

The **Obesity Epidemic in Idaho**

A Report Describing the Burden of Obesity in Idaho



**Idaho Physical Activity and Nutrition Program
Bureau of Community and Environmental Health
Division of Public Health
Idaho Department of Health and Welfare
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IDAHO DEPARTMENT OF
HEALTH & WELFARE

A note about confidence intervals and statistical significance:

95% Confidence Interval - A statistical range with a specified probability (i.e., 95%) that a given measure lies within the range. In other words, a 95% confidence interval for a percentage is the range of values within which the mean sample percentage will be found at least 95% of the time. Statistical significance for the purposes of this document is therefore predicated on the situation where the confidence intervals for two or more estimates do not overlap.

Any difference determined to be statistically significant (using 95% confidence intervals) was designated as such and will be preceded by the words “significantly” or “statistically.”

The Obesity Epidemic

Obesity in the United States is at epidemic proportions, and Idaho is not immune. The dramatic increase in obesity rates has serious implications for the health of Idahoans today and into the future. Being overweight or obese increases the risk of many diseases and chronic health conditions, and the related cost to the U.S. health care system is estimated to exceed \$100 billion. The percentage of adults in Idaho who are obese has increased significantly in the past ten years from 20% in 1999 to 25% in 2009. Obesity is now rivaling tobacco use as the leading cause of preventable death.

The majority of adult data were obtained from the Idaho Behavioral Risk Factor Surveillance System (BRFSS) survey. For more information about the BRFSS, visit <http://www.cdc.gov/brfss/>. For specific information regarding the Idaho BRFSS, please contact the Bureau of Vital Records and Health Statistics at (208)332-7326 or www.healthstatistics.dhw.idaho.gov. The majority of youth data were obtained from the Idaho Youth Risk Behavior Survey (YRBS). For more information about the YRBS, contact Patricia Stewart of the Idaho Department of Education at (208)332-6929. It is important to note that the data presented in this report are focused on the risks associated with unhealthy weight, therefore all of the charts and tables highlight those populations which may be at risk for unhealthy weight, poor fruit and vegetable intake, physical inactivity, excessive TV watching, etc.

While the focus of this report is obesity, measures of overweight have been included because of the impact that both have on health. Furthermore, overweight adults are at an increased risk of becoming obese without implementing behavioral changes that promote healthy eating and active living.

What is Body Mass Index (BMI)?

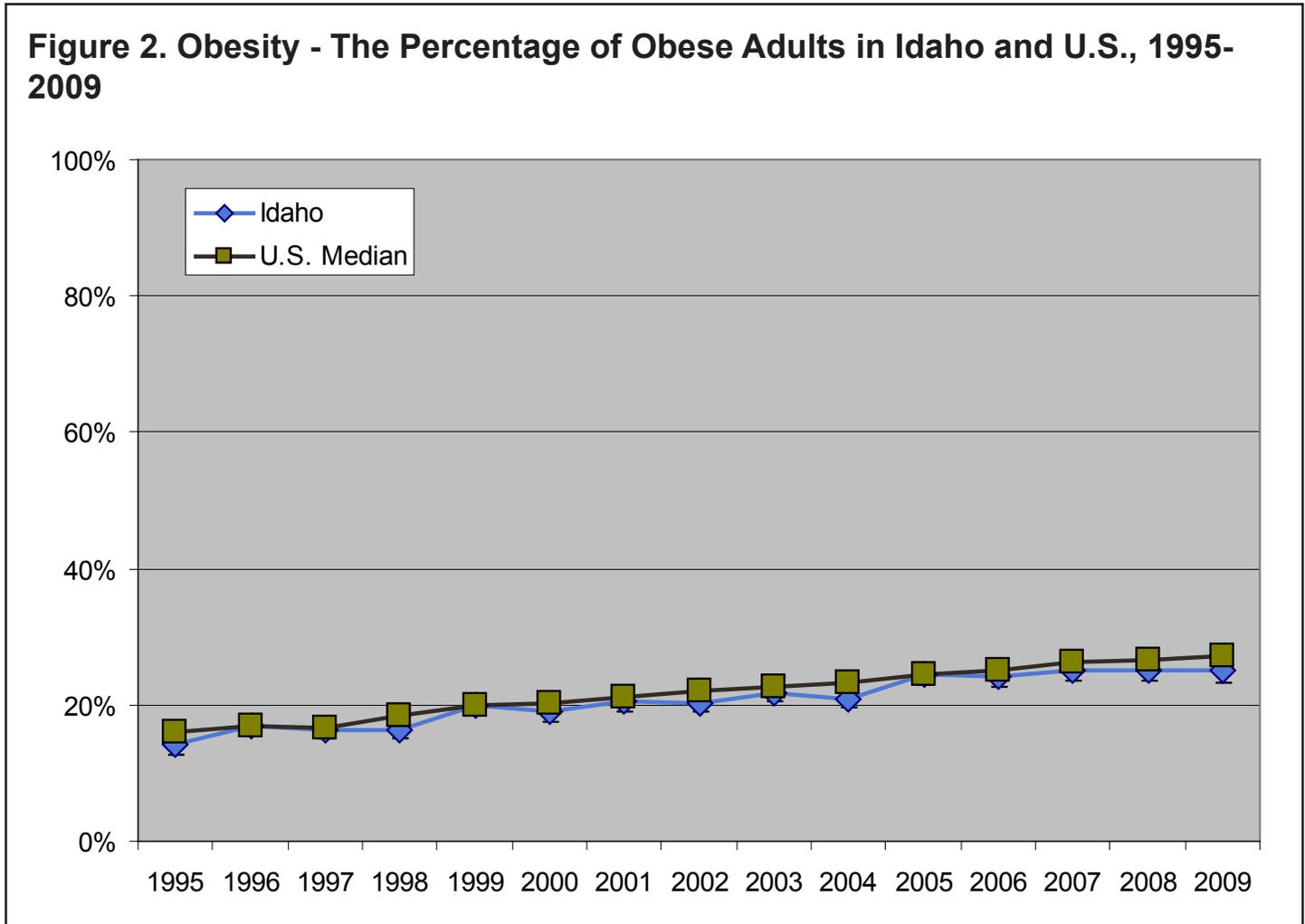
Body Mass Index (BMI) is a proxy measure for body fat percentage utilizing the ratio of weight and height (Figure 1). Historically, BMI was developed for population-based studies and may not be the most suitable measure for weight-related problems at the individual level. In adults, a BMI of 18.5 to 24.9 is considered to be ideal, and anything above 24.9 is considered to be overweight or obese (when BMI is 30 or higher). Among children and teens aged 2 to 20 years, BMI categories are determined by comparing the resulting BMI value against sex- and age-specific growth chart percentiles. Overweight is defined as between the 85th and 95th percentiles, while obese is defined as a BMI for age and sex at or above the 95th percentile.

Figure 1. Body Mass Index Categories and Values for U.S. Adults and Children

Age Group	BMI Category	BMI Values	How Calculated
Adults 21+ Years of Age	Underweight	Less than 18.5	Calculated using the following formula: $BMI = \left[\frac{\text{weight (pounds)}}{\text{height (inches)} \times \text{height (inches)}} \right] \times 703$
	Ideal Weight	18.5 to 24.9	
	Overweight	25 to 29.9	
	Obese	30 or higher	
Children 2 to 20 Years of Age	Underweight	Less than 15th Percentile	Calculated using the revised Centers for Disease Control and Prevention (CDC) Growth Charts for the U.S.
	Ideal Weight	15th to 85th percentile	
	Overweight	85th to 95th percentile	
	Obese	95th percentile or higher	

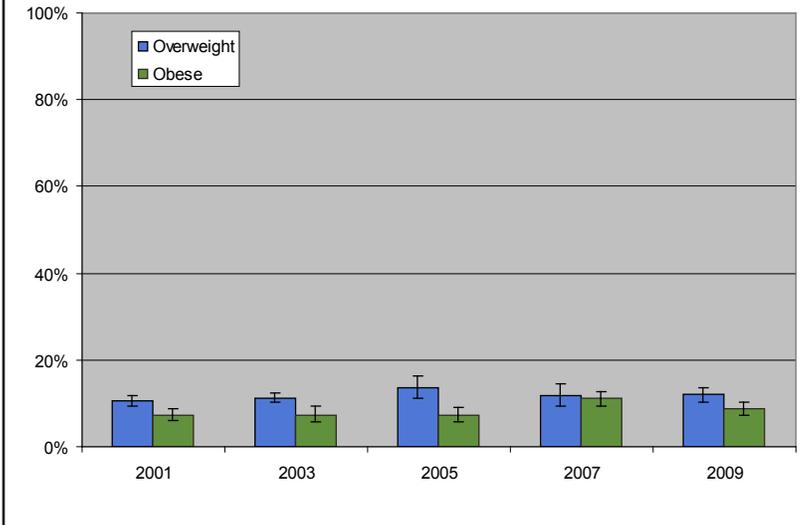
The Obesity Epidemic in Idaho

The percentage of Idaho and the U.S. adults who are considered obese (based on a BMI of 30 or higher) has increased significantly over time (Figure 2). The rate of obesity among Idaho adults nearly doubled over the past 15 years from 14.2% in 1995 to 25.1% in 2009. Similar increases were seen nationally as the percentage of obese adults in the U.S. went from 15.9% in 1995 to 27.1% in 2009.



Idaho Source: Idaho BRFSS, Bureau of Vital Records and Health Statistics
 U.S. Source: BRFSS (median), Centers for Disease Control and Prevention

Figure 3. Childhood BMI - Percentage of Idaho High School Students Who Are Overweight and Obese by Sex, Over Time



Source: Idaho YRBS

BMI of Idaho Children and Teens

Although not statistically significant, the percentage of both overweight and obese teens (high school students in grades 9 through 12) in Idaho increased between 2001 and 2009. In 2009, 12% of teens were overweight (based on an age- and sex-specific BMI value between the 85th and 95th percentile) and 9% of teens were obese (based on a BMI for age and sex greater than the 95th percentile). (Figure 3)

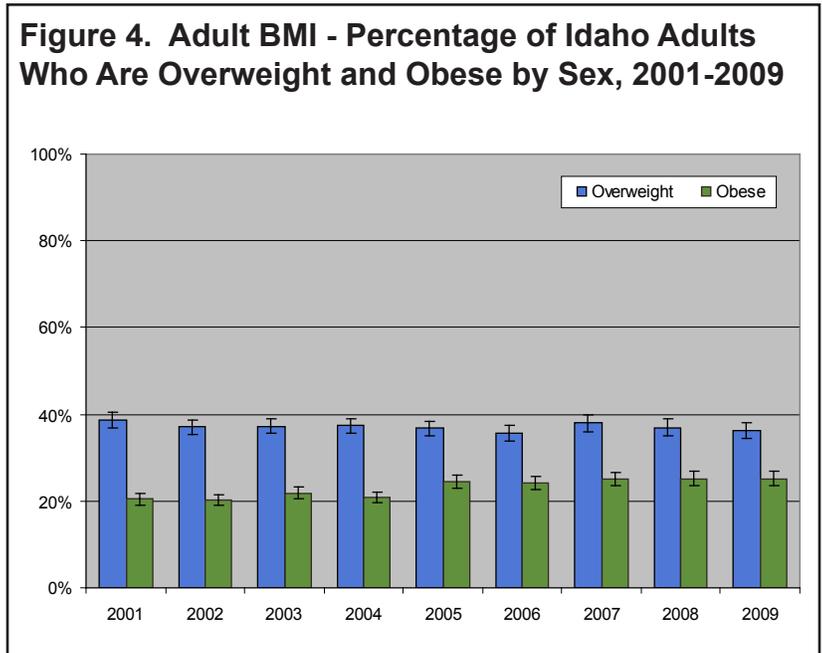
Although Idaho does not currently have trend data for younger Idaho kids, the Bureau of Community and Environmental Health did conduct a statewide 3rd grade BMI assessment in 2007 which found 13% of students to be obese. County-specific estimates of overweight 3rd grade students based on synthetic estimates are presented at the end of this report (Figure 25). Caution should be used when viewing county-specific results as the sampling methodology was not designed to provide reliable county estimates.

During the 2008-2009 school year, Idaho’s State Department of Education conducted a BMI assessment of public school students in grades 1, 3, 5, 7, 9, and 11. Overall, 29% of students were classified as overweight or obese. The only statistically significant differences in rates of obesity were between grades 1 and 5 where obesity rates were 10% and 17% respectively. There were no significant differences overall when students’ race and ethnicity were considered, however there were striking differences among the various racial and ethnic groups. American Indian students were most likely to be categorized as obese (28%), while Asian students were least likely to be categorized as obese (7%). Although it is notable that 51% of Native American students and 42% of Hispanic students were overweight or obese, sample sizes were too small to reach definitive conclusions.

Using free and reduced school lunch (FRSL) as a proxy measure for socio-economic status, students who are from the most economically disadvantaged schools (i.e., schools with 60% or greater students who qualify for FRSL) are more likely to be obese. In Idaho schools with 60% or more students receiving FRSL, 16% are categorized as obese. This is compared to schools with 10% to 20% of students receiving FRSL where 9% of students are considered obese.

BMI of Idaho Adults

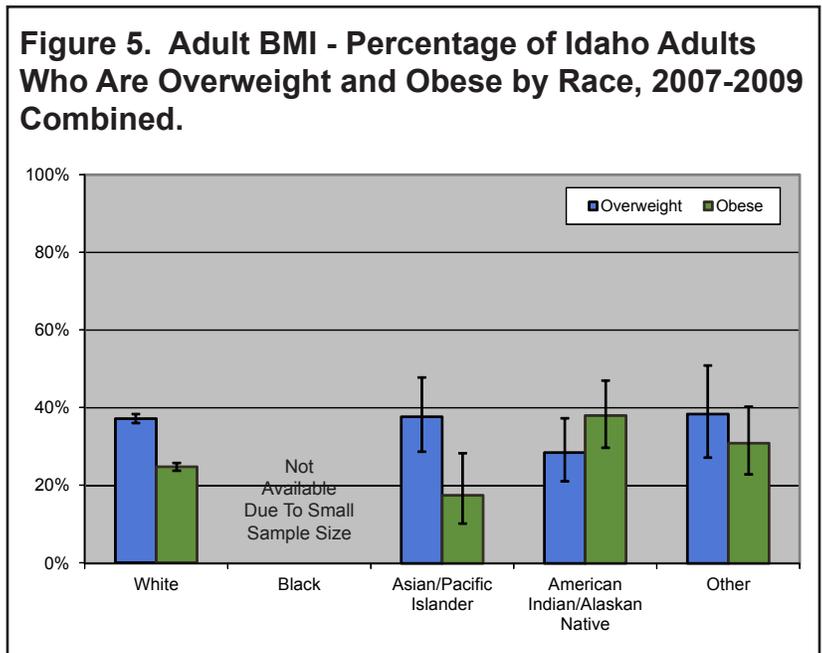
Among Idaho adults, the percentage who are considered overweight (based on BMI between 25 and 29.9) decreased slightly from 2001 to 2009 (38.8% and 36.2% respectively). Unfortunately, the percentage of Idaho adults who are considered obese increased 22% during the same timeframe (20.5% in 2001 to 25.1% in 2008). These data suggest that the increase in the percentage of Idaho adults who are at an “unhealthy weight” has been driven primarily by an increase in obese adults. (Figure 4)



Source: Idaho BRFSS

BMI of Idaho Adults by Race

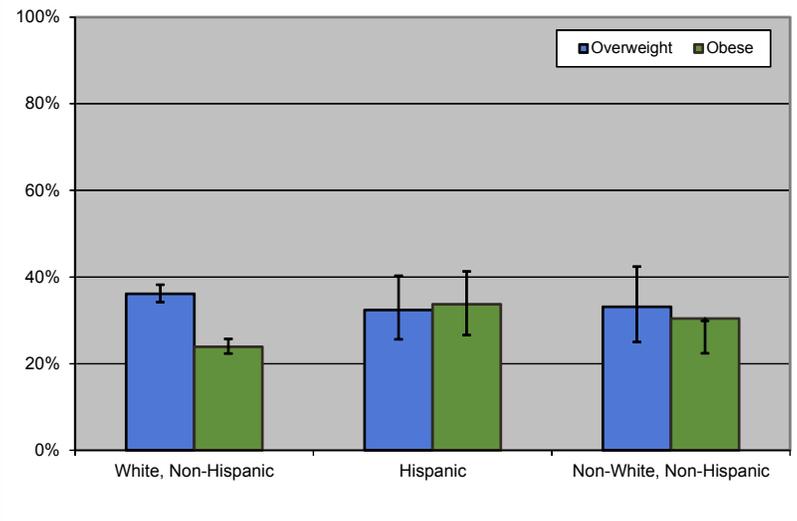
Among Idaho adults, the percentage who are considered overweight (based on BMI between 25 and 29.9) do not differ significantly by race. However, American Indian adults have the highest rate of obesity (38%) compared to Whites, Asians and adults of other races. Asian adults in Idaho have the lowest rate of obesity (18%) although they do not differ from other races significantly. In contrast, American Indian adults in Idaho are least likely to be considered overweight with 29% of adults reporting a BMI between 25 and 29.9 compared to overweight rates of 37% and 38% for the other racial categories. (Figure 5)



Source: Idaho BRFSS

BMI of Hispanic Adults

Figure 6. Hispanic Adult BMI - Percentage of Idaho Adults Who Are Overweight and Obese by Hispanic Ethnicity, 2007-2009 Combined



Source: Idaho BRFSS

Among adults in Idaho, Hispanics are significantly more likely to be obese than Non-Hispanic Whites (34% and 24% respectively). While this is true when looking at measures of obesity (BMI equal to or greater than 30), there is little difference in the percentage of overweight adults when comparing Hispanic and Non-Hispanic Whites. Rates between Hispanic adults and Non-White, Non-Hispanic adults show no significant differences between the percentage of each population who are overweight or obese. (Figure 6)

In 2006, the Idaho Partnership for Hispanic Health (IPHH) interviewed 519 Hispanic adults living in southwest Idaho. Based on the findings of these interviews:

- 41% of participants were considered obese (based on BMI of 30 or greater)
- 34% of participants were considered overweight (BMI between 25 and 29.9)

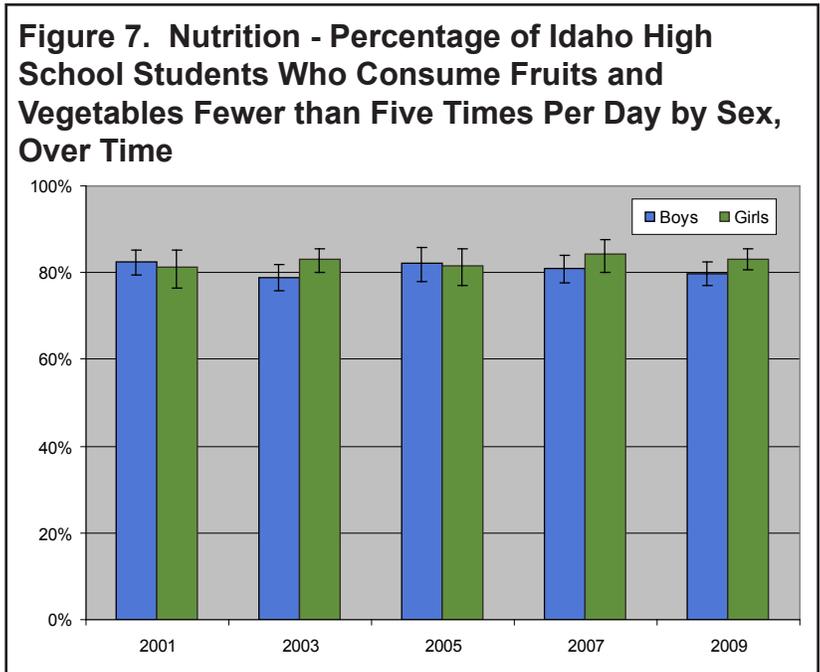
Among those participants who were categorized as obese:

- 27% didn't believe their weight impacted their health in a negative manner
- 56% reported that their general health was good or excellent
- 21% felt their health was worse than it was 12 months prior to being interviewed

(Source: Idaho Partnership for Hispanic Health. *Study Highlights: Obesity Issues*. For additional information, contact Sam Byrd at 1.800.427.9072)

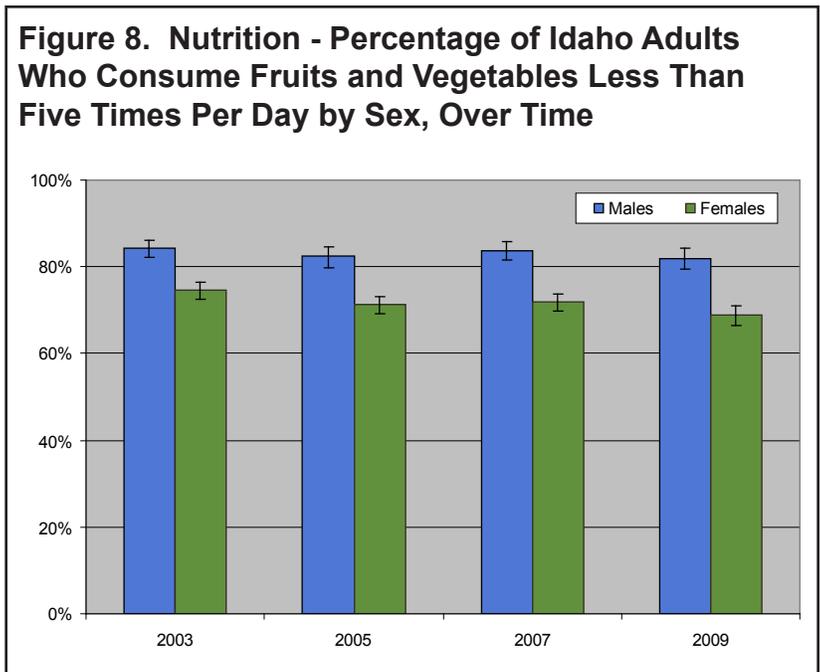
Nutrition

The percentage of Idaho high school students who consumed less than the recommended amount of fruit and vegetables each day (5 or more servings per day, based on CDC recommendations prior to the new food pyramid guidelines) remained unchanged between 2001 and 2009 at 82% (Figure 7). In most years that data were collected, female students were slightly more likely than male students to report consuming less than 5 servings of fruits and vegetables per day, however the difference between male and female students is not statistically significant.



Source: Idaho YRBS

Among Idaho adults, the percentage who consumed fruits and vegetables less than 5 times per day decreased significantly from 79% in 2003 to 75% in 2009. Among Idaho adults, females were significantly more likely to consume the recommended amount of fruits and vegetables than males (Figure 8).

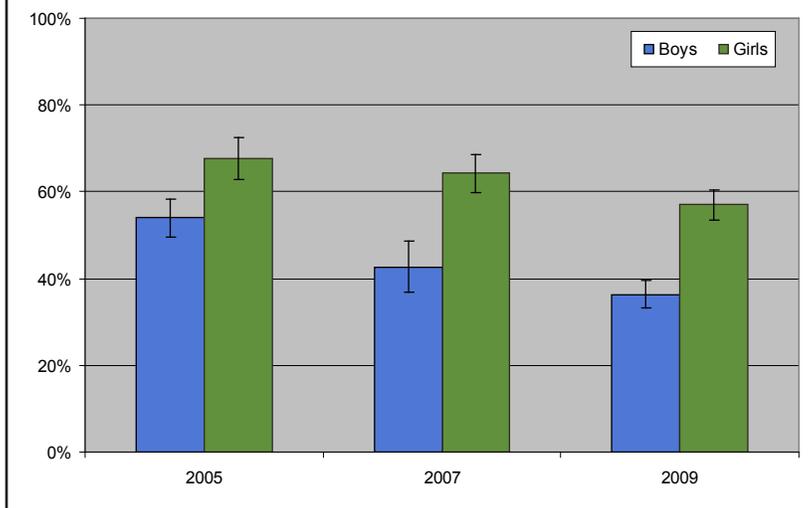


Source: Idaho BRFSS

Physical Activity

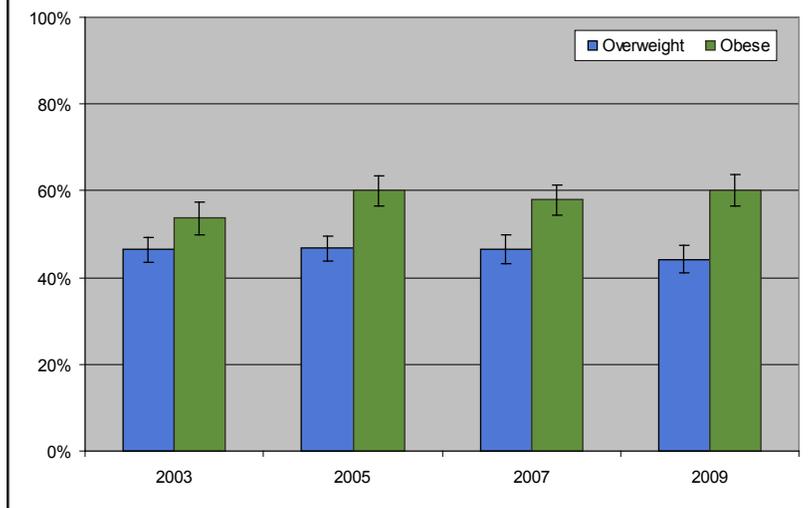
In 2005, 61% of Idaho high school students did not engage in the recommended level of weekly physical activity (i.e., at least 60 minutes per day on 5 or more days). In 2009, the percentage of Idaho high school students not engaging in the recommended level of physical activity decreased significantly to 46%; meaning that more students were engaging in the recommended level of physical activity each week. However, female students were significantly more likely than male students to not get the recommended amount of exercise, with the gap between male and female student physical activity attainment increasing from 14% in 2005 to 21% in 2009 (Figure 9).

Figure 9. Physical Activity - Percentage of Idaho High School Students Who Did Not Engage in the Recommended Level of Weekly Physical Activity, Over Time



Source: Idaho YRBS

Figure 10. Physical Activity - Percentage of Idaho Adults Who Did Not Engage in the Recommended Level of Weekly Physical Activity, Over Time



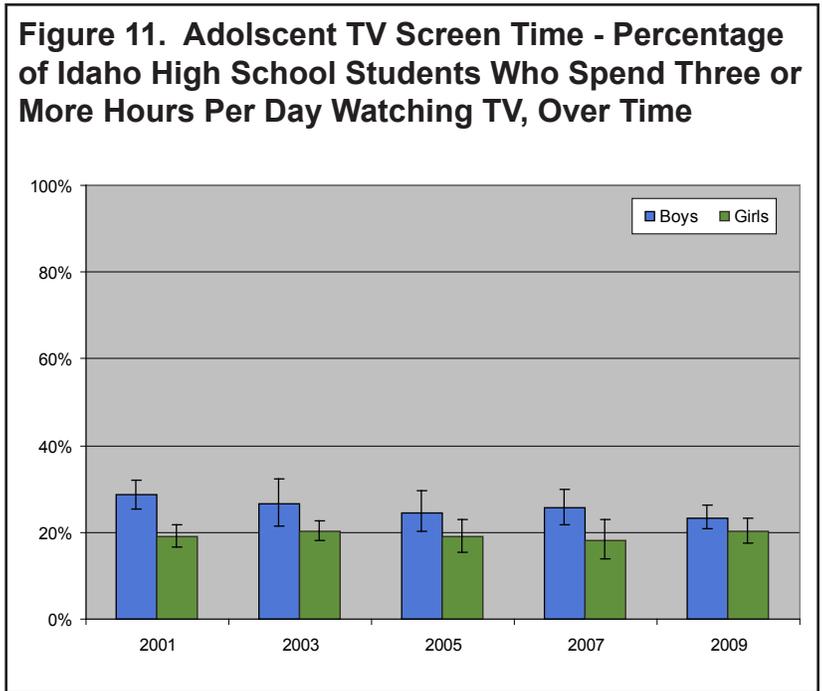
Source: Idaho BRFSS

Among Idaho adults, those who are considered obese (based on BMI of 30 or higher) are significantly less likely to engage in the recommended levels of physical activity than those Idaho adults who are overweight. There has been very little change over time in the percentage of Idaho adults who engage in the recommended level of physical activity (Figure 10).

Note: the recommended levels of physical activity for adults are 30+ minutes of moderate physical activity five or more days per week, or vigorous physical activity for 20+ minutes three or more days per week.

TV Screen Time Among Idaho High School Students

The percentage of Idaho high school students who spend three hours or more per day watching TV has decreased slightly from 24% in 2001 to 22% in 2009 (Figure 11). The decrease appears to be driven mainly by the decrease among male students, who in 2001 were significantly more likely than female students to spend three or more hours per day watching TV. Another issue to consider is that the amount of time that Idaho's high school students spend using a computer (for non school-related purposes) increased slightly from 15% in 2007 to 17% in 2009. (Note: the computer use question was first asked in 2007.)



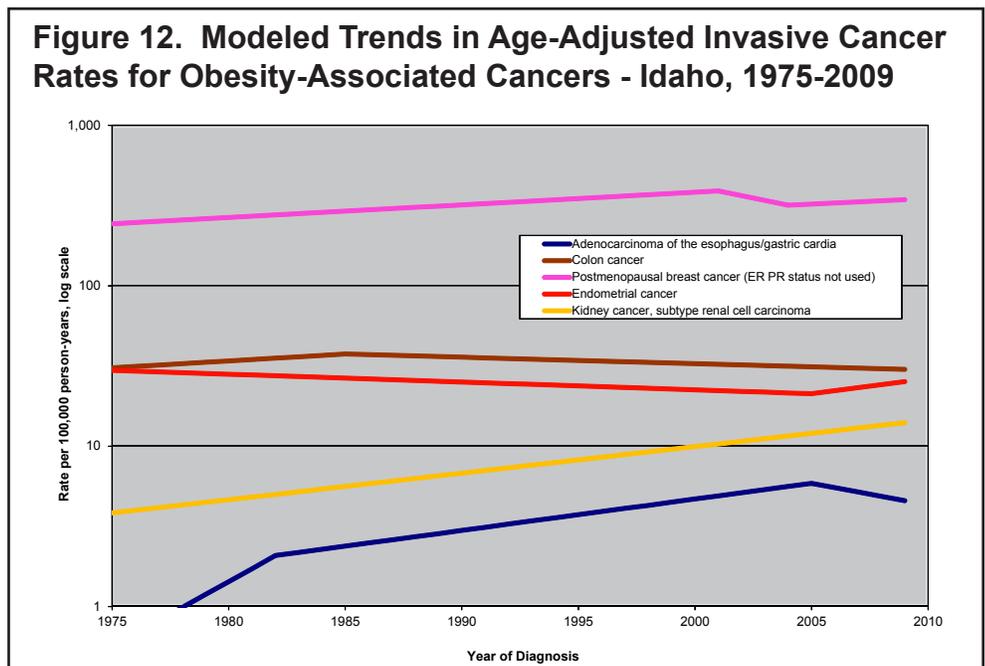
Source: Idaho YRBS

Obesity and Cancer

Several cancers have been associated with obesity. These include adenocarcinoma of the esophagus/gastric cardia, colon cancer, postmenopausal breast cancer (ER+, PR+), endometrial cancer (subtypes I and II), and kidney cancer (subtype renal cell carcinoma). The following describes trends in the age-adjusted incidence rates of these cancers in Idaho from 1975 to 2009:

- Adenocarcinoma of the esophagus/gastric cardia increased at a rate of about 20.5% per year in Idaho from 1975 to 1982, and at a rate of about 4.6% per year from 1982 to 2005. Since 2005, there has been no significant trend.
- Colon cancer incidence increased at a rate of about 2.0% per year in Idaho from 1975 to 1985. From 1985 to 2009, the rate decreased about 0.9% per year. Colon cancer incidence trends over time were different for males and females. For males, rates increased from 1975 to 1988, then decreased. For females, rates decreased slowly across the entire time series.
- Estrogen receptor positive (ER+) and progesterone receptor positive (PR+) breast cancers among postmenopausal women have been associated with obesity. Because ER/PR status is not available for long-term trend analysis, breast cancer incidence among women aged 50 and older was used for this analysis. Breast cancer incidence increased at a rate of about 1.8% per year among female Idahoans from 1975 to 2001, after which the rate decreased by about 6.6% per year until 2004, then increased by about 1.6% per year. The sharp decrease may have been due in part to a decrease in the use of hormone replacement therapy.
- Endometrial cancer incidence decreased at a rate of about 1.1% per year among female Idahoans from 1975 to 2005, then increased about 4.5% per year from 2005 to 2009.
- Renal cell carcinoma incidence increased at a rate of about 3.9% per year in Idaho from 1975 to 2009. The rate of increase was similar for males and females, although rates of renal cell carcinoma incidence among males were about twice as high as among females.

Other factors besides obesity impact the rates of these cancers and may make interpreting the trends difficult. In particular, trends in the use of hormone replacement therapy among women have impacted the incidence rates of hormone-dependent cancers. (Source: Cancer Data Registry of Idaho, Idaho Hospital Association, 2011.)



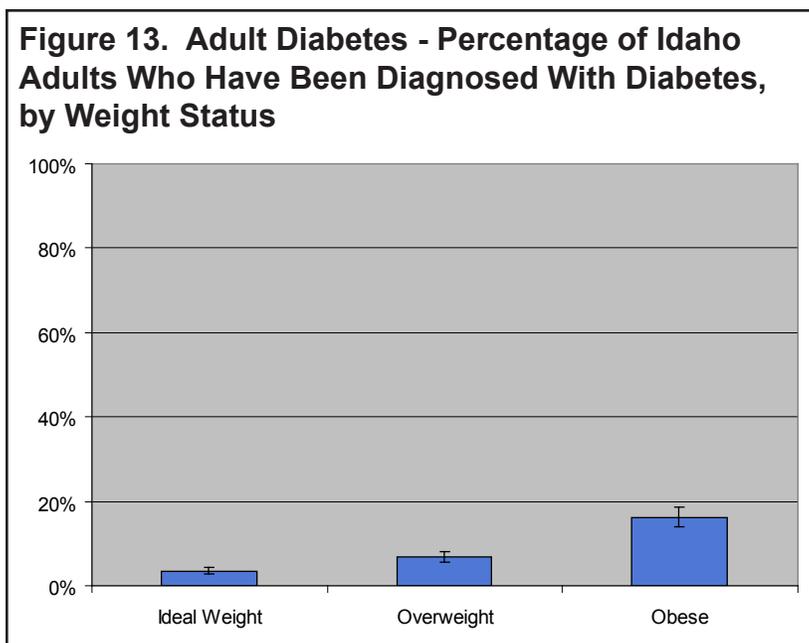
Obesity and Chronic Diseases

Unhealthy weight has been associated with many of the chronic diseases which subsequently contribute to the leading cause of deaths among Idahoans. Overweight and obesity have been associated with diabetes, hypertension, stroke, heart disease, arthritis, asthma, and some cancers. The American Cancer Society estimates that overweight and obesity contribute to 14% to 20% of all cancer-related deaths in the U.S.

Children and adolescents are developing obesity-related diseases, such as type 2 diabetes, that were once seen only in adults. Obese children are more likely to have risk factors for cardiovascular disease, including high cholesterol levels, high blood pressure, and abnormal glucose tolerance. One study of 5- to 17-year-olds found that 70% of obese children had at least one risk factor for cardiovascular disease and 39% of obese children had at least two risk factors. (CDC website)

Among Idaho adults, the prevalence of chronic disease is often significantly higher for those who are overweight or obese. In particular, obese adults are significantly more likely than non-obese adults to have diabetes, high blood pressure, high cholesterol, heart disease, heart attack, and depression.

The determinants of obesity in the United States are complex, numerous, and operate at social, economic, environmental, and individual levels. American society has become ‘obesogenic,’ characterized by environments that promote increased food intake, nonhealthful foods, and physical inactivity. Public health approaches that affect large numbers of different populations in multiple settings—communities, schools, work sites, and health care facilities—are needed. Policy and environmental change initiatives that make healthy choices in nutrition and physical activity available, affordable, and easy will likely prove most effective in combating obesity. (CDC website)



Source: 2009 Idaho BRFSS

Diabetes

The percentage of Idaho adults who have been diagnosed with Type 1 and Type 2 diabetes (Figure 13) is significantly higher among those who are considered obese (based on BMI of 30 or greater). In 2009, 16% of obese adults and 7% of overweight adults had been diagnosed with diabetes. Both groups of adults were significantly more likely to be diagnosed than adults whose weight was considered ideal (3.4%). In 2009, there were an estimated 44,000 obese adults in Idaho who have diabetes.

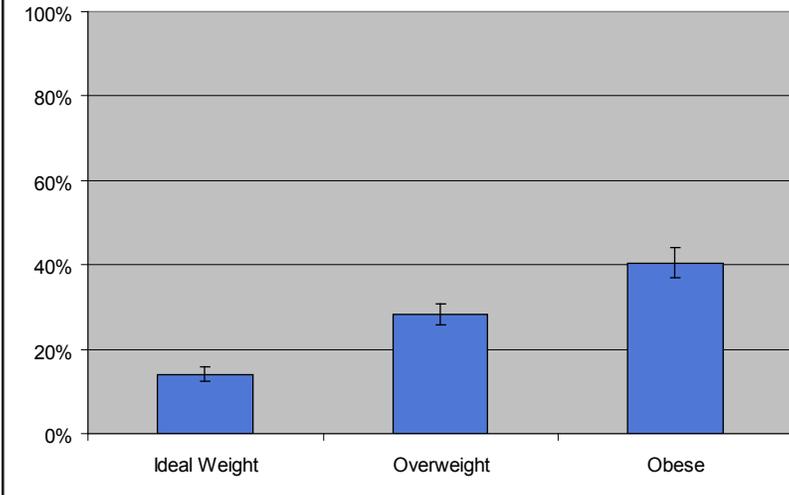
Weight loss has specifically been recommended to lower elevated blood glucose levels among overweight and obese persons with type 2 diabetes.

High Blood Pressure

In 2009, there were an estimated 100,000 obese adults in Idaho with high blood pressure. Furthermore, obese adults (40%) in Idaho are significantly more likely than overweight (28%) adults to have ever been diagnosed with high blood pressure. Idaho adults who are considered to be at an ideal weight (14%) are significantly less likely than overweight or obese adults to have ever been diagnosed with high blood pressure (Figure 14).

High blood pressure can be reduced by maintaining a healthy weight, eating a healthy diet, engaging in physical activity, limiting alcohol intake, and not smoking cigarettes or using chewing tobacco.

Figure 14. High Blood Pressure - Percentage of Idaho Adults Who Have Been Diagnosed With High Blood Pressure, by Weight Status



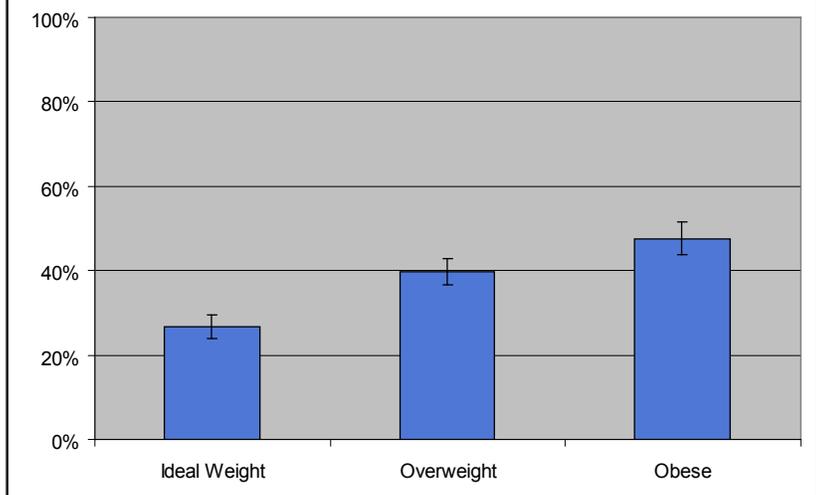
Source: 2009 Idaho BRFSS

High Blood Cholesterol

In Idaho, overweight (40%) and obese (48%) adults are significantly more likely to have ever been told they have high cholesterol than those adults whose weight is ideal (27%). (Figure 15) In 2009, there were an estimated 105,000 obese adults who have high cholesterol.

Many of the same lifestyle choices that can reduce high blood pressure (above) have been recommended for lowering blood cholesterol levels.

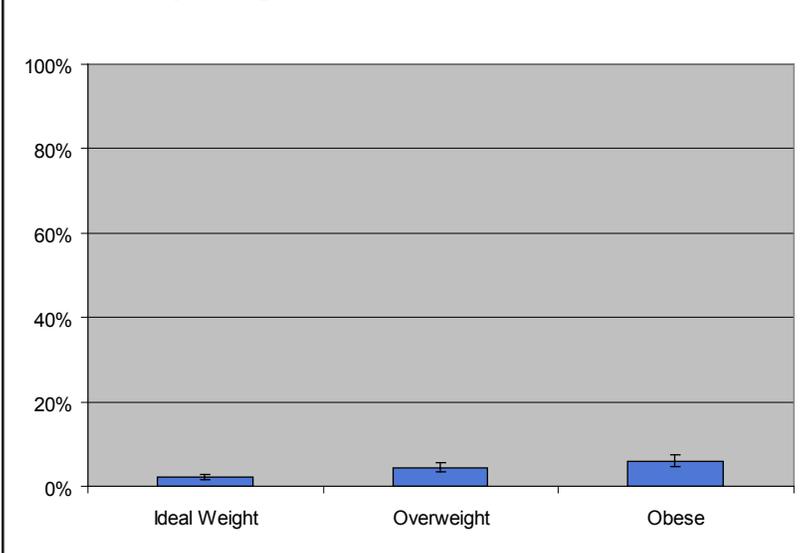
Figure 15. High Blood Cholesterol - Percentage of Idaho Adults Who Have Been Diagnosed With High Cholesterol, by Weight Status



Source: 2009 Idaho BRFSS

Heart Disease/Angina

Figure 16. Heart Disease/Angina - Percentage of Idaho Adults Who Have Been Diagnosed With Heart Disease, by Weight Status



Source: 2009 Idaho BRFSS

In 2009, Idaho adults who were at an ideal weight (2%) were significantly less likely to have ever been diagnosed with heart disease than those who were overweight (4%) or obese (6%). (Figure 16) This percentage represents an estimated 16,000 obese adults in Idaho who have been diagnosed with heart disease.

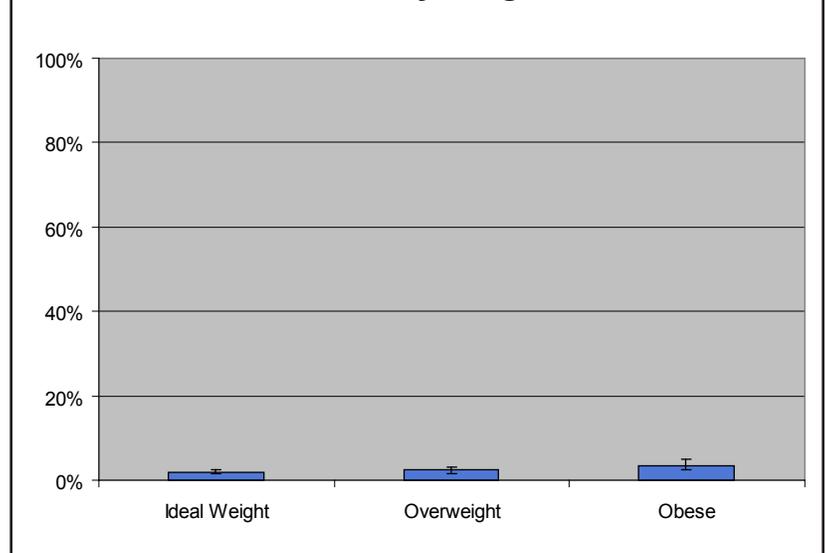
The risks for heart disease are overweight, lack of physical activity, diet high in saturated fat and cholesterol, cigarette smoking, and excessive alcohol intake.

Stroke

The percentage of Idaho adults who have ever experienced and survived a stroke is one of the few chronic disease events that does not differ significantly by weight status. However, the risk of having a stroke does increase slightly as a person's weight status increases from ideal (2%) or overweight (2%) to obese (4%). (Figure 17) In 2009, there were an estimated 10,000 obese adults in Idaho who had ever had a stroke.

A person's risk for stroke can be reduced by adopting the same healthy lifestyle choices associated with reducing a person's risk for high blood pressure, high cholesterol, and heart disease.

Figure 17. Stroke - Percentage of Idaho Adults Who Have Ever Had a Stroke, by Weight Status

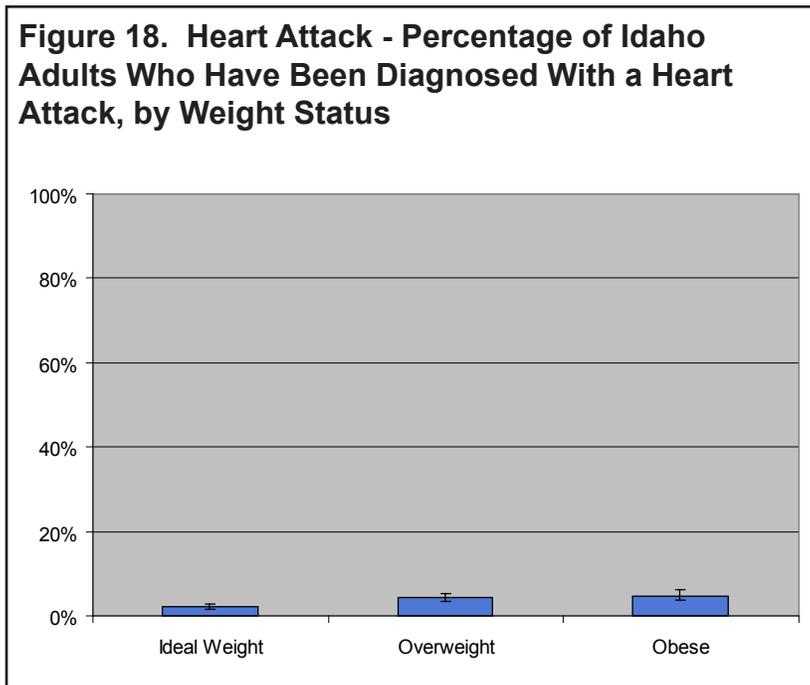


Source: 2009 Idaho BRFSS

Heart Attack

The risk for ever having been diagnosed with having a heart attack increases significantly among Idaho adults who are overweight (4%) or obese (5%) compared to adults who are an ideal weight (2%) (Figure 18). Based on these data, an estimated 13,000 obese adults in Idaho have been diagnosed with having had a heart attack.

Sudden cardiac arrest—the stopping of the heart—occurs when the heart stops completely. Unless treated, a person whose heart has stopped will die within minutes. (CDC)

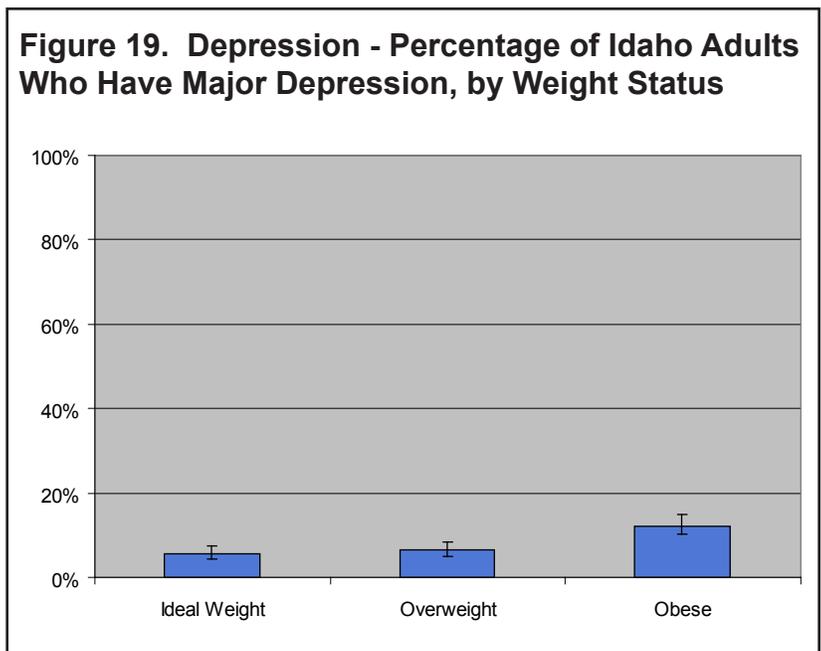


Source: 2009 Idaho BRFSS

Depression

Although there was very little difference in 2008 between the percentage of Idaho adults at an ideal weight (6%) and adults considered overweight (7%) who had major depression; obese adults (12%) were significantly more likely to have ever been diagnosed with major depression (Figure 19). In 2008, it is estimated that 31,000 obese adults in Idaho had major depression.

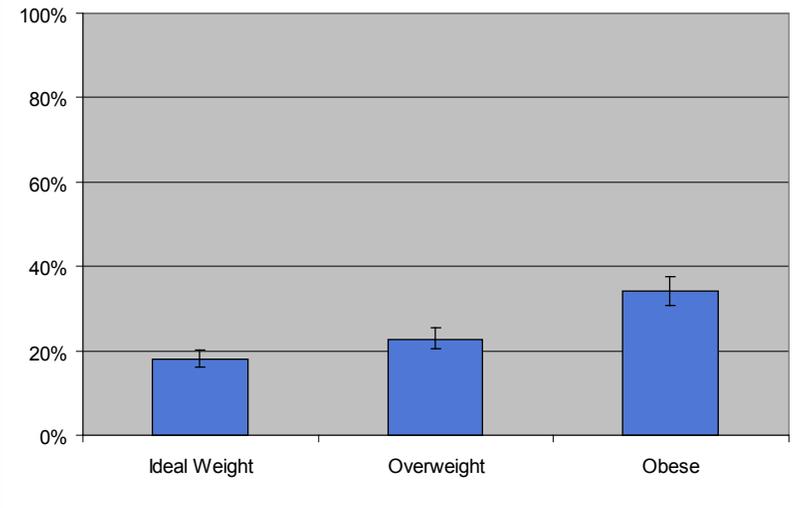
Depression is not just having “the blues” or the emotions we feel when grieving the loss of a loved one. It is a true medical condition that is treatable, like diabetes or hypertension. (CDC)



Source: 2008 Idaho BRFSS

Arthritis

Figure 20. Arthritis - Percentage of Idaho Adults Who Have Been Diagnosed With Arthritis, by Weight Status



Source: 2009 Idaho BRFSS

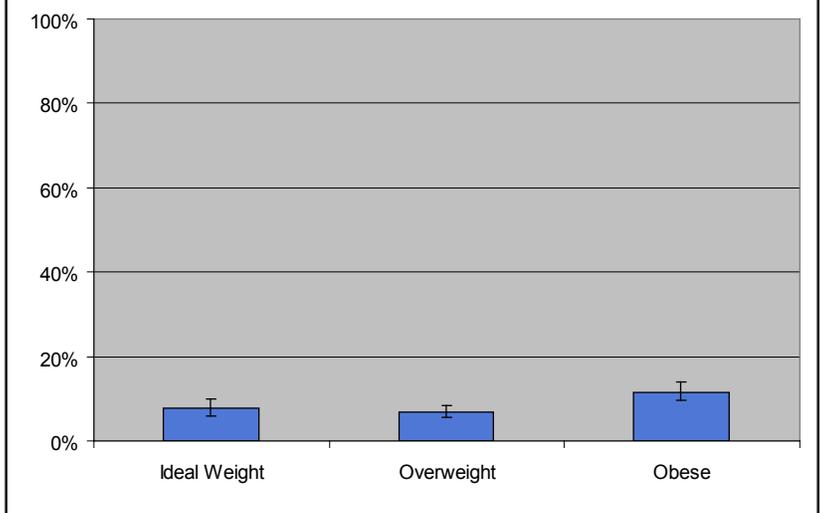
Based on 2009 data, a person’s risk for being diagnosed with arthritis increased significantly as weight status increased from ideal (18%), to overweight (23%), and obese (34%). (Figure 20) This translates to an estimated 90,000 obese Idaho adults with arthritis.

While arthritis cannot be cured, there are ways to manage arthritis and lessen the effects. In particular, people with arthritis are encouraged to obtain self-management education, be physically active, maintain a healthy weight and protect joints. Early diagnosis of arthritis is especially important for people with inflammatory arthritis.

Asthma

Asthma risk among adults in Idaho does not appear to differ significantly as a person’s weight status increases. Obese adults in Idaho do have the highest risk for asthma (12%); adults who are at an ideal weight (8%) are not significantly less likely to have current asthma (Figure 21). While there is a significant difference in the percentage of adults who are overweight (7%) compared to adults who are obese, the correlation between asthma and weight status does not increase in a linear manner. Despite there not being a strong link between asthma and weight status, 31,000 obese adults in Idaho have been diagnosed with current asthma.

Figure 21. Asthma - Percentage of Idaho Adults Who Have Been Diagnosed With Current Asthma, by Weight Status



Source: 2009 Idaho BRFSS

Food Insecurity

“Food insecurity” is the term used to describe the condition in which a family or individual is faced with not having access to any or enough food for their next meal. A household or individual is considered food-secure when they do not live in hunger or fear of starvation. Families and individuals with the financial resources to escape extreme poverty rarely if ever experience food insecurity, while poor families and individuals experience a much greater risk of becoming food insecure. For these poorer households, the lack of money contributes to both hunger and obesity; a paradox driven in part by the economics of food buying. Households which lack financial stability often rely on cheaper, high calorie foods to combat hunger. In an attempt to maximize caloric intake for each dollar spent on food, households will often experience an over-consumption of calories obtained from a less healthy diet. Furthermore, research has found that mothers from food insecure households will often restrict their own food intake during periods of food scarcity in order to protect their children from hunger. These patterns of chronic ups and downs in food intake can contribute to obesity among lower-income women.

In 2009, 14.7% of households in the United States (17.4 million households) experienced food insecurity. In Idaho, 11.6% of households were food insecure for the same time period.

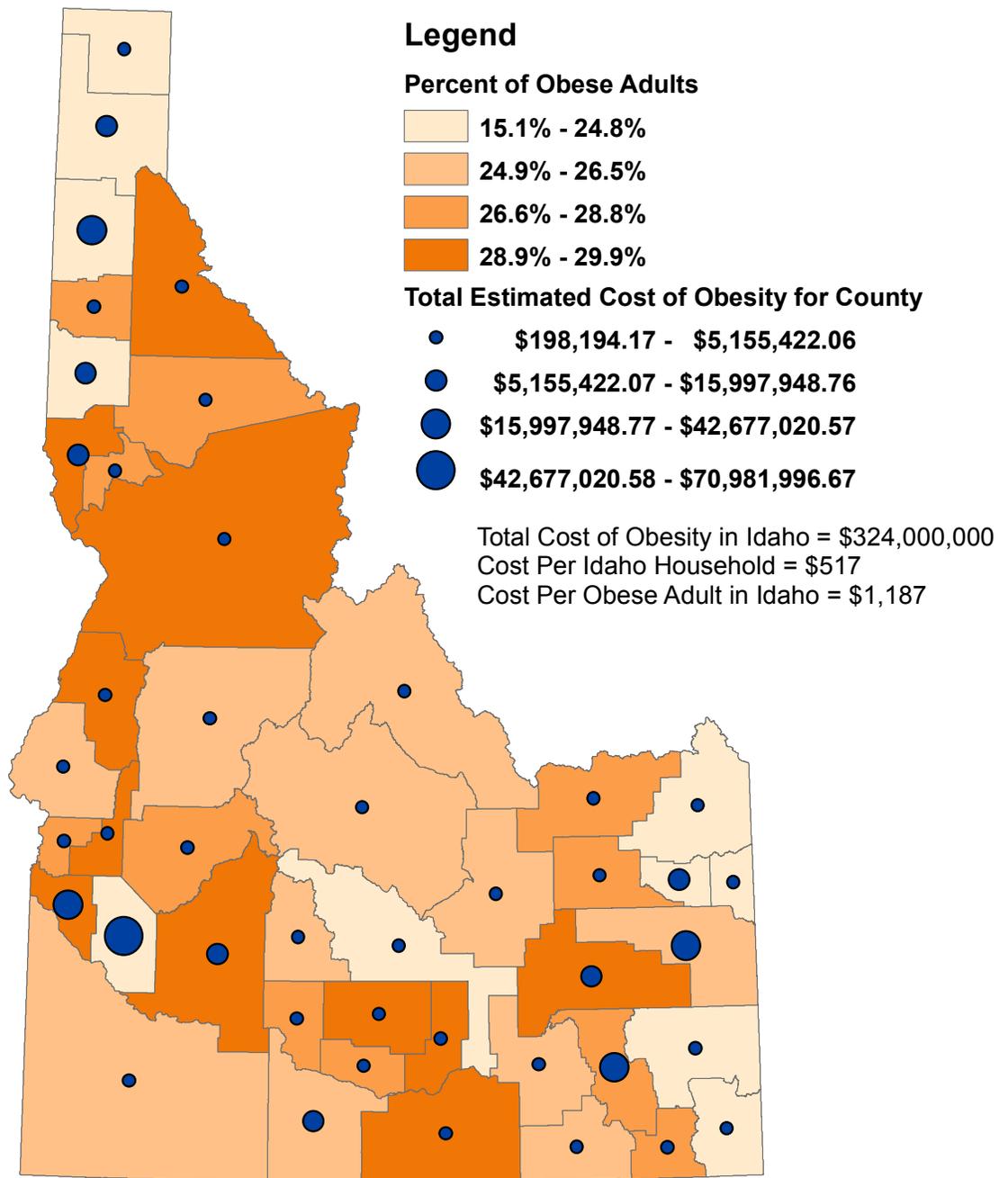
(Source: Idaho Foodbank: www.idahofoodbank.org)

Economic Costs

According to the most current estimates, the direct healthcare cost of obesity for Idaho is \$324 million a year. Synthetic estimates of the cost of obesity for individual Idaho counties range from \$198,000 to nearly \$71 million (Figures 22 & 23). Furthermore, based on the projected prevalence of obesity in Idaho, the annual economic cost of obesity will increase to \$1.5 billion by 2018. If the obesity rate in Idaho could be held at today’s level (approximately 25%), the savings could be as much as \$932 million in 2018. (Source: United Health Foundation. America’s Health Rankings - www.americashealthrankings.org. Accessed on November 30, 2010).

In addition to the medical-related economic costs associated with obesity, there are other real-life costs associated with obesity such as employee sick days, lost productivity, and extra gasoline. When these other real-life costs are considered, it is estimated that the annual cost of being obese is roughly \$4,800 for a woman and \$2,600 for a man. The difference between the costs for men and women is largely driven by studies that suggest obese women earn less than non-obese women. The research also found that medical-related spending on average was about \$1,400 more a year for people who were obese versus those who are not obese. (Source: Associated Press. Article accessed online December 1, 2010.)

Figure 22. Obesity - Percent of Obese Adults and Estimated Cost of Obesity by Idaho County, 2009 Age-Adjusted Data



Estimates based on total cost of obesity in Idaho (\$324 million) divided by number of obese adults in Idaho which is then multiplied by the number of obese adults in each county. County obesity numbers were obtained from the Centers for Disease Control and Prevention's county level estimates accessed on 7.15.2011: http://apps.nccd.cdc.gov/DDT_STRS2/CountyPrevalenceData.aspx?mode=OBS.

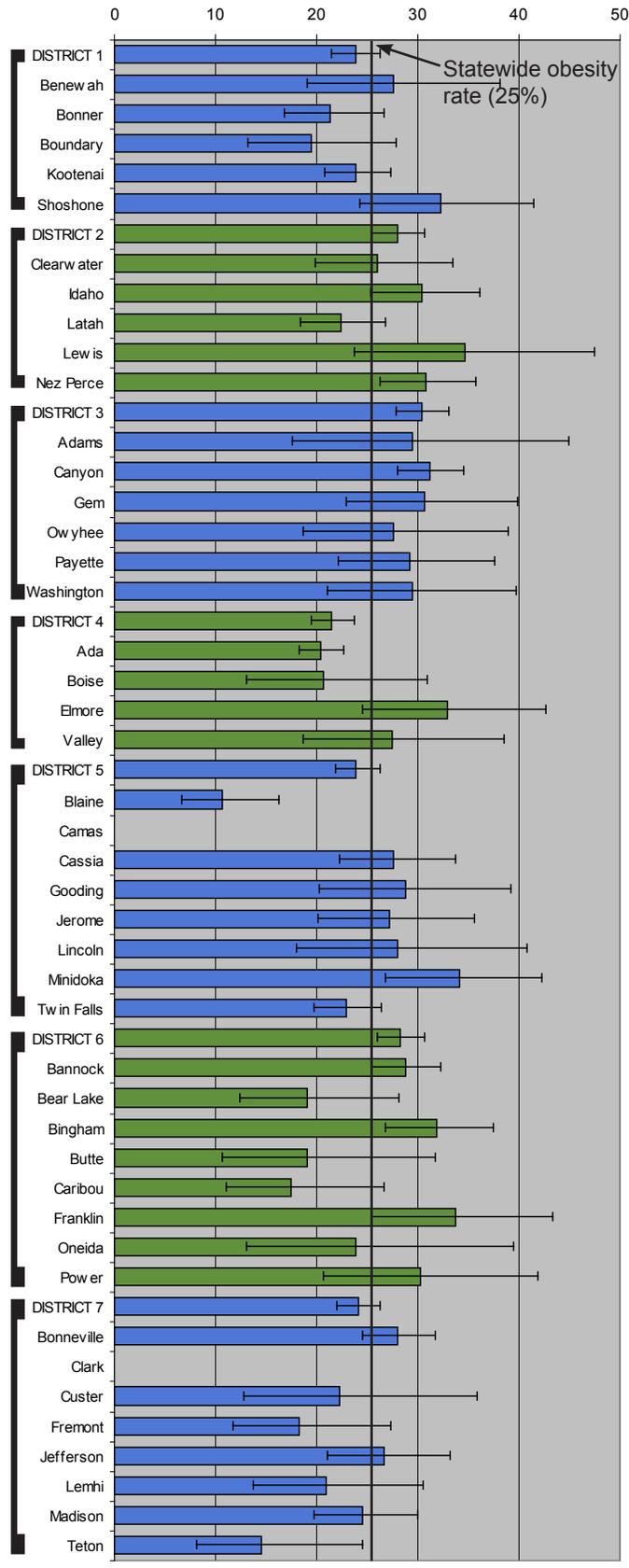
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Figure 23. Obesity - Percent of Obese Adults and Estimated Cost of Obesity by Idaho County, 2009 Age-Adjusted Data

<i>County</i>	Age Adjusted Percent of Obese Adults	Estimated Number of Obese Adults	Estimated Cost of Obesity for County
Ada County	21.8%	59810	\$ 70,981,996.67
Adams County	29.0%	801	\$ 950,619.95
Bannock County	28.9%	16070	\$ 19,071,738.61
Bear Lake County	22.9%	958	\$ 1,136,946.21
Benewah County	26.8%	1884	\$ 2,235,915.09
Bingham County	29.3%	8566	\$ 10,166,055.57
Blaine County	15.1%	2522	\$ 2,993,088.04
Boise County	27.8%	1659	\$ 1,968,887.02
Bonner County	21.3%	6848	\$ 8,127,147.85
Bonneville County	25.6%	17290	\$ 20,519,624.18
Boundary County	24.7%	2031	\$ 2,410,373.44
Butte County	26.5%	538	\$ 638,493.80
Camas County	25.0%	218	\$ 258,720.54
Canyon County	29.5%	35960	\$ 42,677,020.57
Caribou County	23.8%	1182	\$ 1,402,787.49
Cassia County	29.6%	4186	\$ 4,967,909.01
Clark County	26.6%	167	\$ 198,194.17
Clearwater County	26.7%	1778	\$ 2,110,115.20
Custer County	24.9%	864	\$ 1,025,387.81
Elmore County	29.3%	5840	\$ 6,930,862.07
Franklin County	28.9%	2341	\$ 2,778,278.79
Fremont County	21.3%	1800	\$ 2,136,224.61
Gem County	29.5%	3579	\$ 4,247,526.60
Gooding County	27.4%	2711	\$ 3,217,391.62
Idaho County	29.1%	3501	\$ 4,154,956.87
Jefferson County	27.5%	4344	\$ 5,155,422.06
Jerome County	27.4%	3778	\$ 4,483,698.10
Kootenai County	24.4%	24570	\$ 29,159,465.94
Latah County	23.9%	6295	\$ 7,470,852.18
Lemhi County	25.4%	1560	\$ 1,851,394.66
Lewis County	27.5%	748	\$ 887,720.01
Lincoln County	29.3%	894	\$ 1,060,991.56
Madison County	24.8%	5101	\$ 6,053,823.19
Minidoka County	29.8%	3839	\$ 4,556,092.38
Nez Perce County	29.9%	8723	\$ 10,352,381.82
Oneida County	26.3%	786	\$ 932,818.08
Owyhee County	26.2%	1994	\$ 2,366,462.15
Payette County	27.2%	4411	\$ 2,345,937.09
Power County	26.3%	1400	\$ 1,661,508.03
Shoshone County	29.6%	2992	\$ 3,550,880.02
Teton County	20.2%	1218	\$ 1,445,511.99
Twin Falls County	25.7%	13480	\$ 15,997,948.76
Valley County	26.5%	1869	\$ 2,218,113.22
Washington County	25.3%	1899	\$ 2,253,716.96

Estimates based on total cost of obesity in Idaho (\$324 million) divided by number of obese adults in Idaho which is then multiplied by the number of obese adults in each county. County obesity numbers were obtained from the Centers for Disease Control and Prevention's county level estimates accessed on 7.15.2011:
http://apps.nccd.cdc.gov/DDT_STRS2/CountyPrevalenceData.aspx?mode=OBS.

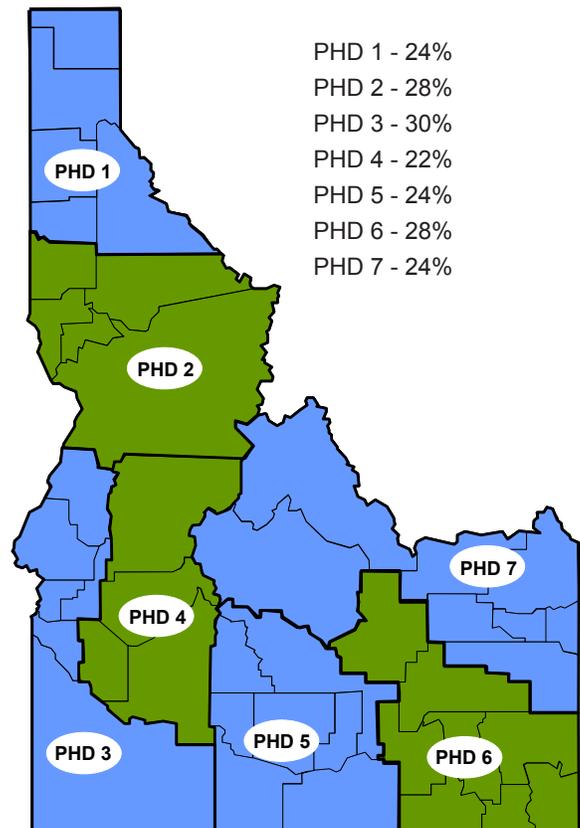
Figure 24. Obesity - Percent of Obese Adults by Idaho Public Health District and County, 2007-2009 Aggregated Age-Adjusted Data



Obesity by County and Public Health District

As expected, the percentage of adults in Idaho who are considered to be obese (based on a BMI of 30 or greater) varies by county and local public health district (PHD). Among Idaho's 44 counties (Figure 24), Blaine county (11%) has the lowest percentage of obese adults while Lewis county has the greatest percentage of obese adults (35%). Among Idaho's seven PHDs, PHD 4 has the lowest rate of adult obesity (22%) and PHD 3 has the highest rate of adult obesity (30%). (Figure 25)

Figure 25. Idaho Public Health District - Adult Obesity Rates



Source: 2007-2009 Idaho Behavioral Risk Factor Surveillance System.

The Obesity Epidemic in Idaho



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Bureau of Community and Environmental Health
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Idaho Department of Health and Welfare
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