

OVERWEIGHT AND OBESITY IN WASHOE COUNTY YOUTH

Overweight and obesity are labels for ranges of weight that are greater than what is generally considered healthy for a given height. The terms identify ranges of weight that have been shown to increase the likelihood of certain diseases and other health problems. Table 1 defines Body Mass Index (BMI) weight status categories and the corresponding percentiles.

Table 1. Weight Status for Children

Weight Status	BMI Percentile Range
Underweight	<5 th percentile
Healthy Weight	5 th to <85 th percentile
Overweight	85 th to <95 th percentile
Obese	≥ 95 th percentile

Obesity in childhood can be harmful to the body in a variety of ways. Obese children are more likely to have¹:

- ◆ High blood pressure and high cholesterol
- ◆ Increased risk of impaired glucose tolerance, insulin resistance and type 2 diabetes
- ◆ Breathing problems such as sleep apnea and asthma
- ◆ Joint problems and musculoskeletal discomfort
- ◆ Fatty liver disease, gallstones and gastro-esophageal reflux
- ◆ Social and psychological problems such as discrimination and poor self-esteem

Obese children are more likely to become obese adults. Obesity in adults is associated with heart disease, diabetes and some cancers. If children are overweight, obesity in adulthood is likely to be more severe.¹

Obesity prevention experts recognize that it is unreasonable to expect people to change their behaviors easily when our cultural and physical environments conspire against positive change. For this reason, efforts have been expanding in focus, and include work to improve environments, develop policies, and provide education impacting social norms that can contribute to obesity reduction. For example:

- ◆ In Washoe County, environments are changing in the transportation system with construction of more bike lanes that encourage and promote bicycling and enhanced pedestrian walkways as well.
- ◆ Tools were created to help childcare centers and before and after school programs to develop wellness policies that address nutrition, physical activity and sedentary behaviors.
- ◆ Students are trying fresh fruits and vegetables in their classrooms, and families are being engaged and educated about healthy lifestyles.

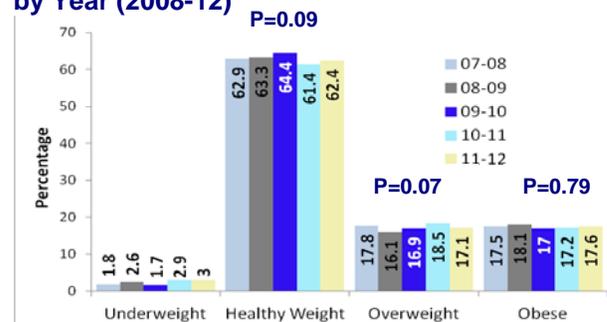
METHODS

For the past five school years (07-08 thru 11-12), height and weight were collected on samples of Washoe County School District (WCSD) 4th, 7th, and 10th graders. Schools were randomly selected using school enrollment for the 2005-06 school year (16 elementary schools, 4 middle schools, and 4 high schools) and have remained consistent for each school year. Data can be generalized to all Washoe County school-age children. Data in this report (BMI and BMI %) were calculated using the CDC-provided children's BMI tool for schools.

RESULTS & DISCUSSION

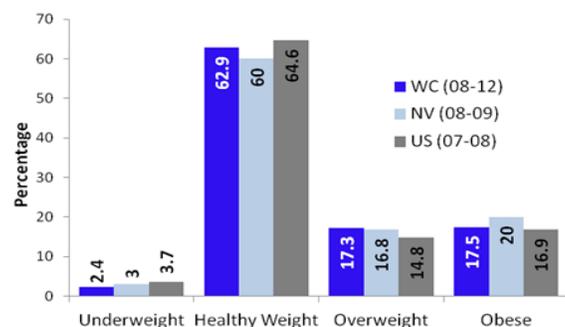
For the simplicity of graphs, the following reported values are point estimates. The 95% confidence intervals are not presented in this report. Comparisons of weight status by gender, race and ethnicity, and Title 1 vs. non-Title 1 schools were tested using Chi-square to assess the statistical significance of difference. *P* value less than 0.05 (shown on charts) indicates a statistical significance of difference.

Figure 1. Washoe County Childhood BMI Grouping by Year (2008-12)



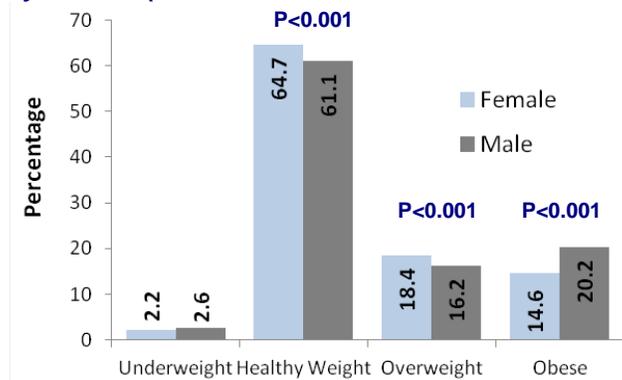
The majority of Washoe County youth are at a healthy weight, but over a third are either overweight or obese. Over five years rates have stayed fairly consistent.

Figure 2. Childhood BMI Grouping by Location, Washoe County, Nevada, and the United States.



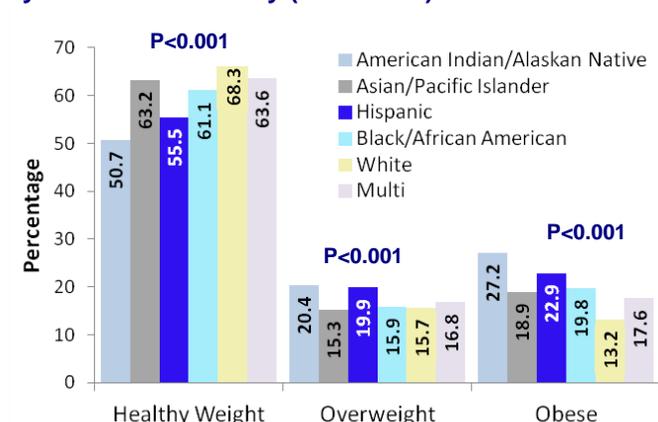
Compared to Nevada, Washoe County youth have a higher rate of healthy weight or overweight, and a lower rate of obesity. Compared to the US, Washoe County youth have a higher rate of overweight and obesity. Due to lack of raw data, a statistical test cannot be performed.

Figure 3. Washoe County Childhood BMI Grouping by Gender (2008-2012).



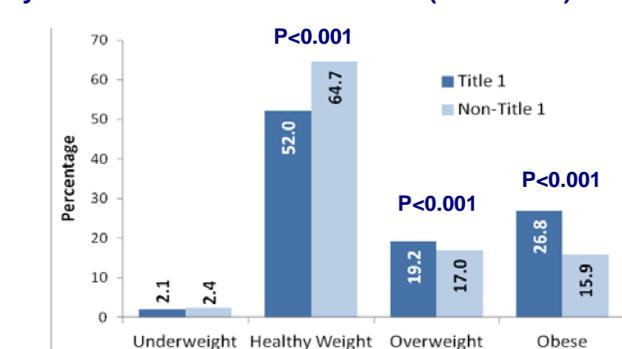
Female students in Washoe County are more likely to be at a healthy weight or be overweight than their male counterparts. Males are more likely to be obese.

Figure 4. Washoe County Childhood BMI Grouping by Race and Ethnicity (2008-2012).



Among races and ethnicities, Whites and Asian/Pacific Islanders are most likely to be at a healthy weight. American Indian/Alaskan Native and Hispanic students are most likely to be overweight or obese.

Figure 5. Washoe County Childhood BMI Grouping by Title 1 vs. Non-Title 1 Schools (2008-2012).



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Title 1 schools (N=6) are those that qualify to receive federal funding to meet the needs of at-risk and low-income students living at or below poverty. Students at Title 1 schools are less likely to be at a healthy weight and more likely to be overweight and obese as compared to students at non-Title 1 schools (N=18).

RECOMMENDATIONS

These data show overall high rates of overweight and obesity among Washoe County youth, with higher rates among low-income and certain minority students. Many factors contribute to this trend in Washoe County and the US, including physical inactivity, lack of access to healthy foods, and excessive exposure and access to low-cost, calorie-dense foods with little nutritional value.

Medical visits are opportunities for healthcare professionals to assess, prevent, and intervene with overweight and obesity for children and families. The American Academy of Pediatrics (AAP) is a supporter of the national "Let's Move Initiatives" which target childhood obesity, including the new *Let's Move in the Clinic* initiative. As part of *Let's Move!*, AAP pledges to engage in efforts towards the primary goals of:²

- ◆ Calculating Body Mass Index (BMI) for every child at every well-child visit beginning at the 24 month visit in accordance with AAP recommendations. Information is provided to parents about how to help their child achieve a healthy weight.
- ◆ Provide prescriptions for healthy active living (good nutrition and physical activity) at every well-child visit, along with information for families about the impact of healthy eating habits and regular physical activity on overall health.

For more information about the AAP goals and recommendations, please visit: www.aap.org/obesity.

If you are interested in sharing BMI data for children in your medical practice for inclusion in the analysis of local childhood BMI, please contact the Washoe County Health District at 325-8244.

REFERENCES

1. Centers for Disease Control and Prevention. Basics About Childhood Obesity. Retrieved October 3, 2012 from: <http://www.cdc.gov/obesity/childhood/basics.html>
2. American Academy of Pediatrics. Spotlight: Whitehouse Obesity Initiative. Retrieved on October 05, 2012 from <http://www2.aap.org/obesity/whitehouse/index.html>



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