

Assessing the Burden of Arthritis in Utah

**Findings From
the
2007 and 2009
Utah Behavioral
Risk Factor
Surveillance
System**

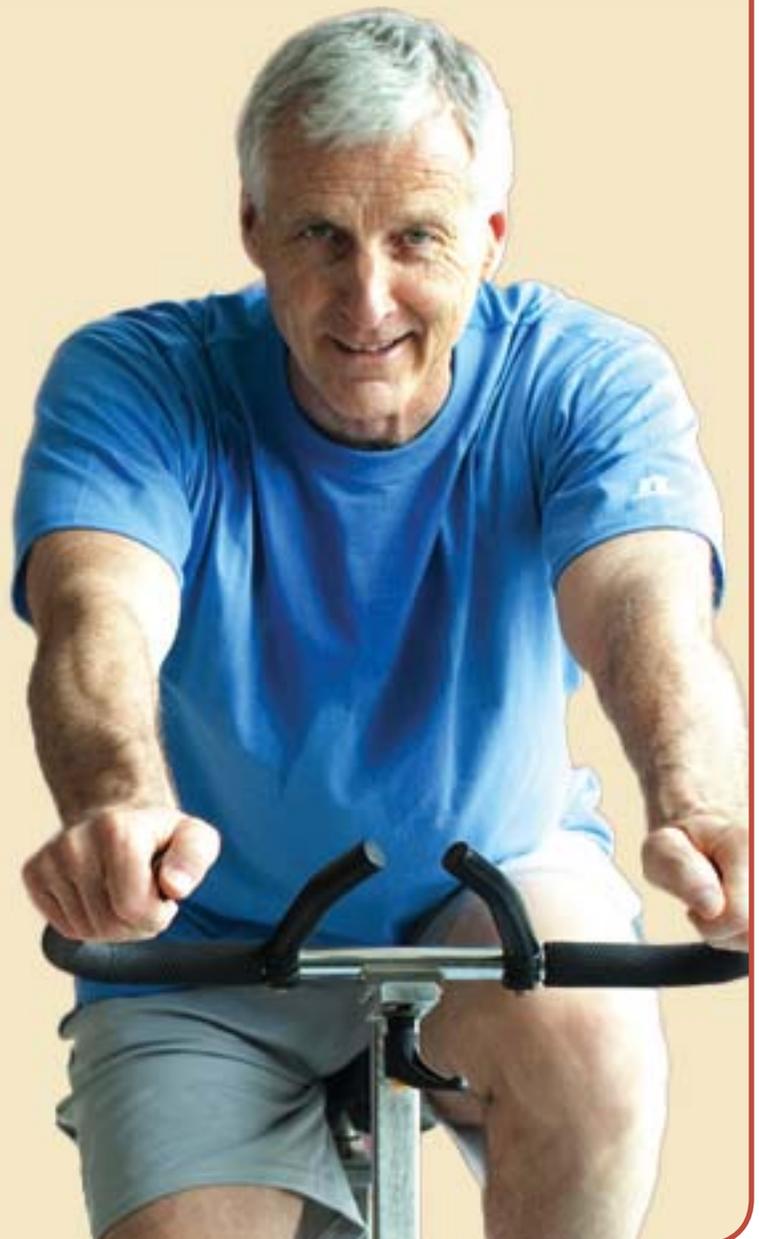


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This report examines the burden of doctor-diagnosed arthritis among adults in Utah using data from the 2007 and 2009 Behavioral Risk Factor Surveillance System (BRFSS). Arthritis prevalence and risk factors are presented, along with data on the impact of arthritis on those who suffer from this long term and disabling condition. We hope the report will increase awareness of arthritis in Utah as a major public health issue, and provide direction for implementing intervention programs needed to improve the health and quality of life for Utahns suffering from arthritis.

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This report presents aggregated data from the 2007 and 2009 Behavioral Risk Factor Surveillance System (BRFSS). The two years of pooled data generated a sample of 4,603 Utah adults who reported arthritis. These data are used to describe the prevalence of arthritis in Utah overall, and by gender, age, race/ethnicity, education, and income. Other factors such as activity limitation, physical activity, health status, health-related quality of life, and overweight and obesity are also examined.

Arthritis Definition

The word “arthritis” means joint inflammation and is used to describe more than 100 rheumatic diseases and conditions including osteoarthritis which is the most common, rheumatoid arthritis, systemic lupus erythematosus, gout, and bursitis.

Arthritis and its related disabilities may cause pain, stiffness, and swelling, not just in the joints but in other supporting structures surrounding the joints such as the muscles, tendons, ligaments, and bones. Certain rheumatic conditions such as rheumatoid arthritis and lupus can also involve the immune system and various internal organs of the body.

Beginning with the 2002 BRFSS, the Centers for Disease Control and Prevention (CDC) recommended that surveillance

estimates for arthritis focus on doctor-diagnosed arthritis only. Therefore, arthritis refers to self-reported, doctor-diagnosed arthritis in this report.

Prevalence of Arthritis in Utah

The most recent data show the crude rate of arthritis among adults 18 and older in Utah was 21.6 percent (BRFSS 2007, 2009). This represents nearly 419,000 individuals based on the estimated population for 2009.¹ (See Appendix A)



Reference:

1. The Utah Population Estimates Committee (UPEC) and the Governor’s Office of Planning and Budget (GOPB). www.governor.utah.gov/dea/demographics.html.
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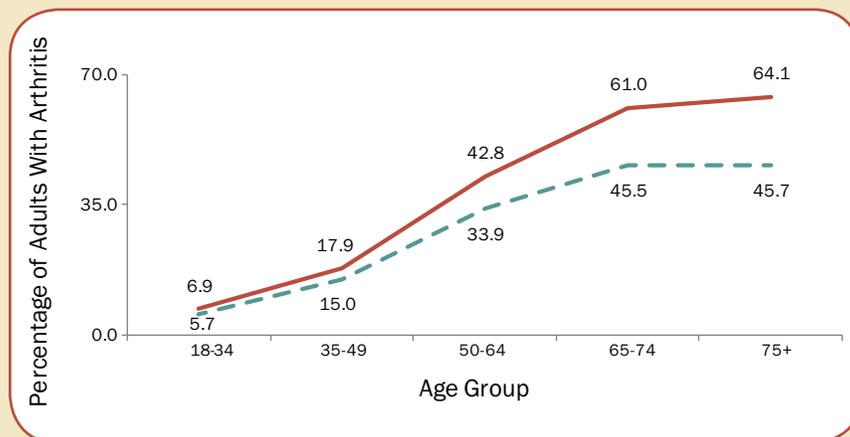
Prevalence of Arthritis in Utah by Selected Characteristics

Prevalence of Arthritis by Gender and Age Group

While arthritis affects both men and women, women are more likely to report arthritis. Nearly one-fourth (24.9 percent) of Utah women reported arthritis compared to 18.3 percent of Utah men (BRFSS 2007, 2009). Based on the 2009 population estimate,¹ this represents nearly 242,000 women and 177,000 men.

Although arthritis affects Utahns of all ages, some age groups are more likely to be affected. The prevalence of self-reported arthritis ranges from 6.3 percent among 18- to 34-year-olds, to 56.5 percent among those 75 and older. Prevalence increases significantly after age 50, especially among Utah women. Among women 75 and older, nearly two-thirds (64.1%) reported arthritis. (See Figure 1)

Figure 1. Prevalence of Arthritis by Gender and Age Group Among Utah Adults



Source: Utah BRFSS 2007, 2009

Arthritis Prevalence by Weight Category

Body Mass Index (BMI) is defined as weight in kilograms divided by height in meters squared. A healthy weight is a BMI of greater than 18.5 and less than 25; overweight is a BMI greater than or equal to 25 and less than 30. Obesity is a BMI of 30 or greater.

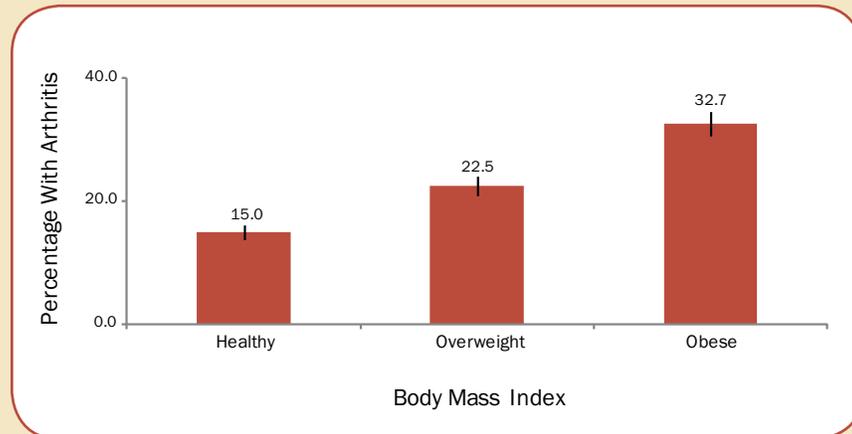
Obesity is a known risk factor for the development and progression of arthritis. Among obese persons, the prevalence of arthritis was 2.2 times higher (32.7%) than among persons who reported a healthy body weight (15.0%). (See Figure 2 and Appendix A)

Reference:

1. The Utah Population Estimates Committee (UPEC) and the Governor's Office of Planning and Budget (GOPB). www.governor.utah.gov/dea/demographics.html.

Prevalence of Arthritis in Utah by Selected Characteristics

Figure 2. Prevalence of Arthritis by Weight Category Among Utah Adults



Source: Utah BRFSS 2007, 2009

Health Status and Physical Health

Utah adults with arthritis had a rate of self-reported fair or poor health three times higher than those without arthritis (24.0% vs. 7.0%). Similarly, adults with arthritis reported experiencing seven or more days in the last month when their physical health was not good at a rate nearly three times higher than persons without arthritis (26.1% vs. 10.0%). (See Figure 3)

Mental Health

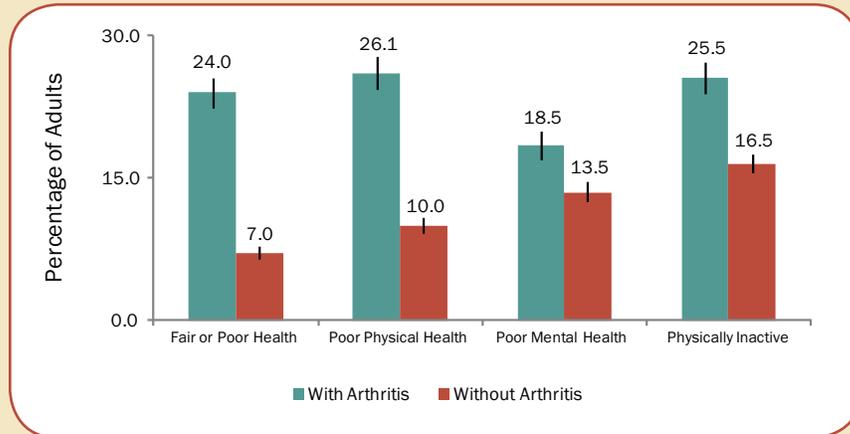
The relationship between arthritis and mental health is less dramatic than it is for physical health; however, the pattern remains the same. Nearly one in five Utah adults with arthritis (18.5%) reported seven or more days of poor mental health in the past month compared to one in seven adults (13.5%) without arthritis. (See Figure 3)

Physical Activity/Exercise

Although physical activity and exercise have been shown to benefit people with arthritis by improving pain, function, and mental health, Utah adults with arthritis were more likely to report being inactive (25.5%) than persons without arthritis (16.5%). (See Figure 3)

Prevalence of Arthritis in Utah by Selected Characteristics

Figure 3. Impact of Arthritis on Health-related Quality of Life Among Utah Adults



Source: Utah BRFSS 2007, 2009

Activity Limitation

When asked if arthritis or joint symptoms limited their usual activities, one-third (34.4%) of Utah adults with arthritis or joint symptoms reported limiting their usual activities.

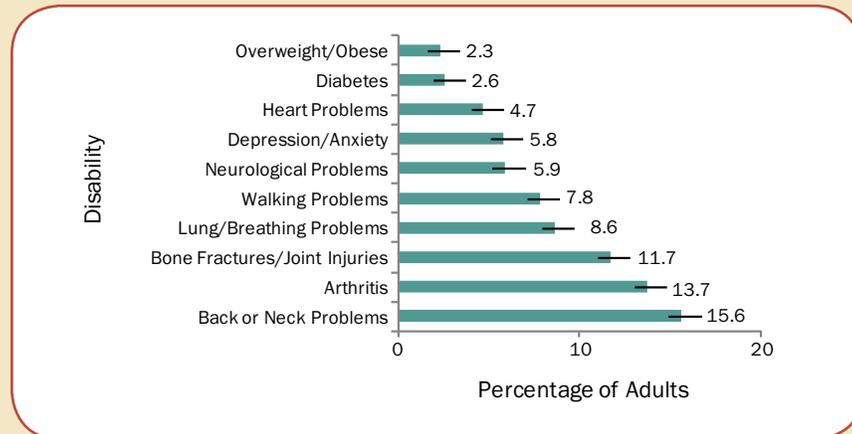
Pain plays a lead role in activity levels of people with arthritis. Among Utahns with arthritis, 23.2 percent reported pain at a level of seven or higher, on a scale from 0 to 10, with 0 representing no pain, and 10 representing intense pain that leads to unconsciousness. Another measure of the impact of pain is when a person reports limiting activities for more than seven days during the past month because of pain. Adults with arthritis reported that pain limited their activities for more than seven days more than twice as often as adults without arthritis (26.1% vs. 10.0%) during the past month.

Among Utah residents who reported limiting their activity because of a health problem, 15.6 percent mentioned problems related to the back or neck, followed by arthritis (13.7%) and bone fractures/joint injuries (11.7%). (See Figure 4)



Prevalence of Arthritis in Utah by Selected Characteristics

Figure 4. Leading Impairment or Health Problem That Limited Activity Among Utah Adults



Source: Utah BRFSS 2007, 2009

Persons with arthritis reported a rate of physical activity limitation nearly four times higher because of a physical, mental, or emotional problem than persons without arthritis (43.0% vs. 10.9%). In addition to activity limitations, 29.2 percent of working age (18-64) Utah adults with arthritis reported being limited in their ability to work.

Seven times as many persons with arthritis (14.9%) reported using special equipment such as a cane, wheelchair, or special bed when compared to persons without arthritis (2.4%).

Arthritis and Coexisting Conditions

Arthritis is frequently associated with other health conditions such as diabetes, heart disease, high blood pressure, and high cholesterol. As seen in Table 1, more than half of adults with diabetes (50.7%) and heart disease (51.3%) also have arthritis. In addition, two in five persons with high blood pressure and one-third of persons with high cholesterol report arthritis. For each condition women were more likely than men to report arthritis.

Table 1. Prevalence of Arthritis Among Persons With Other Chronic Conditions

Health Condition	Percentage of Persons With Arthritis		
	Males	Females	Total
Diabetes	42.6%	60.5%	50.7%
Heart Disease	45.6%	61.8%	51.3%
High Blood Pressure	33.3%	54.1%	42.9%
High Cholesterol	31.6%	46.0%	38.4%

Source: Utah BRFSS 2007, 2009

Age-adjusted Prevalence of Arthritis in Utah by Selected Characteristics

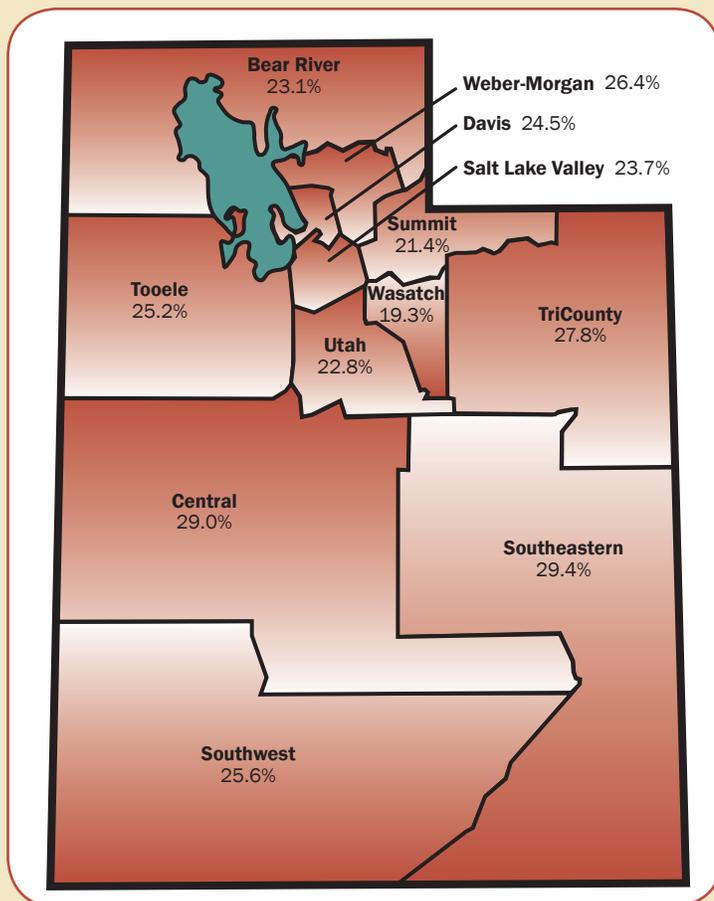
Age-adjusted Rates

Because age affects the likelihood of having arthritis, it is beneficial to adjust the crude prevalence rate for the effect of age when comparing populations. This helps determine if a certain population has factors that contribute to arthritis prevalence in addition to the effect of age.

Age-adjusted Prevalence of Arthritis by Local Health District

After adjusting for age, three local health districts had a higher prevalence of arthritis than the state rate of 24.3 percent. The age-adjusted prevalence of arthritis in Utah's local health districts ranged from a low of 19.3 percent in the Wasatch County Health District to a high of 29.4 percent in the Southeastern Utah Health District (BRFSS 2007, 2009). (See Figure 5)

Figure 5. Age-adjusted Percentage of Adults Reporting Arthritis By Local Health District



Source: Utah BRFSS 2007, 2009

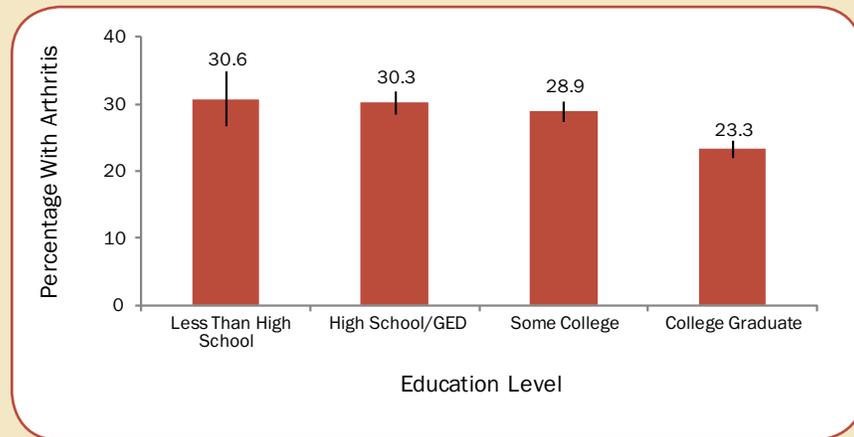
Age-adjusted to the U.S. 2000 standard population

Age-adjusted Prevalence of Arthritis by Selected Characteristics

Age-adjusted Prevalence of Arthritis by Education Level and Income

Among adults 25 and older, the age-adjusted prevalence of arthritis declines with increasing education level. Among adults with less than a high school education, 30.6 percent reported arthritis compared to 30.3 percent with a high school education, 28.9 percent reporting some college, and 23.3 percent reporting a college education. (See Figure 6 and Appendix A)

Figure 6. Age-adjusted Prevalence of Arthritis by Education Level among Utah Adults



Source: Utah BRFSS 2007, 2009

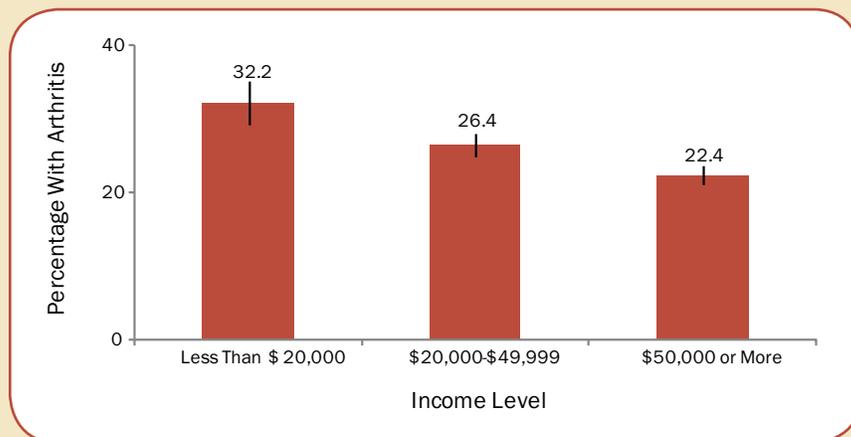
Age-adjusted to the U.S. 2000 standard population

Among persons with an annual income of less than \$20,000, 32.2 percent reported arthritis. As income increased to \$50,000 or more, the percentage decreased to 22.4 percent. (See Figure 7 and Appendix A)



Age-adjusted Prevalence of Arthritis by Selected Characteristics

Figure 7. Age-adjusted Prevalence of Arthritis by Income Among Utah Adults



Source: Utah BRFSS 2007, 2009

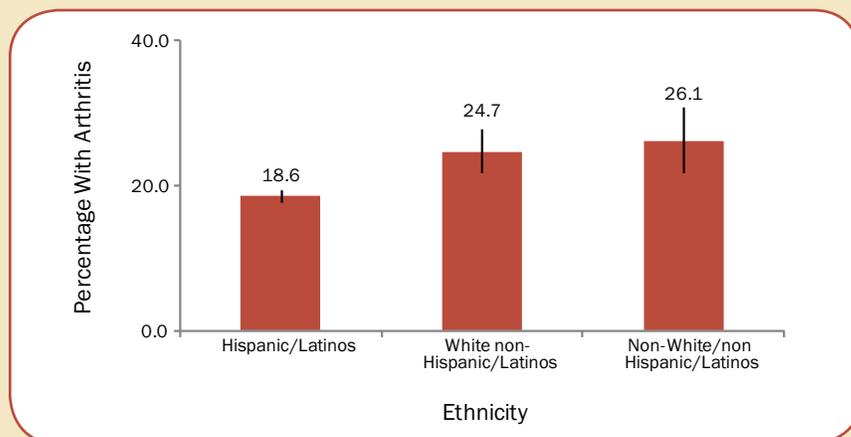
Age-adjusted to the U.S. 2000 standard population

Age-adjusted Prevalence of Arthritis by Ethnicity

Hispanic/Latino adults reported the lowest rates of arthritis (17.8%). The age-adjusted prevalence rates for arthritis were 24.0 percent for White non-Hispanics and 25.5 percent for Non-White non-Hispanic/Latinos.

(See Figure 8 and Appendix A)

Figure 8. Age-adjusted Prevalence of Arthritis by Ethnicity Among Utah Adults



Source: Utah BRFSS 2007, 2009

Age-adjusted to the U.S. 2000 standard population

Appendix A - Prevalence of Arthritis by Selected Characteristics

Characteristic	Adults Impacted by Arthritis	Crude Percentage	Lower CI	Upper CI	Age-adjusted Percentage*	Lower CI	Upper CI
Sex							
Males	177,000	18.3	17.1	19.5	21.1	20.1	22.3
Females	242,000	24.9	23.7	26.1	27.2	26.1	28.2
Age Group							
18-34	49,000	6.3	5.2	7.5	-	-	-
35-49	82,000	16.4	15.1	17.9	-	-	-
50-64	150,000	38.4	36.5	40.3	-	-	-
65-74	74,000	53.8	51.0	56.5	-	-	-
75+	64,000	56.5	53.3	59.6	-	-	-
Weight Category							
Healthy	121,000	15.0	13.8	16.2	19.8	18.6	21.0
Overweight	147,000	22.5	21.0	24.0	23.2	21.9	24.6
Obese	151,000	32.7	30.7	34.7	32.2	30.5	33.9
Health Status							
Fair or Poor Health	50,000	48.4	45.2	51.6	40.8	38.1	43.6
Poor Physical Health	73,000	41.3	38.5	44.2	39.4	37.1	41.7
Poor Mental Health	53,000	27.1	24.7	29.7	34.9	32.7	37.2
Physically Inactive	82,000	29.7	27.6	31.9	28.9	27.1	30.7
Income							
Less Than \$20,000	56,000	27.9	24.7	31.3	32.2	29.2	35.2
\$20,000 - \$49,999	159,000	24.7	23.0	26.4	26.4	24.9	28.0
\$50,000 and over	208,000	19.1	18.0	20.3	22.4	21.2	23.7
Education**							
Less Than High School	18,000	29.8	25.6	34.3	30.6	26.7	34.9
High School or GED	107,000	28.9	26.9	30.7	30.3	28.6	32.0
Some College	150,000	26.1	24.6	27.7	28.9	27.4	30.5
College Graduate	144,000	21.0	19.7	22.4	23.3	22.0	24.6
Race/Ethnicity****							
American Indian/ Alaskan Native	4,200	24.3	15.5	36.6	27.1	18.8	37.4
Asian	1,400	5.4***	2.9	9.9	9.8***	5.1	18.0
Black	2,800	28.9***	13.7	51.0	30.4***	17.3	47.6
Pacific Islander	2,100	15.1***	6.9	29.9	22.6***	11.4	39.9
White	393,200	22.7	21.8	23.6	24.0	23.2	24.8
Other	14,900	10.6	8.4	13.3	17.7	14.7	21.1
White non-Hispanic	384,000	22.8	21.9	23.8	24.0	23.2	24.9
Hispanic	18,000	10.2	8.1	12.7	17.8	14.9	21.0
Non-White, non- Hispanic	16,300	19.6	15.4	24.5	25.5	21.3	30.2

Sources: Utah BRFSS 2007 and 2009; 2009 Utah Population Estimates Committee population estimate

* Age-adjusted to the U.S. 2000 standard population.

** Rates are based on the population 25 and older.

*** Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet Utah Department of Health standards for reliability.

**** The number of persons by race/ethnicity was rounded to the nearest 100; all other rates were rounded to the nearest 1,000.

