

Overweight and Obesity Rates Among Upstate New York Adults

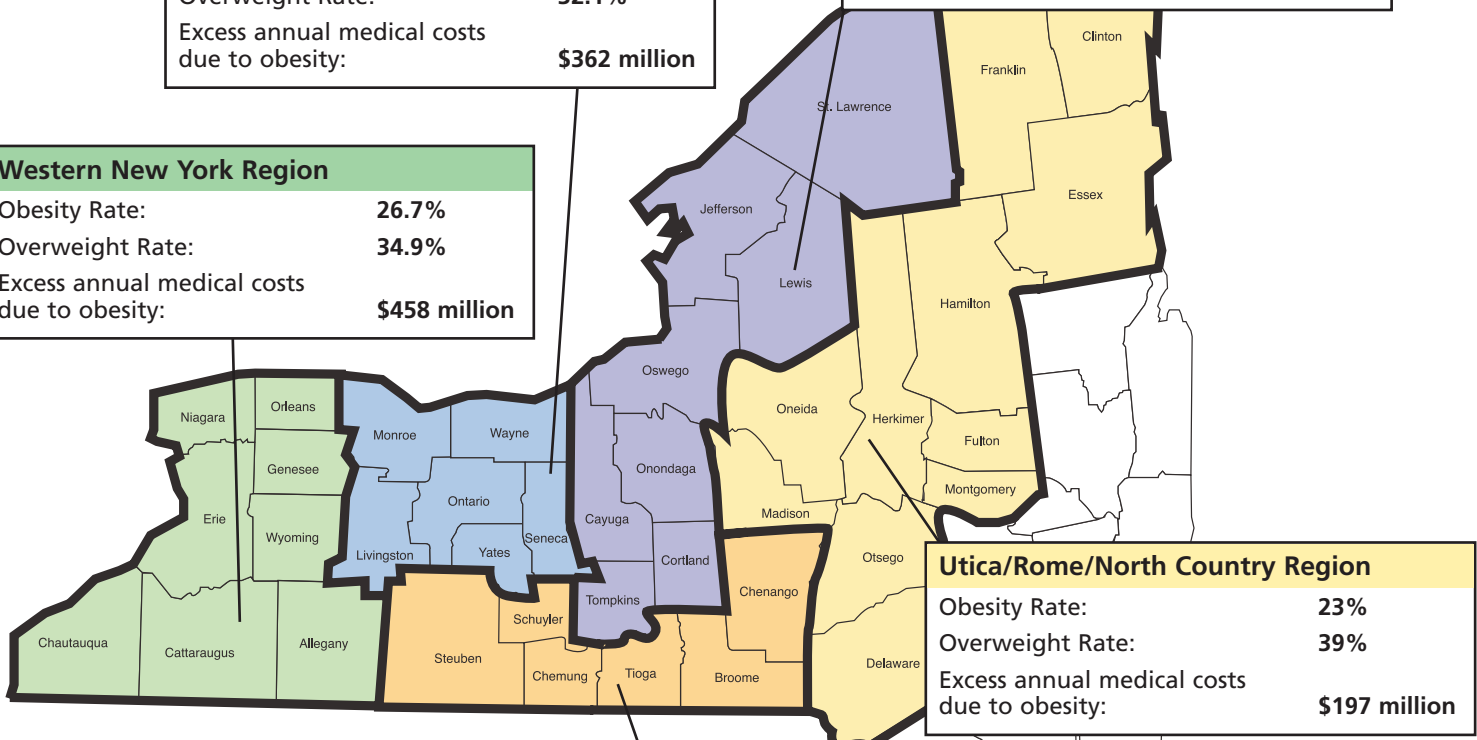
Upstate New York	
Obesity Rate:	27.5%
Overweight Rate:	35.5%
Increase in the combined overweight/obesity rate from 2003 to 2007:	15%
Excess annual medical costs due to obesity:	\$1.5 billion

New York State	
Obesity Rate:	25.5%
Overweight Rate:	36.4%
Increase in the combined overweight/obesity rate from 2003 to 2007:	10.1%
Excess annual medical costs due to obesity:	\$5.4 billion

Finger Lakes Region	
Obesity Rate:	31.3%
Overweight Rate:	32.1%
Excess annual medical costs due to obesity:	\$362 million

Central New York Region	
Obesity Rate:	26.2%
Overweight Rate:	35.7%
Excess annual medical costs due to obesity:	\$309 million

Western New York Region	
Obesity Rate:	26.7%
Overweight Rate:	34.9%
Excess annual medical costs due to obesity:	\$458 million



- Western New York Region
- Finger Lakes Region
- Southern Tier Region
- Central New York Region
- Utica/Rome/North Country Region

Southern Tier Region	
Obesity Rate:	30.9%
Overweight Rate:	37.7%
Excess annual medical costs due to obesity:	\$174 million

Note: Upstate New York refers to the New York counties highlighted in the map above. Prevalence figures are based on 2007 data and cost figures are expressed in 2008 dollars.

The majority of American adults – 63.2 percent - were either overweight or obese in 2008, a dramatic increase over the past two decades.^{1,2} As of 2008, only one U.S. state, Colorado, had an obesity rate below 20 percent.³

Individuals who are overweight or obese are more likely to develop serious medical conditions that not only hurt their quality of life but also contribute to the rising costs of health care.⁴

On average, obese individuals die up to 10 years sooner, mostly because of their increased likelihood of developing chronic conditions, according to a recent, largest-ever study of obesity and mortality risk.⁵ In general, the unhealthier an individual's weight becomes, the more likely that person is of dying from all causes, not just those related to chronic conditions.⁶

An increase in the number of individuals who are overweight or obese also leads to higher health care costs. National medical spending on individuals who are overweight or obese in 1998 was estimated to be as high as \$78.5 billion.⁷ More recent estimates have shown that these medical costs are growing and are straining the U.S. health care system.

Annual excess medical costs related to individuals who are obese approached \$147 billion annually in 2008.⁸ (Spending related to overweight adults was not included in this most recent study.) Further increases are likely as the baby boomer generation ages and obese children reach adulthood. Publicly financed insurance plans, such as Medicaid and Medicare, also pay a substantial amount of money to cover health care costs related to obesity.⁹

This fact sheet analyzes trends related to adults who are obese or overweight in upstate New York. Prevalence data were obtained from the New York State Department of Health's 2007 Behavioral Risk Factor Surveillance System (BRFSS), an ongoing, state-based, random telephone survey of the non-institutionalized civilian adult population (ages 18 and older). Data from each participating state is compiled and reported by the Centers for Disease Control and Prevention (CDC). The BRFSS survey asks for respondents' height and weight data, which are then used to calculate body mass index (BMI) (weight [kg] / height [m²]).¹⁰ Please see page 3 for more information.

Cost data were extrapolated from the most recent national study of medical spending to treat obesity alone (not including overweight). Incremental per capita obesity costs from this study were applied to the number of adults who, according to the BRFSS survey, were obese in 2007. The population figures for these calculations were those reported by the United States Census Bureau.¹¹

Defining Overweight and Obesity Using Body Mass Index (BMI)

Calculating BMI is a generally accepted method for classifying one's weight as shown below. It is irrespective of gender and incorporates both height and weight. BMI is determined by dividing weight in kilograms (kg) by height in meters squared (m²) or by using the following formula:

$$\text{BMI} = \frac{(\text{weight in pounds})}{(\text{height in inches}) \times (\text{height in inches})} \times 703$$

One limitation of using BMI to determine overweight/obesity is that the measure does not take into account fat versus muscle mass, and therefore may misclassify some people. For example, BMI may be overstated in athletes of muscular build or underestimated in the elderly or those who have lost muscle mass. Nonetheless, it remains the most commonly used method for weight classification.

BMI Classification

BMI (kg/m ²)	Category
18.5-24.9	Healthy weight
25-29.9	Overweight
30+	Obese

Sources: The U.S. Centers for Disease Control and Prevention – <http://www.cdc.gov/obesity/defining.html> and http://www.cdc.gov/healthyweight/assessing/bmi/adult_BMI/index.html#Interpreted – and the National Heart Lung and Blood Institute Obesity Education Initiative, "Aim for a Healthy Weight," http://www.nhlbi.nih.gov/health/public/heart/obesity/lose_wt/risk.htm#limitations

Link to the National Heart Lung and Blood Institute's BMI Calculator: <http://www.nhlbisupport.com/bmi/>

The link between overweight and obese individuals and chronic illnesses

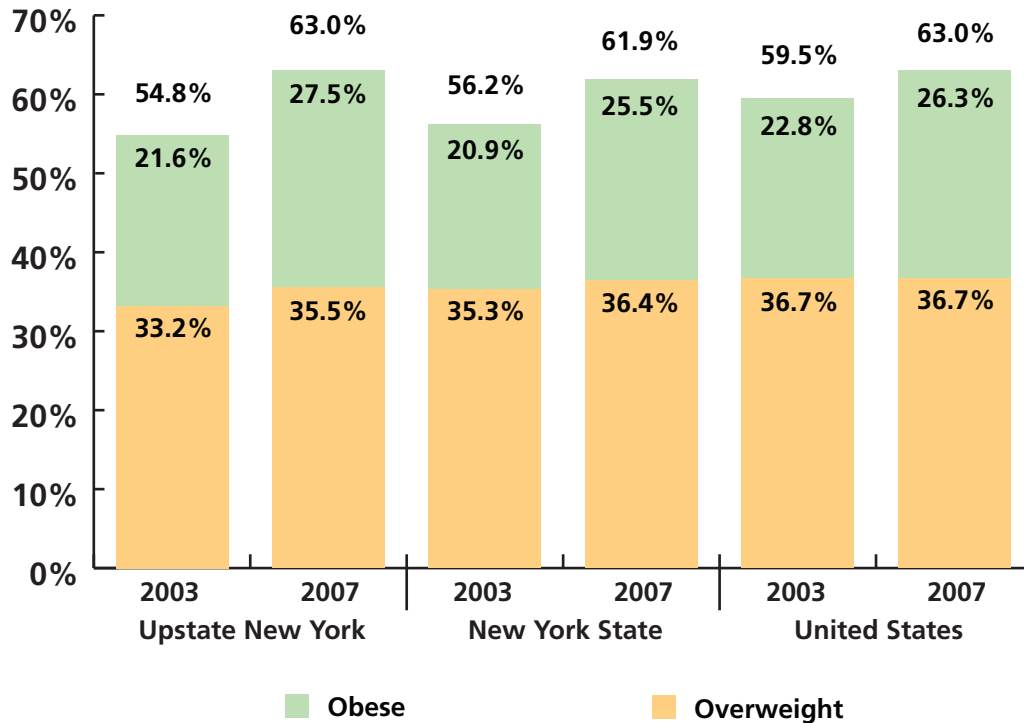
People who are overweight or obese are at higher risk for numerous serious medical conditions, especially type 2 diabetes, hypertension, heart disease, stroke and arthritis as shown below.¹² Overweight individuals, for example, are 56 percent more likely to have arthritis compared to individuals who are not overweight or obese.

Overweight and obese individuals and their increased risk of developing certain medical conditions			
Disease	Overweight (BMI 25-29.9)	Obese (BMI 30-34.9)	Severely Obese (BMI of 35+)
Arthritis	56%	87%	139%
Heart Disease	39%	86%	67%
Diabetes (type 2)	142%	235%	516%
Gallstones	97%	230%	448%
Hypertension	92%	182%	277%
Stroke	53%	59%	75%

Source: The American Obesity Association, *Costs of Obesity*. <http://obesity1.tempdomainname.com/treatment/cost.shtml>

Overweight and obesity rates among adults

Upstate New York, New York State and the United States, 2003 vs. 2007

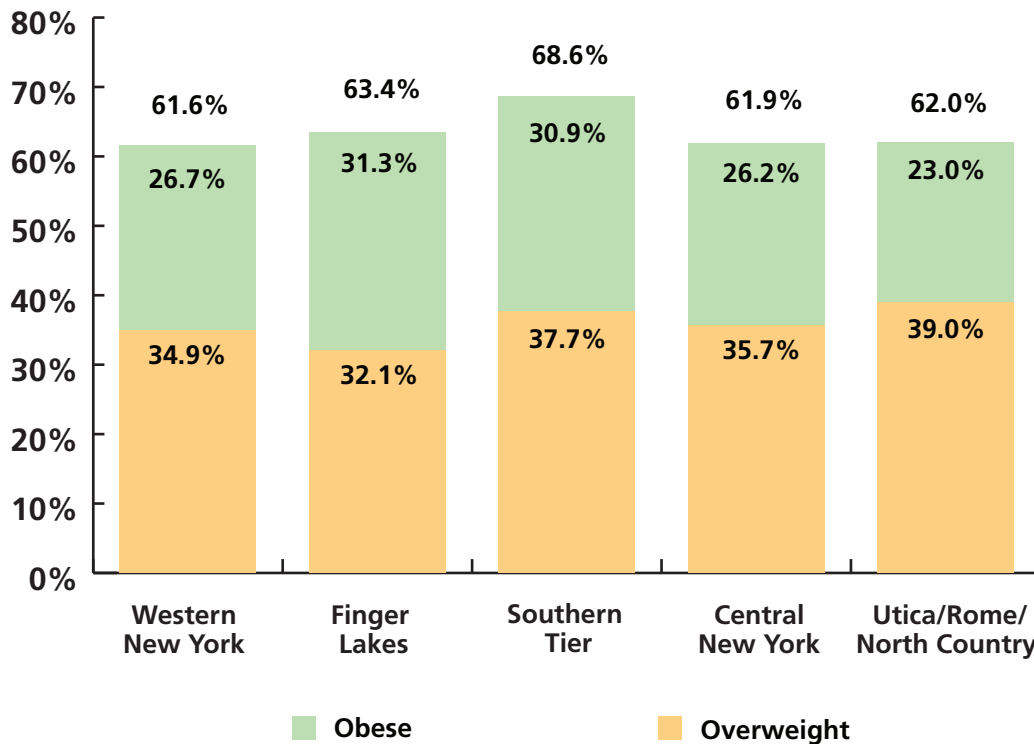


Sources: Prevalence data for upstate New York were obtained from the New York State Department of Health, Behavioral Risk Factor Surveillance System, 2007. To request access, go to <http://www.health.state.ny.us/nysdoh/brfss/> State and National prevalence data were obtained from the U.S. Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, available at <http://apps.nccd.cdc.gov/brfss/>

Despite the ongoing efforts of government, educational and community-based groups, obesity prevalence continues to rise.¹³ Between 2003 and 2007:

- Obesity prevalence among upstate New York adults increased by almost 6 percentage points - from 21.6 percent to 27.5 percent - and overweight prevalence rose from 33.2 percent to 35.5 percent. Approximately 2.4 million upstate adult residents - close to two-thirds of the adult population - were either overweight or obese in 2007.
- The number of New York state adults who were obese rose by almost a million from 2003 to 2007, with the statewide obesity rate increasing from 20.9 percent to 25.5 percent. Comparatively, there was a slight increase in the proportion of overweight adults (from 35.3 percent to 36.4 percent).
- Nationally, overweight prevalence was unchanged but the obesity rate in adults increased by almost four percentage points, from 22.8 percent to 26.3 percent. As of 2007, roughly 60 million American adults were classified as obese.

Adult overweight and obesity rates by upstate New York region, 2007



Source: The New York State Department of Health, Behavioral Risk Factor Surveillance System, 2007.
To request access, go to <http://www.health.state.ny.us/nysdoh/brfss/>

The percentage of obese and overweight adults varied slightly by region in 2007:

- The rate of overweight/obesity among adults exceeded 60 percent in all regions and was highest in the Southern Tier (68.6 percent);
- In upstate New York, Western New York had the lowest overweight/obesity prevalence in 2007 (61.6 percent);
- The Finger Lakes region had the highest prevalence of obesity (31.3 percent) and the Utica/Rome/North Country region had the lowest (23 percent);
- Overweight prevalence exceeded 30 percent in all regions, ranging from 32.1 percent in the Finger Lakes region to 39 percent in the Utica/Rome/North Country region.

Adult overweight and obesity rates by socio-demographic factors, upstate New York, 2007

Gender

- Almost 45 percent of men are classified as overweight compared to 27.8 percent of women.
- About three in four men in upstate New York are obese or overweight compared to slightly more than half of women.

Age

- Among 18 to 24 year-olds, 41.3 percent are overweight or obese compared to almost 69 percent of those ages 35 to 44.
- The rate of overweight and obesity in adults peaks in the 35 to 44 age group (68.6 percent), but levels off to a range of 63.7 percent to 66.9 percent among those ages 45 and older.
- In all but the 18 to 24 age group, overweight prevalence exceeds 30 percent.

Income:

- Those earning \$50,000 or more have the lowest overweight/obesity rate (60.9 percent).
- The overweight/obesity rate was highest among those in the \$15,000 to \$24,999 income bracket (70.5 percent).

Education:

- The overweight/obesity rate is almost 10 percentage points higher among high school graduates (67.1 percent) compared to college graduates (58.3 percent).

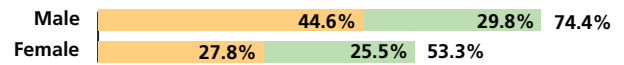
Employment:

- Students and homemakers have the lowest overweight/obesity rate (45.9 percent).
- Those who are unable to work have the highest overweight/obesity risk (77.8 percent).

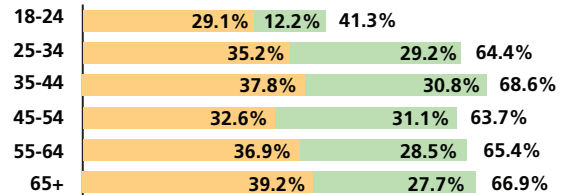
Race/Ethnicity

- Black residents have a higher overweight/obesity rate (78.7 percent) compared to white (non-Hispanic) residents (62.6 percent) and Hispanic residents (60.4 percent).

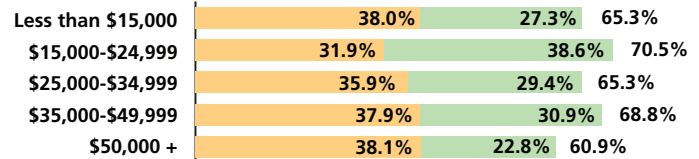
GENDER



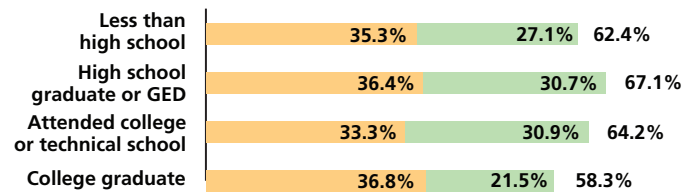
AGE



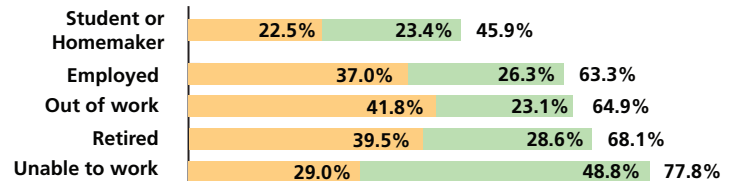
INCOME



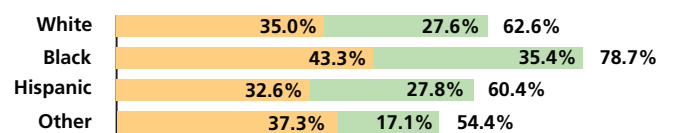
EDUCATION



EMPLOYMENT



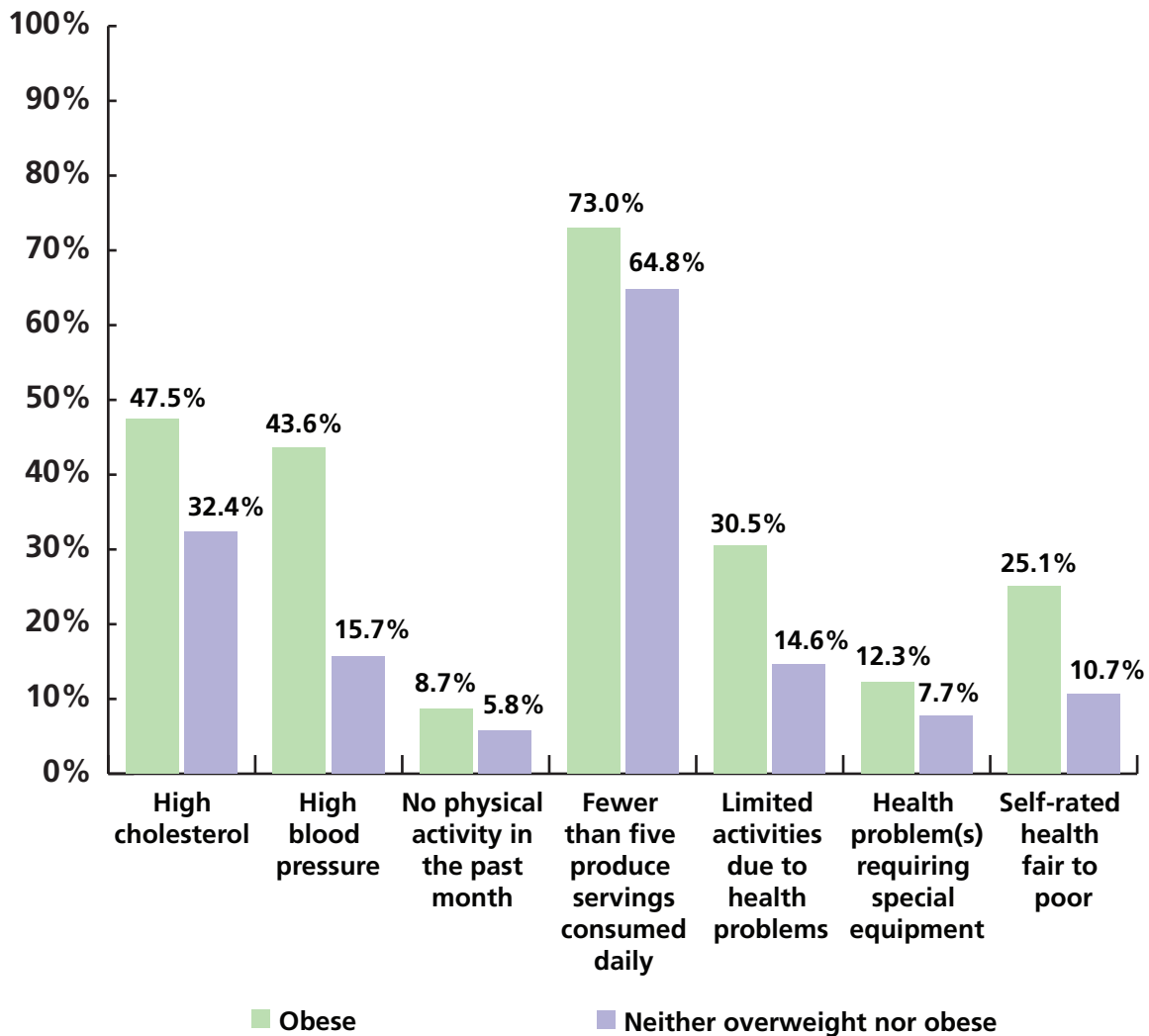
RACE/ETHNICITY



Overweight Obese

Source: The New York State Department of Health, Behavioral Risk Factor Surveillance System, 2007. To request access: <http://www.health.state.ny.us/nysdoh/brfss/>

Obese adults and their increased likelihood of having certain risk factors and a diminished quality of life, upstate New York, 2007

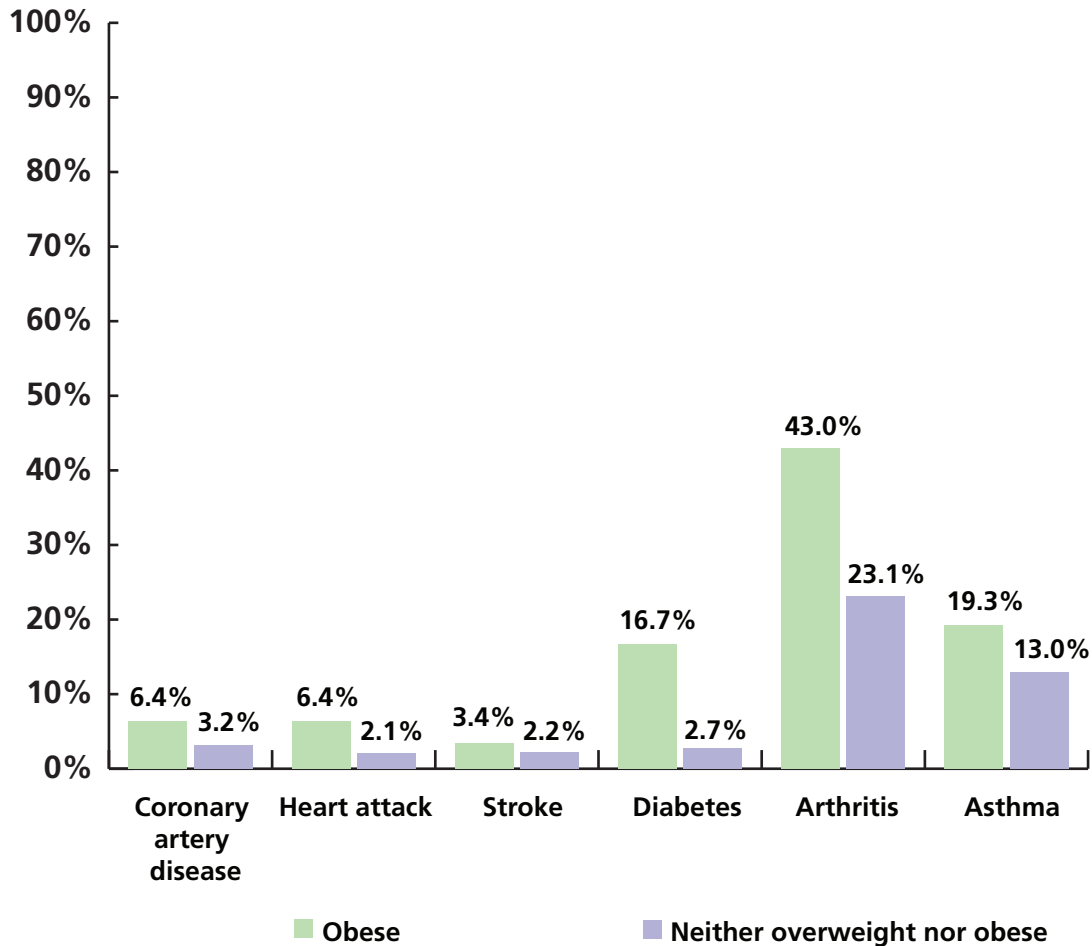


Source: The New York State Department of Health, Behavioral Risk Factor Surveillance System, 2007. To request access, go to <http://www.health.state.ny.us/nysdoh/brfss/>

Upstate New York adults who are obese are more likely to have risk factors for the leading causes of death and disability compared to adults who are neither overweight nor obese:

- Close to half of obese individuals have high cholesterol compared to roughly one-third of those who are not overweight or obese.
- Of obese adults, 43.6 percent have high blood pressure. Obese adults are almost three times more likely to have this condition compared to those who are not overweight or obese.
- Obese adults also report diminished quality of life compared to adults who are not overweight or obese:
 - Almost one third of obese adults are limited in their activities due to health problems (30.5 percent versus 14.6 percent).
 - More than 12 percent require special equipment due to health problems (versus 7.7 percent).
 - One in four obese adults reports being in fair or poor health, compared to about one in ten adults who are neither overweight nor obese.

Obese adults and their increased risk of developing other chronic diseases Upstate New York, 2007



Source: The New York State Department of Health, Behavioral Risk Factor Surveillance System, 2007. To request access: <http://www.health.state.ny.us/nysdoh/brfss/>

Obese adults are more likely to have serious chronic diseases compared to those who are neither overweight nor obese. Obese adults are:

- Twice as likely to have coronary artery disease;
- Three times as likely to have a heart attack;
- At an increased risk of stroke (3.4 percent versus 2.2 percent);
- About six times more likely to have diabetes;
- Almost twice as likely to have arthritis;
- Almost 50 percent more likely to have asthma.

Obesity-related health care costs

Recent research has estimated that national health care spending related to obesity approached \$147 billion annually in 2008.¹⁴ The research also showed that the percentage of U.S. health care costs attributed to obesity has increased from 6.5 percent in 1998 to 9.1 percent in 2006, primarily due to rising obesity rates. On average, annual health care costs are about \$1,429 more for an obese individual, 41.5 percent higher than the annual health care costs for a person who is neither overweight nor obese.

To determine how many extra health care dollars are spent annually in upstate New York to care for obese adults, the \$1,429 figure (which is expressed in 2008 dollars) was multiplied by the number of obese people in each upstate New York region.

In upstate New York, \$1.5 billion is spent annually in excess health care costs for obese adults. This ranged from \$174 million in the Southern Tier to \$458 million in Western New York. On average, annual obesity costs are \$392 per upstate New York adult.

Obese adults and excess medical costs		
Region	Excess annual medical costs related to adult obesity	Excess annual medical costs related to adult obesity per adult resident
Western New York	\$458 million	\$382
Finger Lakes Region	\$362 million	\$447
Southern Tier	\$174 million	\$442
Central New York	\$309 million	\$374
Utica/Rome/North Country	\$197 million	\$329
Upstate New York Total	\$1.5 billion	\$392

Sources: Costs related to obesity are expressed in 2008 dollars and were applied to 2007 prevalence data. Prevalence data obtained from the New York State Department of Health, Behavioral Risk Factor Surveillance System, 2007. To request access, go to: <http://www.health.state.ny.us/nysdoh/brfss/> Cost data were obtained from the Health Affairs article, "Annual Medical Spending Attributable to Obesity: Payer- and Service-Specific Estimates."

Endnotes

- ¹ U.S. Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. <http://www.cdc.gov/brfss/>
- ² U.S. Centers for Disease Control and Prevention, *Overweight and Obesity Data and Statistics*. <http://www.cdc.gov/obesity/data/index.html>
- ³ U.S. Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. <http://www.cdc.gov/brfss/>
- ⁴ U.S. Centers for Disease Control and Prevention, *Overweight and Obesity: Health Consequences*. <http://www.cdc.gov/obesity/causes/health.html>
- ⁵ The Lancet (Prospective Studies Collaboration): *Body-mass index and cause-specific mortality in 900,000 adults: Collaborative analyses of 57 prospective studies*. March 28, 2009. Pages 1083-1096. Full access to the article requires registration. To register, go to <http://www.lancet.com>
- ⁶ Ibid.
- ⁷ Finkelstein EA, Fiebelkorn IC, Wang G: *National Medical Spending Attributable to Overweight and Obesity: How Much, and Who's Paying*. Health Affairs Web Exclusive, May 14, 2003, Pages w3-219. <http://content.healthaffairs.org/cgi/content/full/hlthaff.w3.219v1/DC1>
- ⁸ Finkelstein EA, Trogon JG, Cohen JW, Dietz W: *Annual Medical Spending Attributable to Obesity: Payer-and Service-Specific Estimates*. Health Affairs 28, no. 5 (July 27, 2009): Page w822. Abstract: <http://content.healthaffairs.org/cgi/content/abstract/hlthaff.28.5.w822v1>
- ⁹ Ibid. Page w823.
- ¹⁰ The New York State Department of Health, Behavioral Risk Factor Surveillance System, 2007. To request access, go to <http://www.health.state.ny.us/nysdoh/brfss/> The U.S. Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, available at <http://apps.nccd.cdc.gov/brfss/>
- ¹¹ State and county-level BRFSS data were applied to population estimates relevant to population bases from the Census Bureau's American Community Survey: <http://www.census.gov/acs/www/index.html> and the New York State Data Center: <http://www.empire.state.ny.us/nysdc/popandhouse/ESTIMATE.asp>
- ¹² The American Obesity Association, *Costs of Obesity*: <http://obesity1.temppdomainname.com/treatment/cost.shtml>
- ¹³ The New York State Department of Health, *Obesity Statistics and Prevention Activities by County*. <http://www.health.state.ny.us/statistics/prevention/obesity/index.htm>
- ¹⁴ Finkelstein EA, et al., 2009. Page w822.