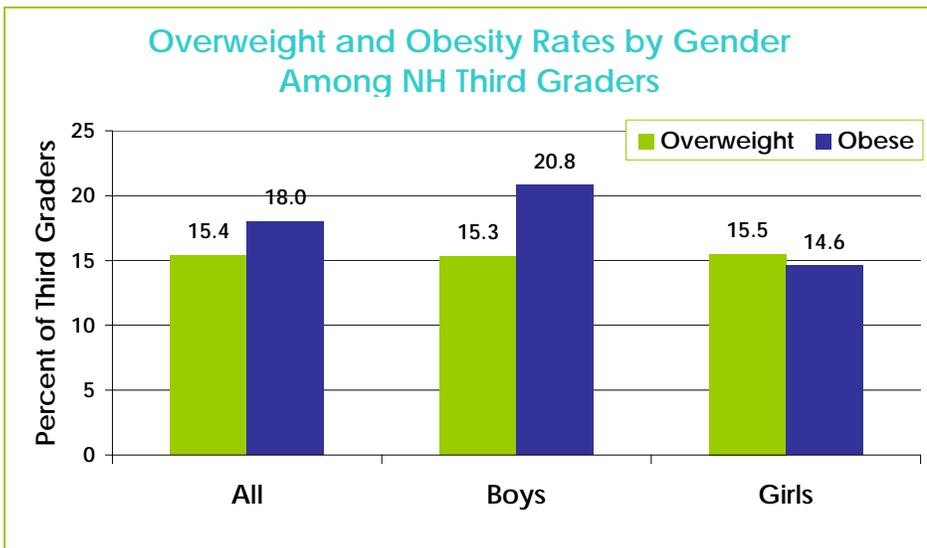


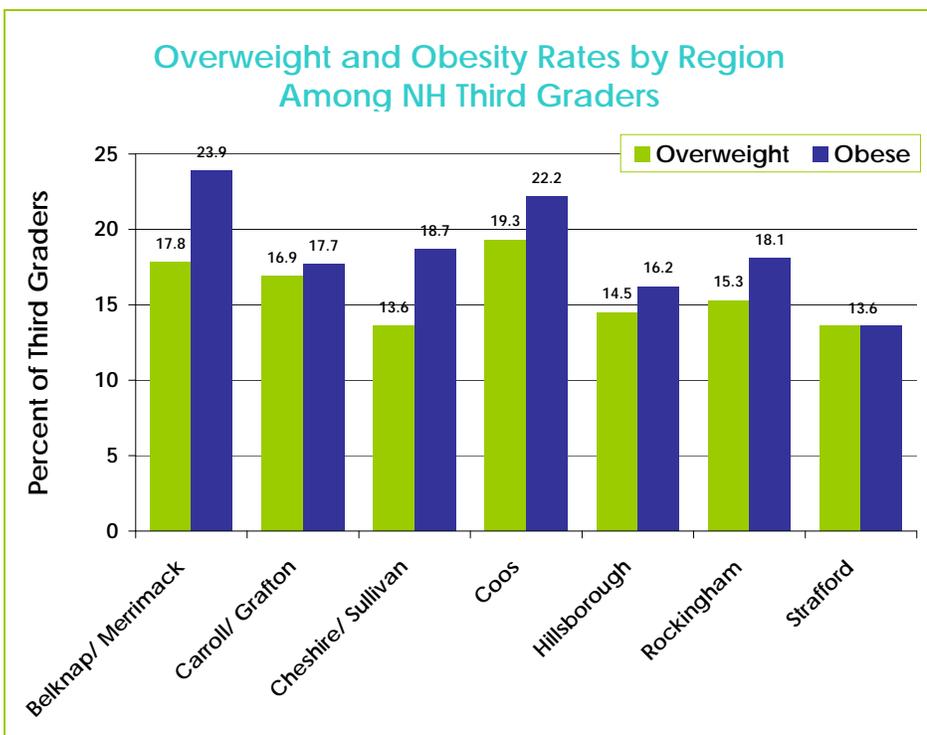
Childhood Obesity in New Hampshire 2008-2009

The *New Hampshire Third Grade Healthy Smiles – Healthy Growth Survey* was conducted between September 2008 and June 2009. The survey collected heights and weights on third grade students to gather baseline data and plan related interventions. In all, 81 randomly selected New Hampshire public schools (3,151 third grade students) participated in the survey.

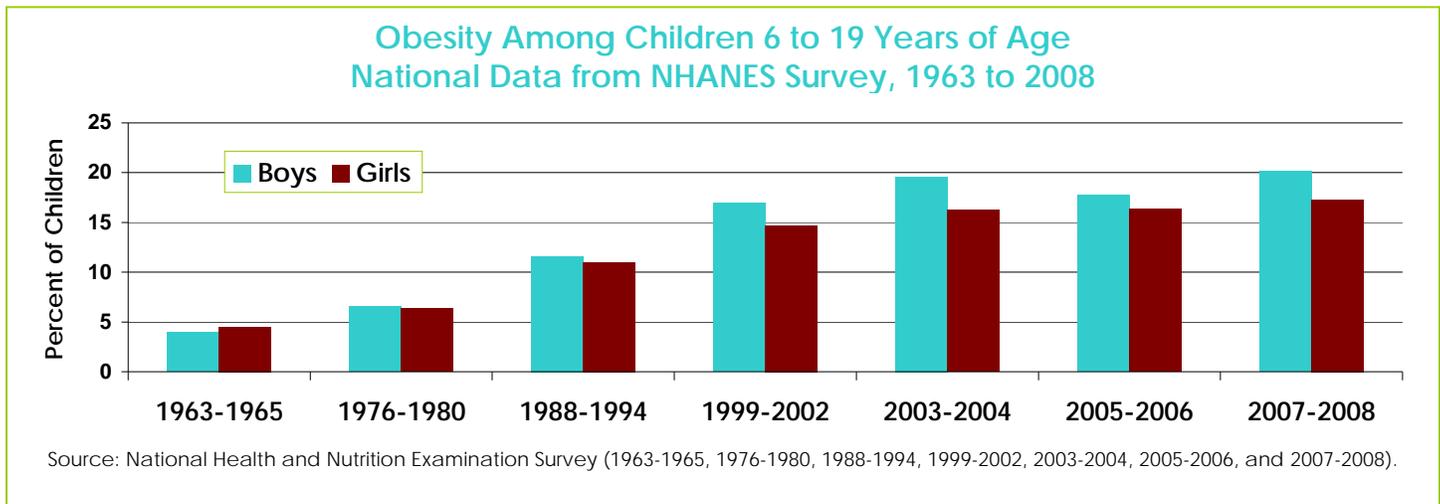


Key Findings

- The survey found that 33.4% of third graders were overweight or obese. See definitions on page 4.
- A larger proportion of boys (20.8%) were obese than girls (14.6%), though the gender difference was not statistically significant.
- Children living in the Belknap/Merrimack region and Coos County had the highest prevalence of obesity among New Hampshire third-grade students, 23.9% and 22.2%, respectively.
- Nearly 46% of the third-grade boys in Coos County were overweight or obese.



National Data for Children



National Data Show an Increase in Weight Over Time

- More boys are obese compared with girls.
- Since the 1960s, obesity rates among girls have more than tripled.
- In the same years, obesity rates among boys have more than quadrupled.
- NHANES data are based on direct measurements of children, not parents' estimates.

Effects of Childhood Overweight and Obesity

Childhood overweight predicts obesity later in life; 80% of children who were overweight at any time during the elementary period were overweight at 12 years of age. (Nader, 2006)

Diseases now seen in overweight and obese children

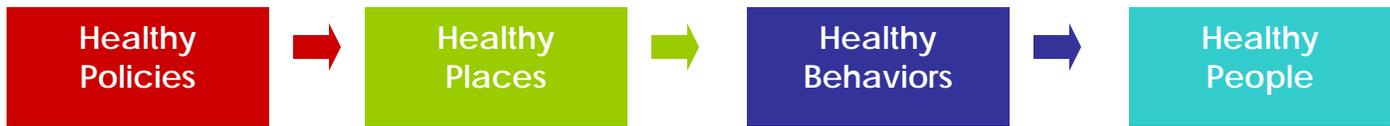
- **Hardening of the arteries, high blood pressure, and high cholesterol, which can lead to heart disease** (Baker, 2007; Barlow, 2007; Weiss, 2004; Cabrinety, 2002; Freedman, 1999, Berensen, 1998)
- **Diabetes** (Barlow, 2007; Weiss, 2004; Pinhas-Hamiel, 1996)
- **Glucose intolerance** (Shinha, 2002)
- **Sleep-associated breathing disorders** (Baker, 2007; Barlow, 2007; Mallory, 1989)
- **Non-alcoholic fatty liver disease** (Barlow, 2007)

Social and psychological impact

- **Social isolation** (Strauss, 2003)
- **Increased rate of suicidal thoughts and attempts associated with weight-based teasing** (Puhl, 2007; Eisenberg, 2003)
- **Low self-esteem due to poor body image** (Strauss, 2000)
- **Increased rate of anxiety disorders and depression in overweight children** (Gable, 2008; Barlow, 2007; Puhl, 2007; Anderson, 2006)
- **Increased likelihood to report difficulties in school** (Gable, 2008; Puhl, 2007; Schwimmer, 2003)
- **Reduced self-assessed quality of life** (Puhl, 2007; Williams, 2005)



We Can Change This Trend by Adopting Policies That Support Healthy Eating and Active Living



“To reverse the obesity epidemic, we must change our physical and food environments to provide more opportunities for people to eat healthy foods and to be physically active on a daily basis.” (Keener, 2009)

Recommended Strategies and Measurements to Prevent Obesity in the United States: Implementation and Measurement Guide was released by the Centers for Disease Control and Prevention in 2009. The Guide identifies ways that environments can support healthy eating and active living. Look for the Guide online at www.cdc.gov/obesity/downloads/community_strategies_guide.pdf. The sample policies below were adapted from the Guide.

- **Child care settings** (preschool, afterschool and early childhood settings) provide adequate daily physical activity.
- **Child care settings** support breastfeeding by providing private space for mothers to nurse or pump.
- **Child care settings** limit the use of television and other screen time.
- **Schools and child care settings** require fruits and vegetables at all meals and snacks.
- **Schools** increase the amount of physical activity in physical education programs.
- **Schools** allow use of school facilities by the public during non-school hours (such as playgrounds and community gardens).
- **Schools** offer and promote healthy foods and beverages to students at all school venues including vending machines, school stores, and concession stands.
- **Worksites** allow breastfeeding women sufficient break time and private space other than a bathroom to pump and a place to store breastmilk.
- **Health care organizations and providers** promote active living and healthy eating.
- **Health care providers** measure body mass index (BMI) at all routine visits and explain results.
- **Cities and towns** promote healthy active transportation and expand trails, bike paths, and sidewalks to support active living.
- **Cities and towns** improve access to affordable fruits and vegetables through community gardens and farmers’ markets.
- **Cities and towns** create incentives to food retailers to offer healthier foods and beverages in under-served areas.
- **Small food stores** offer quality fruits and vegetables at reasonable prices.
- **Grocery and other food stores, restaurants, and concession stands** increase availability of healthier food and beverage choices.

In 2008, the NH Health Eating Active Living (HEAL) Initiative launched the *HEAL Action Plan for New Hampshire*. The action plan strategies can be found at www.healnh.org/StatewideInitiative/HealActionPlan/.



NH Department of Health and Human Services
 Division of Public Health Services
 603-271-4551
www.dhhs.nh.gov/DHHS/NHP/obesity.htm

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Body Weight Terms

Body Mass Index (BMI) is a standardized measurement based on height and weight. It is used to approximate the amount of body fat for an individual. BMI calculators can be found at www.cdc.gov/healthyweight/assessing/bmi/index.html.

Weight Classifications (Barlow 2007)

- **Healthy weight** BMI $\geq 5^{\text{th}}$ and $< 85^{\text{th}}$ percentile for age and gender
- **Overweight**★ BMI $\geq 85^{\text{th}}$ and $< 95^{\text{th}}$ percentile for age and gender
- **Obese**■ BMI $\geq 95^{\text{th}}$ percentile for age and gender

★ Prior to 2008, classified as “at risk for overweight.”

■ Prior to 2008, classified as “overweight.”

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