

Child and Adolescent Obesity

DEFINITION

Child and Adolescent Obesity is the percentage of children and adolescents who have a body mass index (BMI) at or above the 95th percentile for gender and age. Adolescents with a BMI at or above the 95th percentile are considered to be obese. Children and youth with a BMI between the 85th and 95th percentiles are considered to be overweight or at risk for obesity.¹

SIGNIFICANCE

Children and adolescents who are overweight or obese are at immediate and/or long-term risk of many health problems, including type 2 diabetes, cardiovascular disease, asthma, joint pain, sleep apnea, and other acute and chronic health problems. Over time, these conditions may contribute to a shorter lifespan. They may also experience social and psychological problems, including depression, bullying, and social marginalization. Obese children and youth are also more likely to repeat a grade, be absent from school, and have reduced academic performance than their peers.^{2,3,4,5}

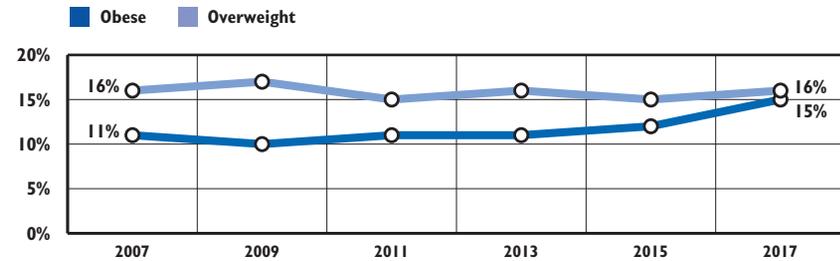
Nationally, there is a continued upward trend in obesity.⁶ In 2015-2016 in the U.S., the prevalence of obesity in children ages 2-19 was 19% with a significant increase in severe obesity for children ages two to five years.^{7,8} There were differences by race and ethnicity,

with non-Hispanic Black (22%) and Hispanic (26%) having higher prevalence of obesity than non-Hispanic White (14%) and non-Hispanic Asian (11%) children.⁹

No single factor is driving the increased prevalence of childhood obesity; rather it is the result of complex interactions among many factors, including excess calorie consumption, genes, metabolism, behavior, environment, and culture.¹⁰ Low consumption of healthy foods, high consumption of sugar-sweetened beverages and energy dense foods, low levels of physical activity, and high levels of screen time are all associated with obesity.¹¹

Prevention and intervention for at risk, overweight, and obese children should occur early and at all ages.¹² Reducing overweight and obesity will require a comprehensive, multi-system approach. Policy strategies to reduce obesity include improving access to nutritional and affordable foods and beverages, ensuring healthy food in schools, increasing options for physical activity before, during, and after school as well as with early learning programs, and improving access to safe and walkable neighborhoods and recreational areas.¹³

Obesity and Overweight Among Rhode Island High School Students, 2007-2017



Source: *Youth Risk Behavior Survey*, Rhode Island, 2007-2017. BMI calculated using self-reported student response.

◆ Rhode Island's overall high school obesity prevalence has increased since 2007 while overweight prevalence has remained mostly level. In Rhode Island in 2017, 15% of high school students self-reported as obese and 16% self-reported being overweight. In Rhode Island, Hispanic students (21%), males (17%), and Black students (18%), were more likely to report being obese than their peers.¹⁴ In the most recent national rankings from 2015, Rhode Island was seventh best for prevalence of obesity and ninth best for prevalence of overweight.¹⁵

◆ In September 2017, the BMI values of 9,157 electronic medical health records of children under age 18 residing in Providence who are active patients of a Providence Community Health Center site were examined. The analysis found 25% of Providence children were obese (down from 26% in 2016) and 19% were overweight (down from 20% the prior year). In 2017, obesity varied by age: 22% of children ages two to five, 29% of children ages six to 11, and 25% of children ages 12 to 17 were obese. Among Hispanic children, who accounted for 78% of all patients served, 27% were obese.¹⁶

Nutrition and Eating Habits

◆ The total number of calories a child and adolescent needs varies depending on age, gender, height, weight, and level of physical activity, as well as their need to lose, maintain, or gain weight. Many children and adolescents consume diets with too many calories and not enough nutrients.¹⁷ Among Rhode Island high school students in 2017, 11% reported consuming one or more cans of soda daily (down from 25% in 2007) and 88% reported eating less than three servings of vegetables per day.¹⁸

Promoting Increased Physical Activity

◆ Recess is an important component in optimizing a child’s social, emotional, physical, and cognitive development.¹⁹ In 2016, legislation passed requiring at least 20 consecutive minutes of free-play recess daily for Rhode Island public school children in kindergarten through grade six.²⁰ Prior to this legislation, only 10 public school districts required 20 minutes or more of daily recess.²¹

◆ Physical Education (PE) curriculum and instruction are designed to develop age appropriate motor skills, knowledge and behaviors of active living.²² In Rhode Island, students are required to receive an average of 20 minutes per day of health *and* PE instruction.²³ Nationally, the daily recommended amount of PE alone is 30 minutes in elementary school and 45 minutes in middle and high school.²⁴

◆ Regular physical activity, including school-based, has been shown to have physical, cognitive and academic benefits, including improved grades.^{25,26} In Rhode Island in 2017, 25% of middle school students and 23% of high school students reported being physically active every day for at least 60 minutes, which is the recommended amount.^{27,28}

Sedentary Behavior and Physical Activity, Rhode Island Middle School and High School Students by Race and Ethnicity, 2017

	MIDDLE SCHOOL			HIGH SCHOOL		
	BLACK*	WHITE*	HISPANIC	BLACK*	WHITE*	HISPANIC
2 or Fewer Days of Physical Education Weekly	47%	43%	51%	41%	41%	45%
3 or Fewer Days of Physical Activity** Weekly	51%	32%	57%	63%	43%	58%
3 or More Hours of TV on School Days	36%	17%	29%	27%	18%	25%
3 or More Hours of Computer*** Time/Video Games on School Days	51%	40%	46%	40%	42%	47%

Source: 2017 Rhode Island Youth Risk Behavior Survey, Rhode Island Department of Health. *Non-Hispanic. **Defined as at least 60 minutes per day. ***Non-school related. Hispanic can be of any race. For gender and overall results, see the 2016 Factbook.

Obesity in Young Children in Rhode Island

Children Enrolled in Head Start

◆ Head Start is a federally-funded comprehensive early childhood program for low-income preschool children and their families.²⁹ In Rhode Island during the 2016-2017 school year, 2,538 children aged three to five were enrolled in a Head Start program. Of those enrolled, 18% were obese, and 19% were overweight.³⁰ Comparable national data show that 16% of children enrolled in Head Start were obese and 13% were overweight during that time.³¹ Overweight kindergartners are four times as likely as their healthy weight peers to become obese by eighth grade, and obese teens have a greater than 70% risk of becoming obese as adults.^{32,33,34}

Children Participating in WIC

◆ The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) is a federally funded preventive program that provides eligible participants with nutritious food, nutrition education, and access to health care and social services.³⁵ In Rhode Island in 2017, 12,042 children aged two to four were enrolled in WIC, 18% of whom were obese and 13% were overweight.³⁶

◆ WIC also tracks the number of children under age five who are at risk for being obese, which is defined as having a biological parent who is obese (i.e., have a BMI over 30). In 2017, 17% of infants (1,613) and 19% of children aged one to four (2,818) enrolled in WIC in Rhode Island were deemed at risk for being obese.³⁷

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