

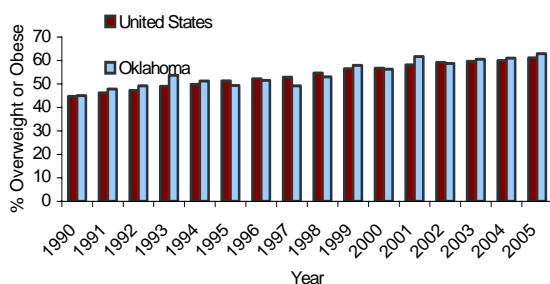
# Overweight and Obesity in Oklahoma and the US

## Introduction

Reducing overweight and obesity is one of the national objectives for Healthy People 2010. It is one of the priorities outlined by the Oklahoma Board of Health as well as a priority for the State Health Department's leadership. The national goal is to reduce the proportion of adults who are obese to 15%.<sup>1</sup> Unfortunately, according to the 2005 Behavioral Risk Factor Surveillance System (BRFSS), the current proportion of adults who are obese is at 24% nationally and at 27% in Oklahoma. The proportion of overweight and/or obese individuals has risen at an alarming rate during the past 20 years and does not appear to be slowing. (Figure 1) Approximately 63% of adults in Oklahoma were overweight or obese

**Obesity is a major risk factor for over 30 chronic diseases including cardiovascular disease, type 2 diabetes and several types of cancers.**

**Figure 1 Percentage of adults who are overweight or obese: BRFSS 1990-2005**



in 2005, which is equivalent to about three out of every five people. The measurement of overweight and obesity most commonly used is the Body Mass Index (BMI). This measurement describes the relationship between weight and height. It is a formula that divides an individual's weight in kilograms by the square of their height in meters (kg/m<sup>2</sup>). Studies have indicated that this measurement is a reliable estimate for body fatness. It is often used as a tool to screen individuals for potential health problems. Table 1 displays the different categories of BMI and weight status.

**Table 1 BMI and Weight Status categories for adults.**

BMI	Weight Status
Below 18.5	Underweight
18.5 - 24.9	Normal
25.0 - 29.9	Overweight
30.0 and Above	Obese

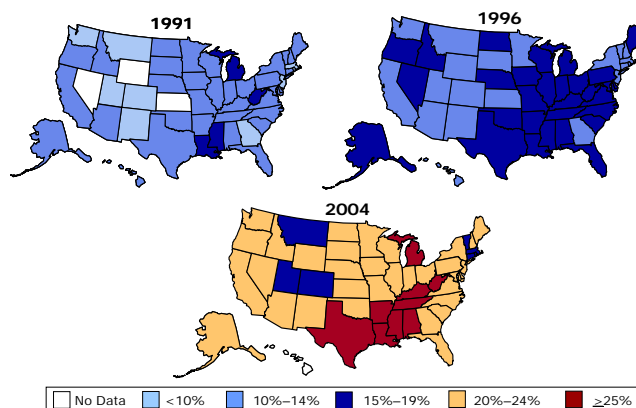
**Three out of every five Oklahomans are overweight or obese.**

Obesity is considered a risk factor for over 30 chronic diseases including but not limited to<sup>2</sup>:

- Arthritis
- Several cancers including breast, colorectal, and renal cell
- Cardiovascular disease (CVD)
- Type 2 diabetes
- Hypertension

The maps in figure 2 dramatically display the extent of this epidemic of obesity as it has spread throughout the nation in the past decade.

**Figure 2 Trends in obesity among American adults. BRFSS: 1991, 1996, 2004**



## Sources for Data and Statistics:

Data for this report came from several sources including the Behavioral Risk Factor Surveillance System (BRFSS), the Youth Risk Behavior Surveillance System (YRBS) and the American Obesity Association (AOA). The BRFSS is a random-digit dialed telephone survey of the non-institutionalized population 18 years and older in the United States. All of the data is self-reported and the final results are weighted to account for several factors including lack of telephones. This survey is recognized and conducted nation-wide as a comprehensive, effective system to collect behavioral data related to numerous diseases. The YRBS is similar to the BRFSS except it monitors six categories of health-risk behaviors among youth and young adults. The AOA is the nation's leading organization for advocacy and education on obesity. As obesity becomes an increasingly greater problem in the United States, scientists have begun researching and describing the situation in more detail. As such, several scientific articles are also referenced in this publication.

Oklahoma has the lowest percentage of adults who eat 5 fruits or vegetables each day in the nation!

## The Cost of Obesity:

It has been well established that obesity is a risk factor for multiple chronic diseases. Therefore, one of the consequences of this obesity epidemic will be the correlating increase in the use of healthcare. For example, one study found that persons with a BMI  $\geq 30$  had 36% higher annual healthcare costs than those of normal weight.<sup>3</sup> There is also evidence that the correlation between BMI and health care costs is greatest among older Whites.<sup>4</sup> Age was also examined in additional studies. One study in particular focused on those greater than age 65 and discovered that the expenditures related to obesity are rivaling those for tobacco.<sup>5</sup> Based on BRFSS data, the Centers for Disease Control and Prevention (CDC) estimated state-level expenditures attributable to obesity. Oklahoma ranked 27th highest in the nation with an estimated \$854 million spent on healthcare costs related to obesity.<sup>6</sup>

## Preventing Obesity:

If obesity could be prevented it would be a step in the right direction in improving our nation's and state's health, in addition to saving millions of dollars down the road. So what can be done to prevent obesity?

**Portion Control:** Lower calorie food selections and portion control are recommended for preventing weight gain. Reducing fat or carbohydrate intake alone is an insufficient weight management strategy. Total caloric intake must be reduced. These same strategies can be emphasized for weight loss in overweight persons and those already obese. Eating a diet that reduces daily caloric intake by 500-1000 calories is a safe and effective method for weight loss.

**Fruits and Vegetables:** Increasing fruit and vegetable consumption can also help maintain a healthy weight. A daily intake of between 4 and 13 servings of fruits and vegetables is recommended depending on age, gender, and activity level. In general, more consumption is encouraged for everyone.

**Exercise/Physical Activity:** Exercise and physical activity are also integral

components of maintaining a healthy weight. On average, adults should attempt to incorporate 30 minutes of moderate to vigorous physical activity on as many days of the week as possible. For weight loss, the recommended duration is 60-90 minutes.

## Why should Oklahomans be focused on Preventing Obesity?

In Oklahoma, approximately 37% of the population is overweight, and 24% is obese.<sup>7</sup> This is over 60% of the state's adult population that are not at a normal, healthy weight! These problems begin at an early age. According to the Oklahoma Youth Risk Behavioral Survey taken in 2003 and 2005, 13% of Oklahoma's youth are currently overweight and 15% are at risk of becoming overweight.<sup>8</sup> That is more than 1 out of every 4 children who are already overweight or at risk of becoming overweight! Some of the reasons behind why this state is so overweight are reflected in behaviors that are

*Table 2 Prevalence of Obesity (BMI  $\geq 30$ ) in Oklahoma by Gender, Age, Race, Income and Education with Confidence Intervals: BRFSS 2000-2005.*

	Percent Obese	Confidence Interval
<b>Gender</b>		
Male	24.0%	(23.1-25)
Female	23.2%	(22.4-23.9)
<b>Age Group</b>		
18-34	19.7%	(18.6-20.8)
35-64	28.1%	(27.3-28.9)
65+	18.0%	(17.1-18.9)
<b>Race/Ethnicity</b>		
White NH*	22.5%	(21.8-23.1)
Black NH*	28.1%	(25.7-30.5)
AI NH*	31.4%	(29-33.7)
Other NH*	12.1%	(8.7-15.6)
Multicultural NH*	29.1%	(25.8-32.4)
Hispanic	25.9%	(23.2-28.6)
<b>Income</b>		
<\$15 K	27.4%	(25.8-29.1)
\$15-24.9K	26.0%	(24.6-27.4)
\$25-49.9K	25.0%	(23.9-26.0)
\$50-74.9K	22.7%	(21.3-24.2)
\$75K+	19.7%	(18.2-21.3)
<b>Education</b>		
Less than HS	24.6%	(23.0-26.2)
HS or GED	24.6%	(23.6-25.5)
Some Post HS	24.4%	(23.2-25.5)
College	20.8%	(19.7-21.8)
<b>Overall</b>	23.6%	(23.0-24.2)

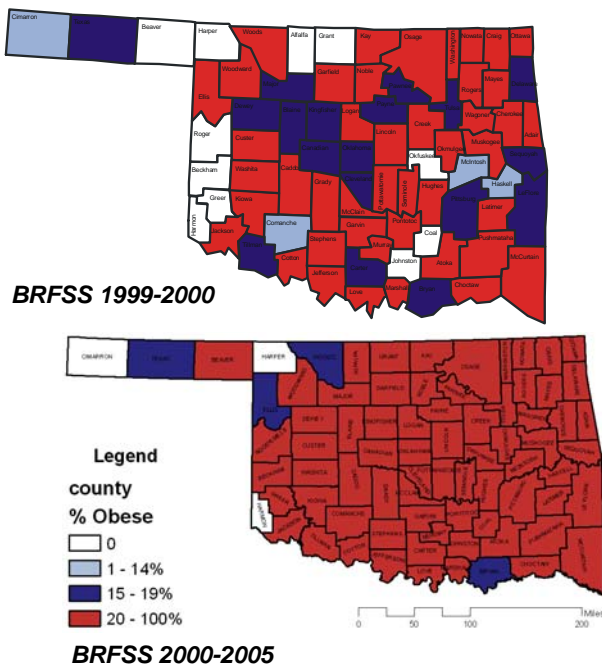
One out of every four children in Oklahoma are currently overweight or at risk of becoming overweight.

reported in the BRFSS survey. According to BRFSS, Oklahoma is the worst state in the nation for the proportion of the population that eats 5 servings of fruits and vegetables each day. The national average is 23.2%, while Oklahoma is at 15.7%. As far as physical activity, Oklahoma ranks 8th in the nation for the highest proportion of adults who do NOT exercise for 20 minutes three times a week. Only 22.5% of adults in Oklahoma reported doing so as compared to the national average of 27.5%. When evaluating Oklahoma's BRFSS responses to determine which portions

individuals who were obese. There are no counties in Oklahoma that met the Healthy People 2010 of  $\leq 15\%$  obese as of 2005. The majority of the counties' populations were  $\geq 20\%$  obese. The number of counties that have a larger proportion of their population classified as obese has increased significantly in the past several years. All but 7 counties in Oklahoma as of 2005 had  $\geq 20\%$  of their population classified as obese. (Figure 3)

**91% of Oklahoma's counties have  $\geq 20\%$  of their population that is considered to be obese.**

**Figure 3 Change in Percentage of Adults who are obese in Oklahoma, by county: BRFSS 2000-2005**



of the population are most strongly impacted by obesity, several trends can be seen. (see Table 2) A slightly higher percentage of males tend to be obese compared to females, however the difference is very small. Those 35-64 years old have by far the highest percentage of individuals who are obese. Non-Hispanic American Indians have the highest proportion of obese individuals of any race/ethnicity at 31.4%. Income does not appear to be as strong a factor, however there is a slight gradient with increasing income correlated to a smaller proportion of the individuals being obese. Similar trends were also seen with education level, where the higher the education, the smaller the proportion of

**Oklahoma Physical Activity and Nutrition Program (OKPAN):**

OKPAN is a state-wide effort to prevent obesity and other chronic diseases through healthy eating and increased physical activity. It's mission is to reduce the incidence and prevalence of obesity and related chronic diseases through the enhancement of organizational capacity and development and implementation of a comprehensive State Plan. This program focuses on 5 key areas:

- Increasing fruit and vegetable consumption
- Increasing breastfeeding initiation and duration
- Physical Activity
- Balancing food intake with energy expenditure
- Reducing screen-time (television, computer use, and video games)

The entire state plan can be seen on the Oklahoma State Department of Health's website at: <http://www.health.state.ok.us/program/cds/obesity.html>

**Oklahoma Fit Kids Coalition:**

The Oklahoma Institute for Child Advocacy (OICA) has developed the grassroots efforts of the Oklahoma Fit Kids Coalition. Their mission is to improve the health and well being of Oklahoma youth and families by reducing childhood obesity. They are an association of more than 90 organization that have united to combat childhood obesity. <http://69.20.59.165/home.html>

**Racial and Ethnic Approaches to Community Health (REACH) 2010:**

REACH's goal on a national level is to eliminate disparities in health status experienced by racial and ethnic minority

**Consider being involved in one of Oklahoma's programs that encourage Oklahomans to actively impact obesity in our state!**

populations in key areas. Oklahoma's REACH project focuses on reducing racial disparities in diabetes, cardiovascular disease, and their risk factors by implementing or expanding physical activity programs among eight American Indian tribal nations and one urban health center. Each partner has established a physical activity program in their respective community and continues to monitor BMI and other measurements semiannually with the hopes of decreasing or preventing obesity among tribal and community members. <http://www.health.state.ok.us/program/cds/reach.html>

### **Governor Brad Henry's Initiative for Building a Strong and Healthy Oklahoma:**

The Strong and Healthy Oklahoma initiative is an effort that extends statewide to encourage simple ways to make healthier choices where we live, work and learn. For example, this initiative will begin by promoting existing employee wellness programs and developing new ones to encourage the employees of the state to set an example of healthy living for the rest of the state. Future steps include partnering with public and private organizations to promote healthier lifestyles among students and Oklahoma citizens. [http://www.ok.gov/strongandhealthy/Strong\\_and\\_Healthy\\_Oklahoma/index.html](http://www.ok.gov/strongandhealthy/Strong_and_Healthy_Oklahoma/index.html)

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