicides are committed with firearms, occur during an argument, and occur among people who are acquainted. There were, on average, 57 homicides among Utah residents each of the past four years (1999-2002). Overall, the U.S. has experienced a steady decline in homicide rates since 1991, while Utah rates have remained fairly consistent, aside from occasional, likely random, variation. Preventing homicide requires a community effort, including measures such as reducing gang activity, teaching conflict resolution in schools and to adults, and ensuring that firearms are stored and handled appropriately.

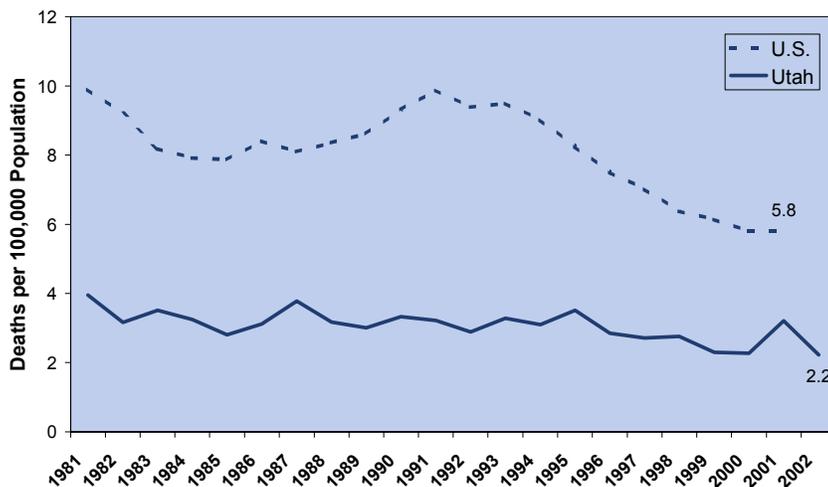
Risk Factors for Homicide

National research has identified a variety of factors that contribute to homicide: beliefs supportive of violence; social cognitive deficits; poor monitoring and supervision of children; exposure to violence; parental drug/alcohol abuse; adolescent drug/alcohol abuse; association with peers engaged in high-risk behavior; poverty and low economic opportunity; and high levels of family disruption. Similar factors have been determined to exist and influence violence among Utah children and youth.

Homicide Ranking, 1999-2002	Rate*
Summit	0.0
Davis	1.0
Bear River	1.1
Central	1.2
Utah	1.4
Southwest	1.4
Wasatch	3.0
Salt Lake	3.3
Southeastern	3.5
Weber-Morgan	4.3
Tooele	4.4
TriCounty	4.6

* Age adjusted # of deaths per 100,000.

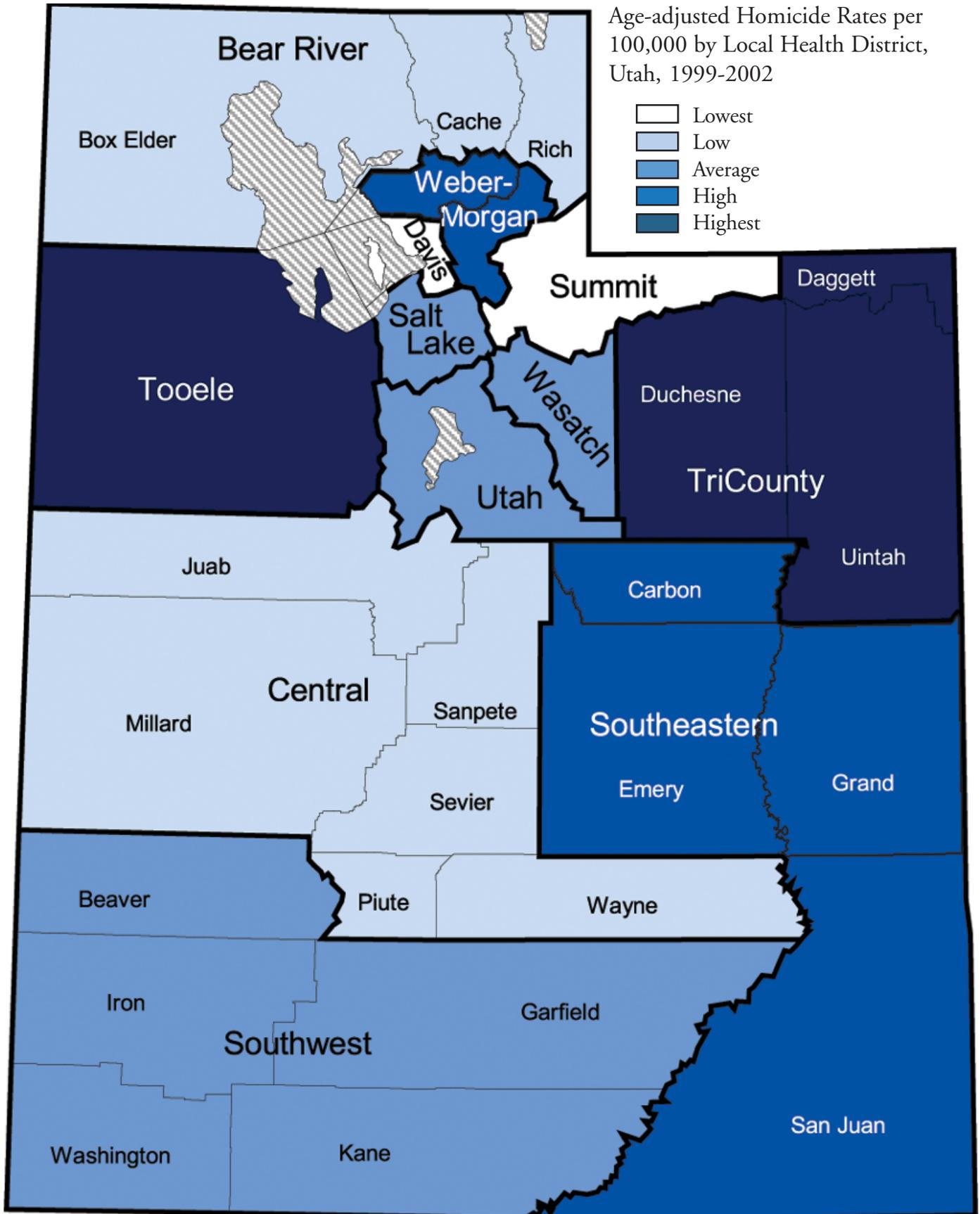
Homicide Rates, Utah and U.S., 1981-2002



Sources: Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; Utah Governor's Office of Planning and Budget; National Vital Statistics System, National Center for Health Statistics, U.S. Centers for Disease Control and Prevention

Note: Data are age adjusted to the U.S. 2000 standard population; ICD-9 codes E960-E969; ICD-10 codes X85-Y09, Y87.1.

The CDC has developed a National Violent Death Reporting System (NVDRS) to link records from violent deaths. This system collects data from death certificates and police, medical examiner, and coroner reports. Together, these sources provide the who, what, where, when, why, and how of violent incidents and should offer insight for community and programmatic intervention.



Source: Utah Death Certificate Database

Homicides by Local Health District Utah, 1999-2002

Rank	Area of Residence	Average Population	Homicides per 100,000 Population			
			Average Annual Number of Events	Crude Rates	Age Adjusted Rates*	
					95% Confidence Interval Lower	Upper
	State Total	2,264,308	57	2.5	2.5	(2.2 - 2.9)
3	Bear River	137,663	2	1.3	1.1	(0.4 - 2.4)
4	Central	66,809	1	1.1	1.2	(0.3 - 3.6)
2	Davis	242,603	3	1.2	1.0	(0.5 - 1.8)
8	Salt Lake	907,550	31	3.4	3.3	(2.7 - 3.9)
9	Southeastern	53,697	2	3.7	3.5	(1.5 - 7.0)
5	Southwest	144,384	2	1.0	1.4	(0.5 - 3.1)
1	Summit	30,527	0	0.0	0.0	(. - .)
11	Tooele	42,471	2	4.1	4.4	(1.7 - 9.2)
12	TriCounty	41,135	2	4.9	4.6	(2.0 - 9.3)
5	Utah	376,809	5	1.2	1.4	(0.8 - 2.2)
7	Wasatch	15,636	1	3.2	3.0	(0.3 - 10.9)
10	Weber-Morgan	205,024	9	4.4	4.3	(3.0 - 6.0)

* Rates have been age adjusted to the U.S. 2000 standard population.

ICD-10 codes: X85-Y09, and Y87.1.

Note: Confidence intervals were not calculated for values of 0.

Source: Utah Death Certificate Database

Unintentional Injury Deaths

Definition: Number of unintentional injury deaths per 100,000 population (age-adjusted).

Healthy People 2010 Objective 15-13: Deaths from unintentional injuries - (age-adjusted per 100,000 standard population)

- U.S. Target for 2010: 17.5
- State-specific Target: 30.0

Why Is It Important?

In Utah, unintentional injuries are the leading cause of death and disability for all residents aged 1-44, and the third leading cause of death for those aged 45-54. Each year, an average of 650 Utahns die from unintentional injuries and another 9,000 are hospitalized. Injuries also account for more than 180,000 Utah emergency department visits annually.

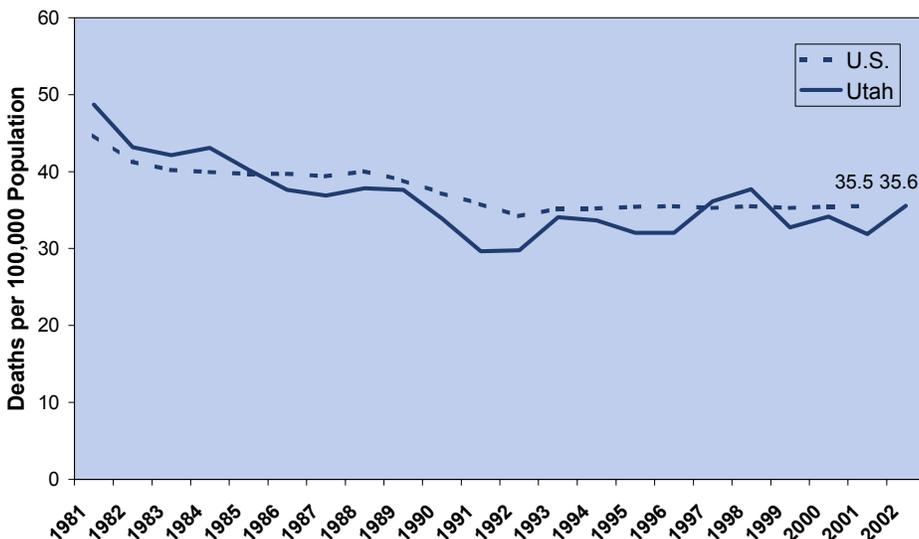
Risk Factors for Unintentional Injuries

Utah's high-priority injury prevention areas include: motor vehicle crash injury, including crashes involving bicycles and pedestrians, and fall-related injury. Other areas of focus include drowning, which is the second leading cause of injury death for Utah children, as well as poisoning, suffocation, ATV crashes, burns, and firearm injuries.

The vast majority of injuries can be prevented by choosing safe behaviors, using safety equipment like car seats and motorcycle and bike helmets, and obeying safety laws.

Unintentional Injury Death Ranking, 2000-2002	Rate*
Woods Cross/No. SL	15.2
Sandy Center	20.8
Provo South	21.3
Taylorsville	22.8
Avenues	23.0
Bountiful	23.1
Magna	24.0
St. George	24.3
Foothill/U of U	24.3
South Jordan	24.6
Lehi/Cedar Valley	25.3
North Orem	25.6
Roy/Hooper	26.3
West Valley East	26.6
Layton	26.6
Riverdale	26.7
East Orem	27.3
Holladay	27.8
Utah Co. South	27.8
Syracuse/Kaysville	27.9
American Fork/Alpine	28.2
W. Jordan, Copperton	28.4
Millcreek	28.7
Other Cache/Rich Co.	29.1
Farmington/Centerville	29.2
Morgan/E Weber Co.	29.6
South Ogden	29.9
Springville/Spanish Fork	30.6
Cottonwood	30.7
Summit Co.	30.8
Clearfield/Hill AFB	30.8
Provo/BYU	32.1
Logan	32.8
Pleasant Grove/Lindon	33.2
West Jordan No.	33.9
Ben Lomond	34.0
Riverton/Draper	35.3
West Orem	36.9
Kearns	37.5
Wasatch Co.	37.7
Sandy, NE	37.9
Murray	39.5
West Valley West	39.8
Cedar City	40.1
Downtown Salt Lake	41.1
Sevier/Piute/Wayne Co.	42.1
Sandy, SE	43.4
Other Box Elder Co.	44.0
Glendale	45.3
Downtown Ogden	45.5
Brigham City	45.8
Tooele Co.	46.4
Midvale	46.9
Other Southwest Dist.	47.9
South Salt Lake	48.8
Carbon/Emery Co.	49.9
Rose Park	50.8
Other Washington Co.	55.8
Juab/Millard/Sanpete Co.	61.4
Grand/San Juan Co.	63.2
TriCounty LHD	73.8

Unintentional Injury Death Rates, Utah and U.S., 1981-2002

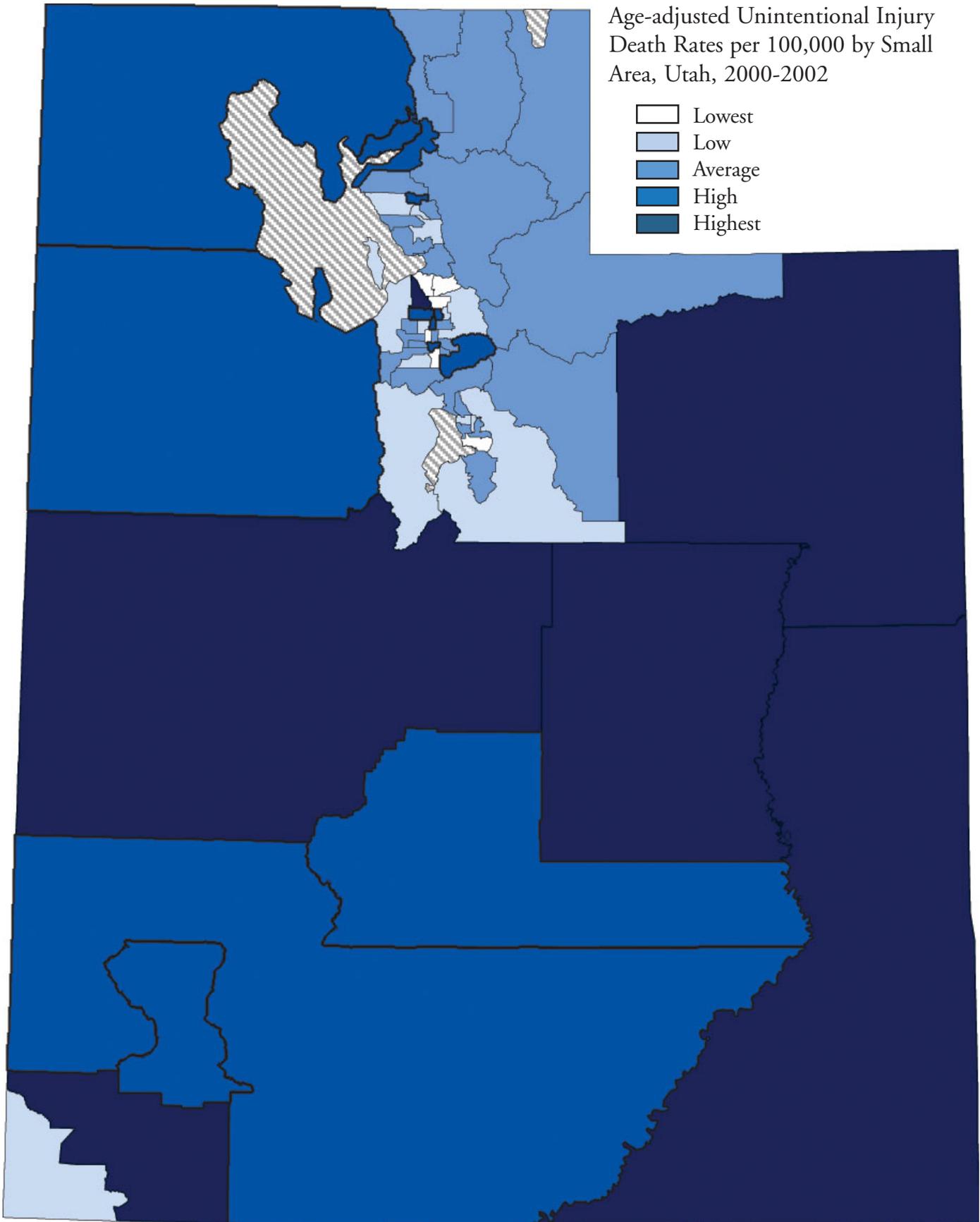


Sources: Office of Vital Records and Statistics, Utah Department of Health; Utah Governor's Office of Planning and Budget; U.S. Centers for Disease Control and Prevention, on-line data - CDC WONDER
 Note: Age adjusted to U.S. 2000 standard population; ICD-9 codes E800-E869, E880-E929; ICD-10 codes V01-X59, Y85-Y86.

* Age adjusted # of deaths per 100,000.

Unintentional Injury Deaths

Age-adjusted Unintentional Injury Death Rates per 100,000 by Small Area, Utah, 2000-2002



Source: Utah Death Certificate Database

Unintentional Injury Deaths

Unintentional Injury Deaths by Small Area Utah, 2000-2002

Rank	Area of Residence	Average Population	Unintentional Injury Deaths per 100,000 Population			
			Average Annual Number of Events		Age Adjusted Rates*	
			Crude Rates		95% Confidence Interval	
					Lower	Upper
	State Total	2,288,068	664	29.0	33.9	(32.3 - 35.4)
51	Brigham City	21,306	9	40.7	45.8	(29.8 - 67.4)
48	Other Box Elder Co.	21,957	9	41.0	44.0	(28.4 - 64.9)
33	Logan	59,888	15	25.0	32.8	(23.3 - 44.9)
24	Other Cache/Rich Co.	35,646	9	26.2	29.1	(18.8 - 43.0)
36	Ben Lomond	44,855	14	32.0	34.0	(24.4 - 46.0)
26	Morgan/East Weber Co.	33,182	8	24.1	29.6	(18.5 - 45.1)
50	Downtown Ogden	28,047	11	39.2	45.5	(30.9 - 64.6)
27	South Ogden	34,593	10	29.9	29.9	(20.2 - 42.8)
13	Roy/Hooper	40,599	8	19.7	26.3	(16.4 - 39.9)
16	Riverdale	25,265	6	25.1	26.7	(16.0 - 42.0)
30	Clearfield/Hill AFB	52,461	12	23.5	30.8	(20.6 - 44.4)
14	Layton	63,293	13	20.5	26.6	(18.3 - 37.5)
20	Syracuse/Kaysville	37,140	8	20.6	27.9	(16.8 - 43.7)
25	Farmington/Centerville	27,882	6	22.7	29.2	(15.0 - 51.3)
1	Woods Cross/North SL	19,359	3	15.5	15.2	(6.9 - 29.2)
6	Bountiful	44,886	11	23.8	23.1	(15.7 - 32.7)
57	Rose Park	32,358	12	36.1	50.8	(34.2 - 72.5)
5	Avenues	21,926	5	22.8	23.0	(12.7 - 38.1)
8	Foothill/U of U	23,221	6	27.3	24.3	(14.4 - 38.5)
7	Magna	23,294	5	20.0	24.0	(12.4 - 41.8)
49	Glendale	26,554	10	36.4	45.3	(30.0 - 65.8)
43	West Valley West	66,932	16	24.4	39.8	(27.1 - 56.3)
14	West Valley East	48,584	10	21.3	26.6	(17.3 - 39.0)
45	Downtown Salt Lake	50,533	19	36.9	41.1	(30.4 - 54.2)
55	South Salt Lake	24,556	11	43.4	48.8	(33.0 - 69.5)
23	Millcreek	57,224	19	33.2	28.7	(21.5 - 37.5)
18	Holladay	44,846	14	30.5	27.8	(19.7 - 38.1)
29	Cottonwood	43,519	10	23.7	30.7	(20.2 - 44.5)
39	Kearns	65,350	17	25.5	37.5	(24.9 - 54.2)
4	Taylorsville	38,109	8	21.9	22.8	(14.5 - 34.3)
42	Murray	30,930	13	43.1	39.5	(28.1 - 54.0)
53	Midvale	28,577	10	35.0	46.9	(30.6 - 68.9)
35	West Jordan No.	44,676	11	24.6	33.9	(20.5 - 52.8)
22	W. Jordan, Copperton	41,743	8	18.4	28.4	(15.7 - 47.2)
10	South Jordan	31,669	4	13.7	24.6	(11.8 - 45.1)
2	Sandy Center	51,861	9	18.0	20.8	(13.5 - 30.5)
41	Sandy, Northeast	25,148	7	29.2	37.9	(22.2 - 60.4)
47	Sandy, Southeast	30,588	7	22.9	43.4	(23.1 - 74.2)
37	Riverton/Draper	62,791	11	18.0	35.3	(21.2 - 55.1)
52	Tooele Co.	43,865	16	37.2	46.4	(33.4 - 62.8)
11	Lehi/Cedar Valley	26,424	6	21.4	25.3	(12.6 - 45.4)
21	American Fork/Alpine	39,620	8	20.2	28.2	(17.3 - 43.4)
34	Pleasant Grove/Lindon	37,851	7	18.5	33.2	(18.9 - 54.1)
12	North Orem	35,731	8	23.3	25.6	(16.1 - 38.8)
38	West Orem	29,543	7	24.8	36.9	(22.2 - 57.7)
17	East Orem	22,141	5	21.1	27.3	(14.1 - 47.5)
32	Provo/BYU	48,704	12	25.3	32.1	(21.8 - 45.7)
3	Provo South	57,318	8	14.5	21.3	(12.2 - 34.5)
28	Springville/Spanish Fork	59,202	13	22.5	30.6	(21.4 - 42.3)
18	Utah Co. South	26,387	6	24.0	27.8	(16.1 - 44.8)
30	Summit Co.	31,104	8	25.7	30.8	(18.3 - 48.6)
40	Wasatch Co.	15,995	5	33.3	37.7	(21.1 - 62.2)
61	TriCounty LHD	41,453	28	66.7	73.8	(58.4 - 92.0)
59	Juab/Millard/Sanpete Co.	44,288	26	58.0	61.4	(48.1 - 77.1)
46	Sevier/Piute/Wayne Co.	23,040	10	42.0	42.1	(28.1 - 60.8)
56	Carbon/Emery Co.	30,716	15	48.8	49.9	(36.2 - 67.1)
60	Grand/San Juan Co.	22,714	13	55.8	63.2	(44.5 - 87.0)
8	St. George	53,715	14	26.7	24.3	(17.2 - 33.3)
58	Other Washington Co.	41,445	22	53.1	55.8	(42.7 - 71.5)
44	Cedar City	29,612	8	27.0	40.1	(24.9 - 61.3)
54	Other Southwest Dist.	21,854	11	50.3	47.9	(32.8 - 67.5)

* Rates have been age adjusted to the U.S. 2000 standard population.

ICD-10 codes: V01-X59, and Y85-Y86.

Source: Utah Death Certificate Database

Suicide

Definition: Number of deaths due to intentional self-inflicted injury per 100,000 population (age-adjusted).

Healthy People 2010 Objective 18-1: Suicide (age-adjusted per 100,000 standard population)

- U.S. Target for 2010: 5.0
- State-specific Target: none listed

Why Is It Important?

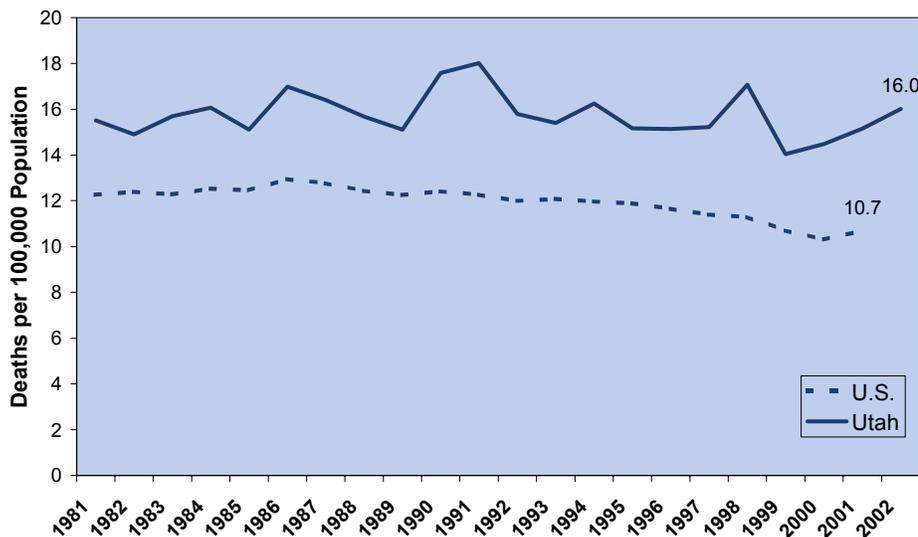
Suicide in Utah accounts for nearly as many deaths as motor vehicle crashes and Utah's rate is 10th highest in the nation. More teenagers and young adults die from suicide than from cancer, heart disease, AIDS, birth defects, stroke, pneumonia and influenza, and chronic lung disease combined.³ Between the years 1999 and 2002, 1,228 Utahns committed suicide, making it the second leading cause of injury death for Utahns aged 10-34, and the third leading cause of death among those aged 35-44.

Risk Factors for Suicide

Many conditions and stressors may be related to suicide. The most common risk factors for suicide are:

- undiagnosed and untreated mental health conditions (depression, anxiety, etc.)
- behavioral problems
- impulsivity
- low self-esteem
- substance use and abuse
- contact with Juvenile Court (for youth)

Suicide Rates, Utah and U.S., 1981-2002

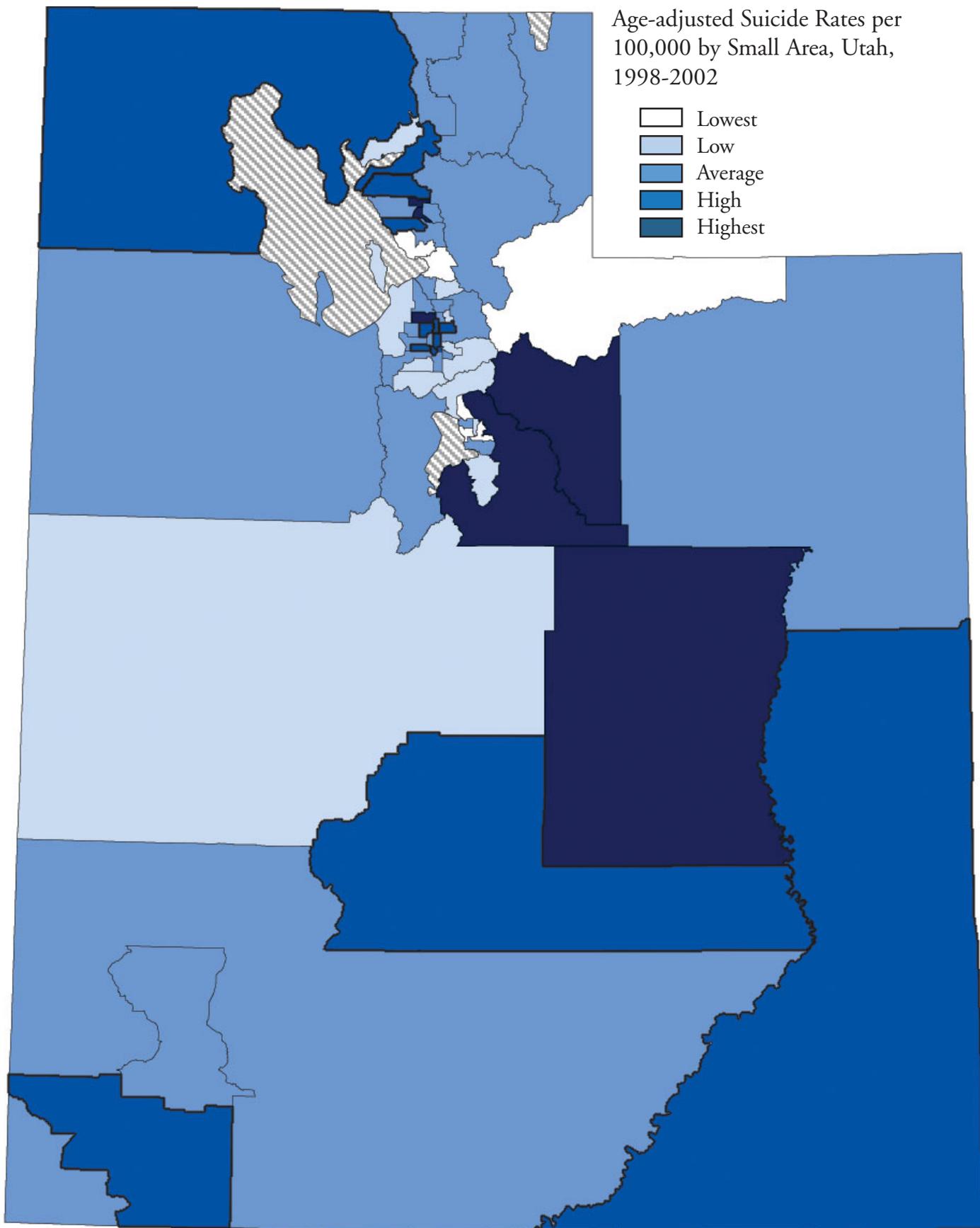


Sources: Population Estimates: Utah Governor's Office of Planning and Budget; Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; U.S. Centers for Disease Control and Prevention, on-line data - CDC WONDER

Note: Age adjusted to U.S. 2000 population; ICD-9 codes E950-E959, ICD-10 codes X60-X84, Y87.0.

Suicide Ranking, 1998-2002	Rate*
Pleasant Grove/Lindon	6.7
West Orem	6.9
Syracuse/Kaysville	7.2
Farmington/Centerville	7.4
Summit Co.	7.4
Provo/BYU	7.7
American Fork/Alpine	8.6
Foothill/U of U	8.6
Riverton/Draper	8.9
East Orem	10.0
Sandy, SE	10.5
Brigham City	10.9
South Jordan	11.3
Magna	11.4
Bountiful	11.5
Springville/Spanish Fork	11.6
Cottonwood	12.0
Juab/Millard/Sanpete Co.	12.7
Avenues	13.2
Taylorsville	13.3
W. Jordan, Copperton	13.5
North Orem	13.6
Sandy Center	13.8
West Valley West	13.9
Sandy, NE	14.4
Other Cache/Rich Co.	14.4
Other Southwest Dist.	14.6
Lehi/Cedar Valley	14.8
Logan	15.4
Woods Cross/No. SL	15.5
Roy/Hooper	15.5
South Ogden	15.7
Kearns	16.1
Holladay	16.2
Tooele Co.	16.6
Provo South	16.8
Morgan/E Weber Co.	16.8
Cedar City	16.9
Layton	17.3
St. George	17.8
Downtown Salt Lake	18.1
TriCounty LHD	18.2
Rose Park	18.5
Murray	18.6
West Valley East	18.7
Millcreek	19.1
Grand/San Juan Co.	19.1
Other Washington Co.	19.3
Midvale	19.4
Sevier/Piute/Wayne Co.	19.5
Clearfield/Hill AFB	20.5
Ben Lomond	20.6
West Jordan No.	20.9
South Salt Lake	21.5
Other Box Elder Co.	23.0
Wasatch Co.	23.6
Riverdale	23.9
Utah Co. South	24.5
Carbon/Emery Co.	24.9
Downtown Ogden	25.0
Glendale	26.0

* Age adjusted # of deaths per 100,000.



Source: Utah Death Certificate Database

Suicides by Small Area Utah, 1998-2002

Rank	Area of Residence	Average Population	Suicides per 100,000 Population			
			Average Annual Number of Events	Crude Rates	Age Adjusted Rates*	
					Lower	Upper
	State Total	2,239,772	312	13.9	15.3	(14.5 - 16.1)
12	Brigham City	20,973	2	10.5	10.9	(5.4 - 19.7)
55	Other Box Elder Co.	21,768	4	20.2	23.0	(14.2 - 35.1)
29	Logan	58,612	7	11.2	15.4	(10.3 - 22.2)
25	Other Cache/Rich Co.	35,122	4	11.9	14.4	(8.8 - 22.4)
52	Ben Lomond	44,207	8	18.5	20.6	(14.7 - 28.0)
36	Morgan/East Weber Co.	32,580	5	14.7	16.8	(10.5 - 25.4)
60	Downtown Ogden	27,559	6	22.5	25.0	(16.8 - 35.9)
32	South Ogden	34,189	5	15.2	15.7	(10.1 - 23.2)
30	Roy/Hooper	40,013	5	13.5	15.5	(10.1 - 22.8)
57	Riverdale	24,760	5	21.8	23.9	(15.6 - 35.0)
51	Clearfield/Hill AFB	50,554	9	17.4	20.5	(14.2 - 28.8)
39	Layton	61,843	10	15.5	17.3	(12.6 - 23.3)
3	Syracuse/Kaysville	36,544	2	4.9	7.2	(3.2 - 14.0)
4	Farmington/Centerville	27,389	2	7.3	7.4	(3.4 - 14.0)
30	Woods Cross/North SL	19,006	3	13.7	15.5	(7.7 - 28.0)
15	Bountiful	44,640	5	11.2	11.5	(7.4 - 17.1)
43	Rose Park	31,642	5	14.5	18.5	(11.6 - 27.9)
19	Avenues	21,842	3	14.6	13.2	(7.4 - 21.7)
7	Foothill/U of U	23,001	2	8.7	8.6	(4.1 - 16.1)
14	Magna	22,889	3	11.3	11.4	(5.8 - 20.0)
61	Glendale	25,949	5	20.8	26.0	(16.8 - 38.3)
24	West Valley West	65,856	9	13.1	13.9	(9.9 - 18.9)
45	West Valley East	47,704	8	16.8	18.7	(12.9 - 26.1)
41	Downtown Salt Lake	49,971	9	18.4	18.1	(13.0 - 24.5)
54	South Salt Lake	24,332	5	21.3	21.5	(13.9 - 32.0)
46	Millcreek	57,133	11	18.9	19.1	(14.3 - 25.1)
34	Holladay	44,872	7	15.1	16.2	(11.1 - 22.7)
17	Cottonwood	43,398	5	11.5	12.0	(7.6 - 17.9)
33	Kearns	64,776	10	14.8	16.1	(11.6 - 21.8)
20	Taylorsville	37,204	5	14.5	13.3	(8.6 - 19.6)
44	Murray	30,729	6	18.9	18.6	(12.4 - 27.0)
49	Midvale	28,185	5	18.4	19.4	(12.4 - 29.0)
53	West Jordan No.	44,042	7	16.8	20.9	(13.4 - 30.9)
21	W. Jordan, Copperton	39,842	5	13.0	13.5	(8.5 - 20.4)
13	South Jordan	30,036	3	9.3	11.3	(5.8 - 19.9)
23	Sandy Center	51,538	6	12.4	13.8	(9.3 - 19.8)
25	Sandy, Northeast	25,496	4	14.1	14.4	(8.2 - 23.3)
11	Sandy, Southeast	30,395	3	8.5	10.5	(5.0 - 19.5)
9	Riverton/Draper	59,351	4	6.4	8.9	(4.7 - 15.4)
35	Tooele Co.	41,071	7	16.1	16.6	(11.3 - 23.5)
28	Lehi/Cedar Valley	25,022	4	14.4	14.8	(8.3 - 24.4)
7	American Fork/Alpine	38,276	3	7.3	8.6	(4.6 - 14.7)
1	Pleasant Grove/Lindon	36,170	3	7.2	6.7	(3.5 - 11.5)
22	North Orem	35,898	4	10.6	13.6	(8.0 - 21.5)
2	West Orem	28,223	2	7.1	6.9	(3.0 - 13.5)
10	East Orem	21,174	2	8.5	10.0	(4.5 - 19.4)
6	Provo/BYU	47,751	3	5.9	7.7	(3.8 - 13.9)
36	Provo South	55,477	6	11.2	16.8	(10.2 - 26.0)
16	Springville/Spanish Fork	56,839	6	10.2	11.6	(7.6 - 17.0)
58	Utah Co. South	25,580	5	18.7	24.5	(15.4 - 36.9)
4	Summit Co.	29,956	2	6.7	7.4	(3.1 - 14.9)
56	Wasatch Co.	15,335	3	22.2	23.6	(13.7 - 38.0)
42	TriCounty LHD	40,752	7	16.7	18.2	(12.5 - 25.5)
18	Juab/Millard/Sanpete Co.	43,644	5	11.0	12.7	(8.1 - 19.0)
50	Sevier/Piute/Wayne Co.	22,737	4	18.4	19.5	(12.0 - 29.9)
59	Carbon/Emery Co.	31,100	7	22.5	24.9	(17.2 - 34.7)
46	Grand/San Juan Co.	22,804	4	16.6	19.1	(11.5 - 30.0)
40	St. George	52,165	8	15.7	17.8	(12.7 - 24.5)
48	Other Washington Co.	39,468	7	17.7	19.3	(13.4 - 27.0)
38	Cedar City	28,794	4	14.6	16.9	(10.1 - 26.5)
27	Other Southwest Dist.	21,592	3	13.9	14.6	(8.1 - 24.3)

* Rates have been age adjusted to the U.S. 2000 standard population.

ICD-9 codes: E950-E959; ICD-10 codes: X60-X84, and Y87.0. ICD-9 and ICD-10 adjusted for comparability.

Source: Utah Death Certificate Database

Definition: Percentage of adults aged 18 years and older who reported seven or more days when their mental health was not good in the past 30 days.

Similar to Healthy People 2010 Objective 18-9b: Increase the proportion of adults with mental disorders who receive treatment - Adults ages 18 to 54 years with serious mental illness.

Why Is It Important?

Mental health refers to an individual's ability to negotiate the daily challenges and social interactions of life without experiencing undue emotional or behavioral incapacity. Untreated mental health problems cause decreased productivity and impair social relationships. Parents with mental health problems may inadvertently cause problems for their children through impaired social relationships. Some persons abuse drugs or alcohol as an attempt to "self medicate" the emotional pain of a mental health problem. Unfortunately, the stigma of a mental health problem causes many individuals to go without treatment. It is estimated that fewer than 30% of Utahns with poor mental health seek treatment.⁴

Poor Mental Health Days Ranking, 2001-2003	Percent*
Summit	11.1%
Bear River	12.3%
Davis	12.5%
Wasatch	12.9%
Utah	13.4%
Weber-Morgan	14.0%
Salt Lake	15.4%
Southeastern	16.2%
Tooele	16.2%
Central	17.4%
TriCounty	17.5%
Southwest	18.5%

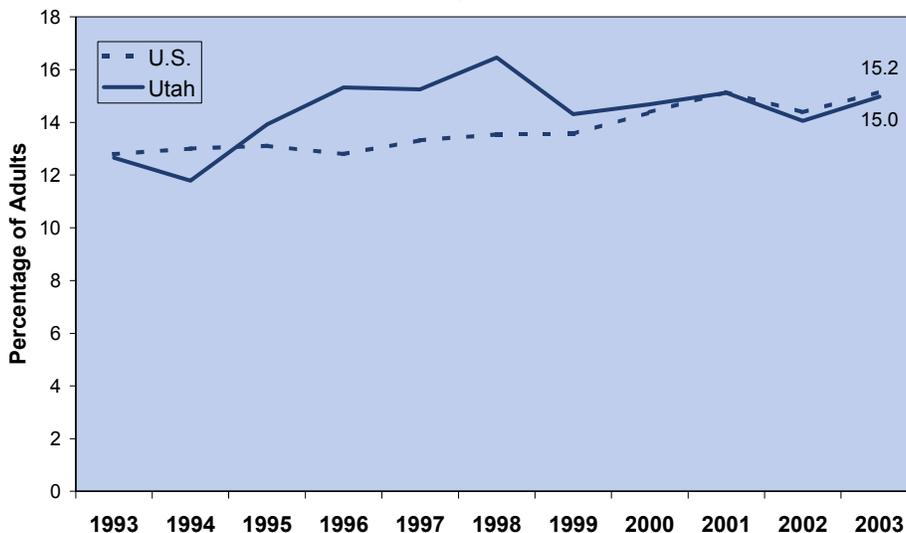
* Age adjusted percentages.

Risk Factors for Poor Mental Health Days

Mental health and mental disorders can be influenced by numerous conditions including biologic and genetic vulnerabilities, acute or chronic physical dysfunction, and environmental conditions and stresses. Young adults, aged 18-24, are most likely to report seven or more days of poor mental health in the past month, as are females, and those with lower incomes and educational attainment.

Mental health problems are associated with lower income and education levels. It is likely that mental health problems are as much a cause of low income and education level as they are a result of them.

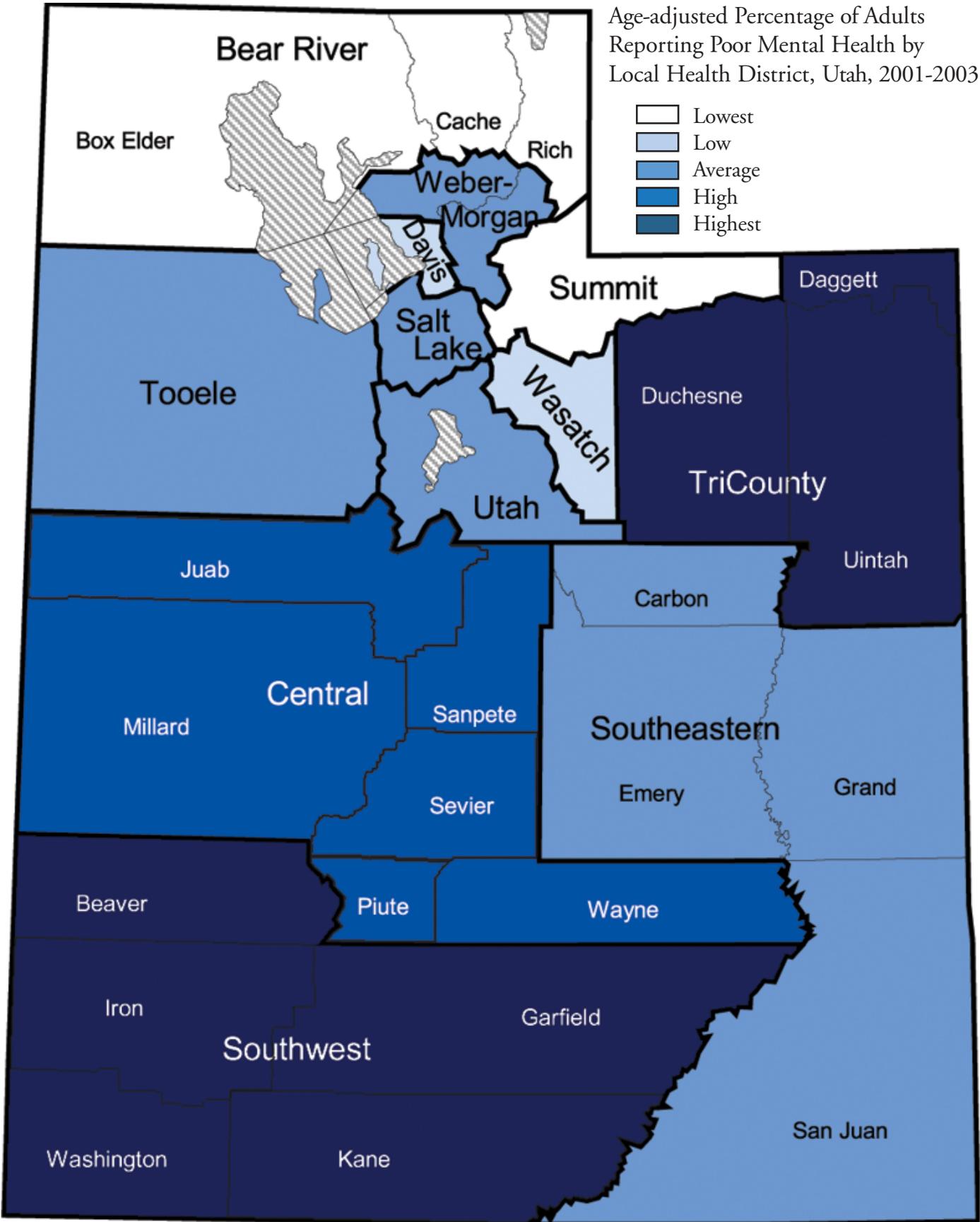
Percentage of Adults Who Reported 7+ Days Mental Health Not Good in the Past 30 Days, Utah and U.S., 1993-2003



Sources: Utah Data: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health; U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS)
 Note: Age adjusted to U.S. 2000 population. U.S. data are the average for all states and the District of Columbia but do not include the U.S. territories. In 2002, the U.S. data includes only 22 states that asked the question.

Poor Mental Health Days

Age-adjusted Percentage of Adults Reporting Poor Mental Health by Local Health District, Utah, 2001-2003



Source: Utah Behavioral Risk Factor Surveillance System

Self-reported Poor Mental Health Days by Local Health District Utah Adults Ages 18 and Over, 2001-2003

Rank	Area of Residence	Average Adult Population (Ages 18+)	Percentage of Adults Ages 18+ Reporting 7 or More Days in Past 30 When Their Mental Health Was Not Good			
			Average Annual Number of Adults	Crude Rates	Age Adjusted Rates*	
					Lower	Upper
	State Total	1,588,190	244,192	15.4%	14.7%	(13.9% - 15.6%)
2	Bear River	95,435	12,581	13.2%	12.3%	(9.7% - 14.9%)
10	Central	45,566	7,886	17.3%	17.4%	(14.4% - 20.4%)
3	Davis	164,964	22,189	13.5%	12.5%	(10.0% - 15.1%)
7	Salt Lake	646,050	103,787	16.1%	15.4%	(13.9% - 16.8%)
8	Southeastern	36,642	5,997	16.4%	16.2%	(13.0% - 19.3%)
12	Southwest	104,390	18,722	17.9%	18.5%	(15.3% - 21.7%)
1	Summit	22,982	2,456	10.7%	11.1%	(8.1% - 14.1%)
8	Tooele	30,286	4,855	16.0%	16.2%	(13.2% - 19.3%)
11	TriCounty	27,944	5,005	17.9%	17.5%	(14.4% - 20.6%)
5	Utah	258,294	38,849	15.0%	13.4%	(11.3% - 15.6%)
4	Wasatch	11,201	1,480	13.2%	12.9%	(9.7% - 16.1%)
6	Weber-Morgan	144,437	20,370	14.1%	14.0%	(11.2% - 16.8%)

* Percentages have been age adjusted to the U.S. 2000 standard population.

Source: Utah Behavioral Risk Factor Surveillance System

Cigarette Smoking

Definition: Percentage of adults aged 18 years and older who have smoked at least 100 cigarettes in their life time and who now report smoking cigarettes every day or some days.

Healthy People 2010 Objective 27-1a: Cigarette smoking - Adults (age-adjusted, ages 18 years and older)

- U.S. Target for 2010: 12%
- State-specific Target: 11%

Why Is It Important?

More than 440,000 deaths each year are attributed to cigarette smoking, making it the leading preventable cause of death in the United States. Smoking increases the risk for chronic lung disease, coronary heart disease, and stroke, as well as cancer of the lungs, larynx, esophagus, mouth, and bladder. In addition, smoking contributes to cancer of the cervix, pancreas, and kidneys. Secondhand smoke has been shown to increase the risk for heart disease and lung cancer among nonsmokers. Quitting smoking has major and immediate health benefits for people of all ages.

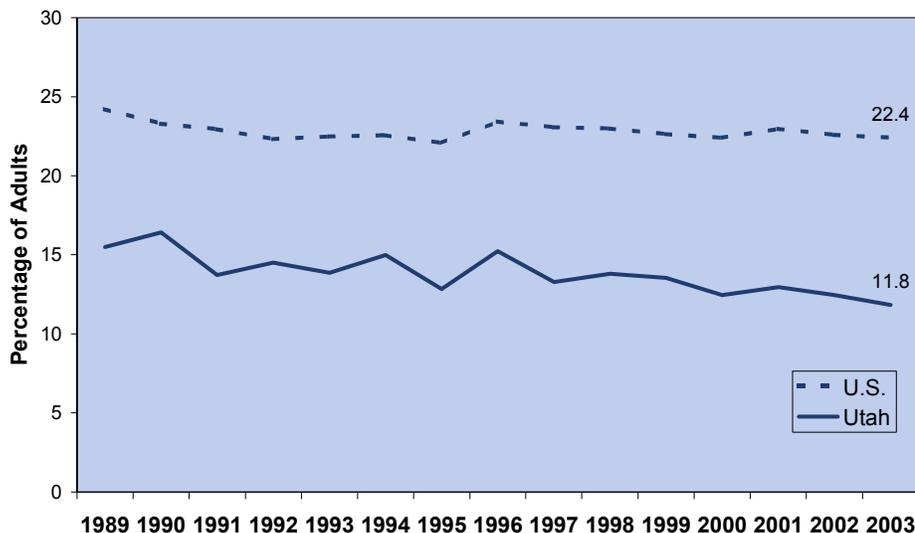
Cigarette Smoking Ranking, 2001-2003	Percent*
Utah	6.0%
Bear River	7.0%
Wasatch	8.5%
Summit	8.6%
Davis	10.1%
Central	14.1%
Salt Lake	14.4%
Southwest	14.5%
Weber-Morgan	15.6%
TriCounty	18.1%
Tooele	18.8%
Southeastern	19.2%

* Age adjusted percentages.

Risk Factors for Smoking

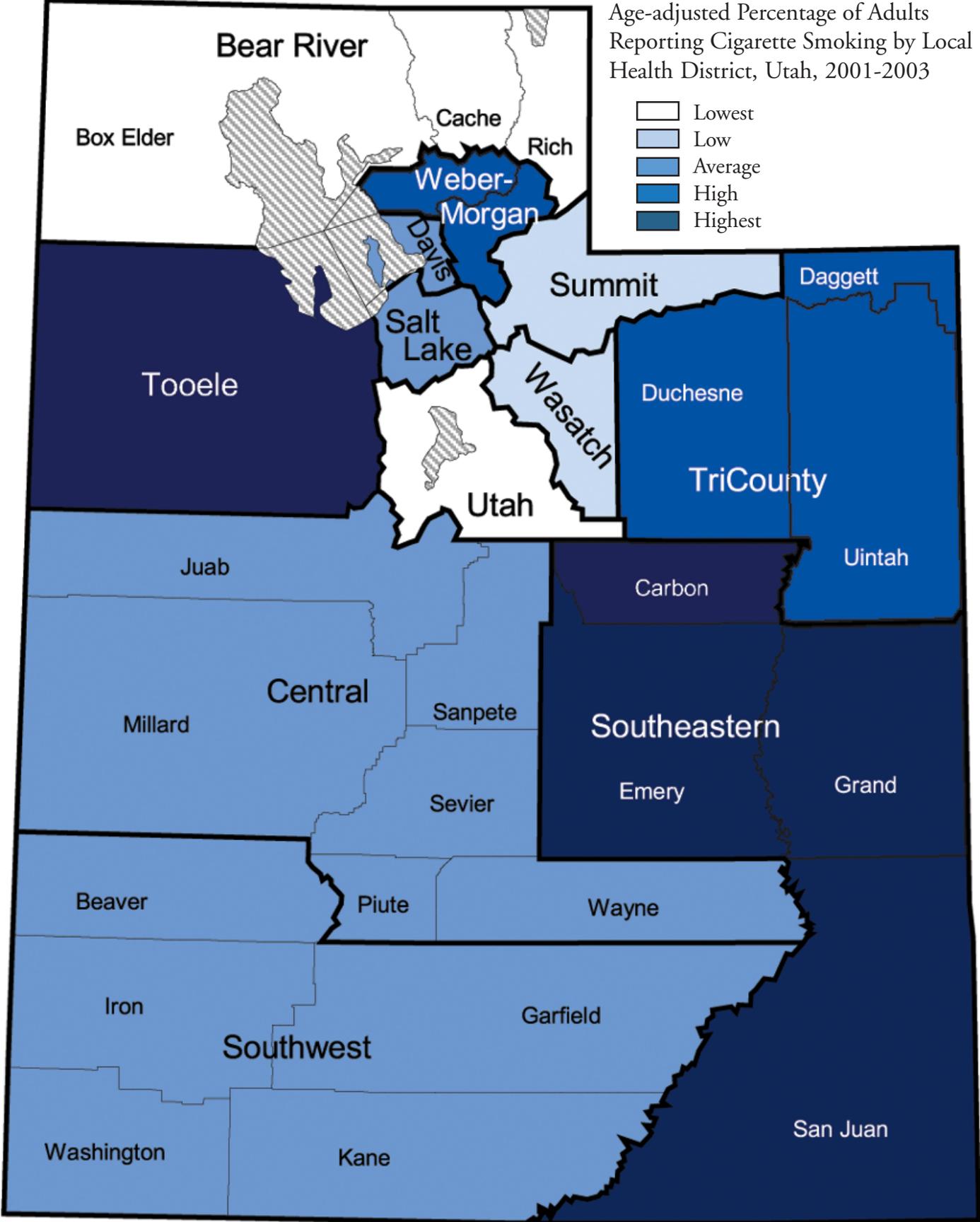
Nationally and in Utah the least advantaged population groups (people with lower income and education) are at higher risk for smoking. Overall, approximately 80 percent of adult smokers start smoking before the age of 18. Early initiation of tobacco use has been shown to increase the likelihood of lifetime smoking and the risk for tobacco-related illnesses and mortality.⁵ Youth who smoke are more likely to have friends and family members who smoke, more likely to believe that smoking makes young people look cool or fit in, and are less likely to believe that tobacco use is harmful and addictive.⁵

Percentage of Adults Reporting Current Cigarette Smoking, Utah and U.S., 1989-2003



Sources: Utah Data: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health; U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS)
 Note: Age adjusted to U.S. 2000 population.

Cigarette Smoking



Source: Utah Behavioral Risk Factor Surveillance System

Cigarette Smoking

Cigarette Smoking by Local Health District Utah Adults Ages 18 and Over, 2001-2003

Rank	Area of Residence	Average Adult Population (Ages 18+)	Percentage of Adults Ages 18+ Reporting Current Smoking			
			Average Annual Number of Adults	Crude Rates	Age Adjusted Rates*	
					Lower	Upper
	State Total	1,588,190	200,465	12.6%	12.4%	(11.7% - 13.2%)
2	Bear River	95,435	6,394	6.7%	7.0%	(5.0% - 9.0%)
6	Central	45,566	6,404	14.1%	14.1%	(11.3% - 16.9%)
5	Davis	164,964	17,681	10.7%	10.1%	(7.8% - 12.4%)
7	Salt Lake	646,050	97,028	15.0%	14.4%	(13.0% - 15.8%)
12	Southeastern	36,642	6,969	19.0%	19.2%	(16.2% - 22.3%)
8	Southwest	104,390	14,133	13.5%	14.5%	(11.7% - 17.3%)
4	Summit	22,982	2,060	9.0%	8.6%	(6.0% - 11.2%)
11	Tooele	30,286	5,791	19.1%	18.8%	(15.3% - 22.2%)
10	TriCounty	27,944	5,153	18.4%	18.1%	(15.2% - 21.0%)
1	Utah	258,294	15,729	6.1%	6.0%	(4.4% - 7.6%)
3	Wasatch	11,201	978	8.7%	8.5%	(6.3% - 10.6%)
9	Weber-Morgan	144,437	22,290	15.4%	15.6%	(12.8% - 18.4%)

* Percentages have been age adjusted to the U.S. 2000 standard population.

Source: Utah Behavioral Risk Factor Surveillance System

Definition: Percentage of persons aged 18 years and older who have a body mass index (BMI) greater than or equal to 25. BMI is calculated from self-reported weight and height by dividing weight in kilograms by the square of height in meters.

Similar to Healthy People 2010 Objective 19-1: Increase the proportion of adults who are at a healthy weight.

Why Is It Important?

Being overweight increases the risk of many chronic diseases, including heart disease, stroke, hypertension, type 2 diabetes, osteoarthritis, and some cancers. Obesity is the second leading cause of preventable death in the U.S.⁶ Utahns have been gaining weight so rapidly that in 2002 over half of all adults were overweight or obese. The obesity epidemic among Utahns threatens to reverse the decades-long progress made in reducing death from chronic disease.

Overweight or Obese Ranking, 2001-2003	Percent*
Summit	41.4%
Davis	54.2%
Southwest	55.0%
Weber-Morgan	55.6%
Utah	55.9%
Wasatch	56.0%
Salt Lake	56.5%
Southeastern	57.3%
Bear River	57.4%
Central	61.0%
Tooele	62.5%
TriCounty	63.2%

* Age adjusted rates.

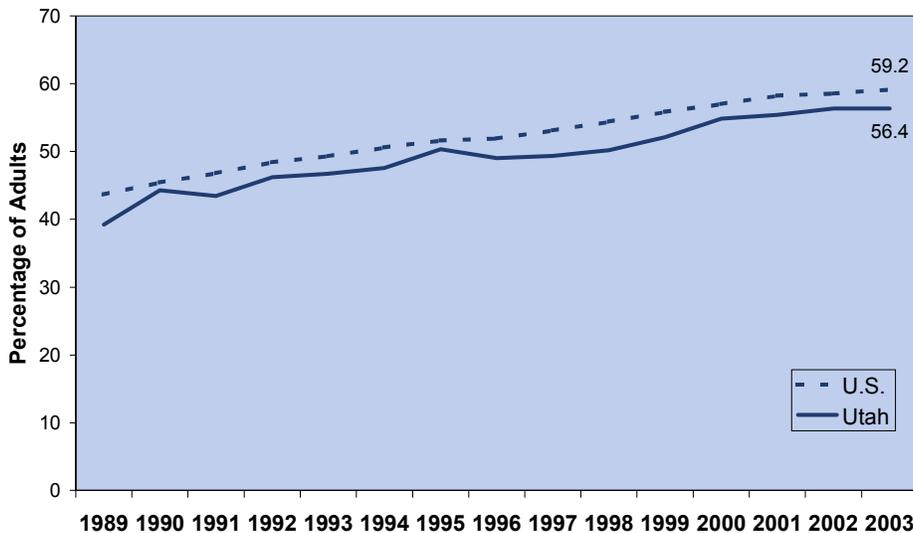
Risk Factors for Overweight or Obese

Genetic or familial factors may increase the risk for being overweight or obese for some people, but anyone whose calorie intake exceeds the number of calories they burn is at risk. Physical activity and a healthy diet are both important for maintaining a healthy weight.

Obese children are likely to become obese adults. According to the National Heart, Lung, and Blood Institute's *Clinical Guidelines on the Identification, Evaluation and Treatment of Overweight and Obesity in Adults*, a combined intervention of behavior therapy, a low calorie diet, and physical activity provides the most successful therapy for weight loss and weight maintenance. The initial goal of weight therapy should be to

reduce body weight by approximately 10% from baseline. A reasonable time line for a 10% reduction is 6 months.

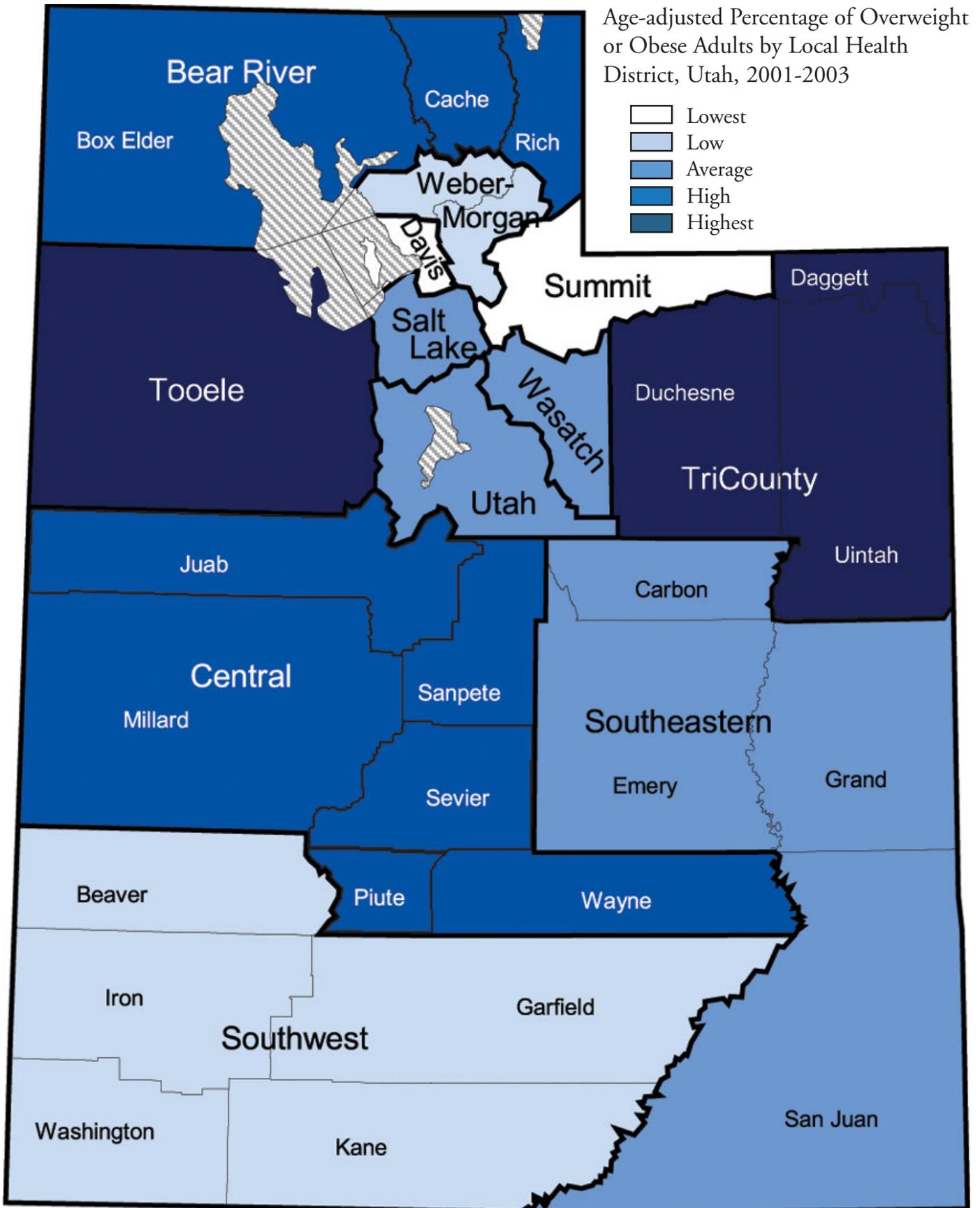
Percentage of Adults Who Were Overweight or Obese, Utah and U.S., 1989-2003



Sources: Utah Data: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health; U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS)

Note: Overweight or obese is defined as a Body Mass Index (Body Mass Index) of 25 or more. BMI is calculated by dividing weight in kilograms by the square of height in meters. Age adjusted to U.S. 2000 standard population.

Overweight or Obese



Source: Utah Behavioral Risk Factor Surveillance System

Overweight or Obese by Local Health District Utah Adults Ages 18 and Over, 2001-2003

Rank	Area of Residence	Average Adult Population (Ages 18+)	Percentage of Adults Ages 18+ Who Were Overweight or Obese			
			Average Annual Number of Adults	Crude Rates	Age Adjusted Rates*	
					Lower	Upper
	State Total	1,588,190	863,490	54.4%	56.0%	(54.8% - 57.2%)
9	Bear River	95,435	50,215	52.6%	57.4%	(53.7% - 61.1%)
10	Central	45,566	27,553	60.5%	61.0%	(57.2% - 64.8%)
2	Davis	164,964	87,000	52.7%	54.2%	(50.1% - 58.3%)
7	Salt Lake	646,050	359,586	55.7%	56.5%	(54.5% - 58.5%)
8	Southeastern	36,642	21,036	57.4%	57.3%	(53.3% - 61.3%)
3	Southwest	104,390	57,416	55.0%	55.0%	(51.0% - 59.0%)
1	Summit	22,982	9,433	41.0%	41.4%	(37.0% - 45.9%)
11	Tooele	30,286	18,937	62.5%	62.5%	(58.5% - 66.5%)
12	TriCounty	27,944	17,673	63.2%	63.2%	(59.3% - 67.1%)
5	Utah	258,294	128,709	49.8%	55.9%	(52.5% - 59.2%)
6	Wasatch	11,201	6,303	56.3%	56.0%	(51.1% - 60.8%)
4	Weber-Morgan	144,437	79,685	55.2%	55.6%	(51.7% - 59.5%)

* Percentages have been age adjusted to the U.S. 2000 standard population.

Source: Utah Behavioral Risk Factor Surveillance System

Regular Physical Activity

Definition: Percentage of adults aged 18 and older who reported participating in moderate physical activity for at least 30 minutes per day and five days a week OR vigorous physical activity for at least 20 minutes per day and three days a week.

Similar to Healthy People 2010 Objective 22-2: Moderate regular physical activity (age-adjusted, ages 18 years and older)

- U.S. Target for 2010: 50%
- State-specific Target: 65%

Why Is It Important?

Physical activity is recognized as an independent protective factor against cardiovascular disease. Physical activity has been shown to reduce the risk of some cancers, diabetes, stroke, and heart disease, and improve general physical and mental health. Weight-bearing activity improves bone density, reducing the risk of hip fracture. Regular activity helps to relieve pain from osteoarthritis. It would be difficult to overestimate the health-promoting influence of regular physical activity.

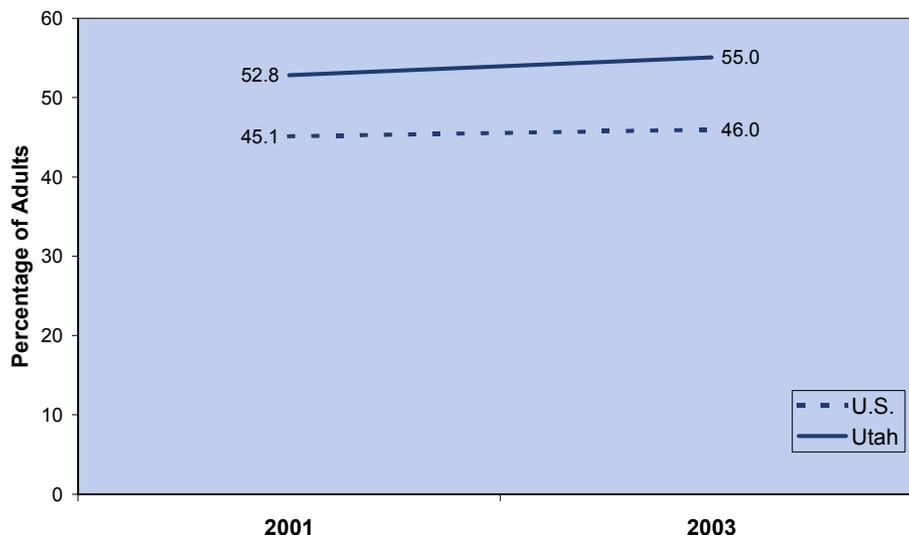
Risk Factors for No Regular Physical Activity

The percentage of persons who reported insufficient regular physical activity was higher among women, older adults, people who were overweight or obese, and those with less formal education and less income.

Regular Physical Activity Ranking, 2001 and 2003	Percent*
Summit	65.1%
Southwest	58.4%
Central	56.5%
Davis	56.1%
Weber-Morgan	55.3%
Wasatch	54.2%
Utah	53.7%
Southeastern	53.1%
Bear River	52.6%
Salt Lake	52.5%
TriCounty	52.2%
Tooele	49.7%

* Age adjusted percentages.

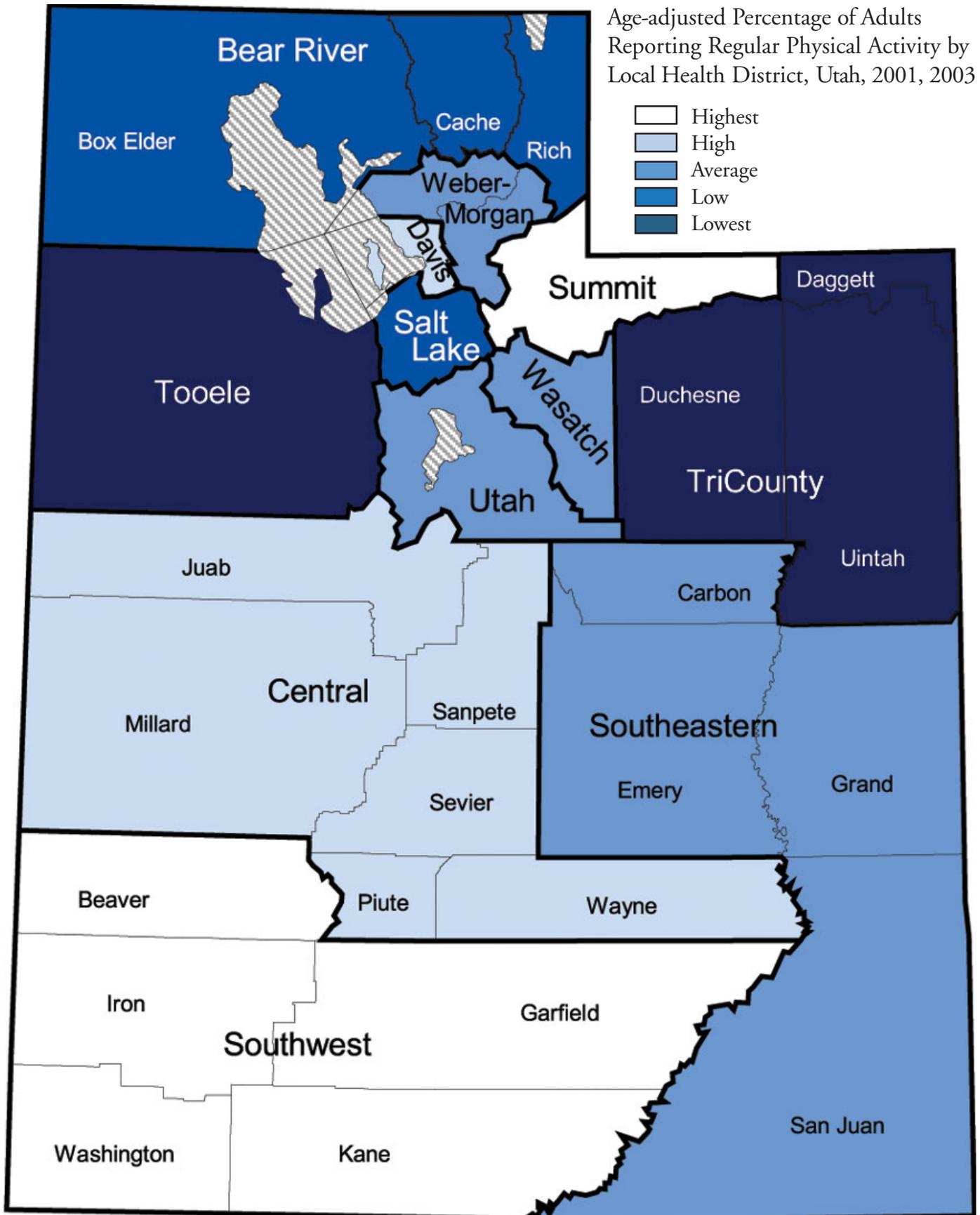
Percentage of Adults Reporting Regular Physical Activity, Utah and U.S., 2001 and 2003



Sources: Utah Data: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health; U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS)

Note: Through the year 2000, this indicator focused on leisure time activities, but did not capture information on occupational activities and activity incorporated into daily life. Beginning in 2001, the BRFSS questions were restructured and in addition to leisure time activity, they now reflect work-related and daily life physical activity. Due to changes in the questions, the rates of regular and vigorous physical activity are substantially higher beginning in 2001. Data collected before 2001 are not comparable to data collected in 2001 and beyond. Age adjusted to U.S. 2000 population.

Regular Physical Activity



Source: Utah Behavioral Risk Factor Surveillance System

Regular Physical Activity

Regular Physical Activity by Local Health District Utah Adults Ages 18 and Over, 2001 and 2003

Rank	Area of Residence	Average Adult Population (Ages 18+)	Percentage of Adults Ages 18+ Who Reported Regular Physical Activity [‡]			
			Average Annual Number of Adults	Crude Rates	Age Adjusted Rates* 95% Confidence Interval Lower Upper	
	State Total	1,588,727	876,045	55.1%	53.9%	(52.5% - 55.4%)
9	Bear River	95,409	52,835	55.4%	52.6%	(47.7% - 57.5%)
3	Central	45,535	26,005	57.1%	56.5%	(51.6% - 61.4%)
4	Davis	164,575	95,386	58.0%	56.1%	(51.1% - 61.1%)
10	Salt Lake	646,289	343,115	53.1%	52.5%	(50.0% - 54.9%)
8	Southeastern	36,594	19,479	53.2%	53.1%	(48.3% - 57.9%)
2	Southwest	104,441	60,335	57.8%	58.4%	(53.6% - 63.2%)
1	Summit	23,001	15,265	66.4%	65.1%	(59.9% - 70.4%)
12	Tooele	30,275	15,501	51.2%	49.7%	(44.3% - 55.1%)
11	TriCounty	27,905	14,794	53.0%	52.2%	(47.0% - 57.5%)
7	Utah	258,703	144,695	55.9%	53.7%	(49.3% - 58.0%)
6	Wasatch	11,186	6,108	54.6%	54.2%	(48.5% - 59.9%)
5	Weber-Morgan	144,818	82,453	56.9%	55.3%	(50.5% - 60.1%)

‡ Regular physical activity was defined as the percentage of adults aged 18 and over who reported participating in moderate physical activity for at least 30 minutes/day and 5 days/week OR vigorous physical activity for at least 20 minutes/day and 3 days/week.

Source: Utah Behavioral Risk Factor Surveillance System

Definition: Percentage of adults aged 18 years and older who reported binge drinking in the past 30 days. Binge drinking is defined as consuming five or more drinks of alcohol on an occasion one or more times during the past 30 days.

Healthy People 2010 Objective 26-11c: Binge drinking - Adults (ages 18 years and older)

- U.S. Target for 2010: 6.0%
- State-specific Target: none listed

Why Is It Important?

Binge drinking is an indicator of potentially serious alcohol abuse, and is related to driving under the influence of alcohol. It is a problem both locally and nationally, especially among males and young adults. Alcohol abuse is strongly associated with injuries and violence, chronic liver disease, fetal alcohol syndrome, and risk of other acute and chronic health conditions. Binge drinking among women of childbearing age is a problem because of the risk for prenatal alcohol exposure. Birth defects associated with prenatal alcohol exposure can occur during the first 6 to 8 weeks of pregnancy, before a woman typically knows she is pregnant.

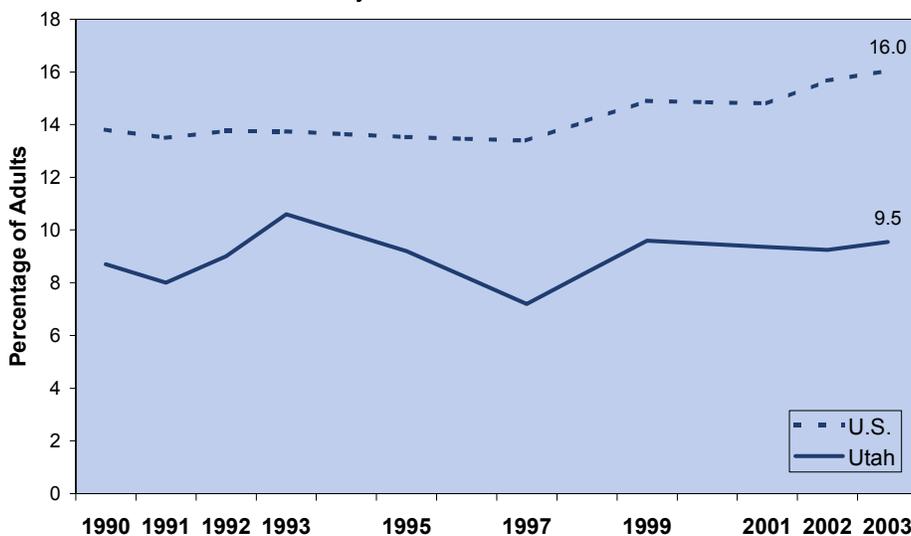
Binge Drinking Ranking, 2001-2003	Percent*
Utah	4.6%
Davis	6.5%
Bear River	6.7%
Wasatch	8.7%
Weber-Morgan	9.0%
Central	9.1%
Southwest	10.2%
TriCounty	11.0%
Southeastern	11.9%
Salt Lake	11.9%
Tooele	13.6%
Summit	18.3%

* Age adjusted percentages.

Risk Factors for Binge Drinking

Utah males are more likely to report binge drinking by a ratio of about 3:1 compared with females. Binge drinking declines with age. Persons with incomes under \$20,000 or no education after high school are more likely to engage in this behavior.

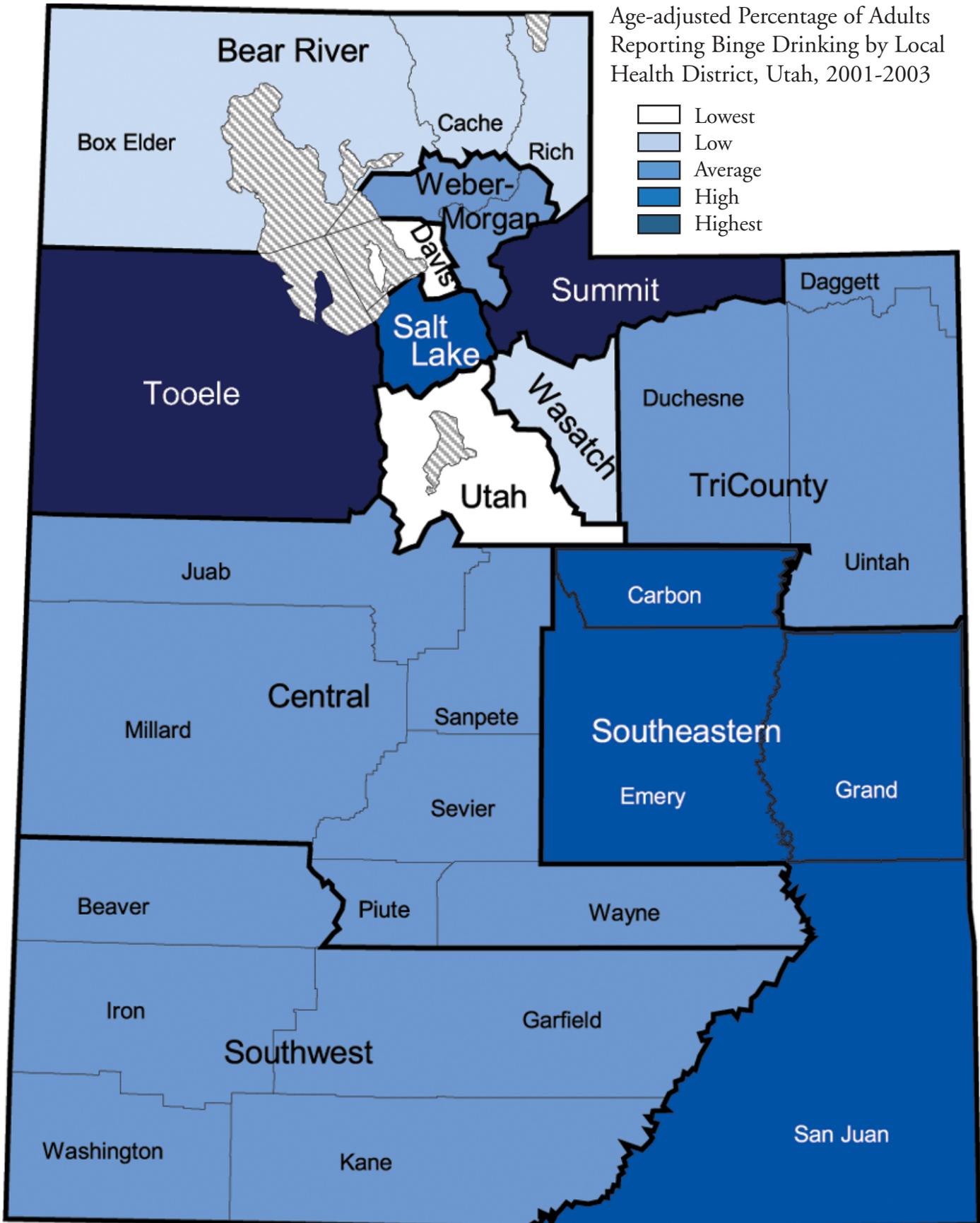
Percentage of Adults Who Reported Binge Drinking in the Past 30 Days, Utah and U.S., 1990-2003



Sources: Utah Data: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health; U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS)

Note: Binge drinking is defined as consuming five or more drinks of alcohol on an occasion one or more times during the past 30 days. A drink of alcohol is 1 can or bottle of beer, 1 glass of wine, 1 can or bottle of wine cooler, 1 cocktail, or 1 shot of liquor. U.S. data are the average value for all states and the District of Columbia; they do not include U.S. territories. This question was asked in the years 1990-1993, 1995, 1997, 1999, 2001, and 2002.

Binge Drinking



Source: Behavioral Risk Factor Surveillance System

Binge Drinking by Local Health District Utah Adults Aged 18 and Over, 2001-2003

Rank	Area of Residence	Average Adult Population (Aged 18+)	Percentage of Adults Aged 18+ Who Reported Binge Drinking			
			Average Annual Number of Adults	Crude Rates	Age Adjusted Rates*	
					Lower	Upper
	State Total	1,588,190	158,354	10.0%	9.4%	(8.7% - 10.1%)
3	Bear River	95,435	7,026	7.4%	6.7%	(4.6% - 8.8%)
6	Central	45,566	4,151	9.1%	9.1%	(6.7% - 11.6%)
2	Davis	164,964	11,869	7.2%	6.5%	(4.6% - 8.5%)
9	Salt Lake	646,050	82,559	12.8%	11.9%	(10.6% - 13.2%)
9	Southeastern	36,642	4,291	11.7%	11.9%	(9.1% - 14.6%)
7	Southwest	104,390	10,107	9.7%	10.2%	(7.7% - 12.7%)
12	Summit	22,982	4,621	20.1%	18.3%	(14.6% - 22.0%)
11	Tooele	30,286	4,353	14.4%	13.6%	(10.5% - 16.8%)
8	TriCounty	27,944	3,141	11.2%	11.0%	(8.4% - 13.7%)
1	Utah	258,294	11,861	4.6%	4.6%	(3.2% - 6.1%)
4	Wasatch	11,201	1,014	9.1%	8.7%	(6.4% - 11.0%)
5	Weber-Morgan	144,437	13,531	9.4%	9.0%	(6.9% - 11.2%)

* Percentages have been age adjusted to the U.S. 2000 standard population.

Source: Utah Behavioral Risk Factor Surveillance System

Binge Drinking Among Adolescents

Definition: Percentage of high school students who reported binge drinking during the past 30 days. Binge drinking is defined as consuming five or more drinks of alcohol on an occasion one or more times during the past 30 days.

Similar to Healthy People 2010 Objective 26-11d: Reduce the proportion of persons engaging in binge drinking of alcoholic beverages - Adolescents aged 12 to 17 years

Why Is It Important?

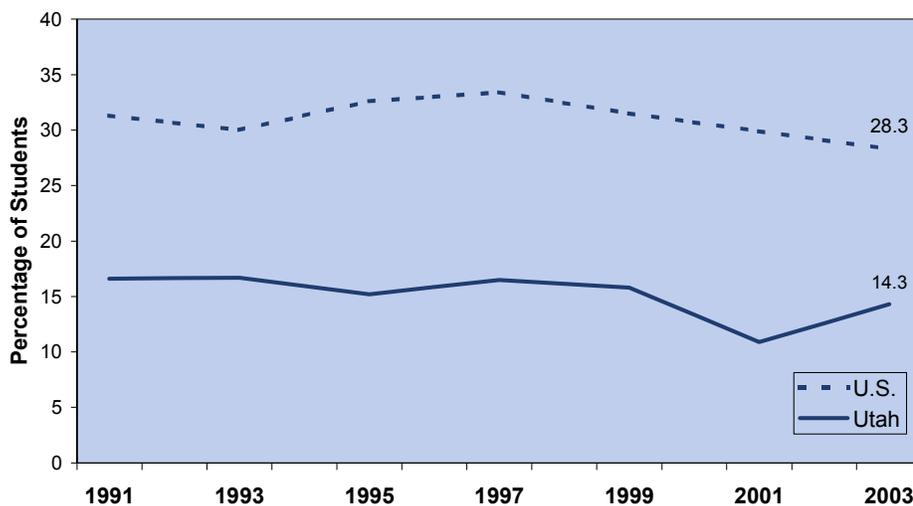
Binge drinking is a risk factor for driving under the influence of alcohol. According to the U.S. Public Health Service, “Health risk behaviors that contribute to the leading causes of illness, death, and social problems among youth and adults often are established during youth, extend into adulthood, and are interrelated.”¹

Risk Factors for Binge Drinking Among Adolescents

There are large differences in the susceptibility to development of a substance abuse disorder, based on both genetic predisposition and social/environmental factors.⁷ Family factors include having a parent with alcoholism or drug abuse problems, parental attitudes approving of drug use, and inconsistent, excessively lax, OR excessively severe parental discipline. Children who are poor academic achievers or have a criminal history are at higher risk, as are those who rebel against adult authority, smoke cigarettes, or exhibit early aggressive or antisocial behavior. Youth whose friends use drugs are also at higher risk of using drugs, themselves. Good social skills, a

Binge Drinking Among Adolescents Ranking, 2001	Percent
Utah	10.9%
Hawaii	18.8%
North Carolina	20.7%
Mississippi	22.1%
South Carolina	24.7%
Florida	24.8%
Alabama	25.0%
Idaho	27.2%
Delaware	27.3%
Tennessee	27.3%
Kentucky	28.3%
Illinois	28.4%
Vermont	29.0%
Louisiana	29.3%
Michigan	29.3%
Indiana	29.5%
Arkansas	30.0%
Rhode Island	30.7%
Texas	31.3%
Maine	31.5%
New Hampshire	32.1%
Nevada	32.4%
New Jersey	32.6%
Massachusetts	32.7%
Missouri	34.1%
Wisconsin	34.2%
Colorado	34.3%
New York	34.7%
South Dakota	36.5%
Iowa	37.0%
Wyoming	38.1%
Nebraska	39.0%
Montana	41.4%
North Dakota	41.5%

Percentage of Students Who Had Five or More Drinks of Alcohol in a Row, That Is, Within a Couple of Hours, on One or More of the Past 30 Days, Utah and U.S., 1991-2003

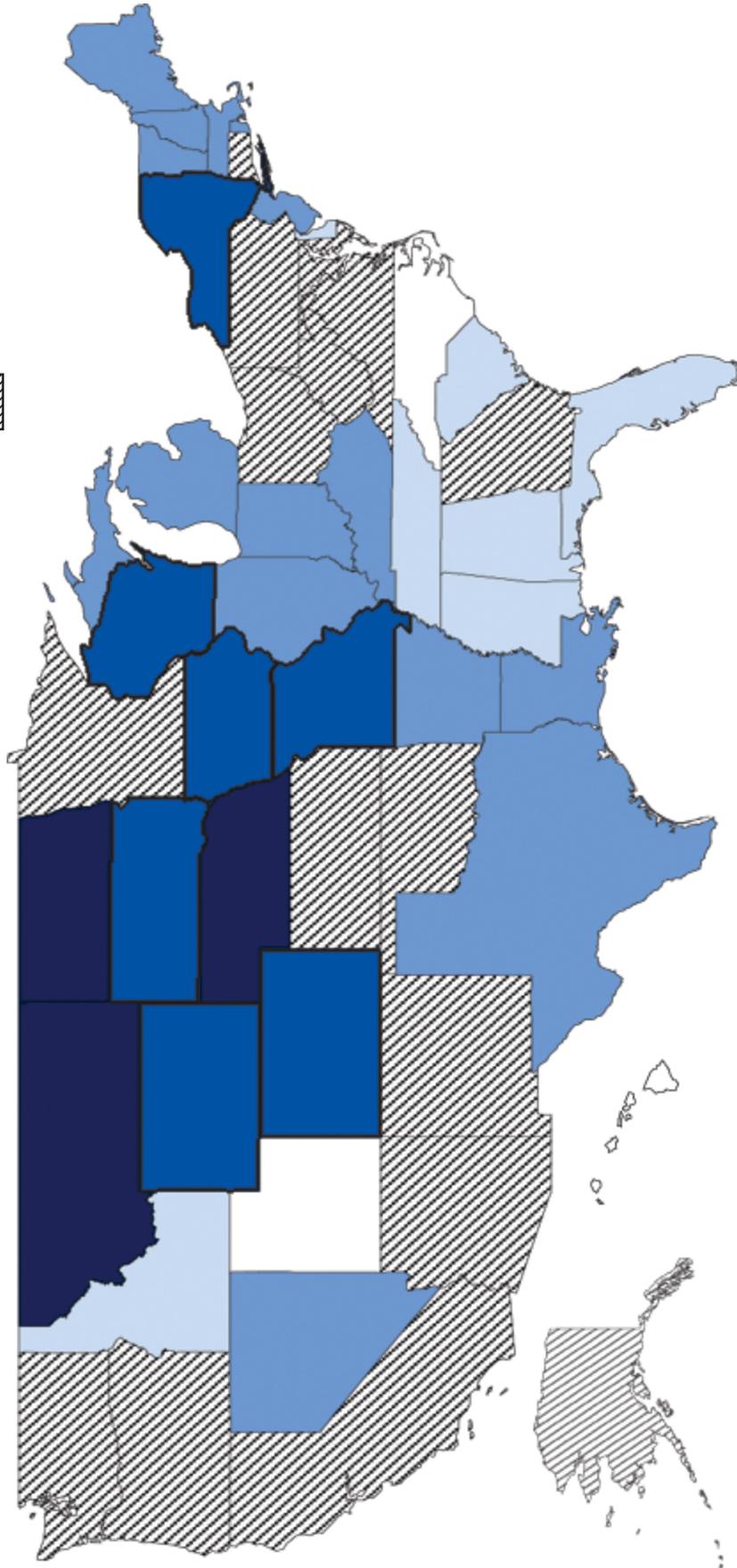
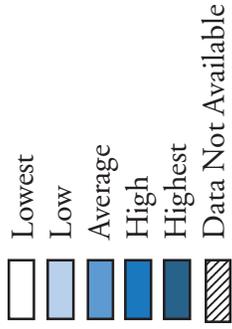


Sources: Utah Youth Risk Behavior Surveillance System, Utah State Office of Education; Youth Risk Behavior Surveillance System, National Center for Chronic Disease Prevention and Health Promotion
 Note: High school students grades 9-12 only.

positive sense of self, parental trust and high expectations, and supportive school and community environments tend to be protective against drug use.⁸ The most effective prevention and intervention projects focus on risk and protective factors within five major life domains: individual, family, peer, school, and community.

Binge Drinking Among Adolescents

Percentage of Adolescents Reporting Binge Drinking by State, Reporting States, 2001



Source: Youth Risk Behavior Surveillance System

Binge Drinking Among Adolescents

Binge Drinking Among Adolescents by State Reporting States, Adolescents Grades 9-12, 2001

Rank	Area of Residence	Adolescent Population (Grades 9-12)	Percentage of High School Students (Grades 9-12) Who Reported Binge Drinking During the Past 30 Days		
			Number of Students	Crude Rates	
				95% Confidence Interval Lower	Upper
	All Reporting States	15,893,079	4,752,031	29.9%	(27.9% - 31.9%)
7	Alabama	235,410	58,853	25.0%	(21.3% - 28.7%)
17	Arkansas	144,657	43,397	30.0%	(25.4% - 34.6%)
27	Colorado*	244,786	83,962	34.3%	(* - *)
9	Delaware	40,387	11,026	27.3%	(25.2% - 29.4%)
6	Florida	836,954	207,565	24.8%	(22.7% - 26.9%)
2	Hawaii*	66,928	12,582	18.8%	(* - *)
8	Idaho	83,927	22,828	27.2%	(22.5% - 31.9%)
12	Illinois*	673,372	191,238	28.4%	(* - *)
16	Indiana*	311,212	91,808	29.5%	(* - *)
30	Iowa*	167,819	62,093	37.0%	(* - *)
11	Kentucky*	217,539	61,564	28.3%	(* - *)
14	Louisiana*	272,257	79,771	29.3%	(* - *)
20	Maine	72,650	22,885	31.5%	(26.9% - 36.1%)
24	Massachusetts	318,777	104,240	32.7%	(30.6% - 34.8%)
14	Michigan	592,660	173,649	29.3%	(25.5% - 33.1%)
4	Mississippi	161,641	35,723	22.1%	(19.2% - 25.0%)
25	Missouri	308,586	105,228	34.1%	(29.3% - 38.9%)
33	Montana	55,400	22,936	41.4%	(38.6% - 44.2%)
32	Nebraska*	104,607	40,797	39.0%	(* - *)
22	Nevada	114,577	37,123	32.4%	(28.7% - 36.1%)
21	New Hampshire*	72,935	23,412	32.1%	(* - *)
23	New Jersey	425,880	138,837	32.6%	(27.7% - 37.5%)
28	New York*	1,038,933	360,510	34.7%	(* - *)
3	North Carolina	426,334	88,251	20.7%	(18.0% - 23.4%)
34	North Dakota	38,148	15,831	41.5%	(37.9% - 45.1%)
18	Rhode Island	54,262	16,658	30.7%	(27.8% - 33.6%)
5	South Carolina*	226,384	55,917	24.7%	(* - *)
29	South Dakota	44,250	16,151	36.5%	(32.0% - 41.0%)
9	Tennessee*	295,076	80,556	27.3%	(* - *)
19	Texas	1,268,840	397,147	31.3%	(28.8% - 33.8%)
1	Utah	154,821	16,875	10.9%	(7.4% - 14.4%)
13	Vermont	35,854	10,398	29.0%	(25.7% - 32.3%)
26	Wisconsin	319,210	109,170	34.2%	(30.8% - 37.6%)
31	Wyoming	33,204	12,651	38.1%	(35.4% - 40.8%)

* Note: unweighted data, response rate too low to project to general population.

Source: Youth Risk Behavior Surveillance System

Definition: Number of people believed to be living with HIV or AIDS per 100,000 population.

Similar to Healthy People 2010 Objective 13-5: (Developmental) Reduce the number of cases of HIV infection among adolescents and adults.

Why Is It Important?

HIV, human immunodeficiency virus, is the blood-borne virus that causes AIDS. AIDS, acquired immune deficiency syndrome, is a serious disease of the immune system in which the body’s defenses against infection are weakened, leaving one vulnerable to a variety of infections, including unusual malignancies.⁹ No treatment is available to cure AIDS, although antimicrobial and antiretroviral treatments now available extend survival among those who are infected with human immunodeficiency virus (HIV). HIV/AIDS is a global epidemic, and has the potential to affect all countries and population groups. About half of new HIV infections are among persons under age 25. If left untreated, persons who contract the HIV virus will die within ten years.

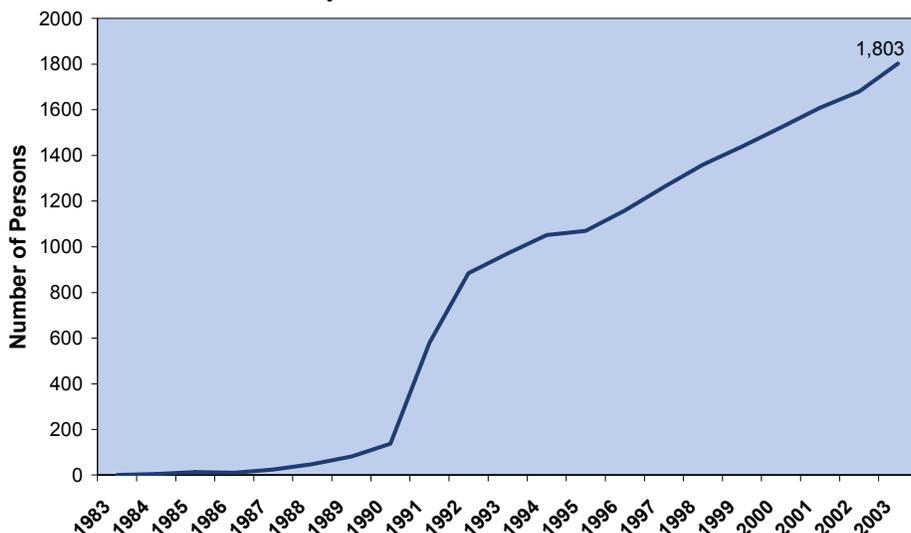
Risk Factors for HIV/AIDS

Persons contract HIV/AIDS primarily through unprotected sex with high risk persons (such as commercial sex workers, men having sex with men, and intravenous drug users) and intravenous drug use. Presence of another sexually transmitted disease has been shown to increase risk of transmission. A woman can pass the virus to her fetus, and use of infected blood products or organs, although rare, can also transmit the

HIV/AIDS Ranking, 2001	Rate*
North Dakota	18.1
Wyoming	36.1
South Dakota	37.8
Iowa	39.2
Idaho	48.0
Nebraska	67.4
West Virginia	68.7
Wisconsin	76.2
Utah	79.6
Minnesota	82.1
New Mexico	101.0
Michigan	109.7
Ohio	116.1
Indiana	117.1
Oklahoma	128.2
Arkansas	149.9
Missouri	169.5
Arizona	179.3
Alabama	209.8
Tennessee	210.7
Colorado	212.5
North Carolina	222.3
Virginia	225.7
Mississippi	234.8
Nevada	275.3
South Carolina	314.5
Louisiana	331.2
New Jersey	354.9
Florida	428.8

* Rate per 100,000.

Number of People Believed to Be Living With HIV or AIDS by Year, Utah, 1983-2003



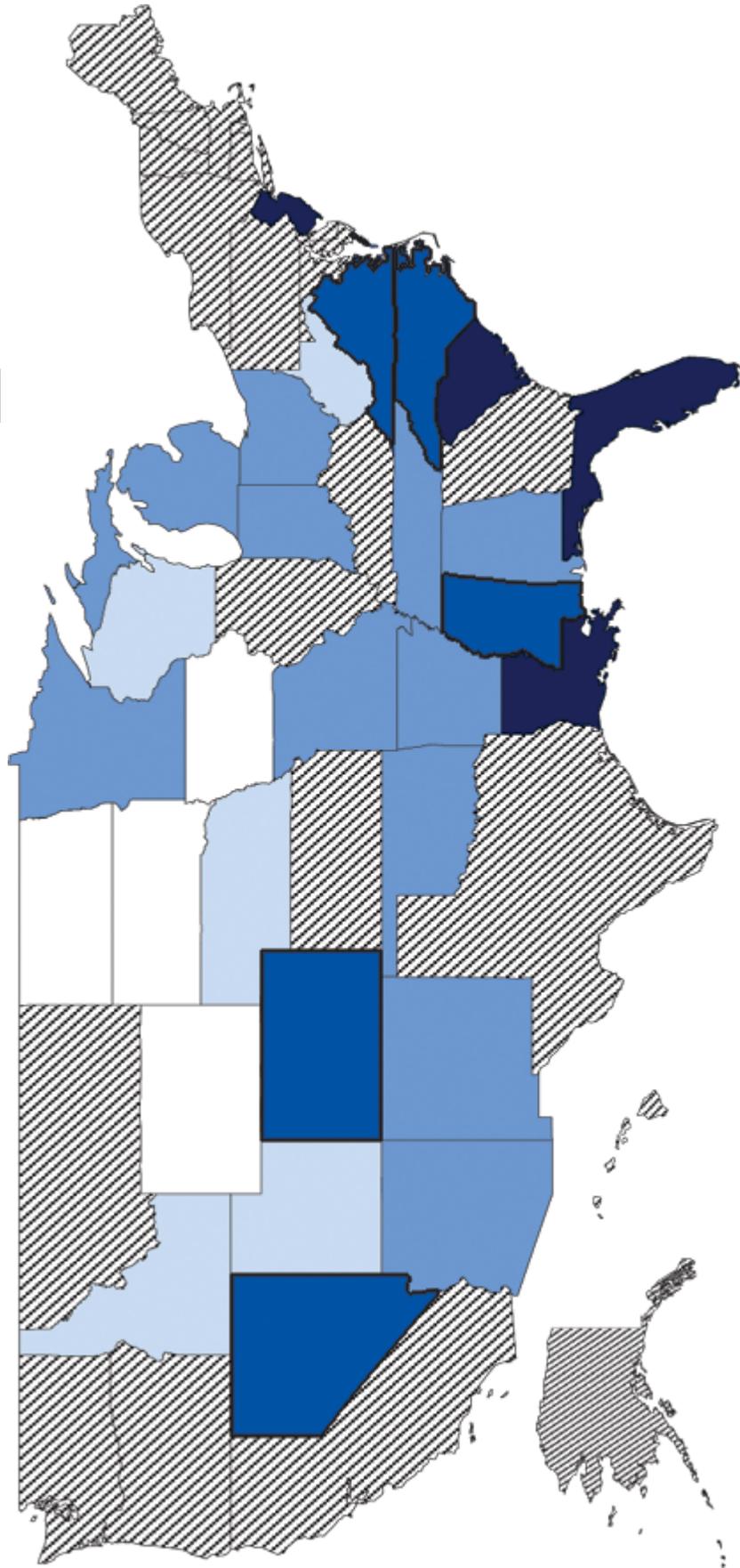
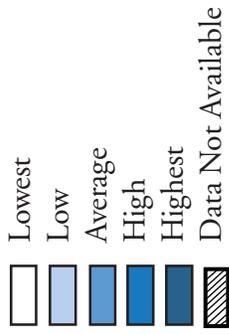
Source: HIV/AIDS Surveillance Program, Utah Department of Health

Note: The number presumed living indicates the number of people reported and believed alive at the end of each year; these are cumulative numbers and shouldn't be added. The numbers seen here are calculated differently than the numbers used in the national comparison, and therefore do not match.

disease. An individual may be infected for approximately 12 weeks before an HIV antibody test will produce a positive result. During that time, they are asymptomatic but highly infectious.

It is important to reduce the social stigma against condom use and encourage open communication between sex partners. Keeping HIV testing available and confidential will also help to reduce the spread of HIV/AIDS.

Number of Persons Living With HIV/AIDS per 100,000 by State, Reporting States, 2001



Source: Division of HIV/AIDS Prevention, National Center for HIV, STD and TB Prevention, Centers for Disease Control and Prevention

**HIV/AIDS by State
Reporting States, 2001**

Rank	Area of Residence	Population	Number of Persons Living With HIV/AIDS		
			Number of Persons	Crude Rates per 100,000	
				Lower	Upper
	All Reporting States	137,220,215	281,425	205.1	(204.3 - 205.8)
19	Alabama	4,468,912	9,374	209.8	(205.5 - 214.1)
18	Arizona	5,306,966	9,513	179.3	(175.7 - 182.9)
16	Arkansas	2,694,698	4,039	149.9	(145.3 - 154.6)
21	Colorado	4,430,989	9,414	212.5	(208.2 - 216.8)
29	Florida	16,373,330	70,204	428.8	(425.6 - 432.0)
5	Idaho	1,320,585	634	48.0	(44.3 - 51.9)
14	Indiana	6,126,743	7,172	117.1	(114.4 - 119.8)
4	Iowa	2,931,967	1,148	39.2	(36.9 - 41.5)
27	Louisiana	4,470,368	14,808	331.2	(325.9 - 336.6)
12	Michigan	10,006,266	10,972	109.7	(107.6 - 111.7)
10	Minnesota	4,984,535	4,090	82.1	(79.6 - 84.6)
24	Mississippi	2,859,733	6,714	234.8	(229.2 - 240.5)
17	Missouri	5,637,309	9,555	169.5	(166.1 - 172.9)
6	Nebraska	1,720,039	1,159	67.4	(63.6 - 71.4)
25	Nevada	2,097,722	5,776	275.3	(268.3 - 282.5)
28	New Jersey	8,511,116	30,203	354.9	(350.9 - 358.9)
11	New Mexico	1,830,935	1,849	101.0	(96.4 - 105.7)
22	North Carolina	8,206,105	18,240	222.3	(219.1 - 225.5)
1	North Dakota	636,550	115	18.1	(14.9 - 21.7)
13	Ohio	11,389,785	13,229	116.1	(114.2 - 118.1)
15	Oklahoma	3,469,577	4,449	128.2	(124.5 - 132.1)
26	South Carolina	4,062,125	12,777	314.5	(309.1 - 320.0)
3	South Dakota	758,324	287	37.8	(33.6 - 42.5)
20	Tennessee	5,749,398	12,113	210.7	(206.9 - 214.5)
9	Utah	2,278,712	1,813	79.6	(75.9 - 83.3)
23	Virginia	7,196,750	16,241	225.7	(222.2 - 229.2)
7	West Virginia	1,800,975	1,238	68.7	(65.0 - 72.7)
8	Wisconsin	5,405,947	4,121	76.2	(73.9 - 78.6)
2	Wyoming	493,754	178	36.1	(30.9 - 41.8)

Source: Division of HIV/AIDS Prevention, National Center for HIV, STD and TB Prevention, Centers for Disease Control and Prevention

Unintended Pregnancies

Definition: Percentage of women with live births who reported their most recent pregnancy was unintended.

Similar to Healthy People 2010 Objective 9-1: Increase the proportion of pregnancies that are intended.

Why Is It Important?

Unintended pregnancy is a general term that includes pregnancies that a woman reports were either mistimed or unwanted at the time of conception. Women with an unintended pregnancy are less likely to seek early prenatal care or receive adequate prenatal care, more likely to smoke or drink during pregnancy, more likely to deliver a low birth weight baby, and less likely to initiate or maintain breastfeeding.

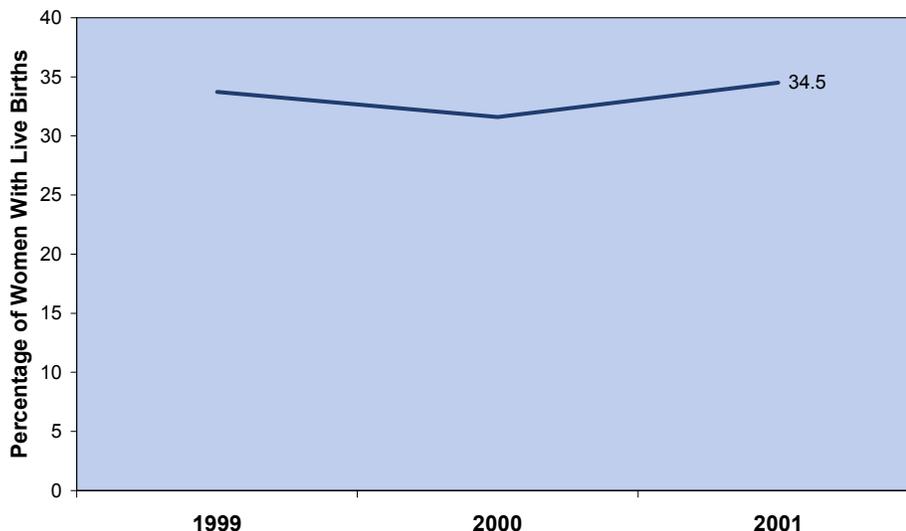
Having an unintended pregnancy can contribute to short interpregnancy spacing (span between the birth of one child and the conception of another), which increases the risk of infant morbidity and mortality. It is also a limiting factor on the mother's education and income.

Risk Factors for Unintended Pregnancies

According to a recent Utah study,¹⁰ Utah women in 1999 whose most recent pregnancy was unintended were more likely to have the following characteristics: younger than 20 years of age, less than high school education, other than White race, Hispanic ethnicity, unmarried, had annual household incomes less than \$15,000 per year, no health insurance coverage before pregnancy (not counting Medicaid), were insured by Medicaid before they became pregnant, smoked or drank in the three months before pregnancy, experienced domestic violence before their pregnancy, and became pregnant within a year of the birth of their last child.

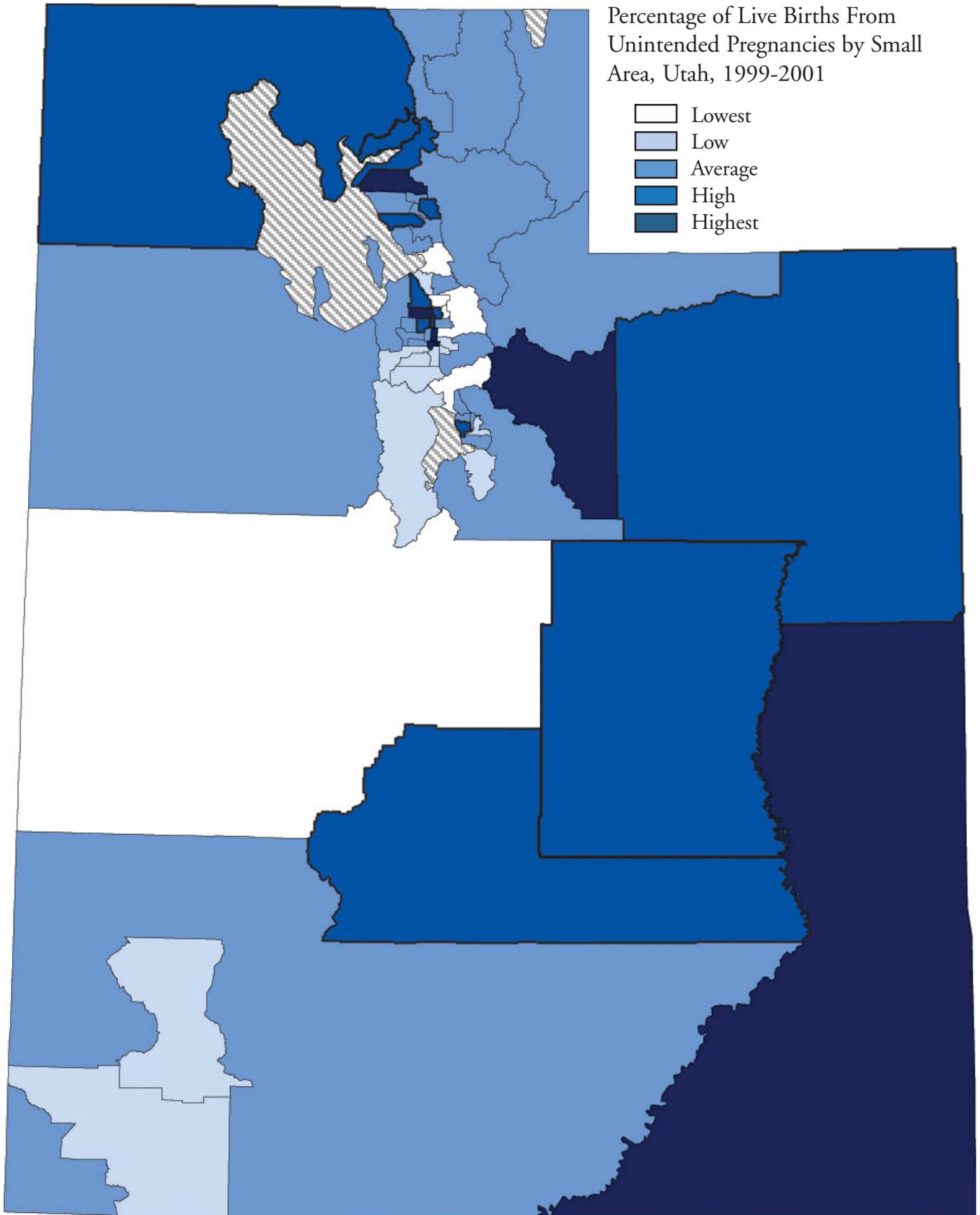
Unintended Preg. Ranking, 1999-2001	Percent
Foothill/U of U	7.6%
Avenues	13.2%
Holladay	14.2%
Farmington/Centerville	18.5%
Juab/Millard/Sanpete Co.	19.0%
American Fork/Alpine	20.6%
Springville/Spanish Fork	22.5%
Woods Cross/North SL	23.1%
Provo/BYU	23.1%
Sandy, Northeast	23.5%
Other Washington Co.	24.0%
Sandy Center	24.4%
W. Jordan, Copperton	24.7%
Cedar City	24.8%
Cottonwood	25.9%
South Jordan	27.0%
Lehi/Cedar Valley	28.4%
Riverton/Draper	29.2%
Tooele Co.	29.3%
Riverdale	29.3%
Utah Co. South	29.6%
Provo South	29.8%
Other Southwest Dist.	30.0%
Logan	30.4%
Sandy, Southeast	30.6%
East Orem	31.0%
St. George	31.0%
Downtown Ogden	31.2%
Kearns	31.3%
Magna	31.6%
Roy/Hooper	32.3%
Taylorville	33.0%
North Orem	33.9%
Other Cache/Rich Co.	34.1%
Millcreek	34.1%
Morgan/East Weber Co.	34.2%
Pleasant Grove/Lindon	35.1%
Summit Co.	36.4%
West Jordan No.	36.8%
West Valley West	37.6%
Layton	38.1%
Bountiful	38.5%
Syracuse/Kaysville	39.0%
West Orem	39.3%
Rose Park	40.3%
South Ogden	40.5%
Sevier/Piute/Wayne Co.	40.9%
West Valley East	41.7%
Brigham City	41.9%
Other Box Elder Co.	41.9%
Downtown Salt Lake	42.3%
South Salt Lake	43.0%
Clearfield/Hill AFB	43.1%
TriCounty LHD	45.4%
Carbon/Emery Co.	46.6%
Midvale	48.5%
Wasatch Co.	48.9%
Glendale	49.5%
Ben Lomond	55.5%
Murray	56.3%
Grand/San Juan Co.	62.6%

Percentage of Women With Live Births Reporting Most Recent Pregnancy Unintended, Utah, 1999-2000



Source: Utah Pregnancy Risk Assessment Monitoring System (PRAMS), Utah Department of Health

Unintended Pregnancies



Source: Utah Pregnancy Risk Assessment Monitoring System

Unintended Pregnancies

Unintended Pregnancies by Small Area Utah, 1999-2001

Rank	Area of Residence	Average Number of Live Births	Percentage of Women With Live Births Who Reported Their Most Recent Pregnancy Was Unintended		
			Average Number of Events	Crude Rates	
				Lower	Upper
	State Total	47,163	15,705	33.3%	(31.6% - 35.0%)
49	Brigham City	376	157	41.9%	(21.8% - 62.0%)
49	Other Box Elder Co.	410	171	41.9%	(21.1% - 62.8%)
24	Logan	1,434	435	30.4%	(21.7% - 39.1%)
34	Other Cache/Rich Co.	765	260	34.1%	(20.8% - 47.3%)
59	Ben Lomond	913	506	55.5%	(40.6% - 70.4%)
36	Morgan/East Weber Co.	487	166	34.2%	(17.8% - 50.6%)
28	Downtown Ogden	681	212	31.2%	(17.4% - 44.9%)
46	South Ogden	669	270	40.5%	(25.8% - 55.2%)
31	Roy/Hooper	828	267	32.3%	(19.0% - 45.6%)
19	Riverdale	475	139	29.3%	(12.8% - 45.9%)
53	Clearfield/Hill AFB	1,225	527	43.1%	(31.7% - 54.5%)
41	Layton	1,264	481	38.1%	(27.7% - 48.6%)
43	Syracuse/Kaysville	697	271	39.0%	(25.9% - 52.0%)
4	Farmington/Centerville	415	76	18.5%	(3.3% - 33.7%)
8	Woods Cross/North SL	400	92	23.1%	(8.9% - 37.3%)
42	Bountiful	777	298	38.5%	(25.1% - 51.8%)
45	Rose Park	791	318	40.3%	(27.5% - 53.1%)
2	Avenues	320	42	13.2%	(0.0% - 27.9%)
1	Foothill/U of U	435	33	7.6%	(0.0% - 15.3%)
30	Magna	543	171	31.6%	(15.9% - 47.2%)
58	Glendale	651	322	49.5%	(33.3% - 65.6%)
40	West Valley West	1,478	555	37.6%	(28.3% - 46.8%)
48	West Valley East	1,078	449	41.7%	(29.3% - 54.1%)
51	Downtown Salt Lake	878	371	42.3%	(30.4% - 54.2%)
52	South Salt Lake	559	240	43.0%	(26.8% - 59.2%)
34	Millcreek	986	336	34.1%	(22.7% - 45.4%)
3	Holladay	623	88	14.2%	(4.4% - 24.1%)
15	Cottonwood	554	143	25.9%	(11.8% - 39.9%)
29	Kearns	1,389	435	31.3%	(21.6% - 41.0%)
32	Taylorsville	741	244	33.0%	(18.6% - 47.5%)
60	Murray	577	324	56.3%	(40.7% - 71.9%)
56	Midvale	703	341	48.5%	(32.2% - 64.9%)
39	West Jordan No.	1,101	405	36.8%	(25.0% - 48.6%)
13	W. Jordan, Copperton	964	237	24.7%	(13.5% - 35.9%)
16	South Jordan	462	124	27.0%	(11.1% - 42.8%)
12	Sandy Center	1,007	245	24.4%	(13.8% - 35.0%)
10	Sandy, Northeast	292	68	23.5%	(6.2% - 40.9%)
25	Sandy, Southeast	342	104	30.6%	(13.4% - 47.8%)
18	Riverton/Draper	1,395	406	29.2%	(19.4% - 38.9%)
19	Tooele Co.	946	277	29.3%	(17.7% - 40.9%)
17	Lehi/Cedar Valley	877	249	28.4%	(17.8% - 39.1%)
6	American Fork/Alpine	863	177	20.6%	(9.7% - 31.4%)
37	Pleasant Grove/Lindon	909	319	35.1%	(23.5% - 46.7%)
33	North Orem	1,045	353	33.9%	(23.2% - 44.6%)
44	West Orem	782	307	39.3%	(26.7% - 51.9%)
26	East Orem	418	129	31.0%	(14.2% - 47.8%)
8	Provo/BYU	1,027	237	23.1%	(14.4% - 31.9%)
22	Provo South	1,852	552	29.8%	(21.6% - 38.1%)
7	Springville/Spanish Fork	1,449	325	22.5%	(14.4% - 30.6%)
21	Utah Co. South	642	189	29.6%	(16.6% - 42.5%)
38	Summit Co.	470	170	36.4%	(17.5% - 55.2%)
57	Wasatch Co.	297	145	48.9%	(23.9% - 73.9%)
54	TriCounty LHD	758	343	45.4%	(31.8% - 58.9%)
5	Juab/Millard/Sanpete Co.	751	142	19.0%	(8.3% - 29.7%)
47	Sevier/Piute/Wayne Co.	396	161	40.9%	(21.2% - 60.6%)
55	Carbon/Emery Co.	474	220	46.6%	(29.0% - 64.2%)
61	Grand/San Juan Co.	355	222	62.6%	(44.0% - 81.2%)
26	St. George	965	299	31.0%	(19.8% - 42.3%)
11	Other Washington Co.	838	201	24.0%	(13.2% - 34.9%)
14	Cedar City	666	165	24.8%	(12.9% - 36.8%)
23	Other Southwest Dist.	371	111	30.0%	(12.1% - 47.9%)

Source: Utah Pregnancy Risk Assessment Monitoring System (PRAMS)

Definition: Number of live births per 1,000 adolescent females aged 15-17.

Similar to Healthy People 2010 Objective 9-7: Reduce pregnancies among adolescent females.

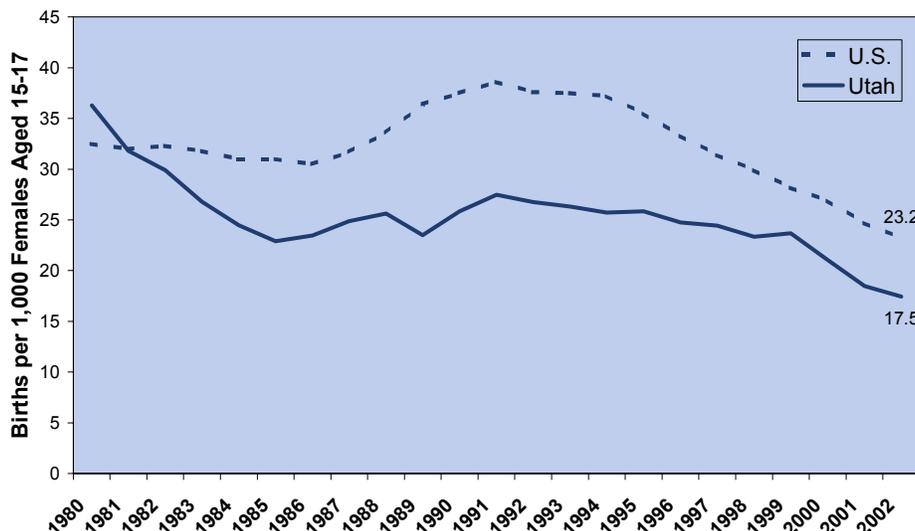
Why Is It Important?

Research indicates that bearing a child during adolescence is associated with long-term difficulties for the mother, her child, and society. These consequences are often attributable to the poverty and other adverse socioeconomic circumstances that frequently accompany early childbearing. Compared to babies born to older mothers, babies born to adolescent mothers, particularly young adolescent mothers, are at higher risk of low birthweight and infant mortality. These babies are more likely to grow up in homes that offer lower levels of emotional support and cognitive stimulation, and they are less likely to earn a high school diploma. For the mothers, giving birth during adolescence is associated with limited educational attainment, which in turn can reduce future employment prospects and earning potential.

Risk Factors for Adolescent Births

Utah studies show that adolescents who earn “C” or lower school grades, who smoke tobacco, drink alcohol or get high on drugs, and who date steadily are more likely to be sexually active.¹¹ Studies conducted in other states have found that 60% of pregnant teens were molested, raped, or were victims of an attempted rape before they became pregnant.¹²

Rates of Live Births to Females Aged 15-17, Utah and U.S., 1980-2002

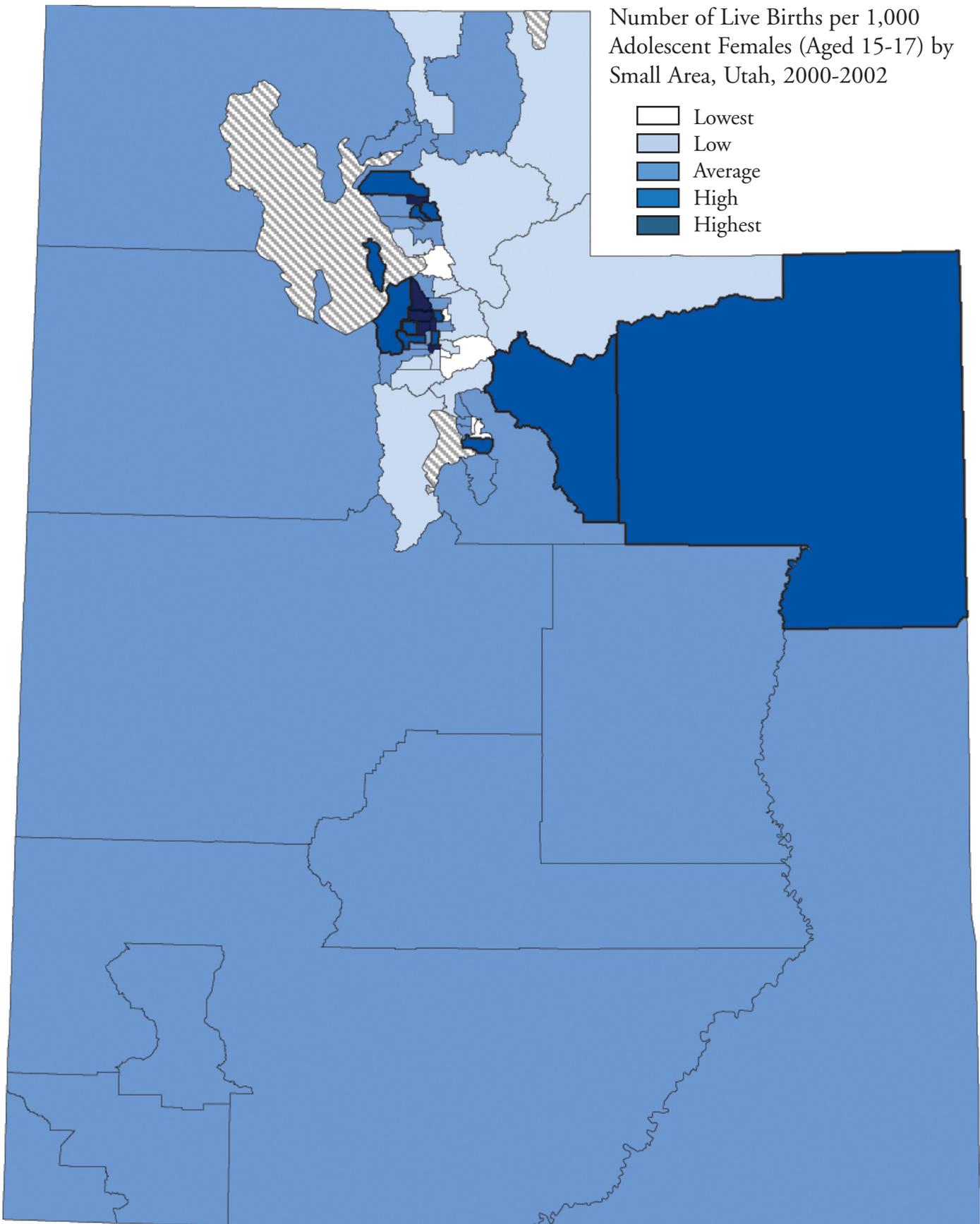


Sources: Utah Birth Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; Population Estimates: Utah Governor's Office of Planning and Budget; National Center for Health Statistics

Adolescent Births Ranking, 2000-2002	Rate*
Foothill/U of U	2.3
East Orem	2.9
Sandy, NE	2.9
Sandy, SE	4.5
Farmington/Centerville	4.8
Provo/BYU	4.9
Syracuse/Kaysville	6.2
Bountiful	6.9
South Jordan	7.0
Cottonwood	7.1
Morgan/E Weber Co.	7.2
American Fork/Alpine	8.5
Summit Co.	9.6
Riverton/Draper	9.7
Other Cache/Rich Co.	10.0
Holladay	10.6
Sandy Center	10.6
Lehi/Cedar Valley	11.5
Layton	12.5
Other Box Elder Co.	12.6
W. Jordan, Copperton	13.3
Woods Cross/No. SL	13.3
Pleasant Grove/Lindon	13.4
North Orem	13.7
West Orem	13.9
Brigham City	14.1
Avenues	14.4
Logan	14.7
Springville/Spanish Fork	15.0
Other Washington Co.	16.8
Cedar City	17.1
Millcreek	17.5
Taylorsville	18.2
Juab/Millard/Sanpete	18.5
Roy/Hooper	18.6
Other Southwest Dist.	20.2
Sevier/Piute/Wayne Co.	20.3
St. George	20.4
Carbon/Emery Co.	20.8
Utah Co. South	21.1
Grand/San Juan Co.	21.1
Tooele Co.	21.4
Clearfield/Hill AFB	21.8
West Jordan No.	21.8
Riverdale	23.3
TriCounty LHD	24.3
Magna	25.0
Kearns	25.6
Wasatch Co.	26.6
Downtown Salt Lake	29.4
West Valley West	32.3
Murray	35.4
Ben Lomond	36.5
South Ogden	37.3
Provo South	39.8
West Valley East	45.0
Midvale	56.6
Glendale	59.8
Rose Park	64.9
South Salt Lake	65.0
Downtown Ogden	70.7

* Rate per 1,000 live births.

Adolescent Births



Source: Utah Birth Certificate Database

Adolescent Births (Ages 15-17) by Small Area Utah, 2000-2002

Rank	Area of Residence	Average Population of Females Aged 15-17	Number of Live Births to Women Ages 15-17 per 1,000 Live Births		
			Average Annual Number of Events	Crude Rates	
				Lower	Upper
	State Total	58,766	1,118	19.0	(18.4 - 19.7)
26	Brigham City	614	9	14.1	(9.2 - 20.7)
20	Other Box Elder Co.	793	10	12.6	(8.5 - 18.0)
28	Logan	1,154	17	14.7	(11.0 - 19.4)
15	Other Cache/Rich Co.	1,198	12	10.0	(7.0 - 13.9)
53	Ben Lomond	1,088	40	36.5	(30.2 - 43.6)
11	Morgan/East Weber Co.	1,107	8	7.2	(4.6 - 10.7)
61	Downtown Ogden	599	42	70.7	(58.9 - 84.1)
54	South Ogden	626	23	37.3	(29.1 - 47.1)
35	Roy/Hooper	1,110	21	18.6	(14.3 - 23.9)
45	Riverdale	671	16	23.3	(17.1 - 31.0)
43	Clearfield/Hill AFB	1,255	27	21.8	(17.3 - 27.0)
19	Layton	1,819	23	12.5	(9.7 - 15.8)
7	Syracuse/Kaysville	1,283	8	6.2	(4.0 - 9.3)
5	Farmington/Centerville	1,036	5	4.8	(2.7 - 8.0)
21	Woods Cross/North SL	475	6	13.3	(8.0 - 20.8)
8	Bountiful	1,250	9	6.9	(4.5 - 10.2)
59	Rose Park	719	47	64.9	(54.6 - 76.6)
27	Avenues	278	4	14.4	(7.4 - 25.2)
1	Foothill/U of U	437	1	2.3	(0.5 - 6.7)
47	Magna	706	18	25.0	(18.8 - 32.7)
58	Glendale	641	38	59.8	(49.3 - 71.7)
51	West Valley West	1,775	57	32.3	(27.6 - 37.5)
56	West Valley East	881	40	45.0	(37.3 - 53.9)
50	Downtown Salt Lake	668	20	29.4	(22.4 - 38.0)
60	South Salt Lake	344	22	65.0	(50.4 - 82.5)
32	Millcreek	1,009	18	17.5	(13.1 - 22.9)
16	Holladay	816	9	10.6	(6.9 - 15.6)
10	Cottonwood	1,166	8	7.1	(4.6 - 10.5)
48	Kearns	2,046	52	25.6	(21.7 - 29.9)
33	Taylorsville	897	16	18.2	(13.5 - 24.1)
52	Murray	434	15	35.4	(25.9 - 47.2)
57	Midvale	400	23	56.6	(44.0 - 71.8)
43	West Jordan No.	1,268	28	21.8	(17.4 - 27.1)
21	W. Jordan, Copperton	1,053	14	13.3	(9.6 - 18.0)
9	South Jordan	1,235	9	7.0	(4.6 - 10.3)
16	Sandy Center	1,381	15	10.6	(7.7 - 14.3)
2	Sandy, Northeast	916	3	2.9	(1.3 - 5.7)
4	Sandy, Southeast	1,183	5	4.5	(2.6 - 7.3)
14	Riverton/Draper	1,676	16	9.7	(7.2 - 12.9)
42	Tooele Co.	1,185	25	21.4	(16.8 - 26.8)
18	Lehi/Cedar Valley	579	7	11.5	(7.0 - 17.8)
12	American Fork/Alpine	1,140	10	8.5	(5.7 - 12.2)
23	Pleasant Grove/Lindon	1,148	15	13.4	(9.8 - 17.8)
24	North Orem	1,045	14	13.7	(9.9 - 18.5)
25	West Orem	741	10	13.9	(9.5 - 19.8)
2	East Orem	809	2	2.9	(1.2 - 5.9)
6	Provo/BYU	891	4	4.9	(2.6 - 8.3)
55	Provo South	712	28	39.8	(31.8 - 49.2)
29	Springville/Spanish Fork	1,574	24	15.0	(11.7 - 19.0)
40	Utah Co. South	776	16	21.1	(15.6 - 27.8)
13	Summit Co.	802	8	9.6	(6.1 - 14.3)
49	Wasatch Co.	439	12	26.6	(18.5 - 37.0)
46	TriCounty LHD	1,371	33	24.3	(19.8 - 29.6)
34	Juab/Millard/Sanpete Co.	1,424	26	18.5	(14.6 - 23.0)
37	Sevier/Piute/Wayne Co.	754	15	20.3	(14.9 - 27.1)
39	Carbon/Emery Co.	899	19	20.8	(15.7 - 27.0)
40	Grand/San Juan Co.	694	15	21.1	(15.4 - 28.4)
38	St. George	1,342	27	20.4	(16.2 - 25.3)
30	Other Washington Co.	1,131	19	16.8	(12.7 - 21.8)
31	Cedar City	662	11	17.1	(11.9 - 23.9)
36	Other Southwest Dist.	642	13	20.2	(14.4 - 27.7)

Source: Utah Birth Certificate Database

Syphilis

Definition: Number of newly reported cases of primary and secondary (P&S) syphilis per 100,000 population.

Healthy People 2010 Objective 25-3: Primary and secondary syphilis - Transmission of (per 100,000 population)

- U.S. Target for 2010: 0.2
- State-specific Target: 0.04

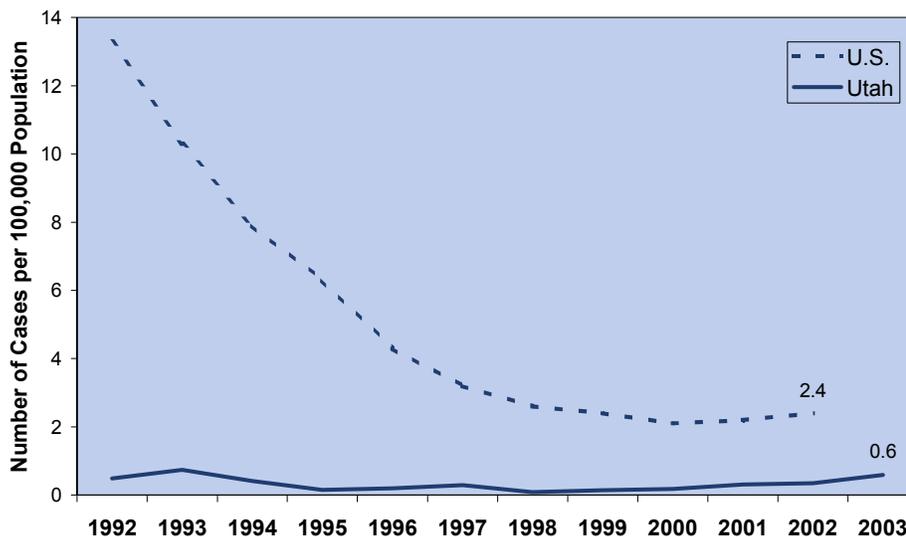
Why Is It Important?

Syphilis is a complex sexually transmitted disease (STD) caused by the bacterium *Treponema pallidum* (spp. *pallidum*). Its initial stage (primary syphilis) is characterized by a highly infectious open sore, called a chancre, at the site of infection. Syphilis is passed from person to person through direct contact with the chancre. Sexual transmission can also occur during the secondary stage of syphilis. An infant can acquire syphilis through the placenta if the mother is infected. In later stages of the disease, the bacteria move throughout the body, damaging many organs over time. The open nature of the syphilitic sores makes it easier to acquire HIV, if exposed, or to transmit the virus, if infected.

Risk Factors for Syphilis

Risk factors for sexually transmitted diseases include: sexual activity, multiple sex partners, prior history of STDs, unprotected sex, sexual contact with prostitutes (male/female), and illicit drug use. Public health intervention and education are crucial in eliminating syphilis. Nationally, P&S syphilis rates were highest among women aged 20-24 and men 35-39 in 2002.

Rates of Reported Primary and Secondary Syphilis Cases, Utah and U.S., 1992-2003

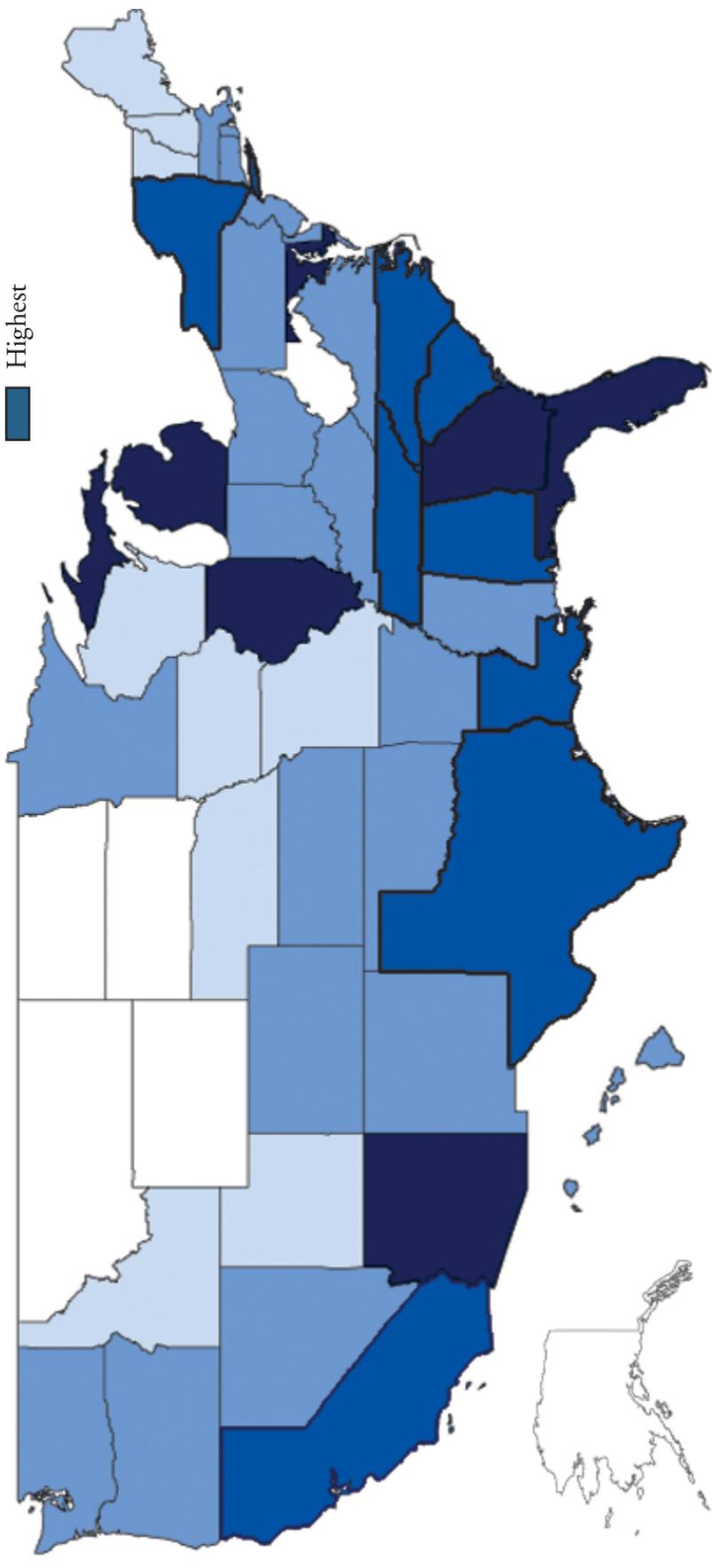
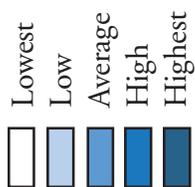


Sources: Bureau of Communicable Disease Control, Utah Department of Health; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; Population Estimates: Utah Governor's Office of Planning and Budget

Syphilis Ranking, 2002	Rate*
Alaska	0.0
Montana	0.0
North Dakota	0.0
South Dakota	0.0
Wyoming	0.0
West Virginia	0.1
Maine	0.2
Iowa	0.3
Vermont	0.3
Utah	0.3
Nebraska	0.4
Idaho	0.6
Missouri	0.6
New Hampshire	0.6
Wisconsin	0.6
Kansas	0.7
Connecticut	0.8
Nevada	0.8
Oregon	0.8
Hawaii	0.9
Pennsylvania	0.9
Indiana	1.0
Virginia	1.0
Minnesota	1.2
Rhode Island	1.2
Washington	1.2
Arkansas	1.3
Delaware	1.4
Ohio	1.4
Colorado	1.5
Massachusetts	1.6
Mississippi	1.7
New Jersey	2.0
New Mexico	2.1
Oklahoma	2.1
Kentucky	2.2
New York	2.5
Texas	2.8
California	3.0
Tennessee	3.0
South Carolina	3.3
Alabama	3.4
Louisiana	3.4
North Carolina	3.5
Arizona	3.9
Florida	3.9
Illinois	3.9
Maryland	4.3
Michigan	4.9
Georgia	5.4

* Rate per 100,000.

Primary and Secondary Syphilis Rates
per 100,000 by State,
United States, 2002



Source: CDC- STD Surveillance Report 2002

**Syphilis by State
United States, 2002**

Rank	Area of Residence	Population	Primary and Secondary Syphilis per 100,000			
			Number of Events	Crude Rates		
			Confidence Interval			
			Lower	Upper		
	U.S. Total	288,368,698	6,862	2.4	(2.3 - 2.5)	
42	Alabama	4,486,508	149	3.4	(2.9 - 4.0)	
1	Alaska	643,786	0	0.0	(. - .)	
45	Arizona	5,456,453	200	3.9	(3.4 - 4.5)	
27	Arkansas	2,710,079	34	1.3	(0.9 - 1.8)	
39	California	35,116,033	1,033	3.0	(2.8 - 3.2)	
30	Colorado	4,506,542	64	1.5	(1.2 - 1.9)	
17	Connecticut	3,460,503	28	0.8	(0.5 - 1.2)	
28	Delaware	807,385	11	1.4	(0.7 - 2.5)	
45	Florida	16,713,149	617	3.9	(3.6 - 4.2)	
50	Georgia	8,560,310	439	5.4	(4.9 - 5.9)	
20	Hawaii	1,244,898	11	0.9	(0.4 - 1.6)	
12	Idaho	1,341,131	8	0.6	(0.3 - 1.2)	
45	Illinois	12,600,620	479	3.9	(3.6 - 4.3)	
22	Indiana	6,159,068	62	1.0	(0.8 - 1.3)	
8	Iowa	2,936,760	8	0.3	(0.1 - 0.6)	
16	Kansas	2,715,884	20	0.7	(0.4 - 1.1)	
36	Kentucky	4,092,891	88	2.2	(1.8 - 2.7)	
42	Louisiana	4,482,646	152	3.4	(2.9 - 4.0)	
7	Maine	1,294,464	2	0.2	(0.0 - 0.7)	
48	Maryland	5,458,137	228	4.3	(3.8 - 4.9)	
31	Massachusetts	6,427,801	99	1.6	(1.3 - 1.9)	
49	Michigan	10,050,446	486	4.9	(4.5 - 5.4)	
24	Minnesota	5,019,720	59	1.2	(0.9 - 1.5)	
32	Mississippi	2,871,782	49	1.7	(1.3 - 2.2)	
12	Missouri	5,672,579	34	0.6	(0.4 - 0.8)	
1	Montana	909,453	0	0.0	(. - .)	
11	Nebraska	1,729,180	6	0.4	(0.1 - 0.9)	
17	Nevada	2,173,491	15	0.8	(0.4 - 1.3)	
12	New Hampshire	1,275,056	8	0.6	(0.3 - 1.2)	
33	New Jersey	8,590,300	169	2.0	(1.7 - 2.3)	
34	New Mexico	1,855,059	39	2.1	(1.5 - 2.9)	
37	New York	19,157,532	478	2.5	(2.3 - 2.7)	
44	North Carolina	8,320,146	279	3.5	(3.1 - 3.9)	
1	North Dakota	634,110	0	0.0	(. - .)	
28	Ohio	11,421,267	159	1.4	(1.2 - 1.6)	
34	Oklahoma	3,493,714	72	2.1	(1.6 - 2.6)	
17	Oregon	3,521,515	28	0.8	(0.5 - 1.2)	
20	Pennsylvania	12,335,091	105	0.9	(0.7 - 1.1)	
24	Rhode Island	1,069,725	13	1.2	(0.6 - 2.1)	
41	South Carolina	4,107,183	134	3.3	(2.8 - 3.9)	
1	South Dakota	761,063	0	0.0	(. - .)	
39	Tennessee	5,797,289	168	3.0	(2.6 - 3.5)	
38	Texas	21,779,893	589	2.8	(2.6 - 3.0)	
8	Utah	2,316,256	8	0.3	(0.1 - 0.7)	
8	Vermont	616,592	2	0.3	(0.0 - 1.1)	
22	Virginia	7,293,542	71	1.0	(0.8 - 1.3)	
24	Washington	6,068,996	70	1.2	(0.9 - 1.5)	
6	West Virginia	1,801,873	2	0.1	(0.0 - 0.4)	
12	Wisconsin	5,441,196	30	0.6	(0.4 - 0.9)	
1	Wyoming	498,703	0	0.0	(. - .)	

Source: CDC- STD Surveillance Report 2002

Note: Confidence intervals were not calculated for values of 0.

Definition: Number of newly reported cases of chlamydia per 100,000 population.

Similar to Healthy People 2010 Objective 25-1: Reduce the proportion of adolescents and young adults with *Chlamydia trachomatis* infections.

Why Is It Important?

Infections caused by the bacterium *Chlamydia trachomatis* are the most frequently reported notifiable disease in the U.S., with 834,555 cases being reported in 2002.¹³ In Utah 70.5% of chlamydia cases are among those between 15 and 24 years of age (2003). Chlamydia infections in both men and women are commonly asymptomatic. Untreated chlamydia infections can damage the reproductive systems of both males and females. Females with chlamydia infection are at risk for developing pelvic inflammatory disease (PID) and both men and women may become infertile as a result of untreated chlamydia infections. Susceptibility to more serious infections such as HIV also increases when an individual is infected with chlamydia. In addition, pregnant women with chlamydia can pass the infection to their infant during delivery, potentially resulting in pneumonia or neonatal ophthalmia.

Chlamydia Ranking, 2003	Rate*
Bear River	66.2
Utah	66.4
Central Southwest	81.0
Summit	109.7
Wasatch	110.6
TriCounty	137.3
Southeastern	137.9
Davis	168.7
Tooele	198.7
Salt Lake	228.9
Weber-Morgan	236.2

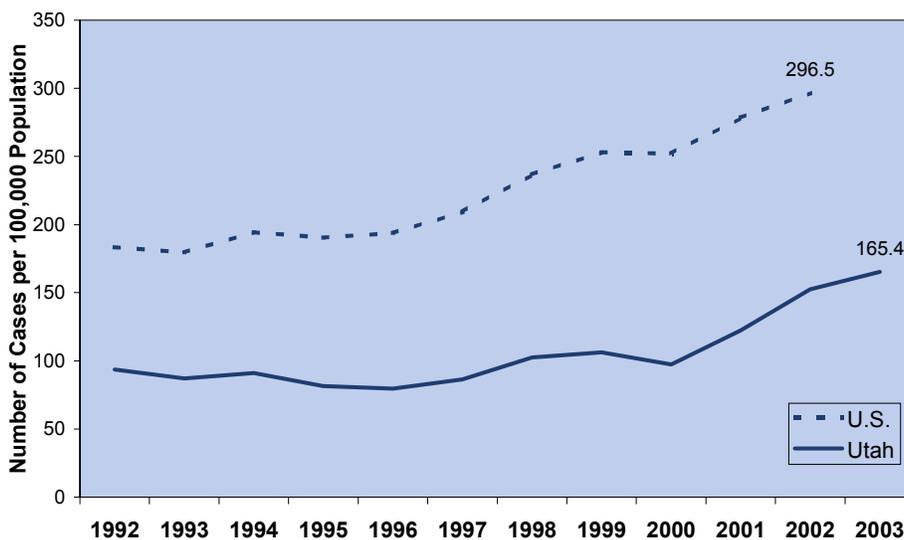
* Rate per 100,000.

Risk Factors for Chlamydia

Risk factors for sexually transmitted diseases include: sexual activity, multiple sex partners, prior history of STDs, unprotected sex, sexual contact with prostitutes (male or female), and illicit drug use.

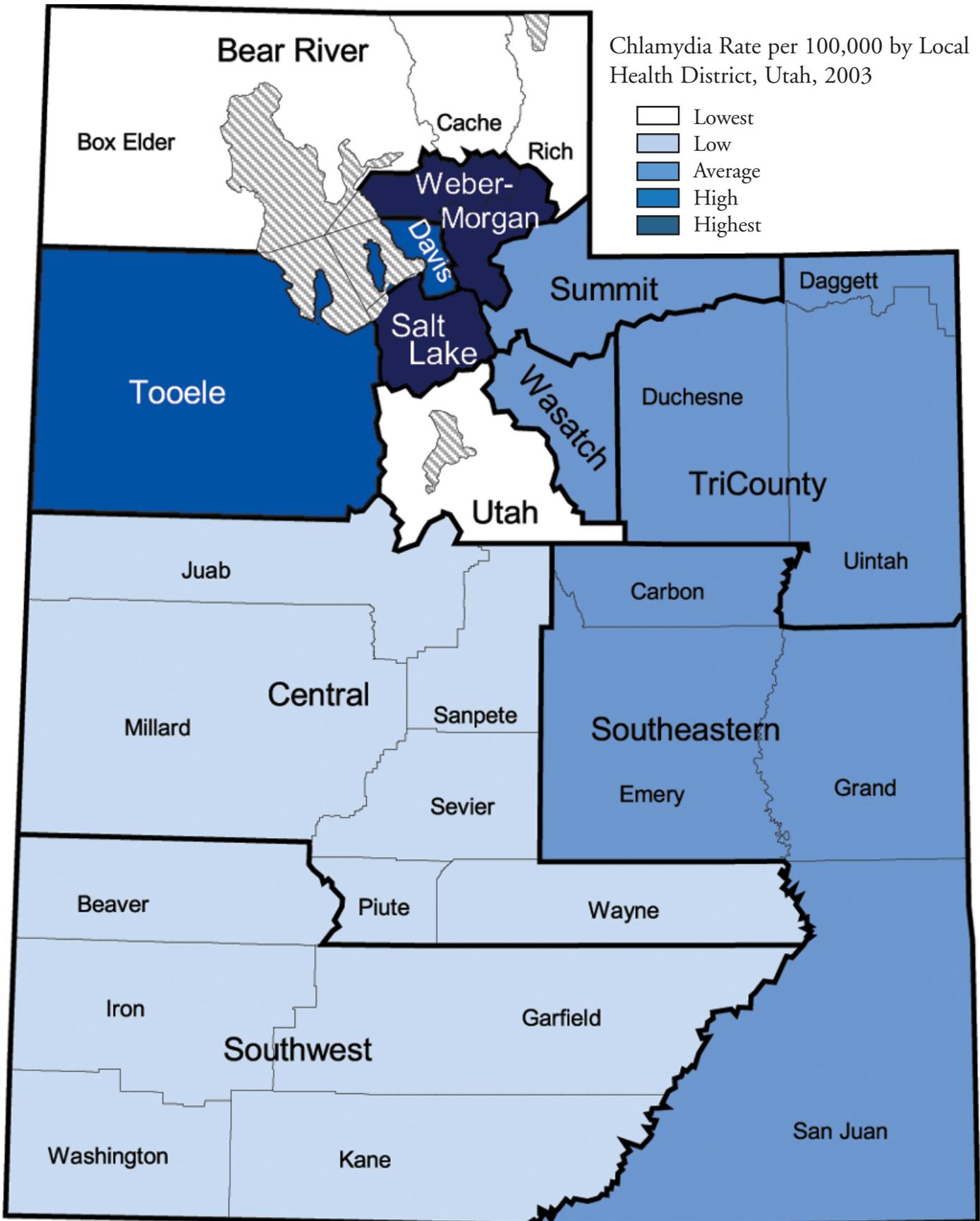
Due to anatomical and biochemical differences, women are at greater risk for acquiring chlamydia than are men. In Utah, 71.5% of cases (2,784) were in women while 28.4% of cases (1,105) were in men.

Rates of Reported Chlamydia Cases, Utah and U.S., 1992-2003



Sources: Bureau of Communicable Disease Control, Utah Department of Health; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; Population Estimates: Utah Governor's Office of Planning and Budget

Chlamydia



Source: Bureau of Communicable Disease Control, Utah Department of Health

**Chlamydia by Local Health District
Utah, 2003**

Rank	Area of Residence	Population	Chlamydia per 100,000		
			Number of Events	Crude Rates	
				95% Confidence Interval Lower	Upper
	State Total	2,354,775	3,894	165.4	(160.2 - 170.6)
1	Bear River	143,593	95	66.2	(53.5 - 80.9)
3	Central	69,140	56	81.0	(61.2 - 105.2)
9	Davis	252,521	426	168.7	(153.1 - 185.5)
11	Salt Lake	932,365	2,134	228.9	(219.3 - 238.8)
8	Southeastern	53,675	74	137.9	(108.3 - 173.1)
4	Southwest	154,152	142	92.1	(77.6 - 108.6)
5	Summit	32,831	36	109.7	(76.8 - 151.8)
10	Tooele	46,815	93	198.7	(160.3 - 243.4)
7	TriCounty	42,241	58	137.3	(104.3 - 177.5)
2	Utah	400,670	266	66.4	(58.6 - 74.9)
6	Wasatch	17,179	19	110.6	(66.6 - 172.7)
12	Weber-Morgan	209,593	495	236.2	(215.8 - 257.9)

Source: Bureau of Communicable Disease Control, Utah Department of Health

Gonorrhea

Definition: Number of newly reported cases of gonorrhea per 100,000 population.

Healthy People 2010 Objective 25-2: Gonorrhea - New cases (per 100,000 population)

- U.S. Target for 2010: 19
- State-specific Target: 5

Why Is It Important?

Gonorrhea, caused by *Neisseria gonorrhoeae*, is a priority public health concern in the State of Utah. Long-term negative health outcomes are similar to those of chlamydia. Untreated gonorrhea infections can damage the reproductive systems of both males and females. Females with gonorrhea infection are at risk for developing pelvic inflammatory disease (PID), and both men and women may become infertile as a result of untreated gonorrhea infections. Susceptibility to more serious infections such as HIV increases when an individual is infected with gonorrhea. Pregnant women with gonorrhea can pass the infection to their infant during delivery, potentially resulting in ophthalmia neonatorum. Gonorrhea can spread to joints and become systemic (disseminated gonorrhea). In Utah during 2003, 63% of cases (259) were in men and 37% of cases (152) were in women.

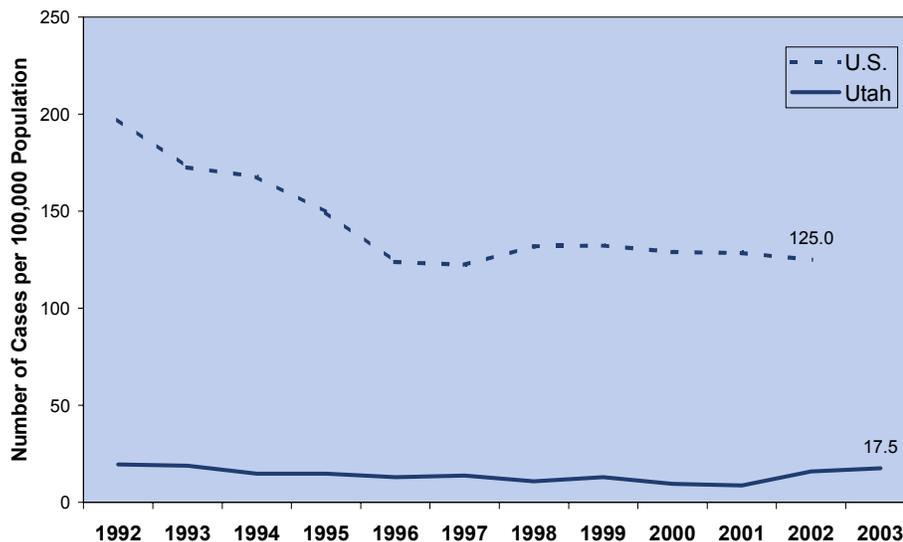
Risk Factors for Gonorrhea

Risk factors for sexually transmitted diseases include: sexual activity, multiple sex partners, prior history of STDs, unprotected sex, sexual contact with prostitutes (male or female), and illicit drug use.

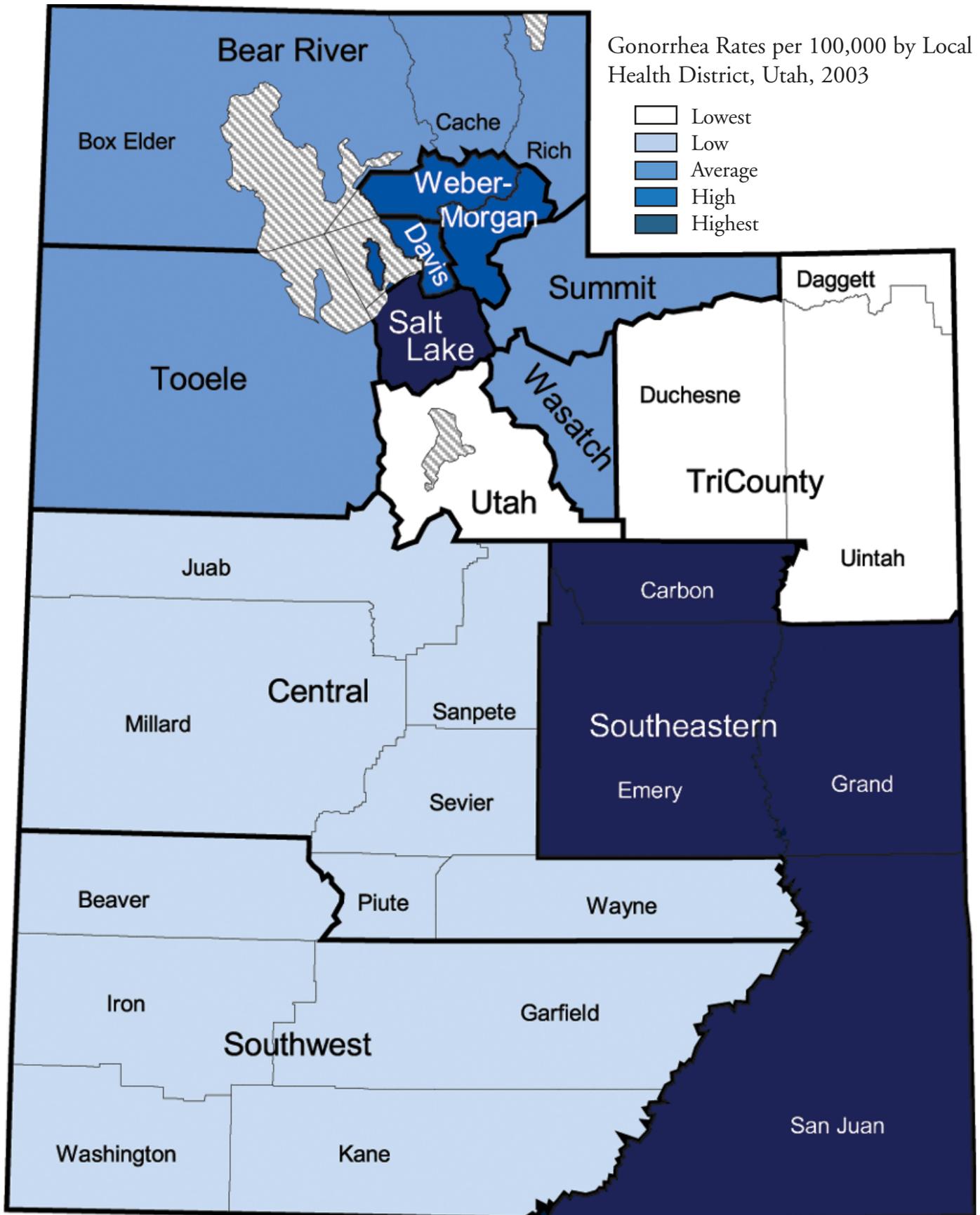
Gonorrhea Ranking, 2001-2003	Rate*
Utah	4.2
TriCounty	4.8
Central	4.9
Southwest	5.3
Wasatch	6.0
Summit	6.2
Tooele	6.6
Bear River	7.1
Davis	10.8
Weber-Morgan	11.8
Southeastern	13.1
Salt Lake	24.1

* Rate per 100,000.

Rates of Reported Gonorrhea Cases, Utah and U.S., 1992-2003



Sources: Bureau of Communicable Disease Control, Utah Department of Health; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; Population Estimates: Utah Governor's Office of Planning and Budget



Source: Bureau of Communicable Disease Control, Utah Department of Health

**Gonorrhea by Local Health District
Utah, 2001-2003**

Rank	Area of Residence	Average Population	Number of New Cases of Gonorrhea		
			Average Annual Number of Events	Crude Rates per 100,000	
				95% Confidence Interval Lower	Upper
	State Total	2,324,148	327	14.1	(13.2 - 15.0)
8	Bear River	141,089	10	7.1	(4.8 - 10.1)
3	Central	68,206	3	4.9	(2.3 - 9.0)
9	Davis	249,124	27	10.8	(8.6 - 13.5)
12	Salt Lake	924,858	222	24.1	(22.3 - 26.0)
11	Southeastern	53,297	7	13.1	(8.1 - 20.1)
4	Southwest	150,674	8	5.3	(3.4 - 7.9)
6	Summit	32,031	2	6.2	(2.3 - 13.6)
7	Tooele	45,620	3	6.6	(3.0 - 12.5)
2	TriCounty	41,991	2	4.8	(1.7 - 10.4)
1	Utah	392,517	16	4.2	(3.1 - 5.5)
5	Wasatch	16,576	1	6.0	(1.2 - 17.6)
10	Weber-Morgan	208,162	24	11.8	(9.3 - 14.9)

Source: Bureau of Communicable Disease Control, Utah Department of Health

Definition: Number of exceedences of the EPA health-based primary standards for ozone, particulate matter, sulfur dioxide, nitrogen dioxide, carbon monoxide, and lead.

Similar to Healthy People 2010 Objective 8-1: Reduce the proportion of persons exposed to air that does not meet the U.S. Environmental Protection Agency’s health-based standards for harmful air pollutants.

Why Is It Important?

Air quality plays a fundamental role in health and disease. Particulate matter, carbon monoxide, and sulfur dioxide affect breathing and respiratory function. Existing respiratory and cardiovascular disease may be aggravated, the body’s defense system against bacteria and viruses may be altered, and lung tissue may be damaged. Health threats are most serious for those who suffer from cardiovascular disease, asthma, emphysema, influenza, and bronchitis. Children and the elderly are also likely to be adversely affected by heavy concentrations of these pollutants.

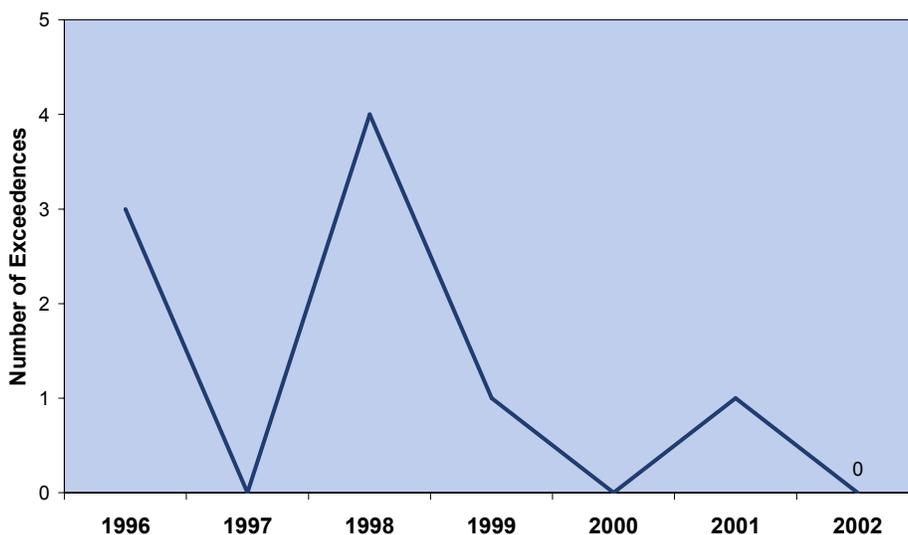
Risk Factors for Air Quality

The Utah Division of Air Quality issues health advisories whenever pollution increases to levels of concern as determined by U.S. Environmental Protection Agency criteria. Health advisories are most critical for people with respiratory and heart diseases, the elderly, and children. When a health advisory is issued, those persons should limit outdoor exertion whenever possible.

Ground level ozone is formed from automobile, industrial, and other pollutions by chemical reactions when there is bright sunshine with high temperatures. PM₁₀ (particulate matter with an aerodynamic diameter of 10 microns or less) and PM_{2.5} (particulate matter with an aerodynamic diameter of 2.5 microns or less) are generally created during a burning process and include fly ash (from power plants), carbon black (from automobiles and diesel engines) and soot (from fireplaces and wood stoves). Carbon monoxide (CO) forms when the carbon in fuels does not completely burn and sulfur dioxide (SO₂) is produced during the burning of sulfur-containing fuels such as coal and oil, and by other industrial processes.

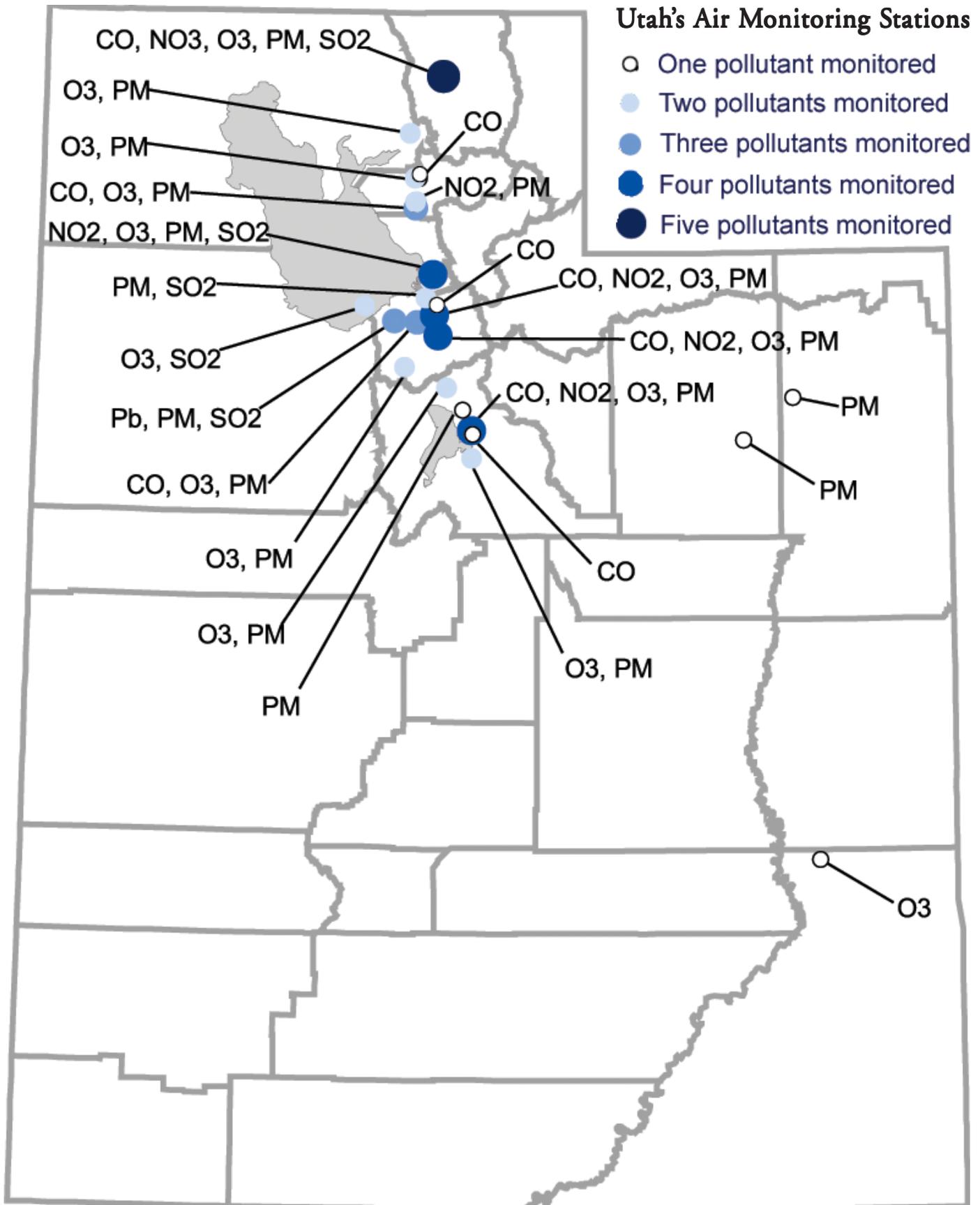
Air pollution from vehicles accounts for more than half of the air pollution along the Wasatch Front. By simply parking your vehicle for one day, the average driver would keep just over ¼ pound of pollution out of the air. While that may not seem like much, if every driver along the Wasatch Front would park his/her vehicle for one day per week, emissions would decrease by 125 tons that week.

Number of Exceedences per Year on Six Criteria Pollutants, Utah, 1996-2002



Source: U.S. Environmental Protection Agency (EPA), Office of Air and Radiation, AIRS data
 Note: An “exceedence” is a day on which the air content exceeded the criterion for that pollutant, at any time during the day, at any of Utah’s air monitoring stations.

Air Quality



**Air Quality by Year
Utah, 1996-2002**

Year	Population	Number of Exceedences on Six Criteria Pollutants
1996	2,042,889	3
1997	2,099,404	0
1998	2,141,619	4
1999	2,193,006	1
2000	2,246,553	0
2001	2,295,964	1
2002	2,321,707	0

Source: U.S. Environmental Protection Agency (EPA), Office of Air and Radiation, AIRS data

Childhood Exposure to Secondhand Smoke

Definition: Percentage of children aged 17 and under who were exposed to tobacco smoke inside the home during the month prior to the survey.

Similar to Healthy People 2010 Objective 27-9: Exposure to tobacco smoke at home - Children (ages 6 years and under)

Why Is It Important?

Childhood exposure to secondhand smoke (SHS), which can begin before birth and continue through childhood, is a major cause of morbidity in children. The presence of a smoker in a child's household has been shown to increase the child's risk for middle ear infections, asthma and other respiratory tract illnesses, sudden infant death syndrome (SIDS), and fire-related deaths and injuries. In addition, teens who live with smokers are more likely to become smokers themselves. Educational interventions and public policy to prevent children's exposure to tobacco smoke can lead to improved health and substantial savings in societal and health care costs.

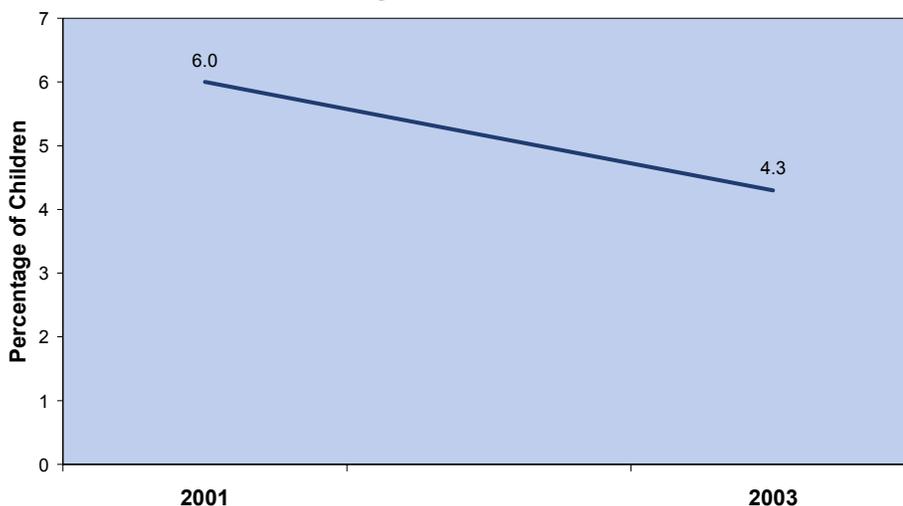
Risk Factors for Secondhand Smoke

Most childhood exposure to SHS occurs within the home. Approximately 23% of adults in the United States currently smoke cigarettes,¹⁴ and 27% of children under six years of age live in homes where someone smoked inside the house at least 4 days per week.¹ In Utah the local health districts that report high rates of cigarette smoking also report high rates of childhood exposure to SHS. It is estimated that adults who smoke inside the house expose 4.3% of children in Utah (31,900 children) to SHS.

Other locations where children are at risk for SHS exposure include cars, friends' or relatives' homes, multiple dwelling units without smoke-free policies, parks, and outdoor sports facilities such as rodeos.

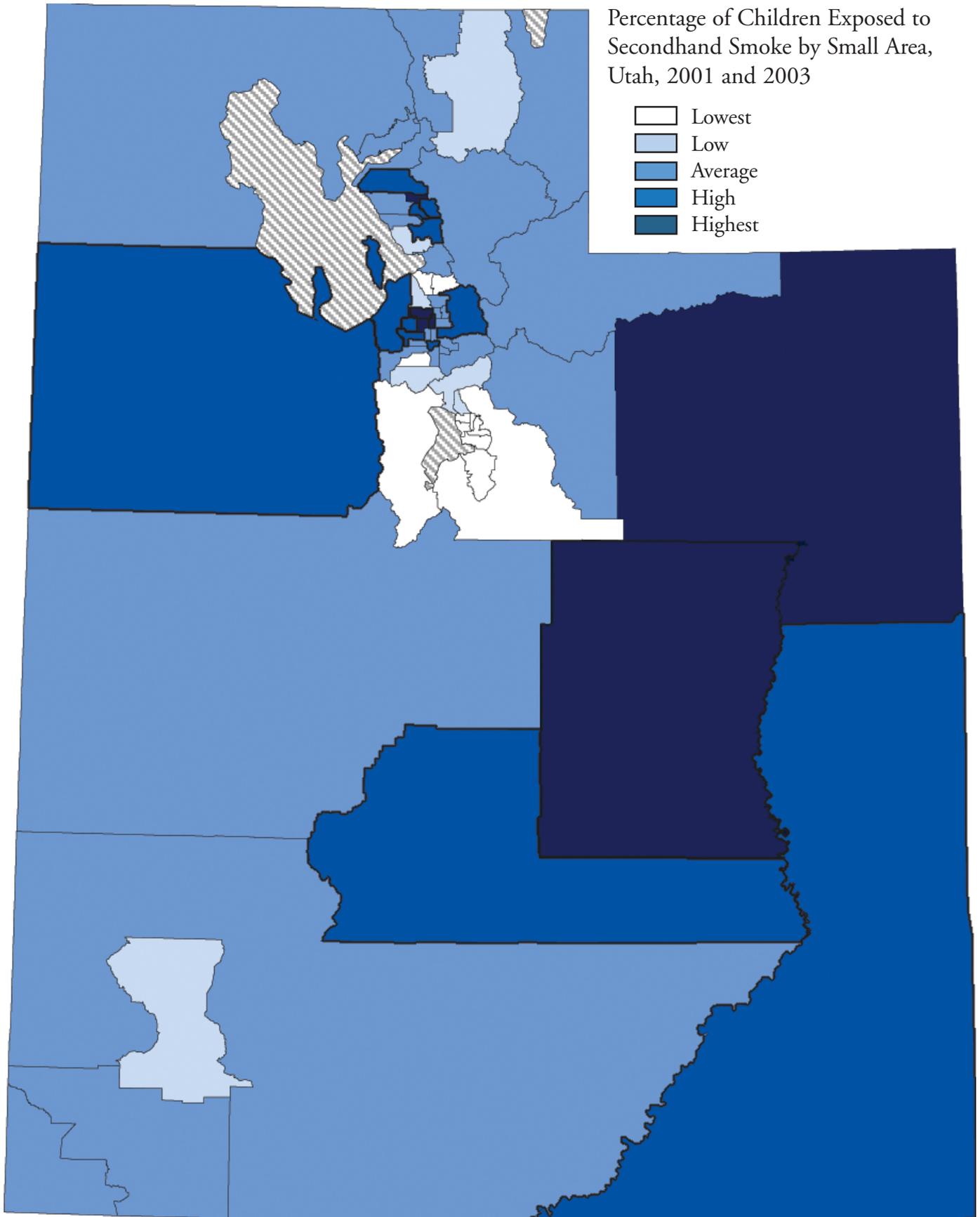
Childhood Exposure to Secondhand Smoke Ranking, 2001 & 2003	Percent
Woods Cross/North SL	0.0%
Bountiful	0.0%
South Jordan	0.0%
Lehi/Cedar Valley	0.0%
North Orem	0.0%
West Orem	0.0%
East Orem	0.0%
Provo/BYU	0.0%
Provo South	0.0%
Springville/Spanish Fork	0.0%
Utah Co. South	0.0%
Syracuse/Kaysville	0.7%
Pleasant Grove/Lindon	0.7%
Logan	1.1%
American Fork/Alpine	1.2%
Cedar City	1.9%
Riverton/Draper	1.9%
Rose Park	2.4%
Foothill/U of U	2.5%
Other Cache/Rich Co.	2.9%
St. George	2.9%
Morgan/East Weber Co.	2.9%
Clearfield/Hill AFB	3.1%
Roy/Hooper	3.3%
Cottonwood	3.5%
Farmington/Centerville	3.7%
Murray	3.7%
Brigham City	4.1%
Other Washington Co.	4.3%
Avenues	4.5%
Other Box Elder Co.	4.8%
Other Southwest Dist.	4.9%
Wasatch Co.	5.2%
Downtown Salt Lake	5.4%
Sandy Center	5.5%
W. Jordan, Copperton	5.6%
Summit Co.	5.8%
Juab/Millard/Sanpete Co.	6.7%
Sandy, Northeast	6.8%
West Jordan No.	6.9%
Sandy, Southeast	7.0%
Taylorsville	7.0%
Millcreek	7.1%
Ben Lomond	8.7%
West Valley West	8.7%
Tooele Co.	8.8%
Sevier/Piute/Wayne Co.	8.8%
Grand/San Juan Co.	9.4%
Kearns	9.6%
Midvale	10.6%
Layton	10.7%
Holladay	11.5%
Magna	11.9%
Riverdale	12.1%
South Ogden	12.6%
South Salt Lake	12.7%
West Valley East	14.7%
TriCounty LHD	14.8%
Downtown Ogden	15.8%
Carbon/Emery Co.	16.7%
Glendale	30.8%

Percentage of Children Who Had Been Exposed to Cigarette Smoke Inside the Home, Utah Children Aged 17 or Less, 2001 and 2003



Source: Utah Health Status Survey, Office of Public Health Assessment, Utah Department of Health
 * Children aged 0-17 who lived in a household where anyone smoked cigarettes, cigars, or pipes anywhere inside the home in the past 30 days.

Childhood Exposure to Secondhand Smoke



Source: Utah Health Status Survey

Childhood Exposure to Secondhand Smoke

Children Exposed to Secondhand Smoke by Small Area
Utah, 2001 and 2003

Rank	Area of Residence	Population	Percentage of Children Aged 0-17 Exposed to Secondhand Smoke		
			Number of Persons	Crude Rates	
				Lower	Upper
	State Total	736,644	40,342	5.5%	(4.6% - 6.3%)
28	Brigham City	7,056	292	4.1%	(0.0% - 8.9%)
31	Other Box Elder Co.	7,908	378	4.8%	(0.0% - 9.8%)
14	Logan	16,519	176	1.1%	(0.0% - 2.6%)
20	Other Cache/Rich Co.	14,206	406	2.9%	(0.0% - 6.4%)
44	Ben Lomond	13,445	1,171	8.7%	(1.6% - 15.8%)
20	Morgan/East Weber Co.	11,337	333	2.9%	(0.0% - 7.1%)
59	Downtown Ogden	8,623	1,365	15.8%	(1.5% - 30.2%)
55	South Ogden	9,408	1,187	12.6%	(2.1% - 23.1%)
24	Roy/Hooper	13,594	454	3.3%	(0.0% - 7.4%)
54	Riverdale	7,504	909	12.1%	(0.0% - 27.5%)
23	Clearfield/Hill AFB	18,444	575	3.1%	(0.0% - 7.8%)
51	Layton	22,369	2,383	10.7%	(3.3% - 18.0%)
12	Syracuse/Kaysville	14,372	102	0.7%	(0.0% - 2.1%)
26	Farmington/Centerville	9,941	369	3.7%	(0.0% - 7.9%)
1	Woods Cross/North SL	6,372	0	0.0%	(. - .)
1	Bountiful	12,613	0	0.0%	(. - .)
18	Rose Park	10,651	254	2.4%	(0.0% - 5.8%)
30	Avenues	3,809	171	4.5%	(0.0% - 13.2%)
19	Foothill/U of U	5,660	141	2.5%	(0.0% - 7.4%)
53	Magna	8,245	978	11.9%	(0.0% - 25.9%)
61	Glendale	8,768	2,702	30.8%	(9.8% - 51.8%)
44	West Valley West	23,914	2,088	8.7%	(1.8% - 15.7%)
57	West Valley East	13,763	2,016	14.7%	(0.6% - 28.7%)
34	Downtown Salt Lake	8,577	461	5.4%	(0.0% - 13.3%)
56	South Salt Lake	5,968	756	12.7%	(0.0% - 27.2%)
43	Millcreek	13,858	983	7.1%	(0.0% - 14.4%)
52	Holladay	10,299	1,184	11.5%	(0.9% - 22.1%)
25	Cottonwood	11,044	391	3.5%	(0.0% - 8.7%)
49	Kearns	23,041	2,210	9.6%	(2.2% - 17.0%)
41	Taylorsville	10,736	752	7.0%	(0.0% - 15.1%)
26	Murray	7,308	273	3.7%	(0.0% - 11.0%)
50	Midvale	7,222	768	10.6%	(0.1% - 21.2%)
40	West Jordan No.	16,232	1,114	6.9%	(0.8% - 12.9%)
36	W. Jordan, Copperton	17,301	974	5.6%	(0.0% - 13.7%)
1	South Jordan	13,090	0	0.0%	(. - .)
35	Sandy Center	16,417	904	5.5%	(0.0% - 11.2%)
39	Sandy, Northeast	7,589	515	6.8%	(0.0% - 14.7%)
41	Sandy, Southeast	10,684	746	7.0%	(0.0% - 17.7%)
16	Riverton/Draper	24,859	473	1.9%	(0.0% - 4.2%)
46	Tooele Co.	15,348	1,352	8.8%	(6.0% - 11.7%)
1	Lehi/Cedar Valley	11,738	0	0.0%	(. - .)
15	American Fork/Alpine	16,731	198	1.2%	(0.0% - 3.5%)
12	Pleasant Grove/Lindon	16,638	119	0.7%	(0.0% - 2.1%)
1	North Orem	12,345	0	0.0%	(. - .)
1	West Orem	9,991	0	0.0%	(. - .)
1	East Orem	8,376	0	0.0%	(. - .)
1	Provo/BYU	9,491	0	0.0%	(. - .)
1	Provo South	14,123	0	0.0%	(. - .)
1	Springville/Spanish Fork	24,082	0	0.0%	(. - .)
1	Utah Co. South	10,970	0	0.0%	(. - .)
37	Summit Co.	9,054	528	5.8%	(2.7% - 9.0%)
33	Wasatch Co.	5,378	279	5.2%	(2.6% - 7.7%)
58	TriCounty LHD	14,036	2,076	14.8%	(10.9% - 18.7%)
38	Juab/Millard/Sanpete Co.	15,100	1,009	6.7%	(3.0% - 10.3%)
46	Sevier/Piute/Wayne Co.	7,540	667	8.8%	(3.2% - 14.5%)
60	Carbon/Emery Co.	9,061	1,513	16.7%	(10.9% - 22.5%)
48	Grand/San Juan Co.	7,592	717	9.4%	(3.3% - 15.6%)
20	St. George	15,357	440	2.9%	(0.1% - 5.6%)
29	Other Washington Co.	14,677	626	4.3%	(0.1% - 8.4%)
16	Cedar City	9,486	179	1.9%	(0.0% - 4.6%)
32	Other Southwest Dist.	6,801	333	4.9%	(0.0% - 10.0%)

Source: 2001 and 2003 Utah Health Status Surveys

Note: Confidence intervals were not calculated for values of 0% and 100%.

Definition: Number of culture-confirmed cases of illness caused by *Salmonella* species per 100,000 population.

Healthy People 2010 Objective 10-1d: Reduce infections caused by key foodborne pathogens - *Salmonella* species.

- U.S. Target for 2010: 6.8
- State-specific Target: 15.86

Why Is It Important?

Salmonella are bacteria that can cause an infection in the stomach and intestines. People infected with *Salmonella* commonly have headache, stomach pain, diarrhea, nausea, vomiting and almost always fever. Symptoms usually appear within 6-72 hours after infection. Infections may enter the blood stream and become very serious.

Risk Factors for Foodborne Illness: *Salmonella*

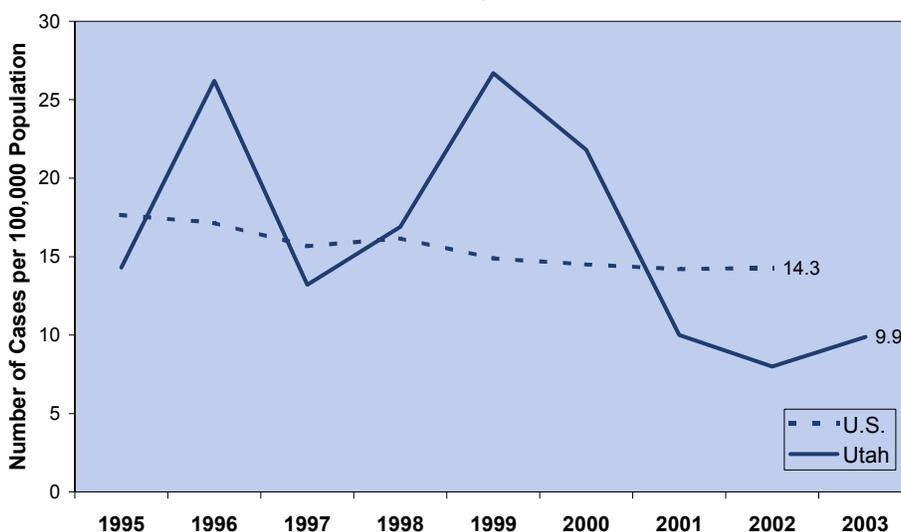
All age groups can be infected with *Salmonella*, but young children, the elderly, and those with compromised immune systems are the most severely affected. People who have *Salmonella* with diarrhea (especially children in day care and people who handle food) can easily give this infection to other children, co-workers, or family members. If possible, children with diarrhea should not go to day care and food handlers should not go to work. Careful hand washing after using the toilet can reduce the risk of spreading illness. Careful hand washing includes using plenty of hot water and soap and rubbing hands vigorously for 20 seconds.

Salmonella bacteria are most commonly found in food products such as eggs, egg products, meats, poultry, unpasteurized milk, other unpasteurized dairy products, and cheese. Domestic and farm animals such as chickens, cattle, pigs, ducks, and reptiles have been found to carry the bacteria without symptoms. Hands should be washed thoroughly after handling animals. Children less than 1 year of age are at high risk of developing *Salmonella* when there are reptiles such as iguanas and snakes kept in the house.

<i>Salmonella</i> Ranking, 2001-2003	Rate*
Tooele	4.4
TriCounty	5.6
Wasatch	6.0
Summit	6.2
Utah	6.8
Davis	7.2
Weber-Morgan	7.8
Salt Lake	10.5
Bear River	10.6
Southwest	11.7
Southeastern	11.9
Central	17.1

* Rate per 100,000.

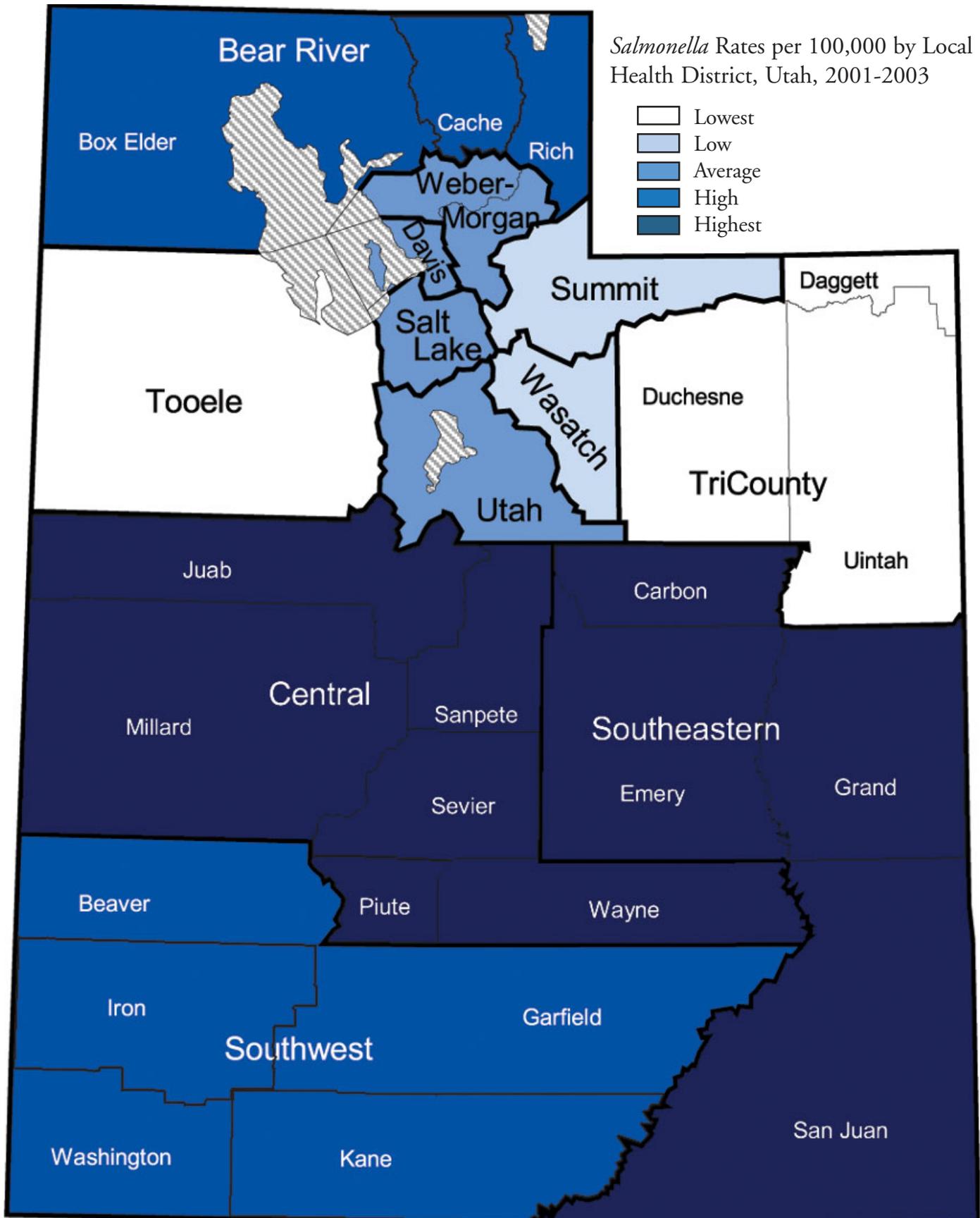
Rates of Reported *Salmonella* Cases, Utah and U.S., 1995-2003



Sources: Utah Department of Health, Office of Epidemiology; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC) National Center for Health Statistics

It is important to note that many *Salmonella* infections are acquired from food prepared privately. Local health districts routinely inspect Utah restaurants to ensure that food is prepared and handled properly to prevent food-related illnesses. General guidelines to prevent *Salmonella* infections can be found at <http://health.utah.gov/els/epidemiology/epifacts/salmon.html>.

Foodborne Illness: *Salmonella*



Source: Utah Department of Health, Office of Epidemiology

Salmonella by Local Health District Utah, 2001-2003

Rank	Area of Residence	Average Population	Salmonella per 100,000		
			Average Annual Number of Events	Crude Rates	
				95% Confidence Interval	Lower
	State Total	2,324,149	216	9.3	(8.6 - 10.0)
9	Bear River	141,090	15	10.6	(7.8 - 14.2)
12	Central	68,206	11	17.1	(11.9 - 23.8)
6	Davis	249,124	18	7.2	(5.4 - 9.4)
8	Salt Lake	924,858	97	10.5	(9.3 - 11.8)
11	Southeastern	53,297	6	11.9	(7.2 - 18.6)
10	Southwest	150,674	17	11.7	(8.8 - 15.3)
4	Summit	32,032	2	6.2	(2.3 - 13.6)
1	Tooele	45,621	2	4.4	(1.6 - 9.5)
2	TriCounty	41,991	2	5.6	(2.2 - 11.4)
5	Utah	392,517	26	6.8	(5.4 - 8.5)
3	Wasatch	16,577	1	6.0	(1.2 - 17.6)
7	Weber-Morgan	208,162	16	7.8	(5.8 - 10.4)

Source: Utah Department of Health, Office of Epidemiology

Foodborne Illness: *E. coli* O157:H7

Definition: Number of infections caused by *Escherichia coli* O157:H7 per 100,000 population.

Similar to Healthy People 2010 Objective 10-2a: Reduce outbreaks of infections caused by key foodborne bacteria - *Escherichia coli* O157:H7.

Why Is It Important?

E. coli bacteria normally live in the intestines of humans and animals. Most strains of these bacteria are harmless, but some strains, like *E. coli* O157:H7, can cause serious illness. People infected by *E. coli* O157:H7 can develop a range of symptoms, from no symptoms at all or minor diarrhea to severe diarrhea and abdominal cramps. Blood is often seen in the stool. Usually little or no fever is present. Symptoms usually appear about three days after exposure, with a range of one to nine days. In some persons, particularly children under five years of age, the infection can cause a complication called hemolytic uremic syndrome (HUS), in which red blood cells are destroyed and the kidneys fail.

<i>E. Coli</i> O157:H7 Ranking, 2001-2003	Rate*
Summit	0.0
TriCounty	0.0
Tooele	0.7
Salt Lake	1.7
Southwest	2.2
Southeastern	2.5
Weber-Morgan	2.9
Utah	3.4
Central	3.4
Davis	3.5
Wasatch	4.0
Bear River	7.1

* Rate per 100,000.

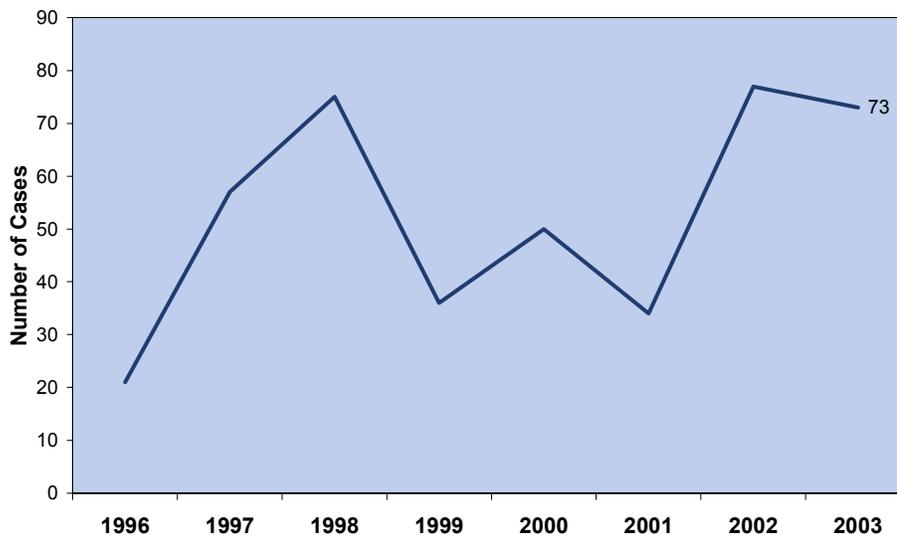
Risk Factors for Foodborne Illness: *E. coli* O157:H7

All age groups can be infected with *E. coli*, but young children, the elderly, and those with compromised immune systems are the most severely affected. *E. coli* O157:H7 bacteria live in the intestines of some healthy cattle, and contamination of meat can occur in the slaughtering process. Eating meat, especially ground beef that has not been cooked adequately, is a common way of getting the infection. Other possible sources of infection include drinking or swimming in water that is contaminated with sewage, eating unwashed fruits or vegetables, or drinking unpasteurized milk or juice.

People who have *E. coli* O157:H7 with diarrhea, especially children in day-care and people who handle food, can easily infect other children, co-workers, or family members. Careful hand washing after using the toilet can reduce the risk of spreading illness. This includes using plenty of hot water and soap and rubbing hands vigorously for 20 seconds. If possible, children with diarrhea should not go to day care and food handlers with diarrhea should not go to work.

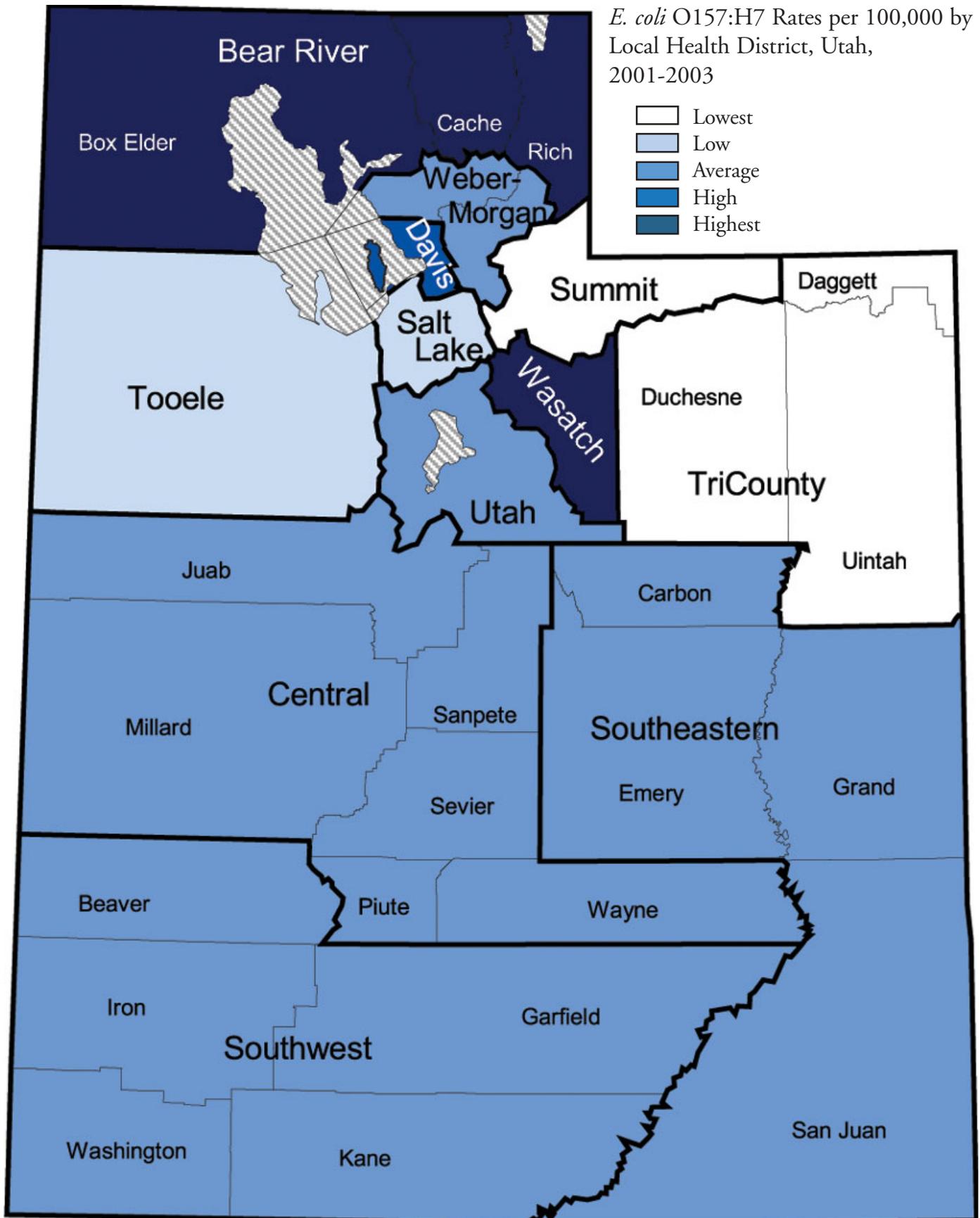
It is important to note that many *E. coli* O157:H7 infections are acquired from food prepared privately. Local health districts routinely inspect Utah restaurants to ensure that food is prepared and handled properly to prevent food-related illnesses. Some general guidelines to prevent *E. coli* O157:H7 infection can be found at <http://health.utah.gov/els/epidemiology/epifacts/ecoli.html>.

Numbers of Reported *E. coli* O157:H7 Cases, Utah, 1996-2003



Sources: Utah Department of Health, Office of Epidemiology

Foodborne Illness: *E. coli* O157:H7



Source: Utah Department of Health, Office of Epidemiology

Foodborne Illness: *E. coli* O157:H7

E. coli O157:H7 by Local Health District Utah, 2001-2003

Rank	Area of Residence	Average Population	Number of <i>E. Coli</i> Cases per 100,000		
			Average Annual Number of Events	Crude Rates	
				95% Confidence Interval**	Lower
	State Total	2,324,149	61	2.6	(2.3 - 3.0)
12	Bear River	141,090	10	7.1	(4.8 - 10.1)
8	Central	68,206	2	3.4	(1.4 - 7.0)
10	Davis	249,124	8	3.5	(2.3 - 5.1)
4	Salt Lake	924,858	15	1.7	(1.2 - 2.2)
6	Southeastern	53,297	1	2.5	(0.7 - 6.4)
5	Southwest	150,674	3	2.2	(1.1 - 4.1)
1	Summit	32,032	0	0.0	(. - .)
3	Tooele	45,621	0	0.7	(0.0 - 4.1)
1	TriCounty	41,991	0	0.0	(. - .)
8	Utah	392,517	13	3.4	(2.4 - 4.6)
11	Wasatch	16,577	1	4.0	(0.5 - 14.5)
7	Weber-Morgan	208,162	6	2.9	(1.7 - 4.6)

Source: Utah Department of Health, Office of Epidemiology

Note: Confidence intervals were not calculated for values of 0.

Definition: Percentage of children aged 19-35 months who received the recommended vaccines (4 doses of DTaP, 3 polio, 1 MMR, 3 Hib, 3 hepatitis B)

Healthy People 2010 Objective 14-24a: Fully immunized young children - Children 19 to 35 months

- U.S. Target for 2010: 80%
- State-specific Target: 90%

Why Is It Important?

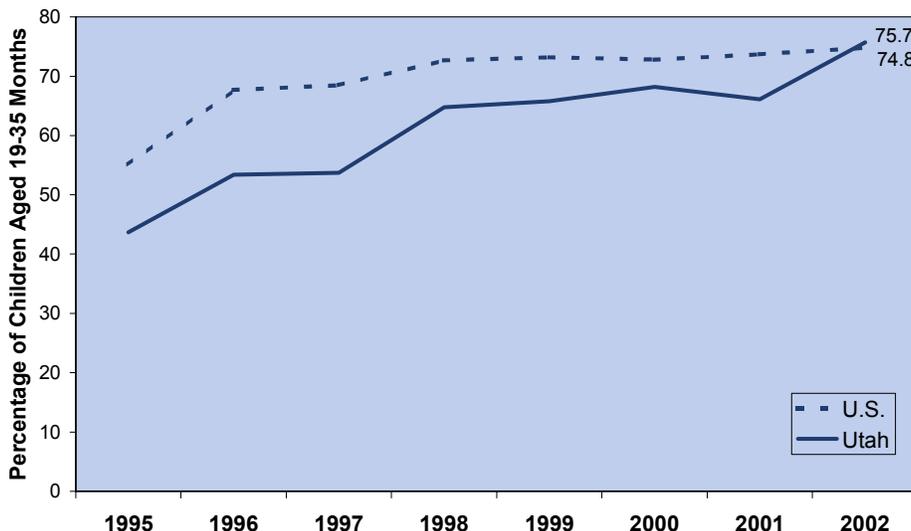
Immunization is the most cost-effective health prevention measure. Vaccination was cited by the U.S. Public Health Service as one of the Ten Great Public Health Achievements in the 20th Century.¹⁵ Vaccines play an essential role in reducing and eliminating disease. By two years of age, it is recommended that all children should have received 4 doses of diphtheria-tetanus-pertussis (DTP), 3 doses of polio, 1 dose of measles-mumps-rubella (MMR), 3 doses of Hepatitis B, and 3 doses of Haemophilis Influenza, type B (Hib) vaccines. This recommendation is referred to in shorthand as “4:3:1:3:3.”

Risk Factors for Lack of Adequate, On Time Childhood Immunization

Children who receive all their vaccinations from the same provider tend to be more up-to-date than others because that provider is able to review the complete immunization record and remind the parent when vaccinations are due. Because children often receive their immunizations from multiple providers, Utah has implemented a Statewide Immunization Information System (USIIS) that stores immunization records for Utah youngsters and reminds parents when vaccinations are due, so that providers don't have to.

4:3:1:3:3 Ranking, 2002	Percent
Massachusetts	86.2%
Rhode Island	84.5%
New Hampshire	83.5%
North Carolina	82.4%
Connecticut	81.9%
Michigan	81.6%
Vermont	80.9%
Maine	80.7%
Georgia	80.4%
Wisconsin	80.3%
South Dakota	79.9%
South Carolina	78.8%
Delaware	78.7%
Hawaii	78.7%
Iowa	78.7%
Maryland	78.7%
Illinois	78.6%
Nebraska	78.2%
Tennessee	78.2%
North Dakota	77.7%
New York	77.5%
West Virginia	76.9%
Alabama	76.8%
Minnesota	76.8%
Nevada	76.4%
New Jersey	76.1%
Indiana	76.0%
Mississippi	75.7%
Utah	75.7%
Alaska	75.3%
Ohio	75.0%
Pennsylvania	74.7%
Florida	74.5%
Wyoming	73.3%
California	73.2%
Missouri	73.0%
Kentucky	72.3%
Virginia	72.0%
Arkansas	71.0%
Oregon	70.0%
Idaho	69.4%
Washington	69.2%
Arizona	67.9%
Texas	67.9%
Kansas	66.8%
Louisiana	66.8%
Montana	66.6%
Oklahoma	65.3%
New Mexico	64.6%
Colorado	62.7%

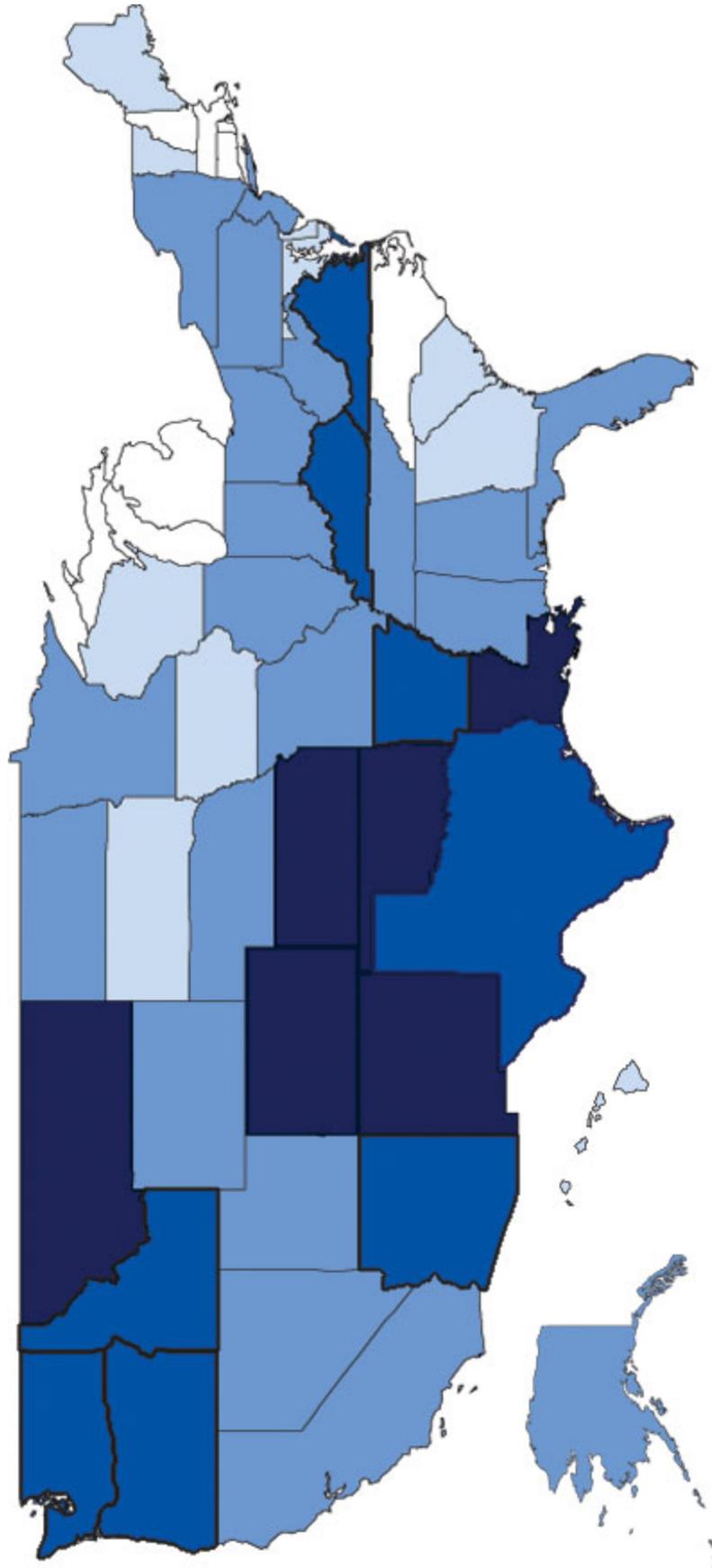
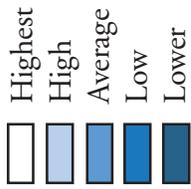
Estimated Vaccine Coverage With 4:3:1:3:3 Among Children 19-35 Months, Utah and U.S., 1995-2002



Source: National Immunization Survey, National Center for Health Statistics, U.S. Centers for Disease Control and Prevention

Childhood Immunization 4:3:1:3:3

Percentage of Children Aged 19-35 Months Receiving 4:3:1:3:3 by State, United States, 2002



Source: National Immunization Survey, National Center for Health Statistics, U.S. Centers for Disease Control and Prevention

Childhood Immunization 4:3:1:3:3 by State United States Children Ages 19-35 Months, 2002

Rank	Area of Residence	Child Population (Ages 19-35 Months)*	Percentage of Children Ages 19-35 Months Receiving 4:3:1:3:3		
			Number of Children Ages 19-35 Months	Crude Rates	
				95% Confidence Interval	Lower
	U.S. Total	5,373,261	4,019,199	74.8% (73.8% - 75.8%)	
23	Alabama	83,510	64,135	76.8% (71.5% - 82.1%)	
30	Alaska	13,348	10,051	75.3% (69.4% - 81.2%)	
43	Arizona	107,397	72,922	67.9% (63.2% - 72.6%)	
39	Arkansas	51,340	36,451	71.0% (64.9% - 77.1%)	
35	California	692,081	506,603	73.2% (69.4% - 77.0%)	
50	Colorado	83,286	52,220	62.7% (56.1% - 69.3%)	
5	Connecticut	62,174	50,920	81.9% (76.7% - 87.1%)	
13	Delaware	14,545	11,447	78.7% (73.2% - 84.2%)	
33	Florida	265,316	197,660	74.5% (69.8% - 79.2%)	
9	Georgia	167,261	134,478	80.4% (76.2% - 84.6%)	
13	Hawaii	21,865	17,208	78.7% (73.2% - 84.2%)	
41	Idaho	27,332	18,968	69.4% (63.5% - 75.3%)	
17	Illinois	245,674	193,100	78.6% (74.3% - 82.9%)	
27	Indiana	119,136	90,543	76.0% (71.0% - 81.0%)	
13	Iowa	53,108	41,796	78.7% (73.2% - 84.2%)	
45	Kansas	53,175	35,521	66.8% (59.9% - 73.7%)	
37	Kentucky	75,049	54,260	72.3% (65.9% - 78.7%)	
45	Louisiana	89,865	60,030	66.8% (61.2% - 72.4%)	
8	Maine	19,823	15,997	80.7% (75.6% - 85.8%)	
13	Maryland	98,583	77,585	78.7% (73.1% - 84.3%)	
1	Massachusetts	111,906	96,463	86.2% (82.4% - 90.0%)	
6	Michigan	189,432	154,577	81.6% (77.2% - 86.0%)	
23	Minnesota	92,563	71,089	76.8% (70.3% - 83.3%)	
28	Mississippi	57,832	43,779	75.7% (69.2% - 82.2%)	
36	Missouri	104,898	76,575	73.0% (66.5% - 79.5%)	
47	Montana	15,382	10,245	66.6% (59.8% - 73.4%)	
18	Nebraska	32,831	25,674	78.2% (72.6% - 83.8%)	
25	Nevada	40,709	31,102	76.4% (70.3% - 82.5%)	
3	New Hampshire	21,235	17,731	83.5% (78.5% - 88.5%)	
26	New Jersey	157,907	120,167	76.1% (70.7% - 81.5%)	
49	New Mexico	36,614	23,653	64.6% (57.9% - 71.3%)	
21	New York	345,781	267,980	77.5% (73.2% - 81.8%)	
4	North Carolina	152,129	125,354	82.4% (76.9% - 87.9%)	
20	North Dakota	11,174	8,682	77.7% (71.0% - 84.4%)	
31	Ohio	212,567	159,425	75.0% (70.5% - 79.5%)	
48	Oklahoma	67,572	44,125	65.3% (57.9% - 72.7%)	
40	Oregon	62,671	43,870	70.0% (64.1% - 75.9%)	
32	Pennsylvania	203,212	151,799	74.7% (69.2% - 80.2%)	
2	Rhode Island	18,115	15,307	84.5% (78.9% - 90.1%)	
12	South Carolina	74,540	58,738	78.8% (72.3% - 85.3%)	
11	South Dakota	14,235	11,374	79.9% (73.5% - 86.3%)	
18	Tennessee	105,689	82,649	78.2% (74.1% - 82.3%)	
43	Texas	456,855	310,205	67.9% (62.8% - 73.0%)	
28	Utah	59,297	44,888	75.7% (69.8% - 81.6%)	
7	Vermont	9,479	7,668	80.9% (76.2% - 85.6%)	
38	Virginia	129,804	93,459	72.0% (65.8% - 78.2%)	
42	Washington	111,699	77,296	69.2% (64.2% - 74.2%)	
22	West Virginia	28,477	21,899	76.9% (70.6% - 83.2%)	
10	Wisconsin	96,033	77,115	80.3% (76.0% - 84.6%)	
34	Wyoming	8,754	6,416	73.3% (66.9% - 79.7%)	

* Estimate based on U.S. 2000 Census data.

Source: National Immunization Survey, National Center for Health Statistics, U.S. Centers for Disease Control and Prevention

Adult Influenza Immunization

Definition: Percentage of noninstitutionalized adults aged 65+ who report receiving an influenza vaccination in the past 12 months.

Healthy People 2010 Objective 14-29a: Influenza and pneumococcal vaccination of high-risk adults - Noninstitutionalized adults -Influenza vaccine (age-adjusted, ages 65 years and older)

- U.S. Target for 2010: 90%
- State-specific Target: 90%

Why Is It Important?

Influenza is a significant disease in the U.S. with high morbidity and mortality causing an average of 110,000 hospitalizations and 20,000 deaths annually. In 1999 approximately 90 percent of all influenza and pneumonia-related deaths occurred in individuals aged 65 and older. Vaccination is the primary method of preventing influenza and its severe complications, particularly for the elderly. A study conducted by Govaert et al.¹⁶ demonstrated that the influenza vaccine decreased influenza infection by 50% in those over age 65. The cost-effectiveness of influenza vaccination has also been demonstrated in studies conducted in a variety of elderly populations-from nursing home patients to Medicare beneficiaries to individuals living independently in the community.

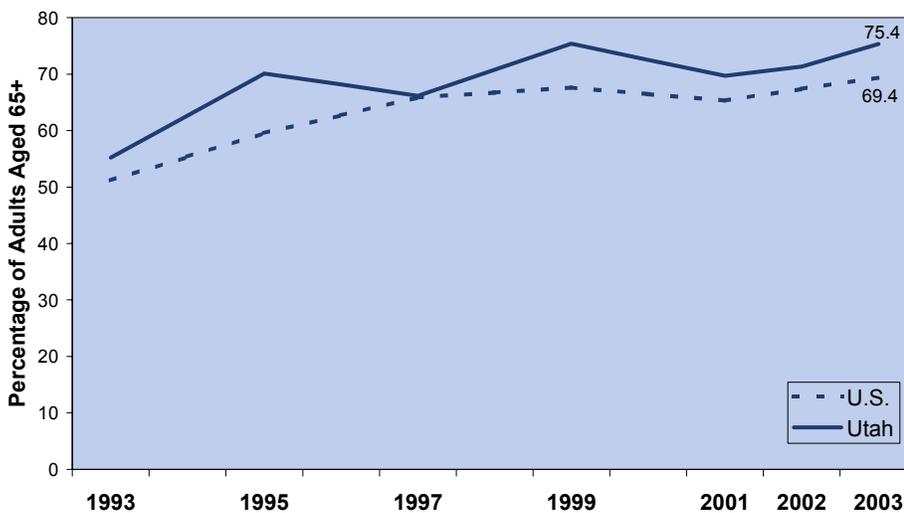
Risk Factors for Lack of Adult Influenza Immunization

Complications of influenza and pneumococcal disease are most common among high-risk groups of individuals, including those who have diabetes, chronic liver disease, chronic renal disease, chronic lung disease, or chronic cardiac disease/failure, have been organ transplant recipients, or are elderly.

Adult Influenza Immunization Ranking, 2001-2003	Percent*
Bear River	77.7%
Tooele	77.4%
Davis	73.7%
Weber-Morgan	72.9%
Salt Lake	72.5%
Summit	71.5%
Southwest	70.7%
Central	69.2%
TriCounty	69.1%
Utah	68.7%
Southeastern	64.8%
Wasatch	64.3%

* Age adjusted percentages.

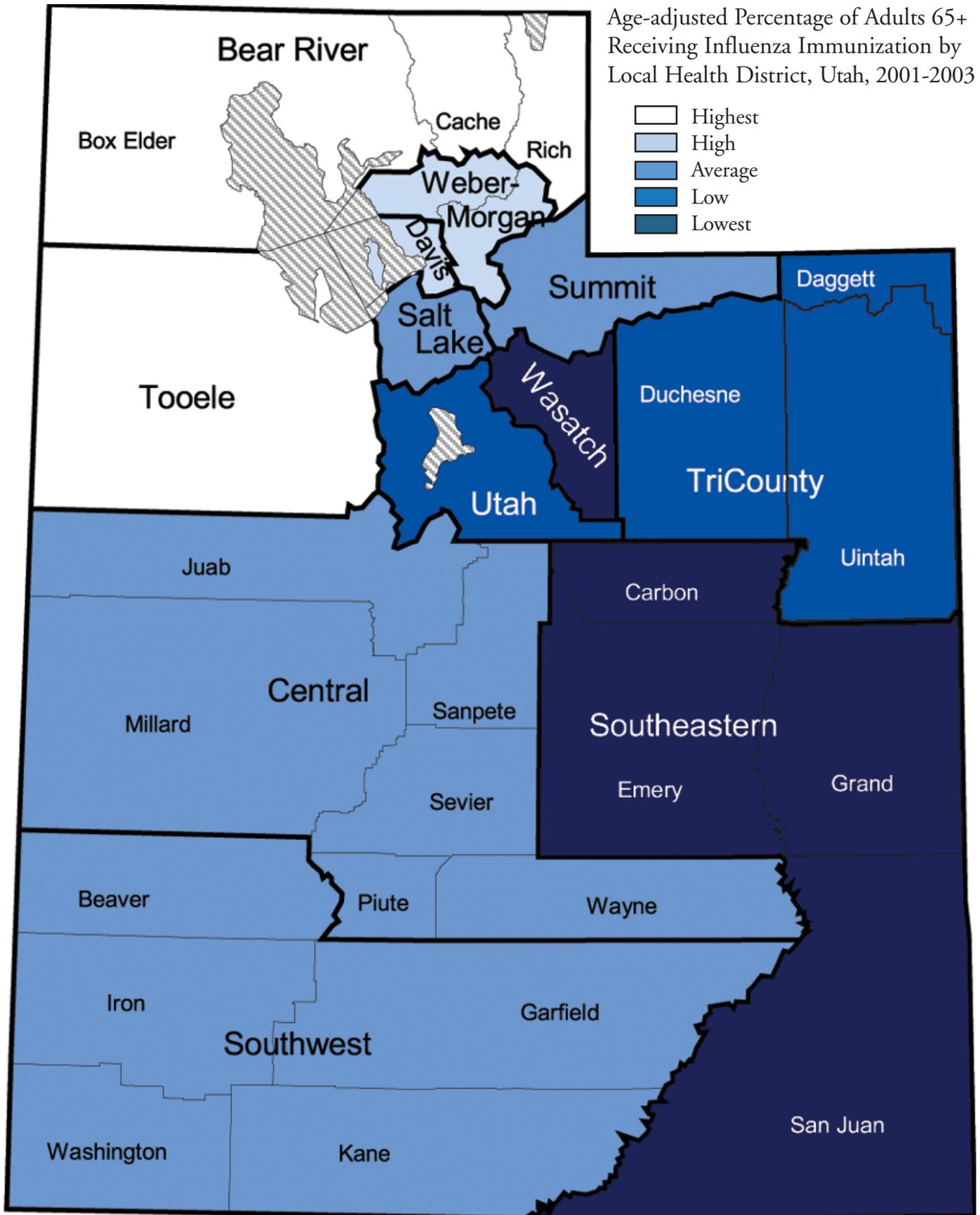
Percentage of Persons Aged 65+ Who Reported Receiving an Influenza Vaccination in the Past 12 Months, Utah and U.S., 1993-2003



Others at risk for complications not because of underlying disease, but because of underimmunization include: minorities, those with a low socioeconomic level, those with a low education level, those living in inner cities, those lacking medical services, and those with a misperception of risk and co-morbid disease.

Sources: Utah Data: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health; U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS)
 Note: Age adjusted to U.S. 2000 standard population. U.S. data are the average for all states and the District of Columbia; they do not include the U.S. territories.

Adult Influenza Immunization



Source: Behavioral Risk Factor Surveillance System

Adult Influenza Immunization

Adult Influenza Immunization by Local Health District Utah Adults Ages 65 and Over, 2001-2003

Rank	Area of Residence	Average Adult Population (Ages 65+)	Percentage of Adults Ages 65+ Who Reported Receiving a Flu Shot in the Past 12 Months			
			Average Annual Number of Adults 65+	Crude Rates	Age Adjusted Rates*	
					Lower	Upper
	State Total	196,256	140,107	71.4%	72.0%	(69.3% - 74.7%)
1	Bear River	11,508	9,040	78.6%	77.7%	(70.4% - 85.1%)
8	Central	8,029	5,375	66.9%	69.2%	(61.9% - 76.4%)
3	Davis	18,636	13,322	71.5%	73.7%	(64.7% - 82.7%)
5	Salt Lake	74,431	53,779	72.3%	72.5%	(67.6% - 77.4%)
11	Southeastern	6,070	3,963	65.3%	64.8%	(56.6% - 73.1%)
7	Southwest	21,461	14,925	69.5%	70.7%	(63.6% - 77.9%)
6	Summit	1,705	1,126	66.0%	71.5%	(60.9% - 82.2%)
2	Tooele	3,291	2,522	76.7%	77.4%	(68.1% - 86.8%)
9	TriCounty	4,214	2,874	68.2%	69.1%	(61.1% - 77.2%)
10	Utah	24,423	17,232	70.6%	68.7%	(60.1% - 77.2%)
12	Wasatch	1,406	859	61.1%	64.3%	(49.1% - 79.6%)
4	Weber-Morgan	21,083	14,996	71.1%	72.9%	(65.0% - 80.9%)

* Percentages have been age adjusted to the U.S. 2000 standard population.

Source: Utah Behavioral Risk Factor Surveillance System

Definition: Percentage of Utahns who reported no health insurance coverage.

Similar to Healthy People 2010 Objective 1-1: Increase the proportion of persons with health insurance.

Why Is It Important?

Persons with health insurance are more likely to have a regular source of primary health care, and are more likely to have routine preventive care. Each year in Utah, thousands of persons are hospitalized for conditions that would have been easier, cheaper, and more effectively treated in outpatient settings. Providing access to health care, and especially preventive health services, helps Utah's citizens, its economy, and society.

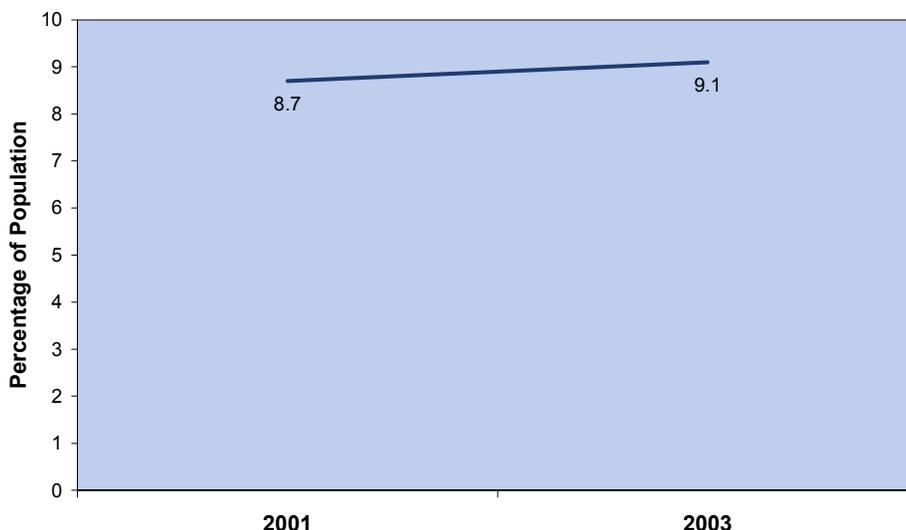
Risk Factors for Lack of Health Insurance Coverage

Young adults (19 to 34), especially males, were more likely than other age groups to lack health insurance (17% of all persons 19 to 34 and 21% of males 19 to 34 lacked coverage). Persons at or below 200% of the federal poverty level, students, and persons with no high school diploma were also at higher-than-average risk for lack of health insurance coverage. Because health insurance is typically provided through an employer, persons with low-wage jobs and those who are self-employed are at particularly high risk for lack of coverage.¹⁷

Among individuals who lacked health insurance, most were employed either full-time or part-time (66.3%) and a large majority (91%) had at least a high school diploma. Furthermore, 64.1% of those who lacked health insurance were at or below 200% of the federal poverty level.¹⁷

The most common reasons cited by respondents for lacking health insurance were "can't afford it" (66.3%) and "lost job or changed employers" (47.5%).¹⁷

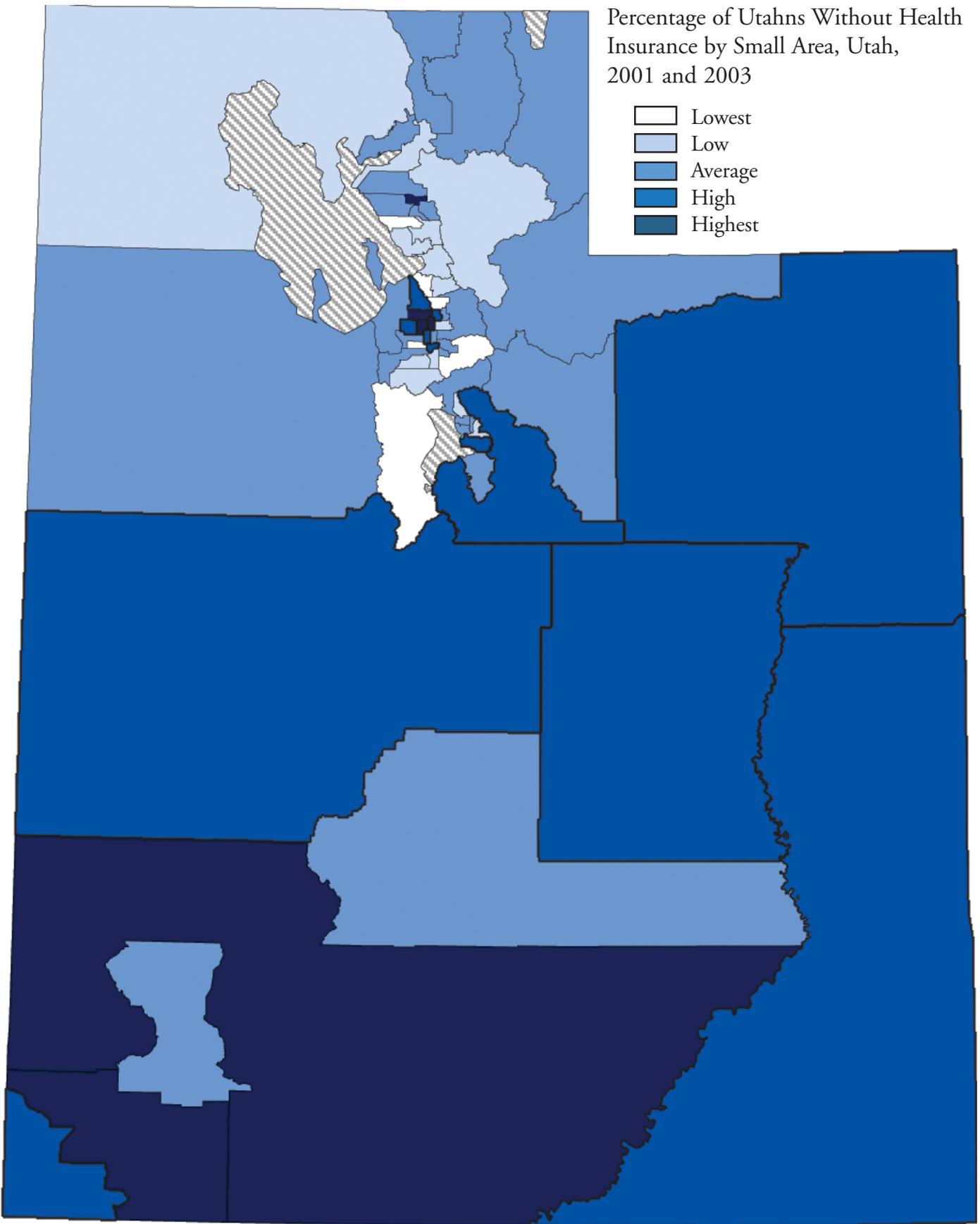
Percentage of Persons With No Health Insurance Coverage, Utah, 2001 and 2003



Source: Utah Health Status Survey, Office of Public Health Assessment, Utah Department of Health.

Health Insurance Ranking, 2001 & 2003	Percent
Sandy, Southeast	1.4%
Clearfield/Hill AFB	1.7%
Woods Cross/North SL	2.8%
Lehi/Cedar Valley	3.3%
West Jordan No.	3.9%
Avenues	4.2%
Bountiful	4.3%
Farmington/Centerville	4.8%
Syracuse/Kaysville	5.0%
South Jordan	5.1%
Sandy Center	5.2%
Provo/BYU	5.2%
Millcreek	5.3%
Morgan/East Weber Co.	5.4%
Riverton/Draper	5.6%
Pleasant Grove/Lindon	5.7%
Layton	5.8%
Other Box Elder Co.	5.8%
Springville/Spanish Fork	6.4%
Cottonwood	6.5%
Other Cache/Rich Co.	6.6%
Holladay	6.8%
Summit Co.	6.9%
Tooele Co.	7.1%
Logan	7.2%
Brigham City	7.4%
Sandy, Northeast	7.6%
Roy/Hooper	7.6%
Foothill/U of U	8.1%
Magna	8.2%
American Fork/Alpine	8.6%
East Orem	8.9%
Murray	8.9%
North Orem	9.0%
West Orem	9.1%
Kearns	9.1%
South Ogden	9.2%
W. Jordan, Copperton	9.4%
Cedar City	9.5%
Riverdale	9.6%
Sevier/Piute/Wayne Co.	10.8%
Ben Lomond	10.9%
Wasatch Co.	11.3%
Taylorsville	11.9%
Utah Co. South	11.9%
Juab/Millard/Sanpete Co.	12.1%
Midvale	12.1%
Provo South	12.4%
Downtown Salt Lake	12.5%
West Valley West	12.9%
Grand/San Juan Co.	13.2%
TriCounty LHD	13.5%
St. George	14.2%
Rose Park	14.3%
Carbon/Emery Co.	14.4%
Other Washington Co.	15.6%
Other Southwest Dist.	15.7%
West Valley East	17.6%
Downtown Ogden	18.4%
South Salt Lake	22.4%
Glendale	22.7%

Health Insurance Coverage



Source: Utah Health Status Survey

Health Insurance Coverage by Small Area Utah, 2001 and 2003

Rank	Area of Residence	Population	Percentage of Utahns Without Health Insurance		
			Number of Persons	Crude Rates	
				Lower	Upper
	State Total	2,325,367	204,625	8.8%	(8.1% - 9.5%)
26	Brigham City	21,734	1,611	7.4%	(1.7% - 13.2%)
17	Other Box Elder Co.	22,169	1,280	5.8%	(2.6% - 9.0%)
25	Logan	60,524	4,329	7.2%	(4.4% - 9.9%)
21	Other Cache/Rich Co.	36,670	2,416	6.6%	(3.3% - 9.8%)
42	Ben Lomond	45,331	4,927	10.9%	(6.2% - 15.5%)
14	Morgan/East Weber Co.	33,430	1,794	5.4%	(1.5% - 9.2%)
59	Downtown Ogden	28,455	5,233	18.4%	(8.6% - 28.2%)
37	South Ogden	34,871	3,217	9.2%	(3.3% - 15.2%)
27	Roy/Hooper	41,009	3,115	7.6%	(3.2% - 12.0%)
40	Riverdale	25,632	2,453	9.6%	(3.6% - 15.5%)
2	Clearfield/Hill AFB	54,042	926	1.7%	(0.0% - 3.7%)
17	Layton	64,416	3,708	5.8%	(2.1% - 9.4%)
9	Syracuse/Kaysville	37,433	1,879	5.0%	(0.0% - 10.5%)
8	Farmington/Centerville	28,173	1,361	4.8%	(0.0% - 11.9%)
3	Woods Cross/North SL	19,636	553	2.8%	(0.0% - 6.4%)
7	Bountiful	44,986	1,950	4.3%	(1.5% - 7.1%)
54	Rose Park	32,881	4,699	14.3%	(6.4% - 22.2%)
6	Avenues	21,818	917	4.2%	(0.8% - 7.7%)
29	Foothill/U of U	23,279	1,883	8.1%	(1.3% - 14.9%)
30	Magna	23,596	1,927	8.2%	(0.0% - 16.7%)
61	Glendale	26,994	6,140	22.7%	(9.3% - 36.2%)
50	West Valley West	67,789	8,750	12.9%	(6.9% - 18.9%)
58	West Valley East	49,128	8,652	17.6%	(9.7% - 25.5%)
49	Downtown Salt Lake	50,427	6,285	12.5%	(7.0% - 18.0%)
60	South Salt Lake	24,574	5,496	22.4%	(11.6% - 33.2%)
13	Millcreek	57,031	3,046	5.3%	(2.9% - 7.8%)
22	Holladay	44,694	3,036	6.8%	(2.9% - 10.7%)
20	Cottonwood	43,554	2,828	6.5%	(3.0% - 10.0%)
35	Kearns	65,678	5,989	9.1%	(4.5% - 13.7%)
44	Taylorsville	38,756	4,628	11.9%	(5.6% - 18.2%)
32	Murray	30,928	2,755	8.9%	(2.4% - 15.5%)
46	Midvale	28,719	3,486	12.1%	(5.3% - 19.0%)
5	West Jordan No.	45,110	1,761	3.9%	(0.0% - 7.9%)
38	W. Jordan, Copperton	43,501	4,071	9.4%	(2.7% - 16.0%)
10	South Jordan	33,227	1,702	5.1%	(0.0% - 11.0%)
11	Sandy Center	52,053	2,697	5.2%	(1.9% - 8.5%)
27	Sandy, Northeast	24,776	1,872	7.6%	(1.6% - 13.5%)
1	Sandy, Southeast	30,760	429	1.4%	(0.0% - 2.8%)
15	Riverton/Draper	66,044	3,666	5.6%	(1.6% - 9.5%)
24	Tooele Co.	45,623	3,232	7.1%	(5.4% - 8.8%)
4	Lehi/Cedar Valley	28,005	913	3.3%	(0.0% - 6.5%)
31	American Fork/Alpine	40,955	3,523	8.6%	(3.7% - 13.5%)
16	Pleasant Grove/Lindon	39,661	2,268	5.7%	(0.8% - 10.6%)
34	North Orem	35,508	3,190	9.0%	(3.5% - 14.5%)
35	West Orem	30,650	2,786	9.1%	(2.2% - 15.9%)
32	East Orem	22,968	2,040	8.9%	(1.8% - 16.0%)
11	Provo/BYU	48,297	2,518	5.2%	(1.6% - 8.8%)
48	Provo South	58,202	7,188	12.4%	(7.3% - 17.4%)
19	Springville/Spanish Fork	61,695	3,921	6.4%	(2.6% - 10.1%)
44	Utah Co. South	27,247	3,256	11.9%	(4.9% - 19.0%)
23	Summit Co.	32,055	2,220	6.9%	(5.0% - 8.9%)
43	Wasatch Co.	16,563	1,874	11.3%	(8.9% - 13.7%)
52	TriCounty LHD	41,941	5,659	13.5%	(11.2% - 15.8%)
46	Juab/Millard/Sanpete Co.	44,885	5,433	12.1%	(8.6% - 15.6%)
41	Sevier/Piute/Wayne Co.	23,289	2,518	10.8%	(7.5% - 14.1%)
55	Carbon/Emery Co.	30,552	4,407	14.4%	(11.7% - 17.2%)
51	Grand/San Juan Co.	22,695	2,994	13.2%	(8.8% - 17.6%)
53	St. George	55,174	7,849	14.2%	(9.4% - 19.0%)
56	Other Washington Co.	43,516	6,776	15.6%	(10.0% - 21.1%)
39	Cedar City	29,980	2,851	9.5%	(4.5% - 14.6%)
57	Other Southwest Dist.	22,092	3,471	15.7%	(9.8% - 21.6%)

Source: 2001 and 2003 Utah Health Status Surveys

Prenatal Care

Definition: Number of infants born to pregnant women receiving prenatal care in the first trimester as a percentage of the total number of live births.

Similar to Healthy People 2010 Objective 16-6a: Prenatal care - Beginning in first trimester

Why Is It Important?

Women who receive early and consistent prenatal care enhance their likelihood of giving birth to a healthy child. Health care providers recommend that most women begin prenatal care in the first trimester of their pregnancy and receive a total of 13 prenatal care visits.

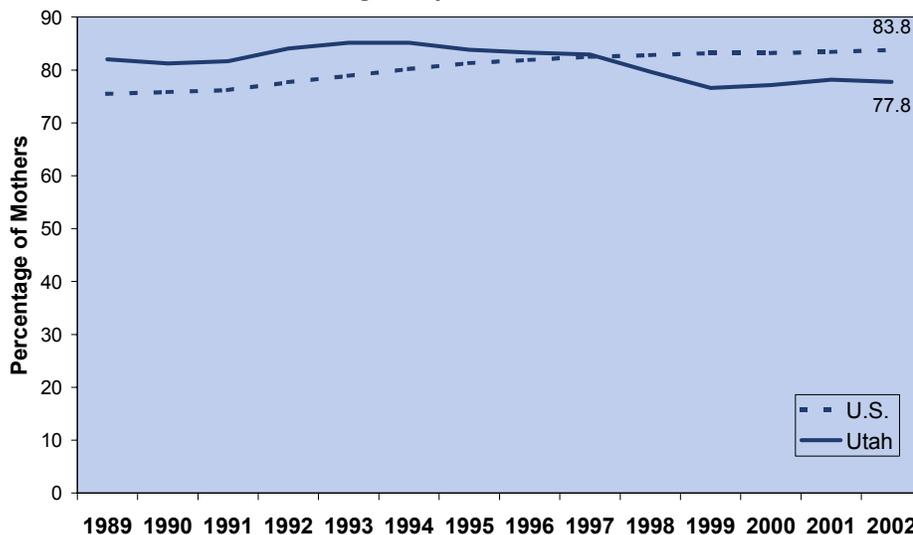
Risk Factors for No Prenatal Care

The risk factors for late entry are (2000-2002 PRAMS data):

- women less than 20 years of age
- women with less than 12 years of education
- non-White women
- Hispanic women
- unmarried women
- women with an annual household income of less than \$15,000
- women whose current pregnancy was unintended
- women who smoked before pregnancy
- women who drank before pregnancy
- women who recognized they were pregnant after 9 weeks gestation
- women who had no insurance prior to conception

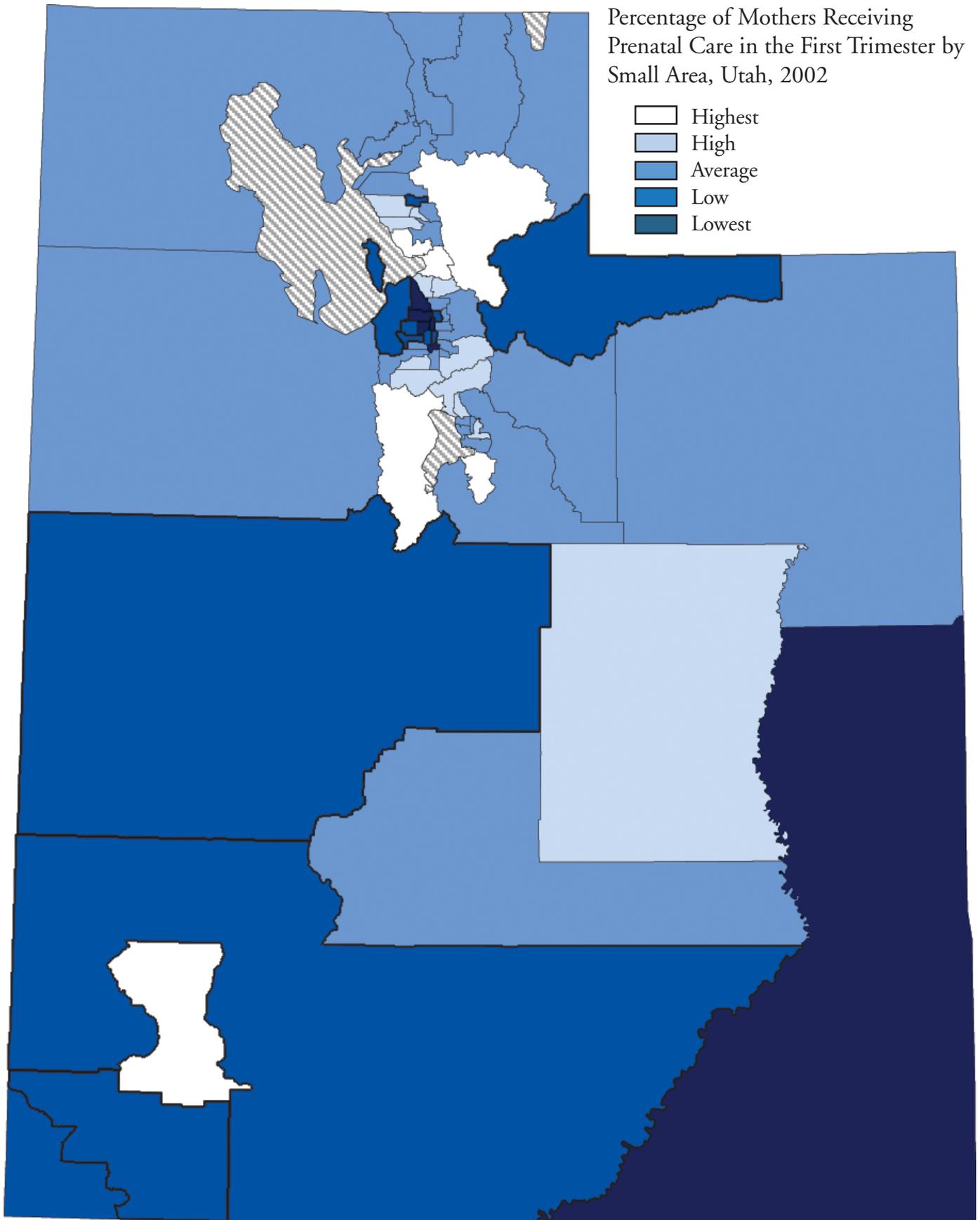
Prenatal Care Ranking, 2002	Percent
Syracuse/Kaysville	86.6%
Lehi/Cedar Valley	86.0%
Springville/Spanish Fork	86.0%
Farmington/Centerville	85.3%
Morgan/E Weber Co.	84.8%
Cedar City	84.1%
Riverton/Draper	83.7%
Riverdale	83.7%
Sandy, SE	83.5%
Roy/Hooper	83.4%
Pleasant Grove/Lindon	83.4%
South Jordan	82.8%
Clearfield/Hill AFB	82.8%
American Fork/Alpine	82.7%
Bountiful	82.5%
Woods Cross/No. SL	82.4%
Carbon/Emery Co.	82.3%
Provo/BYU	82.2%
Ben Lomond	81.7%
East Orem	81.6%
Layton	81.4%
Logan	81.2%
TriCounty LHD	81.2%
Other Box Elder Co.	81.1%
W. Jordan, Copperton	81.0%
Sandy, NE	81.0%
West Orem	80.7%
Foothill/U of U	80.6%
Other Cache/Rich Co.	80.4%
West Jordan No.	80.0%
Brigham City	80.0%
Utah Co. South	79.8%
Holladay	79.6%
Provo South	79.4%
North Orem	79.4%
Sandy Center	78.9%
Cottonwood	78.8%
Tooele Co.	78.3%
Wasatch Co.	77.8%
Millcreek	77.7%
South Ogden	77.5%
Avenues	77.3%
Sevier/Piute/Wayne Co.	76.4%
Juab/Millard/Sanpete Co.	76.0%
Magna	75.2%
Summit Co.	75.2%
Murray	74.6%
Other Southwest Dist	73.5%
St. George	73.0%
Taylorsville	72.6%
Other Washington Co.	72.4%
Downtown Salt Lake	72.1%
Kearns	71.6%
Downtown Ogden	69.0%
West Valley West	68.6%
Midvale	66.5%
West Valley East	65.4%
South Salt Lake	62.4%
Grand/San Juan Co.	61.8%
Rose Park	60.8%
Glendale	53.4%

Percentage of Mothers Receiving Prenatal Care in the First Trimester of Pregnancy, Utah and U.S., 1989-2002



Sources: Office of Vital Records and Statistics, Utah Department of Health

Note: Percentage of mothers of live born infants where prenatal care was reported to have been received in the first trimester (Births where primary care was unreported were counted in the denominator). U.S. 2002 rate is preliminary.



Source: Utah Birth Certificate Database

Prenatal Care in First Trimester by Small Area
Utah, 2002

Rank	Area of Residence	Number of Live Births	Percentage of Mothers Receiving Prenatal Care in the First Trimester		
			Number of Events	Crude Rates	
				Lower	Upper
	State Total	49,140	38,324	78.0%	(77.2% - 78.8%)
30	Brigham City	409	327	80.0%	(71.5% - 89.1%)
24	Other Box Elder Co.	396	321	81.1%	(72.4% - 90.4%)
22	Logan	1,531	1,243	81.2%	(76.7% - 85.8%)
29	Other Cache/Rich Co.	791	636	80.4%	(74.3% - 86.9%)
19	Ben Lomond	989	808	81.7%	(76.2% - 87.5%)
5	Morgan/East Weber Co.	507	430	84.8%	(77.0% - 93.2%)
54	Downtown Ogden	738	509	69.0%	(63.1% - 75.2%)
41	South Ogden	654	507	77.5%	(70.9% - 84.6%)
10	Roy/Hooper	821	685	83.4%	(77.3% - 89.9%)
7	Riverdale	521	436	83.7%	(76.0% - 91.9%)
12	Clearfield/Hill AFB	1,264	1,046	82.8%	(77.8% - 87.9%)
21	Layton	1,261	1,027	81.4%	(76.5% - 86.6%)
1	Syracuse/Kaysville	837	725	86.6%	(80.4% - 93.2%)
4	Farmington/Centerville	457	390	85.3%	(77.1% - 94.2%)
16	Woods Cross/North SL	443	365	82.4%	(74.2% - 91.3%)
15	Bountiful	738	609	82.5%	(76.1% - 89.3%)
60	Rose Park	841	511	60.8%	(55.6% - 66.3%)
42	Avenues	365	282	77.3%	(68.5% - 86.8%)
28	Foothill/U of U	432	348	80.6%	(72.3% - 89.5%)
45	Magna	541	407	75.2%	(68.1% - 82.9%)
61	Glendale	697	372	53.4%	(48.1% - 59.1%)
55	West Valley West	1,498	1,028	68.6%	(64.5% - 73.0%)
57	West Valley East	1,073	702	65.4%	(60.7% - 70.4%)
52	Downtown Salt Lake	785	566	72.1%	(66.3% - 78.3%)
58	South Salt Lake	548	342	62.4%	(56.0% - 69.4%)
40	Millcreek	1,044	811	77.7%	(72.4% - 83.2%)
33	Holladay	667	531	79.6%	(73.0% - 86.7%)
37	Cottonwood	542	427	78.8%	(71.5% - 86.6%)
53	Kearns	1,476	1,057	71.6%	(67.4% - 76.1%)
50	Taylorsville	704	511	72.6%	(66.4% - 79.2%)
47	Murray	610	455	74.6%	(67.9% - 81.8%)
56	Midvale	674	448	66.5%	(60.5% - 72.9%)
30	West Jordan No.	1,211	969	80.0%	(75.1% - 85.2%)
25	W. Jordan, Copperton	933	756	81.0%	(75.4% - 87.0%)
12	South Jordan	551	456	82.8%	(75.3% - 90.7%)
36	Sandy Center	987	779	78.9%	(73.5% - 84.7%)
25	Sandy, Northeast	279	226	81.0%	(70.8% - 92.3%)
9	Sandy, Southeast	334	279	83.5%	(74.0% - 93.9%)
7	Riverton/Draper	1,677	1,404	83.7%	(79.4% - 88.2%)
38	Tooele Co.	990	775	78.3%	(72.9% - 84.0%)
2	Lehi/Cedar Valley	1,284	1,104	86.0%	(81.0% - 91.2%)
14	American Fork/Alpine	933	772	82.7%	(77.0% - 88.8%)
10	Pleasant Grove/Lindon	922	769	83.4%	(77.6% - 89.5%)
34	North Orem	990	786	79.4%	(73.9% - 85.1%)
27	West Orem	758	612	80.7%	(74.5% - 87.4%)
20	East Orem	440	359	81.6%	(73.4% - 90.5%)
18	Provo/BYU	983	808	82.2%	(76.6% - 88.1%)
34	Provo South	1,822	1,447	79.4%	(75.4% - 83.6%)
2	Springville/Spanish Fork	1,611	1,385	86.0%	(81.5% - 90.6%)
32	Utah Co. South	810	646	79.8%	(73.7% - 86.1%)
45	Summit Co.	464	349	75.2%	(67.5% - 83.5%)
39	Wasatch Co.	392	305	77.8%	(69.3% - 87.0%)
22	TriCounty LHD	833	676	81.2%	(75.1% - 87.5%)
44	Juab/Millard/Sanpete Co.	725	551	76.0%	(69.8% - 82.6%)
43	Sevier/Piute/Wayne Co.	385	294	76.4%	(67.9% - 85.6%)
17	Carbon/Emery Co.	474	390	82.3%	(74.3% - 90.9%)
59	Grand/San Juan Co.	361	223	61.8%	(53.9% - 70.4%)
49	St. George	1,078	787	73.0%	(68.0% - 78.3%)
51	Other Washington Co.	898	650	72.4%	(66.9% - 78.2%)
6	Cedar City	656	552	84.1%	(77.3% - 91.5%)
48	Other Southwest Dist.	351	258	73.5%	(64.8% - 83.0%)

Source: Utah Birth Certificate Database

Asthma Hospitalization Among Children

Definition: Number of hospitalizations among persons aged 17 years or younger with asthma as the principal diagnosis (ICD-9 code 493) per 10,000 population.

Healthy People 2010 Objective 1-9a: Hospitalization for ambulatory-care-sensitive conditions - Pediatric asthma (admissions per 10,000 population, ages under 18 years)

- U.S. Target for 2010: 17.3
- State-specific Target: to be developed

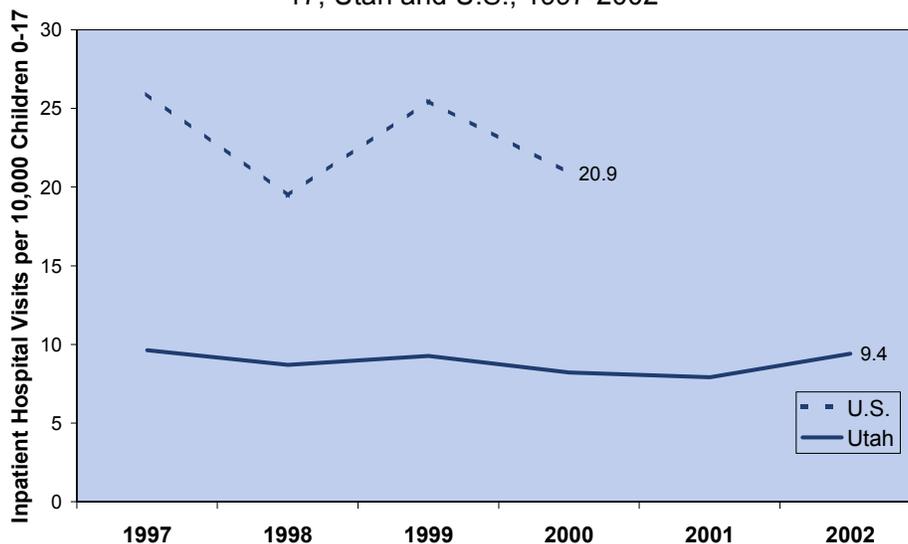
Why Is It Important?

Ambulatory care sensitive (ACS) conditions are conditions for which hospitalization can usually be prevented when the conditions are effectively managed in outpatient settings. High rates for ACS conditions indicate poor access to outpatient health care. Asthma can usually be managed in outpatient settings, precluding the need for hospitalization. Examining rates of hospitalization can help to identify populations or areas where access to medical care is inadequate or where the systems for providing that care are not working.

Risk Factors for Asthma Hospitalization Among Children

Poor air quality and cigarette smoking are risk factors for asthma. In one study, having a written asthma management plan for family members with asthma and washing bedsheets in hot water at least twice a month were associated with reduced likelihood of hospitalization, as was starting or increasing medications at the onset of a cold or flu.¹⁸ Physicians should monitor pulmonary function in patients with asthma and assist parents of children with asthma to develop a written treatment plan and to monitor severity of symptoms and use of asthma medications.¹⁹

Hospitalization Rates for Asthma Among Children Aged 0-17, Utah and U.S., 1997-2002

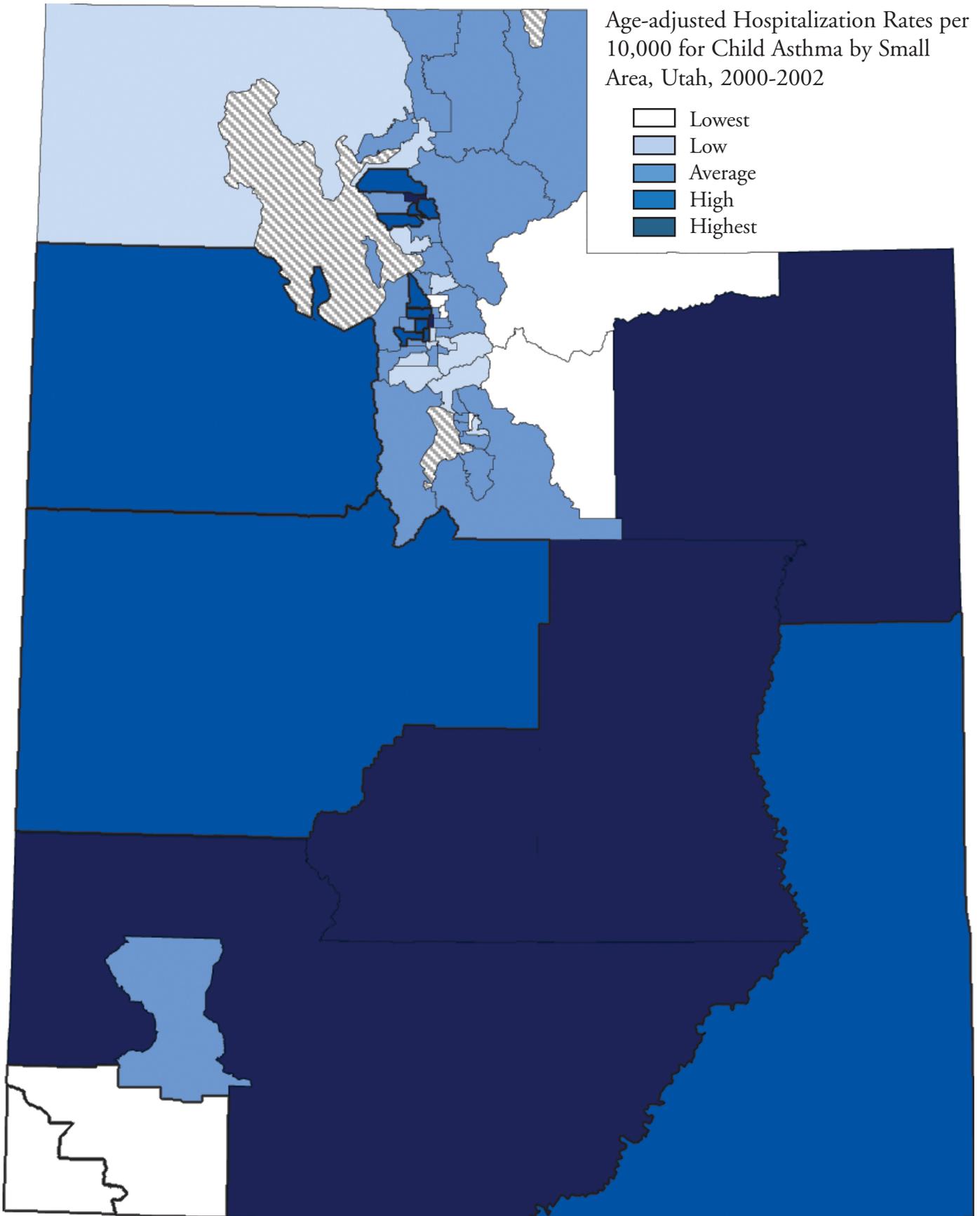


Sources: Healthcare Cost and Utilization Project (HCUP), AHRQ; Utah Inpatient Hospital Discharge Data, Office of Health Care Statistics, Utah Department of Health
 Note: ICD-9 code 493.

Child Asthma Hosp. Ranking, 2000-2002	Rate*
Summit Co.	2.7
St. George	3.3
East Orem	3.6
Wasatch Co.	3.8
Other Washington Co.	3.9
Foothill/U of U	4.3
Avenues	4.3
Provo/BYU	4.4
Murray	4.5
Bountiful	4.6
Cottonwood	4.7
Other Box Elder Co.	4.7
Midvale	4.7
South Jordan	4.8
Syracuse/Kaysville	4.9
Riverton/Draper	4.9
Sandy, SE	5.3
American Fork/Alpine	5.3
Brigham City	5.5
Holladay	5.7
Sandy, NE	6.1
Cedar City	6.1
Utah Co. South	6.2
Sandy Center	6.2
Downtown Salt Lake	6.5
Pleasant Grove/Lindon	7.0
Provo South	7.0
Logan	7.1
Springville/Spanish Fork	7.4
Farmington/Centerville	7.7
Morgan/E Weber Co.	7.9
Woods Cross/No. SL	7.9
West Valley West	7.9
North Orem	8.0
W. Jordan, Copperton	8.0
Lehi/Cedar Valley	8.0
West Jordan No.	8.0
Roy/Hooper	8.5
Other Cache/Rich Co.	8.5
Magna	8.6
Layton	8.9
Millcreek	9.0
West Orem	9.0
Juab/Millard/Sanpete Co.	9.2
Kearns	9.3
Rose Park	9.5
Grand/San Juan Co.	9.8
West Valley East	10.1
Taylorsville	10.6
South Ogden	10.6
Clearfield/Hill AFB	10.8
Riverdale	10.9
Tooele Co.	11.7
Ben Lomond	13.6
Glendale	14.0
TriCounty LHD	14.6
Other Southwest Dist	15.9
South Salt Lake	16.5
Sevier/Piute/Wayne Co.	16.5
Downtown Ogden	18.5
Carbon/Emery Co.	24.1

* Age adj. # of hospitalizations per 10,000.

Asthma Hospitalization Among Children



Source: Utah Hospital Discharge Database

Asthma Hospitalization Among Children

Asthma Hospitalization Among Children by Small Area Utah Children Ages 0-17, 2000-2002

Rank	Area of Residence	Average Child Population (Ages 0-17)	Hospitalization Rate per 10,000 for Child Asthma			
			Average Annual Number of Events	Crude Rates	Age Adjusted Rates*	
					Lower	Upper
	State Total	729,346	643	8.8	8.1	(7.8 - 8.5)
19	Brigham City	7,091	4	5.6	5.5	(2.8 - 9.6)
11	Other Box Elder Co.	8,053	3	4.6	4.7	(2.3 - 8.4)
28	Logan	16,233	13	8.0	7.1	(5.0 - 9.7)
38	Other Cache/Rich Co.	13,799	12	8.7	8.5	(6.0 - 11.8)
54	Ben Lomond	13,469	19	14.4	13.6	(10.3 - 17.6)
31	Morgan/East Weber Co.	11,481	8	7.3	7.9	(5.1 - 11.6)
60	Downtown Ogden	8,435	18	21.3	18.5	(13.8 - 24.3)
49	South Ogden	9,370	10	11.4	10.6	(7.3 - 15.0)
38	Roy/Hooper	13,592	12	8.8	8.5	(5.9 - 11.7)
52	Riverdale	7,432	8	10.8	10.9	(7.0 - 16.3)
51	Clearfield/Hill AFB	18,170	22	12.1	10.8	(8.4 - 13.8)
41	Layton	22,203	20	9.2	8.9	(6.8 - 11.5)
15	Syracuse/Kaysville	14,457	6	4.6	4.9	(3.0 - 7.5)
30	Farmington/Centerville	10,079	6	6.3	7.7	(4.6 - 12.0)
31	Woods Cross/North SL	6,420	5	8.3	7.9	(4.5 - 12.8)
10	Bountiful	12,902	6	4.7	4.6	(2.7 - 7.2)
46	Rose Park	10,366	11	11.3	9.5	(6.6 - 13.2)
6	Avenues	3,855	2	5.2	4.3	(1.6 - 9.5)
6	Foothill/U of U	5,633	2	4.7	4.3	(1.8 - 8.6)
40	Magna	8,211	7	8.9	8.6	(5.4 - 13.1)
55	Glendale	8,500	13	15.3	14.0	(10.0 - 19.2)
31	West Valley West	23,793	20	8.4	7.9	(6.0 - 10.2)
48	West Valley East	13,704	15	11.4	10.1	(7.4 - 13.4)
25	Downtown Salt Lake	8,648	6	7.7	6.5	(4.0 - 10.2)
58	South Salt Lake	5,958	11	18.5	16.5	(11.2 - 23.3)
42	Millcreek	13,947	13	9.6	9.0	(6.4 - 12.3)
20	Holladay	10,433	6	5.8	5.7	(3.3 - 9.0)
11	Cottonwood	11,276	5	4.4	4.7	(2.6 - 7.7)
45	Kearns	23,214	22	9.5	9.3	(7.2 - 11.8)
49	Taylorsville	10,632	12	11.9	10.6	(7.5 - 14.6)
9	Murray	7,286	3	5.0	4.5	(2.2 - 8.2)
11	Midvale	7,210	4	5.5	4.7	(2.4 - 8.4)
34	West Jordan No.	16,338	13	8.4	8.0	(5.8 - 10.9)
34	W. Jordan, Copperton	16,557	14	8.7	8.0	(5.8 - 10.8)
14	South Jordan	12,454	5	4.3	4.8	(2.8 - 7.8)
23	Sandy Center	16,639	10	6.2	6.2	(4.2 - 8.8)
21	Sandy, Northeast	7,965	3	4.6	6.1	(3.0 - 10.9)
17	Sandy, Southeast	10,803	4	4.3	5.3	(2.9 - 9.0)
15	Riverton/Draper	23,547	12	5.2	4.9	(3.4 - 6.7)
53	Tooele Co.	14,947	18	12.5	11.7	(8.8 - 15.2)
34	Lehi/Cedar Valley	10,988	11	10.0	8.0	(5.5 - 11.3)
17	American Fork/Alpine	16,197	8	5.4	5.3	(3.5 - 7.8)
26	Pleasant Grove/Lindon	15,846	12	8.0	7.0	(4.9 - 9.6)
34	North Orem	12,709	11	8.7	8.0	(5.4 - 11.2)
42	West Orem	9,628	9	9.7	9.0	(6.0 - 13.1)
3	East Orem	8,108	2	3.3	3.6	(1.5 - 7.0)
8	Provo/BYU	9,526	4	4.9	4.4	(2.4 - 7.5)
26	Provo South	13,795	13	9.4	7.0	(4.9 - 9.8)
29	Springville/Spanish Fork	23,011	19	8.4	7.4	(5.6 - 9.6)
23	Utah Co. South	10,628	7	6.6	6.2	(3.8 - 9.5)
1	Summit Co.	9,030	2	2.6	2.7	(1.1 - 5.5)
4	Wasatch Co.	5,312	2	3.8	3.8	(1.4 - 8.3)
56	TriCounty LHD	14,181	19	13.9	14.6	(11.1 - 18.8)
44	Juab/Millard/Sanpete Co.	15,247	13	9.0	9.2	(6.6 - 12.5)
58	Sevier/Piute/Wayne Co.	7,639	12	16.1	16.5	(11.6 - 22.7)
61	Carbon/Emery Co.	9,303	21	22.9	24.1	(18.6 - 30.8)
47	Grand/San Juan Co.	7,742	7	9.0	9.8	(6.1 - 15.0)
2	St. George	15,151	5	3.5	3.3	(1.9 - 5.4)
5	Other Washington Co.	14,097	5	4.0	3.9	(2.3 - 6.3)
21	Cedar City	9,242	5	6.1	6.1	(3.5 - 9.8)
57	Other Southwest Dist.	6,861	10	15.5	15.9	(10.8 - 22.4)

* Rates have been age adjusted to the U.S. 2000 standard population.

ICD-9 code: 493.

Source: Utah Hospital Discharge Database

Diabetes Hospitalization Among Adults

Definition: Number of hospital discharges for uncontrolled diabetes as the principal diagnosis (ICD-9 codes 250.02 -250.03, 250.10-250.13, 250.20-250.23, 250.30-250.33) per 10,000 population among adults aged 18-64.

Healthy People 2010 Objective 1-9b: Reduce hospitalization rates for ambulatory-care sensitive conditions for . . . uncontrolled diabetes.

- U.S. Target for 2010: 5.4
- State-specific Target: to be developed

Why Is It Important?

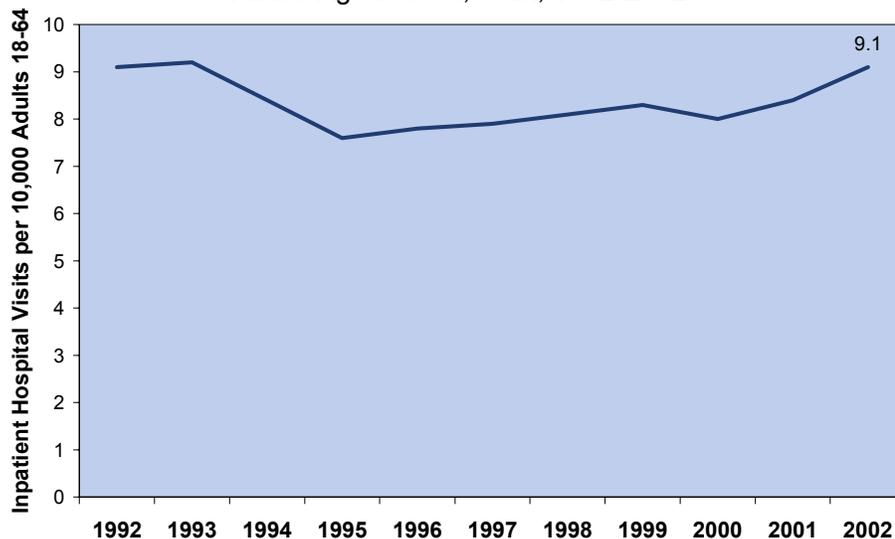
Ambulatory care sensitive conditions (ACS) generally refer to hospitalizations that could be prevented with adequate outpatient care. ACS conditions for diabetes broadly include two acute complications, ketoacidosis and hyperosmolar coma. Ketoacidosis usually results from dangerously low levels of insulin. Hyperosmolar coma, most commonly seen in older people with type 2 diabetes, develops when blood sugar levels become too high. Both conditions are emergencies that can be life-threatening without prompt medical attention. In 2002, over half (54.7%) of all hospital discharges listing diabetes as the primary diagnosis for Utahns aged 18 to 64 were for these ACS conditions.

Risk Factors for Diabetes Hospitalization Among Adults

Rates of ACS conditions may reflect poor access to health care. Rates may be higher in communities with high rates of poverty and low rates of insurance coverage. Glendale has the highest rate of diabetes ACS conditions for Utah, 13.3 discharges per 10,000 residents aged 18 to 64. Glendale also has the highest proportion of uninsured population in the state (22.7%)²⁰ and a high rate of poverty (21%).²¹

Adult Diabetes Hosp. Ranking, 2001-2002	Rate*
Foothill/U of U	0.6
Summit Co.	1.2
Farmington/Centerville	1.4
Woods Cross/North SL	1.8
Riverdale	1.9
Cottonwood	1.9
Provo/BYU	2.0
Other Cache/Rich Co.	2.2
Pleasant Grove/Lindon	2.2
Avenues	2.4
Logan	2.6
South Jordan	2.6
Brigham City	2.7
Lehi/Cedar Valley	2.7
Holladay	2.8
Syracuse/Kaysville	3.0
Sevier/Piute/Wayne Co.	3.0
Riverton/Draper	3.2
North Orem	3.3
Springville/Spanish Fork	3.3
Juab/Millard/Sanpete Co.	3.3
Cedar City	3.4
American Fork/Alpine	3.5
Other Washington Co.	3.5
Sandy, Southeast	3.6
Millcreek	3.7
Grand/San Juan Co.	3.7
Layton	3.8
Clearfield/Hill AFB	3.9
W. Jordan, Copperton	4.0
Sandy, Northeast	4.0
Utah Co. South	4.1
St. George	4.3
Morgan/East Weber Co.	4.4
Wasatch Co.	4.5
Roy/Hooper	4.6
West Jordan No.	4.6
Kearns	4.7
Bountiful	5.1
Downtown Salt Lake	5.1
Other Box Elder Co.	5.2
Tooele Co.	5.2
West Orem	5.2
Provo South	5.4
Sandy Center	5.5
Carbon/Emery Co.	5.5
Ben Lomond	5.9
West Valley West	5.9
Other Southwest Dist.	6.0
South Ogden	6.7
Magna	7.7
Rose Park	8.0
West Valley East	8.2
South Salt Lake	8.3
East Orem	8.3
Murray	8.5
TriCounty LHD	8.5
Taylorville	8.9
Downtown Ogden	10.5
Midvale	11.6
Glendale	13.3

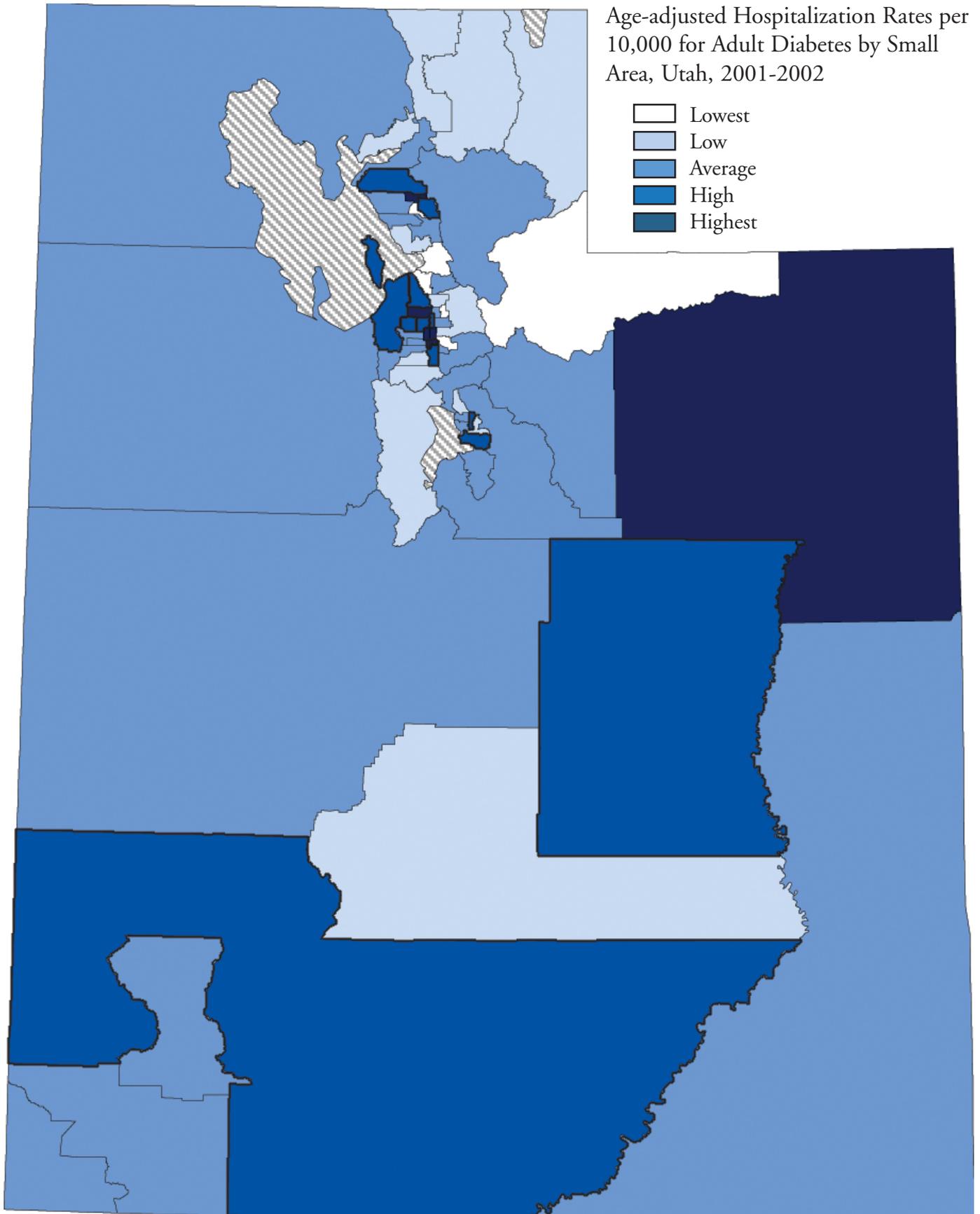
Hospitalization Rates for Diabetes ACS Conditions Among Adults Aged 18-64, Utah, 1992-2002



Sources: U.S. Bureau of the Census; Utah Inpatient Hospital Discharge Data, Office of Health Care Statistics, Utah Department of Health
 Note: ICD-9 codes used to identify diabetes ACS conditions are: 250.02-250.03, 250.10-250.13, 250.20-250.23, 250.30-250.33.

* Age adj. # of hospitalizations per 10,000.

Diabetes Hospitalization Among Adults



Source: Utah Hospital Discharge Database

Diabetes Hospitalization Among Adults

Diabetes Hospitalization Among Adults by Small Area
Utah Adults Ages 18-64, 2001-2002

Rank	Area of Residence	Average Adult Population (Ages 18-64)	Hospitalization Rate per 10,000 for Adult Diabetes			
			Average Annual Number of Events		Age Adjusted Rates*	
			Crude Rates		95% Confidence Interval	Lower Upper
	State Total	1,381,127	633	4.6	4.5	(4.3 - 4.8)
13	Brigham City	11,871	3	2.9	2.7	(1.1 - 5.6)
41	Other Box Elder Co.	12,075	6	5.4	5.2	(2.7 - 9.0)
11	Logan	39,635	9	2.4	2.6	(1.4 - 4.4)
8	Other Cache/Rich Co.	19,477	4	2.3	2.2	(1.0 - 4.1)
47	Ben Lomond	26,611	16	6.2	5.9	(4.0 - 8.3)
34	Morgan/East Weber Co.	19,095	7	3.7	4.4	(2.4 - 7.4)
59	Downtown Ogden	17,293	19	11.3	10.5	(7.3 - 14.6)
50	South Ogden	20,803	13	6.5	6.7	(4.3 - 9.9)
36	Roy/Hooper	24,028	11	4.6	4.6	(2.9 - 7.0)
5	Riverdale	14,868	3	2.0	1.9	(0.7 - 4.1)
29	Clearfield/Hill AFB	32,006	15	4.7	3.9	(2.6 - 5.7)
28	Layton	38,092	13	3.5	3.8	(2.5 - 5.6)
16	Syracuse/Kaysville	20,580	6	2.9	3.0	(1.6 - 5.2)
3	Farmington/Centerville	16,348	2	1.5	1.4	(0.5 - 3.2)
4	Woods Cross/North SL	120,025	2	2.1	1.8	(0.6 - 4.2)
39	Bountiful	25,834	13	5.2	5.1	(3.3 - 7.5)
52	Rose Park	19,481	16	8.2	8.0	(5.3 - 11.5)
10	Avenues	15,473	3	1.9	2.4	(0.9 - 5.2)
1	Foothill/U of U	14,369	1	0.7	0.6	(0.1 - 2.3)
51	Magna	13,807	11	8.0	7.7	(4.7 - 11.8)
61	Glendale	15,820	18	11.7	13.3	(9.2 - 18.7)
47	West Valley West	40,613	26	6.4	5.9	(4.4 - 7.8)
53	West Valley East	31,803	26	8.2	8.2	(6.1 - 10.9)
39	Downtown Salt Lake	37,399	17	4.5	5.1	(3.4 - 7.3)
54	South Salt Lake	16,369	13	8.2	8.3	(5.4 - 12.3)
26	Millcreek	34,069	12	3.7	3.7	(2.4 - 5.5)
15	Holladay	26,385	7	2.7	2.8	(1.5 - 4.7)
5	Cottonwood	27,621	5	2.0	1.9	(0.9 - 3.4)
38	Kearns	39,177	19	5.0	4.7	(3.3 - 6.5)
58	Taylorsville	24,615	20	8.1	8.9	(6.3 - 12.2)
56	Murray	19,311	17	8.8	8.5	(5.8 - 12.0)
60	Midvale	18,894	21	11.4	11.6	(8.2 - 16.0)
36	West Jordan No.	27,321	13	4.8	4.6	(3.0 - 6.8)
30	W. Jordan, Copperton	24,275	10	4.1	4.0	(2.4 - 6.3)
11	South Jordan	18,254	5	2.7	2.6	(1.2 - 4.8)
45	Sandy Center	31,765	19	6.1	5.5	(3.9 - 7.5)
30	Sandy, Northeast	15,619	6	3.8	4.0	(2.0 - 7.3)
25	Sandy, Southeast	18,617	5	2.7	3.6	(1.6 - 7.0)
18	Riverton/Draper	37,960	13	3.4	3.2	(2.1 - 4.8)
41	Tooele Co.	26,635	14	5.3	5.2	(3.4 - 7.6)
13	Lehi/Cedar Valley	14,708	4	2.7	2.7	(1.0 - 5.7)
23	American Fork/Alpine	21,249	8	3.8	3.5	(2.0 - 5.7)
8	Pleasant Grove/Lindon	20,500	5	2.4	2.2	(1.0 - 4.1)
19	North Orem	20,683	6	3.1	3.3	(1.7 - 5.8)
41	West Orem	18,532	8	4.3	5.2	(2.8 - 8.8)
54	East Orem	12,540	9	7.6	8.3	(4.9 - 13.2)
7	Provo/BYU	35,014	5	1.4	2.0	(0.7 - 4.6)
44	Provo South	41,625	13	3.2	5.4	(3.1 - 8.6)
19	Springville/Spanish Fork	32,792	10	3.2	3.3	(2.0 - 5.1)
32	Utah Co. South	14,132	5	3.9	4.1	(2.0 - 7.4)
2	Summit Co.	20,922	2	1.2	1.2	(0.4 - 2.9)
35	Wasatch Co.	9,565	4	4.7	4.5	(2.0 - 8.6)
56	TriCounty LHD	23,559	20	8.7	8.5	(6.1 - 11.6)
19	Juab/Millard/Sanpete Co.	24,577	8	3.3	3.3	(1.8 - 5.5)
16	Sevier/Piute/Wayne Co.	12,455	3	2.8	3.0	(1.2 - 6.2)
45	Carbon/Emery Co.	17,647	9	5.4	5.5	(3.3 - 8.7)
26	Grand/San Juan Co.	12,663	4	3.6	3.7	(1.7 - 7.1)
33	St. George	29,376	14	4.8	4.3	(2.8 - 6.3)
23	Other Washington Co.	22,278	8	3.8	3.5	(2.0 - 5.6)
22	Cedar City	18,221	5	3.0	3.4	(1.6 - 6.4)
49	Other Southwest Dist.	11,833	7	5.9	6.0	(3.3 - 10.1)

* Rates have been age adjusted to the U.S. 2000 standard population.

ICD-9 codes: 250.02-250.03, 250.10-250.13, 250.20-250.23, and 250.30-250.33.

Source: Utah Hospital Discharge Database

Pneumonia/Influenza Hospitalization Among Seniors

Definition: Number of hospitalizations among persons aged 65 years or older with preventable pneumonia or influenza (ICD-9 codes 481 or 487) as the first-listed diagnosis, per 10,000 population.

Healthy People 2010 Objective 1-9c: Hospitalization for ambulatory care sensitive conditions - Immunization-preventable pneumonia or influenza (admissions per 10,000 population, ages 65 years and older)

- U.S. Target for 2010: 8.0
- State-specific Target: to be developed

Why Is It Important?

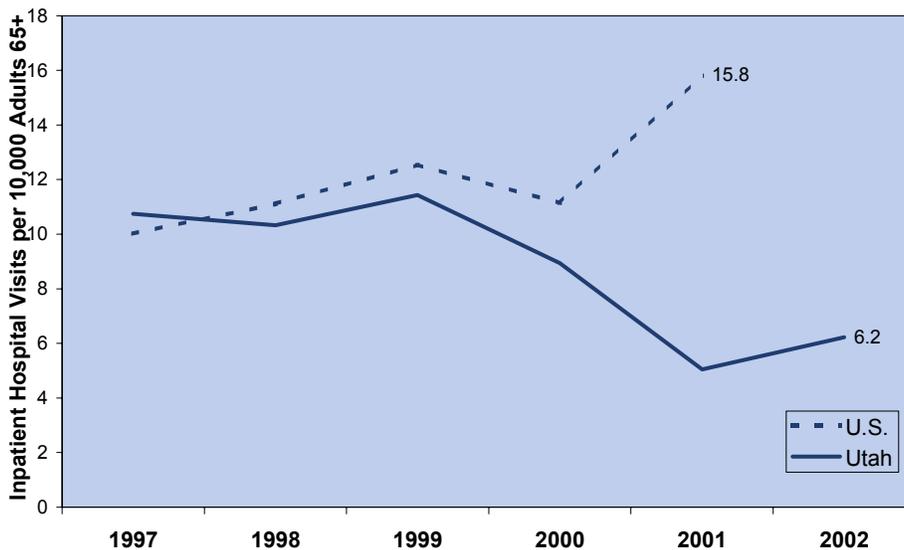
About 1.2 million people are hospitalized each year for pneumonia, which is the third most frequent reason for hospitalizations in the U.S. Pneumonia also causes more than 40,000 deaths in the U.S. each year, and together with influenza is the sixth leading cause of death in the U.S. About 90 percent of these deaths occur in adults 65 years and older.²²

Hospitalizations due to pneumonia and influenza can be reduced by immunization. By examining their rates we can help to identify populations or areas where access to care is inadequate or where the systems for providing that care may not be working.

Risk Factors for Pneumonia Hospitalization Among Seniors

Persons at higher risk for infection are the elderly, children under 2 years old, and people with impaired immune systems, particularly AIDS patients. Pneumonia is also very dangerous in people with diabetes, cirrhosis, sickle cell anemia, multiple myeloma, and in those who have had their spleens removed.

Hospitalization Rates for Preventable Pneumonia or Influenza Among Persons Aged 65+, Utah and U.S., 1997-2002

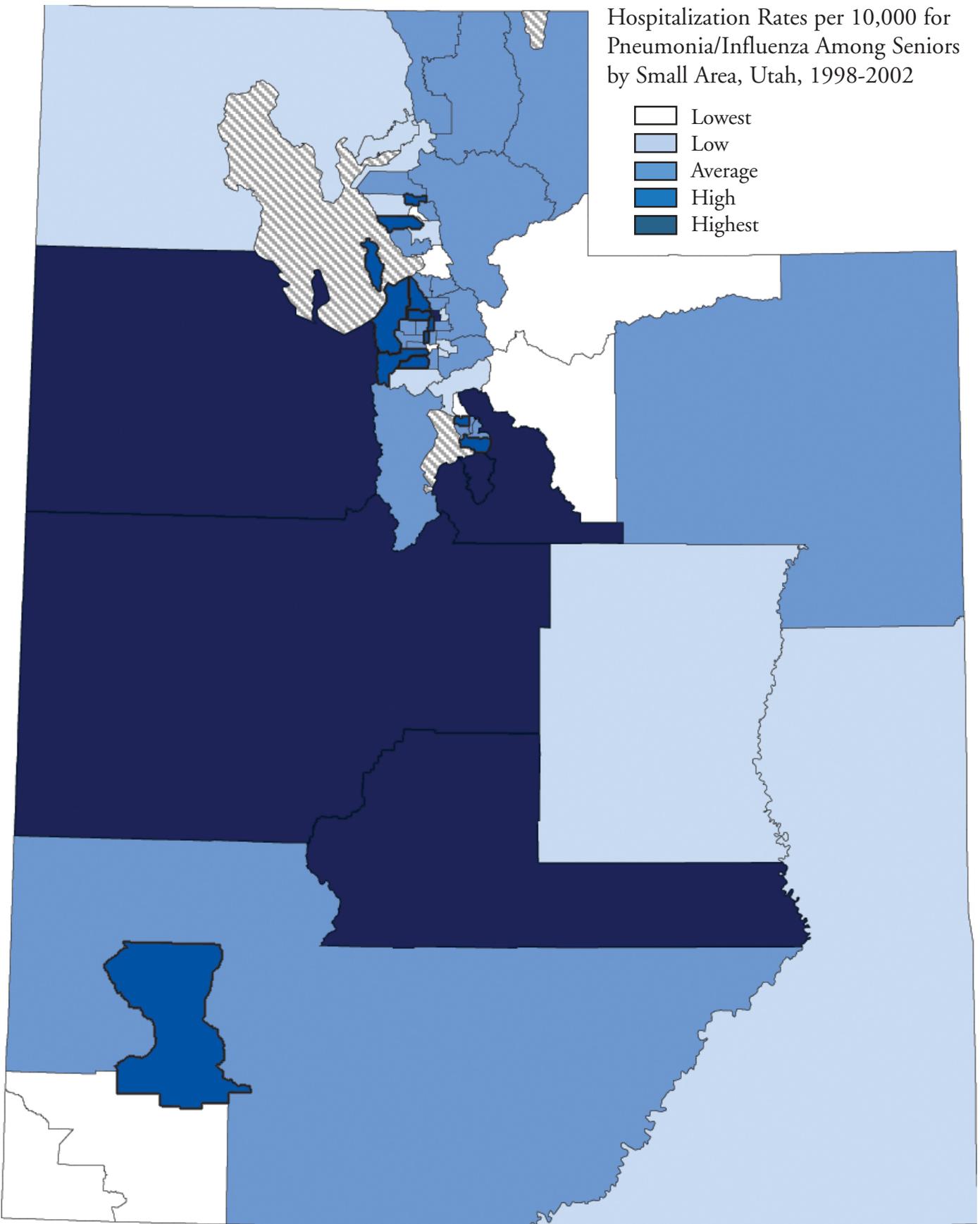


Sources: Healthcare Cost and Utilization Project (HCUP), AHRQ; Utah Inpatient Hospital Discharge Data, Office of Health Care Statistics, Utah Department of Health
 Note: ICD-9 codes 481 or 487.

65+ Pneumonia/Flu Hosp. Ranking, 1998-2002	Rate*
Other Washington Co.	2.5
Riverdale	2.6
Pleasant Grove/Lindon	3.0
Wasatch Co.	3.1
Midvale	3.1
St. George	3.6
Summit Co.	3.6
Farmington/Centerville	3.6
Foothill/U of U	4.2
Layton	4.6
Riverton/Draper	4.6
American Fork/Alpine	4.8
Other Box Elder Co.	5.1
Grand/San Juan Co.	5.1
Roy/Hooper	5.1
Sandy, NE	5.3
Carbon/Emery Co.	5.4
Cottonwood	5.7
Brigham City	5.7
Holladay	5.8
Syracuse/Kaysville	6.2
TriCounty LHD	6.2
Logan	6.3
Sandy, SE	6.4
Kearns	7.0
Other Cache/Rich Co.	7.0
West Orem	7.1
Morgan/E Weber Co.	7.4
Murray	7.4
Bountiful	7.8
West Valley East	8.0
Ben Lomond	8.1
Millcreek	8.3
Lehi/Cedar Valley	8.7
Woods Cross/No. SL	9.1
East Orem	9.4
West Jordan No.	9.4
Other Southwest Dist	9.4
Sandy Center	9.5
Avenues	9.8
West Valley West	9.8
Provo/BYU	9.9
South Ogden	10.0
South Jordan	10.3
Cedar City	10.4
Taylorsville	10.5
South Salt Lake	10.8
W. Jordan, Copperton	11.5
Clearfield/Hill AFB	11.8
Downtown Ogden	12.4
North Orem	12.5
Provo South	12.7
Magna	12.8
Rose Park	13.2
Glendale	13.3
Springville/Spanish Fork	13.8
Utah Co. South	15.1
Tooele Co.	15.5
Downtown Salt Lake	15.9
Sevier/Piute/Wayne Co.	17.8
Juab/Millard/Sanpete Co.	18.4

* Age adj. # of hospitalizations per 10,000.

Pneumonia/Influenza Hospitalization Among Seniors



Source: Utah Hospital Discharge Database

Pneumonia/Influenza Hospitalization Among Seniors

Pneumonia/Influenza Hospitalization Among Seniors by Small Area Utah Adults Ages 65 and Over, 1998-2002

Rank	Area of Residence	Average Elderly Population (Ages 65+)	Hospitalization Rate per 10,000 for Pneumonia/Influenza Among Persons Ages 65+		
			Average Annual Number of Events	Crude Rates	
				95% Confidence Interval**	Lower
	State Total	189,300	158	8.3	(7.8 - 8.9)
18	Brigham City	2,470	2	5.7	(2.3 - 11.7)
13	Other Box Elder Co.	1,961	1	5.1	(1.7 - 11.9)
23	Logan	4,122	3	6.3	(3.4 - 10.8)
25	Other Cache/Rich Co.	2,561	2	7.0	(3.2 - 13.3)
32	Ben Lomond	4,955	4	8.1	(4.9 - 12.5)
28	Morgan/East Weber Co.	2,710	2	7.4	(3.5 - 13.6)
50	Downtown Ogden	2,578	4	12.4	(7.1 - 20.2)
43	South Ogden	4,583	5	10.0	(6.4 - 15.1)
13	Roy/Hooper	3,118	2	5.1	(2.2 - 10.1)
2	Riverdale	3,059	1	2.6	(0.7 - 6.7)
49	Clearfield/Hill AFB	2,890	4	11.8	(6.9 - 18.8)
10	Layton	3,512	2	4.6	(2.0 - 9.0)
21	Syracuse/Kaysville	2,274	2	6.2	(2.5 - 12.7)
6	Farmington/Centerville	1,656	1	3.6	(0.7 - 10.6)
35	Woods Cross/North SL	1,103	1	9.1	(2.9 - 21.1)
30	Bountiful	6,192	5	7.8	(5.0 - 11.5)
54	Rose Park	2,726	4	13.2	(7.8 - 20.9)
40	Avenues	2,660	3	9.8	(5.2 - 16.7)
9	Foothill/U of U	3,343	2	4.2	(1.7 - 8.6)
53	Magna	1,408	2	12.8	(5.8 - 24.3)
55	Glendale	2,405	4	13.3	(7.6 - 21.6)
40	West Valley West	2,850	3	9.8	(5.4 - 16.5)
31	West Valley East	3,242	3	8.0	(4.3 - 13.7)
59	Downtown Salt Lake	4,898	8	15.9	(11.3 - 21.8)
47	South Salt Lake	2,414	3	10.8	(5.7 - 18.4)
33	Millcreek	9,447	8	8.3	(5.9 - 11.3)
20	Holladay	7,968	5	5.8	(3.7 - 8.7)
18	Cottonwood	4,594	3	5.7	(3.0 - 9.7)
25	Kearns	3,154	3	7.0	(3.5 - 12.5)
46	Taylorsville	3,047	4	10.5	(6.0 - 17.1)
28	Murray	4,326	4	7.4	(4.2 - 12.0)
4	Midvale	2,588	1	3.1	(0.8 - 7.9)
36	West Jordan No.	1,276	2	9.4	(3.5 - 20.5)
48	W. Jordan, Copperton	1,390	2	11.5	(5.0 - 22.7)
44	South Jordan	1,359	2	10.3	(4.1 - 21.2)
39	Sandy Center	3,582	4	9.5	(5.5 - 15.2)
16	Sandy, Northeast	1,505	1	5.3	(1.4 - 13.6)
24	Sandy, Southeast	1,255	1	6.4	(1.7 - 16.3)
10	Riverton/Draper	2,163	1	4.6	(1.5 - 10.8)
58	Tooele Co.	3,232	5	15.5	(10.0 - 22.8)
34	Lehi/Cedar Valley	1,146	1	8.7	(2.8 - 20.4)
12	American Fork/Alpine	2,513	2	4.8	(1.8 - 10.4)
3	Pleasant Grove/Lindon	1,968	1	3.0	(0.6 - 8.9)
51	North Orem	2,398	3	12.5	(7.0 - 20.6)
27	West Orem	1,699	2	7.1	(2.6 - 15.4)
36	East Orem	1,706	2	9.4	(4.0 - 18.5)
42	Provo/BYU	3,848	4	9.9	(5.9 - 15.4)
52	Provo South	2,197	3	12.7	(7.0 - 21.4)
56	Springville/Spanish Fork	4,060	6	13.8	(9.2 - 19.9)
57	Utah Co. South	1,849	3	15.1	(8.3 - 25.4)
6	Summit Co.	1,677	1	3.6	(0.7 - 10.5)
4	Wasatch Co.	1,310	1	3.1	(0.4 - 11.0)
21	TriCounty LHD	3,893	3	6.2	(3.2 - 10.8)
61	Juab/Millard/Sanpete Co.	4,776	9	18.4	(13.4 - 24.7)
60	Sevier/Piute/Wayne Co.	3,033	6	17.8	(11.7 - 25.9)
17	Carbon/Emery Co.	3,688	2	5.4	(2.6 - 10.0)
13	Grand/San Juan Co.	2,338	2	5.1	(1.9 - 11.2)
6	St. George	8,450	3	3.6	(2.0 - 5.9)
1	Other Washington Co.	4,873	2	2.5	(0.9 - 5.4)
45	Cedar City	2,113	3	10.4	(5.2 - 18.6)
36	Other Southwest Dist.	3,190	3	9.4	(5.3 - 15.5)

ICD-9 codes: 481 or 487

Source: Utah Hospital Discharge Database

Regular Source of Care

Definition: Percentage of persons who reported having a specific source of primary care where they would go if they were sick or needed advice about their health. A hospital emergency room is not included as a specific source of primary care.

Healthy People 2010 Objective 1-4a: Increase the proportion of persons who have a specific source of ongoing care - All ages.

- U.S. Target for 2010: 96%
- State-specific Target: 96%

Why Is It Important?

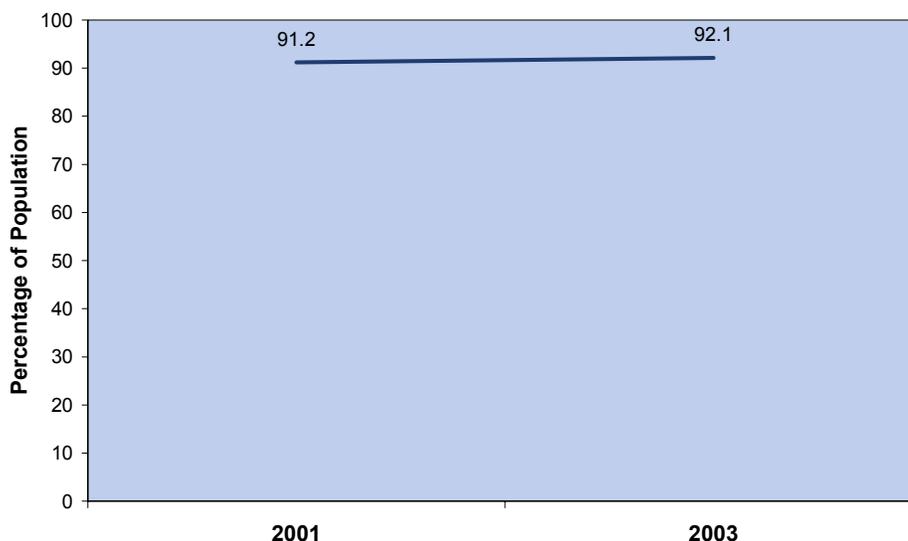
As each new health care need arises, an individual's first point of contact with the health care system is typically his or her primary care provider. In most cases a primary provider can effectively and efficiently manage a patient's medical care because they understand that person's medical history and social context. Having a regular source of health care is also an indicator of overall access to care.

Risk Factors for No Regular Source of Care

According to the 2001 and 2003 Health Status Surveys, males were more likely than females to lack a usual place of medical care (13.5% versus 9.3%), as were young adults aged 18 to 34 (19.2%), persons in households with incomes under \$20,000 (17.0%), those with less than a high school diploma (22.9%), those who were unemployed or not working (16.2%), Hispanic or Latino persons (26.3%), and persons who were never married (22.9%).

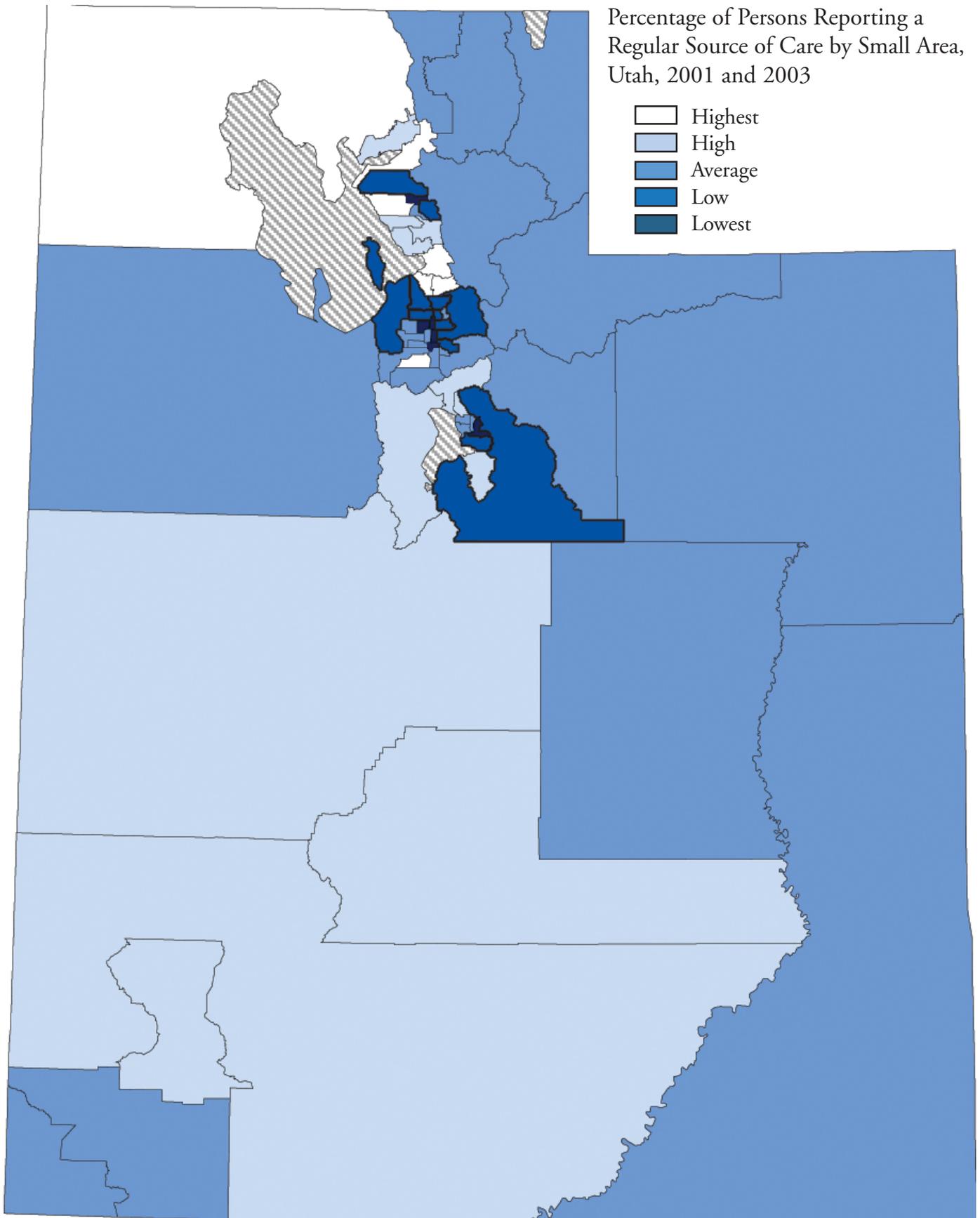
Regular Source of Care Ranking, 2001 & 2003	Percent
Woods Cross/North SL	97.8%
Other Box Elder Co.	95.1%
South Jordan	95.0%
Farmington/Centerville	94.8%
Bountiful	94.5%
Roy/Hooper	94.3%
Other Southwest Dist.	93.8%
Layton	93.6%
Pleasant Grove/Lindon	93.6%
Lehi/Cedar Valley	93.6%
Sevier/Piute/Wayne Co.	93.5%
Juab/Millard/Sanpete Co.	93.1%
Cedar City	93.0%
Clearfield/Hill AFB	93.0%
Springville/Spanish Fork	92.5%
Brigham City	92.5%
American Fork/Alpine	92.3%
Syracuse/Kaysville	91.7%
Other Cache/Rich Co.	91.6%
TriCounty LHD	91.5%
Morgan/East Weber Co.	91.5%
Other Washington Co.	90.9%
Sandy, Southeast	90.8%
West Orem	90.7%
North Orem	90.6%
Riverdale	90.6%
Wasatch Co.	90.1%
Kearns	89.5%
Carbon/Emery Co.	89.2%
Sandy, Northeast	89.1%
St. George	89.1%
Grand/San Juan Co.	89.0%
Tooele Co.	88.7%
West Jordan No.	88.6%
West Valley West	88.6%
Riverton/Draper	88.3%
Taylorsville	88.2%
Foothill/U of U	87.9%
Logan	87.8%
Summit Co.	87.6%
Sandy Center	87.4%
East Orem	87.3%
W. Jordan, Copperton	87.3%
Ben Lomond	87.2%
Utah Co. South	87.1%
Millcreek	86.9%
Rose Park	84.8%
Holladay	84.6%
South Ogden	84.5%
Magna	84.2%
Cottonwood	83.8%
Provo South	83.7%
Avenues	83.6%
Downtown Salt Lake	83.0%
Glendale	82.8%
Provo/BYU	80.8%
West Valley East	79.3%
Midvale	79.3%
Murray	76.2%
South Salt Lake	72.8%
Downtown Ogden	70.6%

Percentage of Persons Who Had a Usual Place of Medical Care, Utah, 2001 and 2003



Source: Utah Health Status Survey, Office of Public Health Assessment, Utah Department of Health

Regular Source of Care



Source: Utah Health Status Survey

Regular Source of Care by Small Area Utah, 2001 and 2003

Rank	Area of Residence	Population	Percentage of Insured Persons Reporting Specific Source of Primary Care		
			Number of Persons	Crude Rates	
				Lower	Upper
	State Total	2,295,967	2,033,875	88.6%	(94.8% - 96.0%)
15	Brigham City	21,305	19,712	92.5%	(87.7% - 97.3%)
2	Other Box Elder Co.	21,940	20,865	95.1%	(92.4% - 97.8%)
39	Logan	59,768	52,476	87.8%	(84.5% - 91.1%)
19	Other Cache/Rich Co.	35,587	32,598	91.6%	(88.3% - 94.9%)
44	Ben Lomond	45,130	39,335	87.2%	(82.2% - 92.1%)
20	Morgan/East Weber Co.	33,389	30,546	91.5%	(86.6% - 96.4%)
61	Downtown Ogden	28,254	19,960	70.6%	(60.9% - 80.4%)
49	South Ogden	34,794	29,391	84.5%	(77.2% - 91.8%)
6	Roy/Hooper	40,862	38,526	94.3%	(90.5% - 98.0%)
25	Riverdale	25,430	23,035	90.6%	(85.3% - 95.9%)
13	Clearfield/Hill AFB	52,442	48,771	93.0%	(89.6% - 96.4%)
8	Layton	63,250	59,212	93.6%	(90.7% - 96.6%)
18	Syracuse/Kaysville	37,103	34,009	91.7%	(86.5% - 96.8%)
4	Farmington/Centerville	27,854	26,400	94.8%	(90.8% - 98.8%)
1	Woods Cross/North SL	19,348	18,923	97.8%	(95.2% - 100.0%)
5	Bountiful	44,845	42,383	94.5%	(91.2% - 97.9%)
47	Rose Park	32,475	27,524	84.8%	(75.0% - 94.5%)
53	Avenues	22,007	18,390	83.6%	(76.2% - 90.9%)
38	Foothill/U of U	23,304	20,486	87.9%	(80.1% - 95.7%)
50	Magna	23,377	19,693	84.2%	(74.5% - 94.0%)
55	Glendale	26,659	22,063	82.8%	(73.1% - 92.4%)
34	West Valley West	67,172	59,534	88.6%	(83.6% - 93.6%)
57	West Valley East	48,759	38,657	79.3%	(71.3% - 87.2%)
54	Downtown Salt Lake	50,744	42,137	83.0%	(77.4% - 88.6%)
60	South Salt Lake	24,651	17,938	72.8%	(61.0% - 84.6%)
46	Millcreek	57,423	49,882	86.9%	(82.7% - 91.1%)
48	Holladay	44,986	38,070	84.6%	(79.1% - 90.1%)
51	Cottonwood	43,651	36,576	83.8%	(77.6% - 89.9%)
28	Kearns	65,588	58,732	89.5%	(85.0% - 94.1%)
37	Taylorsville	38,254	33,722	88.2%	(82.2% - 94.1%)
59	Murray	31,033	23,659	76.2%	(67.0% - 85.5%)
57	Midvale	28,675	22,727	79.3%	(70.4% - 88.2%)
34	West Jordan No.	44,841	39,748	88.6%	(83.1% - 94.1%)
42	W. Jordan, Copperton	41,902	36,585	87.3%	(81.1% - 93.6%)
3	South Jordan	31,786	30,188	95.0%	(90.7% - 99.2%)
41	Sandy Center	52,037	45,464	87.4%	(81.9% - 92.8%)
30	Sandy, Northeast	25,232	22,492	89.1%	(83.3% - 95.0%)
23	Sandy, Southeast	30,695	27,868	90.8%	(86.5% - 95.1%)
36	Riverton/Draper	63,028	55,634	88.3%	(83.9% - 92.6%)
33	Tooele Co.	44,430	39,416	88.7%	(86.7% - 90.7%)
8	Lehi/Cedar Valley	26,629	24,920	93.6%	(89.5% - 97.6%)
17	American Fork/Alpine	39,889	36,810	92.3%	(88.1% - 96.5%)
8	Pleasant Grove/Lindon	38,152	35,708	93.6%	(89.0% - 98.2%)
25	North Orem	36,042	32,662	90.6%	(85.4% - 95.8%)
24	West Orem	29,756	26,988	90.7%	(84.9% - 96.5%)
42	East Orem	22,307	19,477	87.3%	(80.0% - 94.7%)
56	Provo/BYU	48,785	39,440	80.8%	(73.1% - 88.6%)
52	Provo South	57,815	48,383	83.7%	(78.8% - 88.6%)
15	Springville/Spanish Fork	59,711	55,260	92.5%	(89.3% - 95.8%)
45	Utah Co. South	26,604	23,182	87.1%	(80.9% - 93.4%)
40	Summit Co.	31,279	27,401	87.6%	(85.2% - 90.0%)
27	Wasatch Co.	15,947	14,366	90.1%	(88.1% - 92.0%)
20	TriCounty LHD	41,640	38,097	91.5%	(89.8% - 93.2%)
12	Juab/Millard/Sanpete Co.	44,114	41,077	93.1%	(90.7% - 95.5%)
11	Sevier/Piute/Wayne Co.	23,093	21,585	93.5%	(90.8% - 96.1%)
29	Carbon/Emery Co.	30,331	27,040	89.2%	(86.8% - 91.5%)
32	Grand/San Juan Co.	22,486	20,014	89.0%	(85.4% - 92.6%)
30	St. George	53,981	48,118	89.1%	(85.3% - 92.9%)
22	Other Washington Co.	41,604	37,835	90.9%	(87.5% - 94.3%)
13	Cedar City	29,949	27,856	93.0%	(89.7% - 96.3%)
7	Other Southwest Dist.	21,836	20,474	93.8%	(90.6% - 96.9%)

Source: 2001 and 2003 Utah Health Status Surveys

Definition: Percentage of women 40 years or older who reported having a mammogram in the last two years.

Healthy People 2010 Objective 3-13: Mammograms - Adults receiving within past 2 years (age-adjusted, females aged 40 years and older)

- U.S. Target for 2010: 70%
- State-specific Target: 80%

Why Is It Important?

Breast cancer is the most commonly occurring cancer in U.S. women (excluding basal and squamous cell skin cancers) and a leading cause of female cancer death in both Utah and the U.S. Deaths from breast cancer can be substantially reduced if the tumor is discovered at an early stage. Clinical trials have demonstrated that routine screening with mammography can reduce breast cancer deaths by 20% to 30% in women aged 50 to 69 years,²³⁻²⁸ and by about 17% in women aged 40 to 49 years.²⁹⁻³⁰

Mammography Ranking, 1999, 2000, and 2002	Percent*
Summit	74.9%
Davis	74.6%
Bear River	73.4%
Salt Lake	72.9%
Wasatch	71.8%
Tooele	70.3%
Southwest	67.6%
Utah	63.8%
Weber-Morgan	63.7%
Central	60.3%
Southeastern	59.5%
TriCounty	56.1%

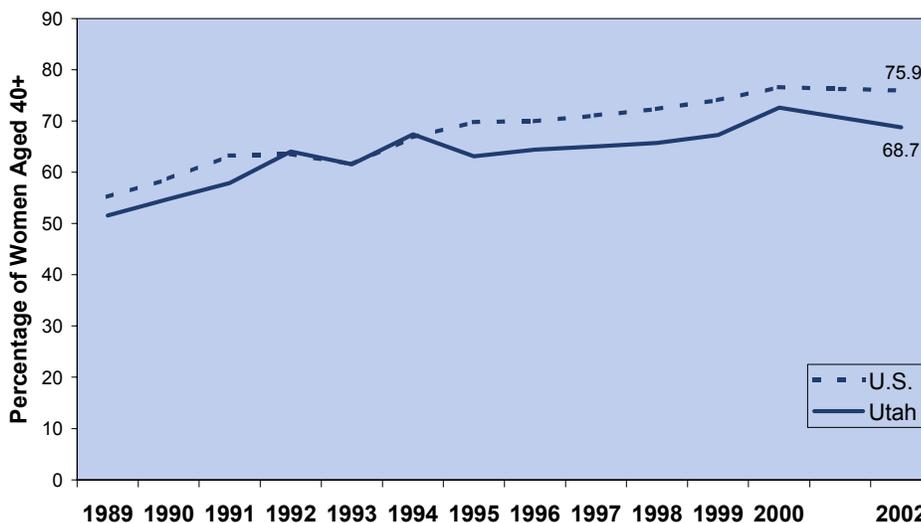
* Age adjusted percentages.

Risk Factors for No Mammography in Last Two Years

In Utah, women aged 50-64 were more likely to have had a mammogram, as were those who had some post-high-school education and those who had health insurance coverage. While the self-reported mammography rate is higher in Summit, Davis, Bear River, and Salt Lake Valley Health Districts, all of Utah's Local Health Districts are below the U.S. rate.

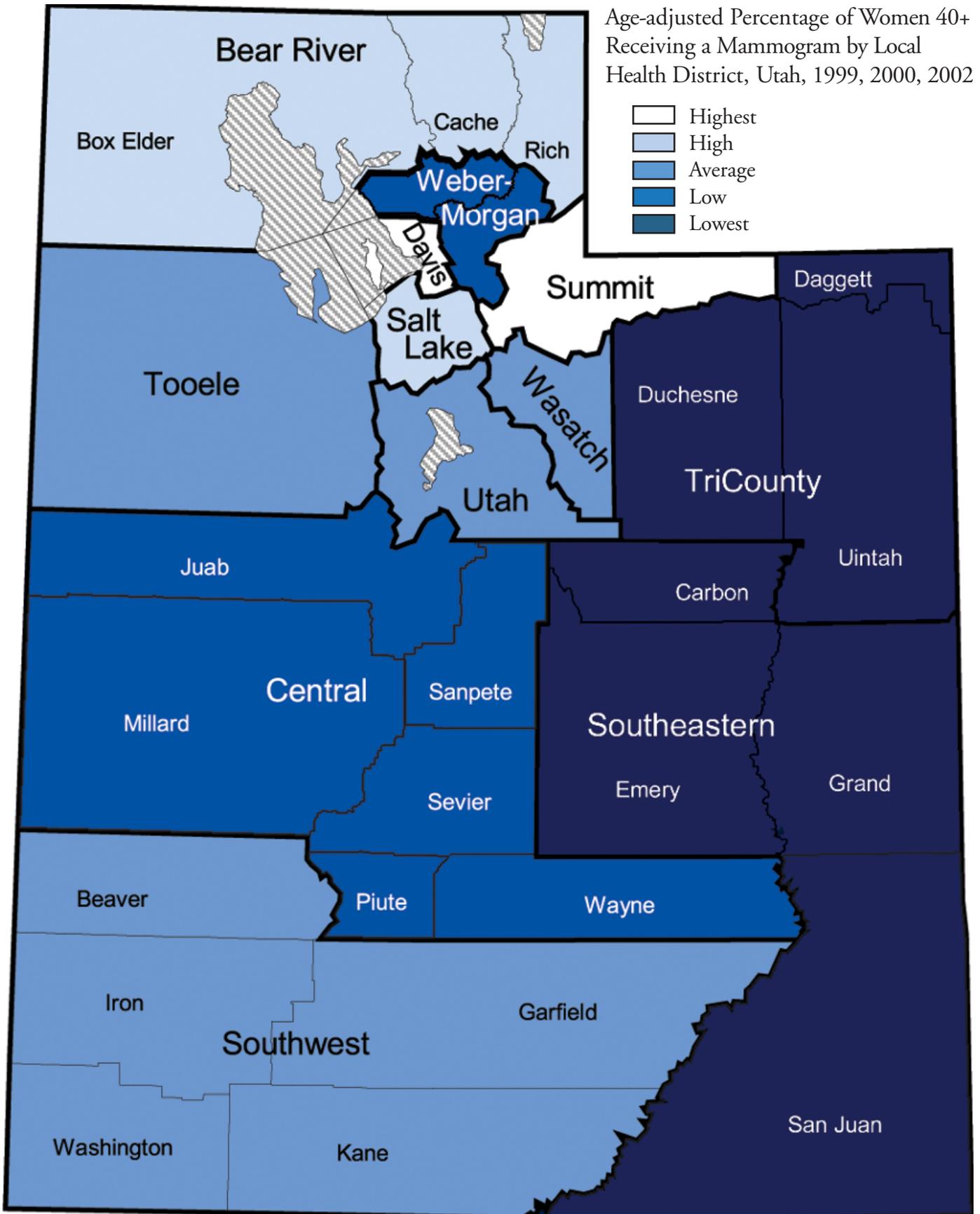
The most important risk factor for breast cancer is increasing age. Other established risk factors include personal or family history of breast cancer, history of abnormal breast biopsy, genetic mutations, early age at onset of menses, late age at onset of menopause, never having children or having a first live birth at age 30 or older, and history of exposure to high dose radiation.

Percentage of Women Who Reported Having a Mammogram Within the Past Two Years, Women Aged 40+, Utah and U.S., 1989-2000 and 2002



Sources: U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS); Utah Data: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health
 Note: Age adjusted to U.S. 2000 standard population.

Mammography



Source: Behavioral Risk Factor Surveillance System

**Mammography by Local Health District
Utah Women Aged 40 and Over, 1999, 2000, and 2002**

Rank	Area of Residence	Average Adult Female Population (Ages 40+)	Percentage of Women Aged 40+ Who Reported Receiving a Mammogram in Past Two Years			
			Average Annual Number of Women 40+	Crude Rates	Age Adjusted Rates*	
					Lower	Upper
	State Total	377,925	264,021	69.9%	69.5%	(67.4% - 71.7%)
3	Bear River	20,805	15,146	72.8%	73.4%	(66.5% - 80.4%)
10	Central	12,516	7,842	62.7%	60.3%	(53.2% - 67.3%)
2	Davis	39,894	29,897	74.9%	74.6%	(67.2% - 81.9%)
4	Salt Lake	158,778	116,035	73.1%	72.9%	(69.5% - 76.4%)
11	Southeastern	10,854	6,636	61.1%	59.5%	(52.3% - 66.7%)
7	Southwest	27,327	18,726	68.5%	67.6%	(61.0% - 74.3%)
1	Summit	5,645	4,261	75.5%	74.9%	(68.7% - 81.0%)
6	Tooele	6,753	4,732	70.1%	70.3%	(63.5% - 77.1%)
12	TriCounty	7,687	4,495	58.5%	56.1%	(48.9% - 63.3%)
8	Utah	47,321	30,110	63.6%	63.8%	(56.9% - 70.7%)
5	Wasatch	2,762	1,923	69.6%	71.8%	(65.1% - 78.5%)
9	Weber-Morgan	37,583	24,303	64.7%	63.7%	(56.6% - 70.8%)

* Percentages have been age adjusted to the U.S. 2000 standard population.

Source: Utah Behavioral Risk Factor Surveillance System

Coronary Heart Disease Deaths

Definition: Number of coronary heart disease (CHD) related deaths per 100,000 population (age-adjusted to the U.S. 2000 standard population).

Healthy People 2010 Objective 12-1: Coronary heart disease (CHD) deaths (age-adjusted per 100,000 standard population)

- U.S. Target for 2010: 166.0
- State-specific Target: 109.4

Why Is It Important?

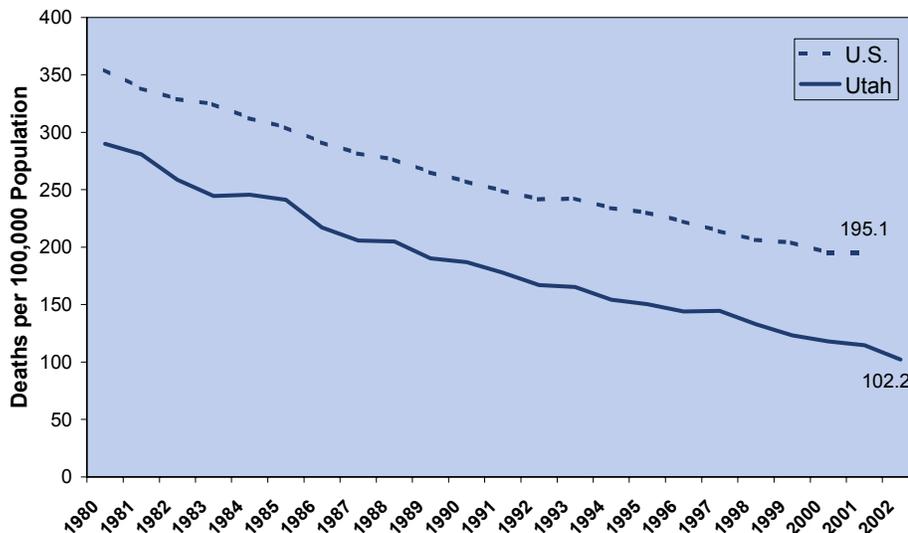
Coronary heart disease is the leading cause of death in the United States and Utah. In Utah during 2002 there were over 7,500 hospital discharges for CHD, the average cost for a hospital stay was \$25,000, and the total cost approached \$187 million. The key to reducing CHD deaths is through preventative measures.³¹ Some of the risk factors associated with CHD, such as age, gender, and family history, cannot be modified, but many other factors can be controlled.

Risk Factors for Coronary Heart Disease Deaths

Individuals who smoke cigarettes, have high blood pressure, elevated cholesterol, diabetes, poor nutrition, a family history of heart disease, or who are overweight, obese, or physically inactive are at greater risk of developing coronary heart disease. Research in the U.S. and elsewhere suggest that the decline in coronary heart disease deaths in recent decades has resulted from both advances in treatment and reduction in risk factors, such as smoking and high blood pressure.³² Prompt medical attention for persons with acute disease dramatically improves chances of survival.

Coronary Heart Disease Death Ranking, 2000-2002	Rate*
Provo/BYU	78.0
Millcreek	82.4
Avenues	83.3
Grand/San Juan Co.	86.4
Sandy, NE	88.0
Holladay	88.1
Cottonwood	90.3
Foothill/U of U	90.6
South Jordan	90.8
South Ogden	96.9
Sandy Center	102.1
Summit Co.	102.5
W. Jordan, Copperton	103.4
Bountiful	103.6
Logan	104.1
West Orem	106.1
Murray	107.2
Taylorsville	108.5
Pleasant Grove/Lindon	108.5
St. George	110.3
Downtown Salt Lake	112.7
Other Cache/Rich Co.	115.7
East Orem	116.6
Midvale	116.9
Wasatch Co.	117.4
Cedar City	117.7
Lehi/Cedar Valley	119.4
West Valley East	119.9
Riverdale	120.3
Layton	121.2
Riverton/Draper	122.0
Roy/Hooper	122.9
Kearns	123.1
Provo South	126.6
Glendale	126.6
West Jordan No.	131.7
Other Southwest Dist	132.2
American Fork/Alpine	133.0
Sevier/Piute/Wayne Co.	133.2
Magna	134.1
Rose Park	135.7
Tooele Co.	135.7
Other Box Elder Co.	136.3
North Orem	136.4
Utah Co. South	138.0
Morgan/E Weber Co.	138.9
Carbon/Emery Co.	139.6
Springville/Spanish Fork	139.8
Juab/Millard/Sanpete Co.	140.6
Other Washington Co.	147.6
Ben Lomond	148.6
Syracuse/Kaysville	148.7
Brigham City	148.9
Sandy, SE	149.0
South Salt Lake	149.1
TriCounty LHD	149.3
Downtown Ogden	149.7
Woods Cross/No. SL	153.5
West Valley West	156.2
Clearfield/Hill AFB	159.9
Farmington/Centerville	162.5

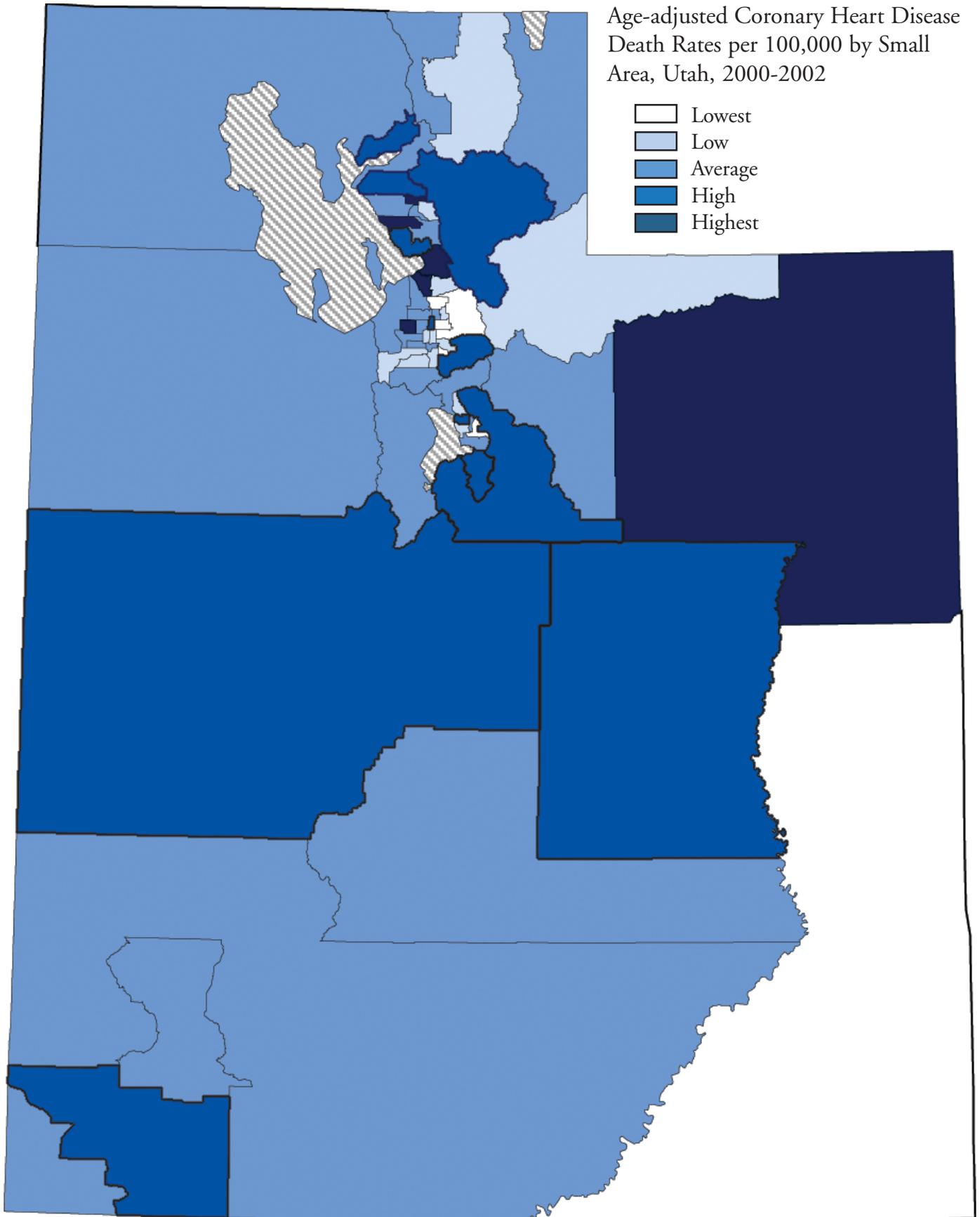
Coronary Heart Disease Death Rates, Utah and U.S., 1980-2002



Sources: U.S. Centers for Disease Control and Prevention, on-line data - CDC WONDER; Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; Utah Governor's Office of Planning and Budget
 Note: Age adjusted to U.S. 2000 standard population. ICD-9 codes 402, 410-414, 429.2; ICD-10 codes I11, I20-25. Estimates from 1998 and before have been comparability modified to be consistent with ICD-10 coding system definitions.

* Age adjusted # of deaths per 100,000.

Coronary Heart Disease Deaths



Source: Utah Death Certificate Database

Coronary Heart Disease Deaths

Coronary Heart Disease Deaths by Small Area Utah, 2000-2002

Rank	Area of Residence	Average Population	Coronary Heart Disease Deaths per 100,000			
			Average Annual Number of Events		Age Adjusted Rates*	
			Crude Rates		95% Confidence Interval	
					Lower	Upper
	State Total	2,288,068	1,738	77.4	116.0	(112.9 - 119.2)
53	Brigham City	21,306	28	134.8	148.9	(118.9 - 184.2)
43	Other Box Elder Co.	21,957	21	94.7	136.3	(104.4 - 174.9)
15	Logan	59,888	37	63.6	104.1	(85.6 - 125.6)
22	Other Cache/Rich Co.	35,646	24	69.5	115.7	(90.5 - 145.8)
51	Ben Lomond	44,855	56	126.1	148.6	(126.8 - 173.1)
46	Morgan/East Weber Co.	33,182	24	72.2	138.9	(107.8 - 176.1)
57	Downtown Ogden	28,047	32	114.4	149.7	(121.0 - 183.1)
10	South Ogden	34,593	36	104.8	96.9	(79.3 - 117.2)
32	Roy/Hooper	40,599	29	72.1	122.9	(98.2 - 151.9)
29	Riverdale	25,265	28	112.5	120.3	(95.8 - 149.1)
60	Clearfield/Hill AFB	52,461	33	65.2	159.9	(128.6 - 196.6)
30	Layton	63,293	29	47.4	121.2	(95.3 - 151.9)
52	Syracuse/Kaysville	37,140	24	65.6	148.7	(115.9 - 187.9)
61	Farmington/Centerville	27,882	16	59.6	162.5	(116.8 - 220.0)
58	Woods Cross/North SL	19,359	13	70.1	153.5	(107.8 - 212.1)
14	Bountiful	44,886	47	104.5	103.6	(87.1 - 122.3)
41	Rose Park	32,358	25	78.8	135.7	(105.1 - 172.6)
3	Avenues	21,926	18	80.7	83.3	(62.3 - 109.0)
8	Foothill/U of U	23,221	26	111.3	90.6	(71.3 - 113.5)
40	Magna	23,294	16	68.3	134.1	(98.1 - 179.1)
34	Glendale	26,554	24	92.3	126.6	(98.9 - 159.7)
59	West Valley West	66,932	37	56.1	156.2	(124.9 - 193.1)
28	West Valley East	48,584	31	64.8	119.9	(95.5 - 148.7)
21	Downtown Salt Lake	50,533	50	100.4	112.7	(94.9 - 132.9)
55	South Salt Lake	24,556	31	127.1	149.1	(119.6 - 183.7)
2	Millcreek	57,224	65	113.0	82.4	(70.8 - 95.4)
6	Holladay	44,846	54	120.1	88.1	(74.9 - 102.9)
7	Cottonwood	43,519	26	59.1	90.3	(70.5 - 114.0)
33	Kearns	65,350	28	42.6	123.1	(94.1 - 158.2)
18	Taylorsville	38,109	26	68.8	108.5	(85.2 - 136.1)
17	Murray	30,930	36	115.8	107.2	(87.7 - 129.7)
24	Midvale	28,577	22	79.0	116.9	(89.7 - 149.8)
36	West Jordan No.	44,676	13	28.7	131.7	(85.5 - 193.9)
13	W. Jordan, Copperton	41,743	12	30.9	103.4	(70.8 - 145.9)
9	South Jordan	31,669	11	37.7	90.8	(62.3 - 127.9)
11	Sandy Center	51,861	29	56.8	102.1	(81.0 - 127.0)
5	Sandy, Northeast	25,148	10	39.2	88.0	(57.3 - 129.3)
54	Sandy, Southeast	30,588	13	42.7	149.0	(103.0 - 208.6)
31	Riverton/Draper	62,791	20	33.1	122.0	(90.1 - 161.5)
41	Tooele Co.	43,865	33	78.9	135.7	(109.8 - 166.0)
27	Lehi/Cedar Valley	26,424	11	43.9	119.4	(80.6 - 170.2)
38	American Fork/Alpine	39,620	27	69.5	133.0	(105.3 - 165.8)
18	Pleasant Grove/Lindon	37,851	16	43.2	108.5	(79.0 - 145.5)
44	North Orem	35,731	29	81.5	136.4	(108.9 - 168.7)
16	West Orem	29,543	15	52.9	106.1	(77.3 - 142.1)
23	East Orem	22,141	13	61.2	116.6	(82.4 - 160.3)
1	Provo/BYU	48,704	24	49.8	78.0	(60.9 - 98.4)
34	Provo South	57,318	24	43.5	126.6	(99.0 - 159.4)
48	Springville/Spanish Fork	59,202	42	74.3	139.8	(116.1 - 167.0)
45	Utah Co. South	26,387	19	74.1	138.0	(104.3 - 179.0)
12	Summit Co.	31,104	12	41.1	102.5	(70.8 - 143.5)
25	Wasatch Co.	15,995	12	78.4	117.4	(82.0 - 162.8)
56	TriCounty LHD	41,453	44	107.0	149.3	(124.4 - 177.5)
49	Juab/Millard/Sanpete Co.	44,288	54	123.4	140.6	(119.7 - 164.2)
39	Sevier/Piute/Wayne Co.	23,040	32	138.8	133.2	(107.7 - 162.9)
47	Carbon/Emery Co.	30,716	41	133.2	139.6	(116.1 - 166.4)
4	Grand/San Juan Co.	22,714	16	68.8	86.4	(63.4 - 115.0)
20	St. George	53,715	70	134.9	110.3	(95.4 - 126.8)
50	Other Washington Co.	41,445	49	124.2	147.6	(124.0 - 174.4)
26	Cedar City	29,612	20	67.6	117.7	(89.5 - 152.2)
37	Other Southwest Dist.	21,854	31	144.7	132.2	(106.8 - 162.0)

* Rates have been age adjusted to the U.S. 2000 standard population.

ICD-10 codes: I20-I25, and I11.

Source: Utah Death Certificate Database

Definition: Number of stroke deaths per 100,000 population (age-adjusted to the U.S. 2000 standard population).

Healthy People 2010 Objective 12-7: Stroke deaths (age-adjusted per 100,000 standard population)

- U.S. Target for 2010: 48.0
- State-specific Target: 46.6

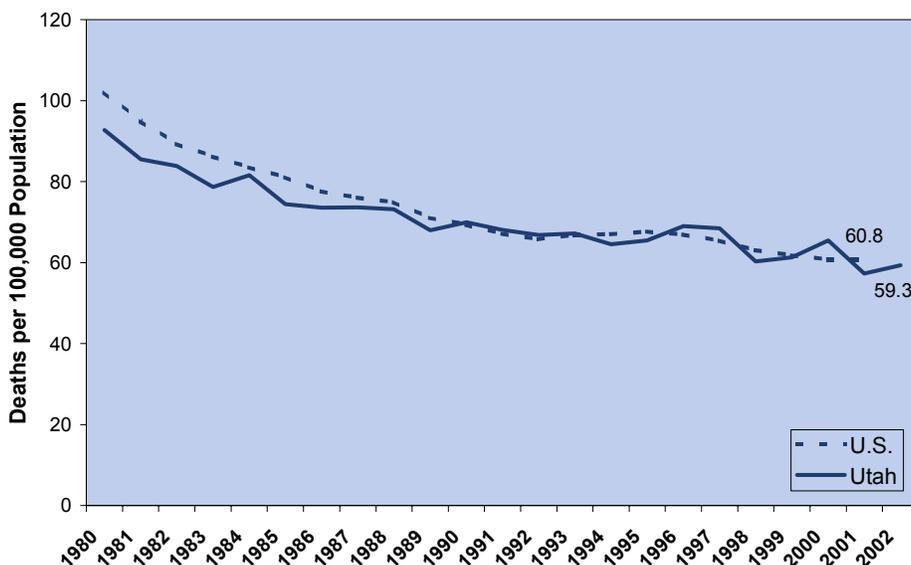
Why Is It Important?

Stroke, the death of brain tissue usually resulting from artery blockage, is the third leading cause of death in Utah, behind heart disease and cancer. About 600,000 people in the U.S. suffer a new or recurrent stroke each year.³³ Stroke is a leading cause of long-term disability.³³ New treatments can reduce disability from stroke if symptoms are recognized and rapid emergency care is provided.

Risk Factors for Stroke Deaths

Risk factors for stroke include high blood pressure (the most important risk factor), increasing age, family history of stroke, personal history of stroke, cigarette smoking, diabetes, heart disease, carotid artery disease, transient ischemic attacks, and a high red blood cell count.³⁴ Elevated cholesterol level, obesity, and lack of physical activity, all risk factors for heart disease, also increase the risk of stroke. Many of these risk factors can be modified successfully by adopting lifestyle changes.

Stroke Death Rates, Utah and U.S., 1980-2002



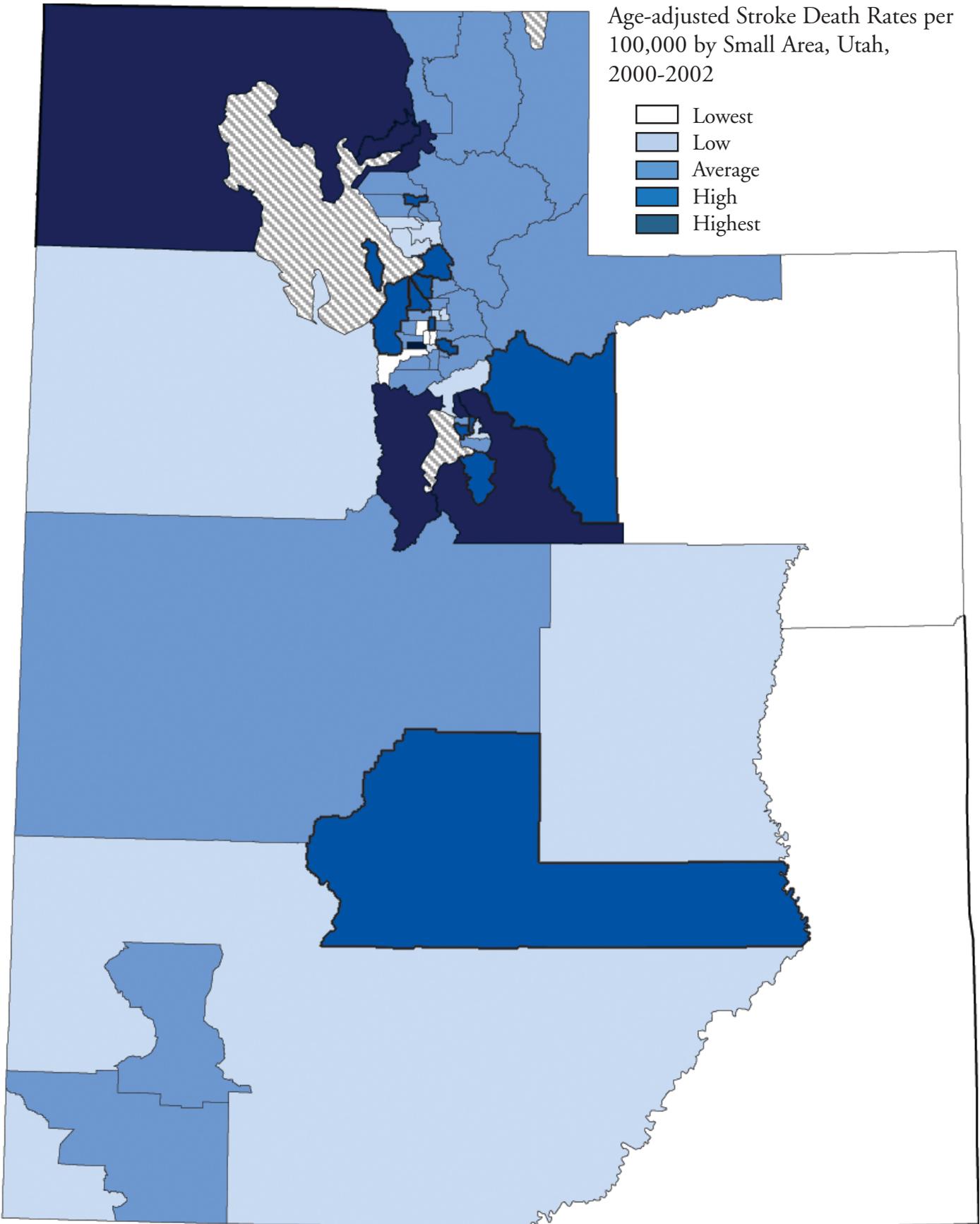
Sources: U.S. Centers for Disease Control and Prevention, on-line data - CDC WONDER; Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; National Vital Statistics System, National Center for Health Statistics, U.S. Centers for Disease Control and Prevention
 Note: Age adjusted to U.S. 2000 standard population. ICD-9 codes 430-438; ICD-10 codes I60-I69.

Stroke Death Ranking, 2000-2002	Rate*
Taylorsville	31.6
TriCounty LHD	38.2
Grand/San Juan Co.	39.8
W. Jordan, Copperton	44.2
West Valley East	45.7
Murray	45.7
Foothill/U of U	48.4
Other Southwest Dist	48.5
Layton	48.7
Clearfield/Hill AFB	49.1
St. George	50.0
Tooele Co.	50.2
Carbon/Emery Co.	50.5
American Fork/Alpine	51.6
Midvale	51.7
Provo/BYU	52.0
Downtown Salt Lake	52.4
Syracuse/Kaysville	53.4
Logan	55.2
Kearns	55.4
Summit Co.	55.6
Roy/Hooper	56.9
West Valley West	57.6
Avenues	57.7
Other Washington Co.	57.8
Morgan/E Weber Co.	59.3
Millcreek	59.5
South Ogden	59.5
Cedar City	60.2
Holladay	60.6
Provo South	60.9
Bountiful	61.0
Riverdale	61.5
Sandy Center	62.5
Ben Lomond	62.5
Juab/Millard/Sanpete Co.	64.7
Sandy, NE	66.2
Other Cache/Rich Co.	68.4
Sandy, SE	70.3
North Orem	70.6
Riverton/Draper	70.8
South Jordan	71.5
Glendale	72.6
East Orem	73.2
Sevier/Piute/Wayne Co.	73.6
Springville/Spanish Fork	75.3
Downtown Ogden	75.4
Rose Park	75.4
Cottonwood	75.5
Farmington/Centerville	75.8
Woods Cross/No. SL	76.8
South Salt Lake	80.6
Wasatch Co.	80.9
Magna	84.6
West Orem	86.0
Other Box Elder Co.	87.0
Utah Co. South	91.4
Pleasant Grove/Lindon	95.4
Brigham City	115.0
West Jordan No.	118.6
Lehi/Cedar Valley	121.9

* Age adjusted # of deaths per 100,000.

Stroke Deaths

Age-adjusted Stroke Death Rates per 100,000 by Small Area, Utah, 2000-2002



Source: Utah Death Certificate Database

Stroke Deaths by Small Area Utah, 2000-2002

Rank	Area of Residence	Average Population	Stroke Deaths per 100,000			
			Average Annual Number of Events	Crude Rates	Age Adjusted Rates*	
					Lower	Upper
	State Total	2,288,068	913	39.9	60.6	(58.4 - 63.0)
59	Brigham City	21,306	22	101.7	115.0	(88.7 - 146.6)
56	Other Box Elder Co.	21,957	13	57.7	87.0	(61.6 - 119.5)
19	Logan	59,888	21	35.6	55.2	(42.4 - 70.7)
38	Other Cache/Rich Co.	35,646	15	43.0	68.4	(49.9 - 91.5)
34	Ben Lomond	44,855	23	51.3	62.5	(48.5 - 79.3)
26	Morgan/East Weber Co.	33,182	10	30.1	59.3	(39.7 - 85.4)
47	Downtown Ogden	28,047	15	54.7	75.4	(55.2 - 100.6)
27	South Ogden	34,593	23	65.5	59.5	(46.1 - 75.6)
22	Roy/Hooper	40,599	13	32.0	56.9	(40.4 - 78.0)
33	Riverdale	25,265	14	56.7	61.5	(44.4 - 83.0)
10	Clearfield/Hill AFB	52,461	10	19.7	49.1	(32.7 - 70.8)
9	Layton	63,293	13	21.1	48.7	(34.0 - 67.6)
18	Syracuse/Kaysville	37,140	9	25.1	53.4	(35.3 - 77.7)
50	Farmington/Centerville	27,882	8	27.5	75.8	(46.6 - 116.6)
51	Woods Cross/North SL	19,359	6	32.7	76.8	(45.8 - 120.8)
32	Bountiful	44,886	29	65.4	61.0	(48.9 - 75.2)
47	Rose Park	32,358	14	44.3	75.4	(53.5 - 103.3)
24	Avenues	21,926	12	56.3	57.7	(40.5 - 79.6)
7	Foothill/U of U	23,221	14	58.9	48.4	(34.6 - 65.9)
54	Magna	23,294	10	41.5	84.6	(56.4 - 121.9)
43	Glendale	26,554	14	52.7	72.6	(52.1 - 98.4)
23	West Valley West	66,932	12	17.4	57.6	(38.3 - 83.1)
5	West Valley East	48,584	12	24.0	45.7	(31.1 - 64.7)
17	Downtown Salt Lake	50,533	26	50.8	52.4	(41.1 - 65.9)
52	South Salt Lake	24,556	19	77.4	80.6	(60.4 - 105.5)
27	Millcreek	57,224	48	83.9	59.5	(49.8 - 70.5)
30	Holladay	44,846	39	87.7	60.6	(50.1 - 72.6)
49	Cottonwood	43,519	22	50.6	75.5	(57.6 - 97.2)
20	Kearns	65,350	12	18.9	55.4	(36.6 - 80.3)
1	Taylorsville	38,109	7	19.2	31.6	(19.6 - 48.3)
5	Murray	30,930	16	51.7	45.7	(33.7 - 60.7)
15	Midvale	28,577	9	32.7	51.7	(33.7 - 75.7)
60	West Jordan No.	44,676	8	17.9	118.6	(71.5 - 185.0)
4	W. Jordan, Copperton	41,743	5	12.8	44.2	(24.6 - 73.4)
42	South Jordan	31,669	9	27.4	71.5	(46.2 - 105.6)
34	Sandy Center	51,861	18	34.1	62.5	(46.3 - 82.5)
37	Sandy, Northeast	25,148	7	27.8	66.2	(39.7 - 103.6)
39	Sandy, Southeast	30,588	6	18.5	70.3	(39.6 - 115.2)
41	Riverton/Draper	62,791	10	16.5	70.8	(47.0 - 102.5)
12	Tooele Co.	43,865	11	25.1	50.2	(34.2 - 71.0)
61	Lehi/Cedar Valley	26,424	11	40.4	121.9	(82.0 - 174.4)
14	American Fork/Alpine	39,620	10	24.4	51.6	(34.4 - 74.3)
58	Pleasant Grove/Lindon	37,851	13	34.3	95.4	(67.3 - 131.2)
40	North Orem	35,731	16	43.8	70.6	(51.5 - 94.4)
55	West Orem	29,543	13	42.9	86.0	(60.8 - 118.0)
44	East Orem	22,141	8	37.6	73.2	(46.9 - 109.0)
16	Provo/BYU	48,704	17	34.9	52.0	(38.6 - 68.6)
31	Provo South	57,318	12	20.9	60.9	(42.3 - 84.9)
46	Springville/Spanish Fork	59,202	22	37.7	75.3	(58.0 - 96.2)
57	Utah Co. South	26,387	13	49.3	91.4	(64.8 - 125.1)
21	Summit Co.	31,104	6	20.4	55.6	(32.1 - 89.8)
53	Wasatch Co.	15,995	8	50.0	80.9	(51.6 - 120.7)
2	TriCounty LHD	41,453	11	27.3	38.2	(26.3 - 53.7)
36	Juab/Millard/Sanpete Co.	44,288	25	56.4	64.7	(50.9 - 81.2)
45	Sevier/Piute/Wayne Co.	23,040	18	76.7	73.6	(55.1 - 96.3)
13	Carbon/Emery Co.	30,716	15	49.9	50.5	(37.0 - 67.4)
3	Grand/San Juan Co.	22,714	7	29.4	39.8	(24.2 - 61.6)
11	St. George	53,715	39	72.6	50.0	(41.3 - 60.1)
25	Other Washington Co.	41,445	20	49.1	57.8	(43.7 - 75.0)
29	Cedar City	29,612	10	32.6	60.2	(40.2 - 86.7)
8	Other Southwest Dist.	21,854	12	53.4	48.5	(33.7 - 67.5)

* Rates have been age adjusted to the U.S. 2000 standard population.

ICD-10 codes: I60-I69.

Source: Utah Death Certificate Database

All Cancer Deaths

Definition: Number of deaths from all cancers per 100,000 population (age-adjusted to the U.S. 2000 standard population).

Healthy People 2010 Objective 3-1: Overall cancer deaths (age-adjusted per 100,000 standard population)

- U.S. Target for 2010: 159.9
- State-specific Target: 144.1

Why Is It Important?

Cancer is the second leading cause of death in the U.S. and in Utah. The financial costs of cancer are substantial, with an overall annual cost for 2002 estimated at \$171.6 billion.³⁵ Treatment for lung, prostate, and breast cancers account for more than half of the direct medical costs.¹

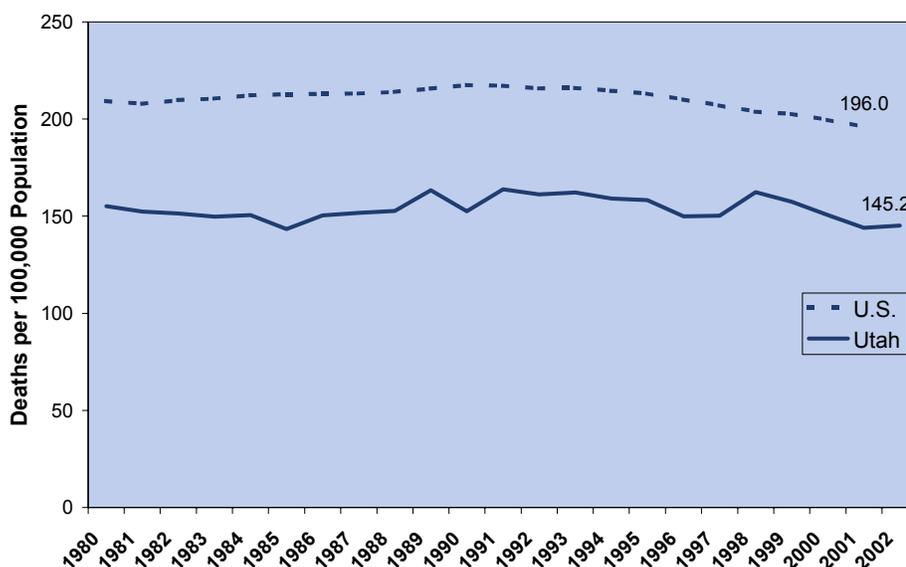
Risk Factors for All Cancer Deaths

Increasing age is a risk factor for developing cancer. About 80% of all cancers are diagnosed in persons aged 55 years or older.³⁶ Other risk factors for cancer include a person's gender and family medical history. Cancer may also be linked to environmental exposures and lifestyle choices such as use of tobacco and alcohol, diet, and sun exposure. In fact, tobacco is responsible for 87% of all cases of cancer of the lung, and is associated with cancers of the mouth, pharynx, larynx, and esophagus. Lung cancer was responsible for 30% of all cancer deaths in 2002.³⁶⁻³⁷ Lifestyle modifications and early detection are successful prevention strategies.

All Cancer Death Ranking, 2000-2002	Rate*
Cedar City	110.4
Bountiful	112.2
Foothill/U of U	113.7
Avenues	119.5
East Orem	120.9
Sandy, SE	122.0
St. George	124.7
Farmington/Centerville	124.8
Provo/BYU	125.4
Logan	125.6
North Orem	126.6
Summit Co.	127.8
Lehi/Cedar Valley	130.4
Sandy Center	134.4
Syracuse/Kaysville	135.3
Other Cache/Rich Co.	135.5
Sandy, NE	136.5
West Orem	137.0
Ben Lomond	138.2
Juab/Millard/Sanpete Co.	138.3
Springville/Spanish Fork	140.0
Holladay	140.5
Morgan/E Weber Co.	140.7
Downtown Salt Lake	145.3
Cottonwood	145.6
Woods Cross/No. SL	146.3
Sevier/Piute/Wayne Co.	147.0
American Fork/Alpine	148.5
Other Washington Co.	149.3
South Ogden	149.9
Millcreek	150.7
Taylorsville	151.1
Wasatch Co.	151.2
Midvale	152.0
W. Jordan, Copperton	152.3
Roy/Hooper	154.0
Provo South	155.5
Murray	156.3
Riverton/Draper	156.5
Other Box Elder Co.	157.1
Brigham City	158.1
Tooele Co.	158.7
Utah Co. South	159.6
Riverdale	160.0
Pleasant Grove/Lindon	162.8
West Valley East	164.1
Clearfield/Hill AFB	164.9
Layton	166.1
Glendale	167.0
West Jordan No.	169.8
Rose Park	171.1
Grand/San Juan Co.	172.1
Kearns	174.9
West Valley West	176.4
Carbon/Emery Co.	180.8
Magna	185.7
TriCounty LHD	186.5
South Jordan	188.3
Other Southwest Dist	198.1
Downtown Ogden	200.9
South Salt Lake	205.2

* Age adjusted # of deaths per 100,000.

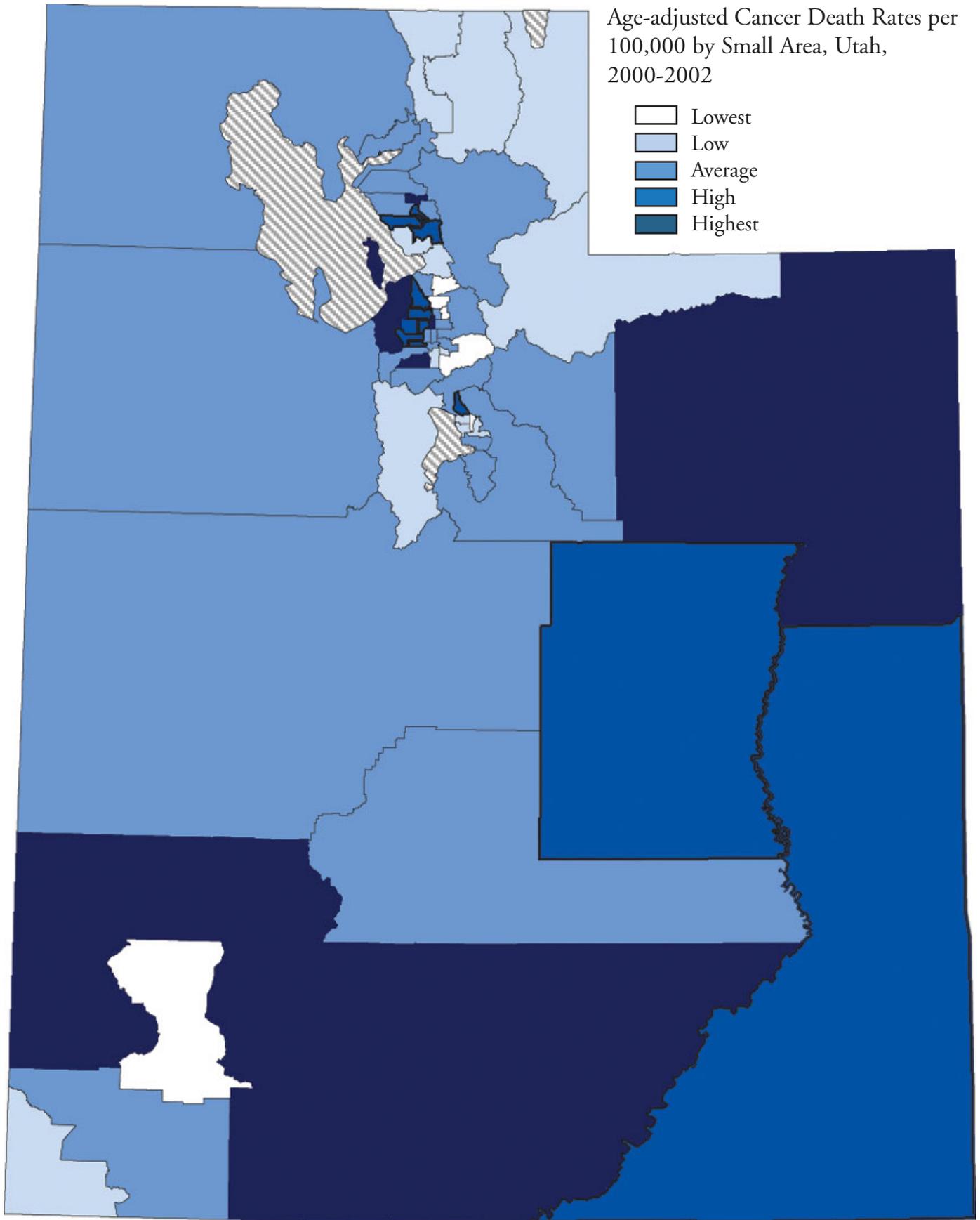
Cancer Death Rates, Utah and U.S., 1980-2002



Sources: U.S. Centers for Disease Control and Prevention, on-line data - CDC WONDER; Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; Population Estimates: Utah Governor's Office of Planning and Budget

Note: Age adjusted to U.S. 2000 standard population. ICD-9 codes 140-208; ICD-10 codes C00-C97.

All Cancer Deaths



Source: Utah Death Certificate Database

All Cancer Deaths by Small Area Utah, 2000-2002

Rank	Area of Residence	Average Population	All Cancer Deaths per 100,000			
			Average Annual Number of Events		Age Adjusted Rates*	
			Crude Rates		95% Confidence Interval	Lower Upper
	State Total	2,288,068	2,342	102.3	146.6	(143.1 - 150.0)
41	Brigham City	21,306	30	139.2	158.1	(126.9 - 194.7)
40	Other Box Elder Co.	21,957	25	112.3	157.1	(123.2 - 197.4)
10	Logan	59,888	44	73.5	125.6	(104.8 - 149.3)
16	Other Cache/Rich Co.	35,646	32	88.8	135.5	(109.3 - 166.0)
19	Ben Lomond	44,855	54	119.6	138.2	(117.5 - 161.4)
23	Morgan/East Weber Co.	33,182	30	91.4	140.7	(112.1 - 174.4)
60	Downtown Ogden	28,047	40	143.8	200.9	(166.6 - 240.2)
30	South Ogden	34,593	53	153.2	149.9	(127.2 - 175.5)
36	Roy/Hooper	40,599	39	96.9	154.0	(127.1 - 184.8)
44	Riverdale	25,265	38	151.7	160.0	(132.0 - 192.2)
47	Clearfield/Hill AFB	52,461	42	80.1	164.9	(136.3 - 197.6)
48	Layton	63,293	53	83.2	166.1	(139.4 - 196.4)
15	Syracuse/Kaysville	37,140	28	76.3	135.3	(107.3 - 168.3)
8	Farmington/Centerville	27,882	17	62.2	124.8	(89.5 - 169.3)
26	Woods Cross/North SL	19,359	16	82.6	146.3	(105.6 - 197.5)
2	Bountiful	44,886	53	118.8	112.2	(95.4 - 131.1)
51	Rose Park	32,358	34	105.1	171.1	(137.8 - 210.0)
4	Avenues	21,926	24	111.0	119.5	(93.5 - 150.4)
3	Foothill/U of U	23,221	30	129.2	113.7	(91.0 - 140.3)
56	Magna	23,294	23	98.7	185.7	(143.8 - 235.9)
49	Glendale	26,554	30	114.2	167.0	(134.2 - 205.5)
54	West Valley West	66,932	48	72.2	176.4	(144.0 - 213.9)
46	West Valley East	48,584	49	100.9	164.1	(137.5 - 194.3)
24	Downtown Salt Lake	50,533	59	116.8	145.3	(123.9 - 169.3)
61	South Salt Lake	24,556	39	157.5	205.2	(168.8 - 247.0)
31	Millcreek	57,224	103	180.0	150.7	(133.6 - 169.3)
22	Holladay	44,846	85	189.5	140.5	(123.6 - 159.1)
25	Cottonwood	43,519	49	113.4	145.6	(121.9 - 172.5)
53	Kearns	65,350	51	77.5	174.9	(144.6 - 209.8)
32	Taylorsville	38,109	40	105.0	151.1	(124.8 - 181.3)
38	Murray	30,930	51	166.0	156.3	(132.4 - 183.3)
34	Midvale	28,577	31	108.5	152.0	(121.7 - 187.5)
50	West Jordan No.	44,676	24	54.5	169.8	(125.0 - 225.5)
35	W. Jordan, Copperton	41,743	24	57.5	152.3	(114.3 - 198.9)
58	South Jordan	31,669	27	84.2	188.3	(147.0 - 237.7)
14	Sandy Center	51,861	42	80.3	134.4	(110.9 - 161.4)
17	Sandy, Northeast	25,148	20	78.2	136.5	(100.8 - 180.8)
6	Sandy, Southeast	30,588	20	64.3	122.0	(87.2 - 166.0)
39	Riverton/Draper	62,791	32	51.5	156.5	(123.3 - 195.8)
42	Tooele Co.	43,865	41	94.2	158.7	(131.4 - 189.9)
13	Lehi/Cedar Valley	26,424	14	51.7	130.4	(92.1 - 179.2)
28	American Fork/Alpine	39,620	33	82.4	148.5	(120.0 - 181.7)
45	Pleasant Grove/Lindon	37,851	28	73.1	162.8	(128.2 - 203.9)
11	North Orem	35,731	27	75.6	126.6	(100.0 - 158.1)
18	West Orem	29,543	21	72.2	137.0	(105.1 - 175.6)
5	East Orem	22,141	17	76.8	120.9	(89.3 - 160.0)
9	Provo/BYU	48,704	38	78.0	125.4	(103.0 - 151.3)
37	Provo South	57,318	30	52.9	155.5	(124.2 - 192.3)
21	Springville/Spanish Fork	59,202	46	77.1	140.0	(117.1 - 166.0)
43	Utah Co. South	26,387	24	91.0	159.6	(124.4 - 201.5)
12	Summit Co.	31,104	20	64.3	127.8	(93.7 - 170.1)
33	Wasatch Co.	15,995	17	106.3	151.2	(112.2 - 199.3)
57	TriCounty LHD	41,453	61	146.4	186.5	(160.0 - 216.0)
20	Juab/Millard/Sanpete Co.	44,288	53	118.9	138.3	(117.6 - 161.7)
27	Sevier/Piute/Wayne Co.	23,040	35	150.5	147.0	(120.0 - 178.2)
55	Carbon/Emery Co.	30,716	54	174.7	180.8	(153.9 - 211.0)
52	Grand/San Juan Co.	22,714	32	140.9	172.1	(139.2 - 210.5)
7	St. George	53,715	86	160.1	124.7	(109.3 - 141.6)
29	Other Washington Co.	41,445	62	148.8	149.3	(128.0 - 173.2)
1	Cedar City	29,612	20	67.5	110.4	(83.9 - 142.6)
59	Other Southwest Dist.	21,854	48	219.6	198.1	(166.9 - 233.4)

* Rates have been age adjusted to the U.S. 2000 standard population.

ICD-10 codes: C00-C97.

Source: Utah Death Certificate Database

Definition: Number of deaths from lung cancer per 100,000 population (age-adjusted to the U.S. 2000 standard population).

Healthy People 2010 Objective 3-2: Lung cancer deaths (age-adjusted per 100,000 standard population)

- U.S. Target for 2010: 44.9
- State-specific Target: 24.8

Why Is It Important?

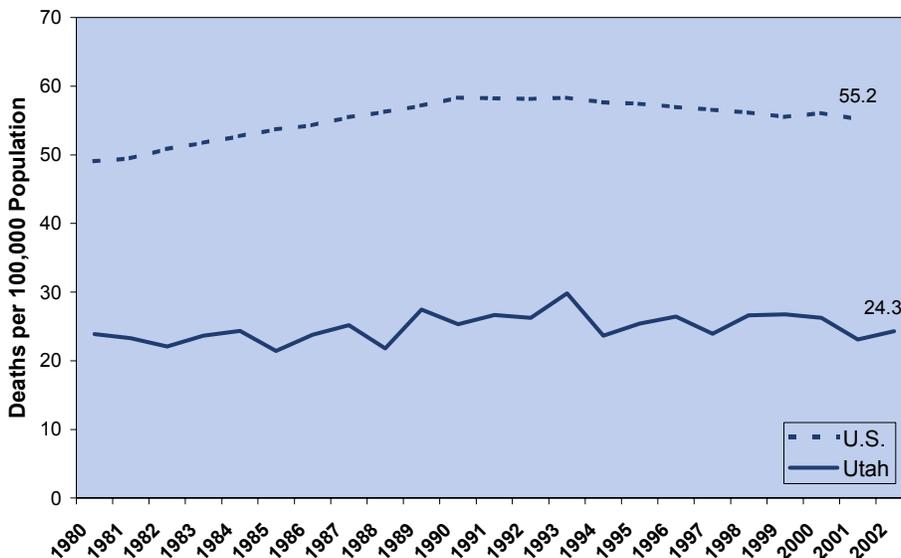
Lung cancer is the leading cause of cancer-related death in Utah and the U.S. It is estimated that lung cancer will have been responsible for 28% of all cancer deaths (approximately 157,200 deaths) in 2003.³⁵ Because symptoms often do not appear until the disease is advanced, early detection of this cancer is difficult. Tobacco is responsible for 87% of all cases of cancer of the lung, and is associated with cancers of the mouth, pharynx, larynx, and esophagus.³⁷

Risk Factors for Lung Cancer Deaths

Cigarette smoking is the most important risk factor for lung cancer. Other risk factors include occupational exposures such as radon and asbestos and indoor and outdoor pollution, including environmental tobacco smoke.

Lung Cancer Death Ranking, 2000-2002	Rate*
Provo/BYU	5.9
Other Cache/Rich Co.	7.9
Sandy, SE	8.8
Avenues	9.5
Other Box Elder Co.	9.8
Logan	11.4
North Orem	11.8
East Orem	13.5
Morgan/E Weber Co.	14.1
Foothill/U of U	14.3
Bountiful	14.8
American Fork/Alpine	15.5
Holladay	16.7
South Jordan	17.7
Cedar City	17.9
Midvale	18.0
Farmington/Centerville	18.0
West Orem	18.3
Pleasant Grove/Lindon	18.4
St. George	20.0
Cottonwood	20.5
South Ogden	21.3
Ben Lomond	21.9
Millcreek	22.2
Sandy Center	23.4
Springville/Spanish Fork	23.4
Summit Co.	23.4
Utah Co. South	23.6
Sevier/Piute/Wayne Co.	24.7
Syracuse/Kaysville	25.2
Downtown Salt Lake	26.8
Sandy, NE	26.9
Roy/Hooper	27.0
Juab/Millard/Sanpete Co.	27.2
Wasatch Co.	27.8
Provo South	29.1
South Salt Lake	29.3
Woods Cross/No. SL	29.5
Carbon/Emery Co.	29.5
Taylorsville	30.7
Brigham City	30.8
Other Washington Co.	31.1
Clearfield/Hill AFB	31.1
Murray	31.3
Riverton/Draper	31.5
Glendale	31.5
Magna	31.5
Lehi/Cedar Valley	31.6
Rose Park	32.4
Layton	33.4
Riverdale	35.0
Other Southwest Dist	35.1
W. Jordan, Copperton	35.1
West Valley East	37.9
TriCounty LHD	40.9
West Valley West	42.2
West Jordan No.	42.6
Tooele Co.	42.6
Kearns	43.2
Grand/San Juan Co.	47.2
Downtown Ogden	60.2

Lung Cancer Death Rates, Utah and U.S., 1980-2002

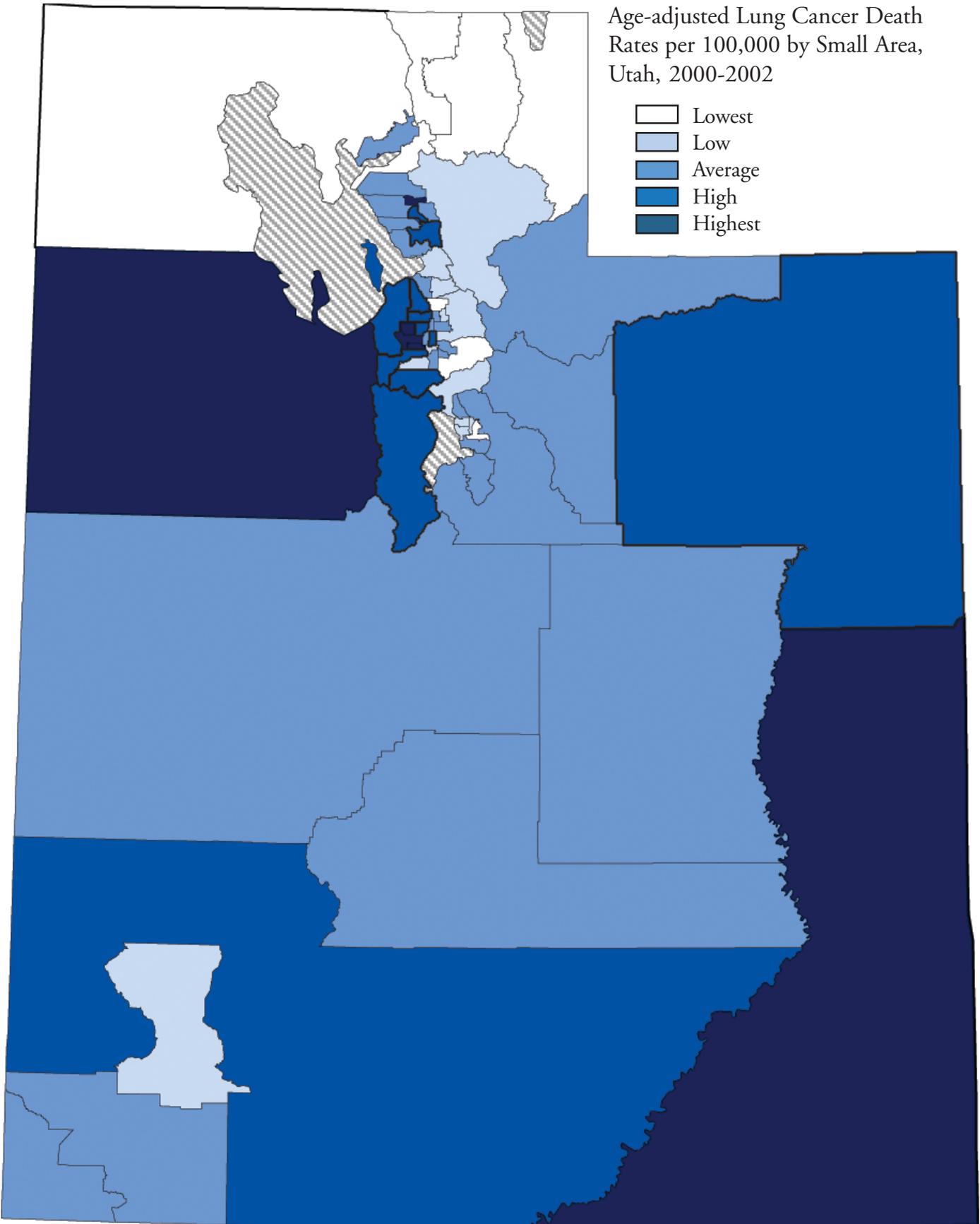


Sources: U.S. Centers for Disease Control and Prevention, on-line data - CDC WONDER; Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health
 Note: Age adjusted to U.S. 2000 standard population. ICD-9 code 162; ICD-10 codes C33-C34. ICD-10 definition also includes cancer of the trachea. However, there were no deaths in Utah from cancer of the trachea from 1995 to 1999, suggesting that this change has resulted in little or no artifactual difference in comparing death rates from the two time periods.

* Age adjusted # of deaths per 100,000.

Lung Cancer Deaths

Age-adjusted Lung Cancer Death Rates per 100,000 by Small Area, Utah, 2000-2002



Source: Utah Death Certificate Database

Lung Cancer Deaths by Small Area Utah, 2000-2002

Rank	Area of Residence	Average Population	Lung Cancer Deaths per 100,000			
			Average Annual Number of Events		Age Adjusted Rates*	
			Crude Rates		95% Confidence Interval	
				Lower	Upper	
	State Total	2,288,068	389	17.0	24.5	(23.2 - 26.0)
41	Brigham City	21,306	6	26.6	30.8	(17.9 - 49.3)
5	Other Box Elder Co.	21,957	2	7.6	9.8	(3.2 - 22.9)
6	Logan	59,888	4	6.1	11.4	(5.7 - 20.5)
2	Other Cache/Rich Co.	35,646	2	5.6	7.9	(2.9 - 17.5)
23	Ben Lomond	44,855	9	19.3	21.9	(14.3 - 32.1)
9	Morgan/East Weber Co.	33,182	3	9.0	14.1	(6.2 - 27.4)
61	Downtown Ogden	28,047	12	42.8	60.2	(42.1 - 83.5)
22	South Ogden	34,593	8	22.2	21.3	(13.4 - 32.1)
33	Roy/Hooper	40,599	7	16.4	27.0	(16.5 - 41.8)
51	Riverdale	25,265	8	31.7	35.0	(22.4 - 52.2)
42	Clearfield/Hill AFB	52,461	8	15.2	31.1	(19.6 - 47.0)
50	Layton	63,293	11	16.9	33.4	(22.6 - 47.7)
30	Syracuse/Kaysville	37,140	5	14.4	25.2	(14.1 - 41.3)
16	Farmington/Centerville	27,882	2	8.4	18.0	(6.6 - 39.3)
38	Woods Cross/North SL	19,359	3	15.5	29.5	(13.0 - 57.4)
11	Bountiful	44,886	7	16.3	14.8	(9.3 - 22.4)
49	Rose Park	32,358	6	19.6	32.4	(19.1 - 51.5)
4	Avenues	21,926	2	9.1	9.5	(3.4 - 20.7)
10	Foothill/U of U	23,221	4	17.2	14.3	(7.3 - 25.2)
45	Magna	23,294	4	15.7	31.5	(15.6 - 56.6)
45	Glendale	26,554	5	20.1	31.5	(17.9 - 51.3)
56	West Valley West	66,932	10	15.4	42.2	(27.3 - 62.5)
54	West Valley East	48,584	12	24.0	37.9	(26.1 - 53.1)
31	Downtown Salt Lake	50,533	10	19.8	26.8	(17.8 - 38.7)
37	South Salt Lake	24,556	5	21.7	29.3	(16.6 - 47.9)
24	Millcreek	57,224	14	24.5	22.2	(15.8 - 30.4)
13	Holladay	44,846	10	22.3	16.7	(11.2 - 24.0)
21	Cottonwood	43,519	7	16.9	20.5	(12.5 - 31.7)
59	Kearns	65,350	12	18.4	43.2	(29.3 - 61.3)
40	Taylorville	38,109	8	21.0	30.7	(19.5 - 45.9)
44	Murray	30,930	10	33.4	31.3	(21.2 - 44.6)
16	Midvale	28,577	4	12.8	18.0	(8.7 - 32.8)
57	West Jordan No.	44,676	5	11.9	42.6	(21.8 - 74.9)
52	W. Jordan, Copperton	41,743	4	9.6	35.1	(17.3 - 63.4)
14	South Jordan	31,669	2	6.3	17.7	(6.5 - 38.7)
25	Sandy Center	51,861	7	12.9	23.4	(14.0 - 36.6)
32	Sandy, Northeast	25,148	3	13.3	26.9	(12.6 - 50.2)
3	Sandy, Southeast	30,588	1	4.4	8.8	(1.9 - 25.1)
45	Riverton/Draper	62,791	6	9.0	31.5	(17.2 - 52.8)
57	Tooele Co.	43,865	11	25.8	42.6	(29.4 - 59.8)
48	Lehi/Cedar Valley	26,424	3	11.4	31.6	(13.9 - 61.5)
12	American Fork/Alpine	39,620	3	8.4	15.5	(7.3 - 28.9)
19	Pleasant Grove/Lindon	37,851	3	7.9	18.4	(8.2 - 35.6)
7	North Orem	35,731	2	6.5	11.8	(4.7 - 24.5)
18	West Orem	29,543	3	9.0	18.3	(7.9 - 36.2)
8	East Orem	22,141	2	9.0	13.5	(4.9 - 29.6)
1	Provo/BYU	48,704	2	3.4	5.9	(1.9 - 13.8)
36	Provo South	57,318	5	9.3	29.1	(16.3 - 48.1)
25	Springville/Spanish Fork	59,202	8	13.5	23.4	(14.9 - 35.1)
28	Utah Co. South	26,387	4	13.9	23.6	(11.7 - 42.5)
25	Summit Co.	31,104	3	9.6	23.4	(10.3 - 45.7)
35	Wasatch Co.	15,995	3	18.8	27.8	(12.6 - 53.2)
55	TriCounty LHD	41,453	13	32.2	40.9	(29.2 - 55.9)
34	Juab/Millard/Sanpete Co.	44,288	10	23.3	27.2	(18.5 - 38.6)
29	Sevier/Piute/Wayne Co.	23,040	6	26.0	24.7	(14.6 - 39.1)
38	Carbon/Emery Co.	30,716	9	28.2	29.5	(19.3 - 43.3)
60	Grand/San Juan Co.	22,714	9	39.6	47.2	(31.0 - 68.8)
20	St. George	53,715	14	26.1	20.0	(14.3 - 27.3)
42	Other Washington Co.	41,445	14	33.0	31.1	(22.1 - 42.4)
15	Cedar City	29,612	3	11.3	17.9	(8.5 - 33.0)
52	Other Southwest Dist.	21,854	8	38.1	35.1	(22.6 - 51.9)

* Rates have been age adjusted to the U.S. 2000 standard population.

ICD-10 codes: C33-C34.

Source: Utah Death Certificate Database

Female Breast Cancer Deaths

Definition: Number of deaths from cancer of the breast per 100,000 female population (age-adjusted to the U.S. 2000 standard population).

Healthy People 2010 Objective 3-3: Female breast cancer deaths (age-adjusted per 100,000 standard population)

- U.S. Target for 2010: 22.3
- State-specific Target: 22.3

Why Is It Important?

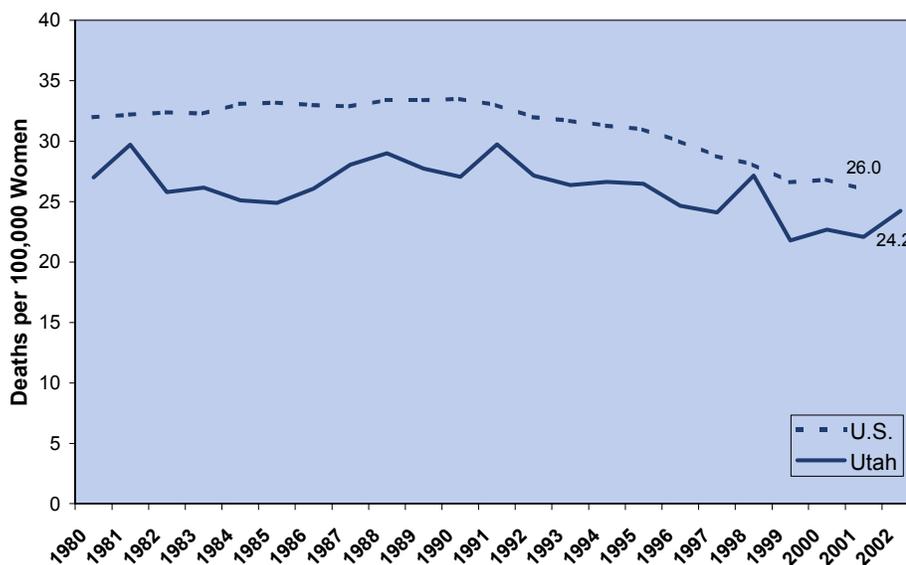
Breast cancer is the most commonly occurring cancer in U.S. women (excluding basal and squamous cell skin cancers) and the leading cause of cancer death among Utah women.

Risk Factors for Female Breast Cancer Deaths

Deaths from breast cancer can be substantially reduced if the tumor is discovered at an early stage. Mammography is currently an important method for detecting cancer early. The most important risk factor for breast cancer is increasing age. Other established risk factors include personal or family history of breast cancer, history of abnormal breast biopsy, genetic mutations, early age at onset of menses, late age at onset of menopause, never having children or having a first live birth at age 30 or older, and history of exposure to high dose radiation. Associations have also been suggested between breast cancer and oral contraceptives, long-term use of hormone replacement therapy, obesity (in post-menopausal women), alcohol, and a diet high in fat. Maintaining a healthy body weight and participating in regular physical activity are associated with lower risk of developing breast cancer.³⁵

Breast Cancer Death Ranking, 1998-2002	Rate*
Carbon/Emery Co.	9.3
Grand/San Juan Co.	11.7
West Valley East	12.8
Wasatch Co.	12.9
W. Jordan, Copperton	14.3
East Orem	15.1
Pleasant Grove/Lindon	15.2
Sandy Center	16.6
Cedar City	16.8
Avenues	17.3
Murray	18.1
Clearfield/Hill AFB	18.4
West Orem	18.8
Utah Co. South	18.8
Rose Park	18.8
Riverdale	18.8
Brigham City	20.3
Ben Lomond	20.3
St. George	20.7
Juab/Millard/Sanpete Co.	20.7
North Orem	20.7
Riverton/Draper	21.1
TriCounty LHD	21.3
Cottonwood	21.6
Midvale	21.8
Bountiful	21.8
Downtown Salt Lake	22.7
Tooele Co.	22.9
Logan	23.0
Springville/Spanish Fork	23.1
Taylorsville	23.7
Morgan/E Weber Co.	23.9
Roy/Hooper	24.2
Lehi/Cedar Valley	24.8
Summit Co.	25.2
Holladay	25.4
Sandy, NE	25.7
Foothill/U of U	25.7
Downtown Ogden	26.3
West Valley West	26.4
Woods Cross/No. SL	26.9
Other Southwest Dist	26.9
Magna	27.0
South Ogden	27.9
Glendale	28.2
Syracuse/Kaysville	28.5
Millcreek	28.7
Other Cache/Rich Co.	30.0
South Salt Lake	30.6
Provo South	31.4
Layton	31.8
Farmington/Centerville	31.9
Kearns	32.3
Sevier/Piute/Wayne Co.	32.8
American Fork/Alpine	33.3
Other Box Elder Co.	35.0
Sandy, SE	37.3
Provo/BYU	37.6
Other Washington Co.	38.1
West Jordan No.	38.5
South Jordan	42.0

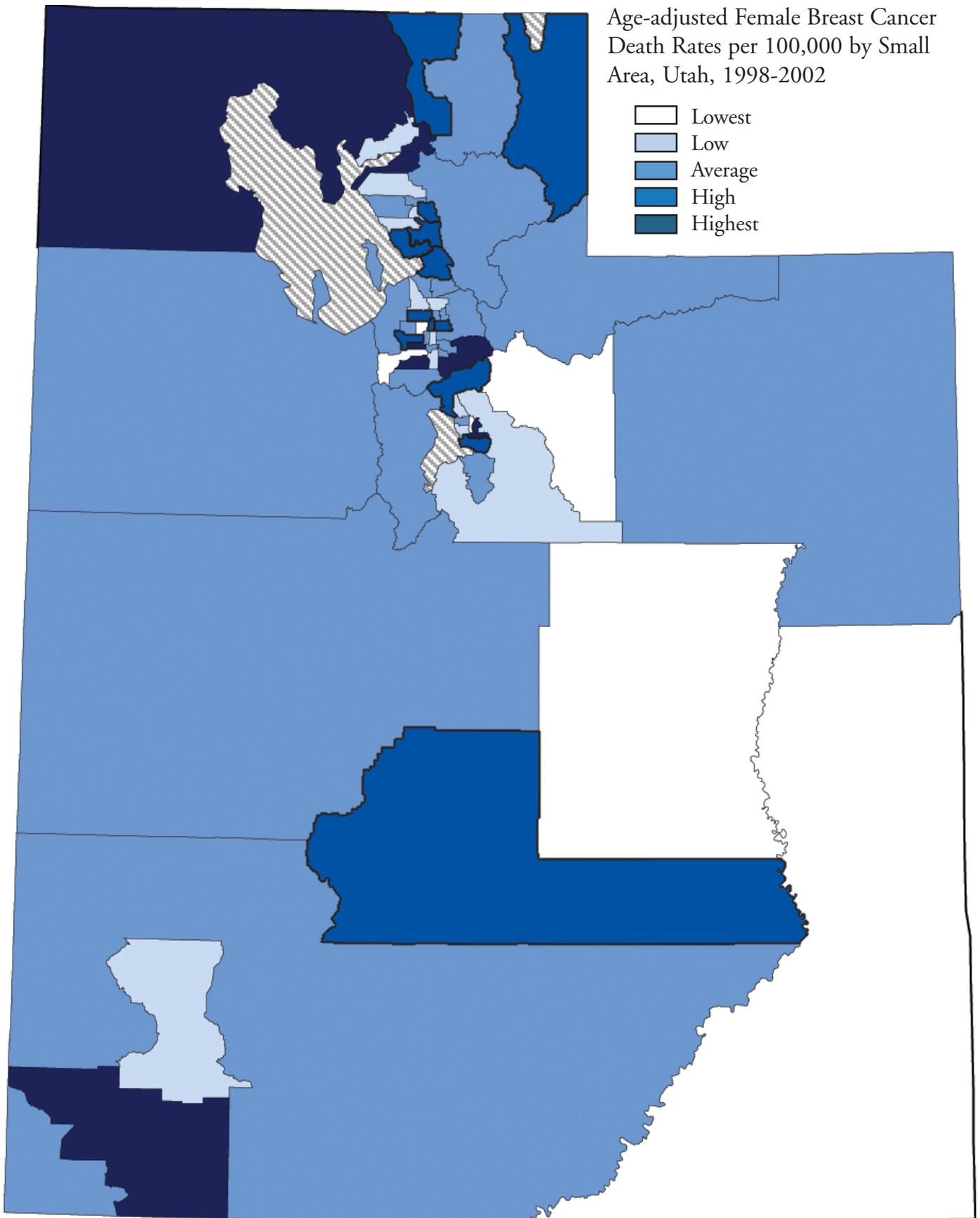
Breast Cancer Death Rates, Utah and U.S., 1980-2002



Sources: U.S. Centers for Disease Control and Prevention, on-line data - CDC WONDER; Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health
 Note: Age adjusted to U.S. 2000 standard population. ICD-9 code 174; ICD-10 code C50.

* Age adjusted # of deaths per 100,000.

Female Breast Cancer Deaths



Source: Utah Death Certificate Database

Female Breast Cancer Deaths

Female Breast Cancer Deaths by Small Area
Utah, 1998-2002

Rank	Area of Residence	Average Female Population	Female Breast Cancer Deaths per 100,000			
			Average Annual Number of Events	Crude Rates	Age Adjusted Rates*	
					Lower	Upper
	State Total	1,119,015	204	18.2	23.6	(22.1 - 25.1)
17	Brigham City	10,493	2	19.1	20.3	(9.6 - 37.6)
56	Other Box Elder Co.	10,789	3	27.8	35.0	(19.6 - 57.7)
29	Logan	29,769	4	14.1	23.0	(14.1 - 35.4)
48	Other Cache/Rich Co.	17,303	4	20.8	30.0	(17.7 - 47.5)
17	Ben Lomond	22,448	4	18.7	20.3	(12.5 - 31.2)
32	Morgan/East Weber Co.	16,162	3	18.6	23.9	(13.2 - 39.9)
39	Downtown Ogden	12,947	3	23.2	26.3	(14.4 - 43.9)
44	South Ogden	17,278	5	29.0	27.9	(17.8 - 41.6)
33	Roy/Hooper	20,291	3	16.8	24.2	(14.0 - 38.8)
13	Riverdale	12,553	3	20.7	18.8	(10.0 - 32.3)
12	Clearfield/Hill AFB	24,436	2	9.8	18.4	(9.4 - 32.3)
51	Layton	30,605	6	18.3	31.8	(20.0 - 48.0)
46	Syracuse/Kaysville	18,312	3	17.5	28.5	(16.0 - 47.0)
52	Farmington/Centerville	13,390	3	19.5	31.9	(15.4 - 58.2)
41	Woods Cross/North SL	9,514	2	16.8	26.9	(11.1 - 54.5)
25	Bountiful	22,942	5	23.6	21.8	(14.3 - 31.9)
13	Rose Park	15,334	2	13.0	18.8	(8.9 - 34.9)
10	Avenues	11,111	2	18.0	17.3	(8.1 - 32.2)
37	Foothill/U of U	11,642	3	29.2	25.7	(14.7 - 41.8)
43	Magna	11,388	2	14.1	27.0	(11.6 - 53.3)
45	Glendale	12,382	2	17.8	28.2	(13.7 - 51.4)
40	West Valley West	32,931	3	10.3	26.4	(14.3 - 44.6)
3	West Valley East	22,667	2	9.7	12.8	(6.4 - 23.1)
27	Downtown Salt Lake	25,021	6	22.4	22.7	(14.7 - 33.4)
49	South Salt Lake	12,001	3	26.7	30.6	(17.1 - 50.5)
47	Millcreek	29,563	10	34.6	28.7	(20.9 - 38.4)
36	Holladay	23,348	8	33.5	25.4	(17.8 - 35.3)
24	Cottonwood	21,720	4	18.4	21.6	(12.7 - 34.3)
53	Kearns	32,054	6	18.7	32.3	(20.6 - 48.1)
31	Taylorsville	19,014	4	20.0	23.7	(14.2 - 37.2)
11	Murray	15,710	3	21.7	18.1	(10.4 - 29.2)
25	Midvale	13,925	2	17.3	21.8	(11.2 - 38.2)
60	West Jordan No.	21,899	3	14.6	38.5	(19.3 - 68.5)
5	W. Jordan, Copperton	20,110	2	9.0	14.3	(6.3 - 27.9)
61	South Jordan	14,825	3	23.0	42.0	(23.1 - 70.3)
8	Sandy Center	25,926	3	12.4	16.6	(9.4 - 27.2)
37	Sandy, Northeast	12,521	2	19.2	25.7	(11.7 - 48.9)
57	Sandy, Southeast	15,032	3	20.0	37.3	(17.8 - 68.6)
22	Riverton/Draper	28,049	3	10.0	21.1	(10.5 - 37.7)
28	Tooele Co.	20,631	3	16.5	22.9	(13.3 - 36.8)
34	Lehi/Cedar Valley	12,391	1	9.7	24.8	(8.9 - 54.7)
55	American Fork/Alpine	18,955	4	19.0	33.3	(19.6 - 52.8)
7	Pleasant Grove/Lindon	17,961	1	7.8	15.2	(5.9 - 32.0)
19	North Orem	18,223	2	13.2	20.7	(10.5 - 36.8)
13	West Orem	14,121	2	11.3	18.8	(8.1 - 37.0)
6	East Orem	10,624	1	11.3	15.1	(5.5 - 33.0)
58	Provo/BYU	25,027	6	24.0	37.6	(25.2 - 54.0)
50	Provo South	28,350	4	12.7	31.4	(18.3 - 50.2)
30	Springville/Spanish Fork	28,280	4	13.5	23.1	(13.8 - 36.4)
13	Utah Co. South	12,680	2	12.6	18.8	(8.1 - 37.0)
35	Summit Co.	14,529	3	17.9	25.2	(12.7 - 44.9)
4	Wasatch Co.	7,577	1	10.6	12.9	(3.5 - 33.2)
23	TriCounty LHD	20,367	4	17.7	21.3	(12.6 - 33.7)
19	Juab/Millard/Sanpete Co.	21,739	4	18.4	20.7	(12.6 - 32.1)
54	Sevier/Piute/Wayne Co.	11,368	4	33.5	32.8	(19.7 - 51.4)
1	Carbon/Emery Co.	15,771	2	10.2	9.3	(4.0 - 18.4)
2	Grand/San Juan Co.	11,511	1	10.4	11.7	(4.3 - 25.4)
19	St. George	26,773	6	22.4	20.7	(13.6 - 30.2)
59	Other Washington Co.	19,524	7	34.9	38.1	(26.3 - 53.4)
9	Cedar City	14,493	2	11.1	16.8	(7.3 - 33.1)
41	Other Southwest Dist.	10,712	3	31.8	26.9	(15.5 - 43.3)

* Rates have been age adjusted to the U.S. 2000 standard population.
ICD-9 code: 174; ICD-10 code: C50. ICD-9 and ICD-10 adjusted for comparability.
Source: Utah Death Certificate Database

Colorectal Cancer Deaths

Definition: Number of deaths from cancer of the colon or rectum per 100,000 population (age-adjusted to the U.S. 2000 standard population).

Healthy People 2010 Objective 3-5: Colorectal cancer deaths (age-adjusted per 100,000 standard population)

- U.S. Target for 2010: 13.9
- State-specific Target: 15.0

Why Is It Important?

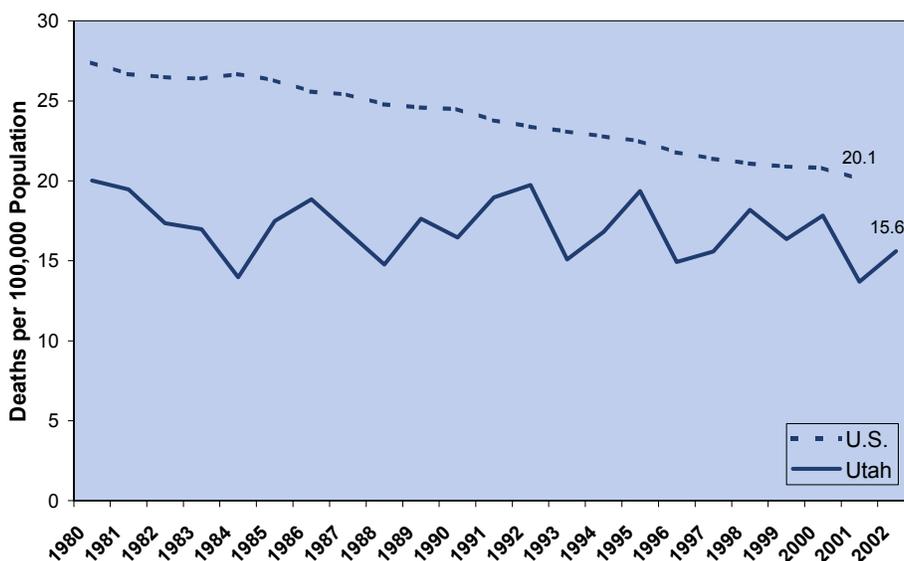
Colorectal cancer is the third leading cause of cancer death in the U.S. behind lung and breast cancer for females and behind lung and prostate cancer for males.

Risk Factors for Colorectal Cancer Deaths

Risk factors for colorectal cancer include increasing age, inflammatory bowel disease, a family history of polyps or colorectal cancer, a personal history of polyps or colorectal cancer, and certain hereditary syndromes. Physical inactivity, a low fiber/high fat diet, obesity, excessive alcohol consumption, and tobacco use may all increase risk. A diet high in fruits and vegetables, hormone replacement therapy in post-menopausal women, and aspirin use may reduce colorectal cancer risk.

Deaths from colorectal cancer can be substantially reduced when precancerous polyps are detected early and removed. When colorectal cancer is diagnosed early, the five-year survival rate is 90%. Several scientific organizations recommend that routine screening for colorectal cancer begin at age 50 for adults at average risk.

Colorectal Cancer Death Rates, Utah and U.S., 1980-2002

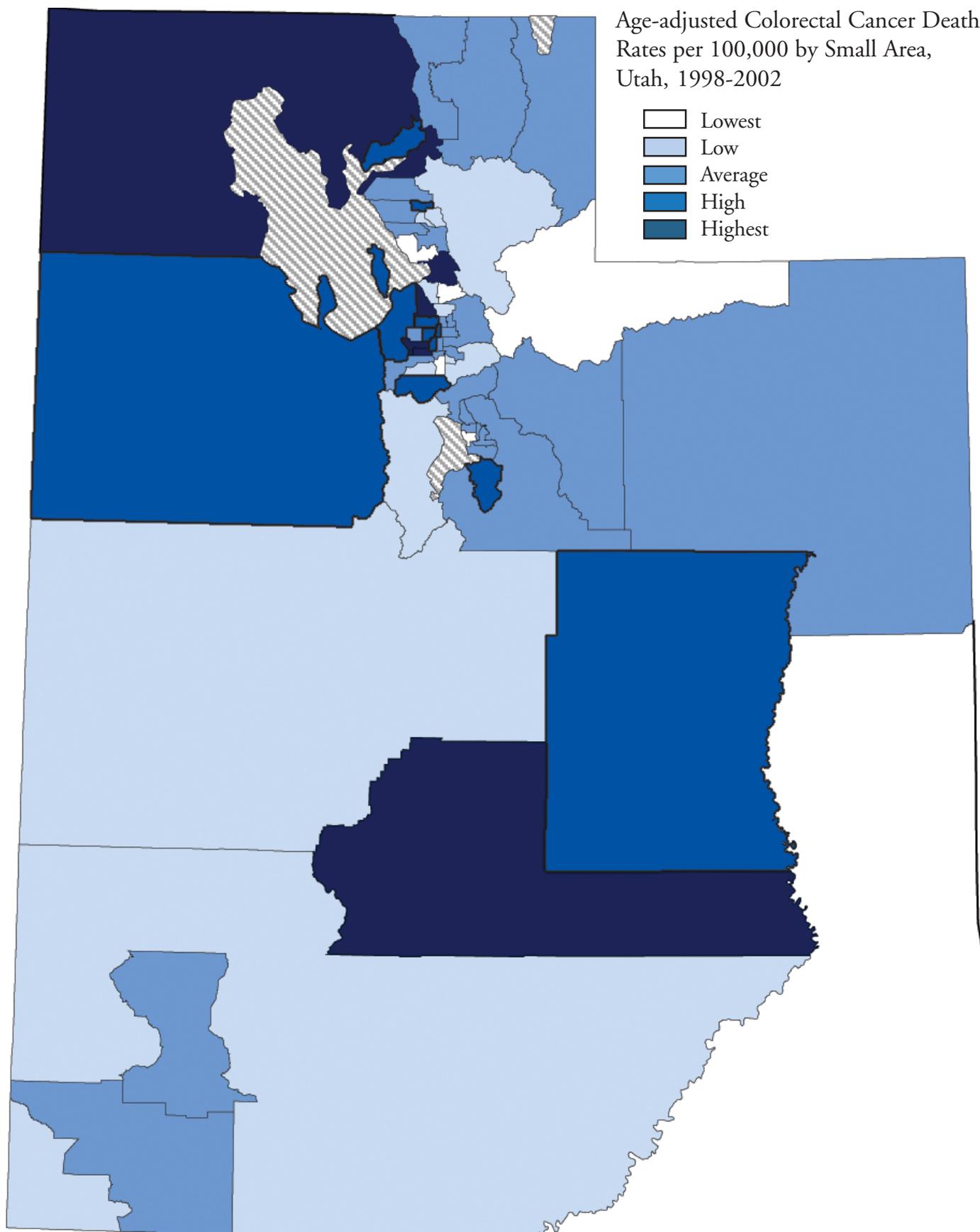


Sources: U.S. Centers for Disease Control and Prevention, on-line data - CDC WONDER; Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health
 Note: Age adjusted to U.S. 2000 standard population. ICD-9 codes 153 and 154; ICD-10 codes C18-C21.

Colorectal Cancer Death Ranking, 1998-2002	Rate*
West Orem	5.3
Grand/San Juan Co.	6.8
Bountiful	9.1
Sandy Center	10.3
Summit Co.	10.3
Syracuse/Kaysville	10.8
South Jordan	11.0
South Ogden	11.0
Riverdale	11.3
Sandy, SE	12.1
Sandy, NE	12.5
Juab/Millard/Sanpete Co.	12.7
St. George	13.7
Morgan/E Weber Co.	13.9
Lehi/Cedar Valley	13.9
Other Southwest Dist	14.2
Woods Cross/No. SL	14.8
Avenues	14.8
North Orem	15.4
Other Washington Co.	15.4
Provo/BYU	15.5
Ben Lomond	15.7
Murray	16.0
Holladay	16.4
Cottonwood	16.4
Provo South	16.6
Foothill/U of U	16.7
Logan	16.8
Millcreek	17.1
Midvale	17.1
American Fork/Alpine	17.2
W. Jordan, Copperton	17.5
West Valley West	17.5
Roy/Hooper	17.7
Utah Co. South	18.0
Wasatch Co.	18.5
Clearfield/Hill AFB	18.5
TriCounty LHD	18.5
Other Cache/Rich Co.	18.6
Downtown Salt Lake	18.7
Pleasant Grove/Lindon	18.8
Cedar City	18.8
Layton	18.9
East Orem	18.9
Magna	19.2
West Valley East	19.3
Taylorville	19.8
Carbon/Emery Co.	19.9
Riverton/Draper	20.0
Tooele Co.	20.3
Springville/Spanish Fork	20.3
Glendale	20.5
Brigham City	21.0
Downtown Ogden	21.2
South Salt Lake	21.3
Farmington/Centerville	21.9
Other Box Elder Co.	22.0
Sevier/Piute/Wayne Co.	22.2
Rose Park	22.3
Kearns	26.6
West Jordan No.	27.1

* Age adjusted # of deaths per 100,000.

Colorectal Cancer Deaths



Source: Utah Death Certificate Database

Colorectal Cancer Deaths

Colorectal Cancer Deaths by Small Area Utah, 1998-2002

Rank	Area of Residence	Average Population	Colorectal Cancer Deaths per 100,000			
			Average Annual Number of Events		Age Adjusted Rates*	
			Crude Rates		95% Confidence Interval	Lower
	State Total	2,239,772	248	11.1	16.3	(15.4 - 17.2)
53	Brigham City	20,973	4	18.1	21.0	(12.6 - 32.8)
57	Other Box Elder Co.	21,768	3	15.6	22.0	(12.8 - 35.3)
28	Logan	58,612	6	9.9	16.8	(11.2 - 24.1)
39	Other Cache/Rich Co.	35,122	4	11.4	18.6	(11.3 - 28.8)
22	Ben Lomond	44,207	6	13.1	15.7	(10.5 - 22.6)
14	Morgan/East Weber Co.	32,580	2	7.4	13.9	(7.0 - 24.6)
54	Downtown Ogden	27,559	4	16.0	21.2	(13.2 - 32.1)
7	South Ogden	34,189	4	11.7	11.0	(6.7 - 17.1)
34	Roy/Hooper	40,013	5	11.5	17.7	(11.2 - 26.7)
9	Riverdale	24,760	3	10.5	11.3	(6.0 - 19.4)
36	Clearfield/Hill AFB	50,554	4	8.7	18.5	(11.4 - 28.4)
43	Layton	61,843	5	8.1	18.9	(11.6 - 29.0)
6	Syracuse/Kaysville	36,544	2	5.5	10.8	(5.0 - 20.2)
56	Farmington/Centerville	27,389	2	7.3	21.9	(9.6 - 42.9)
17	Woods Cross/North SL	19,006	1	7.4	14.8	(5.7 - 31.4)
3	Bountiful	44,640	4	9.4	9.1	(5.6 - 13.9)
59	Rose Park	31,642	4	12.6	22.3	(13.1 - 35.5)
17	Avenues	21,842	3	13.7	14.8	(8.3 - 24.5)
27	Foothill/U of U	23,001	5	20.0	16.7	(10.5 - 25.1)
45	Magna	22,889	2	10.5	19.2	(9.8 - 33.9)
52	Glendale	25,949	4	14.6	20.5	(12.3 - 32.1)
32	West Valley West	65,856	4	6.7	17.5	(10.1 - 28.4)
46	West Valley East	47,704	5	11.3	19.3	(12.4 - 28.6)
40	Downtown Salt Lake	49,971	8	16.8	18.7	(13.3 - 25.6)
55	South Salt Lake	24,332	4	18.1	21.3	(13.2 - 32.5)
29	Millcreek	57,133	12	21.4	17.1	(12.9 - 22.2)
24	Holladay	44,872	10	22.3	16.4	(12.1 - 21.6)
24	Cottonwood	43,398	5	12.4	16.4	(10.6 - 24.2)
60	Kearns	64,776	6	9.3	26.6	(16.6 - 40.5)
47	Taylorsville	37,204	5	13.4	19.8	(12.7 - 29.3)
23	Murray	30,729	5	16.9	16.0	(10.4 - 23.5)
29	Midvale	28,185	4	12.8	17.1	(10.0 - 27.3)
61	West Jordan No.	44,042	3	6.4	27.1	(12.6 - 50.8)
32	W. Jordan, Copperton	39,842	2	5.5	17.5	(7.9 - 33.3)
7	South Jordan	30,036	2	5.3	11.0	(4.4 - 22.8)
4	Sandy Center	51,538	3	6.6	10.3	(5.8 - 16.8)
11	Sandy, Northeast	25,496	2	7.8	12.5	(5.3 - 24.7)
10	Sandy, Southeast	30,395	1	4.6	12.1	(4.2 - 27.2)
49	Riverton/Draper	59,351	4	6.1	20.0	(10.7 - 34.0)
50	Tooele Co.	41,071	5	12.7	20.3	(13.2 - 29.9)
14	Lehi/Cedar Valley	25,022	1	5.6	13.9	(5.4 - 29.0)
31	American Fork/Alpine	38,276	4	9.4	17.2	(10.1 - 27.4)
41	Pleasant Grove/Lindon	36,170	3	7.2	18.8	(9.8 - 32.7)
19	North Orem	35,898	3	8.4	15.4	(8.6 - 25.5)
1	West Orem	28,223	1	2.8	5.3	(1.4 - 13.6)
43	East Orem	21,174	2	10.4	18.9	(9.3 - 34.2)
21	Provo/BYU	47,751	5	9.6	15.5	(9.8 - 23.3)
26	Provo South	55,477	3	5.4	16.6	(9.2 - 27.4)
50	Springville/Spanish Fork	56,839	6	11.3	20.3	(13.7 - 29.0)
35	Utah Co. South	25,580	3	10.2	18.0	(9.5 - 31.0)
4	Summit Co.	29,956	2	8.0	10.3	(4.8 - 19.2)
36	Wasatch Co.	15,335	2	13.0	18.5	(8.8 - 34.2)
36	TriCounty LHD	40,752	6	14.2	18.5	(12.3 - 26.7)
12	Juab/Millard/Sanpete Co.	43,644	5	11.0	12.7	(8.1 - 18.9)
58	Sevier/Piute/Wayne Co.	22,737	5	22.9	22.2	(14.5 - 32.6)
48	Carbon/Emery Co.	31,100	6	18.6	19.9	(13.3 - 28.6)
2	Grand/San Juan Co.	22,804	1	5.3	6.8	(2.5 - 14.9)
13	St. George	52,165	9	16.5	13.7	(9.8 - 18.6)
19	Other Washington Co.	39,468	5	13.2	15.4	(10.0 - 22.8)
41	Cedar City	28,794	3	11.1	18.8	(10.7 - 30.6)
16	Other Southwest Dist.	21,592	3	14.8	14.2	(8.1 - 23.0)

* Rates have been age adjusted to the U.S. 2000 standard population.

ICD-9 codes: 153 and 154; ICD-10 codes: C18-21. ICD-9 and ICD-10 adjusted for comparability.

Source: Utah Death Certificate Database

Hepatitis A

Definition: Number of reported hepatitis A cases per 100,000 population.

Healthy People 2010 Objective 14-6: Hepatitis A - (new cases per 100,000 population)

- U.S. Target for 2010: 4.5
- State-specific Target: 1.3

Why Is It Important?

Hepatitis A is a serious viral illness that results in inflammation of the liver. People with hepatitis A can have fever, jaundice (yellowing of the skin and the whites of the eyes), nausea, loss of appetite, vomiting, and malaise. It can take 15 to 50 days after getting the virus before showing any symptoms (average of 28 days). Hepatitis A is the most common type of hepatitis reported in the United States. The decline in hepatitis A cases since 1996 is most likely due to better hygiene, especially hand washing and food preparation, and broader use of the hepatitis A vaccine, but it may also be due to the natural cycle of the disease.

Hepatitis A Ranking, 2001-2003	Rate*
Bear River	0.2
Davis	1.5
TriCounty	1.6
Central	2.0
Southwest	2.0
Wasatch	2.0
Summit	2.1
Tooele	2.2
Utah	2.2
Salt Lake	2.7
Weber-Morgan	2.7
Southeastern	9.4

* Rate per 100,000.

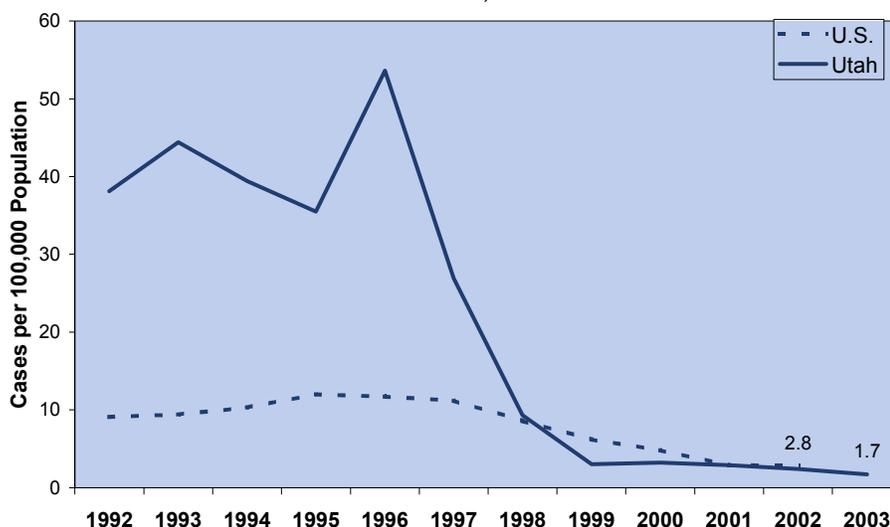
Risk Factors for Hepatitis A

Most cases of hepatitis A are due to person-to-person transmission, but can also be acquired by eating food or drinking water contaminated with the virus. Many children with hepatitis A do not show symptoms but are still able to pass on the infection. Hepatitis A virus only infects humans, and occasionally some other primates. Infection is spread through the fecal-oral route, so it's often grouped with other foodborne illnesses. However, hepatitis A is a vaccine-preventable disease. Vaccination is recommended for children entering school, travelers to developing countries, and others with high-risk activities. Also, household contacts of recently diagnosed cases of hepatitis A can be administered Immune Globulin under the direction of the health department to prevent infection. Immune Globulin and hepatitis A immunization can be administered simultaneously.

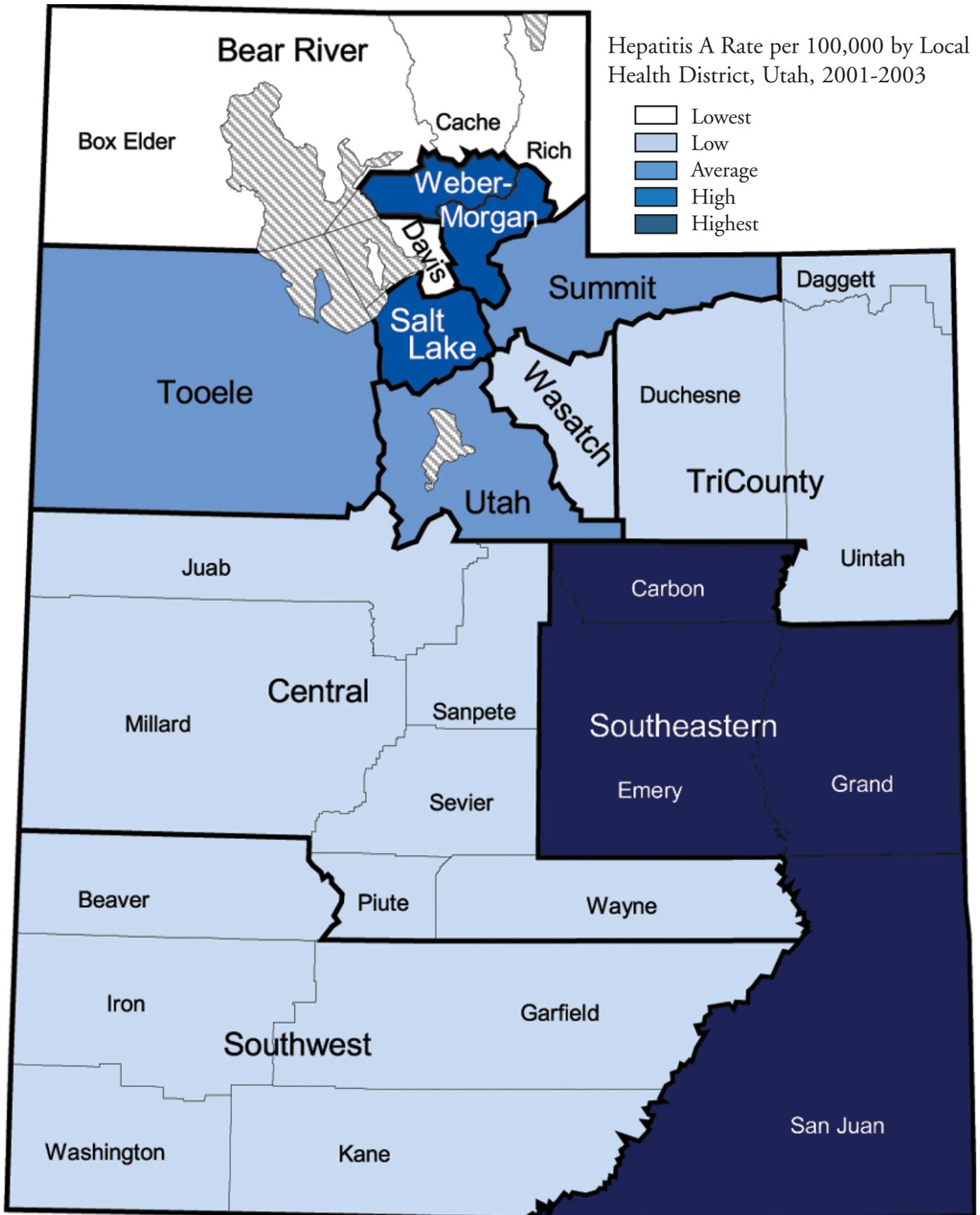
People who have hepatitis A can easily give this infection to other children, co-workers, or family members. Children with diarrhea should not go to day care, and food handlers should not go to work. Careful hand

washing after using the toilet can reduce the risk of spreading illness. Careful hand washing includes using plenty of hot water and soap and rubbing hands vigorously for 20 seconds.

Rates of Reported Hepatitis A Cases, Utah and U.S., 1992-2003



Sources: Utah Department of Health, Office of Epidemiology



Source: Utah Department of Health, Office of Epidemiology

Hepatitis A by Local Health District Utah, 2001-2003

Rank	Area of Residence	Average Population	Hepatitis A Cases per 100,000		
			Average Annual Number of Events	Crude Rates	
				95% Confidence Interval**	Lower
	State Total	2,324,149	55	2.4	(2.0 - 2.8)
1	Bear River	141,090	0	0.2	(0.0 - 1.3)
4	Central	68,206	1	2.0	(0.5 - 5.0)
2	Davis	249,124	3	1.5	(0.7 - 2.6)
10	Salt Lake	924,858	24	2.7	(2.1 - 3.3)
12	Southeastern	53,297	5	9.4	(5.3 - 15.5)
4	Southwest	150,674	3	2.0	(0.9 - 3.8)
7	Summit	32,032	1	2.1	(0.3 - 7.5)
8	Tooele	45,621	1	2.2	(0.5 - 6.4)
3	TriCounty	41,991	1	1.6	(0.2 - 5.7)
8	Utah	392,517	8	2.2	(1.4 - 3.2)
4	Wasatch	16,577	0	2.0	(0.1 - 11.2)
10	Weber-Morgan	208,162	5	2.7	(1.6 - 4.4)

Source: Utah Department of Health, Office of Epidemiology

Definition: Number of cases of reported tuberculosis per 100,000 population.

Healthy People 2010 Objective 14-11: Tuberculosis - (new cases per 100,000 population)

- U.S. Target for 2010: 1.0
- State-specific Target: 0.8

Why Is It Important?

Tuberculosis (TB) is caused by a type of bacteria called *Mycobacterium tuberculosis*. The bacteria usually attack the lungs, but they may attack any part of the body. TB is typically spread through the air from one person to another. The U.S. experienced a resurgence of TB between 1985 and 1992, when the number of TB cases increased by 20%. Early detection and treatment of TB are essential to control the spread of the disease and to prevent outbreaks. Some people may have what is known as latent TB and may later develop active TB.

Tuberculosis Ranking, 1999-2003	Rate*
Wasatch	0.0
Bear River	0.3
Central	0.6
Summit	0.6
Utah	0.7
Southwest	0.8
Davis	1.1
Southeastern	1.5
Tooele	1.8
TriCounty	1.9
Weber-Morgan	1.9
Salt Lake	2.7

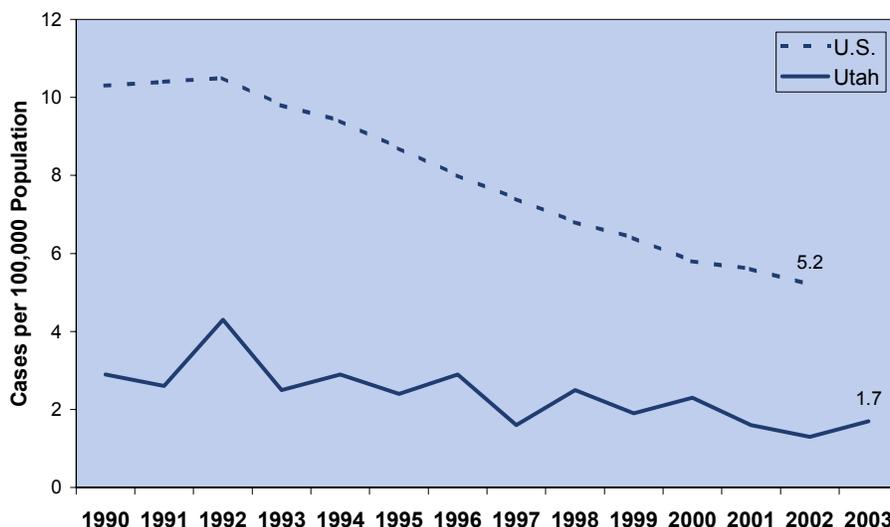
* Rate per 100,000.

Risk Factors for Tuberculosis

People who are at a high risk of developing TB disease include: individuals with HIV or AIDS, individuals who were infected with TB within the last two years, babies and young children, IV-drug users, individuals with chronic illnesses that weaken the immune system, elderly individuals who were not properly treated for TB infections in the past.

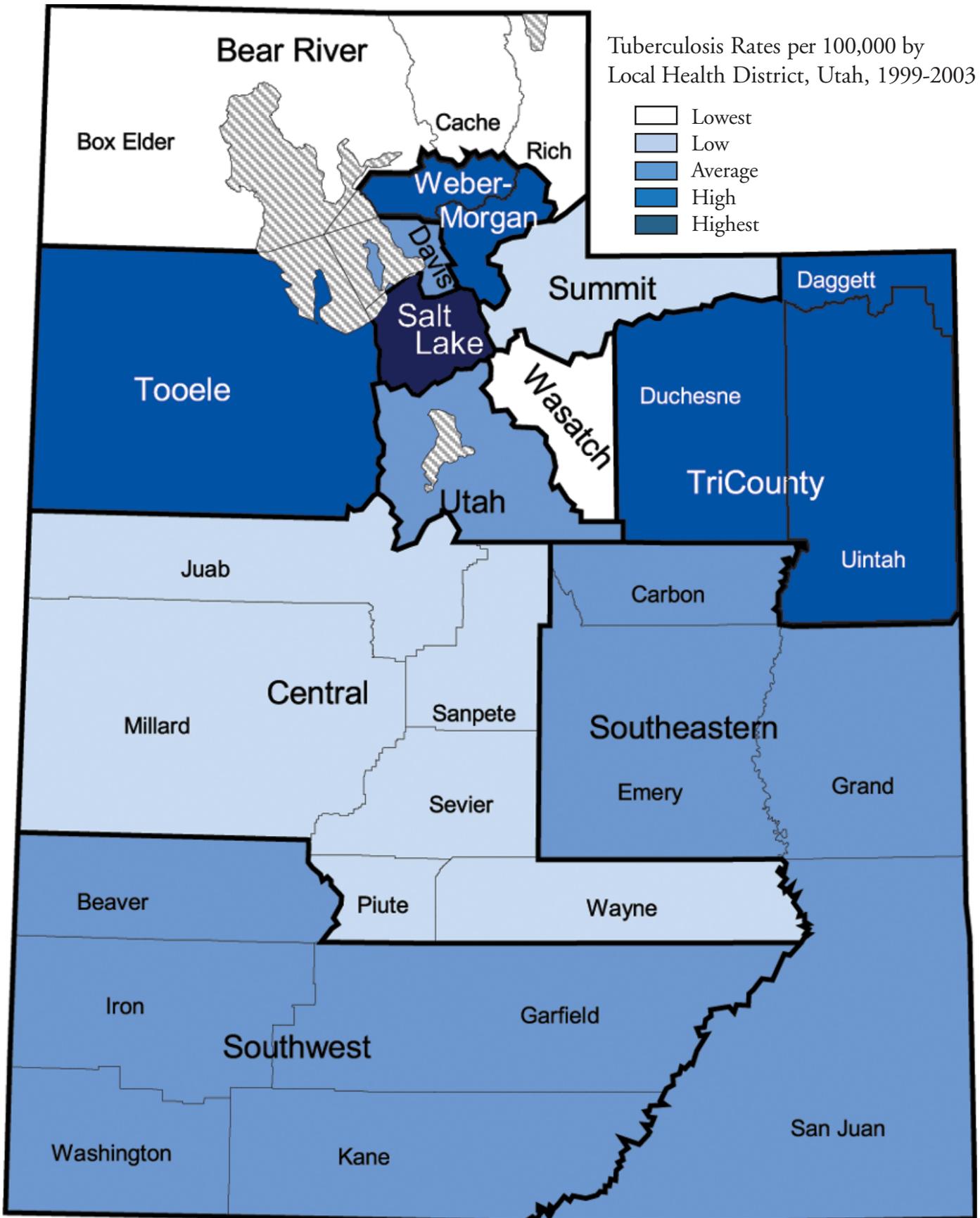
Risk factors for progressing to active tuberculosis disease include alcohol and injecting drug use. Directly observed therapy (DOT) should be considered for all patients because of the difficulty in predicting which patients will adhere to a prescribed treatment program. DOT increases the treatment completion rate and leads to the reduction of treatment failure, relapse and drug resistance.

Rates of Reported Tuberculosis Cases, Utah and U.S., 1990-2003



Sources: Bureau of Communicable Disease Control, Utah Department of Health; National Center for HIV, STD, and TB Prevention, Centers for Disease Control and Prevention

Tuberculosis



Source: Bureau of Communicable Disease Control, Utah Department of Health

**Tuberculosis by Local Health District
Utah, 1999-2003**

Rank	Area of Residence	Average Population	Tuberculosis Cases per 100,000		
			Average Annual Number of Events	Crude Rates	
				95% Confidence Interval**	Lower
	State Total	2,282,401	38	1.7	(1.5 - 2.0)
2	Bear River	138,849	0	0.3	(0.0 - 1.0)
3	Central	67,274	0	0.6	(0.1 - 2.1)
7	Davis	244,586	2	1.1	(0.6 - 1.9)
12	Salt Lake	912,512	24	2.7	(2.3 - 3.2)
8	Southeastern	53,692	1	1.5	(0.4 - 3.8)
6	Southwest	146,337	1	0.8	(0.3 - 1.8)
3	Summit	30,988	0	0.6	(0.0 - 3.6)
9	Tooele	43,340	1	1.8	(0.5 - 4.7)
10	TriCounty	41,356	1	1.9	(0.5 - 5.0)
5	Utah	381,580	2	0.7	(0.4 - 1.2)
1	Wasatch	15,944	0	0.0	(. - .)
10	Weber-Morgan	205,937	4	1.9	(1.2 - 3.0)

Source: Bureau of Communicable Disease Control, Utah Department of Health

Note: Confidence intervals were not calculated for values of 0.

Infant Deaths

Definition: Number of infants who died before their first birthday (under 365 days), after being born alive, per 1,000 live births.

Healthy People 2010 Objective 16-1c: All Infant deaths (within 1 year) (per 1,000 live births)

- U.S. Target for 2010: 4.5
- State-specific Target: 4.5

Why Is It Important?

The infant death rate is an important measure of a nation's health and a worldwide indicator of health status and social well-being. It is a critical indicator of the health of a population. Three causes account for more than half of all infant deaths: birth defects, conditions in the perinatal period (includes disorders of short gestation and can reflect the overall state of maternal health, as well as the quality and accessibility of primary health care for pregnant women), and SIDS. Other conditions include deaths due to unintentional and intentional injuries. Infant mortality, when resulting from a complicated delivery, is associated with increased risk of maternal mortality.

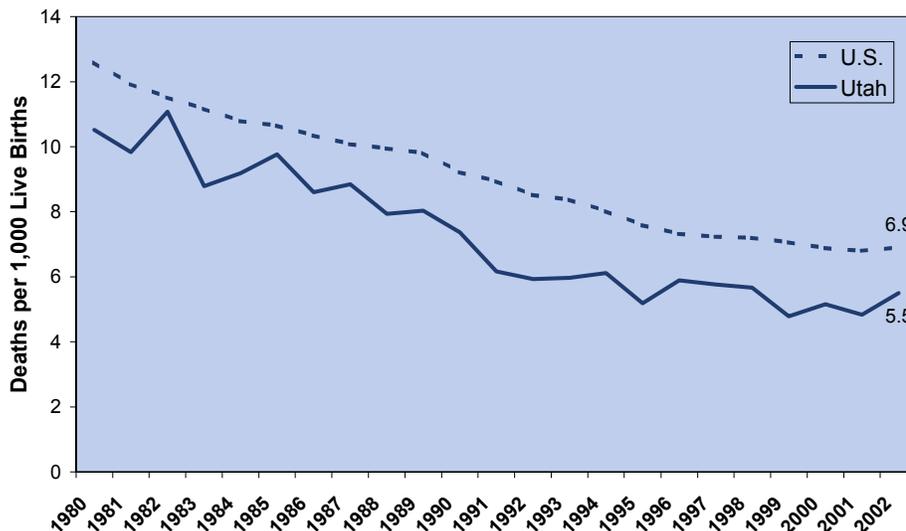
Risk Factors for Infant Deaths

Some of the mother's behaviors during the prenatal period, such as smoking and using alcohol, increase the risk of infant mortality.

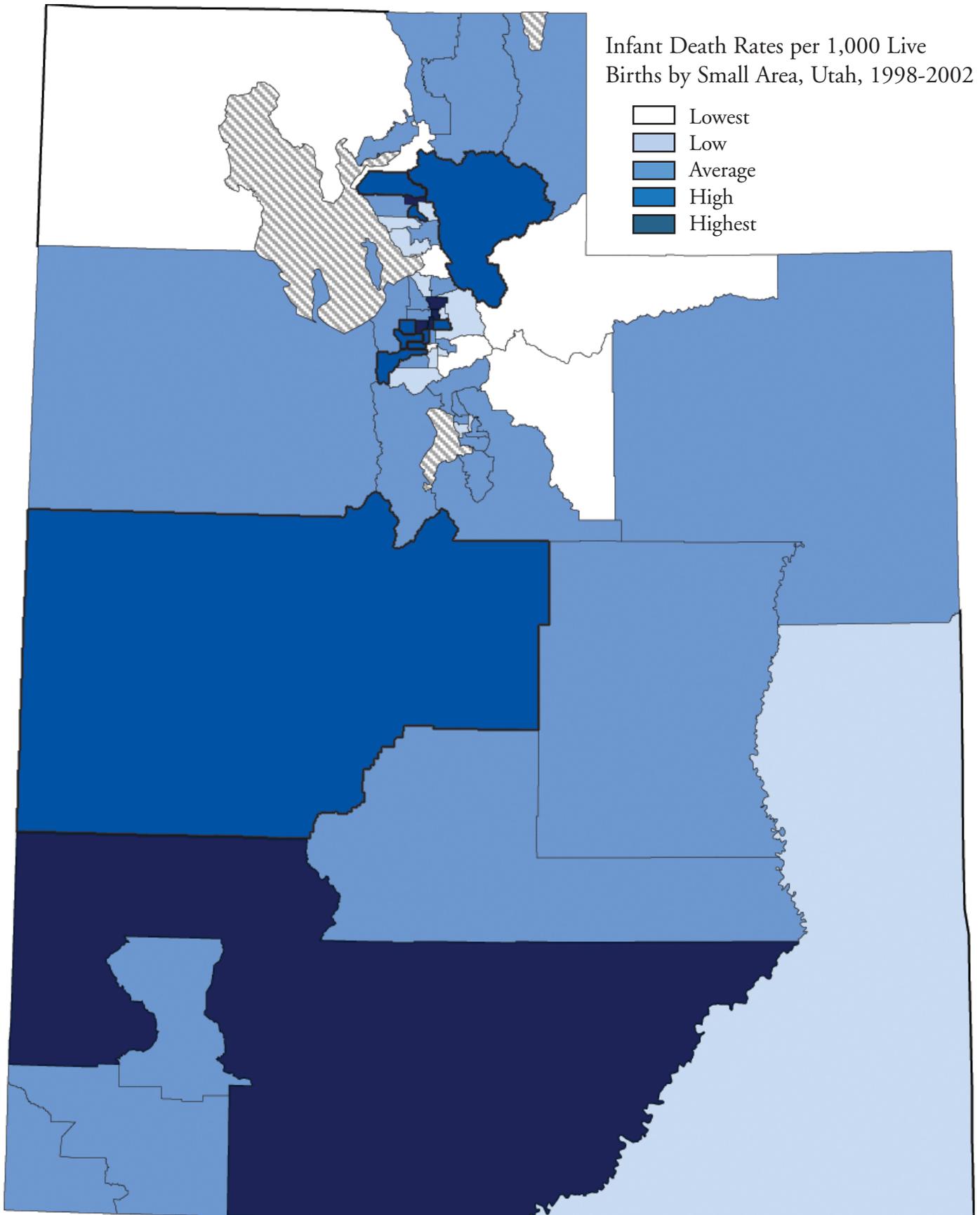
Infant Death Ranking, 1998-2002	Rate*
Sandy, SE	2.3
Farmington/Centerville	2.8
Other Box Elder Co.	3.0
Summit Co.	3.1
Midvale	3.2
Wasatch Co.	3.2
East Orem	3.3
Holladay	3.5
Syracuse/Kaysville	3.6
Foothill/U of U	3.7
Grand/San Juan Co.	3.8
South Ogden	3.9
Sandy, NE	4.0
Woods Cross/No. SL	4.0
West Orem	4.1
Clearfield/Hill AFB	4.1
Riverton/Draper	4.1
Sandy Center	4.2
St. George	4.3
Pleasant Grove/Lindon	4.3
Springville/Spanish Fork	4.4
South Jordan	4.6
Murray	4.7
Layton	4.8
Provo/BYU	4.8
Rose Park	4.8
Roy/Hooper	4.9
Magna	4.9
Lehi/Cedar Valley	4.9
Carbon/Emery Co.	5.0
Other Cache/Rich Co.	5.0
North Orem	5.0
Cottonwood	5.1
Glendale	5.1
Brigham City	5.1
Cedar City	5.1
Sevier/Piute/Wayne Co.	5.1
Provo South	5.2
Logan	5.2
TriCounty LHD	5.2
Tooele Co.	5.3
Other Washington Co.	5.3
Bountiful	5.5
Utah Co. South	5.5
American Fork/Alpine	5.5
Morgan/E Weber Co.	5.6
W. Jordan, Copperton	5.9
Taylorville	6.0
West Valley West	6.3
Millcreek	6.4
Riverdale	6.5
Juab/Millard/Sanpete Co.	6.7
Kearns	6.7
West Jordan No.	6.8
Ben Lomond	6.9
South Salt Lake	7.2
West Valley East	7.3
Downtown Ogden	7.4
Downtown Salt Lake	7.9
Other Southwest Dist	9.1
Avenues	9.5

* Rate per 1,000 live births.

Infant Death Rates (Under 1 Year of Age), Utah and U.S., 1980-2002



Sources: Office of Vital Records and Statistics, Utah Department of Health; National Vital Statistics System, National Center for Health Statistics, U.S. Centers for Disease Control and Prevention
 Note: U.S. 2002 data are provisional.



Source: Utah Death Certificate Database and Utah Birth Certificate Database

Infant Deaths by Small Area Utah, 1998-2002

Rank	Area of Residence	Average Number of Live Births	Infant Deaths per 1,000 Live Births		
			Average Annual Number of Events	Crude Rates	
				Lower	Upper
	State Total	47,151	245	5.2	(4.9 - 5.5)
33	Brigham City	390	2	5.1	(2.5 - 9.4)
3	Other Box Elder Co.	405	1	3.0	(1.1 - 6.4)
38	Logan	1,455	8	5.2	(3.7 - 7.2)
30	Other Cache/Rich Co.	763	4	5.0	(3.0 - 7.8)
55	Ben Lomond	904	6	6.9	(4.7 - 9.7)
46	Morgan/East Weber Co.	496	3	5.6	(3.1 - 9.5)
58	Downtown Ogden	700	5	7.4	(4.8 - 10.9)
12	South Ogden	671	3	3.9	(2.1 - 6.6)
27	Roy/Hooper	817	4	4.9	(3.0 - 7.6)
51	Riverdale	494	3	6.5	(3.7 - 10.5)
15	Clearfield/Hill AFB	1,212	5	4.1	(2.7 - 6.1)
24	Layton	1,262	6	4.8	(3.2 - 6.8)
9	Syracuse/Kaysville	722	3	3.6	(1.9 - 6.2)
2	Farmington/Centerville	427	1	2.8	(1.0 - 6.1)
13	Woods Cross/North SL	399	2	4.0	(1.7 - 7.9)
43	Bountiful	766	4	5.5	(3.4 - 8.4)
24	Rose Park	784	4	4.8	(2.9 - 7.6)
61	Avenues	338	3	9.5	(5.4 - 15.4)
10	Foothill/U of U	433	2	3.7	(1.6 - 7.3)
27	Magna	530	3	4.9	(2.6 - 8.4)
33	Glendale	664	3	5.1	(3.0 - 8.2)
49	West Valley West	1,487	9	6.3	(4.6 - 8.4)
57	West Valley East	1,071	8	7.3	(5.2 - 10.0)
59	Downtown Salt Lake	857	7	7.9	(5.5 - 11.1)
56	South Salt Lake	559	4	7.2	(4.4 - 11.0)
50	Millcreek	993	6	6.4	(4.4 - 9.1)
8	Holladay	636	2	3.5	(1.7 - 6.2)
33	Cottonwood	554	3	5.1	(2.8 - 8.5)
52	Kearns	1,396	9	6.7	(4.9 - 9.0)
48	Taylorsville	737	4	6.0	(3.7 - 9.0)
23	Murray	593	3	4.7	(2.6 - 7.9)
5	Midvale	689	2	3.2	(1.6 - 5.7)
54	West Jordan No.	1,089	7	6.8	(4.8 - 9.4)
47	W. Jordan, Copperton	942	6	5.9	(3.9 - 8.6)
22	South Jordan	475	2	4.6	(2.3 - 8.3)
18	Sandy Center	994	4	4.2	(2.6 - 6.5)
13	Sandy, Northeast	301	1	4.0	(1.5 - 8.7)
1	Sandy, Southeast	351	1	2.3	(0.6 - 5.8)
15	Riverton/Draper	1,398	6	4.1	(2.8 - 6.0)
41	Tooele Co.	909	5	5.3	(3.4 - 7.9)
27	Lehi/Cedar Valley	892	4	4.9	(3.1 - 7.5)
43	American Fork/Alpine	869	5	5.5	(3.5 - 8.2)
19	Pleasant Grove/Lindon	891	4	4.3	(2.6 - 6.7)
30	North Orem	1,031	5	5.0	(3.3 - 7.4)
15	West Orem	784	3	4.1	(2.3 - 6.6)
7	East Orem	419	1	3.3	(1.3 - 6.9)
24	Provo/BYU	1,004	5	4.8	(3.1 - 7.1)
38	Provo South	1,863	10	5.2	(3.8 - 6.8)
21	Springville/Spanish Fork	1,462	6	4.4	(3.0 - 6.2)
43	Utah Co. South	652	4	5.5	(3.3 - 8.7)
4	Summit Co.	456	1	3.1	(1.2 - 6.3)
5	Wasatch Co.	310	1	3.2	(1.0 - 7.5)
38	TriCounty LHD	763	4	5.2	(3.2 - 8.1)
52	Juab/Millard/Sanpete Co.	747	5	6.7	(4.3 - 9.9)
33	Sevier/Piute/Wayne Co.	389	2	5.1	(2.5 - 9.4)
30	Carbon/Emery Co.	484	2	5.0	(2.6 - 8.7)
11	Grand/San Juan Co.	367	1	3.8	(1.5 - 7.9)
19	St. George	987	4	4.3	(2.6 - 6.5)
41	Other Washington Co.	829	4	5.3	(3.3 - 8.0)
33	Cedar City	662	3	5.1	(3.0 - 8.2)
60	Other Southwest Dist.	372	3	9.1	(5.3 - 14.6)

Source: Utah Death Certificate Database and Utah Birth Certificate Database, Office of Vital Records and Statistics, Utah Department of Health

Definition: Percentage of live-born infants weighing less than 2500 grams (about 5.5 pounds).

Healthy People 2010 Objective 16-10a: Low birth weight (LBW), infants (less than 2,500 grams)

- U.S. Target for 2010: 5.0%
- State-specific Target: 5.0%

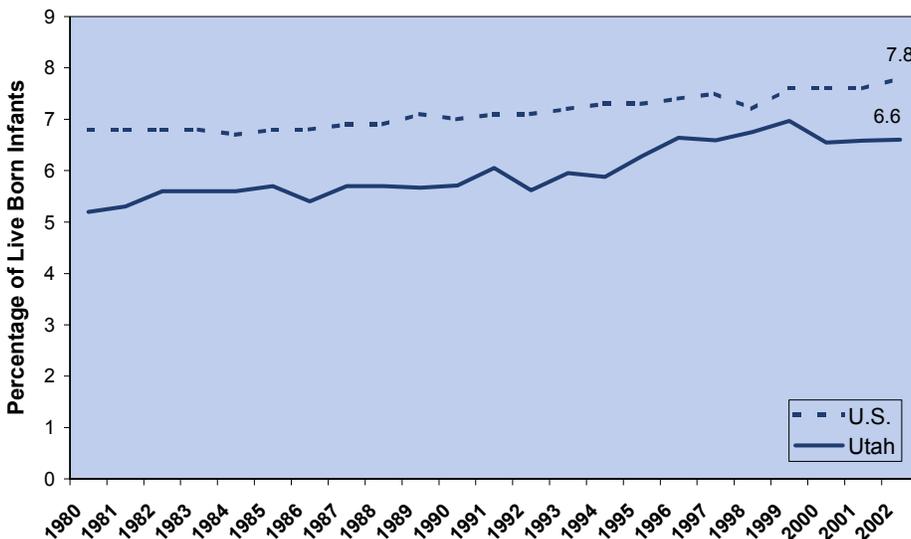
Why Is It Important?

Low birth weight increases the risk for infant mortality and morbidity. As birth weight decreases, the risk for death increases. Low birth weight infants who survive often require intensive care at birth, may develop chronic illnesses, and later may require special education services. Health care costs and length of hospital stay are higher for low birth weight infants. Utah data indicate that for infants weighing between 1,500 and 2,499 grams costs are six times higher, and almost 85 times higher for newborns with a birth weight less than 1,500 grams.

Risk Factors for Low Birth Weight

Risk factors for low birth weight include: preterm births, maternal chronic disease (such as hypertension), maternal obstetric family history (such as having been born low birth weight themselves), multiple gestation (e.g. twins), low pre-pregnancy weight, tobacco or alcohol use during pregnancy, lack of or inadequate prenatal care, short intervals between pregnancies, previous pregnancy resulting in a low birth weight infant.

Percentage of Live Born Infants With Low Birth Weight, Utah and U.S., 1980-2002

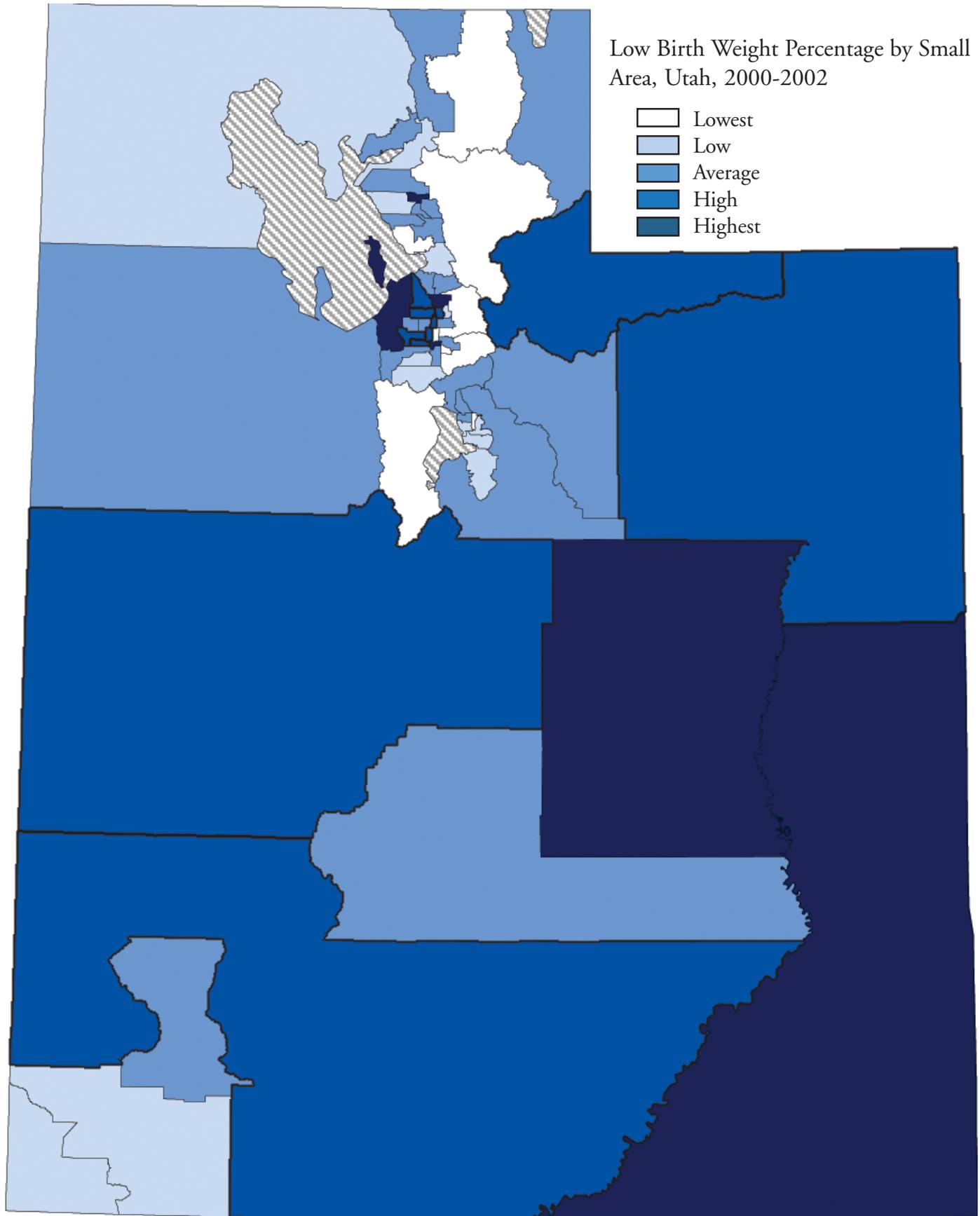


Sources: National Vital Statistics System, National Center for Health Statistics, U.S. Centers for Disease Control and Prevention; Office of Vital Records and Statistics, Utah Department of Health

Note: Low birth weight is defined as less than 2,500 grams (about 5 pounds, 8 ounces). U.S. 2002 data is preliminary.

Low Birth Weight Ranking, 2000-2002	Percent
East Orem	4.8%
Sandy, NE	4.8%
Syracuse/Kaysville	5.1%
Sandy, SE	5.3%
Holladay	5.4%
Lehi/Cedar Valley	5.4%
Morgan/E Weber Co.	5.4%
Murray	5.4%
Logan	5.4%
St. George	5.5%
Farmington/Centerville	5.5%
Provo South	5.6%
Provo/BYU	5.6%
Foothill/U of U	5.6%
South Jordan	5.6%
Springville/Spanish Fork	5.7%
Riverton/Draper	5.7%
Other Washington Co.	5.8%
Roy/Hooper	5.8%
West Orem	5.8%
Other Box Elder Co.	5.8%
Brigham City	5.9%
Other Cache/Rich Co.	5.9%
Riverdale	6.0%
Layton	6.1%
Bountiful	6.2%
Sandy Center	6.3%
Utah Co. South	6.3%
W. Jordan, Copperton	6.4%
Millcreek	6.5%
Woods Cross/No. SL	6.5%
Wasatch Co.	6.5%
North Orem	6.6%
American Fork/Alpine	6.6%
Cottonwood	6.7%
Sevier/Piute/Wayne Co.	6.7%
Cedar City	6.7%
Tooele Co.	6.9%
Clearfield/Hill AFB	7.0%
Pleasant Grove/Lindon	7.0%
South Ogden	7.1%
Ben Lomond	7.1%
West Valley East	7.2%
West Valley West	7.2%
Kearns	7.4%
South Salt Lake	7.5%
TriCounty LHD	7.5%
Downtown Salt Lake	7.5%
Other Southwest Dist	7.5%
Glendale	7.6%
Summit Co.	7.6%
West Jordan No.	7.6%
Juab/Millard/Sanpete Co.	7.7%
Taylorsville	7.8%
Rose Park	8.0%
Midvale	8.2%
Magna	8.2%
Avenues	8.7%
Downtown Ogden	9.4%
Carbon/Emery Co.	9.5%
Grand/San Juan Co.	11.0%

Low Birth Weight



Source: Utah Birth Certificate Database

Low Birth Weight by Small Area Utah, 2000-2002

Rank	Area of Residence	Average Number of Live Births	Low Birth Weight Percentage		
			Average Annual Number of Events	Crude Rates	
				95% Confidence Interval	Lower
	State Total	48,129	3172	6.6%	(6.5% - 6.7%)
22	Brigham City	391	23	5.9%	(4.6% - 7.5%)
18	Other Box Elder Co.	402	23	5.8%	(4.5% - 7.3%)
5	Logan	1,479	80	5.4%	(4.8% - 6.2%)
22	Other Cache/Rich Co.	768	46	5.9%	(5.0% - 7.0%)
41	Ben Lomond	950	68	7.1%	(6.2% - 8.2%)
5	Morgan/East Weber Co.	506	27	5.4%	(4.3% - 6.7%)
59	Downtown Ogden	696	65	9.4%	(8.1% - 10.8%)
41	South Ogden	674	48	7.1%	(6.0% - 8.3%)
18	Roy/Hooper	842	49	5.8%	(4.9% - 6.8%)
24	Riverdale	497	30	6.0%	(4.8% - 7.4%)
39	Clearfield/Hill AFB	1,251	88	7.0%	(6.2% - 7.9%)
25	Layton	1,276	78	6.1%	(5.4% - 7.0%)
3	Syracuse/Kaysville	762	39	5.1%	(4.2% - 6.1%)
10	Farmington/Centerville	427	24	5.5%	(4.3% - 7.0%)
30	Woods Cross/North SL	425	28	6.5%	(5.2% - 8.1%)
26	Bountiful	762	47	6.2%	(5.2% - 7.3%)
55	Rose Park	833	67	8.0%	(6.9% - 9.2%)
58	Avenues	325	28	8.7%	(7.0% - 10.8%)
12	Foothill/U of U	432	24	5.6%	(4.4% - 7.1%)
56	Magna	560	46	8.2%	(6.9% - 9.7%)
50	Glendale	674	51	7.6%	(6.4% - 8.9%)
43	West Valley West	1,507	108	7.2%	(6.4% - 8.0%)
43	West Valley East	1,084	78	7.2%	(6.3% - 8.1%)
46	Downtown Salt Lake	850	64	7.5%	(6.5% - 8.7%)
46	South Salt Lake	558	42	7.5%	(6.2% - 8.9%)
30	Millcreek	1,010	66	6.5%	(5.6% - 7.5%)
5	Holladay	646	35	5.4%	(4.4% - 6.5%)
35	Cottonwood	556	37	6.7%	(5.5% - 8.1%)
45	Kearns	1,426	105	7.4%	(6.6% - 8.2%)
54	Taylorsville	732	57	7.8%	(6.7% - 9.1%)
5	Murray	585	32	5.4%	(4.4% - 6.6%)
56	Midvale	696	57	8.2%	(7.0% - 9.5%)
50	West Jordan No.	1,180	90	7.6%	(6.7% - 8.6%)
29	W. Jordan, Copperton	959	62	6.4%	(5.5% - 7.4%)
12	South Jordan	502	28	5.6%	(4.5% - 7.0%)
27	Sandy Center	1,000	63	6.3%	(5.4% - 7.2%)
1	Sandy, Northeast	283	14	4.8%	(3.5% - 6.6%)
4	Sandy, Southeast	336	18	5.3%	(3.9% - 6.9%)
16	Riverton/Draper	1,523	87	5.7%	(5.1% - 6.5%)
38	Tooele Co.	976	67	6.9%	(5.9% - 7.9%)
5	Lehi/Cedar Valley	1,077	58	5.4%	(4.6% - 6.2%)
33	American Fork/Alpine	892	59	6.6%	(5.7% - 7.7%)
40	Pleasant Grove/Lindon	918	65	7.0%	(6.1% - 8.1%)
33	North Orem	1,030	68	6.6%	(5.7% - 7.5%)
18	West Orem	776	45	5.8%	(4.9% - 6.9%)
1	East Orem	435	21	4.8%	(3.6% - 6.1%)
12	Provo/BYU	1,001	56	5.6%	(4.8% - 6.5%)
12	Provo South	1,829	102	5.6%	(5.0% - 6.2%)
16	Springville/Spanish Fork	1,512	87	5.7%	(5.1% - 6.5%)
27	Utah Co. South	723	46	6.3%	(5.3% - 7.5%)
50	Summit Co.	480	36	7.6%	(6.2% - 9.1%)
30	Wasatch Co.	337	22	6.5%	(5.0% - 8.3%)
46	TriCounty LHD	791	59	7.5%	(6.4% - 8.7%)
53	Juab/Millard/Sanpete Co.	742	57	7.7%	(6.6% - 8.9%)
35	Sevier/Piute/Wayne Co.	391	26	6.7%	(5.3% - 8.4%)
60	Carbon/Emery Co.	472	45	9.5%	(8.0% - 11.3%)
61	Grand/San Juan Co.	351	39	11.0%	(9.1% - 13.2%)
10	St. George	1,017	56	5.5%	(4.7% - 6.4%)
18	Other Washington Co.	848	49	5.8%	(4.9% - 6.8%)
35	Cedar City	677	46	6.7%	(5.7% - 8.0%)
46	Other Southwest Dist.	353	27	7.5%	(6.0% - 9.4%)

Source: Utah Birth Certificate Database

Childhood Poverty

Definition: Percentage of children (aged 17 or under) living below the poverty level.

Healthy People 2010 Goal 2: Eliminate Health Disparities - Income and Education

Why Is It Important?

Poverty in the early years of a child's life, more than at any other time, has especially harmful effects on continuing healthy development and well-being, including developmental delays and infant mortality. Well-being in later childhood, such as teen pregnancy, substance abuse, and educational attainment, are also influenced by early childhood poverty.³⁸

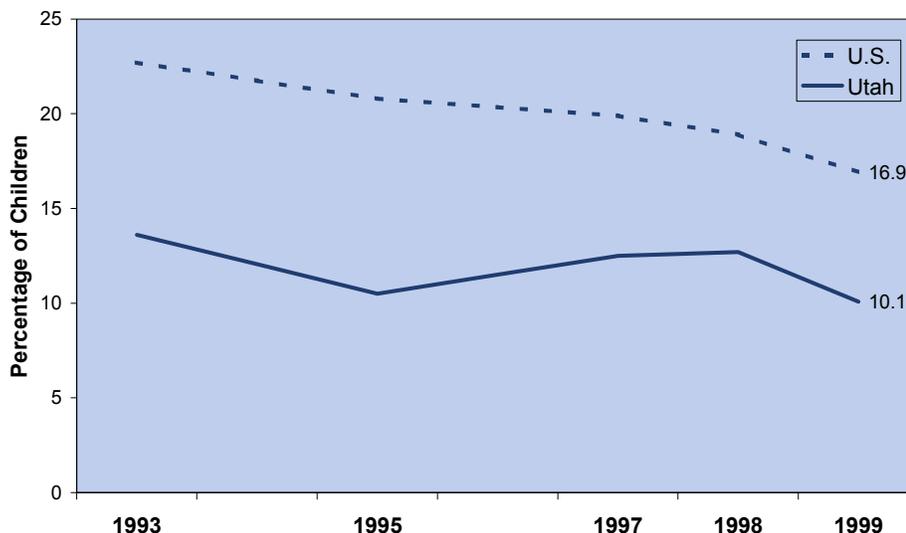
Risk Factors for Childhood Poverty

One of the best ways for adults to avoid poverty is to get a good education. Adolescents who give birth are more likely to live in poverty, as are those with poor geographic access to well-paying jobs.

The association between poverty and health status is probably bi-directional. That is, persons with chronic mental or physical illness are less able to achieve their educational goals and compete for high-paying jobs. At the same time, persons who have lower incomes are less able to afford health care and may have less healthy lifestyles. For example, persons with lower education and income levels are more likely to smoke cigarettes and less likely to get regular exercise. There is also evidence that untreated mental health conditions, such as depression, often leads to both poor physical health and low income and educational attainment.^{4, 39}

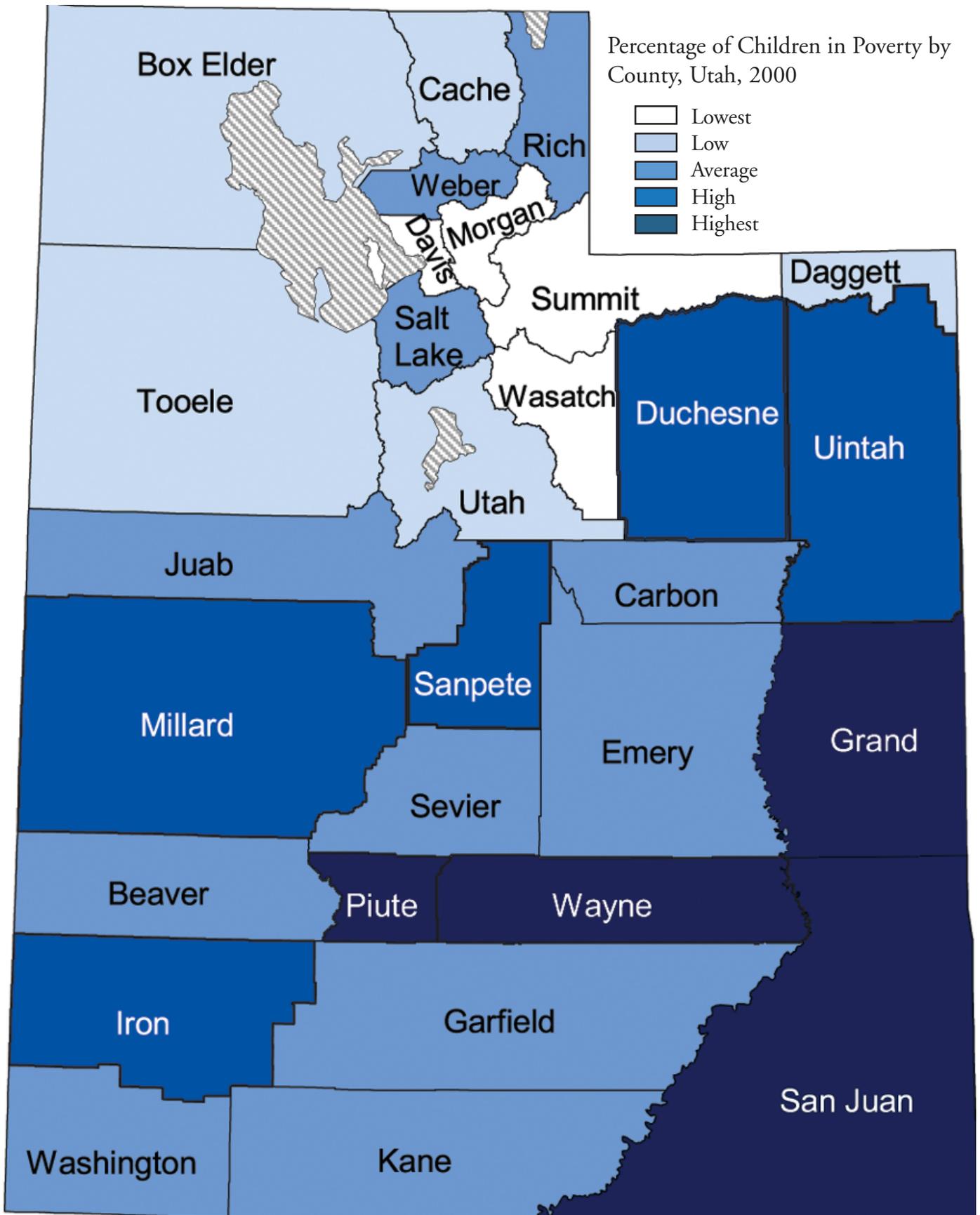
Child Poverty Ranking, 2000	Percent
Morgan	5.5%
Davis	7.1%
Summit	7.3%
Wasatch	8.7%
Daggett	9.1%
Tooele	9.3%
Box Elder	9.5%
Utah	10.0%
Cache	10.4%
Salt Lake	10.6%
Weber	11.9%
Beaver	13.0%
Rich	13.4%
Juab	13.5%
Emery	14.6%
Carbon	16.4%
Sevier	16.4%
Kane	16.5%
Garfield	16.7%
Washington	16.7%
Millard	17.3%
Sanpete	18.1%
Uintah	18.6%
Iron	19.8%
Duchesne	20.2%
Grand	21.3%
Wayne	23.3%
Piute	24.9%
San Juan	26.7%

Percentage of Children Living Below the Poverty Level, Utah and U.S., 1993-1999



Source: U.S. Current Population Survey

Childhood Poverty



Source: U.S. Census Bureau

Child Poverty by County Utah Children Ages 0-17, 2000

Rank	Area of Residence	Child Population (Ages 0-17)	Percentage of Children (Ages 0-17) in Poverty		
			Number of Children	Crude Rates 90% Confidence Interval	
				Lower	Upper
	State Total	707,036	78,481	11.1%	(9.6% - 12.5%)
12	Beaver	1,984	258	13.0%	(9.6% - 16.4%)
7	Box Elder	15,021	1,427	9.5%	(7.2% - 11.9%)
9	Cache	28,076	2,920	10.4%	(7.9% - 12.8%)
16	Carbon	5,432	891	16.4%	(12.2% - 20.6%)
5	Daggett	197	18	9.1%	(6.5% - 11.8%)
2	Davis	82,901	5,886	7.1%	(5.4% - 8.8%)
25	Duchesne	5,019	1,014	20.2%	(15.1% - 25.3%)
15	Emery	3,568	521	14.6%	(10.9% - 18.3%)
19	Garfield	1,431	239	16.7%	(12.0% - 21.4%)
26	Grand	2,211	471	21.3%	(15.6% - 27.1%)
24	Iron	10,393	2,058	19.8%	(14.8% - 24.7%)
14	Juab	3,096	418	13.5%	(10.1% - 16.9%)
18	Kane	1,684	278	16.5%	(11.8% - 21.1%)
21	Millard	4,352	753	17.3%	(12.7% - 21.8%)
1	Morgan	2,509	138	5.5%	(3.9% - 7.1%)
28	Piute	389	97	24.9%	(18.0% - 31.7%)
13	Rich	626	84	13.4%	(9.8% - 17.0%)
10	Salt Lake	269,273	28,543	10.6%	(8.1% - 13.1%)
29	San Juan	5,089	1,359	26.7%	(15.1% - 38.2%)
22	Sanpete	7,209	1,305	18.1%	(13.6% - 22.6%)
16	Sevier	6,170	1,012	16.4%	(12.4% - 20.5%)
3	Summit	8,808	643	7.3%	(5.3% - 9.2%)
6	Tooele	14,602	1,358	9.3%	(7.0% - 11.7%)
23	Uintah	8,338	1,551	18.6%	(14.0% - 23.1%)
8	Utah	127,040	12,704	10.0%	(7.7% - 12.4%)
4	Wasatch	5,356	466	8.7%	(6.4% - 11.1%)
19	Washington	28,221	4,713	16.7%	(12.6% - 20.7%)
27	Wayne	806	188	23.3%	(15.6% - 31.0%)
11	Weber	60,235	7,168	11.9%	(9.1% - 14.7%)

Source: U.S. Census Bureau, Housing and Household Economic Statistics Division, Small Area Estimates Branch

Definition: Estimate of the expected average number years of life based on the current age-specific deaths rates in the population of interest

Healthy People 2010 Goal 1: Increase Quality and Years of Healthy Life - Life Expectancy

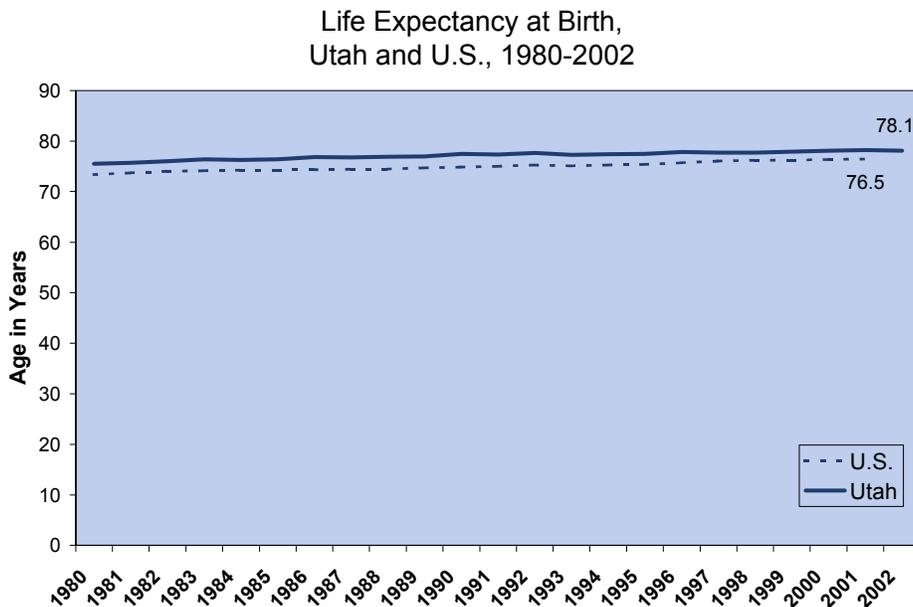
Why Is It Important?

Life expectancy is a measure that is often used to gauge the overall health of a community. Shifts in life expectancy are often used to describe trends in mortality. Being able to predict how populations will age has enormous implications for the planning and provision of services and support. Historically, small increases in life expectancy have translated into large increases in the population. As the life expectancy of a population lengthens, the number of people living with chronic illnesses tends to increase because chronic illnesses are more common among older persons.

Risk Factors for Shortened Life Expectancy

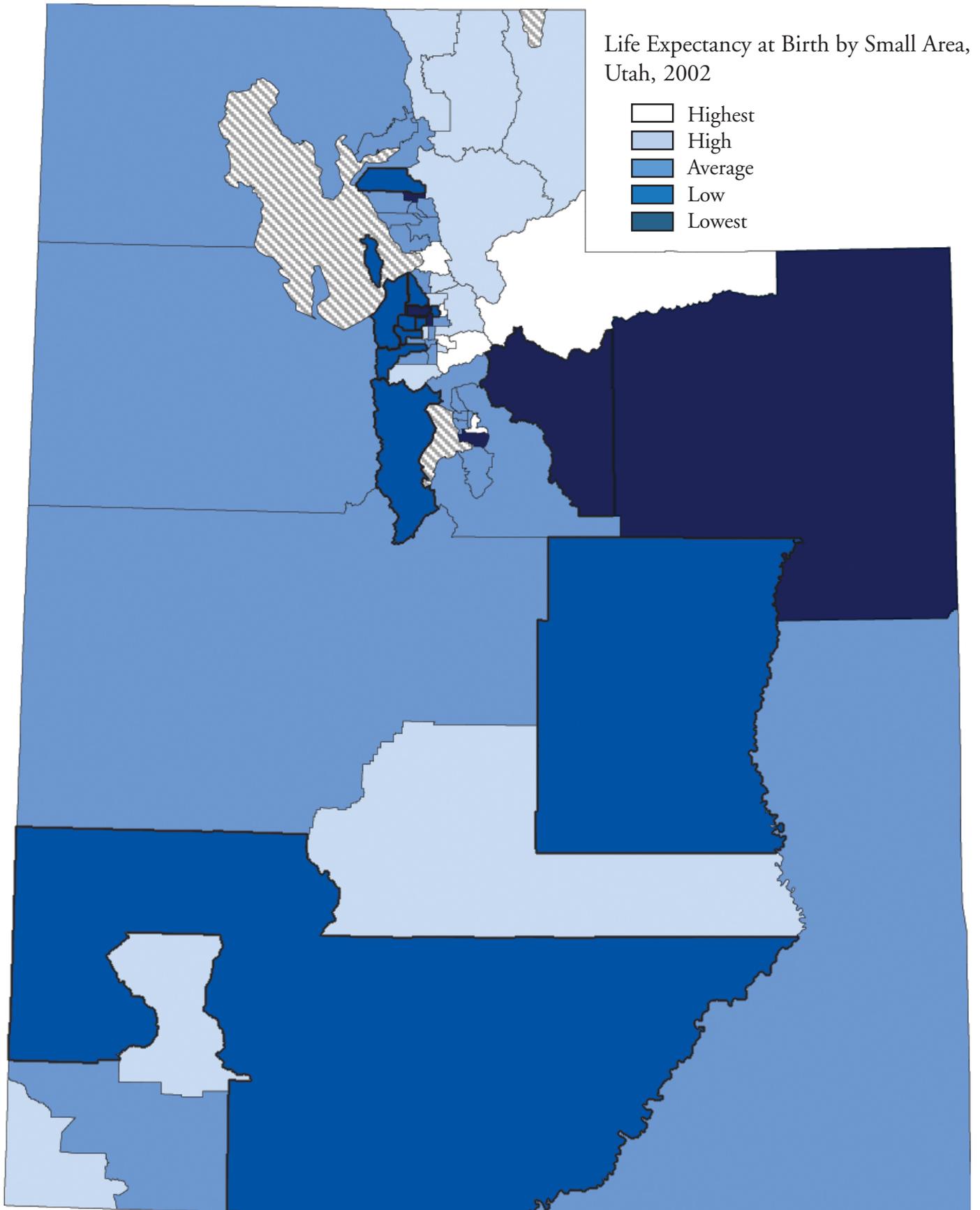
Life expectancy is influenced by mortality rate, and is influenced to a greater degree by death causes that are more common among youth. Leading causes of death in Utah are heart disease (2,874 average annual Utah deaths 1999-2002) and cancer (2,352 deaths), followed by stroke (902 deaths), unintentional injury (656 deaths), chronic lower respiratory diseases (553 deaths), diabetes (505 deaths), influenza and pneumonia (402 deaths), and suicide (307 deaths).

Life Expectancy Ranking, 2002	Years
Summit Co.	82.1
Foothill/U of U	81.4
Sandy, SE	81.3
Provo/BYU	80.6
Cottonwood	80.6
Farmington/Centerville	80.5
Sevier/Piute/Wayne Co.	80.4
Riverton/Draper	80.0
Morgan/E Weber Co.	79.9
Logan	79.8
Bountiful	79.7
Sandy, NE	79.7
Holladay	79.7
St. George	79.7
Cedar City	79.6
Avenues	79.5
Taylorsville	79.5
Other Cache/Rich Co.	79.3
Midvale	79.2
Syracuse/Kaysville	79.2
East Orem	79.0
Roy/Hooper	78.8
Woods Cross/No. SL	78.8
South Jordan	78.7
West Orem	78.6
North Orem	78.5
American Fork/Alpine	78.4
Utah Co. South	78.3
South Ogden	78.2
Springville/Spanish Fork	78.1
Pleasant Grove/Lindon	78.1
Other Box Elder Co.	78.0
Layton	78.0
Grand/San Juan Co.	77.8
Millcreek	77.7
Brigham City	77.7
Other Washington Co.	77.5
Juab/Millard/Sanpete Co.	77.4
Clearfield/Hill AFB	77.3
Sandy Center	77.2
West Jordan No.	77.2
Murray	77.1
Tooele Co.	76.8
Riverdale	76.8
Ben Lomond	76.7
W. Jordan, Copperton	76.7
West Valley East	76.2
Downtown Salt Lake	76.2
Other Southwest Dist.	76.2
Carbon/Emery Co.	76.1
West Valley West	76.1
Kearns	75.9
Lehi/Cedar Valley	75.9
Rose Park	75.7
Magna	75.6
TriCounty LHD	75.4
Provo South	74.9
Downtown Ogden	74.6
Wasatch Co.	74.4
Glendale	72.8
South Salt Lake	70.1



Sources: Utah Governor's Office of Planning and Budget; Office of Vital Records and Statistics, Utah Department of Health; U.S. Centers for Disease Control and Prevention, on-line data - CDC WONDER; National Vital Statistics System, National Center for Health Statistics, U.S. Centers for Disease Control and Prevention
 Note: Reed-Merrill method was used to compute life expectancy. Age adjusted to U.S. 2000 standard population.

Life Expectancy at Birth



Source: Utah Death Certificate Database and Utah's Office of Planning and Budget

Life Expectancy at Birth by Small Area Utah, 2002

Rank	Area of Residence	Population	Average Years of Life
	State Total	2,321,698	78.1
35	Brigham City	21,614	77.7
32	Other Box Elder Co.	22,069	78.0
10	Logan	60,674	79.8
18	Other Cache/Rich Co.	36,719	79.3
45	Ben Lomond	44,982	76.7
9	Morgan/East Weber Co.	33,159	79.9
58	Downtown Ogden	28,226	74.6
29	South Ogden	34,582	78.2
22	Roy/Hooper	40,655	78.8
43	Riverdale	25,427	76.8
39	Clearfield/Hill AFB	54,347	77.3
32	Layton	64,771	78.0
19	Syracuse/Kaysville	37,638	79.2
6	Farmington/Centerville	28,324	80.5
22	Woods Cross/North SL	19,726	78.8
11	Bountiful	45,201	79.7
54	Rose Park	32,837	75.7
16	Avenues	21,784	79.5
2	Foothill/U of U	23,261	81.4
55	Magna	23,560	75.6
60	Glendale	26,951	72.8
50	West Valley West	67,669	76.1
47	West Valley East	49,038	76.2
47	Downtown Salt Lake	50,365	76.2
61	South Salt Lake	24,548	70.1
35	Millcreek	56,958	77.7
11	Holladay	44,635	79.7
4	Cottonwood	43,477	80.6
52	Kearns	65,582	75.9
16	Taylorsville	38,709	79.5
42	Murray	30,888	77.1
19	Midvale	28,681	79.2
40	West Jordan No.	45,045	77.2
45	W. Jordan, Copperton	43,428	76.7
24	South Jordan	33,179	78.7
40	Sandy Center	51,958	77.2
11	Sandy, Northeast	24,726	79.7
3	Sandy, Southeast	30,711	81.3
8	Riverton/Draper	65,929	80.0
43	Tooele Co.	45,617	76.8
52	Lehi/Cedar Valley	27,871	75.9
27	American Fork/Alpine	40,811	78.4
30	Pleasant Grove/Lindon	39,463	78.1
26	North Orem	35,321	78.5
25	West Orem	30,512	78.6
21	East Orem	22,860	79.0
4	Provo/BYU	48,276	80.6
57	Provo South	57,655	74.9
30	Springville/Spanish Fork	61,342	78.1
28	Utah Co. South	27,082	78.3
1	Summit Co.	31,986	82.1
59	Wasatch Co.	16,604	74.4
56	TriCounty LHD	42,092	75.4
38	Juab/Millard/Sanpete Co.	45,132	77.4
7	Sevier/Piute/Wayne Co.	23,139	80.4
50	Carbon/Emery Co.	30,640	76.1
34	Grand/San Juan Co.	22,760	77.8
11	St. George	55,233	79.7
37	Other Washington Co.	43,558	77.5
15	Cedar City	29,650	79.6
47	Other Southwest Dist.	22,061	76.2

Note: Reed-Merrill method was used to compute life expectancy.

Source: Utah Death Certificate Database and the Governor's Office of Planning and Budget

Poor Physical Health Days

Definition: Percentage of adults aged 18 years and older who reported seven or more days when physical health was not good in the past 30 days.

Healthy People 2010 Goal 1: Increase Quality and Years of Healthy Life - Quality of Life

Why Is It Important?

General physical health status is the culmination of all the things that affect a person's health. A person may have had poor health because of an injury, an acute infection such as a cold or flu, or a chronic health problem. This measure can be used to identify health disparities, track population trends, plan public health programs, and measure progress at the state level toward the two major goals of Healthy People 2010: Improving the Quality and Years of Healthy Life and Eliminating Health Disparities.

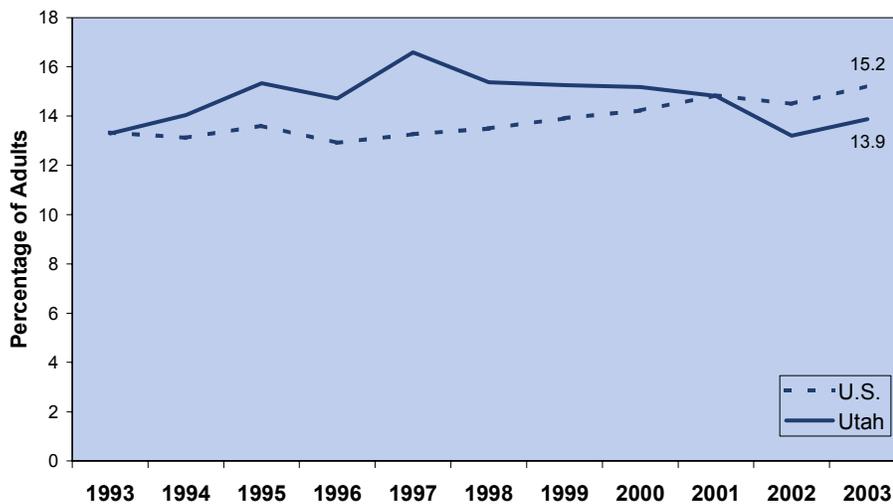
Poor Phys. Health Days Ranking, 2001-2003	Percent*
Wasatch	10.2%
Davis	11.2%
Utah	12.3%
Summit	12.5%
Bear River	13.1%
Salt Lake	14.3%
Weber-Morgan	14.7%
Tooele	14.9%
TriCounty	15.0%
Southwest	15.9%
Central	16.8%
Southeastern	18.2%

* Age adjusted percentages.

Risk Factors for Poor Physical Health Days

Poor health status is related to many of the risk factors for disease and injury such as overweight/obesity, physical inactivity, smoking, and lack of immunization.

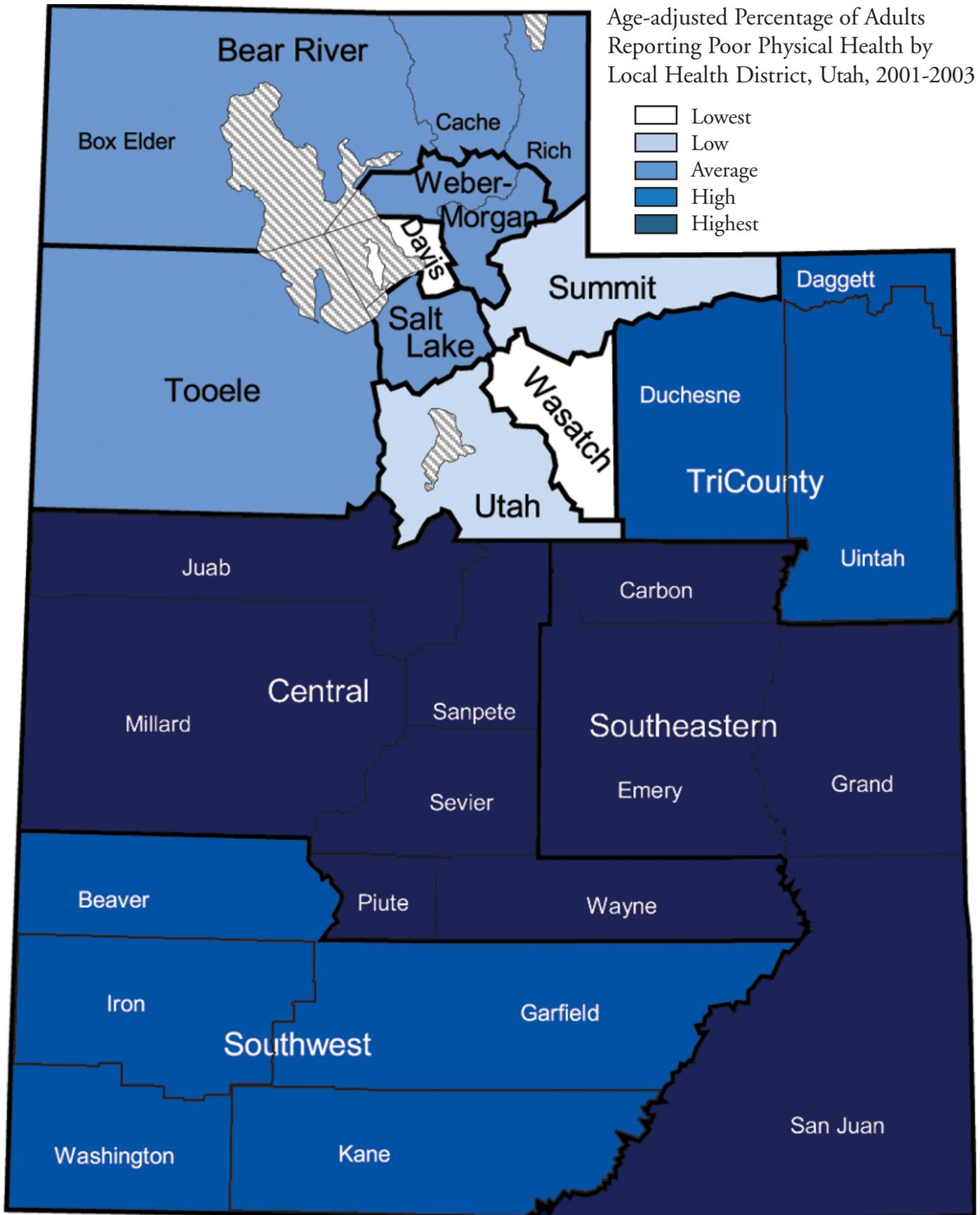
Percentage of Adults Who Reported 7+ Days Physical Health Not Good in the Past 30 Days, Utah and U.S., 1993-2003



Sources: Utah Data: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health; U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS)

Note: Age adjusted to U.S. 2000 standard population. This question was asked all years from 1993-2001 in Utah and the U.S. In 2002, Utah and 22 other states asked the question. U.S. data are the average for all states and the District of Columbia; they do not include the U.S. territories.

Poor Physical Health Days



Source: Utah Death Certificate Database

Poor Physical Health Days

Self-reported Poor Physical Health Days by Local Health District Utah Adults Ages 18 and Over, 2001-2003

Rank	Area of Residence	Average Adult Population (Ages 18+)	Percentage of Adults Ages 18+ Reporting 7 or More Days in the Past 30 When Their Physical Health Was Not Good			
			Average Annual Number of Adults		Age Adjusted Rates*	
			Crude Rates		95% Confidence Interval	
					Lower	Upper
	State Total	1,588,190	208,290	13.1%	13.9%	(13.1% - 14.7%)
5	Bear River	95,435	11,871	12.4%	13.1%	(10.4% - 15.7%)
11	Central	45,566	7,369	16.2%	16.8%	(14.0% - 19.5%)
2	Davis	164,964	15,868	9.6%	11.2%	(8.5% - 13.8%)
6	Salt Lake	646,050	88,353	13.7%	14.3%	(12.9% - 15.8%)
12	Southeastern	36,642	6,647	18.1%	18.2%	(15.4% - 21.1%)
10	Southwest	104,390	16,741	16.0%	15.9%	(13.1% - 18.7%)
4	Summit	22,982	2,646	11.5%	12.5%	(9.2% - 15.8%)
8	Tooele	30,286	4,179	13.8%	14.9%	(11.9% - 17.9%)
9	TriCounty	27,944	4,064	14.5%	15.0%	(12.3% - 17.7%)
3	Utah	258,294	28,896	11.2%	12.3%	(10.1% - 14.5%)
1	Wasatch	11,201	1,126	10.1%	10.2%	(7.8% - 12.6%)
7	Weber-Morgan	144,437	20,475	14.2%	14.7%	(12.1% - 17.3%)

* Percentages have been age adjusted to the U.S. 2000 standard population.

Source: Utah Behavioral Risk Factor Surveillance System

Technical Notes

Definitions of Measures

Injury and Violence

Motor Vehicle Traffic Crash Deaths

Source: Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health.

Definition: Number of motor vehicle traffic crash deaths per 100,000 population.

Numerator: Number of Utah resident deaths due to motor vehicle crashes (ICD-9 codes E810-E819; ICD-10 codes V02-V04 [.1-.9], V09.2, V12-14 [.3-.9], V19 [.4-.6], V20-V28 [.3-.9], V29-V79 [.4-.9], V80 [.3-.5], V81-V82 [.1], V83-V86 [.0-.3], V87 [.0-.8], V89.2).

Denominator: Total number of Utah residents.

Notes: ICD-9 and ICD-10 adjusted for comparability. Age adjusted to U.S. 2000 standard population.

Homicide

Source: Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health.

Definition: Number of homicide deaths per 100,000 population.

Numerator: Number of Utah resident deaths due to homicides (ICD-9 codes E960-E969; ICD-10 codes X85-Y09, Y87.1).

Denominator: Total number of Utah residents.

Notes: Does NOT include legal intervention. ICD-9 and ICD-10 adjusted for comparability. Age adjusted to U.S. 2000 standard population.

Unintentional Injury Deaths

Source: Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health.

Definition: Number of unintentional injury deaths per 100,000 population.

Numerator: Number of Utah resident deaths due to unintentional injuries (ICD-9 codes E800-E869, E880-E929; ICD-10 codes V01-X59, Y85-Y86).

Denominator: Total number of Utah residents.

Notes: ICD-9 and ICD-10 adjusted for comparability. Age adjusted to U.S. 2000 standard population.

Mental Health

Suicide

Source: Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health.

Definition: Number of suicide deaths per 100,000 population.

Numerator: Number of Utah resident deaths due to intentional self-inflicted injury (ICD-9 codes E950-E959; ICD-10 codes X60-X84, Y87.0).

Denominator: Total number of Utah residents.

Notes: ICD-9 and ICD-10 adjusted for comparability. Age adjusted to U.S. 2000 standard population.

Poor Mental Health Days

Source: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health.

Definition: Percentage of adults aged 18 years and older who reported poor mental health days.

Numerator: Number of Utah resident survey respondents who reported seven or more days when their mental health was not good in the past 30 days.

Denominator: Total number of Utah resident survey respondents excluding those with missing, “Don’t know/ Not sure,” and “Refused” responses.

Technical Notes

Question Text: “Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health NOT good?”

Note: Age adjusted to U.S. 2000 standard population.

Lifestyle Risk

Cigarette Smoking

Source: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health.

Definition: Percentage of adults aged 18 years and older who reported cigarette smoking.

Numerator: Number of Utah resident survey respondents who have smoked at least 100 cigarettes in their lifetime and who now report smoking cigarettes every day or some days.

Denominator: Total number of Utah resident survey respondents excluding those with missing, “Don’t know/ Not sure,” and “Refused” responses.

Question Text: “Have you smoked at least 100 cigarettes in your entire life? Do you now smoke cigarettes every day, some days, or not at all?”

Note: Age adjusted to U.S. 2000 standard population.

Overweight or Obese

Source: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health.

Definition: Percentage of adults aged 18 years and older who were overweight or obese.

Numerator: Number of Utah resident survey respondents who had a body mass index (BMI) greater than or equal to 25.

Denominator: Total number of Utah resident survey respondents for whom BMI can be calculated from their self-reported weight and height (excludes unknowns or refusals for weight and height).

Question Text: “About how much do you weigh without shoes? About how tall are you without shoes?”

Notes: BMI is calculated by dividing weight in kilograms by the square of height in meters. Age adjusted to U.S. 2000 standard population.

Regular Physical Activity

Source: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health.

Definition: Percentage of adults aged 18 and older who reported regular physical activity.

Numerator: Number of Utah resident survey respondents who reported participating in moderate or vigorous physical activity.

Denominator: Total number of Utah resident survey respondents excluding those with missing, “Don’t know/ Not sure,” and “Refused” responses.

Note: Regular physical activity is defined by BRFSS definition of moderate physical activity for at least 30 minutes per day and five days a week OR vigorous physical activity for at least 20 minutes per day and three days a week.

Binge Drinking

Source: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health.

Definition: Percentage of adults aged 18 years and older who reported binge drinking during the 30 days prior to the survey.

Numerator: Number of Utah resident survey respondents who reported having 5 or more drinks on one occasion during the 30 days prior to the survey.

Denominator: Total number of Utah resident survey respondents excluding those with missing, “Don’t know/Not sure,” or “Refused” responses.

Question Text: “Considering all types of alcoholic beverages, how many times during the past 30 days did you have 5 or more drinks on an occasion?”

Binge Drinking Among Adolescents

Source: Utah Youth Risk Behavior Surveillance System, Utah State Office of Education.

Definition: Percentage of high school students who reported binge drinking during the past 30 days.

Numerator: Number of Utah resident high school survey respondents who reported using having 5 or more drinks of alcohol in a row during the past 30 days.

Denominator: Total number of Utah resident high school survey respondents excluding those with missing, “Don’t know/Not sure,” or “Refused” responses.

Question Text: “During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?”

Responsible Sexual Behavior

HIV/AIDS

Source: HIV/AIDS Surveillance Program, Utah Department of Health.

Definition: Number of people believed to be living with HIV or AIDS per 100,000 population.

Numerator: Number of Utah residents believed to be living with HIV or AIDS.

Denominator: Total number of Utah residents.

Unintended Pregnancies

Source: Utah Pregnancy Risk Assessment Monitoring System (PRAMS), Utah Department of Health.

Definition: Percentage of women with live births who reported their most recent pregnancy was unintended.

Numerator: Number of Utah survey respondents who reported unintended births.

Denominator: Total number of Utah survey respondents.

Question Text: “Thinking back to just before you got pregnant, how did you feel about becoming pregnant?”

Adolescent Births

Source: Utah Birth Certificate Database, Office of Vital Records and Statistics, Utah Department of Health.

Definition: Number of live births per 1,000 adolescent females.

Numerator: Number of live births to Utah resident adolescent females aged 15-17.

Denominator: Total number of Utah resident adolescent females aged 15-17.

Note: The adolescent birth rate does not include abortions or miscarriages, and is an underestimate of the adolescent pregnancy rate.

Syphilis

Source: Bureau of Communicable Disease Control, Utah Department of Health.

Definition: Number of newly reported cases of primary and secondary syphilis per 100,000 population.

Numerator: Number of newly reported Utah cases of primary and secondary syphilis.

Denominator: Total number of Utah residents.

Chlamydia

Source: Bureau of Communicable Disease Control, Utah Department of Health.

Definition: Number of newly reported cases of chlamydia per 100,000 population.

Technical Notes

Numerator: Number of newly reported Utah cases of chlamydia.

Denominator: Total number of Utah residents.

Gonorrhea

Source: Bureau of Communicable Disease Control, Utah Department of Health.

Definition: Number of newly reported cases of gonorrhea per 100,000 population.

Numerator: Number of newly reported Utah cases of gonorrhea.

Denominator: Total number of persons in Utah.

Environmental Quality

Air Quality

Source: U.S. Environmental Protection Agency (EPA), Office of Air and Radiation, AIRS data.

Definition: Number of exceedences of the EPA health-based standards for Ozone, Particulate Matter, Carbon Monoxide, Sulfur Dioxide, Nitrogen Dioxide, and Lead.

Notes: An “exceedence” is a day on which the air content exceeded the criterion for that pollutant at any of Utah’s air monitoring stations. The health-based standards for the six criteria pollutants are:

Ozone - ozone level was >0.12 parts per million (ppm) on any hour of the day.

Carbon Monoxide - CO level was >35 parts per million (ppm) on any hour of the day.

Nitrogen Dioxide - NO₂ level was >0.053 parts per million (ppm) annual arithmetic mean.

Sulfur Dioxide - SO₂ level was >.14 parts per million (ppm) in 24 hour period.

Particulate Matter - PM₁₀ was >150 micrograms per cubic meter in 24 hour period.

Lead - Lead was =>1.5 micrograms per cubic meter as a quarterly average.

The number and location of monitoring stations across Utah changes over time in response to both scientific and political influences. Currently in 2002, there are 25 monitoring stations. Some stations measure several criteria pollutants and others are dedicated to a single pollutant. The monitor locations may be found at:

www.deq.state.ut.us/EQAMC/utahmap.htm.

Childhood Exposure to Secondhand Smoke

Source: Utah Health Status Survey, Office of Public Health Assessment, Utah Department of Health.

Definition: Percentage of children aged 17 and under who were exposed to tobacco smoke inside the home during the month prior to the survey.

Numerator: Number of Utah resident children aged 17 and under in survey sample who lived in households in which one or more household members smoked tobacco inside the home during the month prior to the survey.

Denominator: Total number of Utah resident children aged 17 and under in survey sample.

Question Text: “The next few questions ask about cigarette smoking. In the past 30 days has anyone, including yourself, smoked cigarettes, cigars, or pipes **anywhere inside your home**? On how many of the past 30 days has someone, including yourself, smoked cigarettes, cigars, or pipes anywhere inside your home?”

Note: Health Status Survey data were weighted to reflect the Utah population distribution by age, sex, Hispanic status, and geographic area.

Foodborne Illness: *Salmonella*

Source: Communicable Disease Epidemiology Program, Utah Department of Health.

Definition: Number of culture-confirmed cases of illness caused by *Salmonella* species per 100,000 population.

Numerator: Number of culture-confirmed Utah cases of illness caused by *Salmonella* species.

Denominator: Total number of Utah residents.

Foodborne Illness: *E. Coli* O157:H7

Source: Communicable Disease Epidemiology Program, Utah Department of Health.

Definition: Number of infections caused by *Escherichia coli* 0157:H7 per 100,000 population.

Numerator: Number of Utah cases of *Escherichia coli* O157:H7 during the calendar year.

Denominator: Total number of Utah residents.

Immunization

Childhood Immunization 4:3:1:3:3

Source: National Immunization Survey, National Center for Health Statistics, U.S. Centers for Disease Control and Prevention.

Definition: Percentage of children aged 19-35 months who received the recommended vaccines (4 doses of DTaP, 3 polio, 1 MMR, 3 Hib, 3 hepatitis B).

Numerator: Number of Utah children aged 19-35 months in survey sample receiving at least 4 doses of DTaP, at least 3 doses of polio, at least 1 dose of MMR, at least 3 doses of Hib, and at least 3 doses of hepatitis B antigens.

Denominator: Total number of Utah children aged 19-35 months.

Question Text: "Looking at the shot record, please tell me how many times the child has received: 1) a D-T-P, D-T-A-P, pertussis shot, baby shot, or three-in-one shot; 2) a polio vaccine --pink drops, sometimes called O-P-V; 3) a measles shot or an M-M-R shot, that is, a measles, mumps, and rubella shot; 4) an H-I-B shot; 5) a hepatitis B shot."

Adult Influenza Immunization

Source: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health.

Definition: Number of adults aged 65+ who report receiving an influenza vaccination in the past 12 months.

Numerator: Number of Utah survey respondents aged 65+ who report receiving an influenza vaccination in the past 12 months.

Denominator: Total number of Utah survey respondents aged 65+.

Question Text: "During the past 12 months, have you had a flu shot?"

Note: Age adjusted to U.S. 2000 standard population.

Access to Health Care

Health Insurance Coverage

Data Source: Utah Health Status Survey, Office of Public Health Assessment, Utah Department of Health.

Definition: Percentage of Utahns without health insurance coverage at the time of the survey interview.

Numerator: Number of Utah residents in the survey sample who lacked health insurance coverage at the time of the interview.

Denominator: Total number of Utah residents in the survey sample.

2001 Question Text: "Are [any of the members of your household/you] currently covered by health insurance?" (This measure is based on a group of questions asked of respondents.)

Note: Health Status Survey data were weighted to reflect the Utah population distribution by age, sex, Hispanic status, and geographic area. Health insurance was defined as including Medicaid, Medicare, and other government programs.

Prenatal Care

Source: Office of Vital Records and Statistics, Utah Department of Health.

Definition: Percentage of live born infants where prenatal care was reported to have been received in the first trimester.

Technical Notes

Numerator: Number of infants born to Utah women receiving prenatal care in the first trimester.

Denominator: Total number of Utah live births. (Births where prenatal care was unreported were counted in the denominator.)

Asthma Hospitalization Among Children

Source: Utah Inpatient Hospital Discharge Data, Office of Health Care Statistics, Utah Department of Health.

Definition: Number of hospitalizations among persons aged 17 years or younger with asthma as the principal diagnosis per 10,000 population.

Numerator: Number of hospitalizations among Utah children aged 0-17 with asthma (ICD-9 code 493) as the principal diagnosis.

Denominator: Total number of Utah children aged 0-17.

Notes: The primary diagnosis is the first-listed diagnosis on the discharge record. It does not necessarily indicate the primary reason for the hospitalization. Age adjusted to U.S. 2000 standard population.

Diabetes Hospitalization Among Adults

Source: Utah Inpatient Hospital Discharge Data, Office of Health Care Statistics, Utah Department of Health.

Definition: Number of hospital discharges for uncontrolled diabetes as the principal diagnosis per 10,000 population among adults aged 18-64.

Numerator: Number of hospitalizations among Utah residents aged 18 to 64 years with acute diabetes complications (e.g., ketoacidosis, diabetic coma, or hyperosmolarity) as the first-listed (principal) diagnosis (ICD-9 codes 250.02-250.03, 250.10-250.13, 250.20-250.23, 250.30-250.33).

Denominator: Total number of Utah residents aged 18 to 64.

Notes: The primary diagnosis is the first-listed diagnosis on the discharge record. It does not necessarily indicate the primary reason for the hospitalization. Age adjusted to U.S. 2000 standard population.

Pneumonia/Influenza Hospitalization Among Seniors

Source: Utah Inpatient Hospital Discharge Data, Office of Health Care Statistics, Utah Department of Health.

Definition: Number of hospitalizations among persons aged 65 years or older with preventable pneumonia or influenza as the first-listed diagnosis per 10,000 population.

Numerator: Number of hospitalizations among Utah residents aged 65 years or older with preventable pneumonia or influenza as the first-listed (principal) diagnosis (ICD-9 codes 481 or 487).

Denominator: Total number of Utah residents aged 65 years or older.

Notes: The primary diagnosis is the first-listed diagnosis on the discharge record. It does not necessarily indicate the primary reason for the hospitalization.

Regular Source of Care

Source: Utah Health Status Survey, Office of Public Health Assessment, Utah Department of Health.

Definition: Percentage of persons who reported having a specific source of primary care, where they go if they are sick or need advice about their health.

Numerator: Number of Utah residents interviewed for the survey who reported that they had a specific place where they go for primary health care.

Denominator: Total number of Utah residents interviewed during the same survey period.

2001 Question Text: "Thinking about medical visits, is there a USUAL place that you go when you are sick or need advice about your health?"

Notes: A hospital emergency room is not included as a specific source of primary care. Health Status Survey data were weighted to reflect the Utah population distribution by age, sex, Hispanic status, and geographic area.

Mammography

Source: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health.

Definition: Percentage of women 40 years or older who reported having a mammogram in the last two years.

Numerator: Number of Utah female survey respondents aged 40 and older who report having a mammogram in the past two years.

Denominator: Total number of Utah female survey respondents aged 40 and older.

Question Text: “A mammogram is an x-ray of each breast to look for breast cancer. Have you ever had a mammogram? How long has it been since you had your last mammogram?”

Note: Age adjusted to U.S. 2000 standard population.

Chronic Conditions

Coronary Heart Disease Deaths

Source: Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health.

Definition: Number of coronary heart disease (CHD) related deaths per 100,000 population.

Numerator: Number of Utah resident deaths with CHD (ICD-9 codes 402, 410-414, 429.2; ICD-10 codes I20-I25, I11) as the underlying cause of death.

Denominator: Total number of Utah residents.

Notes: The coding of death from CHD, especially use of 429.2 - “cardiovascular disease, unspecified” - varies geographically. Historically, epidemiologists have used both groups of ICD-9 rubrics to monitor CHD deaths. This has created differences in published mortality measures. To facilitate comparison with historical rates, both groups of codes are recommended as a chronic disease indicator. ICD-9 and ICD-10 adjusted for comparability. Age adjusted to U.S. 2000 standard population.

Stroke Deaths

Source: Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health.

Definition: Number of stroke deaths per 100,000 population.

Numerator: Number of deaths due to stroke (ICD-9 codes 430-438; ICD-10 codes I60-I69) among Utah residents.

Denominator: Total number of Utah residents.

Notes: ICD-9 and ICD-10 adjusted for comparability. Age adjusted to U.S. 2000 standard population.

All Cancer Deaths

Source: Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health.

Definition: Number of deaths from all cancers per 100,000 population.

Numerator: Number of Utah resident deaths due to cancer (ICD-9 codes 140-208; ICD-10 codes C00-C97).

Denominator: Total number of Utah residents.

Notes: ICD-9 and ICD-10 adjusted for comparability. Age adjusted to U.S. 2000 population.

Lung Cancer Deaths

Source: Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health.

Definition: Number of deaths from lung cancer per 100,000 population.

Numerator: Number of deaths due to lung cancer (ICD-9 code 162; ICD-10 codes C33-C34) among Utah residents.

Denominator: Total number of Utah residents.

Notes: ICD-9 and ICD-10 adjusted for comparability. Age adjusted to U.S. 2000 standard population.

Female Breast Cancer Deaths

Source: Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health.

Definition: Number of deaths from cancer of the breast per 100,000 female population.

Technical Notes

Numerator: Number of deaths due to breast cancer (ICD-9 code 174; ICD-10 code C50) among Utah women.

Denominator: Total number of Utah females.

Notes: ICD-9 and ICD-10 adjusted for comparability. Age adjusted to U.S. 2000 standard population.

Colorectal Cancer Deaths

Source: Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health.

Definition: Number of deaths from cancer of the colon or rectum per 100,000 population.

Numerator: Number of deaths due to colorectal cancer (ICD-9 codes 153, 154; ICD-10 codes C18-21) among Utah residents.

Denominator: Total number of Utah residents.

Notes: ICD-9 and ICD-10 adjusted for comparability. Age adjusted to U.S. 2000 standard population.

Hepatitis A

Source: Communicable Disease Epidemiology Program, Utah Department of Health.

Definition: Number of reported hepatitis A cases per 100,000 population.

Numerator: Number of reported Utah hepatitis A cases.

Denominator: Total number of Utah residents.

Tuberculosis

Source: Bureau of Communicable Disease Control, Utah Department of Health.

Definition: Number of cases of reported tuberculosis per 100,000 population.

Numerator: Number of reported Utah tuberculosis cases.

Denominator: Total number of Utah residents.

Note: The most common site of infection is the lung, but other organs may be involved.

Healthy Births

Infant Deaths

Source: Office of Vital Records and Statistics, Utah Department of Health.

Definition: Number of infants who died before their first birthday per 1,000 live births.

Numerator: Number of Utah infants who died before their first birthday (under 365 days), after being born alive.

Denominator: Total number of Utah live births.

Low Birth Weight

Source: Office of Vital Records and Statistics, Utah Department of Health.

Definition: Percentage of live-born infants weighing less than 2500 grams (about 5.5 pounds).

Numerator: Number of Utah live-born infants weighing under 2500 grams.

Denominator: Total number of Utah live births.

Children in Poverty

Childhood Poverty

Source: U.S. Current Population Survey.

Definition: Percentage of children (aged 17 or under) living below the poverty level.

Numerator: Number of Utah children (aged 17 or under) living below 100% of the Federal Poverty Level (FPL).

Denominator: Total number of Utah children (aged 17 or under).

Notes: Estimates for persons in poverty come from both the decennial census every ten years, and from the

Census Bureau's Current Population Survey (CPS) every year. CPS data for the U.S. and states for all persons

for every year may be obtained from direct survey estimates, but data on children, and at the county level, must be estimated from a statistical model. The county numbers presented here are numbers from that model, and are not necessarily identical to estimates that come directly from the CPS or the U.S. decennial census. The FPL depends on a family's income and the number of persons in the family, and is established annually by the U.S. Department of Health and Human Services.

Overall Health Status

Life Expectancy at Birth

Source: Office of Vital Records and Statistics, Utah Department of Health.

Definition: Estimate of the expected average number of years of life based on their current age and current age-specific death rates.

Note: The Reed-Merrill method was used to compute life expectancy.

Poor Physical Health Days

Source: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health.

Definition: Percentage of adults aged 18 years and older who reported poor physical health.

Numerator: Number of Utah survey respondents who reported seven or more days when their physical health was not good in the past 30 days.

Denominator: Total number of Utah survey respondents excluding those with missing, "Don't know/Not sure," or "Refused" responses.

Question Text: "Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health good?"

Note: Age adjusted to U.S. 2000 standard population.

Age-Adjusted Rates

A crude rate is a valuable measure, but can be problematic when comparing rates for different populations. The crude mortality rate for a population depends on the rate in each age group as well as on the proportion of people in each age group. Therefore, the crude rate for most causes of death will be higher in populations with a large proportion of elderly individuals, and lower in populations with a large proportion of young individuals (as in Utah). One way to compare two populations is to compare the age-specific rates, but that may be cumbersome.

An adjusted rate is an overall summary measure that helps control for demographic differences between populations. The most commonly used adjusted rate is the age-adjusted rate, which controls for age differences between two or more populations. When comparing across geographic areas, some method of age adjusting is typically used to control for area-to-area differences in health events that can be explained by differing age distributions of the area populations. For example, an area that has an older population will have higher crude (not age adjusted) rates for cancer, even though its exposure levels and cancer rates for specific age groups are the same as those of other areas. One might incorrectly attribute the high cancer rates to some characteristic of the area other than age. Age-adjusted rates control for age effects, allowing better comparability of rates across areas. Age adjustment may also be used to control for age effects when comparing across several years of data, as the age distribution of the population changes over time.

Direct standardization adjusts the age-specific rates observed in the small area to the age distribution of a standard population.⁴⁰ Indirect standardization is based on standard mortality and morbidity ratios (SMR), and adjusts the age-specific rates found in the standard population to the age distribution of the small area or subpopulation.

In 1998, the Centers for Disease Control and Prevention released new standard population weights for age adjustment, replacing the 1940 U.S. standard population weights that had been used for the previous several decades. The table to the right contains the standard population weights published by the CDC. They represent the proportion of the U.S. 2000 population in each age group, and sum to 1.0. Only rates adjusted to the same standard population can be compared. For instance, you may not compare rates age adjusted using the U.S. 1940 standard population with rates that were age adjusted using the U.S. 2000 population.

Master List: 2000 U.S. Projected Population and Age Adjustment Weights

Age	Population in Thousands	Adjustment Weight
All Ages	274,634	1.000000
Under 1 Year	3,795	0.013818
1 Year	3,759	0.013687
2–4 Years	11,433	0.041630
5 Years	3,896	0.014186
6–8 Years	11,800	0.042966
9 Years	4,224	0.015380
10–11 Years	8,258	0.030069
12–14 Years	11,799	0.042963
15–17 Years	11,819	0.043035
18–19 Years	8,001	0.029133
20–24 Years	18,257	0.066478
25–29 Years	17,722	0.064530
30–34 Years	19,511	0.071044
35–39 Years	22,180	0.080762
40–44 Years	22,479	0.081851
45–49 Years	19,806	0.072118
50–54 Years	17,224	0.062716
55–59 Years	13,307	0.048454
60–64 Years	10,654	0.038793
65–69 Years	9,410	0.034264
70–74 Years	8,726	0.031773
75–79 Years	7,415	0.027000
80–84 Years	4,900	0.017842
85 Years and Over	4,259	0.015508

Population Estimates

The population estimates for the state, local health districts, and counties are taken from the Governor’s Office of Planning and Budget (GOPB) for year 2002. The population estimates for the small areas are drawn from the U.S. Census 2000 Zip Code Tabulation Areas (ZCTA) and are adjusted to agree with the GOPB estimates when aggregated into county populations.

The Governor’s Office of Planning and Budget releases updated Utah mid-year (July 1) population estimates and projections by year, county, sex, and single year of age. Those estimates are generated by the Utah Process Economic and Demographic (UPED) model, and are typically released each January with the Economic Report to the Governor. Numbers for the GOPB model and Small Areas model are available on the IBIS query system (from IBIS Homepage, click “Query Databases” and select “General Population Estimates” or “Population Estimates by Small Area”).

Survey Estimates

Surveys exclude certain population segments from the sampling frame, including persons in group living quarters (e.g., military barracks, nursing homes) and households without telephones. As with all surveys, data may be subject to error as resulting from non-coverage (e.g., lower telephone coverage among some low social economic status populations), non-response (e.g., refusal to participate in the survey or answer specific questions), or measurement (e.g. social desirability or recall bias). Interviewer training and monitoring and strict adherence to good survey research protocols reduces error from these sources.

The Behavioral Risk Factor Surveillance System (BRFSS), Youth Risk Behavior Surveillance System (YRBSS), National Immunization Survey (NIS), Health Status Survey (HSS), and Pregnancy Risk Assessment Monitoring System (PRAMS) are random sample data sets that are gathered from the target population. Each of these surveys has a specific design methodology for collecting and weighting the sample. For more information on this issue consult the reference for the respective survey.

BRFSS: <http://www.cdc.gov/brfss/training.htm>

YRBSS: <http://www.cdc.gov/HealthyYouth/yrbs/data/index.htm>

NIS: <http://www.cdc.gov/nis/pdfs/nisdug02.pdf>

HSS: http://health.utah.gov/opha/publications/2001hss/ovr/01HSSOvr_TechNotes.pdf

PRAMS: <http://www.cdc.gov/reproductivehealth/methodology.htm>

Small Number Variability

For many small areas in Utah the rates for the community health indicators are based on small numbers of events. We have decided to report these rates even for very small numbers, because we believe that the information will be useful. It is important to remember that rates based on small numbers of events are unstable. In common language, that means that they will vary from year to year even if nothing else changes. As such, those variations may not reflect a change in the underlying risk in the population. Therefore, it is important not to overreact to a rate that is higher or lower than expected. You will notice that the confidence interval will be wide for those rates that are based on a low number of events.

ICD-9 and ICD-10 Comparability

About every 10-20 years the International Classification of Diseases (ICD) is revised to stay abreast of advances in medical science and changes in medical terminology. Each of these revisions produces breaks in the continuity of cause-of-death statistics. Discontinuities across revisions are due to changes in classification and rules for assigning underlying cause of death. Classification and rule changes impact cause-of-death trend data by shifting deaths away from some cause-of-death categories and into others. Comparability ratios measure the effect of changes in classification and coding rules.

The comparability ratios are based on a comparability study in which the same deaths were coded according to both the Ninth and Tenth Revisions. The comparability ratio was calculated by dividing the number of deaths classified by ICD-10 by the number of deaths classified by ICD-9. The resulting ratios represent the net effect of the Tenth Revision on cause-of-death statistics and can be used to adjust mortality statistics for causes of death classified by the Ninth Revision to be comparable with cause-specific mortality statistics classified by the Tenth Revision. A comparability ratio of 1.00 can be interpreted as the same number of deaths were found under both revisions of the ICD. A comparability ratio less than 1 means fewer deaths for a particular cause were coded under ICD-10 compared with the comparable cause under ICD-9. Comparability ratios greater than 1 means more deaths for a particular cause were coded under ICD-10 than the comparable cause under ICD-9.

It should be noted that the comparability ratio represents a net difference in the number of deaths classified for a particular cause between the two revisions of the ICD. That is, a cause of death may include additional deaths from a different cause while losing deaths to a third cause. One such example is diseases of heart, which had additional deaths under ICD-10 from pneumonia (compared to ICD-9), but lost deaths due to cardiac arrest, an ill-defined condition in ICD-10 (but part of heart disease under ICD-9). Therefore, a ratio of 1.00 does not necessarily imply perfect comparability. It also is possible there are deviations from a cause-specific comparability ratio by demographic variables, such as age, sex, race, and geographic region.

For more information about the national comparability study, please see the CDC publication: *National Vital Statistics Reports*, Volume 49, Number 2, “Comparability of Cause of Death Between ICD-9 and ICD-10: Preliminary Estimates,” by Robert N. Anderson, et al. This publication can be viewed at the following Internet address: www.cdc.gov/nchs/data/nvsr/nvsr49/nvsr49_02.pdf. To view this PDF formatted file, you will need the Adobe Acrobat Reader software.

Life Expectancy

Life expectancy at birth represents the average number of years an individual may expect to live at the time of birth. Life expectancies are computed through the use of life tables. There are two types of life tables—generational or cohort life tables and current life tables.

Generational life tables are constructed by following the mortality experience of a particular birth cohort until no lives remain in the group. This method requires the collection of data over many years and is therefore impractical in most applications.

Current life tables are constructed using age-specific death rates from an actual population during a specific time period to compute the mortality experience of a hypothetical cohort. The life expectancies presented in this publication are based on current life tables computed using 2002 death data. The life expectancies obtained represent the expected mortality experience of a hypothetical cohort subjected throughout its lifetime to death rates prevailing for the Utah population in 2002. The tables were constructed according to the Reed-Merrill method.

Utah Small Area Information

In order to facilitate reporting data at the community level, Utah has been divided into 61 small areas. Areas were determined based on specific criteria, including population size, political boundaries of cities and towns, and economic similarity. The health measures that are reported by small area are those with events occurring with sufficient frequency to be meaningful. The IBIS query system allows you to query by small area for the Birth Certificate and Infant Mortality databases, the Mortality database, the Hospital Discharge and Emergency Department Visit databases, and the Utah Population Estimates database. See page 146 for small area descriptions.

Ranks and Category Colors

The ranks are based on the age-adjusted rate if it is available; otherwise the crude rate is used.

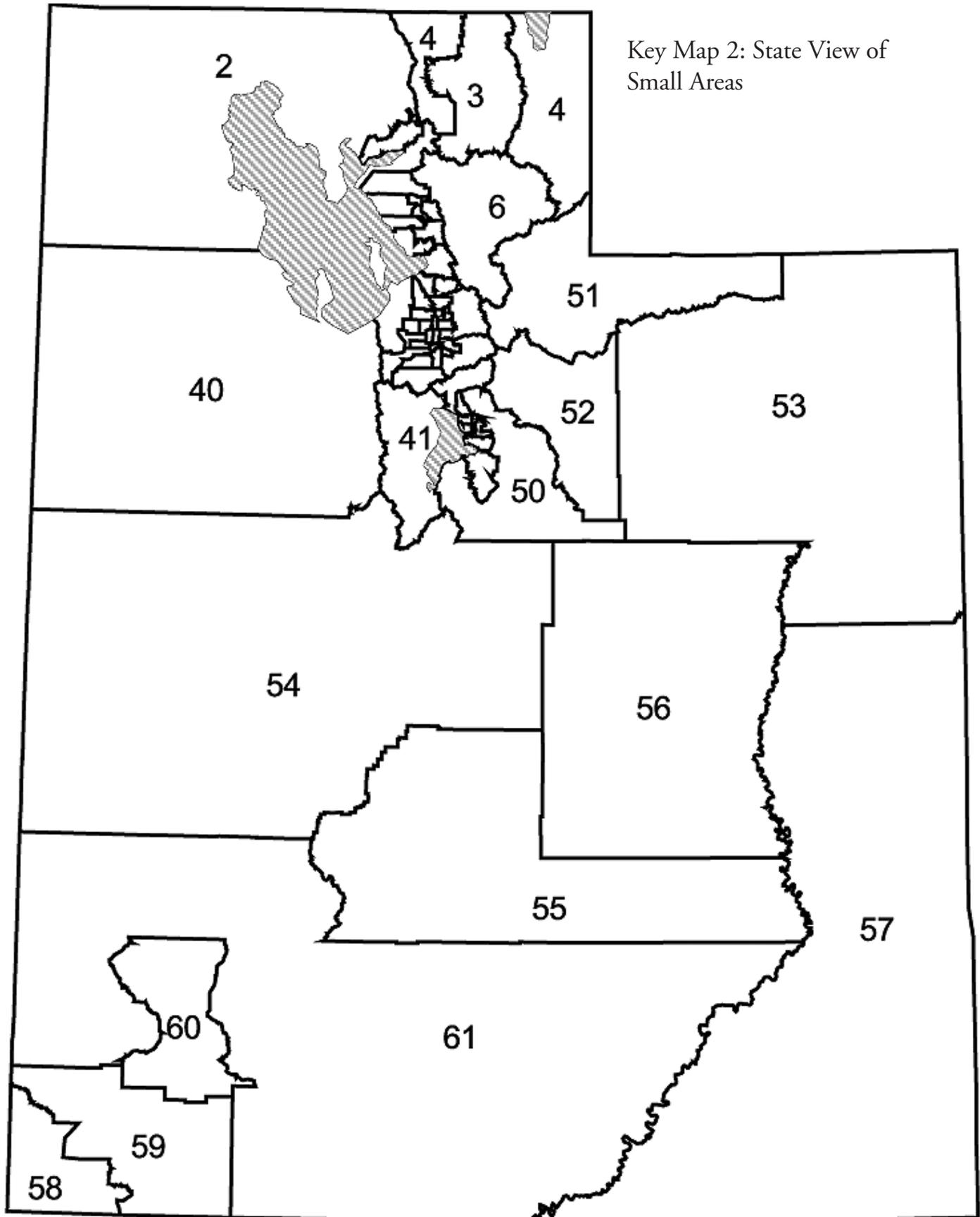
The color-coded categories in this report are constructed using percentiles. The five categories represent the top 10% (white), next 20% (light blue), middle 40% (blue), next 20% (medium dark blue), and bottom 10% (dark blue) of the ranked areas. Beginning with white, the most desirable outcome, and progressing through to dark blue, the least desirable outcome, the meaning associated with the color remains the same although the category name may change. As an example, for an indicator such as “Heart Disease Deaths” a low rate is desirable and white would be named “lowest”, light blue is “low”, blue is “average”, medium dark blue is “high”, and dark blue is “highest”. For an indicator such as “Prenatal Care” a high rate is desirable and the category names will reverse, white becomes “highest”, light blue is “high”, blue is “average”, medium dark blue is “low”, and dark blue is “lowest”. The names have reversed but the meaning remains the same; white is still the most desirable outcome and dark blue is still the least desirable outcome.

When areas have the same rate and rank they are assigned to the same color category, they do not cross a boundary into another color. Whenever tied scores initially crossed a category boundary, both scores were assigned to the higher category. This may increase (or decrease) the standard percentiles assigned to the color categories. For example, because of tied ranks “lowest” may represent 16% of the areas instead of the standard 10%.

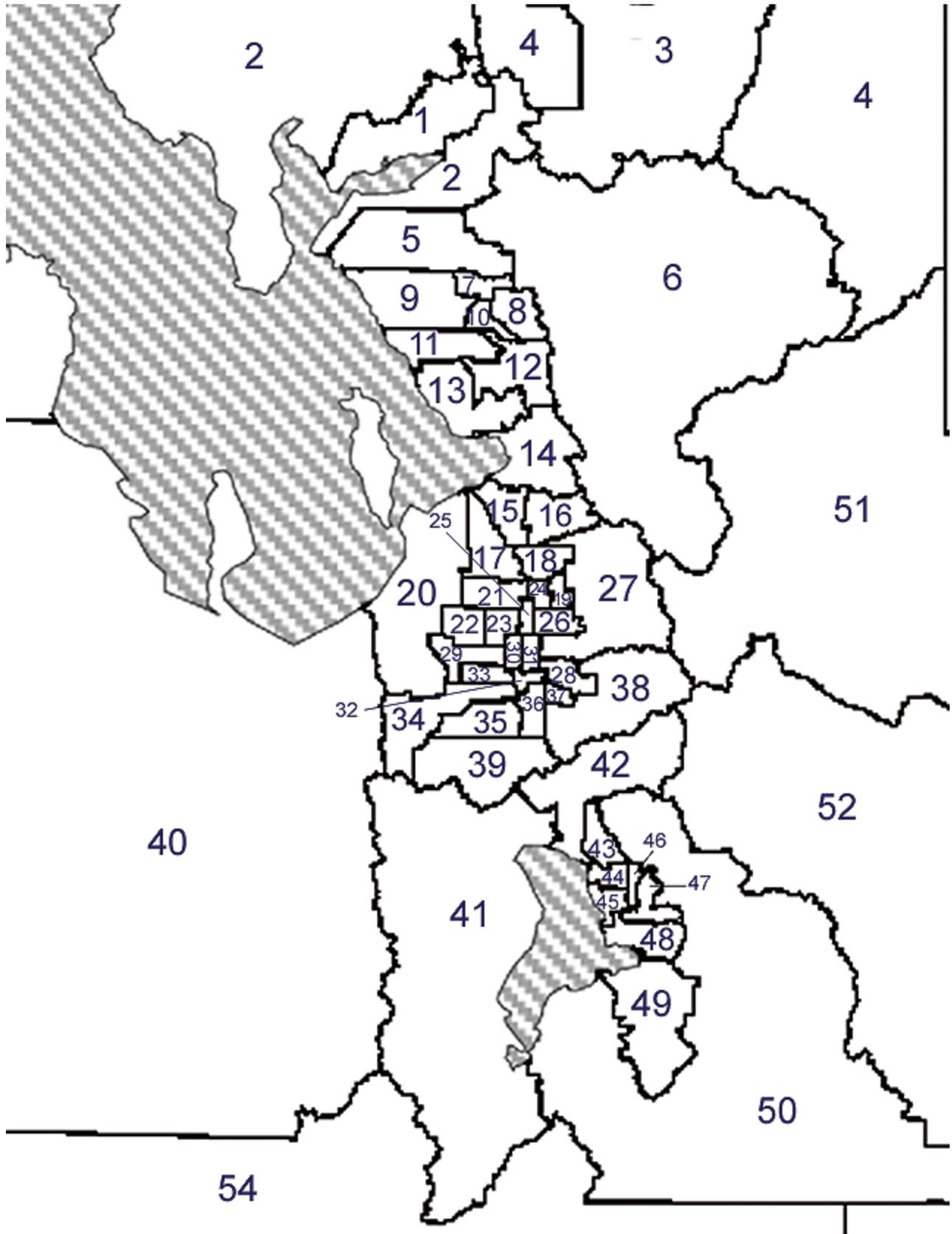


Key Map 1: Utah's Local Health Districts and Counties

Community Key Maps



Key Map 3: Wasatch Front View of Small Areas



Small Area Boundary Designations and Selected Demographic Measures

#	Area Name	Boundary Designation	Population ¹	Per Capita Income ¹	Median Age ¹	% White Non-Hisp	% Hispanic	% Age 25+ With ≥HS Education
	State Total	All counties / ZIP codes in Utah	2,354,754	\$18,186	27.9	85.3%	9.0%	87.7%
1	Brigham City	ZIP code 84302	22,162	\$15,887	28.9	89.7%	7.0%	88.0%
2	Other Box Elder Co.	Box Elder County except ZIP code 84302	22,398	\$15,370	27.1	91.4%	6.1%	87.6%
3	Logan	ZIP codes 84321, 84322, 84341, 84332	61,279	\$15,235	23.9	88.3%	6.4%	91.2%
4	Other Cache/Rich Co.	Cache & Rich Co. except ZIP codes 84321, 84322, 84341, 84332	37,754	\$14,937	25.4	92.5%	5.9%	89.3%
5	Ben Lomond	ZIP codes 84404, 84407, 84412	45,532	\$16,296	29.4	84.7%	11.3%	82.4%
6	Morgan/East Weber Co.	ZIP codes 84310, 84317, 84414, 84050 or Morgan County	33,468	\$20,650	30.1	95.2%	3.0%	94.9%
7	Downtown Ogden	ZIP codes 84401, 84402	28,656	\$13,873	28.2	59.2%	33.9%	69.1%
8	South Ogden	ZIP code 84403	34,947	\$21,900	30.0	79.9%	14.6%	86.5%
9	Roy/Hooper	ZIP codes 84067, 84315	41,156	\$17,996	28.2	88.7%	6.9%	90.0%
10	Riverdale	ZIP codes 84405, 84409	25,832	\$18,680	30.3	88.9%	6.5%	88.0%
11	Clearfield/Hill AFB	ZIP codes 84015, 84016, 84056	55,641	\$15,680	25.3	83.1%	8.9%	88.5%
12	Layton	ZIP codes 84040, 84041	65,580	\$19,478	27.1	86.8%	7.1%	91.8%
13	Syracuse/Kaysville	ZIP codes 84037, 84075	37,761	\$18,174	25.0	94.3%	3.2%	95.1%
14	Farmington/Centerville	ZIP codes 84025, 84014	28,490	\$21,813	26.9	95.2%	2.4%	95.0%
15	Woods Cross/No SL	ZIP codes 84087, 84054	19,921	\$19,403	26.9	92.2%	4.4%	91.0%
16	Bountiful	ZIP codes 84010, 84011	45,124	\$23,658	31.7	93.3%	3.4%	93.2%
17	Rose Park	ZIP code 84116	33,287	\$12,815	27.3	46.2%	39.3%	68.8%
18	Avenues	ZIP codes 84103, 84114	21,629	\$30,303	33.0	85.8%	7.9%	93.2%
19	Foothill/U of U	ZIP codes 84108, 84112, 84113	23,254	\$30,583	32.1	90.0%	2.7%	97.5%
20	Magna	ZIP code 84044	23,813	\$14,372	25.8	80.6%	15.0%	76.7%
21	Glendale	ZIP codes 84104, 84101, 84110, 84152	27,329	\$11,704	27.9	42.1%	39.2%	62.9%
22	West Valley West	ZIP codes 84128, 84120, 84170	68,405	\$15,064	26.4	72.3%	17.0%	80.8%
23	West Valley East	ZIP codes 84119, 84199	49,498	\$14,971	27.9	66.9%	21.3%	74.1%
24	Downtown Salt Lake	ZIP codes 84111, 84102, 84105	50,110	\$22,296	30.4	79.1%	11.7%	88.6%
25	South Salt Lake	ZIP codes 84115, 84165	24,497	\$15,004	29.9	65.5%	23.0%	74.2%
26	Millcreek	ZIP codes 84106, 84151, 84109	56,636	\$23,706	34.0	89.4%	5.2%	91.9%
27	Holladay	ZIP codes 84124, 84117	44,402	\$28,587	37.2	91.5%	3.6%	94.2%
28	Cottonwood	ZIP code 84121	43,455	\$29,462	34.9	92.1%	3.0%	94.7%
29	Keams	ZIP code 84118	65,768	\$15,845	26.1	76.1%	16.5%	81.3%

30 Taylorsville	ZIP code 84123	39,258	\$18,550	28.5	81.9%	10.5%	87.7%
31 Murray	ZIP codes 84107, 84157	30,823	\$20,879	31.4	84.6%	8.9%	87.9%
32 Midvale	ZIP code 84047	28,763	\$17,908	28.3	73.8%	20.2%	83.2%
33 West Jordan No.	ZIP code 84084	45,378	\$16,462	25.0	82.7%	11.7%	89.4%
34 W. Jordan, Copperton	ZIP codes 84088, 84006	45,101	\$17,486	24.7	86.0%	8.6%	89.6%
35 South Jordan	ZIP code 84095 (new zip code as of 1993)	34,667	\$20,837	25.3	93.8%	3.3%	95.8%
36 Sandy Center	ZIP codes 84070, 84091, 84094	52,068	\$18,664	28.7	88.8%	6.2%	90.2%
37 Sandy, NE	ZIP codes 84093, 84090	24,320	\$28,406	32.1	93.2%	2.7%	96.7%
38 Sandy, SE	ZIP code 84092	30,825	\$28,937	30.4	93.8%	2.5%	96.4%
39 Riverton/Draper	ZIP codes 84065, 84020	69,061	\$20,099	26.0	92.3%	4.3%	92.3%
40 Tooele Co.	Tooele County	46,815	\$16,196	27.4	83.8%	10.2%	85.4%
41 Lehi/Cedar Valley	ZIP codes 84043, 84013	29,380	\$16,262	23.5	94.4%	3.0%	92.3%
42 American Fork/Alpine	ZIP codes 84004, 84003	42,020	\$18,056	23.4	94.4%	3.5%	92.4%
43 Pleasant Grove/Lindon	ZIP codes 84062, 84042	41,169	\$16,155	23.0	93.2%	4.1%	93.2%
44 North Orem	ZIP codes 84057, 84059	34,974	\$15,378	24.1	84.2%	10.6%	88.6%
45 West Orem	ZIP code 84058	31,543	\$16,851	23.7	86.6%	8.3%	92.7%
46 East Orem	ZIP code 84097 (new zip code as of 1996)	23,628	\$18,134	24.1	90.8%	5.5%	94.8%
47 Provo/BYU	ZIP codes 84602, 84604	47,807	\$15,035	22.3	89.3%	5.3%	95.0%
48 Provo South	ZIP codes 84601, 84603, 84605, 84606	58,588	\$11,691	23.5	79.6%	14.9%	84.9%
49 Springville/Spanish Fork	ZIP codes 84660, 84663, 84664, 84653	63,675	\$16,200	24.7	93.6%	4.1%	91.5%
50 Utah Co. South	ZIP codes 84651, 84655, 84626, 84633	27,889	\$15,053	23.9	90.9%	7.3%	85.5%
51 Summit Co.	Summit County	32,831	\$33,756	33.1	89.5%	8.1%	92.6%
52 Wasatch Co.	Wasatch County	17,179	\$19,927	29.7	93.3%	5.1%	89.4%
53 TriCounty LHD	Daggett, Duchesne and Uintah Counties	42,241	\$13,284	29.1	88.0%	3.6%	80.5%
54 Juab/Millard/Sanpete Co.	Juab, Millard, and Sanpete Counties	45,655	\$12,824	28.0	91.5%	5.9%	85.0%
55 Sevier/Piute/Wayne Co.	Piute, Sevier, and Wayne Counties	23,485	\$14,220	31.3	94.3%	2.6%	86.1%
56 Carbon/Emery Co.	Carbon and Emery Counties	30,772	\$14,935	32.3	88.6%	8.6%	82.1%
57 Grand/San Juan Co.	Grand and San Juan Counties	22,903	\$13,066	29.8	59.2%	4.4%	75.7%
58 St. George	ZIP codes 84770, 84771, 84790	56,364	\$16,942	31.7	89.3%	6.6%	88.0%
59 Other Washington Co.	Washington County except ZIP codes 84770, 84771, 84790	45,430	\$14,467	30.4	93.5%	3.5%	87.0%
60 Cedar City	ZIP code 84720	30,008	\$13,550	23.7	91.1%	3.9%	90.1%
61 Other Southwest Dist.	Beaver, Garfield, Iron, & Kane Counties other than ZIP code 84720	22,350	\$14,613	34.7	93.1%	4.0%	84.3%

1. Population estimates are for 2003. Age and per capita income figures are means, weighted by population count, of the ZIP code median values.

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