

Obesity Brief

What is Obesity?

Body weight is influenced by a combination of genes, metabolism, behaviors, environment, culture, and socioeconomic status. Overweight and obesity describe body weight conditions which result from an energy imbalance, which involves consuming excess calories and lack of adequate physical activity. Body mass index (BMI) reflects an adult's weight in relation to his or her height and is often used as a measure of excess body weight. An adult with a BMI between 25 and 29.9 is considered overweight.¹

Obesity is a condition of overweight in which an individual has a body weight greater than what is considered healthy for his or her height. An adult with a BMI of 30 or higher is considered obese. Among teenagers, an individual with a weight that is greater than or equal to the 95th percentile for all teens of the same age and gender is considered to be obese. Obesity contributes to the risk for certain diseases and other health problems.¹

Risk Factors for Obesity

Demographic Risk Factors

- *Age*
- *Race/Ethnicity*
 - Blacks and Mexican-Americans have the highest prevalence of obesity in the United States.²
- *Genetics or Family History*
 - Genes play a role in the development of obesity.³
 - Individuals with a family history of obesity may be predisposed to gain weight.³

Social and Behavioral Risk Factors

- *Poor Nutrition or Dietary Habits*
 - Obese children are more likely to become obese adults.⁴
- *Sedentary Lifestyle*
 - Studies have shown that television and computer time are associated with an increased likelihood of obesity in children.⁴
 - Forty percent of adult Americans do not engage in any leisure time physical activities.⁵
- *Poverty or Low Income*
 - In 2011, the median prevalence of obesity among Americans decreased as median household income increased.⁶
 - Communities that are not safe, or that lack access to affordable fresh food, can act as barriers to a healthy diet and discourage physical activity.⁴
- *Dysfunctional Home Life*

- *Lower Educational Attainment*
 - Among women, those with college degrees are less likely to be obese than women without college degrees.²

Intermediate Conditions

Obesity also increases the risk of other diseases and is accompanied by many complications. Some of these include:

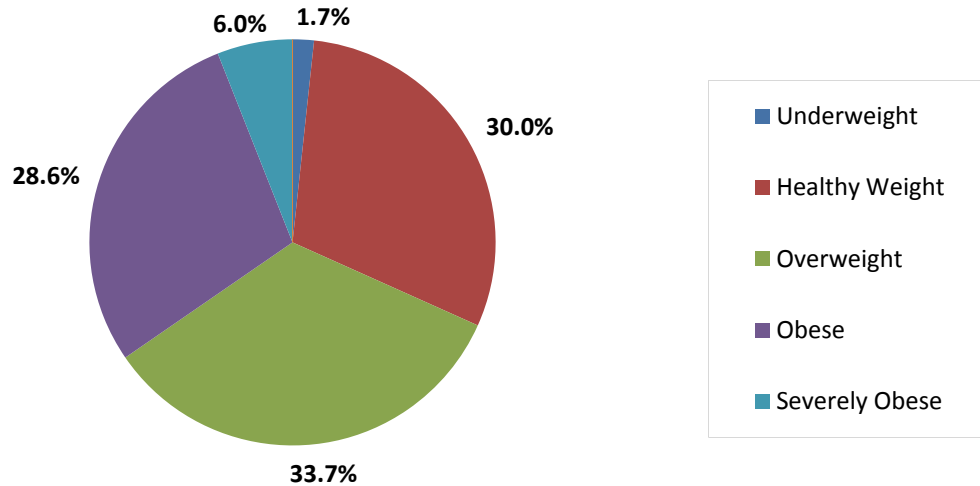
- *Heart Disease*⁷
 - The incidence of heart disease is increased in overweight or obese individuals.
 - The rate of high blood pressure among obese people is double that of people with a healthy weight.
 - Obesity is associated with elevated triglycerides (blood fat) and decreased HDL cholesterol ("good cholesterol").
- *Diabetes (Type 2)*⁷
 - People who have gained 11 to 18 pounds have twice the risk of developing Type 2 diabetes when compared to individuals who have not gained weight.
 - More than 80% of people with diabetes are overweight or obese.
- *Cancer*⁷
 - Risk of some cancers is increased among people who are overweight and obese, including endometrial (cancer of the lining of the uterus), colon, gall bladder, prostate, kidney, and breast cancer (in postmenopausal women).
- *Reproductive Complications*⁷
 - A mother who is obese during pregnancy has an increased risk of death for both her and her baby.
 - Obese women who are pregnant are more likely to have gestational diabetes and problems with labor and delivery.
 - Infants born to obese women are more likely to be high birthweight, more likely to be delivered via Cesarean section, and to suffer adverse consequences during delivery.
 - An increased risk of birth defects, particularly neural tube defects such as spina bifida, is associated with pregnancy among obese women.
 - Women who are obese may suffer from irregular menstrual cycles and infertility.
- *Additional Consequences*⁷
 - Sleep apnea (interrupted breathing while sleeping) and asthma are more common in obese individuals.
 - For every 2-pound increase in (over)weight, the risk of developing arthritis is increased by 9 to 13%.
 - Excess body weight is associated with increased gall bladder disease, incontinence, increased surgical risk, and depression.
 - Obesity can affect the quality of life through limited mobility and decreased physical endurance, in addition to social, academic, and job discrimination.

National Statistics and Disparities

Statistics

- *Premature death related to obesity*⁷
 - The risk of premature death rises with increasing weight, particularly among adults aged 30 to 64 years.
 - Obese individuals have a 50 to 100% increased risk of premature death from all causes, compared to individuals with a healthy weight.
 - The Surgeon General's Report estimated that 300,000 deaths per year may be attributable to obesity.

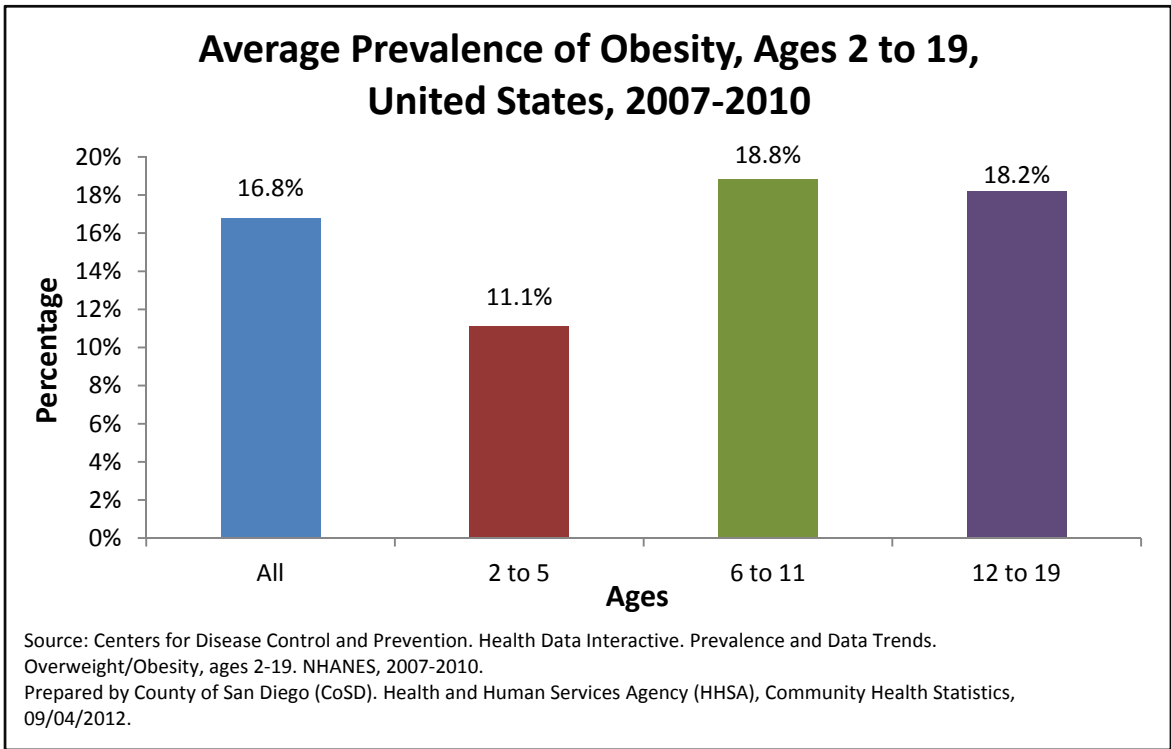
Average Age-Adjusted Weight Status of Adults Age 20+, United States, 2007-2010



Source: Centers for Disease Control and Prevention. Health Data Interactive. Prevalence and Data Trends. Overweight/Obesity, 20+. NHANES, 2010.

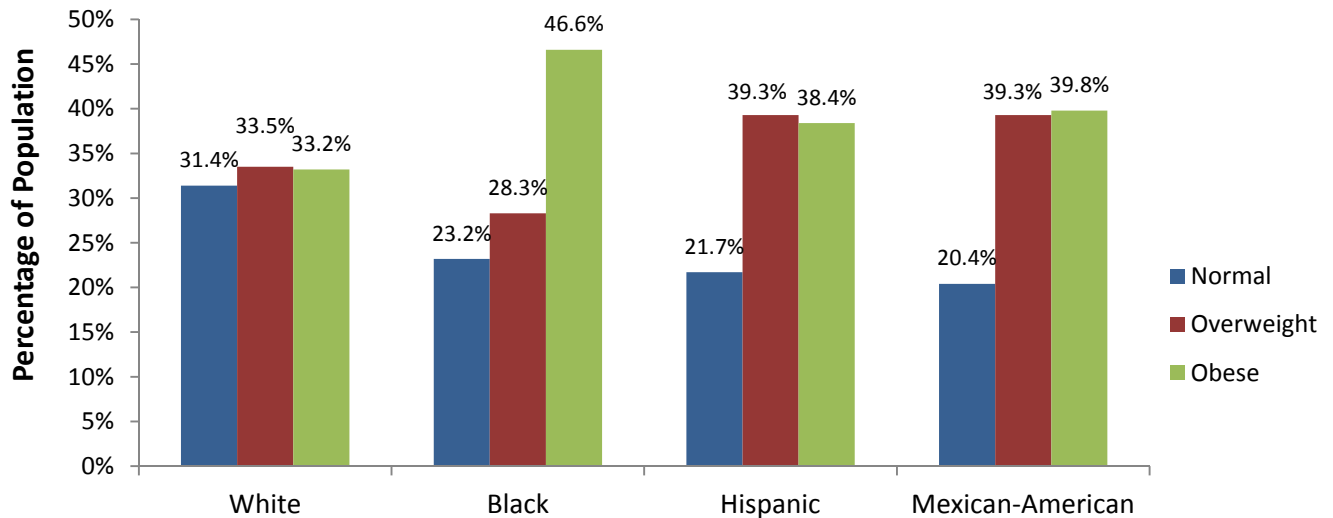
Prepared by County of San Diego (CoSD), Health and Human Services Agency (HHSA), Community Health Statistics, 08/30/2012.

- Between the years 2007-2010, nearly 1 out of 3 Americans was considered obese.



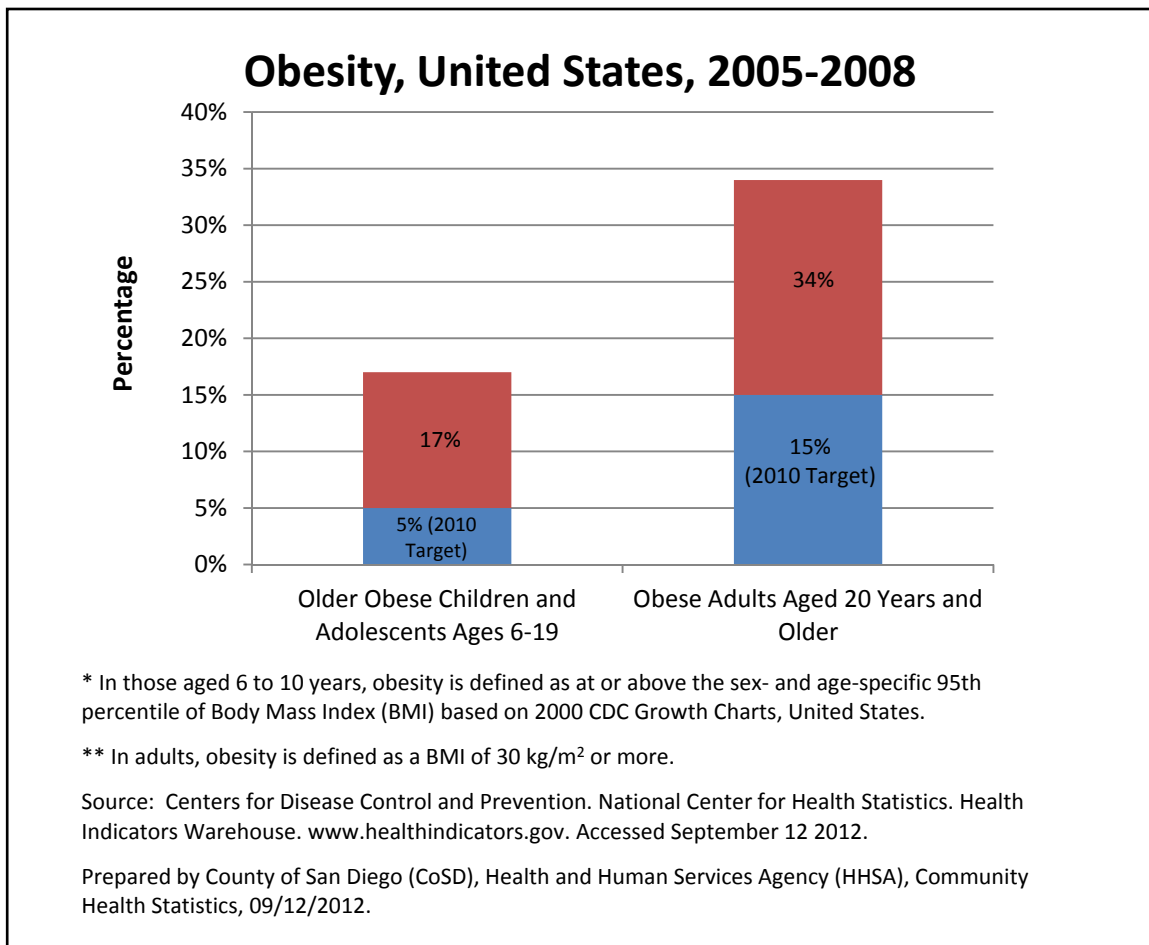
- Between the years 2007-2010, nearly 1 in 6 children (aged 2-19 years) was obese.

Average Weight Status Among Ages 20+ by Race/Ethnicity, United States, 2007-2010



Source: Centers for Disease Control and Prevention. Health Interactive Data. Overweight/Obesity, ages 20+. NHANES, 2007-2010.
Prepared by County of San Diego (CoSD), Health and Human Services Agency (HHSA), Community Health Statistics, 09/05/2012.

- Between 2007-2010, blacks on average had the highest percentage of adults (aged 20+) who were obese, while Hispanics and Mexican-Americans on average had the highest percentage of adults (aged 20+) who were overweight.



- In 2011, the median prevalence of obesity in all 50 states and Washington D.C. was 27.8%.⁶
- In 2011, 23.8% of Californians were considered obese.⁶
- Many people live sedentary lives; 40% of adults in the United States do not participate in any leisure-time physical activity.⁵
- Less than 1/3 of adults engage in the recommended amounts of physical activity (at least 30 minutes most days).⁵

Disparities

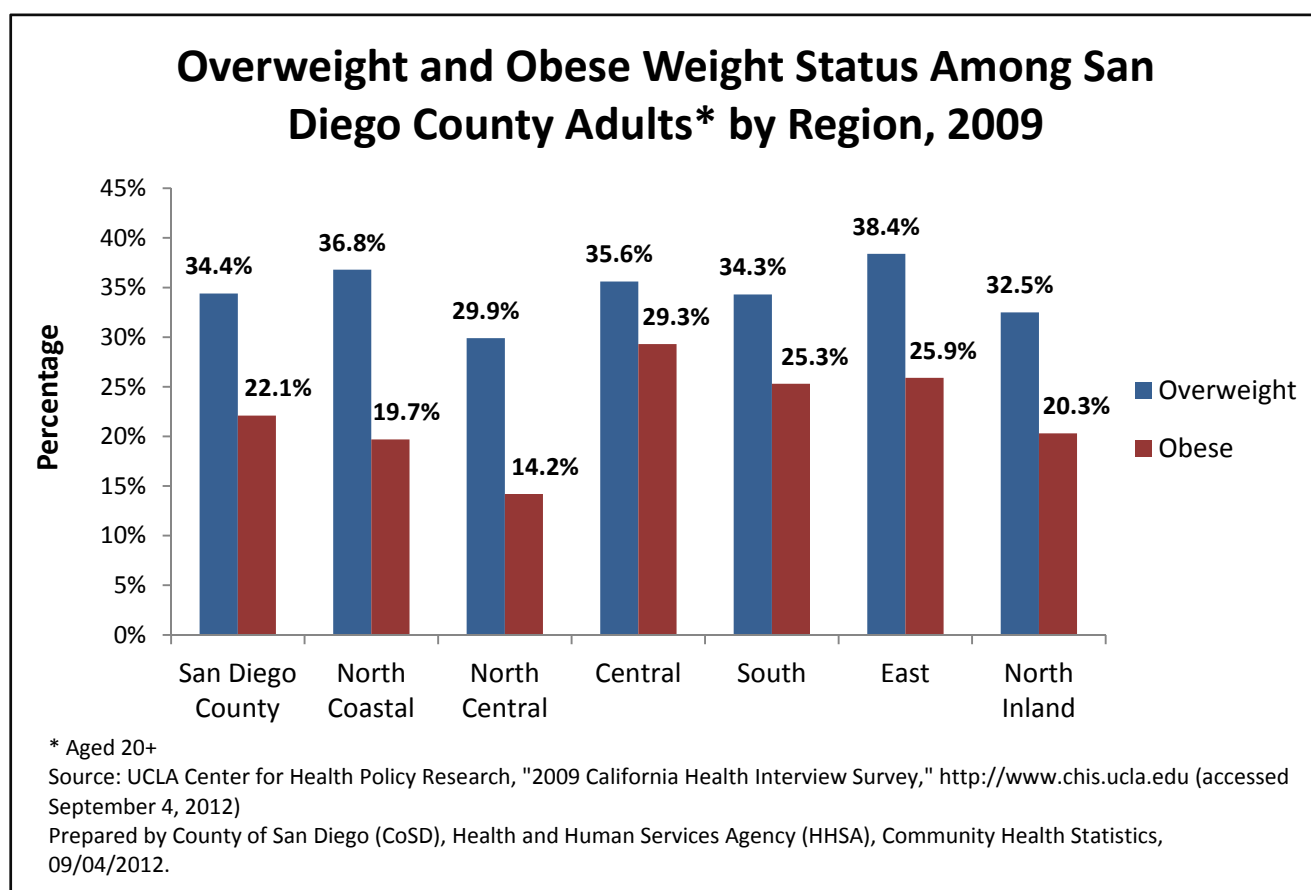
- In 2011, the median prevalence of overweight individuals was higher among men than women. Among men, 42% were considered to be overweight compared to 29% of women. The median percentage of obesity was similar among men (28%) and women (27%).⁶
- Obesity is more common among blacks, Mexican-Americans and Hispanics than among non-Hispanic whites.²
- In 2009-2010, obesity among blacks was 15.2% higher than whites, and 4.9% higher among Hispanics than whites.²
- 1 out of 7 low-income, preschool-aged children is obese.⁴

Cost

- In 2008, the annual cost of obesity in the United States was about \$147 billion.²

Local Statistics and Disparities

- In San Diego County, according to the 2009 California Health Interview Survey, 22.1% of adults aged 20 years and older were obese (BMI 30.0 or higher) based on their height and weight.⁸
- In San Diego County, according to the 2009 California Health Interview Survey, 17.1% of youth aged 12 through 19 years, were overweight or obese.⁹



- In 2009, the Central Region of San Diego County had the highest percentage of obese adults, while the East Region had the highest percentage of overweight adults.

Obesity and Its Complications: Prevention for Individuals

Even a modest weight loss as little as 5% of total body weight is likely to produce health benefits, such as improvements in blood pressure, blood cholesterol, and blood sugars.⁹

- *Control Portion Sizes, Eat Regularly*
 - Reducing your calorie intake by 150 calories a day, along with participating in moderate activity, could double your weight loss and is equivalent to approximately 10 pounds in 6 months and 20 pounds in 1 year.⁵
- *Eat Nutrient-Dense Food Versus Calorie-Dense Food*
 - Eat at least five servings of fruits and vegetables a day
 - Follow the Dietary Guidelines for Americans (www.health.gov/dietaryguidelines).
- *Incorporate Physical Activity Into Everyday Routines*⁵
 - Individuals should aim to engage in moderate physical activity on most days of the week.
 - Reduce time spent doing sedentary activities such as watching television and using the computer.
 - Limit TV time to less than 2 hours per day.
- *Make Fitness a Priority and a Commitment.*⁵

Prevention Tools for Public Health Professionals: Obesity Critical Pathway

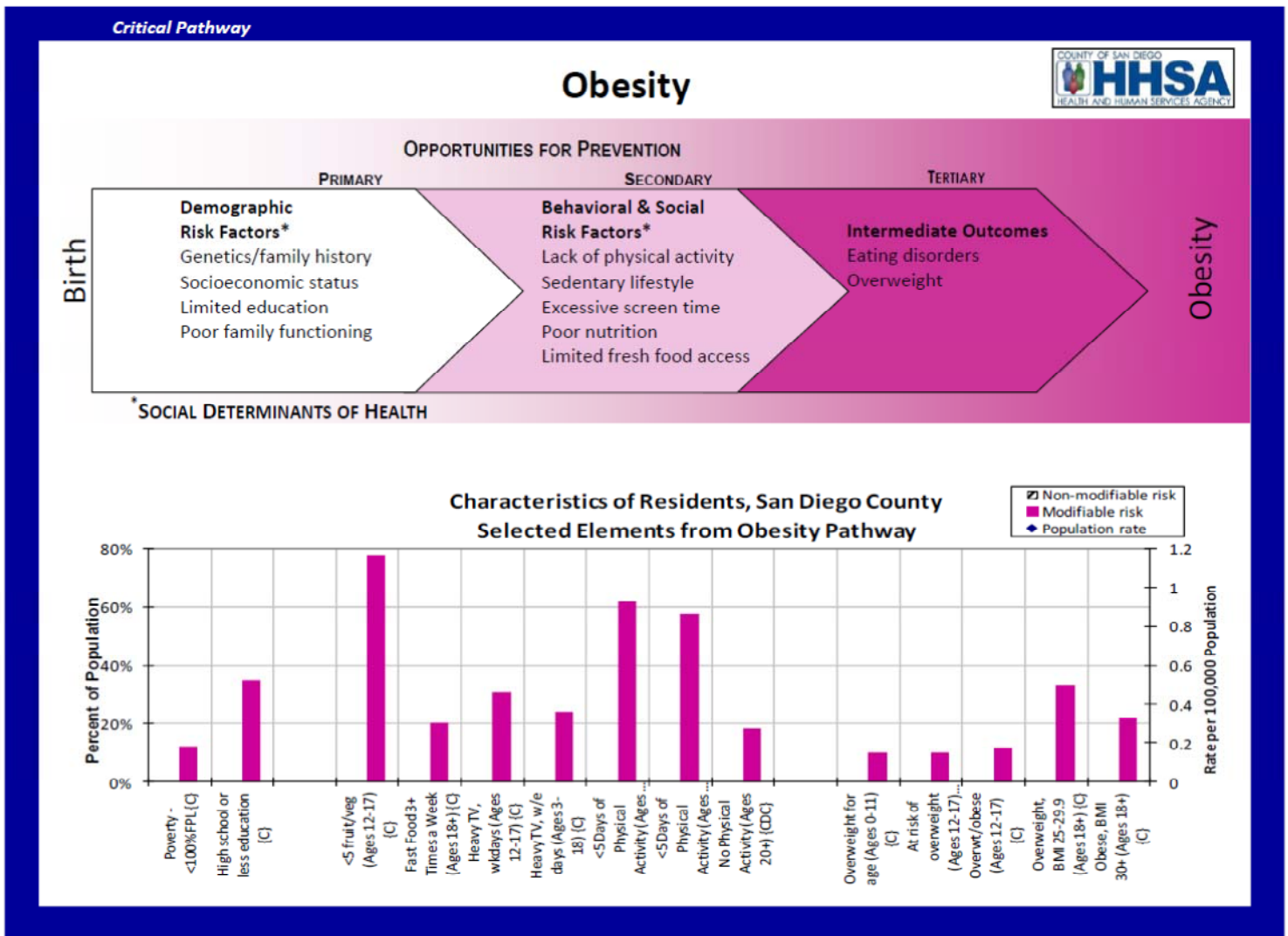
There are many opportunities for public health professionals in the community to help reduce the risk of obesity and to improve the health outcomes of individuals who already have the disease. To assist in community health efforts, an *Obesity Critical Pathway* was developed.

The *Obesity Critical Pathway* is a tool to be used in health promotion and disease prevention efforts. Its purpose is to identify populations at greater risk for obesity, and to identify prevention and early intervention opportunities. The *Obesity Critical Pathway* displays a diagram of the major risk factors and intermediate outcomes or related diseases that have an impact on, or result from, obesity. Risk factors are marked as non-modifiable (black striped bars) such as race/ethnicity or gender and modifiable (solid colored bars) such as physical activity or high blood pressure.

Beneath the risk factors diagram is a data grid describing the San Diego resident population in relation to selected elements of the pathway. The data grid is designed to assist in quick identification of opportunities for interventions that might have a high impact on a particular disease. The data represent all San Diegans, not only those with a particular disease. The left axis (bar) indicates the percent of the population with a known risk factor or intermediate outcome. The right axis (diamond) indicates the rate of a particular medical encounter within the population that is specified. The data are described fully in the complete version of the *Critical Pathways*.¹⁰

In addition, the Community Health Statistics Unit website (www.SDHealthStatistics.com) provides detailed demographic, health and facility data including maps of geographically formatted health data. Also available are links to other County data sources, state and national sites of interest. For further assistance with data or interpretation, please contact the Community Health Statistics Unit.

Obesity Critical Pathway to Disease.



Data Sources

¹ Centers for Disease Control and Prevention. Defining Obesity and Overweight. <http://www.cdc.gov/obesity/defining.html>. Last updated April 27 2012. Accessed September 4 2012.

² Centers for Disease Control and Prevention. Overweight and Obesity. Adult Obesity Facts. <http://www.cdc.gov/obesity/data/adult.html>. Last updated August 13 2012. Accessed September 4 2012.

³ Centers for Disease Control and Prevention. Public Health Genomics. Genomics and Health. <http://www.cdc.gov/genomics/resources/diseases/obesity/obesknow.htm>. Last updated March 9, 2010. Accessed September 17, 2012.

⁴ Centers for Disease Control and Prevention. Childhood Overweight and Obesity. <http://www.cdc.gov/obesity/childhood/index.html>. Last updated June 7 2012. Accessed September 6 2012.

⁵ U.S. Department of Health & Human Services. Office of the Surgeon General. *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity. Overweight and Obesity: What You Can Do.* http://www.surgeongeneral.gov/library/calls/obesity/fact_whatcanyoudo.html. Accessed September 12 2012.

⁶ Centers for Disease Control and Prevention. National Center for Chronic Disease Prevention & Health Promotion. Behavioral Risk Factor Surveillance System. Prevalence and Trends Data. Overweight and Obesity, 2011. <http://apps.nccd.cdc.gov/BRFSS/>. Accessed September 6 2012.

⁷ U.S. Department of Health & Human Services. Office of the Surgeon General. *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity. Health Consequences.* http://www.surgeongeneral.gov/topics/obesity/calltoaction/fact_consequences.htm. Accessed September 17, 2012.

⁸ UCLA Center for Health Policy Research, "2009 California Health Interview Survey," <http://www.chis.ucla.edu>. Accessed September 12 2012.

⁹ Blackburn, G. Effect of degree of weight loss on health benefits. *Obesity Research* (1995).

¹⁰ County of San Diego Health and Human Services Agency, Public Health Services. Community Health Statistics Unit. (2009). Critical Pathways: the Disease Continuum, Coronary Heart Disease. January, 2012. http://www.sdcounty.ca.gov/hhsa/programs/phs/documents/CHS-Critical_Pathways_2012.pdf. Critical Pathways. Accessed July 5, 2012.