Child Overweight and Obesity

DEFINITION

Child overweight and obesity is the percentage of children whose body mass index (BMI) meets the definition for overweight or obese. Children with a BMI at or above the 95th percentile for gender and age are considered to be obese, and children 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 risk of health problems, including type 2 diabetes, cardiovascular disease, asthma, joint problems, sleep apnea, and other acute and chronic health problems. They may also experience social and psychological problems, including depression, bullying, and social marginalization more than their peers due to weight-based stigma which can impact their school attendance and academic performance.[2,3,4]

Nationally, there is a continued upward trend in obesity.[5] During 2017-2020 in the U.S., the prevalence of obesity in children ages two to 19 was 20% with children and adolescents ages 12 to 19 having the highest rates.[6] Prior to 2018, Rhode Island did not have a statewide clinical childhood BMI data set. A recent study of data collected in 2022 found that 15% of Rhode Island children ages two to 17 are overweight and 23% are obese.[7]

The increased prevalence of childhood obesity is the result of complex interactions among many factors, including calorie consumption, genes, metabolism, behavior, environment, and physical activity. Most of these factors are out of the individuals' control and are related to a child's socioeconomic status and the availability of healthy food and safe play areas in their community.[8,9] Low consumption of healthy foods, low levels of physical activity, and high levels of screen time are all associated with obesity.[10]

The COVID-19 pandemic limited children's access to nutritious food and physical activity among other impacts. The rate of BMI increase for children ages 2 to 19 nearly doubled during the pandemic.[11] Reducing overweight and obesity will require a comprehensive, multi-system approach.

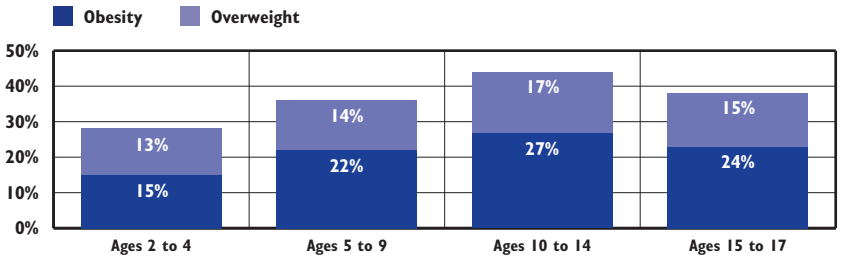
Overweight and Obesity Among Children Age 10-17
(Combined Overweight and Obesity)

	2022
RI	35%
US	32%
National Rank*	*39th*
New England Rank**	*6th*

**1st is best; 50th is worst*
***1st is best; 6th is worst*

Source: Data Resource Center for Child and Adolescent Health, *2022 National Survey of Children's Health*, childhealthdata.org.

Rhode Island Childhood Overweight and Obesity by Age, 2022

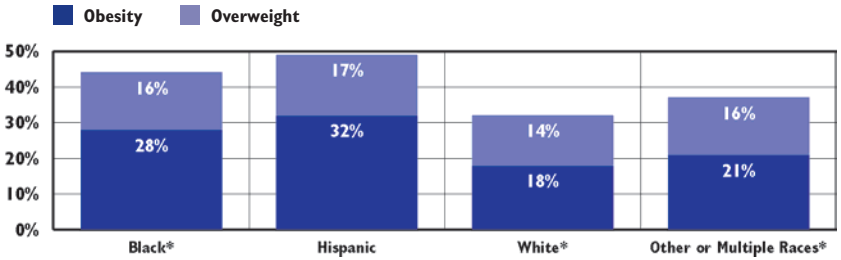


Source: Brown School of Public Health analysis of BMI clinical and billing records of children ages two to 17 in Rhode Island from KIDSNET, Current Care, Blue Cross & Blue Shield of Rhode Island, Cigna HealthCare, Neighborhood Health Plan of Rhode Island, United Healthcare, and Tufts Health Plan collected by the Rhode Island Department of Health, 2023.

★ **Fifteen percent of Rhode Island children ages two to 17 are overweight and 23% are obese. Older children are more likely to be overweight or obese. Twenty-seven percent of children ages 10 to 14 and 24% of children ages 15 to 17 are obese.**[12]

★ **Twenty-nine percent of children covered by RIte Care are obese compared to 14% of children with private health insurance.**[13]

Rhode Island Childhood Overweight and Obesity by Race/Ethnicity, 2022



Source: Brown University School of Public Health analysis of BMI clinical and billing records of children ages two to 17 in Rhode Island from KIDSNET, Current Care, Blue Cross & Blue Shield of Rhode Island, Cigna HealthCare, Neighborhood Health Plan of Rhode Island, United Healthcare, and Tufts Health Plan collected by the Rhode Island Department of Health, 2023. **Non-Hispanic.*

★ **Hispanic children (17% overweight and 32% obese) and non-Hispanic Black children (16% overweight and 28% obese) have the highest rates of overweight and obesity. Cultural differences and disparities in the community/environmental and socioeconomic status of Children of Color contribute to these disparities.**[14,15]

Food Access, Nutrition, and Physical Activity

★ Many children and adolescents do not have access to enough food for a healthy and active lifestyle (food insecurity) or consume diets with too many calories and not enough nutrients.[16,17] In 2023, 38% of households with children in Rhode Island reported being food insecure, compared to 29% of all housholds.[18]

★ In 2023, 29% of Rhode Island high school students reported going hungry at some point in the past month because there was not enough food.[19]

★ Regular physical activity has physical, social, emotional, cognitive, and health benefits.[20] In 2023, 57% of Rhode Island middle school students and 60% of high school students reported less than five days of physical activity in a week.[21]

★ A community's streets, sidewalks, parks, and housing influence physical activity choices for youth.[22] Policy strategies to address obesity include improving access to nutritious and affordable foods and beverages, ensuring access to healthy food in schools, increasing options for physical activity and improving access to safe and walkable neighborhoods and recreational areas.[23,24]

Table 24. **Prevalence of Overweight and Obesity in Rhode Island Children Ages 2 to 17, 2022**

CITY/TOWN	% OVERWEIGHT	% OBESE	% OVERWEIGHT AND OBESE COMBINED
Barrington	14%	9%	23%
Bristol	15%	16%	31%
Burrillville	16%	22%	39%
Central Falls	15%	36%	51%
Charlestown	11%	17%	28%
Coventry	12%	17%	30%
Cranston	15%	22%	37%
Cumberland	16%	19%	35%
East Greenwich	10%	9%	20%
East Providence	16%	21%	38%
Exeter	13%	14%	27%
Foster	12%	15%	26%
Glocester	14%	14%	28%
Hopkinton	13%	20%	33%
Jamestown	12%	12%	23%
Johnston	15%	24%	39%
Lincoln	17%	20%	37%
Little Compton	13% ^	14% ^	27%
Middletown	10%	13%	24%
Narragansett	15%	15%	30%
New Shoreham	*	*	37%
Newport	11%	20%	31%
North Kingstown	11%	12%	22%
North Providence	18%	24%	42%
North Smithfield	15%	17%	32%
Pawtucket	16%	28%	44%
Portsmouth	11%	12%	23%
Providence	17%	32%	49%
Richmond	11%	16%	27%
Scituate	12%	16%	28%
Smithfield	15%	16%	31%
South Kingstown	13%	14%	27%
Tiverton	12%	18%	30%
Warren	15%	19%	34%
Warwick	16%	19%	35%
West Greenwich	12%	15%	27%
West Warwick	15%	22%	37%
Westerly	14%	22%	36%
Woonsocket	16%	37%	52%
Four Core Cities	*16%*	*32%*	*48%*
Remainder of State	*14%*	*18%*	*32%*
Rhode Island	*15%*	*23%*	*37%*

Source of Data for Table/Methodology

Brown University School of Public Health analysis of BMI clinical and billing records of children ages 2 – 17 in Rhode Island from KIDSNET, Current Care, Blue Cross & Blue Shield of Rhode Island, Cigna HealthCare, Neighborhood Health Plan of Rhode Island, United Healthcare, and Tufts Health Plan collected by the Rhode Island Department of Health, 2023.

* The data are statistically unreliable; rates are not reported and should not be calculated.

^ Data are statistically unstable and rates or percentages should be interpreted with caution

Core cities are Central Falls, Pawtucket, Providence, and Woonsocket.

References

[1] Centers for Disease Control and Prevention. (2023). *Defining child BMI categories.* Retrieved February 29, 2024, from www.cdc.gov

[2] Centers for Disease Control and Prevention. (2022). *Consequences of obesity.* Retrieved February 29, 2024, from www.cdc.gov

[3] Glickman, D., Parker, L., Sim, L., Del Valle Cook, H., & Miller, E. A. (2012). *Accelerating progress in obesity prevention: Solving the weight of the nation.* Washington, DC: Institute of Medicine of the National Academies.

[4,8,16,22,23] Warren, M., Beck, S., & West, M. (2022). *The state of obesity 2022: Better policies for a healthier America.* Washington, DC: Trust for America's Health.

[5] Quickstats: Prevalence of obesity and severe obesity among persons aged 2–19 years — national health and nutrition examination survey, 1999–2000 through 2017–2018. (2020). *MMWR Morb Mortal Wkly Rep 69*(13) 390.

[6] Stierman B, Afful J, Carroll MD, Chen TC, Davy O, Fink S, et al. (2021). National health and nutrition examination survey 2017–March 2020 prepandemic data files—development of files and prevalence estimates for selected health outcomes. *National Health Statistics Reports; no 158.* Hyattsville, MD: National Center for Health Statistics.

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