Fair or poor health in Utah (continued)

poor health varied by local health district, ranging from a low of 9.3% in Summit County to a high of 17.4% in Central Utah. Three local health districts, Central Utah, Southeastern Utah, and TriCounty, had age-adjusted rates higher than the state. Davis County and Summit County had rates lower than the state rate. The remaining seven local health districts had rates similar to the state rate.

The age-adjusted rate of fair or poor health varied greatly among Utah's small areas, from a low of 4.2% in Pleasant Grove/Lindon to a high of 34.0% in Glendale. There was substantial variation in this measure among small areas within some local health districts. For example, the age-adjusted rates varied in Davis County health district from a low of 4.8% in Farmington/Centerville to a high of 12.9% in Clearfield/Hill AFB. These rates were statistically significantly different. Please refer to the accompanying bar graph, table, and maps for more information about small areas and self-rated health. The shading on the maps indicates which small areas differed substantially from the state rate.

The Utah data also show that the percentage of people reporting fair or poor health increased with increasing age and decreased with increasing income as illustrated in the graphs below. This means that health districts and small areas with a higher percentage of people in older age groups or lower income categories would most likely have a greater percentage of adults reporting fair or poor health. Age-adjusted rates control for population age differences.

Figure 1.A: Fair or Poor Health by Age Group, Utah Adults, 2001-2005

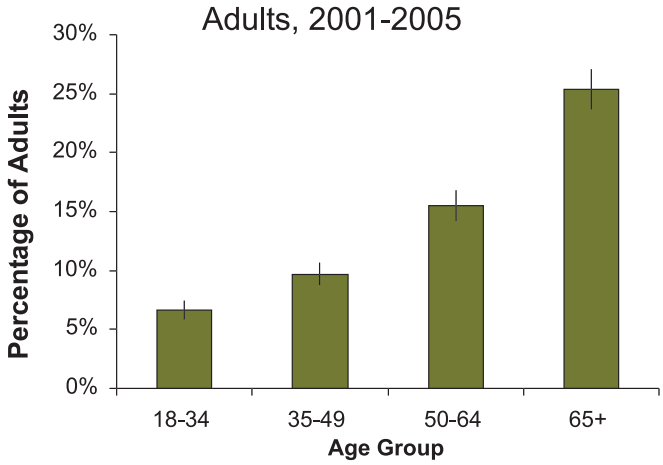
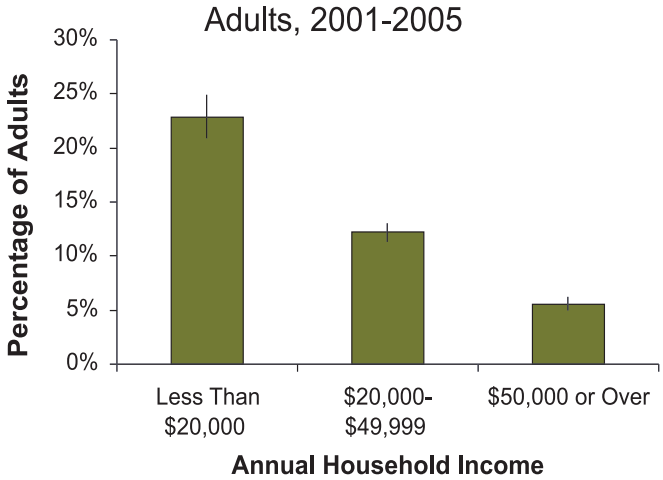


Figure 1.B: Fair or Poor Health by Income, Utah Adults, 2001-2005

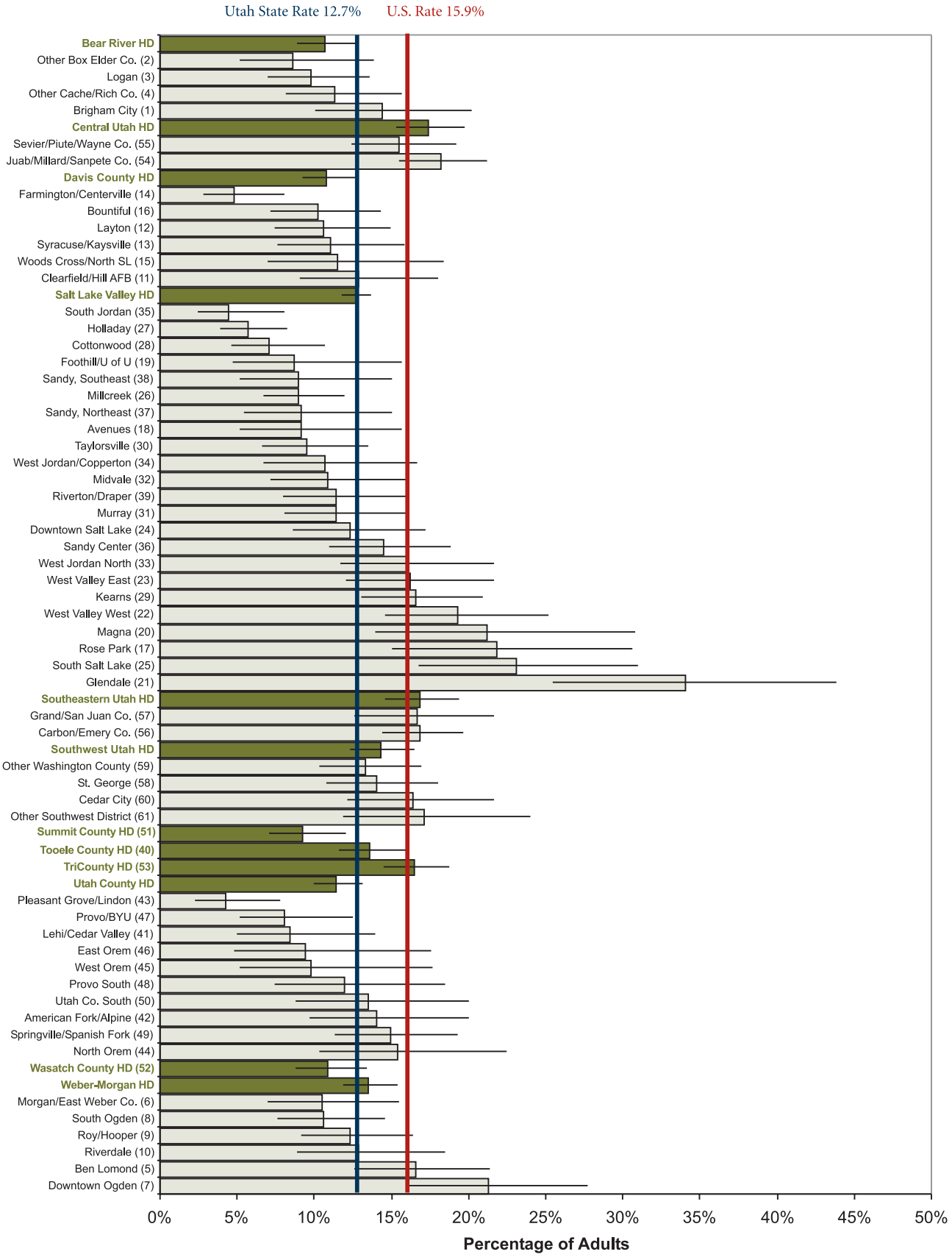


Prevention/Resources

The Utah Department of Health works collaboratively with Utah's local health districts and other public and private organizations through many programs in order to prevent avoidable illness, injury, disability, and premature death; assure access to affordable, quality health care; and to promote healthy lifestyles. Many of the specific programs are discussed in the context of other BRFSS measures included in this report, such as the current smoking and diabetes measures.

1. Fair or Poor Health

Figure 1.1: Percentage of Adults Who Reported Fair or Poor Health by Local Health District, Small Area, Utah, and U.S., Adults Aged 18+, 2001–2005 (Age-adjusted)



1. Fair or Poor Health

Table 1: Fair or Poor Health by Health District, Small Area, Utah, and U.S., 2001-2005

State Rank*	State, Health District, or Small Area	2003 Population 18+	Number of Adults Reporting Fair or Poor Health	Crude Rate	Age-adjusted Rate	95% Confidence Interval Lower	95% Confidence Interval Upper
	U.S.	217,803,051	34,804,928	16.0%	15.9%	15.8%	16.1%
	State of Utah	1,657,454	190,441	11.5%	12.7%	12.2%	13.3%
	Bear River HD	98,027	9,126	9.3%	10.7%	8.9%	12.8%
41	Brigham City (1)	14,566	2,068	14.2%	14.4%	10.0%	20.2%
17	Logan (3)	45,904	3,314	7.2%	9.8%	6.9%	13.6%
8	Other Box Elder Co. (2)	14,636	1,262	8.6%	8.6%	5.2%	13.9%
27	Other Cache/Rich Co. (4)	22,921	2,356	10.3%	11.4%	8.1%	15.6%
	Central Utah HD	47,558	8,151	17.1%	17.4%	15.3%	19.7%
55	Juab/Millard/Sanpete Co. (54)	31,637	5,682	18.0%	18.2%	15.5%	21.2%
45	Sevier/Piute/Wayne Co. (55)	15,921	2,496	15.7%	15.5%	12.4%	19.2%
	Davis County HD	175,027	16,383	9.4%	10.8%	9.2%	12.7%
19	Bountiful (16)	33,318	3,169	9.5%	10.2%	7.2%	14.4%
34	Clearfield/Hill AFB (11)	37,329	4,177	11.2%	12.9%	9.1%	18.0%
3	Farmington/Centerville (14)	19,034	683	3.6%	4.8%	2.8%	8.1%
21	Layton (12)	46,815	4,850	10.4%	10.6%	7.4%	15.0%
26	Syracuse/Kaysville (13)	24,542	2,123	8.7%	11.1%	7.6%	15.8%
30	Woods Cross/North SL (15)	13,989	1,437	10.3%	11.5%	6.9%	18.4%
	Salt Lake Valley HD	658,810	76,817	11.7%	12.7%	11.8%	13.7%
13	Avenues (18)	18,959	1,759	9.3%	9.2%	5.2%	15.7%
5	Cottonwood (28)	33,297	2,471	7.4%	7.1%	4.7%	10.7%
32	Downtown Salt Lake (24)	42,808	4,302	10.1%	12.3%	8.6%	17.2%
9	Foothill/U of U (19)	17,778	1,687	9.5%	8.7%	4.7%	15.6%
61	Glendale (21)	18,642	6,236	33.5%	34.0%	25.4%	43.9%
4	Holladay (27)	35,956	2,679	7.5%	5.7%	3.9%	8.2%
51	Kearns (29)	42,995	5,220	12.1%	16.6%	13.0%	20.9%
57	Magna (20)	15,623	2,445	15.7%	21.2%	14.0%	30.8%
24	Midvale (32)	21,672	2,052	9.5%	10.8%	7.2%	16.1%
11	Millcreek (26)	44,008	4,471	10.2%	9.0%	6.7%	11.9%
29	Murray (31)	24,072	2,930	12.2%	11.4%	8.1%	16.0%
28	Riverton/Draper (39)	41,391	3,228	7.8%	11.4%	8.0%	16.0%
59	Rose Park (17)	22,639	4,732	20.9%	21.8%	15.0%	30.6%
42	Sandy Center (36)	36,106	4,127	11.4%	14.5%	11.0%	18.9%
12	Sandy, Northeast (37)	18,245	1,569	8.6%	9.1%	5.4%	15.0%
10	Sandy, Southeast (38)	20,781	1,390	6.7%	9.0%	5.2%	15.1%
2	South Jordan (35)	20,931	873	4.2%	4.4%	2.4%	8.0%
60	South Salt Lake (25)	18,456	4,010	21.7%	23.1%	16.7%	31.0%
16	Taylorsville (30)	27,372	2,570	9.4%	9.5%	6.6%	13.5%
46	West Jordan North (33)	30,391	3,659	12.0%	16.1%	11.7%	21.6%
23	West Jordan/Copperton (34)	26,360	2,278	8.6%	10.7%	6.7%	16.6%
47	West Valley East (23)	35,527	5,446	15.3%	16.3%	12.0%	21.6%
56	West Valley West (22)	44,794	8,417	18.8%	19.3%	14.5%	25.2%
	Southeastern Utah HD	36,828	6,246	17.0%	16.9%	14.7%	19.5%
53	Carbon/Emery Co. (56)	21,451	3,690	17.2%	16.9%	14.4%	19.6%
52	Grand/San Juan Co. (57)	15,377	2,537	16.5%	16.6%	12.6%	21.7%
	Southwest Utah HD	116,150	16,888	14.5%	14.3%	12.3%	16.5%
48	Cedar City (60)	22,401	2,845	12.7%	16.4%	12.2%	21.7%
54	Other Southwest District (61)	15,384	2,712	17.6%	17.1%	11.9%	24.0%
36	Other Washington County (59)	32,503	4,469	13.8%	13.3%	10.4%	16.9%
39	St. George (58)	45,862	6,595	14.4%	14.0%	10.8%	18.0%
14	**Summit County HD (51)**	24,525	1,950	8.0%	9.3%	7.1%	12.0%
38	**Tooele County HD (40)**	32,458	3,824	11.8%	13.6%	11.6%	15.9%
49	**TriCounty HD (53)**	28,023	4,444	15.9%	16.5%	14.5%	18.7%
	Utah County HD	278,832	25,987	9.3%	11.5%	10.0%	13.2%
40	American Fork/Alpine (42)	26,819	3,374	12.6%	14.1%	9.7%	20.0%
15	East Orem (46)	14,955	989	6.6%	9.4%	4.8%	17.6%
7	Lehi/Cedar Valley (41)	18,752	1,172	6.3%	8.5%	5.0%	13.9%
44	North Orem (44)	25,965	3,575	13.8%	15.4%	10.3%	22.5%
1	Pleasant Grove/Lindon (43)	24,636	983	4.0%	4.2%	2.3%	7.8%
6	Provo/BYU (47)	39,401	2,691	6.8%	8.1%	5.1%	12.5%
31	Provo South (48)	48,138	2,003	4.2%	11.9%	7.5%	18.5%
43	Springville/Spanish Fork (49)	41,036	5,195	12.7%	14.9%	11.4%	19.3%
37	Utah Co. South (50)	17,363	2,158	12.4%	13.5%	8.8%	20.0%
18	West Orem (45)	21,774	2,450	11.3%	9.8%	5.2%	17.7%
25	**Wasatch County HD (52)**	12,514	1,295	10.4%	10.9%	8.8%	13.4%
	Weber-Morgan HD	148,702	18,989	12.8%	13.6%	11.9%	15.5%
50	Ben Lomond (5)	33,215	4,713	14.2%	16.5%	12.6%	21.4%
58	Downtown Ogden (7)	21,684	4,038	18.6%	21.3%	16.0%	27.8%
20	Morgan/East Weber Co. (6)	24,131	2,314	9.6%	10.5%	7.0%	15.5%
35	Riverdale (10)	15,522	2,091	13.5%	12.9%	8.8%	18.5%
33	Roy/Hooper (9)	27,898	2,885	10.3%	12.3%	9.2%	16.4%
22	South Ogden (8)	26,255	2,967	11.3%	10.6%	7.6%	14.6%

*State rank is by 61 small areas for age-adjusted rate; 1 is always the lowest rate in the state and 61 is always the highest rate in the state.

Figure 1.2: Fair or Poor Health by Small Area, Utah Adults Aged 18+, 2001–2005 (Age-adjusted)

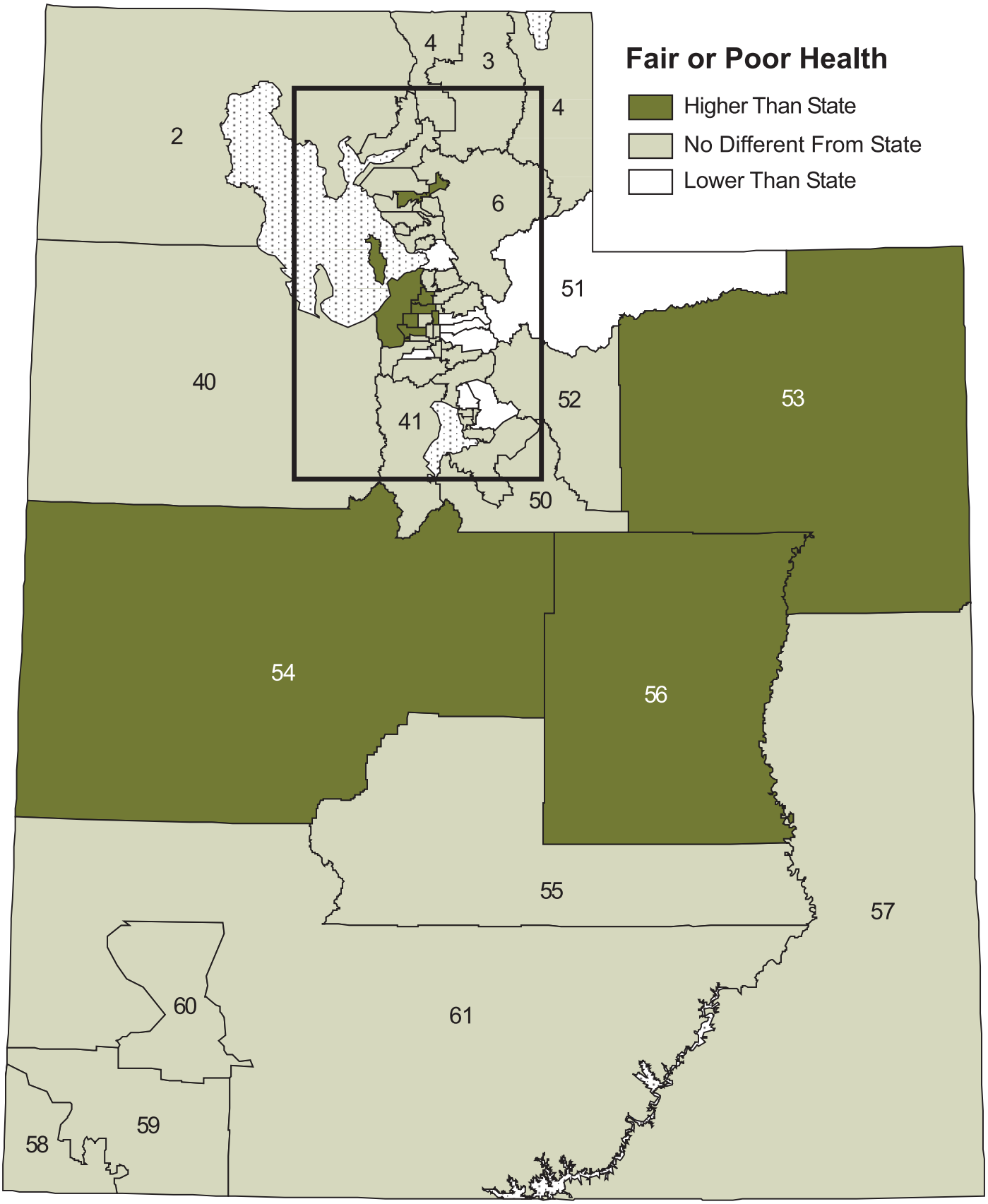
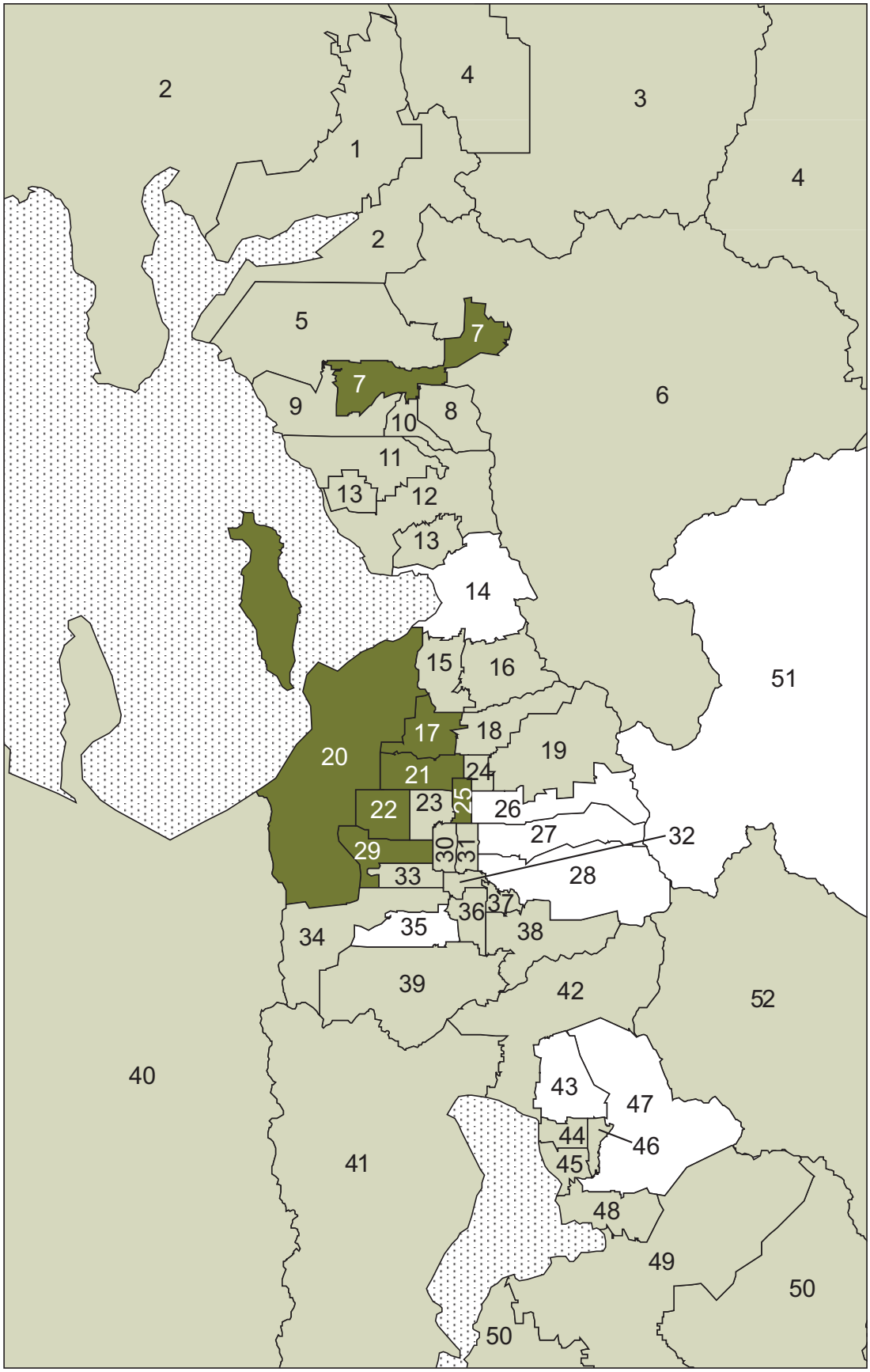


Figure 1.3: Fair or Poor Health by Small Area, Wasatch Front Adults Aged 18+, 2001–2005 (Age-adjusted)



2. Poor Physical Health

Measure Definition: *"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 not good?"* ***[Seven or more days of poor physical health]***

Why is recent poor physical health important to public health?

For this report, we analyzed the percentage of adults who reported seven or more days of poor physical health in the past 30 days. This indicator is one approach to measuring the overall health of a population. It is a global measure of recent physical symptoms that can be used to compare across populations. A person's self perception about his or her physical health is important in that it can serve as a proxy measure for the burden of both acute and chronic health conditions. And, because people generally seek health care only when they feel unhealthy, self-perceptions are also predictive of the burden on the health care delivery system.

Previous Utah Department of Health (UDOH) reports had used one or more days in the past 30 days as a measure of poor physical health. We became concerned that using "one or more days" identified many people with minor and transient illnesses or injuries that had little effect on their overall well being or on the health care system. In 2004, therefore, a number of UDOH staff met to decide on a number of days of poor physical health in the past 30 that could be used to identify a population experiencing substantial physical health problems. We wanted the measure to permit us to compare the burden of poor physical health across different populations and assess how chronic diseases and chronic disease risk factors related to overall physical health status. After looking at many of these factors, the group chose seven or more days of poor physical health in the past 30 days as the indicator of recent poor physical health. This measure was found to have good positive association with fair or poor health and a number of chronic health conditions and health risk factors. It also had an intuitive appeal, in that a week or more of poor physical health in the past month seemed to present a significant burden on an individual.

Risk factors for poor physical health

According to the analysis of the combined Utah BRFSS data from 2001–2005, this measure of poor physical health differed among socioeconomic and demographic subgroups in Utah. A higher percentage of women reported seven or more days of poor physical health compared with men. Older adults were more likely to report seven or more days of poor physical health than younger adults. A higher percentage of widowed, separated, or divorced persons reported seven or more days of poor physical health compared with married persons. The percentage of adults with less than a high school education who reported seven or more days of poor physical health was higher than that of adults with more education. The percentage of low-income adults who reported seven or more days of poor physical health was significantly higher than adults with higher annual household incomes. The percentage was higher for persons who were retired, unemployed, and unable to work than for adults who were employed. Compared with persons without any chronic medical conditions, persons with such conditions more often reported seven or more days of poor health.

It must be noted that since the BRFSS is a cross-sectional survey, the characteristics studied were assessed at a single point in time. Thus, in some cases, it is not possible to determine whether the characteristic preceded or followed an individual's response to this question.

Utah Objective: No objective listed.
HP2010 Goal: Overarching – Improve the quality and years of healthy life and eliminate health disparities.

2. Poor Physical Health

Poor physical health in Utah

Using the combined 2001–2005 data, the age-adjusted percentage of Utah adults reporting seven or more days of poor physical health was 14.6%. The age-adjusted percentage for the entire U.S. adult population was 15.1%. The corresponding crude rate in Utah was slightly lower at 13.8%, most likely due to the fact that Utah has a younger population than the U.S. and that poor physical health is less likely in younger adulthood. Using the overall crude percentage, this means that in 2003 approximately 229,000 Utah adults had seven or more days of poor physical health.

This percentage varied among Utah's local health districts, from a low of 12.3%, age-adjusted, in Davis County and Summit County to a high of 18.9% in Southeastern Utah. Central Utah and Southeastern Utah rates were higher than the overall state rate.

Overall, the small area percentages for this measure of physical health ranged from a low of 7.9%, age-adjusted, in Woods Cross/North SL to a high of 25.0% in Magna.

In Davis County health district, the rate in Woods Cross/North SL was lower than the state rate. In the Salt Lake Valley health district, Magna and West Jordan North had rates higher than the state rate. In Southeastern Utah health district, this measure in Carbon/Emery Co. was higher than the state rate.

Figure 2.A: 7+ Days of Poor Physical Health by Health Status, Utah Adults, 2001-2005

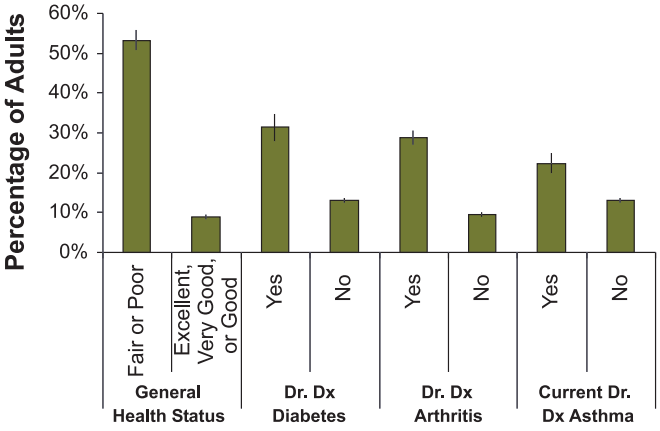
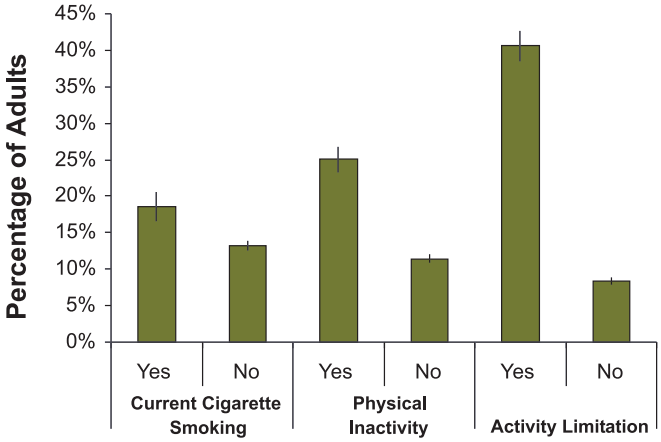


Figure 2.B: 7+ Days of Poor Physical Health by Risk Factor, Utah Adults, 2001-2005

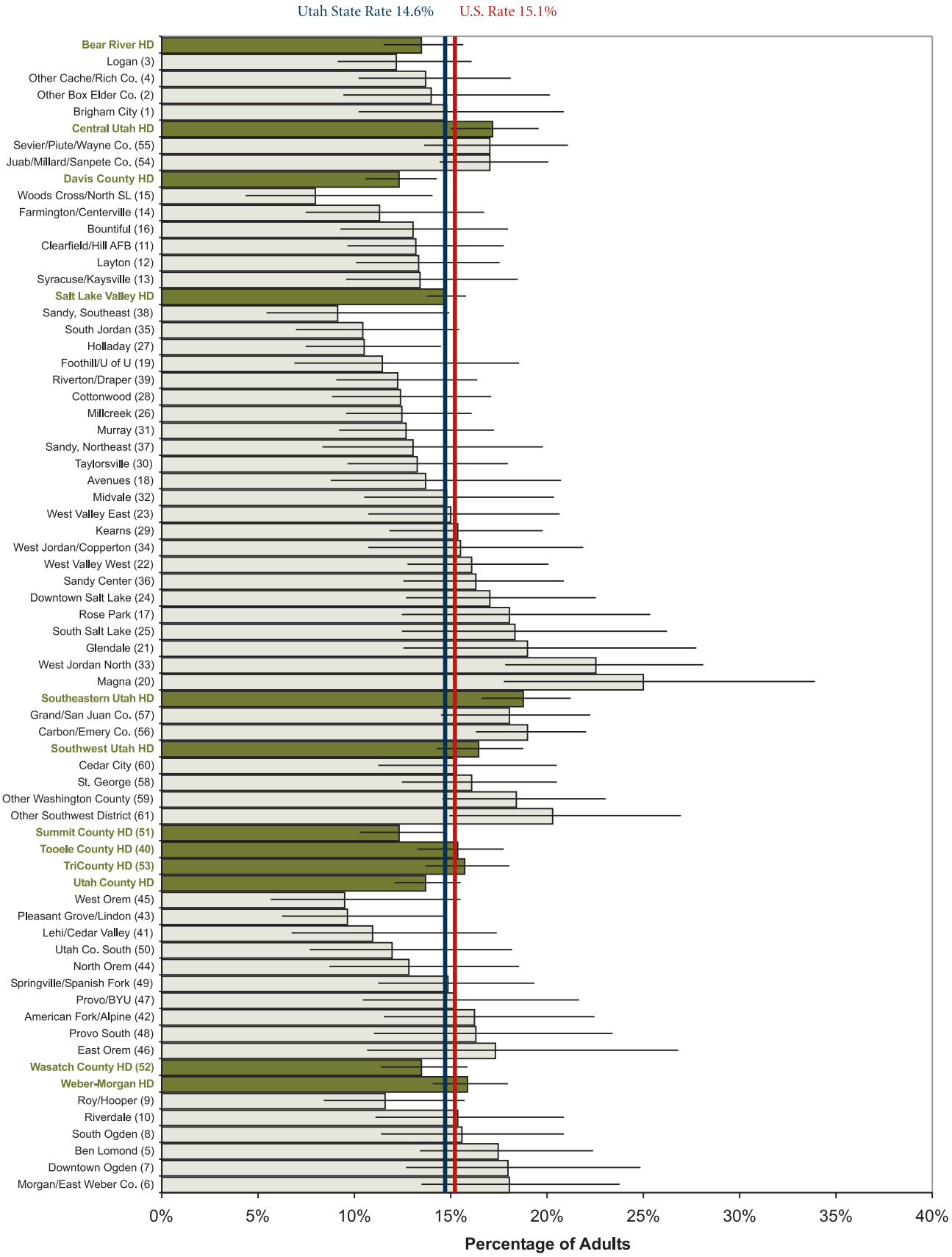


Prevention/Resources

The Utah Department of Health works collaboratively with Utah's local health districts and other public and private organizations through many programs in order to prevent avoidable illness, injury, disability, and premature death; assure access to affordable, quality health care; and to promote healthy lifestyles. There is a wealth of information about Utah resources on the UDOH website www.health.utah.gov.

2. Poor Physical Health

Figure 2.1: Percentage of Adults Who Reported Seven or More Days of Poor Physical Health by Local Health District, Small Area, Utah, and U.S., Adults Aged 18+, 2001–2005 (Age-adjusted)



2. Poor Physical Health

Table 2: 7+ Days Poor Physical Health by Health District, Small Area, Utah, and U.S., 2001-2005

State Rank*	State, Health District, or Small Area	2003 Population 18+	Number of Adults Reporting 7+ Days Poor Physical Health	Crude Rate	Age-adjusted Rate	95% Confidence Interval Lower	95% Confidence Interval Upper
	U.S.	217,803,051	32,779,359	15.1%	15.1%	15.0%	15.2%
	State of Utah	1,657,454	229,060	13.8%	14.6%	14.1%	15.2%
	Bear River HD	98,027	12,851	13.1%	13.4%	11.5%	15.7%
30	Brigham City (1)	14,566	2,125	14.6%	14.8%	10.2%	20.9%
12	Logan (3)	45,904	5,637	12.3%	12.2%	9.1%	16.1%
28	Other Box Elder Co. (2)	14,636	2,090	14.3%	14.0%	9.4%	20.1%
27	Other Cache/Rich Co. (4)	22,921	2,966	12.9%	13.7%	10.2%	18.1%
	Central Utah HD	47,558	7,904	16.6%	17.1%	15.0%	19.5%
47	Juab/Millard/Sanpete Co. (54)	31,637	5,154	16.3%	17.0%	14.4%	20.1%
46	Sevier/Piute/Wayne Co. (55)	15,921	2,738	17.2%	17.0%	13.6%	21.1%
	Davis County HD	175,027	19,165	11.0%	12.3%	10.6%	14.3%
20	Bountiful (16)	33,318	4,268	12.8%	13.0%	9.3%	18.0%
21	Clearfield/Hill AFB (11)	37,329	3,584	9.6%	13.2%	9.7%	17.8%
8	Farmington/Centerville (14)	19,034	1,905	10.0%	11.3%	7.5%	16.7%
23	Layton (12)	46,815	5,669	12.1%	13.4%	10.1%	17.6%
24	Syracuse/Kaysville (13)	24,542	2,570	10.5%	13.4%	9.6%	18.5%
1	Woods Cross/North SL (15)	13,989	1,192	8.5%	7.9%	4.4%	14.0%
	Salt Lake Valley HD	658,810	92,168	14.0%	14.7%	13.8%	15.8%
26	Avenues (18)	18,959	2,406	12.7%	13.7%	8.8%	20.7%
15	Cottonwood (28)	33,297	4,076	12.2%	12.4%	8.9%	17.1%
48	Downtown Salt Lake (24)	42,808	6,973	16.3%	17.0%	12.7%	22.6%
9	Foothill/U of U (19)	17,778	2,229	12.5%	11.5%	6.9%	18.5%
58	Glendale (21)	18,642	3,292	17.7%	19.0%	12.6%	27.7%
6	Holladay (27)	35,956	4,293	11.9%	10.5%	7.5%	14.5%
37	Kearns (29)	42,995	6,402	14.9%	15.4%	11.8%	19.8%
61	Magna (20)	15,623	3,398	21.8%	25.0%	17.7%	33.9%
29	Midvale (32)	21,672	3,320	15.3%	14.8%	10.5%	20.4%
16	Millcreek (26)	44,008	6,016	13.7%	12.5%	9.6%	16.1%
17	Murray (31)	24,072	3,214	13.4%	12.7%	9.2%	17.2%
13	Riverton/Draper (39)	41,391	4,541	11.0%	12.3%	9.1%	16.4%
54	Rose Park (17)	22,639	3,907	17.3%	18.0%	12.5%	25.3%
44	Sandy Center (36)	36,106	5,528	15.3%	16.3%	12.6%	20.9%
19	Sandy, Northeast (37)	18,245	2,199	12.1%	13.0%	8.3%	19.8%
2	Sandy, Southeast (38)	20,781	1,532	7.4%	9.1%	5.4%	14.9%
5	South Jordan (35)	20,931	2,332	11.1%	10.5%	7.0%	15.5%
55	South Salt Lake (25)	18,456	3,150	17.1%	18.3%	12.4%	26.2%
22	Taylorsville (30)	27,372	3,334	12.2%	13.2%	9.6%	18.0%
60	West Jordan North (33)	30,391	5,255	17.3%	22.5%	17.8%	28.2%
38	West Jordan/Copperton (34)	26,360	3,959	15.0%	15.5%	10.8%	21.9%
32	West Valley East (23)	35,527	4,889	13.8%	15.0%	10.7%	20.7%
41	West Valley West (22)	44,794	6,365	14.2%	16.1%	12.8%	20.1%
	Southeastern Utah HD	36,828	6,758	18.4%	18.9%	16.7%	21.3%
57	Carbon/Emery Co. (56)	21,451	4,037	18.8%	19.0%	16.3%	22.0%
53	Grand/San Juan Co. (57)	15,377	2,686	17.5%	18.0%	14.5%	22.3%
	Southwest Utah HD	116,150	19,467	16.8%	16.4%	14.3%	18.7%
34	Cedar City (60)	22,401	3,004	13.4%	15.3%	11.3%	20.5%
59	Other Southwest District (61)	15,384	2,988	19.4%	20.3%	14.9%	26.9%
56	Other Washington County (59)	32,503	6,000	18.5%	18.4%	14.6%	23.0%
42	St. George (58)	45,862	7,517	16.4%	16.1%	12.5%	20.5%
14	**Summit County HD (51)**	24,525	2,776	11.3%	12.3%	10.3%	14.7%
36	**Tooele County HD (40)**	32,458	4,648	14.3%	15.4%	13.3%	17.7%
40	**TriCounty HD (53)**	28,023	4,338	15.5%	15.7%	13.7%	18.0%
	Utah County HD	278,832	34,268	12.3%	13.8%	12.2%	15.6%
43	American Fork/Alpine (42)	26,819	4,291	16.0%	16.2%	11.5%	22.4%
49	East Orem (46)	14,955	2,336	15.6%	17.3%	10.7%	26.8%
7	Lehi/Cedar Valley (41)	18,752	1,890	10.1%	11.0%	6.7%	17.4%
18	North Orem (44)	25,965	3,053	11.8%	12.8%	8.7%	18.6%
4	Pleasant Grove/Lindon (43)	24,636	2,042	8.3%	9.7%	6.2%	14.7%
33	Provo/BYU (47)	39,401	5,902	15.0%	15.2%	10.4%	21.7%
45	Provo South (48)	48,138	4,053	8.4%	16.3%	11.0%	23.4%
31	Springville/Spanish Fork (49)	41,036	5,585	13.6%	14.9%	11.3%	19.4%
11	Utah Co. South (50)	17,363	1,839	10.6%	12.0%	7.7%	18.2%
3	West Orem (45)	21,774	2,868	13.2%	9.5%	5.6%	15.5%
25	**Wasatch County HD (52)**	12,514	1,651	13.2%	13.5%	11.4%	15.9%
	Weber-Morgan HD	148,702	22,900	15.4%	15.9%	14.0%	17.9%
50	Ben Lomond (5)	33,215	5,142	15.5%	17.4%	13.4%	22.4%
51	Downtown Ogden (7)	21,684	3,675	17.0%	18.0%	12.7%	24.8%
52	Morgan/East Weber Co. (6)	24,131	4,158	17.2%	18.0%	13.4%	23.8%
35	Riverdale (10)	15,522	2,636	17.0%	15.4%	11.1%	20.9%
10	Roy/Hooper (9)	27,898	3,122	11.2%	11.6%	8.4%	15.7%
39	South Ogden (8)	26,255	4,125	15.7%	15.5%	11.4%	20.8%

*State rank is by 61 small areas for age-adjusted rate; 1 is always the lowest rate in the state and 61 is always the highest rate in the state.

Figure 2.2: 7+ Days of Poor Physical Health by Small Area, Utah Adults Aged 18+, 2001–2005 (Age-adjusted)

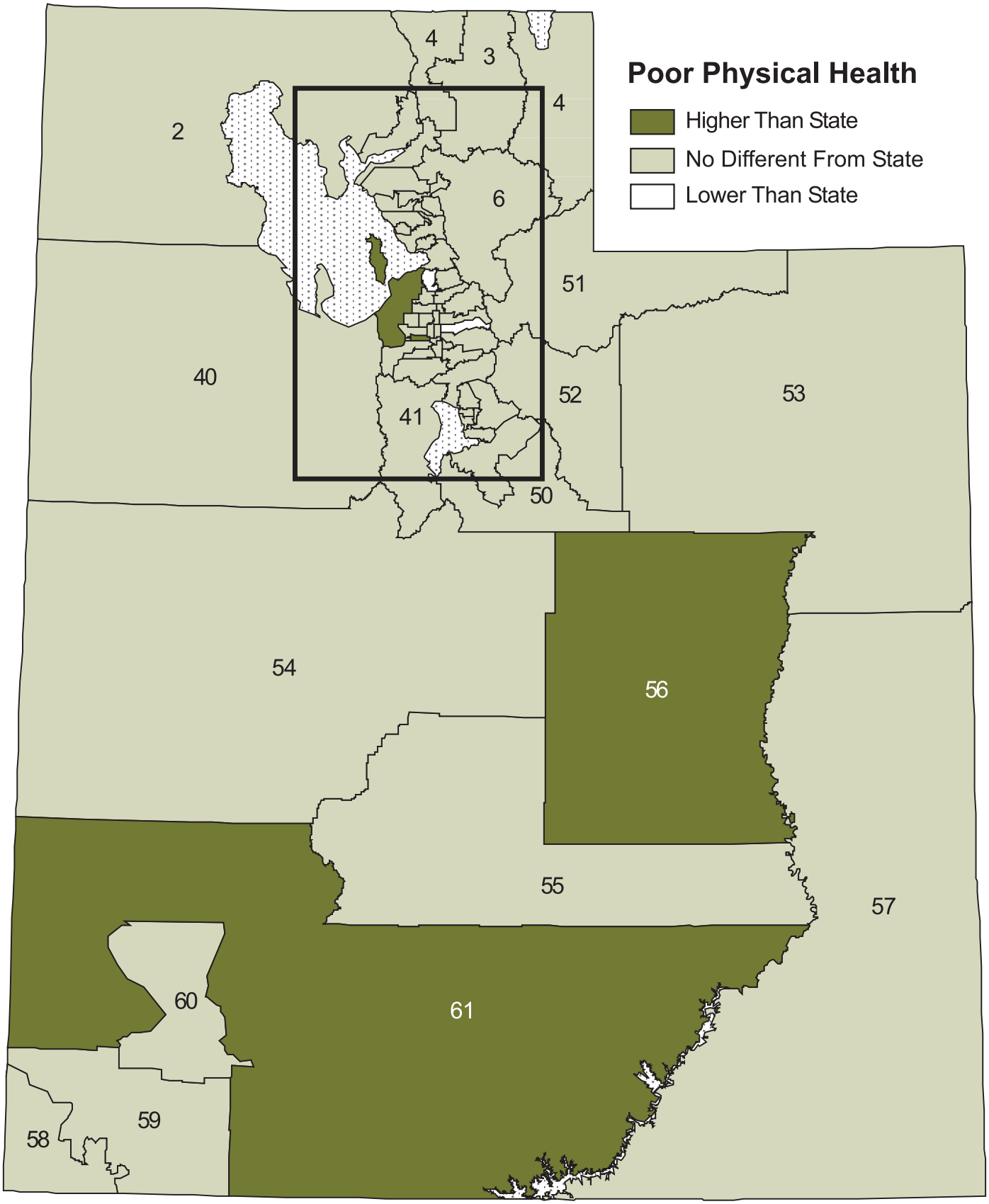
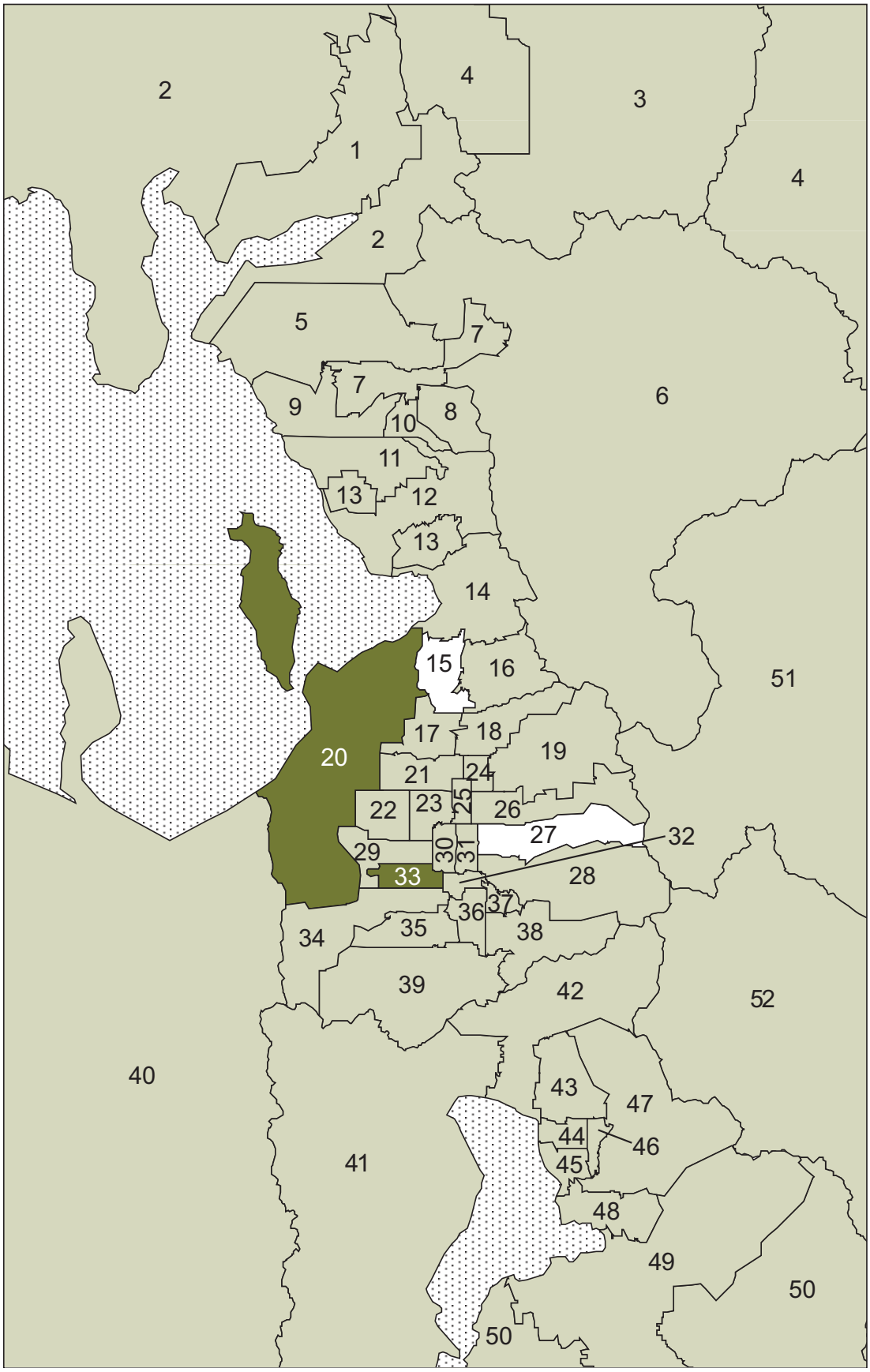


Figure 2.3: 7+ Days of Poor Physical Health by Small Area, Wasatch Front Adults 18+, 2001–2005 (Age-adjusted)



3. Poor Mental Health

Measure Definition: *"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?"* ***[Seven or more days of poor mental health]***

Why is poor mental health important to public health?

Mental health is a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with adversity.[4] Mental health is one of the Healthy People 2010 Leading Health Indicators that reflect the major health concerns in the U.S. at the beginning of the 21st century. The Global Burden of Disease study conducted by the World Health Organization, the World Bank, and Harvard University, revealed that mental illness ranks second in the burden of disease in established market economies such as the U.S.[5] Approximately 20% of the U.S. population is affected by mental illness in any given year.[6] The BRFSS mental health question is an attempt to obtain a global measure of recent mental and emotional distress.[7] It is one of a set of four health-related quality of life (HRQOL) questions developed by the Centers for Disease Control and Prevention (CDC) and included on the BRFSS since 1993.

For this report, we looked at the percentage of adults who reported seven or more days of poor mental health in the past 30 days. Previous Utah Department of Health (UDOH) reports have used one or more days in the past 30 days as a measure of poor mental health. This previous measure generally identified a greater percentage of the population than the known prevalence of depression. This measure identified too many people with moderate or low risk. UDOH staff met in 2004 to select a number of days in the past 30 days that could be used to identify a population at risk, compare the burden of poor mental health across different populations, and assess how chronic diseases and chronic disease risk factors affected mental health. Taking all of these factors into consideration, the group chose seven or more days of poor mental health in the past 30 days as the UDOH BRFSS indicator of recent poor mental health. That measure identified a percentage of the population similar to the known prevalence of depression and had good positive association with fair or poor health. It also had an intuitive appeal in that a week or more of poor mental health each month seemed like a significant burden on an individual.

Risk factors for poor mental health

Risk factors that are common to many mental disorders include individual factors such as neurophysiological deficits, difficult temperament, chronic physical illness, and below-average intelligence; family factors such as severe marital discord, social disadvantage, overcrowding or large family size, paternal criminality, maternal mental disorder, and admission into foster care; and community factors such as living in an area with a high rate of disorganization and inadequate schools.[4]

Poor mental health in Utah

Using the combined 2001–2005 data, the age-adjusted percentage of Utah adults reporting seven or more days of poor mental health was 15.0%. This percentage for the entire U.S. adult population was 15.1%. The corresponding crude rate in Utah was slightly higher at 15.6%, most likely due to the fact that Utah has a younger population than the U.S., and poor mental health is more likely in younger adulthood. Using the overall crude percentage, this means that in 2003 approximately 257,900 Utah adults had seven or more days of poor men-

Utah Objective: No objective listed.
HP2010 Goal: Overarching – Improve the quality and years of healthy life and eliminate health disparities.

Poor mental health in Utah (continued)

tal health. This percentage varied among Utah's local health districts, from a low of 11.2%, age-adjusted, in Summit County to a high of 18.0% in Southwest Utah. The Summit County rate was lower than the state rate. Southwest Utah was the only local health district higher than the state rate.

Overall, the small area percentages for this poor mental health measure ranged from a low of 7.2%, age-adjusted, in American Fork/Alpine to a high of 24.6% in Magna.

Within the Davis County health district, Farmington/Centerville and Woods Cross/North SL had rates lower than the state rate. In the Salt Lake Valley health district, South Jordan's rate was less than the state rate, and Glendale and Magna had higher rates than the state rate. In the Southwest Utah health district, St. George had a higher rate than the state rate. In the Utah County health district, the American Fork/Alpine small area rate was lower than the state rate. In the Weber-Morgan health district, the Ben Lomond small area rate was higher than the state rate.

The percentage of adults reporting seven or more days of poor mental health varied by health status and risk factors as illustrated in the graphs below.

Figure 3.A: 7+ Days of Poor Mental Health by Health Status, Utah Adults, 2001-2005

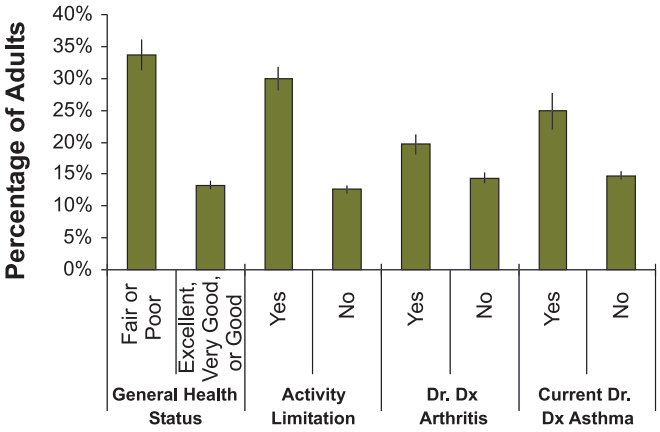
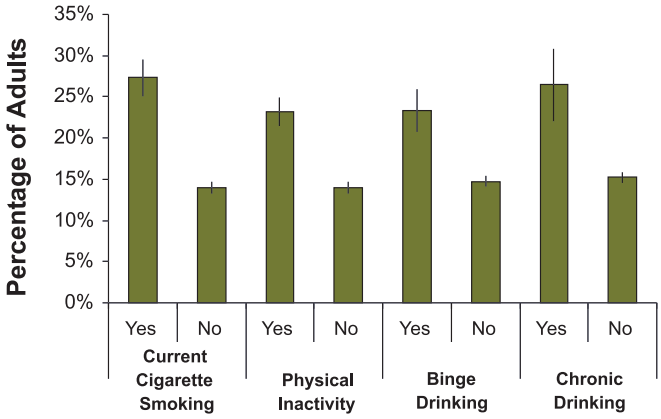


Figure 3.B: 7+ Days of Poor Mental Health by Selected Risk Factors, Utah Adults, 2001-2005

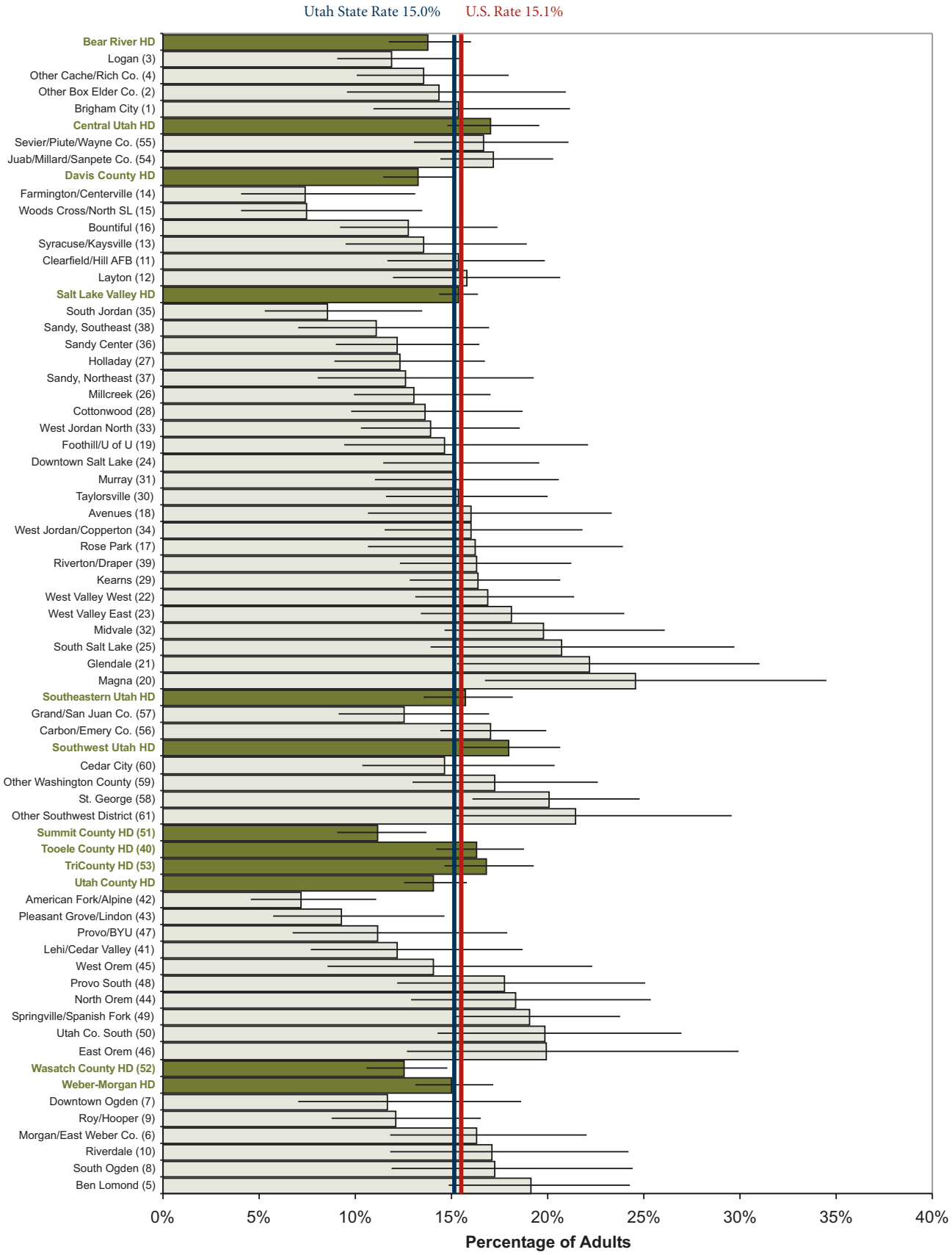


Prevention/Resources

The Utah Division of Substance Abuse and Mental Health is the state agency responsible for ensuring that prevention and treatment services for substance abuse and mental health are available statewide. The Division also acts as a resource by providing general information, research results, and statistics to the public regarding substances of abuse and mental health services. The Division contracts with community mental health centers to provide these services and monitors these centers through site visits, a year-end review process, and a peer review process. More information is available, including help in locating prevention and treatment services, on the Division's website at http://www.dsamh.utah.gov. The U.S. Substance Abuse and Mental Health Services Administration has information on its website at http://www.samhsa.gov.

3. Poor Mental Health

Figure 3.1: Seven or More Days of Poor Mental Health by Local Health District and Small Area, Utah, 2001–2005 (Age-adjusted)



3. Poor Mental Health

Table 3: 7+ Days Poor Mental Health by Health District, Small Area, Utah, and U.S., 2001-2005

State Rank*	State, Health District, or Small Area	2003 Population 18+	Number of Adults Reporting 7+ Days Poor Mental Health	Crude Rate	Age-adjusted Rate	95% Confidence Interval Lower	95% Confidence Interval Upper
	U.S.	217,803,051	32,801,139	15.1%	15.1%	15.0%	15.2%
	State of Utah	1,657,454	257,900	15.6%	15.0%	14.4%	15.6%
	Bear River HD	98,027	14,528	14.8%	13.7%	11.7%	16.0%
32	Brigham City (1)	14,566	2,679	18.4%	15.4%	11.0%	21.1%
10	Logan (3)	45,904	6,688	14.6%	11.9%	9.0%	15.5%
25	Other Box Elder Co. (2)	14,636	2,021	13.8%	14.3%	9.6%	21.0%
20	Other Cache/Rich Co. (4)	22,921	3,149	13.7%	13.5%	10.1%	18.0%
	Central Utah HD	47,558	8,018	16.9%	17.0%	14.8%	19.5%
46	Juab/Millard/Sanpete Co. (54)	31,637	5,378	17.0%	17.2%	14.5%	20.3%
41	Sevier/Piute/Wayne Co. (55)	15,921	2,646	16.6%	16.7%	13.0%	21.1%
	Davis County HD	175,027	24,329	13.9%	13.2%	11.5%	15.2%
18	Bountiful (16)	33,318	4,661	14.0%	12.7%	9.2%	17.4%
31	Clearfield/Hill AFB (11)	37,329	6,365	17.1%	15.3%	11.7%	19.9%
2	Farmington/Centerville (14)	19,034	1,391	7.3%	7.4%	4.1%	13.1%
33	Layton (12)	46,815	7,668	16.4%	15.8%	11.9%	20.7%
21	Syracuse/Kaysville (13)	24,542	3,159	12.9%	13.6%	9.5%	19.0%
3	Woods Cross/North SL (15)	13,989	1,121	8.0%	7.5%	4.0%	13.5%
	Salt Lake Valley HD	658,810	104,487	15.9%	15.3%	14.3%	16.4%
34	Avenues (18)	18,959	3,030	16.0%	16.0%	10.6%	23.3%
22	Cottonwood (28)	33,297	4,821	14.5%	13.6%	9.8%	18.7%
28	Downtown Salt Lake (24)	42,808	6,879	16.1%	15.1%	11.4%	19.6%
27	Foothill/U of U (19)	17,778	2,844	16.0%	14.7%	9.4%	22.1%
60	Glendale (21)	18,642	4,239	22.7%	22.2%	15.3%	31.0%
14	Holladay (27)	35,956	4,480	12.5%	12.3%	8.9%	16.7%
40	Kearns (29)	42,995	7,541	17.5%	16.4%	12.8%	20.7%
61	Magna (20)	15,623	3,450	22.1%	24.6%	16.8%	34.5%
54	Midvale (32)	21,672	4,449	20.5%	19.7%	14.6%	26.1%
19	Millcreek (26)	44,008	5,589	12.7%	13.1%	9.9%	17.0%
29	Murray (31)	24,072	3,878	16.1%	15.2%	11.0%	20.6%
37	Riverton/Draper (39)	41,391	6,854	16.6%	16.3%	12.3%	21.2%
36	Rose Park (17)	22,639	4,086	18.1%	16.2%	10.7%	23.9%
13	Sandy Center (36)	36,106	4,539	12.6%	12.2%	9.0%	16.4%
17	Sandy, Northeast (37)	18,245	2,284	12.5%	12.6%	8.0%	19.3%
6	Sandy, Southeast (38)	20,781	2,465	11.9%	11.1%	7.0%	17.0%
4	South Jordan (35)	20,931	2,028	9.7%	8.5%	5.3%	13.5%
58	South Salt Lake (25)	18,456	3,793	20.6%	20.7%	13.9%	29.7%
30	Taylorsville (30)	27,372	4,727	17.3%	15.3%	11.6%	20.0%
23	West Jordan North (33)	30,391	4,513	14.9%	13.9%	10.3%	18.6%
35	West Jordan/Copperton (34)	26,360	4,104	15.6%	16.0%	11.5%	21.8%
50	West Valley East (23)	35,527	6,818	19.2%	18.1%	13.4%	24.0%
43	West Valley West (22)	44,794	8,363	18.7%	16.9%	13.2%	21.4%
	Southeastern Utah HD	36,828	5,804	15.8%	15.7%	13.5%	18.1%
44	Carbon/Emery Co. (56)	21,451	3,645	17.0%	17.0%	14.5%	20.0%
15	Grand/San Juan Co. (57)	15,377	2,062	13.4%	12.6%	9.2%	17.0%
	Southwest Utah HD	116,150	20,663	17.8%	18.0%	15.6%	20.6%
26	Cedar City (60)	22,401	3,609	16.1%	14.7%	10.4%	20.3%
59	Other Southwest District (61)	15,384	2,795	18.2%	21.5%	15.1%	29.6%
47	Other Washington County (59)	32,503	5,652	17.4%	17.3%	13.0%	22.6%
57	St. George (58)	45,862	8,608	18.8%	20.1%	16.1%	24.8%
8	**Summit County HD (51)**	24,525	2,752	11.2%	11.2%	9.1%	13.7%
39	**Tooele County HD (40)**	32,458	5,291	16.3%	16.3%	14.2%	18.7%
42	**TriCounty HD (53)**	28,023	4,845	17.3%	16.8%	14.6%	19.3%
	Utah County HD	278,832	42,717	15.3%	14.1%	12.6%	15.9%
1	American Fork/Alpine (42)	26,819	1,853	6.9%	7.2%	4.6%	11.1%
56	East Orem (46)	14,955	2,916	19.5%	19.9%	12.7%	29.9%
12	Lehi/Cedar Valley (41)	18,752	2,449	13.1%	12.1%	7.7%	18.7%
51	North Orem (44)	25,965	4,295	16.5%	18.3%	12.9%	25.4%
5	Pleasant Grove/Lindon (43)	24,636	2,501	10.2%	9.3%	5.7%	14.6%
7	Provo/BYU (47)	39,401	5,725	14.5%	11.1%	6.7%	17.9%
49	Provo South (48)	48,138	7,009	14.6%	17.7%	12.2%	25.0%
52	Springville/Spanish Fork (49)	41,036	8,261	20.1%	19.0%	15.1%	23.8%
55	Utah Co. South (50)	17,363	3,664	21.1%	19.8%	14.3%	26.9%
24	West Orem (45)	21,774	3,712	17.1%	14.1%	8.6%	22.3%
16	**Wasatch County HD (52)**	12,514	1,638	13.1%	12.6%	10.6%	14.8%
	Weber-Morgan HD	148,702	22,855	15.4%	15.1%	13.2%	17.2%
53	Ben Lomond (5)	33,215	6,112	18.4%	19.1%	14.9%	24.3%
9	Downtown Ogden (7)	21,684	2,301	10.6%	11.6%	7.1%	18.6%
38	Morgan/East Weber Co. (6)	24,131	4,020	16.7%	16.3%	11.8%	22.0%
45	Riverdale (10)	15,522	2,715	17.5%	17.1%	11.8%	24.2%
11	Roy/Hooper (9)	27,898	3,507	12.6%	12.1%	8.8%	16.5%
48	South Ogden (8)	26,255	4,455	17.0%	17.3%	11.9%	24.4%

*State rank is by 61 small areas for age-adjusted rate; 1 is always the lowest rate in the state and 61 is always the highest rate in the state.

Figure 3.2: 7+ Days of Poor Mental Health by Small Area, Utah Adults Aged 18+, 2001–2005 (Age-adjusted)

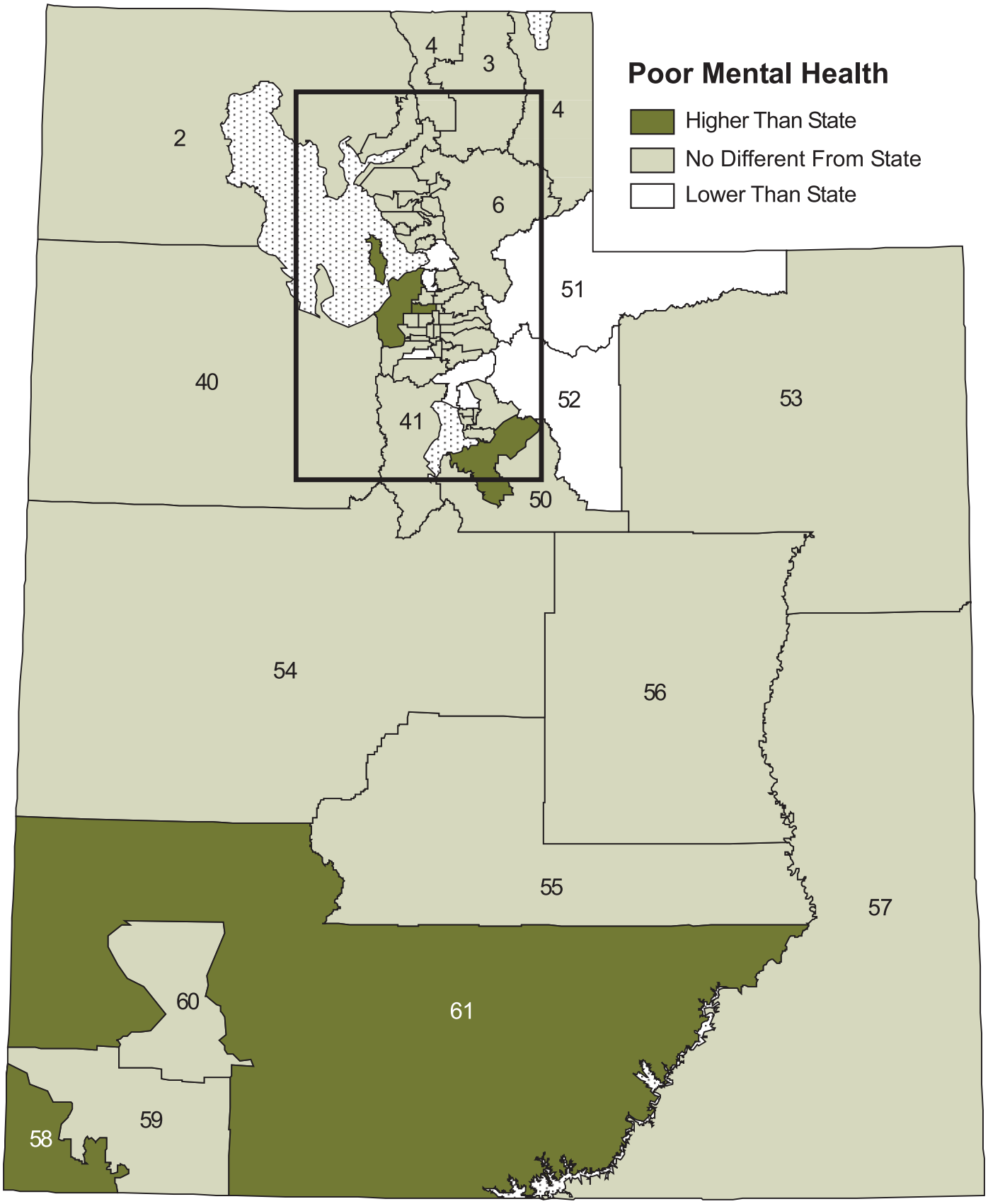
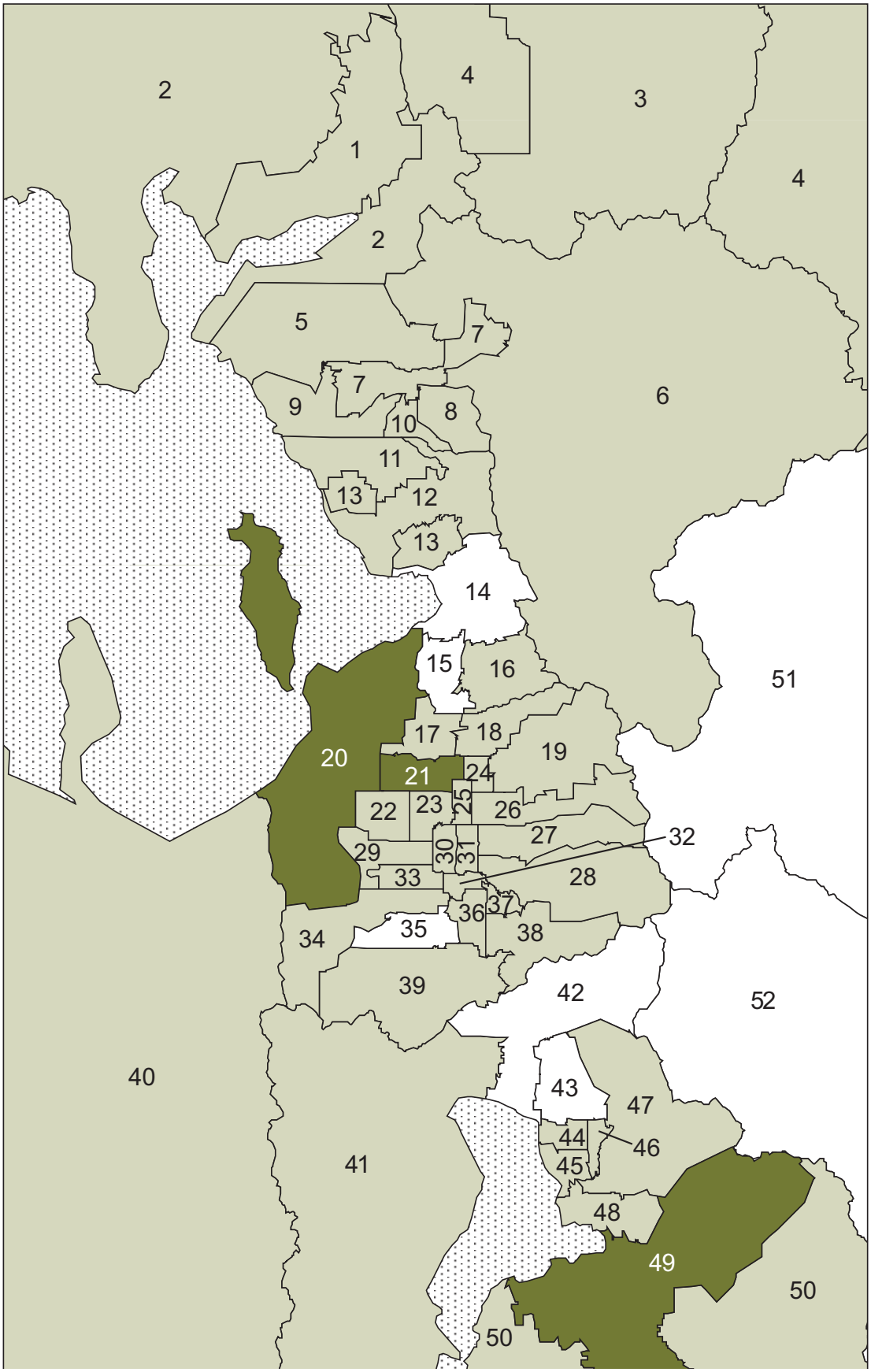


Figure 3.3: 7+ Days of Poor Mental Health by Small Area, Wasatch Front Adults 18+, 2001–2005 (Age-adjusted)



4. Doctor-diagnosed Diabetes

Measure Definition: *"Have you ever been told by a doctor that you have diabetes?"* ***[Yes, excluding females told only during pregnancy or people told they have pre-diabetes or borderline diabetes]***

Why is diabetes important to public health?

Diabetes is a serious disease that can have devastating consequences. Each year in the U.S., between 12,000 and 24,000 people with diabetes become blind, more than 42,800 develop kidney failure, and about 82,000 experience leg, foot, or toe amputations. Nerve damage brought on by diabetes can create severe pain and impaired sensation in hands and feet. Most notably, diabetes increases the risk of heart disease and stroke by two to four times. Diabetes is one of the most costly of all chronic diseases. Nationally, more than one in every ten health care dollars (10.6%), about $92 billion a year, is spent on direct health care costs for people with diabetes.[8]

Additionally, indirect costs, such as lost productivity, disability, and premature mortality, bring the total estimated costs to $132 billion a year.[8]

Many interventions, while shown to be effective at the state level, may have little influence in some communities. Examining prevalence of diabetes by small area is a first step toward identifying and addressing the needs that may be unique to a specific geographical area.

Risk factors for diabetes

There are two primary types of diabetes: (1) type 1 diabetes, an autoimmune disease that develops when the pancreas fails to produce insulin, and (2) type 2, which results from an inability of the body to use insulin, too little insulin production, or a combination of both. The risk factors for type 1 diabetes are not well understood, but family history appears to be a predominant risk factor.

Type 2 diabetes, on the other hand, appears to be closely linked to lifestyle. In particular, overweight and obesity are the predominant modifiable risk factors for diabetes. The Diabetes Prevention Program (DPP), a clinical trial of more than 3,000 adults at high risk for type 2 diabetes, clearly demonstrated that even moderate weight loss achieved through diet and exercise can delay or prevent diabetes onset. There is some evidence that increasing physical activity, even without weight loss, may have an effect on preventing type 2 diabetes by increasing a person's sensitivity to insulin.[9] Family history also appears to play a role in the risk of type 2 diabetes, although to a lesser extent than it does for type 1 diabetes.

Type 2 diabetes is a condition for which demographics appears to have a strong impact. Prevalence of type 2 diabetes is higher among middle-aged and elderly populations, members of certain racial/ethnic minority groups, and low income populations.

Diabetes in Utah

Approximately 82,324 Utah adults have been diagnosed with diabetes, representing (for 2003) 5.0% of the adult population. Rates are shown by health district and small areas within each health district (Table 4). In some instances, the population for a health district is small enough to be considered a small area on its own. Crude rates are used to show the true prevalence of a condition in a population. Crude rates of diabetes ranged

Utah Objective: Same as HP2010 objective.
HP2010 Objective (related) 5-3: Reduce the overall rate of diabetes that is clinically diagnosed to 25 overall cases per 1,000 population (age-adjusted to U.S. 2000 standard population).

Diabetes in Utah (continued)

from a low of 1.7% for the Avenues to a high of 9.8% for South Salt Lake. Because diabetes is so closely linked to age, age-adjusted rates are commonly used to compare prevalence rates across populations. Age-adjusted rates are artificial rates that are calculated as though the age compositions for each area are identical. The standard population used for age adjustment is the 2000 U.S. population.

After adjusting for the differences in age compositions, five small areas were observed to have a lower-than-state prevalence. The lower age-adjusted rate was seen in the Avenues at 1.5%, followed by Roy/Hooper at 2.7%, Northeast Sandy at 2.8%, Foothill/U of U at 2.8%, and Summit County at 3.1%.

A number of small areas had prevalence rates that were higher than the state rate. The highest age-adjusted prevalence was seen for Pleasant Grove/Lindon with a rate that approaches double that for the state at 10.5%. This small area was followed closely by Downtown Ogden, with 10.2%; West Jordan North, Cedar City, West Valley West, Woods Cross/North SL, and Other Cache/Rich County also had rates that were higher than the state rate. Higher-than-state rates were also noted for two local health districts: Tooele County and Utah County.

As the population of Utah becomes increasingly diversified, it is important to recognize the considerable community variations that may affect the prevalence of chronic conditions. For example, the high prevalence of diabetes in the Downtown Ogden area likely reflects the high percentage of minority members living in this community. Downtown Ogden has the highest concentration of Black persons (3.2%) of all small areas, and one of the highest concentrations of Hispanic/Latino population (29.4%). The higher-than-state concentration of Hispanic/Latino population in West Jordan North (11.0%) and the high concentration of Pacific Islander persons in West Valley West (2.4%) may help to account for some of the higher prevalence in these areas. West Jordan North also had the highest rate of obesity of all small areas (30.5%), and the third highest prevalence of diabetes.

An important note is that rates of diabetes, particularly in those populations with limited access to health care, are likely to be underestimated. Approximately 28% of people with diabetes have not been diagnosed. Therefore, the rates in some small areas may be substantially higher than depicted in this report.[10]

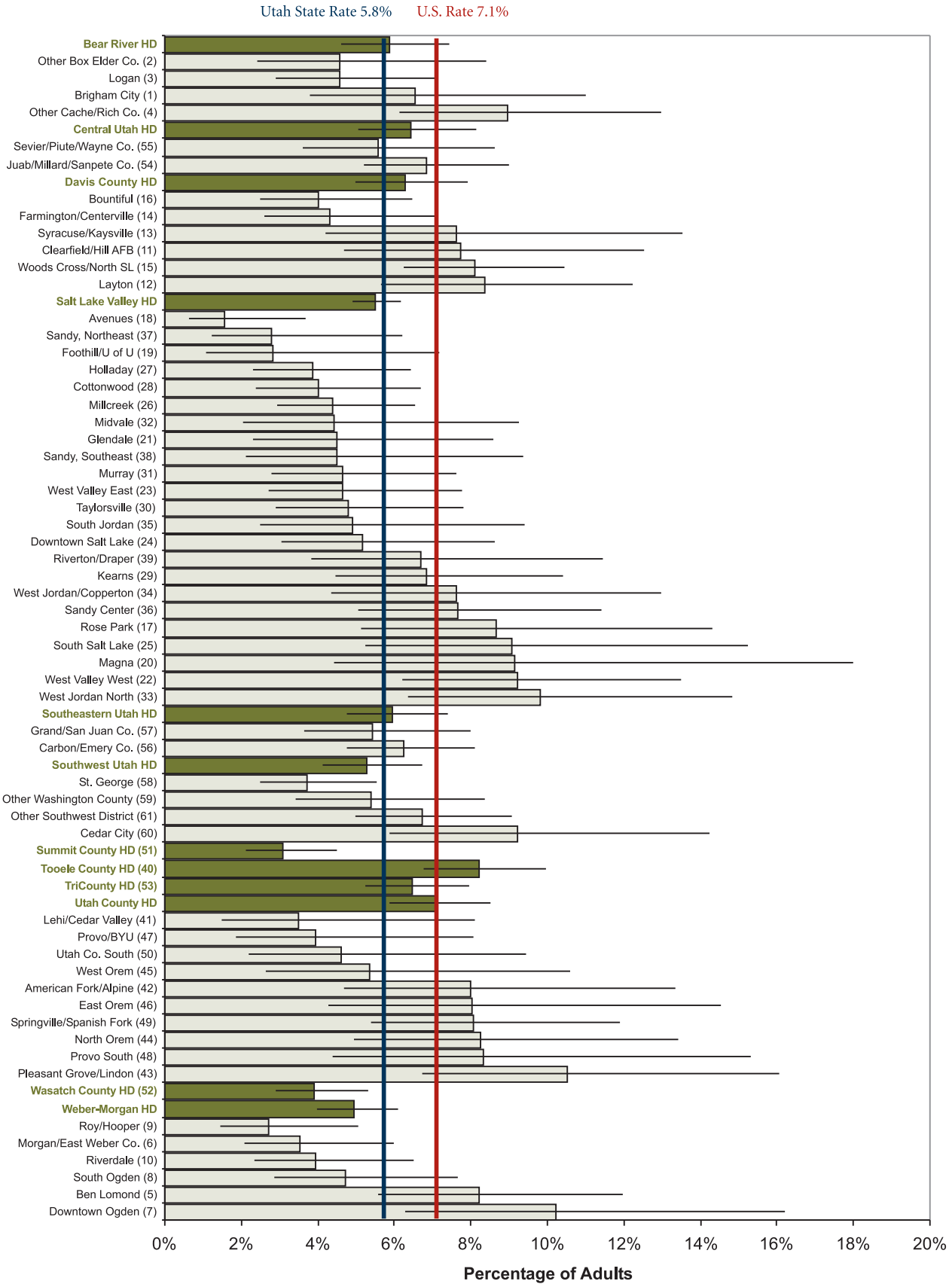
Prevention/Resources

The Utah Diabetes Prevention and Control Program (DPCP), Bureau of Health Promotion at the Utah Department of Health recognizes the importance of promoting resources and building capacity at the community level. The program provides information on diabetes awareness and management to health care providers and to the general public. Self-care manuals in eleven languages are available through the program and may be downloaded from its website, http://health.utah.gov/diabetes. The site also offers a number of links with resources for clinicians and provides links to patient assistance programs.

The DPCP certifies diabetes education programs, a good proportion providing services in rural areas where no other programs are available. The DPCP also sponsors monthly telehealth programs for health care professionals, covering such topics as foot care, insulin use, and aggressive treatment. The DPCP uses the media extensively to promote awareness of the risk factors and warning signs of diabetes. Those interested in obtaining more information on diabetes control may call the Health Resource Line, 1-800-222-2542.

4. Doctor-diagnosed Diabetes

Figure 4.1: Percentage of Adults Who Reported Doctor-diagnosed Diabetes by Local Health District and Small Area, Utah Adults Aged 18+, 2001–2005 (Age-adjusted)



4. Doctor-diagnosed Diabetes

Table 4: Dr. Dx Diabetes by Health District, Small Area, Utah, and U.S., 2001-2005

State Rank*	State, Health District, or Small Area	2003 Population 18+	Number of Adults With Dr. Dx Diabetes	Crude Rate	Age-adjusted Rate	95% Confidence Interval Lower	95% Confidence Interval Upper
	U.S.	217,803,051	15,725,380	7.2%	7.1%	7.0%	7.2%
	State of Utah	1,657,454	82,375	5.0%	5.8%	5.4%	6.2%
	Bear River HD	98,027	4,990	5.1%	5.9%	4.6%	7.4%
35	Brigham City (1)	14,566	954	6.6%	6.5%	3.8%	11.0%
21	Logan (3)	45,904	1,189	2.6%	4.6%	2.9%	7.2%
20	Other Box Elder Co. (2)	14,636	688	4.7%	4.6%	2.4%	8.4%
54	Other Cache/Rich Co. (4)	22,921	2,012	8.8%	9.0%	6.1%	13.0%
	Central Utah HD	47,558	2,972	6.3%	6.4%	5.1%	8.1%
39	Juab/Millard/Sanpete Co. (54)	31,637	2,072	6.6%	6.9%	5.2%	9.0%
32	Sevier/Piute/Wayne Co. (55)	15,921	907	5.7%	5.6%	3.6%	8.6%
	Davis County HD	175,027	9,171	5.2%	6.3%	5.0%	7.9%
14	Bountiful (16)	33,318	1,646	4.9%	4.0%	2.5%	6.5%
43	Clearfield/Hill AFB (11)	37,329	2,128	5.7%	7.7%	4.7%	12.5%
15	Farmington/Centerville (14)	19,034	773	4.1%	4.3%	2.6%	7.1%
52	Layton (12)	46,815	2,856	6.1%	8.4%	5.6%	12.2%
41	Syracuse/Kaysville (13)	24,542	1,517	6.2%	7.6%	4.2%	13.5%
47	Woods Cross/North SL (15)	13,989	442	3.2%	8.1%	6.3%	10.5%
	Salt Lake Valley HD	658,810	31,293	4.8%	5.5%	4.9%	6.2%
1	Avenues (18)	18,959	320	1.7%	1.5%	0.6%	3.7%
13	Cottonwood (28)	33,297	1,578	4.7%	4.0%	2.4%	6.7%
28	Downtown Salt Lake (24)	42,808	1,704	4.0%	5.2%	3.0%	8.6%
4	Foothill/U of U (19)	17,778	418	2.4%	2.8%	1.1%	7.2%
18	Glendale (21)	18,642	913	4.9%	4.5%	2.3%	8.6%
9	Holladay (27)	35,956	1,773	4.9%	3.9%	2.3%	6.4%
38	Kearns (29)	42,995	2,348	5.5%	6.9%	4.5%	10.4%
56	Magna (20)	15,623	789	5.1%	9.1%	4.4%	18.0%
17	Midvale (32)	21,672	802	3.7%	4.4%	2.1%	9.3%
16	Millcreek (26)	44,008	2,016	4.6%	4.4%	2.9%	6.6%
23	Murray (31)	24,072	1,064	4.4%	4.6%	2.8%	7.6%
36	Riverton/Draper (39)	41,391	1,519	3.7%	6.7%	3.8%	11.5%
53	Rose Park (17)	22,639	1,422	6.3%	8.7%	5.1%	14.3%
42	Sandy Center (36)	36,106	2,018	5.6%	7.7%	5.1%	11.4%
3	Sandy, Northeast (37)	18,245	483	2.7%	2.8%	1.2%	6.2%
19	Sandy, Southeast (38)	20,781	584	2.8%	4.5%	2.1%	9.4%
27	South Jordan (35)	20,931	588	2.8%	4.9%	2.5%	9.4%
55	South Salt Lake (25)	18,456	1,811	9.8%	9.1%	5.2%	15.2%
26	Taylorsville (30)	27,372	1,196	4.4%	4.8%	2.9%	7.8%
59	West Jordan North (33)	30,391	1,684	5.5%	9.8%	6.4%	14.9%
40	West Jordan/Copperton (34)	26,360	1,392	5.3%	7.6%	4.3%	13.0%
24	West Valley East (23)	35,527	1,542	4.3%	4.6%	2.7%	7.8%
57	West Valley West (22)	44,794	3,449	7.7%	9.2%	6.2%	13.5%
	Southeastern Utah HD	36,828	2,202	6.0%	5.9%	4.8%	7.4%
33	Carbon/Emery Co. (56)	21,451	1,349	6.3%	6.2%	4.8%	8.1%
31	Grand/San Juan Co. (57)	15,377	829	5.4%	5.4%	3.7%	8.0%
	Southwest Utah HD	116,150	6,202	5.3%	5.3%	4.1%	6.7%
58	Cedar City (60)	22,401	1,261	5.6%	9.2%	5.9%	14.2%
37	Other Southwest District (61)	15,384	1,008	6.6%	6.7%	5.0%	9.1%
30	Other Washington County (59)	32,503	1,807	5.6%	5.4%	3.4%	8.4%
8	St. George (58)	45,862	1,899	4.1%	3.7%	2.5%	5.6%
5	**Summit County HD (51)**	24,525	564	2.3%	3.1%	2.1%	4.5%
48	**Tooele County HD (40)**	32,458	2,298	7.1%	8.2%	6.8%	10.0%
34	**TriCounty HD (53)**	28,023	1,813	6.5%	6.5%	5.2%	8.0%
	Utah County HD	278,832	13,691	4.9%	7.1%	5.9%	8.5%
44	American Fork/Alpine (42)	26,819	1,896	7.1%	8.0%	4.7%	13.4%
45	East Orem (46)	14,955	1,053	7.0%	8.0%	4.3%	14.5%
6	Lehi/Cedar Valley (41)	18,752	411	2.2%	3.5%	1.5%	8.1%
50	North Orem (44)	25,965	1,690	6.5%	8.2%	5.0%	13.4%
61	Pleasant Grove/Lindon (43)	24,636	1,877	7.6%	10.5%	6.7%	16.1%
12	Provo/BYU (47)	39,401	985	2.5%	3.9%	1.9%	8.1%
51	Provo South (48)	48,138	1,218	2.5%	8.3%	4.4%	15.3%
46	Springville/Spanish Fork (49)	41,036	2,602	6.3%	8.1%	5.4%	11.9%
22	Utah Co. South (50)	17,363	599	3.5%	4.6%	2.2%	9.4%
29	West Orem (45)	21,774	945	4.3%	5.4%	2.6%	10.6%
10	**Wasatch County HD (52)**	12,514	443	3.5%	3.9%	2.9%	5.3%
	Weber-Morgan HD	148,702	6,781	4.6%	5.0%	4.1%	6.2%
49	Ben Lomond (5)	33,215	2,186	6.6%	8.2%	5.6%	12.0%
60	Downtown Ogden (7)	21,684	1,926	8.9%	10.2%	6.3%	16.2%
7	Morgan/East Weber Co. (6)	24,131	818	3.4%	3.5%	2.1%	6.0%
11	Riverdale (10)	15,522	582	3.8%	3.9%	2.3%	6.5%
2	Roy/Hooper (9)	27,898	617	2.2%	2.7%	1.5%	5.1%
25	South Ogden (8)	26,255	1,160	4.4%	4.7%	2.9%	7.7%

*State rank is by 61 small areas for age-adjusted rate; 1 is always the lowest rate in the state and 61 is always the highest rate in the state.

Figure 4.2: Dr. Dx Diabetes by Small Area, Utah Adults Aged 18+, 2001–2005 (Age-adjusted)

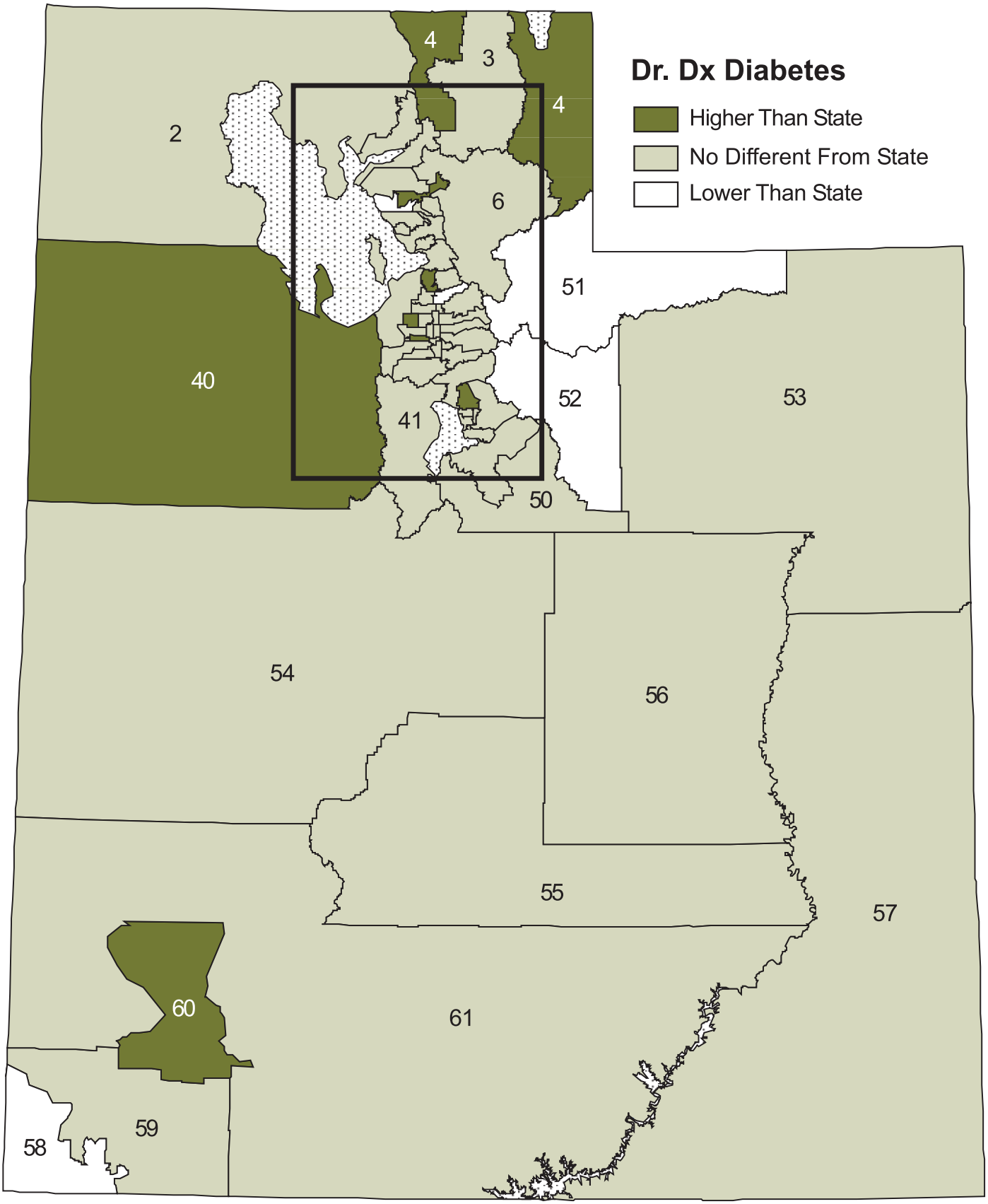
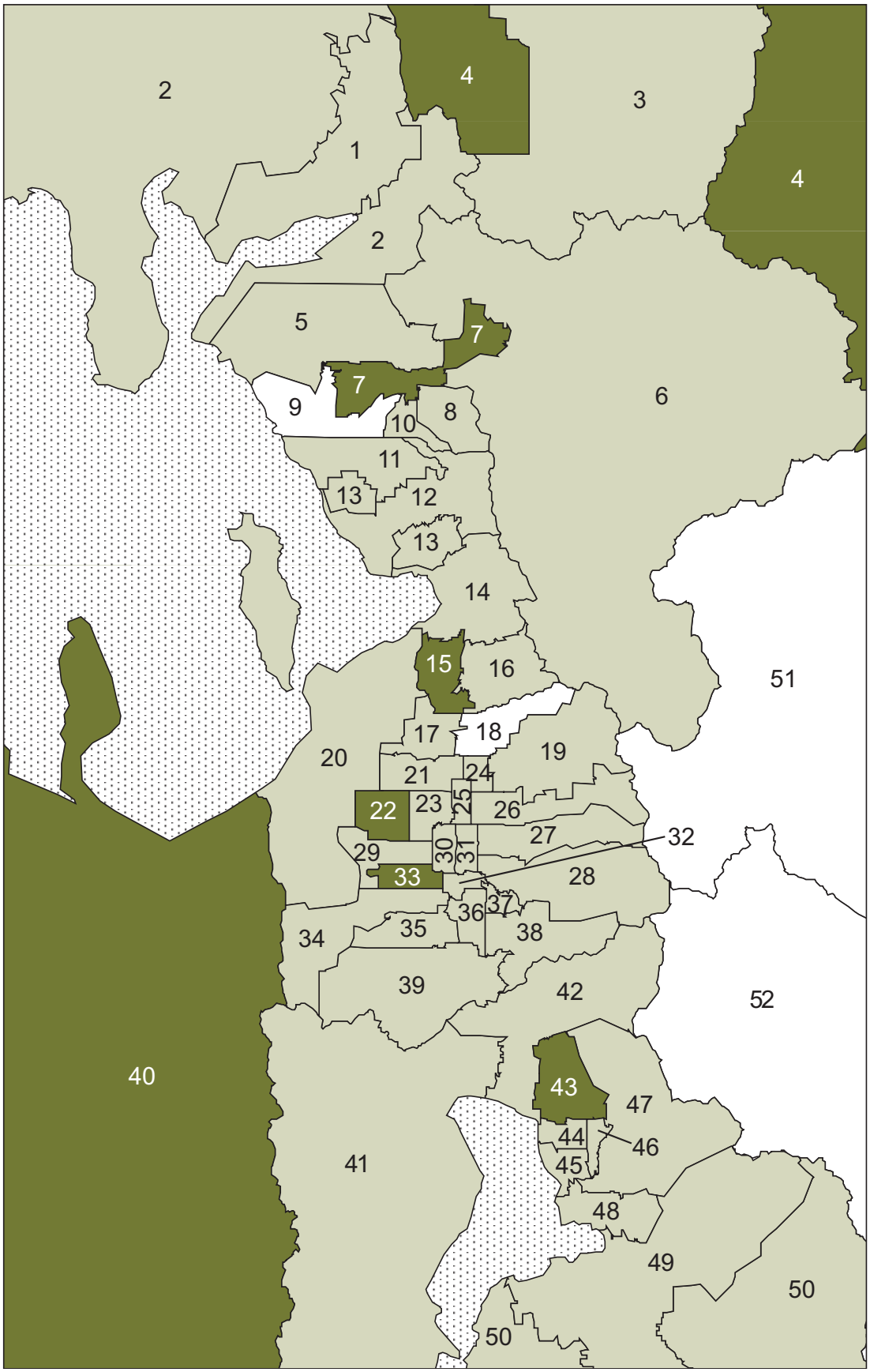


Figure 4.3: Dr. Dx Diabetes by Small Area, Wasatch Front Adults Aged 18+, 2001–2005 (Age-adjusted)



5. Current Doctor-diagnosed Asthma

Measure Definition: *"Have you ever been told by a doctor, nurse, or other health professional that you had asthma? Do you still have asthma?"* ***[Yes to both questions]***

Why is asthma important to public health?

Asthma is a chronic lung disease caused by airway inflammation that leads to reversible airflow obstruction. Asthma is one of the ten leading chronic conditions that restrict activity. In 2004, it was estimated that 20.5 million Americans currently have asthma. Of these, 11.7 million Americans, including 4 million children under 18, had an asthma attack.[11] Asthma is a serious personal and public health issue that has far-reaching medical, economic, and psychosocial implications. The burden of asthma can be seen in the number of asthma-related medical events, including emergency department visits, hospitalizations, and deaths. Although not much is known about asthma prevention, effective asthma management by patients, their family members, and their health care providers can reduce or prevent many problems caused by the disease.

Risk factors for asthma

According to BRFSS data 2001–2005, many factors are associated with the likelihood of an individual having asthma. Some of these factors include gender, age, ethnicity, and household income. Adult asthma rates were higher for women than men at every age category. For men, rates were highest in the 18–34 year age group. For women, rates were highest in the 50–64 year age group. Additionally, White, non-Hispanic persons and those with a lower household income were more likely to have asthma.

Asthma in Utah

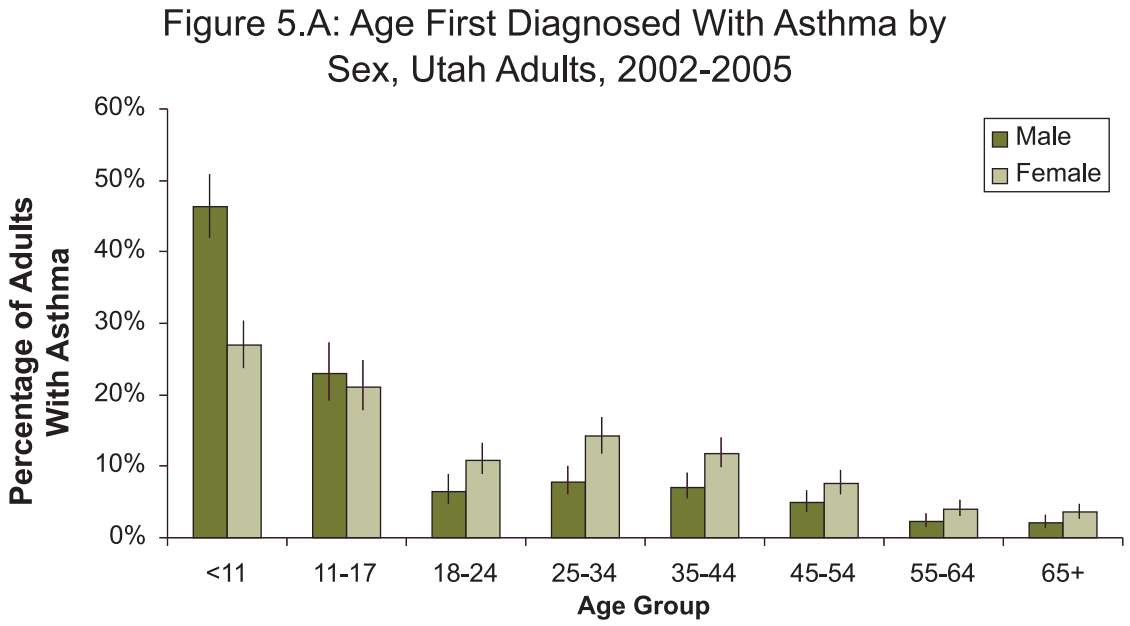
The age-adjusted aggregated state asthma prevalence rate for 2001–2005 was 7.5%. The corresponding crude rate was 7.7%. This means that approximately 127,000 adult Utahns had asthma in 2003. The age-adjusted prevalence of asthma varied by local health district and ranged from a low of 6.1% in Utah County to a high of 10.4% in Central Utah. These were the only two health districts where asthma prevalence differed significantly from the state rate, with Central Utah's rate being higher than the state and the Utah County rate being lower than the state.

When the local health districts were separated into their pre-determined small areas, it showed that within a local health district there were many small areas with higher or lower prevalence relative to the district's prevalence. For example, in Salt Lake Valley (overall prevalence 7.9%) the small area prevalence ranged from a low of 4.9% (age-adjusted) in Sandy Center to a high of 14.2% in Murray; the difference between these small areas was statistically significant.

Overall, the small area with the highest rate of asthma was Murray, with a rate of 14.2% and the small area with the lowest rate was North Orem, with a rate of 3.3%. Nearly half (44.1%) of adults with asthma have had it for more than 10 years. Males tended to be diagnosed with asthma in childhood, with about 70% of males diagnosed before age 18. Females, however, were split about 50/50, with half being diagnosed with asthma before age 18 and the other half after age 18 (Figure 5.A).

Utah Objective: No objective listed.
HP2010 Objective: No objective listed.

Asthma in Utah (continued)



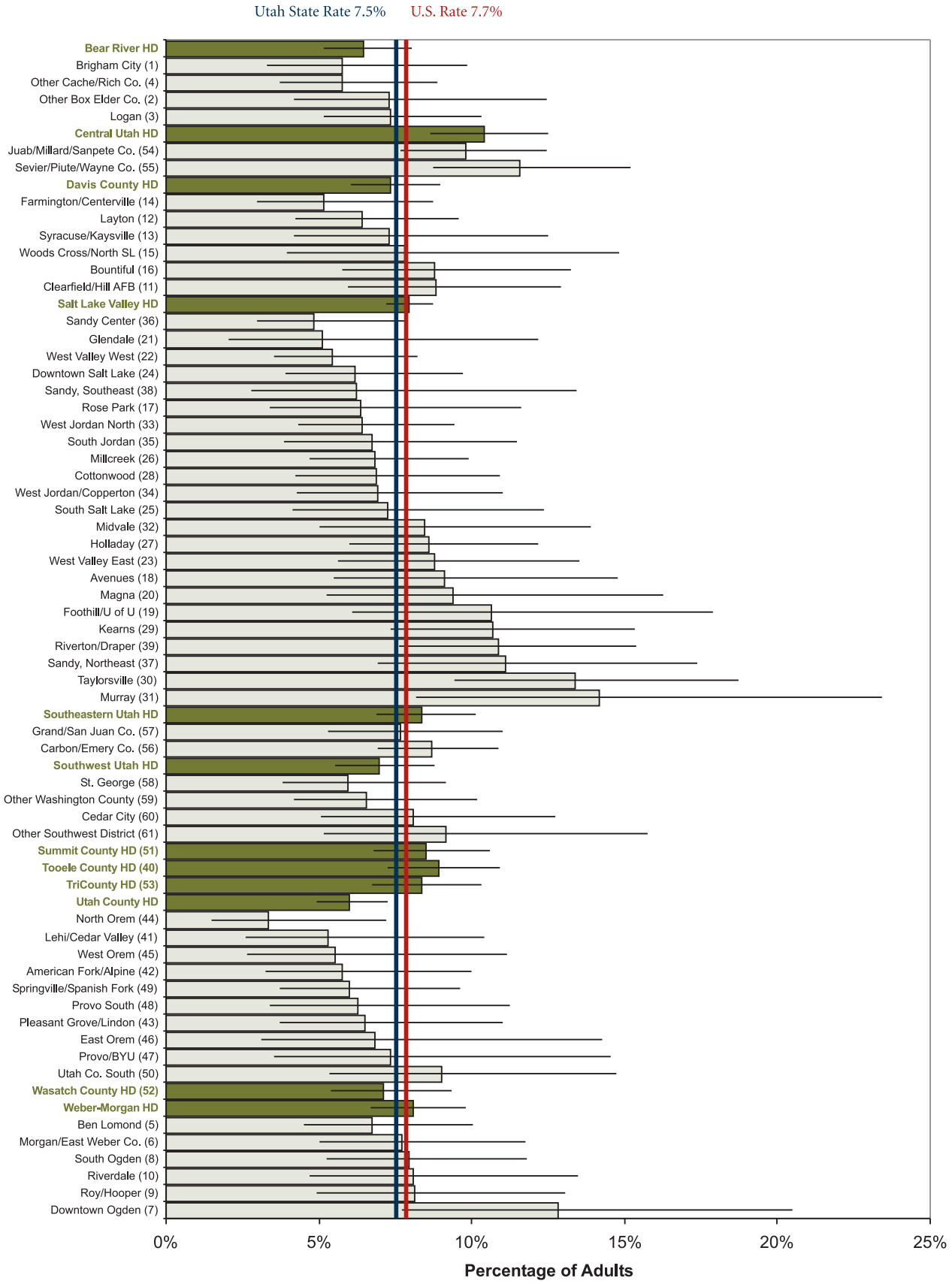
Prevention/Resources

The Utah Asthma Program, Bureau of Health Promotion at the Utah Department of Health recognizes the importance of promoting resources and building capacity at the community level. The program provides information on asthma awareness and management to health care providers and to the general public. The program provides health care professionals with resources to assist them with asthma management for their patients. It also works with high-risk occupations to help reduce asthma in the workplace. Information on air quality, pollen counts, and other resources are available at the program's website, http://health.utah.gov/asthma.

The Asthma Program and the American Lung Association of Utah offer several programs to schools to assist faculty, staff, and students with managing asthma in the classroom and other school activities. The Utah Asthma School Resource Manual and Training offers training to faculty and staff and provides them with a manual to help inform them about asthma. The Winning With Asthma online tutorial provides information to coaches and physical education teachers about how to manage asthma in athletes. The Open Airways for Schools teaches students with asthma how to manage their symptoms. More information on this program is available at http://www.lungusa2.org/utah/index.html. Those interested in obtaining more information on asthma control may call the Health Resource Line, 1-800-222-2542.

5. Current Doctor-diagnosed Asthma

Figure 5.1: Percentage of Adults Reporting Current Doctor-diagnosed Asthma by Local Health District and Small Area, Utah Adults Aged 18+, 2001–2005 (Age-adjusted)



5. Current Doctor-diagnosed Asthma

Table 5: Current Dr. Dx Asthma by Health District, Small Area, Utah, and U.S., 2001-2005

State Rank*	State, Health District, or Small Area	2003 Population 18+	Number of Adults With Current Dr. Dx Asthma	Crude Rate	Age-adjusted Rate	95% Confidence Interval Lower	95% Confidence Interval Upper
	U.S.	217,803,051	16,705,494	7.7%	7.7%	7.6%	7.7%
	State of Utah	1,657,454	127,458	7.7%	7.5%	7.1%	8.0%
	Bear River HD	98,027	6,382	6.5%	6.5%	5.2%	8.0%
8	Brigham City (1)	14,566	830	5.7%	5.7%	3.3%	9.9%
31	Logan (3)	45,904	3,250	7.1%	7.3%	5.1%	10.3%
29	Other Box Elder Co. (2)	14,636	1,052	7.2%	7.3%	4.2%	12.5%
10	Other Cache/Rich Co. (4)	22,921	1,235	5.4%	5.8%	3.7%	8.9%
	Central Utah HD	47,558	4,946	10.4%	10.4%	8.7%	12.5%
53	Juab/Millard/Sanpete Co. (54)	31,637	3,031	9.6%	9.8%	7.7%	12.4%
58	Sevier/Piute/Wayne Co. (55)	15,921	1,887	11.9%	11.6%	8.7%	15.2%
	Davis County HD	175,027	13,197	7.5%	7.4%	6.1%	9.0%
46	Bountiful (16)	33,318	2,722	8.2%	8.8%	5.8%	13.2%
47	Clearfield/Hill AFB (11)	37,329	3,737	10.0%	8.8%	6.0%	12.9%
4	Farmington/Centerville (14)	19,034	716	3.8%	5.1%	3.0%	8.7%
17	Layton (12)	46,815	3,399	7.3%	6.4%	4.3%	9.6%
30	Syracuse/Kaysville (13)	24,542	1,377	5.6%	7.3%	4.2%	12.5%
35	Woods Cross/North SL (15)	13,989	1,086	7.8%	7.8%	4.0%	14.8%
	Salt Lake Valley HD	658,810	53,693	8.2%	7.9%	7.2%	8.8%
50	Avenues (18)	18,959	1,623	8.6%	9.1%	5.5%	14.8%
25	Cottonwood (28)	33,297	2,647	8.0%	6.9%	4.3%	10.9%
13	Downtown Salt Lake (24)	42,808	2,470	5.8%	6.2%	3.9%	9.7%
54	Foothill/U of U (19)	17,778	1,806	10.2%	10.6%	6.1%	17.9%
3	Glendale (21)	18,642	1,258	6.8%	5.1%	2.1%	12.2%
43	Holladay (27)	35,956	3,333	9.3%	8.6%	6.0%	12.2%
55	Kearns (29)	42,995	4,368	10.2%	10.7%	7.3%	15.4%
52	Magna (20)	15,623	1,248	8.0%	9.4%	5.2%	16.3%
41	Midvale (32)	21,672	2,076	9.6%	8.5%	5.0%	13.9%
24	Millcreek (26)	44,008	3,072	7.0%	6.8%	4.7%	9.9%
61	Murray (31)	24,072	3,134	13.0%	14.2%	8.2%	23.4%
56	Riverton/Draper (39)	41,391	4,305	10.4%	10.9%	7.6%	15.4%
16	Rose Park (17)	22,639	1,442	6.4%	6.4%	3.4%	11.6%
2	Sandy Center (36)	36,106	1,708	4.7%	4.9%	3.0%	7.8%
57	Sandy, Northeast (37)	18,245	2,025	11.1%	11.1%	6.9%	17.4%
14	Sandy, Southeast (38)	20,781	1,085	5.2%	6.2%	2.8%	13.5%
21	South Jordan (35)	20,931	1,463	7.0%	6.7%	3.9%	11.5%
28	South Salt Lake (25)	18,456	1,261	6.8%	7.2%	4.2%	12.4%
60	Taylorsville (30)	27,372	3,920	14.3%	13.4%	9.4%	18.7%
18	West Jordan North (33)	30,391	2,033	6.7%	6.4%	4.3%	9.4%
26	West Jordan/Copperton (34)	26,360	1,792	6.8%	6.9%	4.3%	11.0%
45	West Valley East (23)	35,527	3,023	8.5%	8.8%	5.6%	13.5%
6	West Valley West (22)	44,794	2,746	6.1%	5.4%	3.5%	8.2%
	Southeastern Utah HD	36,828	3,090	8.4%	8.3%	6.9%	10.1%
44	Carbon/Emery Co. (56)	21,451	1,864	8.7%	8.7%	6.9%	10.9%
33	Grand/San Juan Co. (57)	15,377	1,201	7.8%	7.7%	5.3%	11.0%
	Southwest Utah HD	116,150	8,479	7.3%	7.0%	5.5%	8.8%
38	Cedar City (60)	22,401	1,940	8.7%	8.1%	5.1%	12.7%
51	Other Southwest District (61)	15,384	1,283	8.3%	9.1%	5.1%	15.8%
20	Other Washington County (59)	32,503	2,171	6.7%	6.6%	4.2%	10.2%
11	St. George (58)	45,862	3,018	6.6%	5.9%	3.8%	9.2%
42	**Summit County HD (51)**	24,525	1,960	8.0%	8.5%	6.8%	10.6%
48	**Tooele County HD (40)**	32,458	2,886	8.9%	8.9%	7.3%	10.9%
40	**TriCounty HD (53)**	28,023	2,430	8.7%	8.4%	6.7%	10.3%
	Utah County HD	278,832	17,176	6.2%	6.1%	5.0%	7.4%
9	American Fork/Alpine (42)	26,819	1,824	6.8%	5.7%	3.3%	10.0%
23	East Orem (46)	14,955	812	5.4%	6.8%	3.1%	14.3%
5	Lehi/Cedar Valley (41)	18,752	911	4.9%	5.3%	2.6%	10.4%
1	North Orem (44)	25,965	862	3.3%	3.3%	1.5%	7.2%
19	Pleasant Grove/Lindon (43)	24,636	1,616	6.6%	6.5%	3.7%	11.0%
32	Provo/BYU (47)	39,401	3,345	8.5%	7.3%	3.5%	14.6%
15	Provo South (48)	48,138	2,768	5.8%	6.3%	3.4%	11.3%
12	Springville/Spanish Fork (49)	41,036	2,462	6.0%	6.0%	3.7%	9.6%
49	Utah Co. South (50)	17,363	1,455	8.4%	9.0%	5.4%	14.7%
7	West Orem (45)	21,774	1,487	6.8%	5.5%	2.6%	11.1%
27	**Wasatch County HD (52)**	12,514	875	7.0%	7.1%	5.4%	9.4%
	Weber-Morgan HD	148,702	12,000	8.1%	8.1%	6.7%	9.8%
22	Ben Lomond (5)	33,215	2,338	7.0%	6.8%	4.5%	10.0%
59	Downtown Ogden (7)	21,684	2,728	12.6%	12.8%	7.7%	20.5%
34	Morgan/East Weber Co. (6)	24,131	1,834	7.6%	7.7%	5.0%	11.8%
37	Riverdale (10)	15,522	1,349	8.7%	8.1%	4.7%	13.5%
39	Roy/Hooper (9)	27,898	1,958	7.0%	8.1%	5.0%	13.0%
36	South Ogden (8)	26,255	2,240	8.5%	7.9%	5.3%	11.8%

*State rank is by 61 small areas for age-adjusted rate; 1 is always the lowest rate in the state and 61 is always the highest rate in the state.

Figure 5.2: Current Dr. Dx Asthma by Small Area, Utah Adults Aged 18+, 2001–2005 (Age-adjusted)

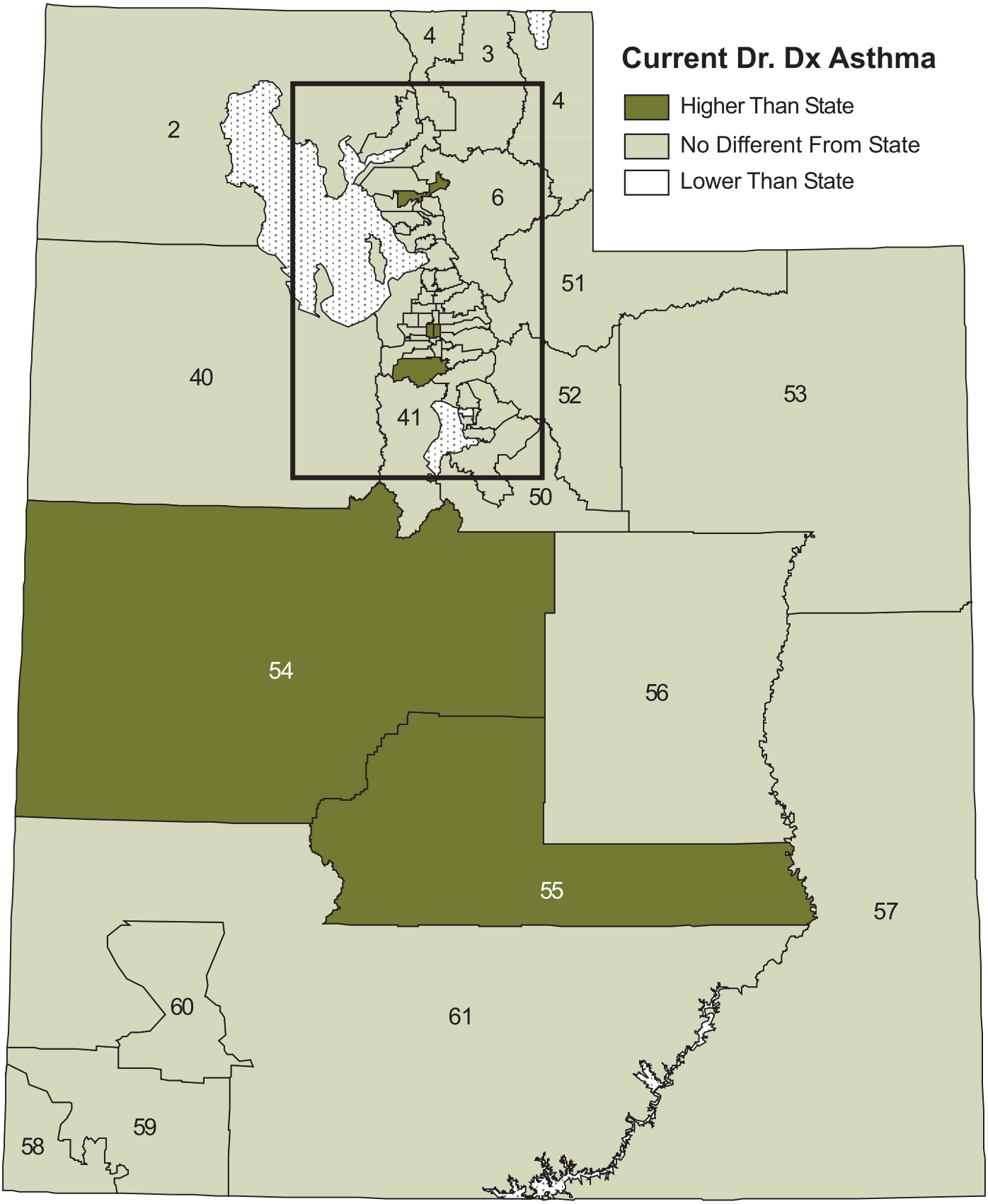
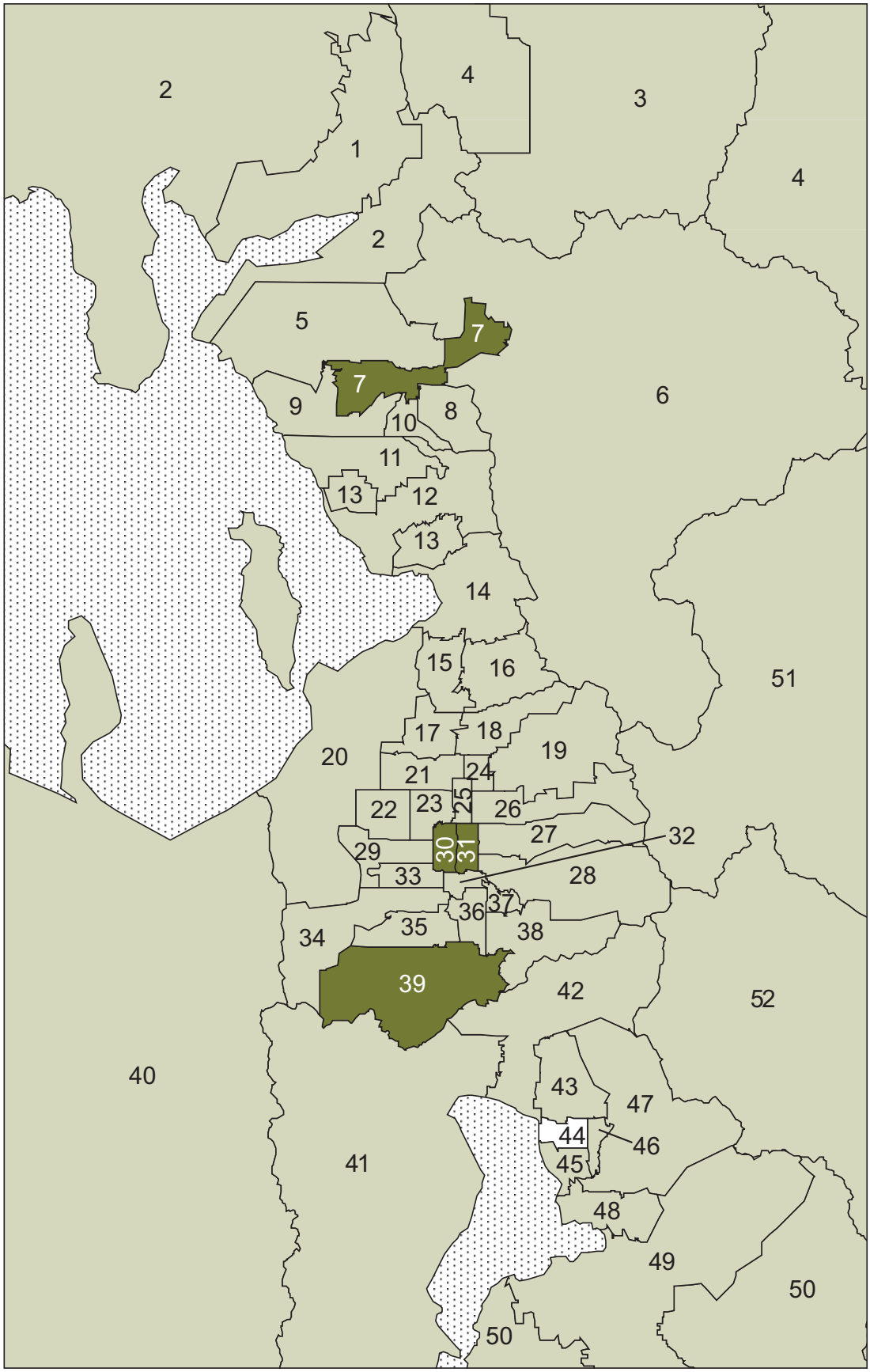


Figure 5.3: Current Dr. Dx Asthma by Small Area, Wasatch Front Adults Aged 18+, 2001–2005 (Age-adjusted)



6. Doctor-diagnosed Arthritis

Measure Definition: *"Have you ever been told by a doctor or other health professional that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?"* ***[Yes]***

Why is arthritis important to public health?

In 2002, an estimated 42.7 million, or 20.8% of U.S. adults aged 18 years and older reported arthritis. Women had a higher prevalence of arthritis (24.3%) than men (17.1%). Prevalence among all respondents increased with age. One in three U.S. adults with arthritis (37.6%) reported activity limitations caused by arthritis or joint symptoms, which equals 7.8% or 16 million U.S. adults. Nearly one in four adults with arthritis (24.6%) reported severe joint pain during the preceding 30 days. Among persons 18–64 years of age with arthritis, 30.6% or 8.2 million adults reported limitations at work which were caused by arthritis.[12]

Arthritis also results in a substantial burden to the U.S. health care system. Each year, arthritis results in 750,000 hospitalizations and 36 million outpatient visits. The total cost of arthritis and other related conditions in the United States in 1997 was $86.2 billion (including $51.1 billion in direct costs and $35.1 billion in indirect costs), which was approximately 1% of the 1997 U.S. gross domestic product.[13]

Risk factors for arthritis

Certain factors have been shown to be associated with a greater risk of arthritis. Some of these risk factors are modifiable while others are not. Non-modifiable risk factors include age, gender, and genetics. The risk of developing arthritis increases with age. Most types of arthritis are more common in women. Genes have been identified that are associated with a higher risk of certain types of arthritis, such as rheumatoid arthritis and systemic lupus erythematosus. Modifiable risk factors include overweight or obesity, joint injuries, infection, and occupation. Excess weight can contribute to both the onset and progression of knee osteoarthritis. Damage to a joint can contribute to the development of osteoarthritis of that joint. Many microbial agents can infect joints and may cause various forms of arthritis. Certain occupations involving repetitive knee bending are associated with osteoarthritis of the knee.

Arthritis in Utah

The age-adjusted prevalence rate of arthritis in Utah using the aggregated 2001–2005 data was 24.8% of the population aged 18 and older. The crude rate was 21.8%, meaning that in 2003, approximately 361,000 Utah adults reported arthritis. The age-adjusted U.S. rate of 25.6% was slightly higher than the Utah rate.

After adjusting for age, Central Utah and Weber-Morgan health districts had a higher prevalence of arthritis (30.6% and 27.7% respectively) compared to the state rate. The age-adjusted prevalence of arthritis in Utah's local health districts ranged from a low of 20.6% in Summit County to a high of 30.6% in Central Utah.

Within the local health districts there were small areas with higher and lower prevalence rates of arthritis relative to the age-adjusted state rate. For example, adults living in Juab, Millard, and Sanpete Counties, North Orem, and Ben Lomond reported a higher prevalence of arthritis than the state rate. Adults living in Southeast Sandy and Alpine/American Fork reported a lower prevalence of arthritis compared to the state rate. Overall, the small area with the highest prevalence of arthritis was North Orem (36.1%), and the small area with the lowest prevalence of arthritis was Alpine/American Fork, with a rate of 15.1%.

Utah Objective: Same as HP2010 objective.
HP2010 Objective (related) 2-7: (Developmental) Increase the proportion of adults who have seen a health care provider for their chronic joint symptoms.

Prevention/Resources

The Utah/Idaho Chapter of the Arthritis Foundation offers the following programs to improve quality of life and general health status:

Arthritis Foundation Aquatics Program – This program uses exercises that are performed while standing in a warm water pool. The water provides resistance to build muscle strength and supports joints to encourage free movement.

Arthritis Foundation Exercise Program – This program uses low-impact exercises created by physical therapists that can be performed while standing or sitting. The exercises use gentle range-of-motion movements suitable for any fitness level.

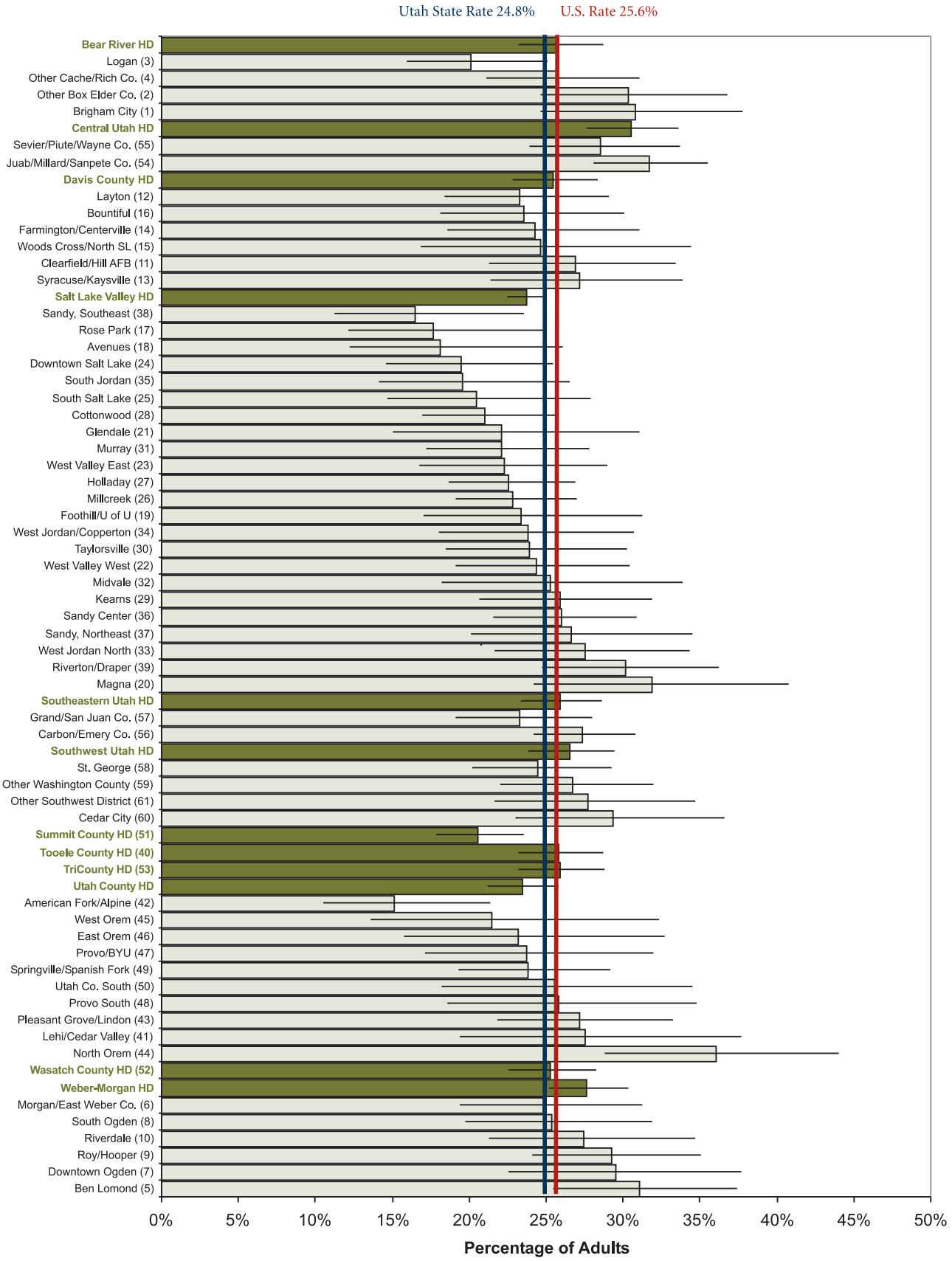
Arthritis Foundation Self-Help Program – This six-week program teaches participants about joint anatomy and protecting joints, the importance of exercise and nutrition, how to take medications properly, and to communicate better with their doctor.

Other resources include local orthopedic clinics, local health departments, Salt Lake County Aging Services, the Utah Division of Aging and Adult Services, the Department of Veterans Affairs Medical Center, the Department of Rheumatology at the University of Utah School of Medicine, and the Centers for Disease Control and Prevention.

For more information about arthritis contact the Utah Department of Health Arthritis Program at (801) 538-9458 or http://health.utah.gov/arthritis/.

6. Doctor-diagnosed Arthritis

Figure 6.1: Percentage of Adults Reporting Doctor-diagnosed Arthritis by Local Health District and Small Area, Utah Adults Aged 18+, 2001–2003, 2005 (Age-adjusted)



6. Doctor-diagnosed Arthritis

Table 6: Dr. Dx Arthritis by Health District, Small Area, Utah, and U.S., 2001-2003, 2005

State Rank*	State, Health District, or Small Area	2003 Population 18+	Number of Adults With Dr. Dx Arthritis	Crude Rate	Age-adjusted Rate	95% Confidence Interval Lower	95% Confidence Interval Upper
	U.S.	217,803,051	56,672,354	26.0%	25.6%	25.5%	25.8%
	State of Utah	1,657,454	361,656	21.8%	24.8%	24.1%	25.6%
	Bear River HD	98,027	20,919	21.3%	25.9%	23.2%	28.7%
57	Brigham City (1)	14,566	4,100	28.2%	30.8%	24.7%	37.8%
7	Logan (3)	45,904	6,165	13.4%	20.1%	15.9%	25.1%
56	Other Box Elder Co. (2)	14,636	4,482	30.6%	30.4%	24.6%	36.8%
35	Other Cache/Rich Co. (4)	22,921	5,437	23.7%	25.8%	21.1%	31.1%
	Central Utah HD	47,558	14,377	30.2%	30.6%	27.7%	33.7%
59	Juab/Millard/Sanpete Co. (54)	31,637	9,640	30.5%	31.7%	28.1%	35.5%
51	Sevier/Piute/Wayne Co. (55)	15,921	4,744	29.8%	28.6%	23.9%	33.7%
	Davis County HD	175,027	39,609	22.6%	25.4%	22.8%	28.3%
21	Bountiful (16)	33,318	7,760	23.3%	23.5%	18.1%	30.0%
43	Clearfield/Hill AFB (11)	37,329	7,959	21.3%	26.9%	21.3%	33.4%
26	Farmington/Centerville (14)	19,034	4,608	24.2%	24.3%	18.6%	31.1%
19	Layton (12)	46,815	9,794	20.9%	23.3%	18.4%	29.1%
44	Syracuse/Kaysville (13)	24,542	5,686	23.2%	27.2%	21.4%	33.9%
29	Woods Cross/North SL (15)	13,989	3,480	24.9%	24.6%	16.9%	34.4%
	Salt Lake Valley HD	658,810	137,098	20.8%	23.7%	22.5%	25.0%
4	Avenues (18)	18,959	3,181	16.8%	18.1%	12.2%	26.1%
10	Cottonwood (28)	33,297	7,695	23.1%	21.0%	16.9%	25.8%
5	Downtown Salt Lake (24)	42,808	6,781	15.8%	19.4%	14.6%	25.4%
20	Foothill/U of U (19)	17,778	3,975	22.4%	23.4%	17.0%	31.3%
12	Glendale (21)	18,642	2,999	16.1%	22.1%	15.1%	31.1%
15	Holladay (27)	35,956	10,258	28.5%	22.5%	18.6%	26.9%
38	Kearns (29)	42,995	8,307	19.3%	25.9%	20.6%	31.9%
60	Magna (20)	15,623	4,243	27.2%	31.9%	24.2%	40.8%
31	Midvale (32)	21,672	4,129	19.1%	25.2%	18.2%	33.9%
16	Millcreek (26)	44,008	10,989	25.0%	22.8%	19.2%	27.0%
13	Murray (31)	24,072	5,455	22.7%	22.1%	17.2%	27.8%
55	Riverton/Draper (39)	41,391	9,032	21.8%	30.2%	24.7%	36.3%
3	Rose Park (17)	22,639	3,663	16.2%	17.7%	12.2%	25.0%
40	Sandy Center (36)	36,106	7,066	19.6%	26.0%	21.6%	30.9%
41	Sandy, Northeast (37)	18,245	4,766	26.1%	26.7%	20.1%	34.5%
2	Sandy, Southeast (38)	20,781	3,157	15.2%	16.5%	11.3%	23.5%
6	South Jordan (35)	20,931	3,196	15.3%	19.6%	14.1%	26.5%
8	South Salt Lake (25)	18,456	3,700	20.1%	20.5%	14.7%	27.9%
25	Taylorsville (30)	27,372	5,729	20.9%	23.9%	18.5%	30.3%
48	West Jordan North (33)	30,391	6,051	19.9%	27.5%	21.6%	34.3%
23	West Jordan/Copperton (34)	26,360	4,827	18.3%	23.8%	18.0%	30.7%
14	West Valley East (23)	35,527	7,599	21.4%	22.3%	16.8%	29.0%
27	West Valley West (22)	44,794	9,165	20.5%	24.3%	19.1%	30.4%
	Southeastern Utah HD	36,828	9,336	25.4%	25.9%	23.3%	28.6%
46	Carbon/Emery Co. (56)	21,451	5,813	27.1%	27.4%	24.2%	30.8%
18	Grand/San Juan Co. (57)	15,377	3,364	21.9%	23.2%	19.1%	28.0%
	Southwest Utah HD	116,150	31,593	27.2%	26.5%	23.9%	29.4%
53	Cedar City (60)	22,401	5,038	22.5%	29.3%	23.0%	36.6%
50	Other Southwest District (61)	15,384	5,101	33.2%	27.7%	21.6%	34.7%
42	Other Washington County (59)	32,503	8,532	26.3%	26.7%	22.0%	32.0%
28	St. George (58)	45,862	12,337	26.9%	24.4%	20.2%	29.2%
9	**Summit County HD (51)**	24,525	4,449	18.1%	20.6%	17.9%	23.5%
37	**Tooele County HD (40)**	32,458	7,342	22.6%	25.9%	23.2%	28.7%
39	**TriCounty HD (53)**	28,023	7,042	25.1%	25.9%	23.2%	28.8%
	Utah County HD	278,832	48,489	17.4%	23.6%	21.4%	26.0%
1	American Fork/Alpine (42)	26,819	3,427	12.8%	15.1%	10.5%	21.4%
17	East Orem (46)	14,955	2,665	17.8%	23.2%	15.8%	32.7%
49	Lehi/Cedar Valley (41)	18,752	3,298	17.6%	27.6%	19.3%	37.7%
61	North Orem (44)	25,965	6,733	25.9%	36.1%	28.8%	44.0%
45	Pleasant Grove/Lindon (43)	24,636	4,654	18.9%	27.2%	21.9%	33.3%
22	Provo/BYU (47)	39,401	6,434	16.3%	23.7%	17.1%	32.0%
36	Provo South (48)	48,138	4,718	9.8%	25.8%	18.5%	34.8%
24	Springville/Spanish Fork (49)	41,036	8,654	21.1%	23.9%	19.3%	29.2%
34	Utah Co. South (50)	17,363	3,306	19.0%	25.5%	18.2%	34.5%
11	West Orem (45)	21,774	4,091	18.8%	21.5%	13.6%	32.3%
32	**Wasatch County HD (52)**	12,514	2,922	23.4%	25.3%	22.5%	28.3%
	Weber-Morgan HD	148,702	38,187	25.7%	27.7%	25.2%	30.4%
58	Ben Lomond (5)	33,215	9,134	27.5%	31.1%	25.5%	37.4%
54	Downtown Ogden (7)	21,684	6,067	28.0%	29.5%	22.5%	37.7%
30	Morgan/East Weber Co. (6)	24,131	5,799	24.0%	24.8%	19.4%	31.3%
47	Riverdale (10)	15,522	4,092	26.4%	27.5%	21.3%	34.7%
52	Roy/Hooper (9)	27,898	6,799	24.4%	29.2%	24.1%	35.0%
33	South Ogden (8)	26,255	6,440	24.5%	25.4%	19.8%	31.9%

*State rank is by 61 small areas for age-adjusted rate; 1 is always the lowest rate in the state and 61 is always the highest rate in the state.

Figure 6.2: Dr. Dx Arthritis by Small Area, Utah Adults Aged 18+, 2001–2003, 2005 (Age-adjusted)

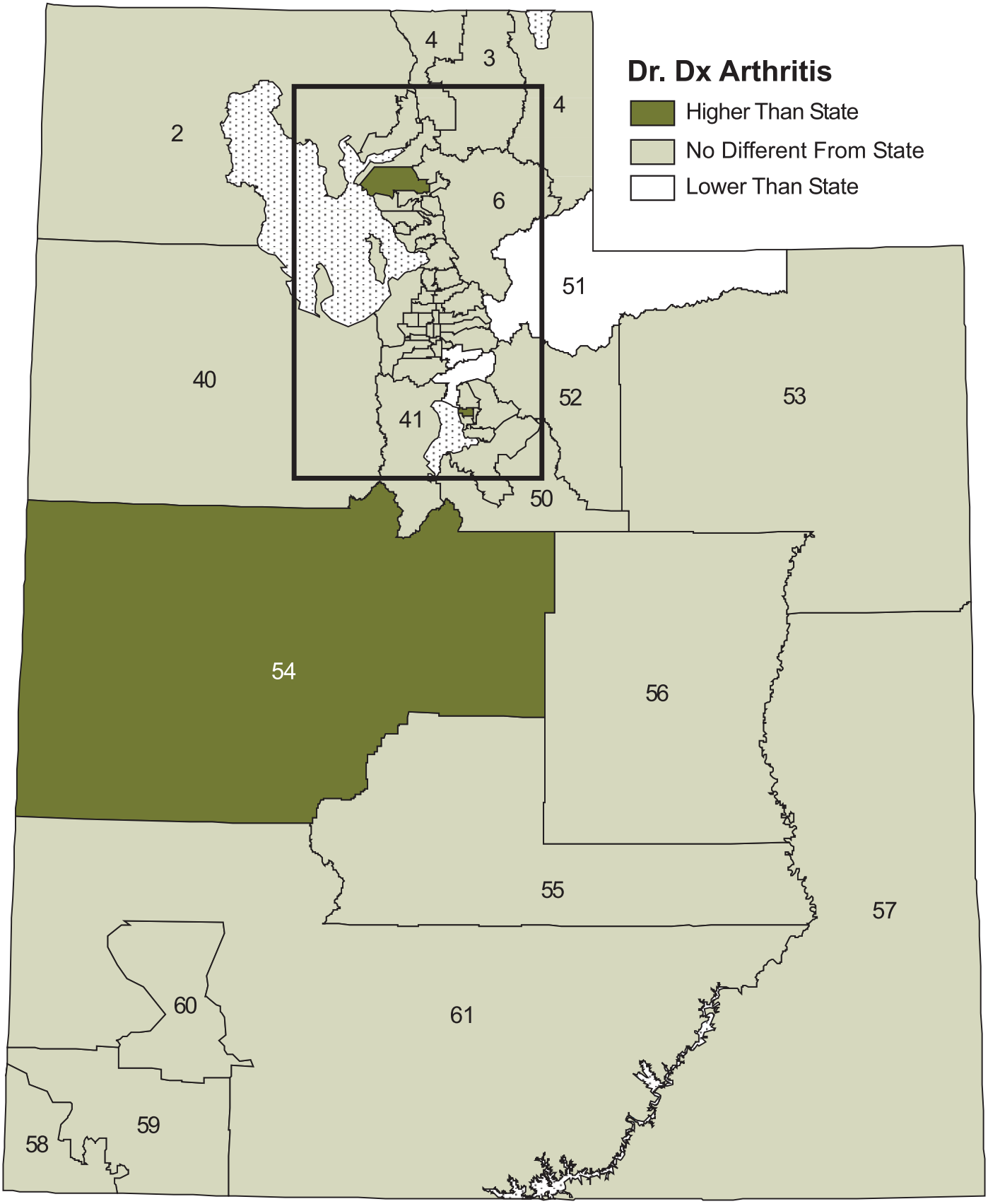
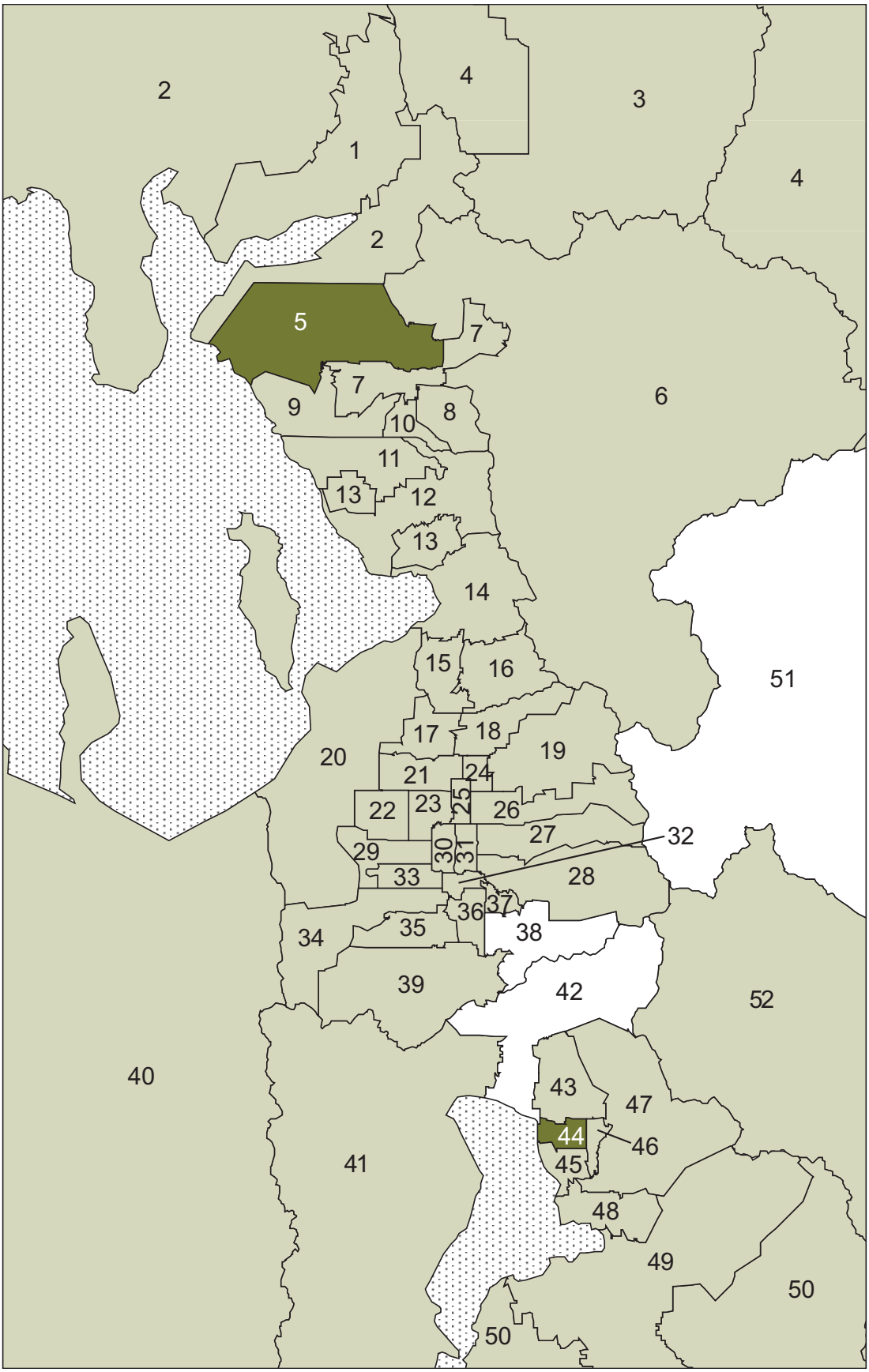


Figure 6.3: Dr. Dx Arthritis by Small Area, Wasatch Front Adults Aged 18+, 2001–2003, 2005 (Age-adjusted)



7. Doctor-diagnosed High Blood Pressure

Measure Definition: *"Have you ever been told by a doctor, nurse, or other health professional that you have high blood pressure?"* ***[Yes, excluding females told during pregnancy or people told they have borderline high blood pressure or are pre-hypertensive]***

Why is high blood pressure important to public health?

Heart disease and stroke are the number one and number three causes of death, respectively, in the United States and Utah. Approximately 4,000 people die of one of these two diseases in Utah each year. High blood pressure is a leading cause for these two diseases. Hypertension, often called high blood pressure, is defined as a systolic blood pressure of 140mm Hg or higher or a diastolic blood pressure of 90mm Hg or higher. Through regular blood pressure measurement, a doctor can diagnose high blood pressure. According to the American Heart Association, blood pressure measurement should be performed at least every two years after a normal reading. Hypertension is related to an increased incidence of heart disease, which includes heart attack, stroke, atherosclerosis (hardening of the arteries), and coronary artery disease (narrowing of the blood vessels that supply blood and oxygen to the heart). Individuals with high blood pressure should take steps to reduce and control their blood pressure.[14]

Risk factors for high blood pressure

Everyone has blood pressure, it is a sign that the heart is working and pumping blood through the body. Blood pressure varies throughout the day based on activities, emotions, stress, drug use (including prescriptions), time of day, alcohol use, smoking, diet, and many other factors. Prolonged elevated blood pressure can be dangerous because it means the heart is working too hard to pump the blood throughout the body. This can lead to weakening of the arteries and veins, which can cause a heart attack or stroke. People can lower their blood pressure by being physically active and eating a diet low in salt and high in fruits and vegetables. If this does not work, there are many types of medications that can lower a person's blood pressure.

Some women develop high blood pressure during pregnancy. This is known as gestational hypertension. Approximately 6% to 8% of pregnant women will develop high blood pressure.[15] Usually blood pressure returns to normal following pregnancy.

High blood pressure in Utah

Rates for high blood pressure have remained relatively unchanged over the past decade in Utah. Between 2001–2005, the age-adjusted percentage of adults with high blood pressure was 22.4%. The age-adjusted rate varied by local health district from a low of 17.7% (Summit Co.) to a high of 29.5% (Tooele Co.). Three health districts had rates higher than the state, and one had rates lower than the state rate. Four of Utah's 61 small areas had age-adjusted rates that were significantly lower than the state, and eight small areas had rates that were significantly higher than the state rate. Eight small areas had rates that were significantly lower than the U.S. rate.

In 2005, respondents with high blood pressure were asked if they were taking steps to reduce their blood pressure, and 96.5% said they were taking some form of action to control their blood pressure, including taking medication, reducing alcohol intake, eating better, exercising more, and reducing salt intake. Of those taking

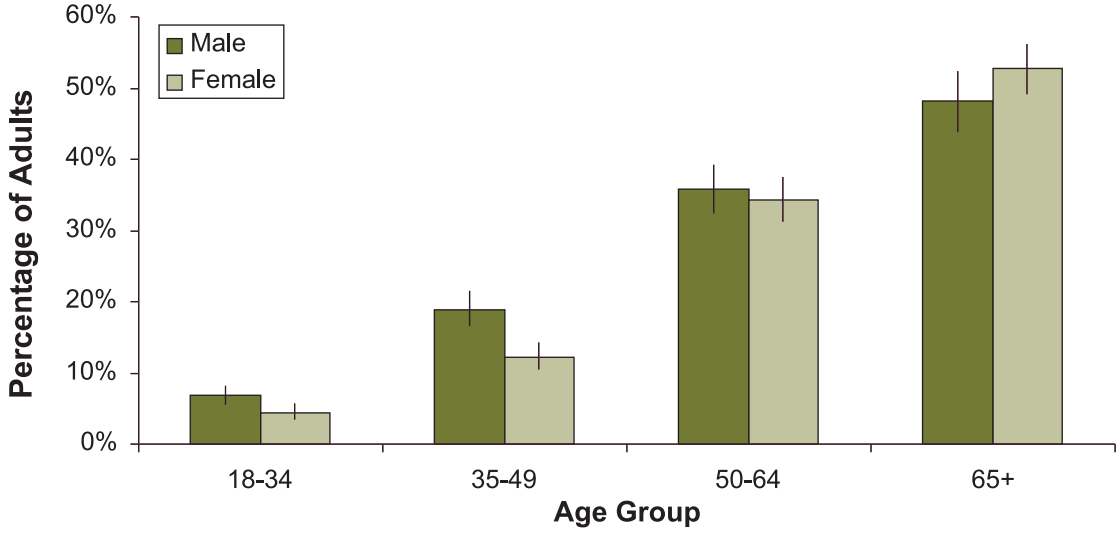
Utah Objective: Same as HP2010 objective.
HP2010 Objective (related) 12-9: Reduce the proportion of adults aged 20 years and older with high blood pressure to 16% (age-adjusted to the U.S. 2000 standard population).

High blood pressure in Utah (continued)

action, 1.5% were taking medication alone, 53.6% were taking medication and doing at least one other thing, and 44.9% were doing something other than taking medication.

Men aged 18–34 and 35–49 were significantly more likely to be told they had high blood pressure than women of the same age group ($p=0.01$ and $p<0.001$, respectively). Significant differences between sexes were not observed in other age groups. Chances of a respondent having high blood pressure increased with age.

Figure 7.A: Doctor-diagnosed High Blood Pressure by Age and Sex, Utah Adults, 2001, 2003, 2005

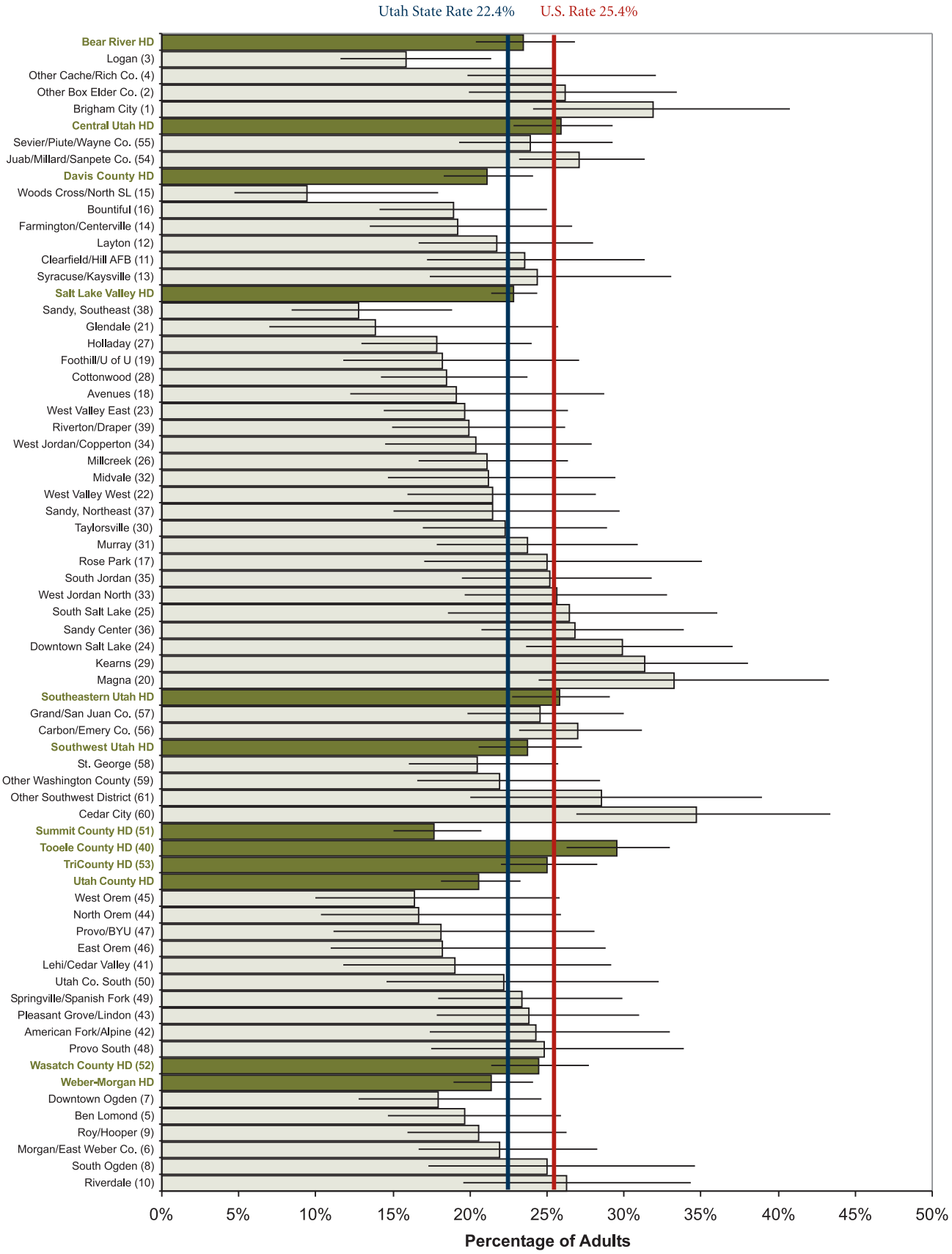


Prevention/Resources

The Heart Disease and Stroke Prevention Program (HDSPP) at the Utah Department of Health has a goal to decrease the number of heart disease and stroke-related deaths in the state. One way this is being addressed is by educating providers on current recommendations for blood pressure levels and treatment. For a copy of the manual that was produced for these teaching opportunities, please contact the HDSPP program at 801-538-6141. Many insurance companies and community health centers provide patients diagnosed with high blood pressure with a patient self-management kit that teaches the patient about high blood pressure and how to lower it. The kit also provides resources for getting more physical activity (a pedometer), a recipe book on "Dietary Approaches to Stop Hypertension" (DASH), and resources on how to take a blood pressure measurement so that they can monitor it at home or away from the clinical setting. The kit helps patients know what questions to ask their doctor so that they can discuss their disease more easily with their physician and empowers them to manage their blood pressure. The HDSPP provides more information at http://www.hearthighway.org. The National Institutes of Health provides resources, fact sheets, and answers to questions at http://health.nih.gov. The American Heart Association administers a comprehensive website for consumers and health care providers at http://www.americanheart.org.

7. Doctor-diagnosed High Blood Pressure

Figure 7.1: Percentage of Adults Reporting Doctor-diagnosed High Blood Pressure by Local Health District and Small Area, Utah Adults Aged 18+, 2001, 2003, 2005 (Age-adjusted)



7. Doctor-diagnosed High Blood Pressure

Table 7: Dr. Dx High Blood Pressure by Health District, Small Area, Utah, and U.S., 2001, 2003, 2005

State Rank*	State, Health District, or Small Area	2003 Population 18+	Number of Adults With Dr. Dx High Blood Pressure	Crude Rate	Age-adjusted Rate	95% Confidence Interval	
						Lower	Upper
	U.S.	217,803,051	56,410,990	25.9%	25.4%	25.3%	25.6%
	State of Utah	1,657,454	327,513	19.8%	22.4%	21.5%	23.3%
	Bear River HD	98,027	18,968	19.4%	23.4%	20.4%	26.8%
59	Brigham City (1)	14,566	4,246	29.2%	31.8%	24.1%	40.7%
4	Logan (3)	45,904	4,967	10.8%	15.9%	11.6%	21.4%
49	Other Box Elder Co. (2)	14,636	3,751	25.6%	26.1%	20.0%	33.4%
47	Other Cache/Rich Co. (4)	22,921	5,611	24.5%	25.5%	19.9%	32.0%
	Central Utah HD	47,558	12,256	25.8%	25.8%	22.8%	29.2%
54	Juab/Millard/Sanpete Co. (54)	31,637	8,409	26.6%	27.1%	23.2%	31.3%
37	Sevier/Piute/Wayne Co. (55)	15,921	3,875	24.3%	23.9%	19.3%	29.3%
	Davis County HD	175,027	31,592	18.1%	21.1%	18.3%	24.1%
14	Bountiful (16)	33,318	6,387	19.2%	19.0%	14.1%	25.0%
34	Clearfield/Hill AFB (11)	37,329	6,783	18.2%	23.6%	17.2%	31.3%
17	Farmington/Centerville (14)	19,034	3,316	17.4%	19.2%	13.5%	26.7%
28	Layton (12)	46,815	8,750	18.7%	21.8%	16.6%	28.0%
39	Syracuse/Kaysville (13)	24,542	5,151	21.0%	24.4%	17.4%	33.1%
1	Woods Cross/North SL (15)	13,989	1,175	8.4%	9.4%	4.7%	17.9%
	Salt Lake Valley HD	658,810	133,673	20.3%	22.8%	21.4%	24.3%
16	Avenues (18)	18,959	3,576	18.9%	19.1%	12.2%	28.7%
13	Cottonwood (28)	33,297	7,449	22.4%	18.5%	14.2%	23.8%
57	Downtown Salt Lake (24)	42,808	10,514	24.6%	29.9%	23.7%	37.0%
11	Foothill/U of U (19)	17,778	3,419	19.2%	18.2%	11.8%	27.1%
3	Glendale (21)	18,642	1,987	10.7%	13.9%	7.0%	25.7%
8	Holladay (27)	35,956	7,738	21.5%	17.8%	13.0%	24.0%
58	Kearns (29)	42,995	10,740	25.0%	31.3%	25.4%	38.0%
60	Magna (20)	15,623	3,778	24.2%	33.2%	24.5%	43.3%
25	Midvale (32)	21,672	3,673	17.0%	21.2%	14.7%	29.5%
24	Millcreek (26)	44,008	11,490	26.1%	21.1%	16.7%	26.3%
35	Murray (31)	24,072	6,057	25.2%	23.8%	17.9%	30.9%
20	Riverton/Draper (39)	41,391	5,050	12.2%	19.9%	14.9%	26.1%
44	Rose Park (17)	22,639	4,408	19.5%	25.0%	17.0%	35.1%
52	Sandy Center (36)	36,106	8,041	22.3%	26.8%	20.8%	33.8%
27	Sandy, Northeast (37)	18,245	3,456	18.9%	21.5%	15.1%	29.7%
2	Sandy, Southeast (38)	20,781	2,336	11.2%	12.8%	8.4%	18.8%
46	South Jordan (35)	20,931	3,820	18.3%	25.2%	19.5%	31.8%
51	South Salt Lake (25)	18,456	4,775	25.9%	26.4%	18.6%	36.1%
32	Taylorsville (30)	27,372	5,622	20.5%	22.3%	16.9%	28.9%
48	West Jordan North (33)	30,391	5,616	18.5%	25.7%	19.6%	32.8%
21	West Jordan/Copperton (34)	26,360	5,045	19.1%	20.4%	14.5%	27.9%
19	West Valley East (23)	35,527	7,770	21.9%	19.7%	14.4%	26.4%
26	West Valley West (22)	44,794	7,794	17.4%	21.4%	16.0%	28.2%
	Southeastern Utah HD	36,828	9,273	25.2%	25.7%	22.7%	29.0%
53	Carbon/Emery Co. (56)	21,451	5,642	26.3%	27.0%	23.2%	31.2%
41	Grand/San Juan Co. (57)	15,377	3,498	22.8%	24.5%	19.8%	30.0%
	Southwest Utah HD	116,150	27,795	23.9%	23.7%	20.6%	27.2%
61	Cedar City (60)	22,401	5,968	26.6%	34.7%	26.9%	43.4%
55	Other Southwest District (61)	15,384	4,757	30.9%	28.5%	20.0%	38.9%
30	Other Washington County (59)	32,503	6,835	21.0%	22.0%	16.6%	28.5%
22	St. George (58)	45,862	9,668	21.1%	20.5%	16.1%	25.7%
7	**Summit County HD (51)**	24,525	3,541	14.4%	17.7%	15.0%	20.8%
56	**Tooele County HD (40)**	32,458	8,644	26.6%	29.5%	26.3%	33.0%
45	**TriCounty HD (53)**	28,023	6,726	24.0%	25.0%	22.0%	28.2%
	Utah County HD	278,832	41,853	15.0%	20.6%	18.1%	23.3%
38	American Fork/Alpine (42)	26,819	5,723	21.3%	24.3%	17.4%	32.9%
12	East Orem (46)	14,955	2,789	18.7%	18.2%	11.0%	28.8%
15	Lehi/Cedar Valley (41)	18,752	2,211	11.8%	19.0%	11.7%	29.2%
6	North Orem (44)	25,965	3,768	14.5%	16.7%	10.3%	25.9%
36	Pleasant Grove/Lindon (43)	24,636	4,127	16.8%	23.8%	17.9%	31.0%
10	Provo/BYU (47)	39,401	4,413	11.2%	18.1%	11.2%	28.0%
42	Provo South (48)	48,138	4,852	10.1%	24.8%	17.5%	33.9%
33	Springville/Spanish Fork (49)	41,036	6,828	16.6%	23.4%	17.9%	29.9%
31	Utah Co. South (50)	17,363	2,860	16.5%	22.2%	14.6%	32.3%
5	West Orem (45)	21,774	2,746	12.6%	16.4%	10.0%	25.8%
40	**Wasatch County HD (52)**	12,514	2,833	22.6%	24.4%	21.4%	27.7%
	Weber-Morgan HD	148,702	29,859	20.1%	21.4%	18.9%	24.1%
18	Ben Lomond (5)	33,215	5,992	18.0%	19.7%	14.6%	25.9%
9	Downtown Ogden (7)	21,684	4,580	21.1%	18.0%	12.8%	24.7%
29	Morgan/East Weber Co. (6)	24,131	5,026	20.8%	21.9%	16.7%	28.2%
50	Riverdale (10)	15,522	3,590	23.1%	26.3%	19.6%	34.3%
23	Roy/Hooper (9)	27,898	4,854	17.4%	20.6%	15.9%	26.2%
43	South Ogden (8)	26,255	6,401	24.4%	25.0%	17.3%	34.6%

*State rank is by 61 small areas for age-adjusted rate; 1 is always the lowest rate in the state and 61 is always the highest rate in the state.

Figure 7.2: Dr. Dx High Blood Pressure by Small Area, Utah Adults Aged 18+, 2001, 2003, 2005 (Age-adjusted)

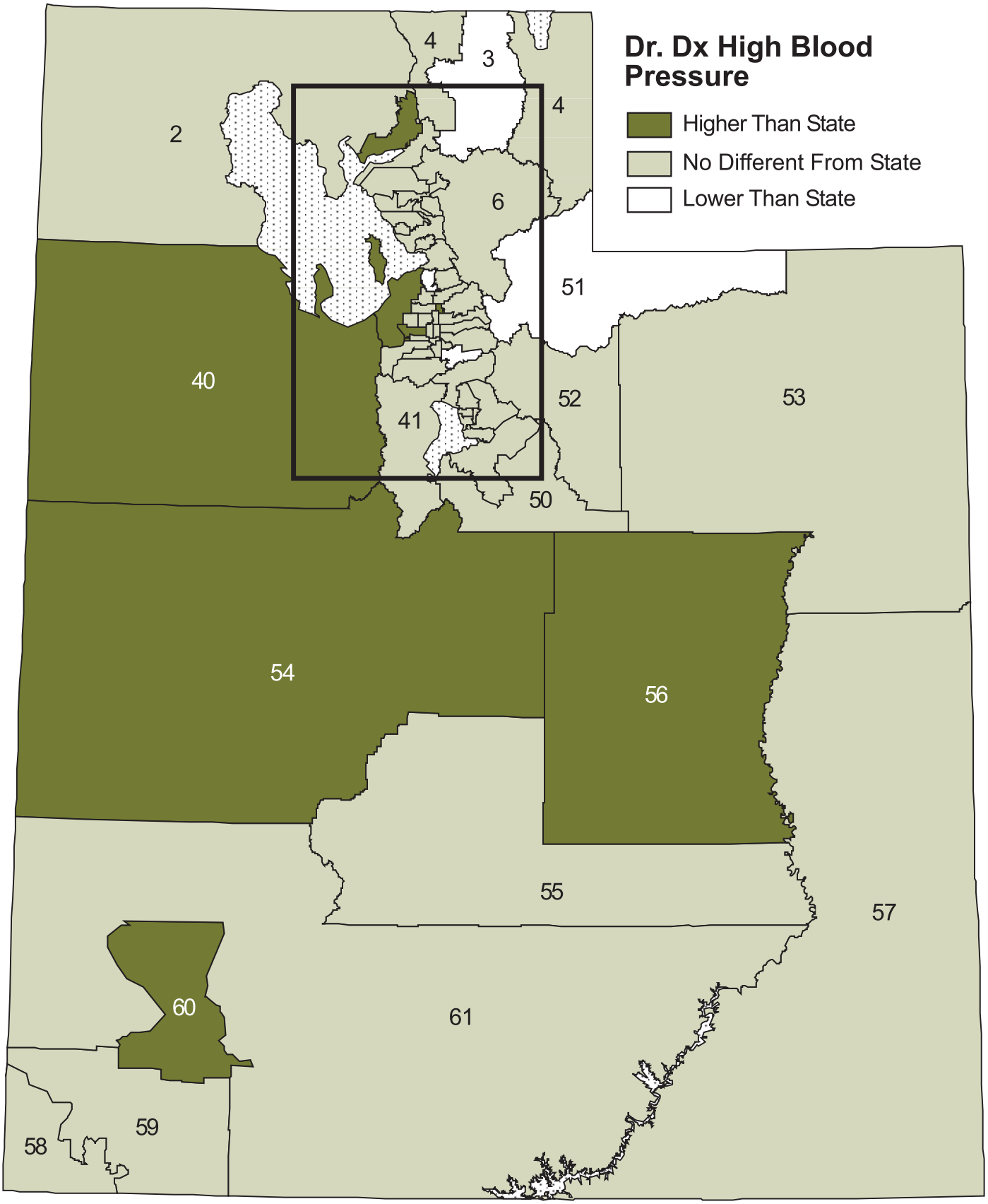
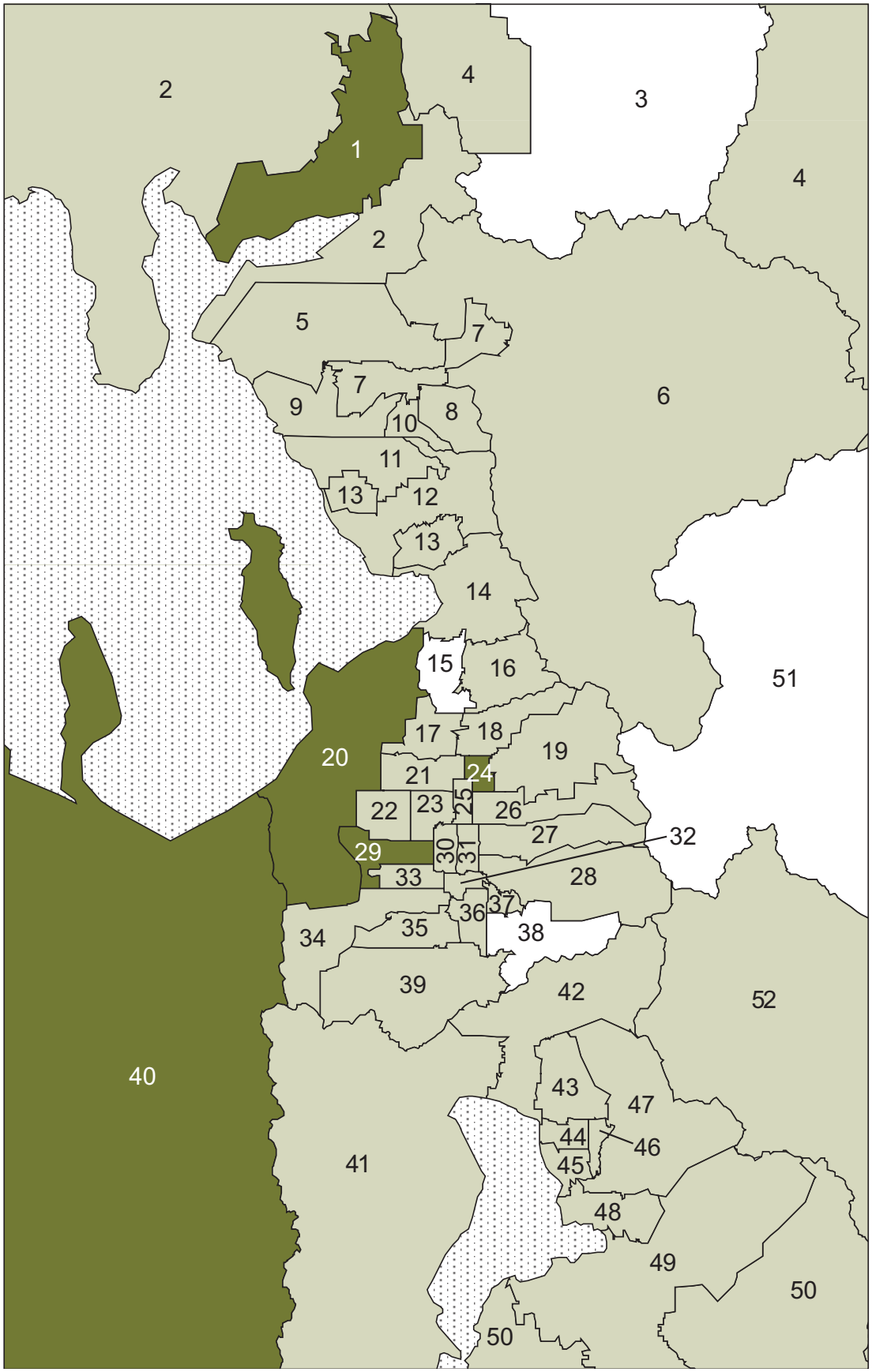


Figure 7.3: Dr. Dx High Blood Pressure by Small Area, Wasatch Front Adults 18+, 2001, 2003, 2005 (Age-adjusted)



8. Doctor-diagnosed High Cholesterol

Measure Definition: *"Have you ever been told by a doctor, nurse, or other health professional that your blood cholesterol is high?"* ***[Yes]***

Why is high cholesterol important to public health?

High levels of cholesterol and triglycerides increase the risk for heart disease, the number one killer in Utah. The National Heart, Lung, and Blood Institute defines high blood cholesterol as 240 mg/dl or greater and borderline high cholesterol as 200 to 239 mg/dl. Cholesterol and other fats cannot dissolve in the blood. They must be transported to and from the cells by special carriers called lipoproteins. There are two types of lipoproteins that are important in our bodies: low-density lipoprotein (LDL), which carries cholesterol to the arteries, and high-density lipoprotein (HDL), which removes cholesterol from the arteries. High levels of LDL and low levels of HDL are related to an increased incidence of heart disease including heart attack, atherosclerosis (hardening of the arteries), and coronary artery disease (narrowing of the blood vessels that supply blood and oxygen to the heart). Individuals with high cholesterol should take steps to reduce and control their cholesterol levels.[16]

Risk factors for high cholesterol

Everyone needs cholesterol. It is necessary for building cell walls and the production of sex hormones, vitamin D, and digestive juices. Cholesterol is necessary to help every organ in the body function properly. The body is able to make all the cholesterol a person needs. Cholesterol is also found in the animal products that we eat such as eggs, dairy products, meat, and poultry. When a person ingests too much cholesterol or the body makes too much cholesterol, it can build up in the blood vessels. The largest contributor to high blood cholesterol is eating a diet high in cholesterol. Physical activity can help lower the amount of LDL cholesterol in the body and increase the amount of HDL cholesterol. Increasing the amount of HDL in the body is beneficial because HDL cholesterol removes the LDL cholesterol from the arteries and transports it to the liver where it is used. Obesity, smoking, and excessive alcohol consumption can also increase the risk for high cholesterol.[9,17-19]

High cholesterol in Utah

The percentage of persons who have had their blood cholesterol measured in the past five years was 62.8% in 2005. This means a large number of Utahns who have not been tested could have high cholesterol and not know it. The data in this report should not be interpreted as the incidence of high blood cholesterol in Utah.

Between 2001–2005, the age-adjusted percentage of adults who had been told by a doctor that they had high cholesterol was 22.9%. The rate varied by local health district from a low of 20.4% to a high of 25.1%. None of the 12 health districts had rates that differed from the state. Two of Utah's 61 small areas had age-adjusted rates that were significantly lower than the state rate, and two small areas had rates that were significantly higher than the state rate. Overall Utah rates were lower than the U.S. rate. Eight small areas had rates that were significantly lower than the U.S. rate.

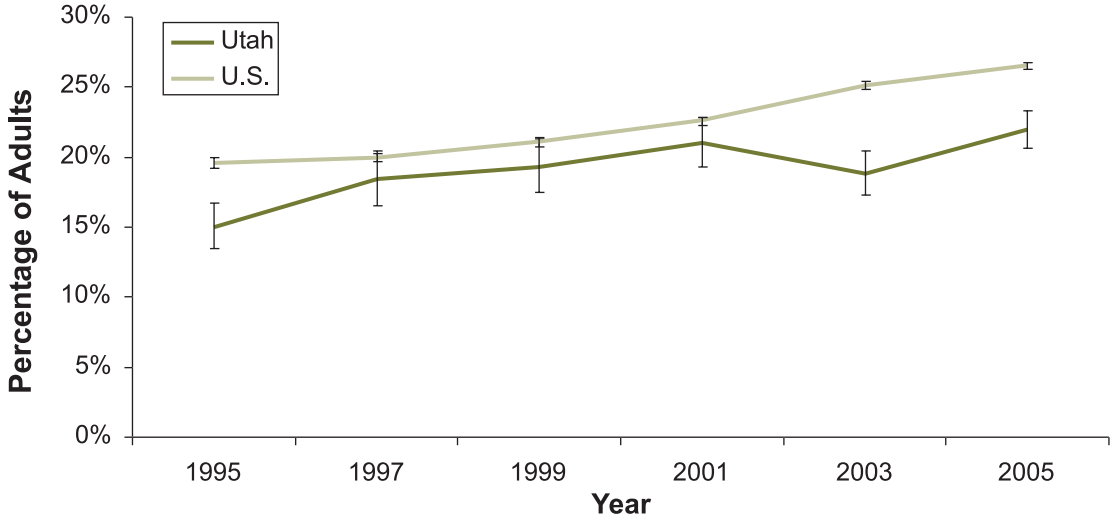
Rates for doctor-diagnosed high cholesterol have increased significantly over the past few years. From 1995–2005 the rate increased from 15.0% to 22.0%. Rates of respondents screened for high cholesterol did not increase significantly, which would suggest that actual rates of Utahns with high cholesterol are increas-

Utah Objective: Same as HP2010 objective.
HP2010 Objective (related) 12-14: Reduce the proportion of adults aged 20 years and older with high total blood cholesterol levels to 17% (age-adjusted to U.S. 2000 standard population).

High cholesterol in Utah (continued)

ing. Significant differences were not observed between genders. Rates of being diagnosed with high cholesterol increased with age.

Figure 8.A: Doctor-diagnosed High Cholesterol, Utah and U.S. Adults, 1995-2005

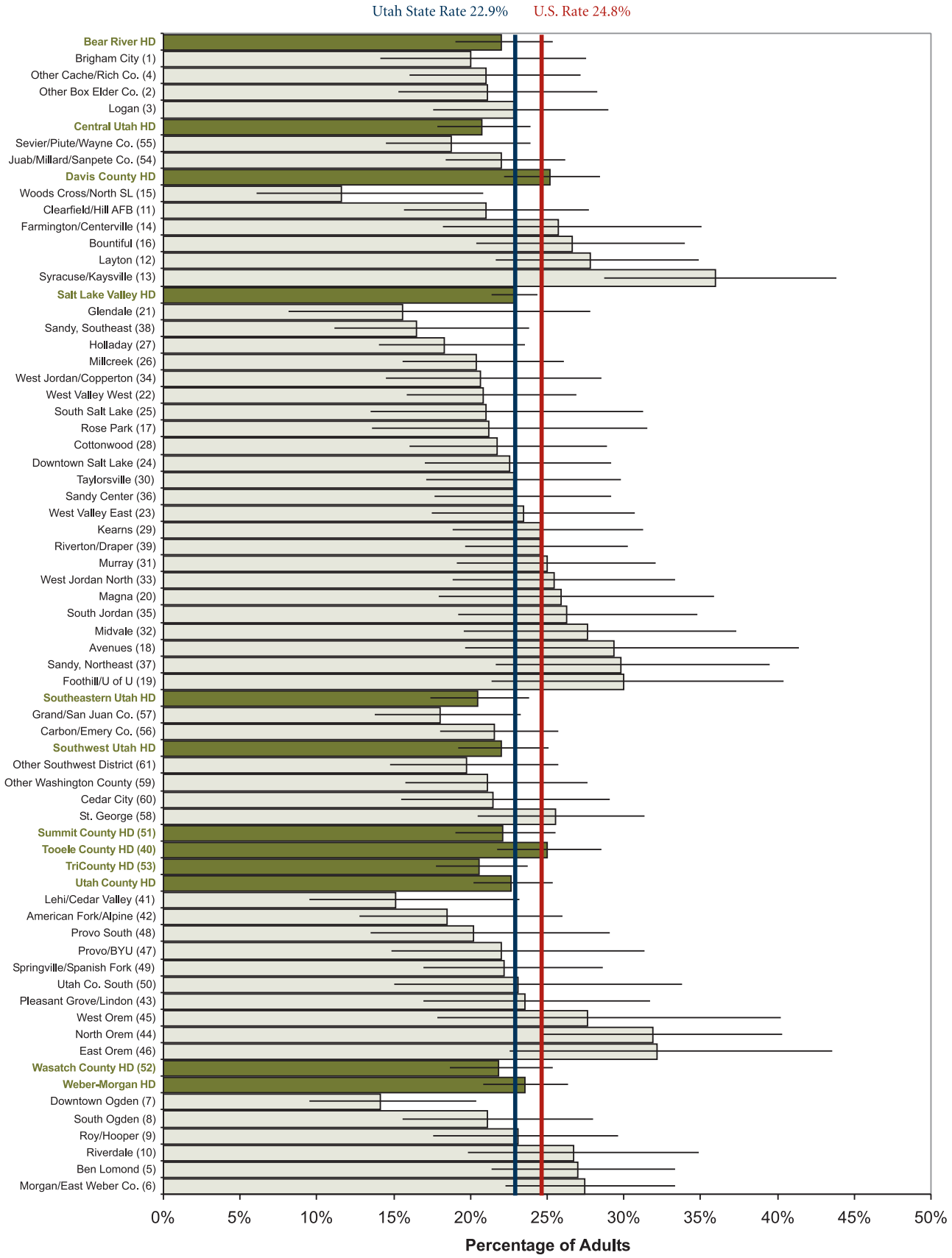


Prevention/Resources

The Heart Disease and Stroke Prevention Program (HDSPP) at the Utah Department of Health has a goal to decrease the number of heart disease and stroke-related deaths in the state. One way this is being done is by educating providers on the most current recommendations for cholesterol levels. This education also includes teaching physicians the suggested treatment of high blood cholesterol, and how to take a quick finger prick cholesterol test in the office. This is done so that they can give patients their results and counsel them at the initial office visit so patients who have a hard time following up with the physician will still be informed. For a copy of the manual that was produced for these teaching opportunities, please contact the HDSPP program at 801-538-6141. The HDSPP provides additional information at http://www.hearthighway.org. The National Institutes of Health provides resources, fact sheets, and answers to questions at http://health.nih.gov. The American Heart Association administers a comprehensive website for consumers and health care providers at http://www.americanheart.org.

8. Doctor-diagnosed High Cholesterol

Figure 8.1: Percentage of Adults Who Reported Doctor-diagnosed High Cholesterol by Local Health District and Small Area, Utah Adults Aged 18+, 2001, 2003, 2005 (Age-adjusted)



8. Doctor-diagnosed High Cholesterol

Table 8: Dr. Dx High Cholesterol by Health District, Small Area, Utah, and U.S., 2001, 2003, 2005

State Rank*	State, Health District, or Small Area	2003 Population 18+	Number of Adults With Dr. Dx High Cholesterol	Crude Rate	Age-adjusted Rate	95% Confidence Interval Lower	95% Confidence Interval Upper
	U.S.	217,803,051	54,995,270	25.3%	24.8%	24.6%	24.9%
	State of Utah	1,657,454	341,601	20.6%	22.9%	22.1%	23.8%
	Bear River HD	98,027	17,713	18.1%	22.0%	19.0%	25.4%
11	Brigham City (1)	14,566	3,028	20.8%	20.0%	14.1%	27.5%
33	Logan (3)	45,904	6,720	14.6%	22.8%	17.6%	29.0%
20	Other Box Elder Co. (2)	14,636	2,964	20.3%	21.1%	15.4%	28.2%
18	Other Cache/Rich Co. (4)	22,921	4,752	20.7%	21.1%	16.0%	27.2%
	Central Utah HD	47,558	9,721	20.4%	20.7%	17.8%	23.9%
28	Juab/Millard/Sanpete Co. (54)	31,637	6,685	21.1%	22.0%	18.4%	26.1%
9	Sevier/Piute/Wayne Co. (55)	15,921	3,062	19.2%	18.8%	14.5%	23.9%
	Davis County HD	175,027	40,204	23.0%	25.1%	22.2%	28.4%
49	Bountiful (16)	33,318	8,689	26.1%	26.6%	20.4%	34.0%
19	Clearfield/Hill AFB (11)	37,329	6,036	16.2%	21.1%	15.6%	27.7%
46	Farmington/Centerville (14)	19,034	4,947	26.0%	25.7%	18.2%	35.0%
55	Layton (12)	46,815	11,713	25.0%	27.8%	21.7%	34.9%
61	Syracuse/Kaysville (13)	24,542	7,758	31.6%	35.9%	28.7%	43.9%
1	Woods Cross/North SL (15)	13,989	1,441	10.3%	11.6%	6.1%	20.8%
	Salt Lake Valley HD	658,810	138,745	21.1%	22.9%	21.5%	24.4%
56	Avenues (18)	18,959	5,460	28.8%	29.3%	19.7%	41.4%
26	Cottonwood (28)	33,297	8,258	24.8%	21.8%	16.0%	28.9%
32	Downtown Salt Lake (24)	42,808	7,316	17.1%	22.5%	17.1%	29.1%
58	Foothill/U of U (19)	17,778	5,465	30.7%	30.0%	21.4%	40.4%
4	Glendale (21)	18,642	2,103	11.3%	15.6%	8.1%	27.8%
7	Holladay (27)	35,956	8,299	23.1%	18.3%	14.0%	23.5%
40	Kearns (29)	42,995	9,369	21.8%	24.5%	18.8%	31.3%
47	Magna (20)	15,623	2,959	18.9%	25.9%	18.0%	35.9%
53	Midvale (32)	21,672	4,538	20.9%	27.6%	19.6%	37.3%
13	Millcreek (26)	44,008	9,083	20.6%	20.3%	15.6%	26.1%
43	Murray (31)	24,072	6,487	27.0%	25.0%	19.1%	32.1%
41	Riverton/Draper (39)	41,391	8,307	20.1%	24.6%	19.7%	30.2%
23	Rose Park (17)	22,639	3,966	17.5%	21.2%	13.6%	31.5%
35	Sandy Center (36)	36,106	6,694	18.5%	22.9%	17.7%	29.2%
57	Sandy, Northeast (37)	18,245	4,879	26.7%	29.8%	21.6%	39.5%
5	Sandy, Southeast (38)	20,781	4,482	21.6%	16.5%	11.1%	23.9%
48	South Jordan (35)	20,931	5,423	25.9%	26.3%	19.2%	34.8%
17	South Salt Lake (25)	18,456	3,514	19.0%	21.0%	13.5%	31.2%
34	Taylorsville (30)	27,372	5,113	18.7%	22.8%	17.1%	29.8%
44	West Jordan North (33)	30,391	5,212	17.2%	25.4%	18.9%	33.4%
15	West Jordan/Copperton (34)	26,360	4,734	18.0%	20.6%	14.5%	28.5%
38	West Valley East (23)	35,527	8,971	25.3%	23.5%	17.5%	30.7%
16	West Valley West (22)	44,794	8,936	20.0%	20.9%	15.9%	26.9%
	Southeastern Utah HD	36,828	7,564	20.5%	20.4%	17.4%	23.8%
25	Carbon/Emery Co. (56)	21,451	4,458	20.8%	21.6%	18.0%	25.7%
6	Grand/San Juan Co. (57)	15,377	3,075	20.0%	18.1%	13.8%	23.3%
	Southwest Utah HD	116,150	26,076	22.5%	22.0%	19.2%	25.1%
24	Cedar City (60)	22,401	3,477	15.5%	21.5%	15.5%	29.0%
10	Other Southwest District (61)	15,384	3,664	23.8%	19.7%	14.8%	25.8%
21	Other Washington County (59)	32,503	6,813	21.0%	21.1%	15.8%	27.6%
45	St. George (58)	45,862	12,309	26.8%	25.5%	20.5%	31.4%
30	**Summit County HD (51)**	24,525	5,116	20.9%	22.1%	19.0%	25.6%
42	**Tooele County HD (40)**	32,458	7,569	23.3%	25.0%	21.8%	28.5%
14	**TriCounty HD (53)**	28,023	5,666	20.2%	20.6%	17.7%	23.7%
	Utah County HD	278,832	47,095	16.9%	22.6%	20.2%	25.3%
8	American Fork/Alpine (42)	26,819	3,902	14.6%	18.5%	12.7%	26.0%
60	East Orem (46)	14,955	4,765	31.9%	32.1%	22.5%	43.6%
3	Lehi/Cedar Valley (41)	18,752	2,181	11.6%	15.1%	9.5%	23.2%
59	North Orem (44)	25,965	5,920	22.8%	31.9%	24.5%	40.3%
39	Pleasant Grove/Lindon (43)	24,636	5,100	20.7%	23.5%	17.0%	31.7%
29	Provo/BYU (47)	39,401	5,520	14.0%	22.0%	14.9%	31.4%
12	Provo South (48)	48,138	4,125	8.6%	20.2%	13.5%	29.1%
31	Springville/Spanish Fork (49)	41,036	7,054	17.2%	22.2%	16.9%	28.6%
37	Utah Co. South (50)	17,363	3,301	19.0%	23.1%	15.1%	33.8%
54	West Orem (45)	21,774	3,893	17.9%	27.6%	17.8%	40.2%
27	**Wasatch County HD (52)**	12,514	2,520	20.1%	21.8%	18.7%	25.4%
	Weber-Morgan HD	148,702	33,161	22.3%	23.6%	20.9%	26.4%
51	Ben Lomond (5)	33,215	8,015	24.1%	27.0%	21.4%	33.4%
2	Downtown Ogden (7)	21,684	3,209	14.8%	14.1%	9.5%	20.4%
52	Morgan/East Weber Co. (6)	24,131	6,380	26.4%	27.5%	22.2%	33.4%
50	Riverdale (10)	15,522	3,708	23.9%	26.7%	19.8%	34.9%
36	Roy/Hooper (9)	27,898	5,652	20.3%	23.1%	17.6%	29.6%
22	South Ogden (8)	26,255	5,527	21.1%	21.1%	15.6%	28.0%

*State rank is by 61 small areas for age-adjusted rate; 1 is always the lowest rate in the state and 61 is always the highest rate in the state.

Figure 8.2: Dr. Dx High Cholesterol by Small Area, Utah Adults Aged 18+, 2001, 2003, 2005 (Age-adjusted)

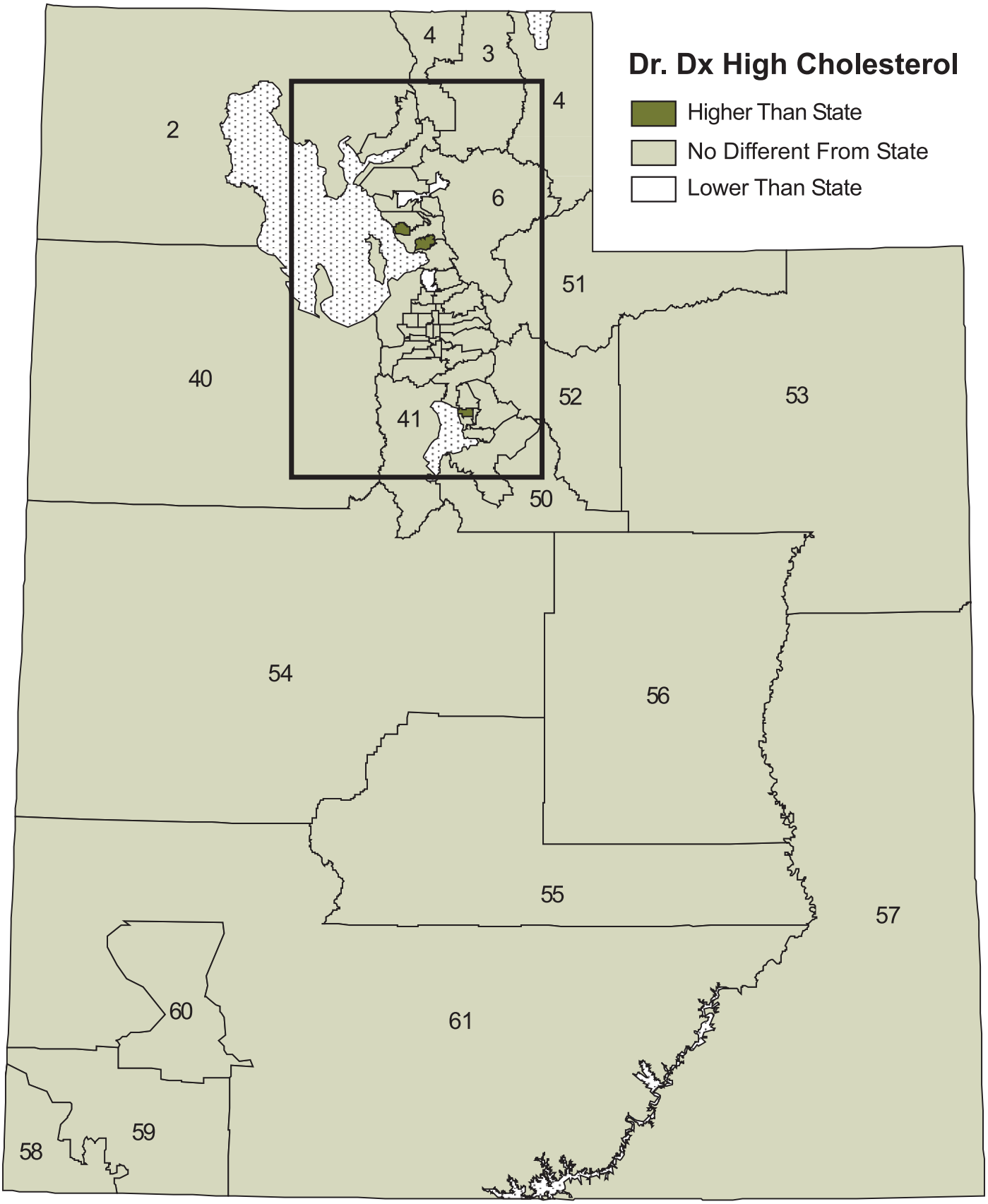
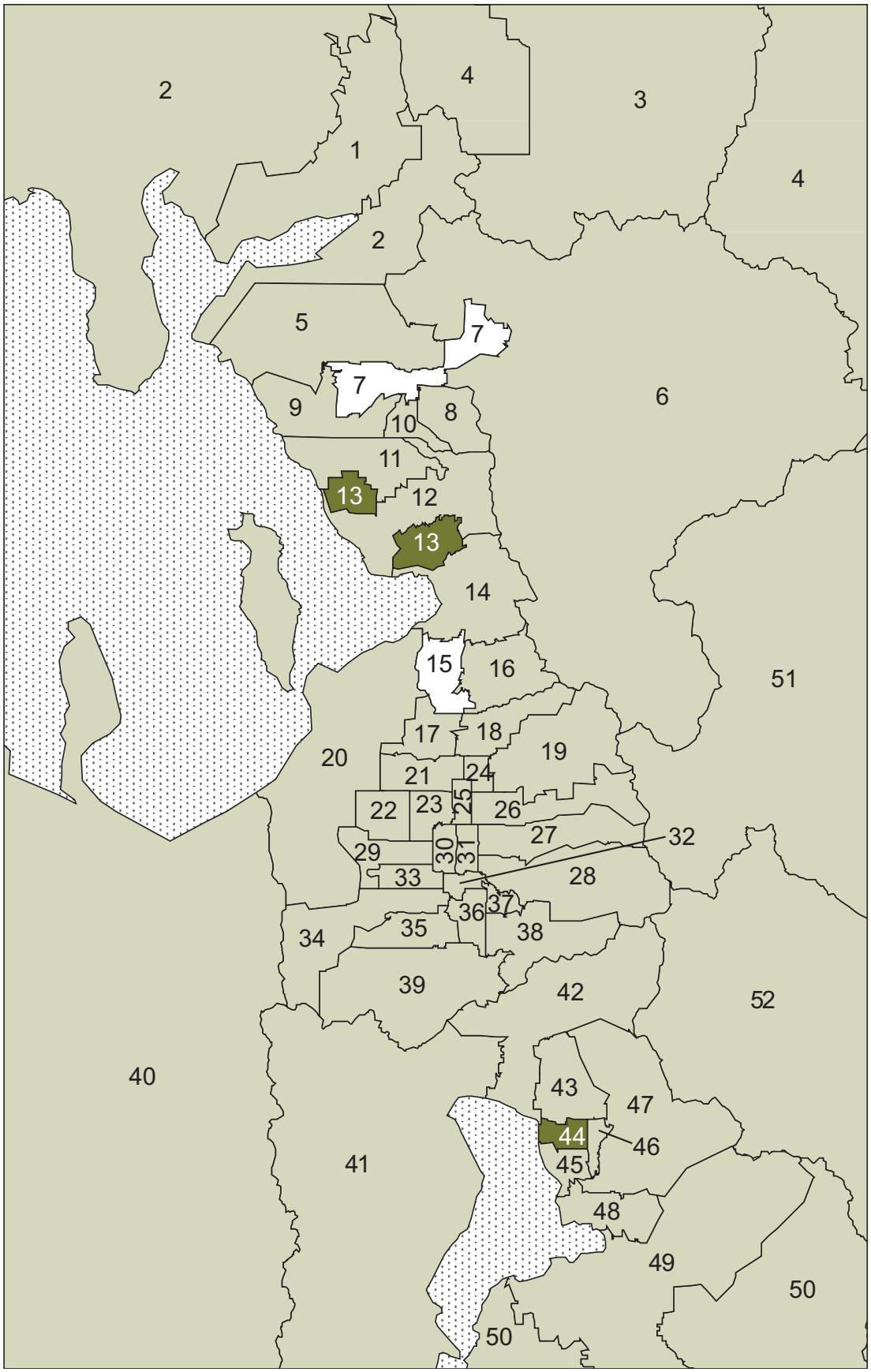


Figure 8.3: Dr. Dx High Cholesterol by Small Area, Wasatch Front Adults 18+, 2001, 2003, 2005 (Age-adjusted)



9. Activity Limitation

Measure Definition: *"Are you limited in any way in any activities because of physical, mental, or emotional problems?"* ***[Yes]***

Why is activity limitation important to public health?

The activity limitation question has historically been used by the BRFSS to screen for disability. Disability results when a physical or mental limitation is expressed in a social context. Chronic illnesses and disabilities, and their subsequent activity limitations, are a major health problem for many adults. Chronic illnesses and disabilities are often associated with reduced functioning, sensory impairments, depression, the need for extended care, loss of independence, and increased health care costs. As the population ages, the number of adults who experience activity limitation will have substantial effects on the health care system and its resources.[20]

Risk factors for activity limitation

Generally, females are more likely to experience activity limitation compared to males, and the older an individual is the more likely he or she will experience activity limitation. Among racial/ethnic groups, Asian and Pacific Islander persons reported the lowest rate of activity limitation, whereas Native American, non-Hispanic Black, and non-Hispanic White persons have reported higher rates. Education is inversely related to activity limitation; the more education someone has, the less likely he or she is to experience activity limitation.[21]

The major causes of activity limitation vary with age. In general, persons aged 18 to 44 years have reported back disorders as the most prevalent cause of activity limitation compared to those over 45 years of age who generally report heart disease as the most prevalent cause of activity limitation.[22]

In Utah, 25.5% of females reported activity limitation compared to 23.0% of males, and persons aged 65 and older reported the highest percentage of activity limitation (31.5%) for any age group. Generally, married people experienced less activity limitation (22.4%) compared to people who were separated (38.6%), divorced (31.5%), widowed (31.1%), or never married (30.8%). Twice as many people with an annual household income of less than $20,000 reported activity limitation (44.8%) compared to 20.0% for those with an annual household income of $50,000 or more.

Activity limitation in Utah

The age-adjusted rate of Utah respondents who reported activity limitation from 2001–2005 was 18.6%. In 2003, more than 283,000 Utah adults reported being limited because of a physical, mental, or emotional problem, which is equivalent to the population of Davis County. Summit County health district reported an age-adjusted rate of activity limitation that was lower than the state rate (13.6%), while Southeastern Utah health district reported a higher prevalence of activity limitation (21.9%) than the state rate.

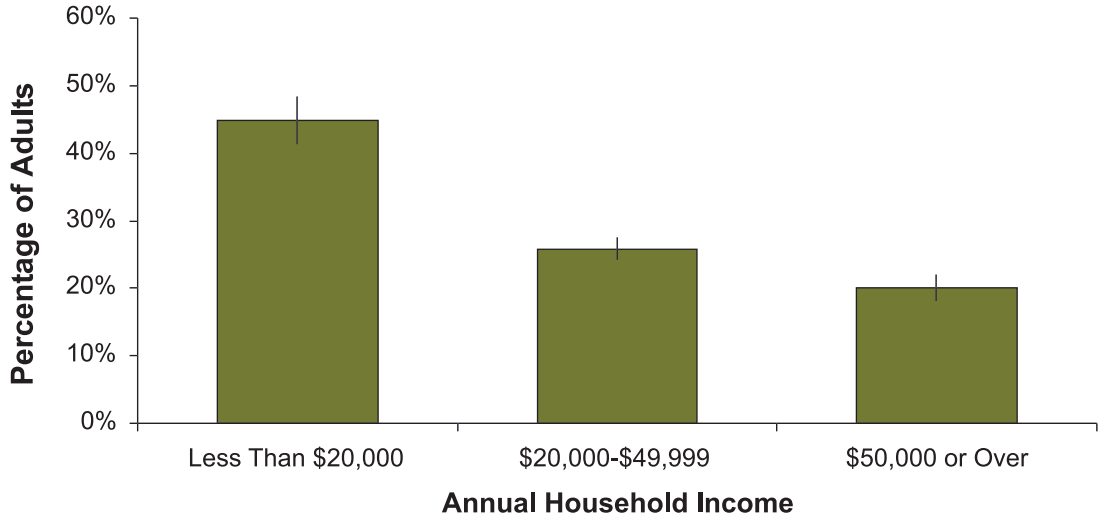
Within the local health districts there were small areas with lower and higher prevalence of activity limitation relative to the age-adjusted state rate. For example, adults living in Rose Park (7.5%) and Other Box Elder County (10.7%) reported a lower prevalence of activity limitation than the state rate. Adults living in the Southeastern Utah health district (21.9%), Juab, Millard, and Sanpete Counties (22.5%), Sandy Center (24.1%), Carbon and Emery Counties (24.2%), West Jordan North (24.5%), and Ben Lomond (24.6%) reported a higher prevalence of activity limitation compared to the state rate.

Utah Goal: No goal listed.
HP2010 Goal 1: Overarching – Improve the quality and years of healthy life and eliminate health disparities.

Activity limitation in Utah (continued)

Activity limitation varied significantly by age. For each successive age group (18–34, 35–49, 50–64, and 65 and over), the percentage of activity limitation increased significantly. A total of 10.4% of young adults (aged 18–34) experienced activity limitation and 31.5% of seniors aged 65 years and older experienced activity limitation. Activity limitation also varied by income. Those with a higher household income experienced less activity limitation compared to those with a lower household income. A total of 44.8% of respondents in households with an income of less than $20,000 experienced activity limitation compared to 20.0% of households with an income of $50,000 or greater. Because the BRFSS is a cross-sectional survey, the characteristics studied were assessed at a single point in time. Thus, in some cases, it is not possible to determine whether the characteristic preceded or followed an individual's report of fair or poor health.[3]

Figure 9.A: Activity Limitation by Income, Utah Adults, 2001-2005



Prevention/Resources

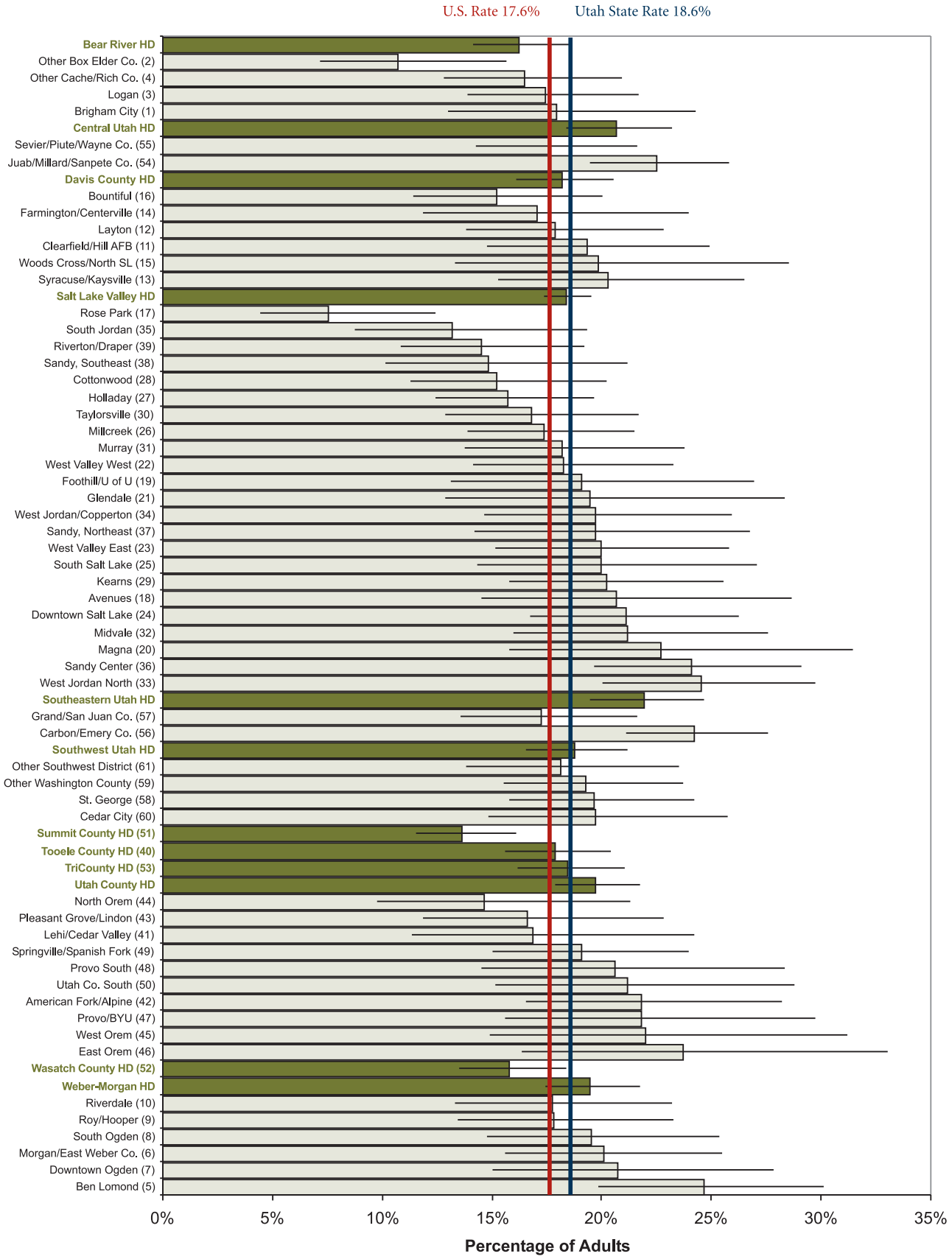
Physical activity and managing weight are a vital part of a healthy lifestyle for people who report activity limitations. Physical activity and weight management not only promote health and prevent disease, but also help to reduce the number of secondary conditions that can result from a disease or disability.

For more information about encouraging physical activity, contact the following agencies: Services for People With Disabilities (801-538-4200 or toll free at 1-800-837-6811, http://www.hsdspd.utah.gov); Aging Services Administrative Office (801-538-3910 or toll free at 1-877-424-4640, http://www.hsdaas.utah.gov); Utah Department of Health (801-538-6141, http://health.utah.gov/bhp/); Utah Walks (801-538-6241, www.utahwalks.org); Heart Disease and Stroke Prevention Program (801-538-6142, www.hearthighway.org); Utah Council for Worksite Health Promotion (801-538-6256, http://health.utah.gov/worksitewellness/); Utah State Parks and Recreation (801-538-7220, www.stateparks.utah.gov); Utah's Local Health Departments (http://health.utah.gov/lhd/lhd-directory.pdf); and Jordan River Parkway (801-468-2299, http://www.parks-recreation.org/parks/html/jordan.html).

Obtaining and maintaining mental health is also important for people who report activity limitation. For more information about mental health, contact the following agencies: The Utah Division of Substance Abuse and Mental Health (http://www.dsamh.utah.gov) and the U.S. Substance Abuse and Mental Health Services Administration (http://www.samhsa.gov).

9. Activity Limitation

Figure 9.1: Percentage of Adults Reporting Activity Limitation by Local Health District and Small Area, Utah Adults Aged 18+, 2001–2005 (Age-adjusted)



9. Activity Limitation

Table 9: Activity Limitation by Health District, Small Area, Utah, and U.S., 2001-2005

State Rank*	State, Health District, or Small Area	2003 Population 18+	Number of Adults Reporting Activity Limitation	Crude Rate	Age-adjusted Rate	95% Confidence Interval	
						Lower	Upper
	U.S.	217,803,051	38,442,239	17.7%	17.6%	17.4%	17.7%
	State of Utah	1,657,454	283,425	17.1%	18.6%	18.0%	19.3%
	Bear River HD	98,027	14,322	14.6%	16.2%	14.2%	18.6%
25	Brigham City (1)	14,566	2,382	16.4%	17.9%	13.0%	24.3%
19	Logan (3)	45,904	6,817	14.9%	17.5%	13.9%	21.7%
2	Other Box Elder Co. (2)	14,636	1,595	10.9%	10.7%	7.2%	15.7%
12	Other Cache/Rich Co. (4)	22,921	3,349	14.6%	16.5%	12.8%	20.9%
	Central Utah HD	47,558	9,611	20.2%	20.7%	18.3%	23.2%
55	Juab/Millard/Sanpete Co. (54)	31,637	6,821	21.6%	22.5%	19.5%	25.8%
20	Sevier/Piute/Wayne Co. (55)	15,921	2,836	17.8%	17.6%	14.3%	21.6%
	Davis County HD	175,027	29,352	16.8%	18.2%	16.1%	20.5%
9	Bountiful (16)	33,318	4,811	14.4%	15.2%	11.4%	20.1%
33	Clearfield/Hill AFB (11)	37,329	6,383	17.1%	19.3%	14.7%	24.9%
16	Farmington/Centerville (14)	19,034	2,830	14.9%	17.1%	11.9%	23.9%
23	Layton (12)	46,815	7,650	16.3%	17.9%	13.8%	22.8%
45	Syracuse/Kaysville (13)	24,542	4,337	17.7%	20.3%	15.3%	26.5%
40	Woods Cross/North SL (15)	13,989	2,963	21.2%	19.8%	13.3%	28.5%
	Salt Lake Valley HD	658,810	110,944	16.8%	18.4%	17.3%	19.5%
47	Avenues (18)	18,959	3,888	20.5%	20.7%	14.5%	28.7%
8	Cottonwood (28)	33,297	5,221	15.7%	15.2%	11.3%	20.2%
49	Downtown Salt Lake (24)	42,808	8,125	19.0%	21.1%	16.8%	26.2%
31	Foothill/U of U (19)	17,778	3,396	19.1%	19.1%	13.1%	27.0%
34	Glendale (21)	18,642	3,305	17.7%	19.5%	12.9%	28.3%
10	Holladay (27)	35,956	6,458	18.0%	15.7%	12.4%	19.7%
44	Kearns (29)	42,995	7,232	16.8%	20.2%	15.8%	25.5%
56	Magna (20)	15,623	3,659	23.4%	22.7%	15.8%	31.5%
51	Midvale (32)	21,672	3,821	17.6%	21.2%	16.0%	27.6%
18	Millcreek (26)	44,008	7,794	17.7%	17.4%	13.9%	21.5%
27	Murray (31)	24,072	4,393	18.3%	18.2%	13.7%	23.8%
5	Riverton/Draper (39)	41,391	5,286	12.8%	14.5%	10.8%	19.2%
1	Rose Park (17)	22,639	1,580	7.0%	7.5%	4.5%	12.4%
58	Sandy Center (36)	36,106	8,073	22.4%	24.1%	19.6%	29.1%
39	Sandy, Northeast (37)	18,245	3,457	19.0%	19.7%	14.2%	26.7%
7	Sandy, Southeast (38)	20,781	2,402	11.6%	14.8%	10.1%	21.2%
3	South Jordan (35)	20,931	2,909	13.9%	13.2%	8.8%	19.3%
42	South Salt Lake (25)	18,456	3,551	19.2%	20.0%	14.4%	27.1%
14	Taylorsville (30)	27,372	4,166	15.2%	16.8%	12.9%	21.7%
60	West Jordan North (33)	30,391	5,829	19.2%	24.5%	20.0%	29.7%
37	West Jordan/Copperton (34)	26,360	3,870	14.7%	19.7%	14.7%	25.9%
41	West Valley East (23)	35,527	6,544	18.4%	19.9%	15.2%	25.8%
28	West Valley West (22)	44,794	6,836	15.3%	18.3%	14.2%	23.3%
	Southeastern Utah HD	36,828	8,080	21.9%	21.9%	19.4%	24.6%
59	Carbon/Emery Co. (56)	21,451	5,258	24.5%	24.2%	21.1%	27.6%
17	Grand/San Juan Co. (57)	15,377	2,626	17.1%	17.2%	13.6%	21.7%
	Southwest Utah HD	116,150	22,034	19.0%	18.8%	16.6%	21.2%
38	Cedar City (60)	22,401	3,667	16.4%	19.7%	14.8%	25.8%
26	Other Southwest District (61)	15,384	3,128	20.3%	18.2%	13.8%	23.5%
32	Other Washington County (59)	32,503	6,348	19.5%	19.3%	15.5%	23.7%
36	St. George (58)	45,862	9,062	19.8%	19.7%	15.8%	24.2%
4	**Summit County HD (51)**	24,525	2,784	11.4%	13.6%	11.5%	16.1%
24	**Tooele County HD (40)**	32,458	5,258	16.2%	17.9%	15.6%	20.4%
29	**TriCounty HD (53)**	28,023	5,229	18.7%	18.5%	16.2%	21.0%
	Utah County HD	278,832	46,230	16.6%	19.8%	17.9%	21.8%
52	American Fork/Alpine (42)	26,819	5,090	19.0%	21.8%	16.6%	28.2%
57	East Orem (46)	14,955	3,126	20.9%	23.7%	16.4%	33.0%
15	Lehi/Cedar Valley (41)	18,752	2,657	14.2%	16.9%	11.4%	24.3%
6	North Orem (44)	25,965	2,763	10.6%	14.6%	9.8%	21.3%
13	Pleasant Grove/Lindon (43)	24,636	3,752	15.2%	16.6%	11.8%	22.8%
53	Provo/BYU (47)	39,401	8,081	20.5%	21.8%	15.6%	29.7%
46	Provo South (48)	48,138	4,626	9.6%	20.6%	14.5%	28.4%
30	Springville/Spanish Fork (49)	41,036	7,288	17.8%	19.1%	15.0%	24.0%
50	Utah Co. South (50)	17,363	3,219	18.5%	21.2%	15.1%	28.8%
54	West Orem (45)	21,774	4,925	22.6%	22.0%	14.9%	31.2%
11	**Wasatch County HD (52)**	12,514	1,858	14.9%	15.8%	13.5%	18.4%
	Weber-Morgan HD	148,702	27,703	18.6%	19.5%	17.5%	21.8%
61	Ben Lomond (5)	33,215	7,257	21.9%	24.6%	19.9%	30.1%
48	Downtown Ogden (7)	21,684	3,944	18.2%	20.7%	15.1%	27.8%
43	Morgan/East Weber Co. (6)	24,131	4,674	19.4%	20.1%	15.6%	25.5%
21	Riverdale (10)	15,522	2,631	17.0%	17.7%	13.3%	23.2%
22	Roy/Hooper (9)	27,898	4,126	14.8%	17.8%	13.4%	23.3%
35	South Ogden (8)	26,255	5,122	19.5%	19.5%	14.8%	25.4%

*State rank is by 61 small areas for age-adjusted rate; 1 is always the lowest rate in the state and 61 is always the highest rate in the state.

Figure 9.2: Activity Limitation by Small Area, Utah Adults Aged 18+, 2001–2005 (Age-adjusted)

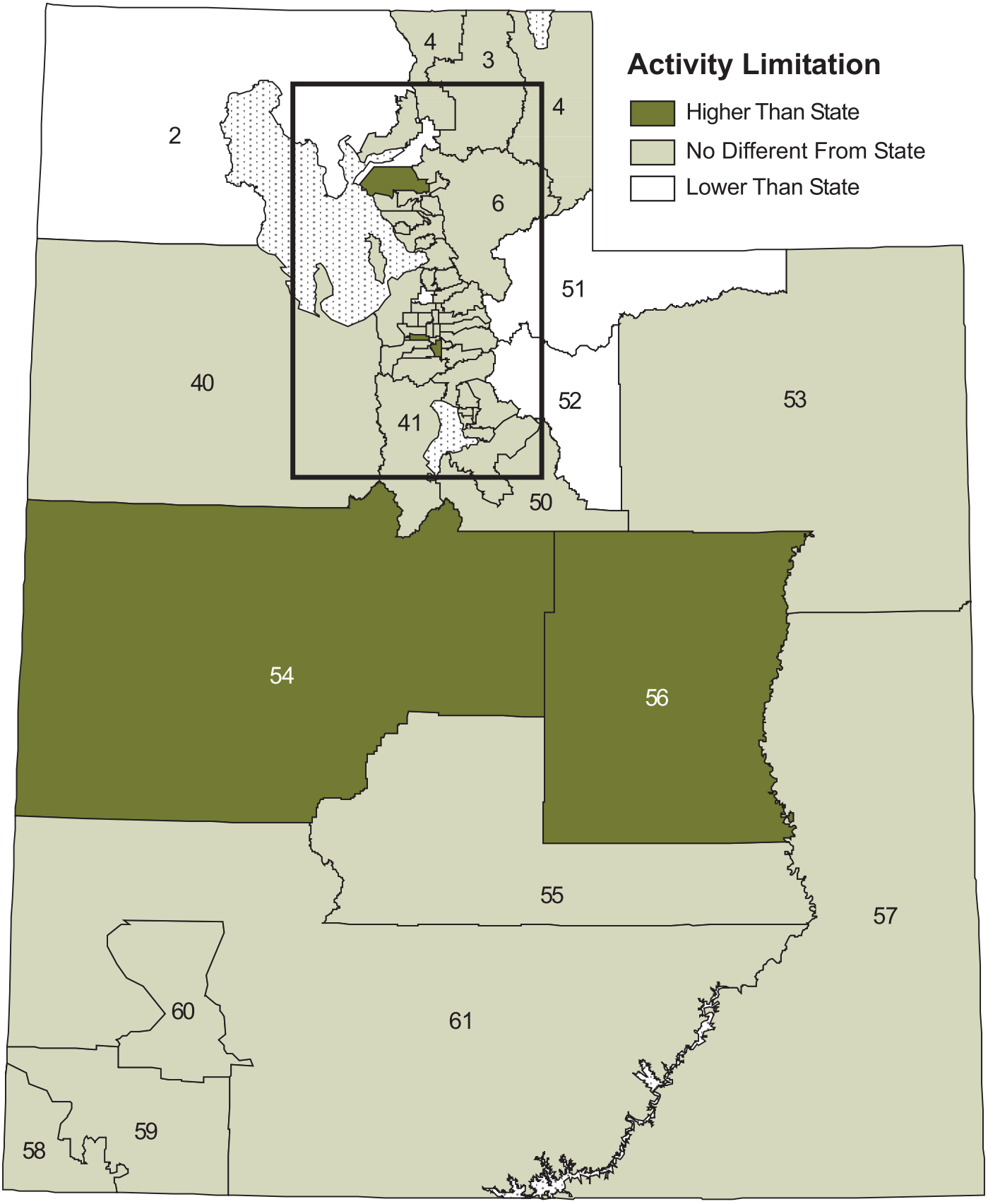
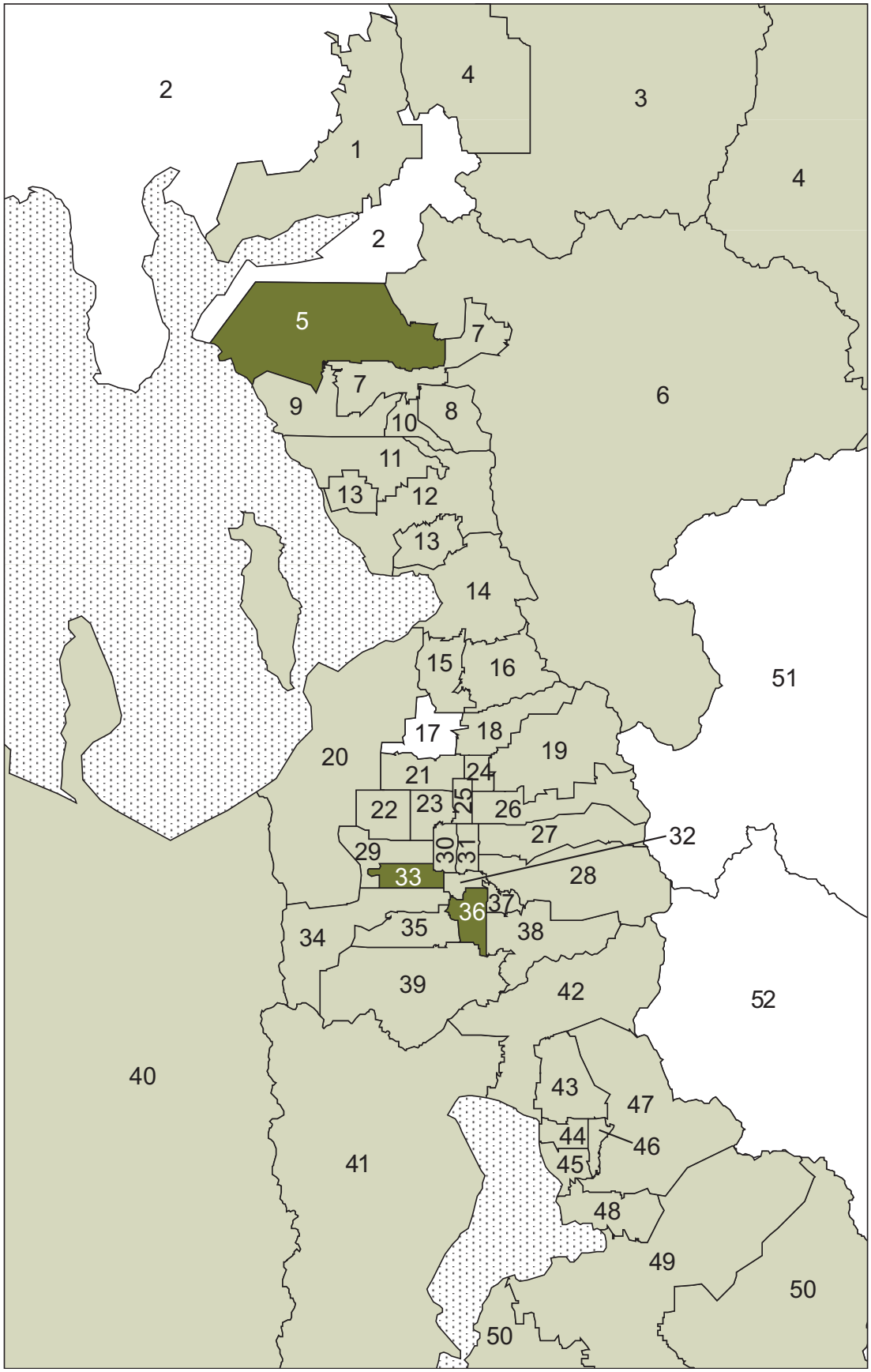



Figure 9.3: Activity Limitation by Small Area, Wasatch Front Adults Aged 18+, 2001–2005 (Age-adjusted)