



Issue Brief

Child and Adolescent Obesity in Rhode Island

Over the past four decades, the prevalence of childhood obesity in America has tripled, and today nearly one in three children ages 2-19 is obese (17%) or overweight (15%).¹ While the national prevalence of child and adolescent obesity has leveled off since 2003, more than one in twelve preschoolers (8%), one in six elementary school-aged children (18%), and one in five adolescents (21%) are obese.^{2,3}

The consequences arising from childhood obesity are serious, complex, and can be long lasting. Obesity is associated with many health problems, including type 2 diabetes, cardiovascular disease, sleep apnea, asthma, as well as other acute and chronic health problems. Over time, these conditions may contribute to shorter lifespans. Children and adolescents who are obese are also susceptible to social and psychological problems such as stigmatization, bullying, and low self-esteem that can lead to social isolation and decreased physical activity.^{4,5,6,7}

Being overweight or obese as a child increases the likelihood of being overweight or obese in adolescence and adulthood.^{8,9} Overweight kindergartners are four times as likely as their healthy-weight peers to become obese by the eighth-grade; teenagers who are obese have a greater than 70% risk of being obese adults.^{10,11} Prevention and intervention for at-risk, overweight, and obese children should occur early and at all ages.¹²

The epidemic of childhood obesity that is occurring across the nation is also evident among Rhode Island children and youth. It is a problem that affects children of every age and demographic. Reducing the number of Rhode Island children who are obese or overweight will require a comprehensive holistic approach.

Obesity Among Children and Adolescents, Rhode Island, 2002-2013

	'02-'03	'04-'05	'06-'07	'08-'09	'10-'11	'12-'13
Kindergarten*	17%	20%	19%	16%	17%	NC
7th Grade*	NA	NA	17%	19%	17%	NC
High School**	10%	13%	11%	10%	11%	11%

Sources and Notes:

*Rhode Island Department of Health, Office of Immunization, School Years 2002-2003 through 2010-2011. Data are based on a sample of recorded heights and weights at kindergarten and seventh grade and may not truly reflect the population. BMI was recorded by a physician.

**Rhode Island Department of Health, Center for Health Data and Analysis, *Rhode Island Youth Risk Behavior Survey*, 2003-2013. Data are collected biennially during odd years. BMI was calculated using self-reported student responses.

Obesity is defined as BMI at or above 95th percentile for age and sex.

NA: Data not available.

NC: Data no longer collected.

Defining and Measuring Childhood Obesity

Obesity is medically defined as the presence of excess body fat.¹³ Often, this excess body fat is estimated using the Body Mass Index (BMI), which is a ratio of weight to height. The calculation of BMI among children and teens differs from adults. Age and sex are additional factors included. This is because body fat with children and teens changes with age and differs between girls and boys.^{14,15}

From birth to age two, the Centers for Disease Control and Prevention (CDC) recommends using the World Health Organization growth charts to monitor development.¹⁶ From age two to 19, the CDC and American Academy of Pediatrics recommend the use of BMI to screen for obesity and overweight in children.¹⁷

- ◆ **Obese:** Children and youth with a BMI at or above the 95th percentile for their age and sex.
- ◆ **Overweight:** Children and youth with a BMI between the 85th and 95th percentiles for their age and sex.

Racial and Ethnic Considerations with BMI

It is important to note that BMI is not a diagnostic tool, even though it is highly reliable screening tool.¹⁸ Racial and ethnic considerations should be taken into account when interpreting BMI. Research has shown that individuals of Asian descent may have more body fat than their White peers, especially at lower BMIs, and that health risks may begin at a lower BMI compared to others.¹⁹ In addition, Mexican-American children have also been shown to have more body fat than their White peers at the same BMI.^{20,21} Conversely, non-Hispanic Black and Pacific Islander children have greater lean body mass compared to their peers, which contributes to a potential over-diagnosis of obesity and/or overweight when using BMI.^{22,23}

Need for Professional Consultation

Other limitations of BMI include its inability to discriminate between lean/muscular mass and fat mass as well as its assumption that individuals with a normal BMI have normal body fat. In addition, research has shown that using BMI alone may miss 25% of children who might have excess body fat and that BMI may not be the best measurement for some children (and adults) with disabilities.^{24,25} Given these limitations, it is critically important to regularly consult with a pediatrician or other primary care physician who can take these and other factors into consideration and, if need be, apply other assessments when determining whether a child's weight is a health concern.^{26,27}

Preventive Health Coverage of Obesity

- ◆ Eligible children under age 21 enrolled in Medicaid or the Children's Health Insurance Program (known as RItE Care in Rhode Island) are mandated to be provided with comprehensive health services, including those necessary to prevent and treat obesity.²⁸ The federal *Patient Protection and Affordable Care Act (ACA)* enacted in 2010 further expanded access to preventive health care services, including obesity-related services, for millions of Americans. Under the *ACA*, obesity screening and counseling are mandated preventive services most health plans must cover at no cost when delivered by an in-network provider for both children and adults.^{29,30,31} In addition, the American Medical Association's recognition of obesity as a disease in 2013 may also spur more insurers to pay for additional treatments relating to obesity.^{32,33}

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.³⁴ In Rhode Island in 2013, 22,185 children ages one to four were enrolled in WIC, with 11% being obese (2,521). WIC also tracks the number of children under age five who are at risk for being obese, which is defined as either being overweight themselves (i.e., have a BMI between the 85th and 95th percentile) or having a biological parent who is obese (i.e., have a BMI over 30). In 2013, 23% of infants and 29% of children ages one to four enrolled in WIC in Rhode Island were deemed at risk for being obese. In addition, 55% of postpartum women as well as 56% of pregnant and breastfeeding women participating in WIC in Rhode Island in 2013 were either overweight or obese (i.e., had a BMI over 25).³⁵
- ◆ Recently, progress has been made in reducing the total number of children enrolled in WIC who are obese. In Rhode Island since 2011, there has been a 13% decline in the number of children ages one to four participating in WIC who are obese. This decline is partially attributed to new federally-mandated food standards (i.e., no whole milk over the age of two, only one pound of cheese per month, reduced juice, and added fruits, vegetables, and whole grains) as well as availability and use of nutrition education and assessments.³⁶

Children Enrolled in Head Start

- ◆ Head Start is a federally-funded comprehensive early childhood program for low-income preschool children and their families.³⁷ In Rhode Island during the 2012-2013 school year, 2,427 children ages three to five were enrolled in a Head Start program. Of those enrolled, 20% (545) were obese, and 15% (425) were overweight.³⁸ Comparable national data show that 15% of children enrolled in Head Start were obese and 13% were overweight during that time.³⁹
- ◆ Head Start programs are required to promote daily active play and movement as well as ensure that children receive one-half to two-thirds of their daily nutritional needs, depending on length of program day. Head Start programs are also mandated to promote ongoing preventive health care. Many programs provide on-site weight and nutritional screenings, with related educational materials and programming opportunities relating to nutrition and exercising provided to both parents and children.^{40,41,42}

High School Students

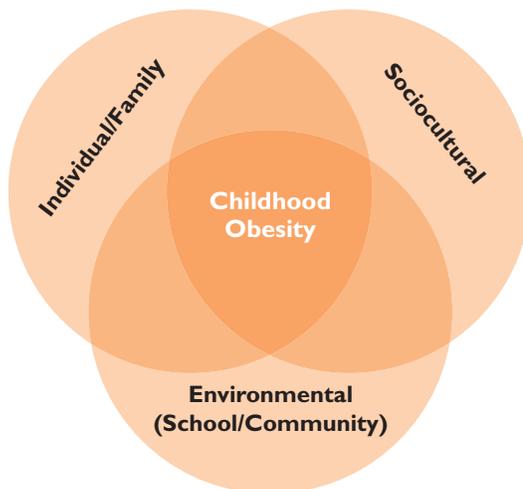
- ◆ Rhode Island's overall high school obesity and overweight prevalence has not significantly changed (improved or worsened) since 2001.⁴³ Between 2011-2013, 11% of Rhode Island High School students reported being obese and 16% reported being overweight.⁴⁴ Among 42 ranked states in 2013, Rhode Island high school students ranks well (7th best) for the prevalence of obesity among adolescents, but not as well (37th best) for the prevalence of overweight.⁴⁵
- ◆ In Rhode Island between 2011-2013, a greater percentage of lesbian, gay, bisexual, or questioning (17%) students and male (13%) students reported being obese than their heterosexual (10%) or female (8%) peers. In addition, a disproportionate number of obese high school students were male (63%).⁴⁶
- ◆ Many obese (44%) and overweight (41%) Rhode Island high school students were trying to lose weight between 2011-2013. Most of these obese (78%) and overweight (80%) Rhode Island youth trying to lose weight reported not using any extreme weight control measures (i.e., fasting, taking diet medication or laxatives, or vomiting) during that time.⁴⁷
- ◆ In Rhode Island, 9% of obese high school students and 19% of overweight high school students considered themselves to be underweight or about the right weight in 2011-2013.⁴⁸ Accurate self-perception of weight status has been linked to appropriate weight control in youth.⁴⁹

Factors Contributing to Childhood Obesity

No single factor is driving the increased prevalence of childhood obesity; rather, it is the result of complex interactions among many factors,^{50,51,52,53,54,55,56} including:

◆ **Individual/Family:**

Excess calorie consumption, diets high in unhealthy foods, increased inactivity, lack of family meals, genetics, hormones, particular health conditions, certain medications, metabolism, family history, lack of sleep, and increased screen time.



◆ **Sociocultural:**

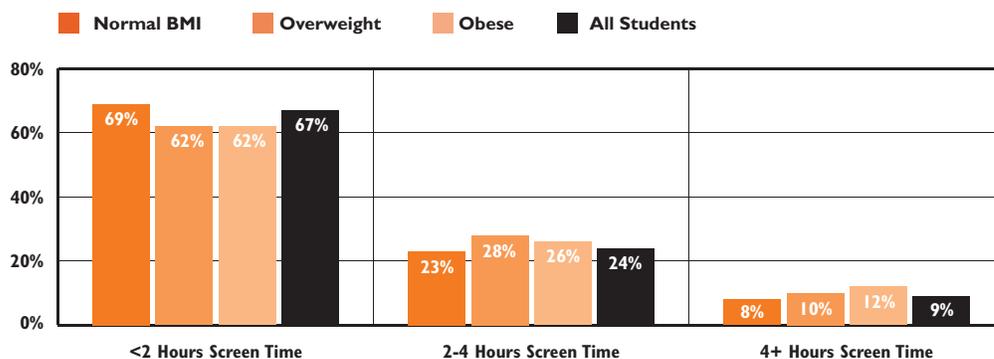
Increased portion sizes, changing eating patterns, cultural norms, fewer children walking or biking to school, maternal nutrition and health during pregnancy, socioeconomic factors, chronic stress, lack of support of breastfeeding, and weight bias.

◆ **Environmental**

(School/Community): Built environment, food swamps, food deserts, car-dependent community designs, decreased availability of physical education, environmental toxins, unhealthy food advertisements aimed at children and youth, weight-based bullying, and technological innovations.

Screen Time

Daily Screen Time, Rhode Island High School Students by BMI, 2011-2013



Source: Rhode Island Department of Health, Center for Health Data and Analysis, *Rhode Island Youth Risk Behavior Survey*, 2011-2013. Screen time is defined as non-school related computer time and/or time spent watching TV or playing video games on a school day.

- ◆ The American Academy of Pediatrics (AAP) recommends that children and adolescents limit their total entertainment screen time to less than two hours per day and discourages screen media exposure for children under age two.⁵⁷ Among 40 ranked states in 2013, Rhode Island adolescents ranked 18th best when it comes to meeting recommended screen times for TV use and 30th best for computer use.⁵⁸
- ◆ In Rhode Island between 2011-2013, a majority of all high school students (regardless of BMI) were limiting their entertainment screen time as recommended by the AAP. However, obese and overweight high school students reported higher levels of longer screen time than their normal weight peers.⁵⁹ While the percentage of high school students who watch three or more hours of TV during a school day has decreased by 21% since 2001 in Rhode Island, time spent on computers that was non-school related and/or playing video games has increased 46% since 2007.⁶⁰

Eating Habits

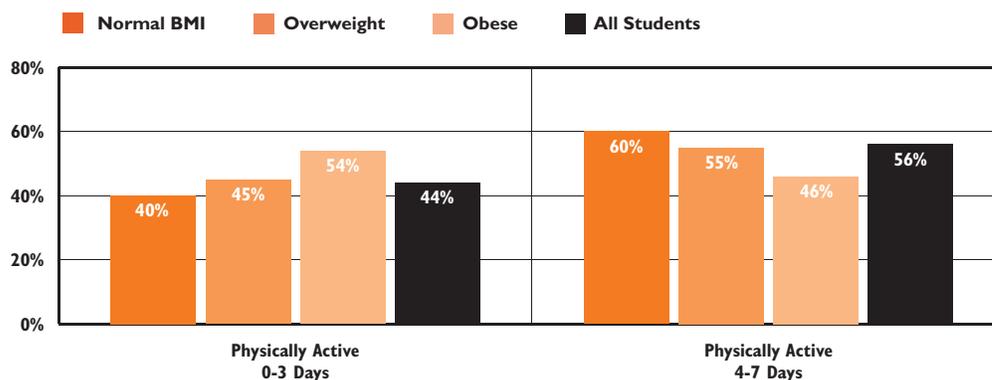
- ◆ The total number of calories a child and adolescent needs varies depending on age, gender, height, weight, and level of physical activity, as well as their need to lose, maintain, or gain weight. Yet, many children and adolescents consume diets with too many calories and not enough nutrients. Nutritional intake among children is particularly important because of its effect on development throughout the lifespan and the fact that eating patterns established in childhood are maintained in adulthood.⁶¹
- ◆ In Rhode Island, all high school students, regardless of their weight status, are equally likely to consume too few fruits and vegetables and too much soda. Between 2011-2013, 78% of students reported eating less than five servings of fruits and vegetables a day, with overall consumption declining by 24% since 2001. Even though daily soda consumption has declined by 31% since 2007, 22% of students between 2011-2013 reported consuming one or more cans of soda a day.^{62,63}
- ◆ Eating a nutrient-dense breakfast has been associated with weight loss and weight loss maintenance, as well as improved nutrient intake.⁶⁴ In Rhode Island during the 2013-2014 school year, a greater percentage of elementary (92%) students ate breakfast three or more times a week than their middle (80%) or high school (66%) peers.⁶⁵

School Meals

- ◆ The Rhode Island Department of Education is responsible for administering the U.S. Department of Agriculture Child Nutrition Programs, including the School Breakfast Program, the National School Lunch Program, as well as others.⁶⁶ In Rhode Island in 2013, 32,531 students were served over 5 million meals through the National School Breakfast Program and 77,353 students were served over 80 million free or reduced priced meals through National School Lunch Program.⁶⁷
- ◆ In Rhode Island, nutritional standards for food and beverages sold or distributed in schools for all children have been strengthened over the years. In 2006, the Rhode Island General Assembly passed legislation that required all schools to sell or distribute only healthier beverages and snacks, including those sold through vending machines.⁶⁸ These state standards were further modified and strengthened by the federal *Healthy, Hunger-Free Kids Act of 2010*, which implemented new national standards for foods and beverages sold to children as of July 2014, including federally-subsidized meals.^{69,70}
- ◆ In Rhode Island among middle and high schools, these revised nutritional school standards have already resulted in declines in the availability of unhealthy food and drinks in schools, including soda or fruit drinks that are not 100% juice (down 82%), chocolate candy (down 81%), sport drinks (down 80%), salty snacks not low in fat (down 76%), candy (down 75%), 2% or whole milk (down 59%), and baked goods not low in fat (down 38%) as well as the number of schools allowing the sales of snack foods and beverages (down 25%) in general.⁷¹
- ◆ Schools in Rhode Island are also implementing a number of policies and practices to increase healthy food choice among students. In Rhode Island among middle and high schools in 2014, 90% of schools placed fruits and vegetables near the cafeteria cashier to make them more accessible, 81% used attractive displays for fruits and vegetables, 76% served locally or regionally grown foods, 51% provided nutrition and caloric information of foods available in schools to students and families, 49% offered a self-serve salad bar to students, and 32% planted a school food or vegetable garden.⁷²

Physical Activity

Number of Days Physically Active, Rhode Island High School Students by BMI, 2011-2013



Source: Rhode Island Department of Health, Center for Health Data and Analysis, *Rhode Island Youth Risk Behavior Survey*, 2011-2013. Physically active is defined as at least 60 minutes per day.

- ◆ The American Academy of Pediatrics recommends that all children engage in moderate to vigorous physical activity for at least 60 minutes per day.⁷³ In Rhode Island between 2011-2013, 27% of normal weight, 22% of overweight, and 20% of obese high school students reported being physically active every day of the week.⁷⁴ While the number of Rhode Island high school students reporting daily physical activity has increased by 27% since 2005, Rhode Island high school students ranks 32nd in meeting this standard among 41 ranked states in 2013.^{75,76}
- ◆ In Rhode Island between 2011-2013, a majority of normal weight and overweight high school student reported being physically active four or more days a week, while a majority of obese students reported being physically active three or less days a week.⁷⁷
- ◆ Physical activity, including school-based activity, improves academic achievement and obese and overweight students experience poorer academic outcomes than their normal-weight peers.^{78,79} In Rhode Island between 2011-2013, normal weight (75%) high school students reported higher levels of academic achievement (i.e., having mostly A's and B's) than their overweight (69%) and obese (64%) peers.⁸⁰
- ◆ Rhode Island schools are mandated to provide daily recess opportunities for elementary school students as well as physical activity opportunities (i.e., stretch breaks, dance programs, and athletic programs) for middle and high schools in addition to Physical Education requirements.⁸¹

Physical Education

- ◆ In Rhode Island, students are required to receive an average of 100 minutes per week of health and Physical Education (PE) instruction.⁸² Nationally, the weekly recommended amount of PE is 150 minutes in elementary school and 225 minutes in middle and high school.⁸³
- ◆ Among Rhode Island high school students between 2011-2013, 40% reported weekly PE attendance of two or less days, 60% reported weekly PE attendance of three or more days, and 24% reported daily PE attendance.⁸⁴ While significant differences by BMI were not observed, a 92% increase in daily PE attendance was seen between 1997 and 2013.⁸⁵

Rhode Island Students Engaging in Positive Health Behaviors by Grade Level & District, 2013-2014

DISTRICT	SCREEN TIME 2 OR LESS HRS/DAY		BREAKFAST 3+ DAYS/WK		PHYSICALLY ACTIVE 3+ DAYS/WK	
	ELEMENTARY SCHOOL	HIGH SCHOOL	ELEMENTARY SCHOOL	HIGH SCHOOL	ELEMENTARY SCHOOL	HIGH SCHOOL
Barrington	89%	57%	97%	80%	92%	83%
Bristol-Warren	76%	47%	94%	62%	86%	73%
Burrillville	75%	52%	91%	66%	84%	81%
Central Falls	70%	47%	82%	60%	73%	66%
Chariho	84%	56%	91%	69%	85%	75%
Coventry	79%	50%	93%	65%	85%	79%
Cranston	75%	46%	93%	65%	82%	75%
Cumberland	81%	46%	96%	70%	86%	76%
East Greenwich	89%	57%	97%	77%	91%	81%
East Providence	72%	43%	91%	59%	79%	74%
Exeter-W. Greenwich	78%	60%	95%	72%	83%	81%
Foster	82%	52%	92%	65%	88%	76%
Glocester	86%	52%	92%	65%	83%	76%
Jamestown	84%	NA	94%	NA	93%	NA
Johnston	74%	46%	90%	60%	78%	73%
Lincoln	79%	47%	93%	66%	88%	77%
Little Compton	--	NA	--	NA	--	NA
Middletown	77%	47%	91%	64%	80%	77%
Narragansett	91%	56%	94%	75%	90%	75%
Newport	79%	45%	92%	61%	82%	77%
New Shoreham	--	55%	--	77%	--	--
North Kingstown	83%	58%	95%	78%	88%	78%
North Providence	75%	41%	92%	60%	83%	77%
North Smithfield	79%	50%	98%	73%	87%	81%
Pawtucket	71%	44%	89%	62%	76%	71%
Portsmouth	84%	57%	93%	71%	90%	78%
Providence	67%	47%	88%	63%	71%	69%
Scituate	78%	50%	93%	65%	82%	76%
Smithfield	79%	49%	94%	70%	87%	76%
South Kingstown	84%	52%	94%	77%	90%	79%
Tiverton	82%	51%	95%	65%	86%	81%
Warwick	77%	45%	91%	63%	84%	75%
Westerly	77%	50%	94%	69%	85%	82%
West Warwick	73%	48%	93%	67%	80%	72%
Woonsocket	62%	40%	90%	60%	75%	68%
<i>Four Core Cities*</i>	68%	45%	88%	62%	73%	69%
<i>Rural**</i>	80%	53%	93%	68%	85%	79%
<i>Rhode Island</i>	75%	48%	92%	66%	81%	74%

Source and Notes:

Rhode Island Department of Education, *SurveyWorks!*, 2013-2014.

Screen time is defined as time spent playing video games, watching TV, or playing on the computer that is not related to homework.

Physical activity is defined as at least 60 minutes per day.

*Four core cities are Central Falls, Pawtucket, Providence, and Woonsocket.

**Rural as defined by the Rhode Island Department of Health and includes the Burrillville, Charliho, Coventry, Exeter-West Greenwich, Foster, Glocester, Jamestown, Little Compton, New Shoreham, Portsmouth, Scituate, Tiverton, and Westerly school districts.

-- Insufficient data or school district does not participate.

NA: Community has no high school.

Environmental & Social Factors

Built Environment*: Children's eating habits and physical activities are affected by their community's built environment, which is defined as the neighborhoods, roads, buildings, food sources, and recreational facilities in which people live, work, are educated, eat, and play. However, not all communities are similarly situated.^{86,87} Communities in Rhode Island and across the nation may lack one or more healthy protective resources, such as:

- ◆ *Safe and Appealing Places to Play or be Active:* In Rhode Island, 19% of the total land area is dedicated to outdoor public recreation, with 86% of residents living nearby (defined as either .25 miles or 5 miles away, depending on the type of community setting).⁸⁸ While access to public recreation land is important, safety considerations must be taken into account as well. In Rhode Island, 82% of high school students reported feeling safe when walking outside of school.⁸⁹
- ◆ *Access to Healthy Affordable Foods:* Since the 1970's, the number of fast food restaurants has more than doubled in the U.S. and studies have shown that communities with a larger number of fast food or quick service restaurants have higher BMIs.⁹⁰ In Rhode Island, there is an average of two fast food and convenience stores per square mile. Additionally, 27% of Rhode Island residents live in a food desert, which is defined as living more than one mile from a supermarket, supercenter, or large grocery store in urban tracts or 10 miles for rural tracts.⁹¹

Rural Communities*: Childhood obesity is a problem that is growing disproportionately in rural America. Residents residing in rural areas are more likely to consume more calories, fat, and fewer fruits and vegetables, as well as be obese when compared to their urban peers. Families residing in rural communities often face distinct challenges in combating childhood obesity due to a lack of local resources and services (i.e., availability and proximity of healthy food retailers, medical providers, public transportation, and physical activity facilities, among others).⁹² The Rhode Island Department of Health has designated the following 16 communities as being rural: Burrillville, Charlestown, Coventry, Exeter, Foster, Glocester, Hopkinton, Jamestown, Little Compton, New Shoreham, Portsmouth, Richmond, Scituate, Tiverton, West Greenwich, and Westerly.⁹³

Weight-Based Bullying*: Weight-based victimization, bullying, or bias that is directed towards obese or overweight children and youth can result in a wide range of negative outcomes, including lower self-esteem, higher risk of depression, body dissatisfaction, peer rejection, unhealthy eating behaviors, avoidance of physical activity, and increased suicidal thoughts. Weight-based bias and bullying can be perpetuated by peers, educators, parents, the media, and others, and can have long-lasting effects, even after weight loss.⁹⁴ In Rhode Island in 2013, 13% of middle school and 12% of all high school students reported being bullied because of their weight.⁹⁵

Advertisements: Children see many food and beverage advertisements daily. Research has shown that more than 80% of all advertisements in children's programming are for fast foods or snacks, an estimated 11 per hour.⁹⁶ In Rhode Island in 2014, most middle schools and high schools prohibit unhealthy food and beverage advertisements in school buildings (89%), on school grounds (88%), on school buses (84%), and in school publications (83%).⁹⁷

**See table on next page for Rhode Island specific city and town variations of selected environmental and social measures.*

Rhode Island Environmental & Social Community Measures Relating to Obesity

CITY/TOWN	% OUTDOOR PUBLIC RECREATION SPACE 2011	% LIVING NEAR PUBLIC RECREATION SPACE 2011	% RESIDENTS LIVING IN A FOOD DESERT 2013	# FAST FOOD & CONVENIENCE STORES PER SQUARE MILE 2013	% HIGH SCHOOL STUDENTS FEEL SAFE WALKING OUTSIDE OF SCHOOL 2013	% EVER BULLIED DUE TO WEIGHT	
						MIDDLE SCHOOL 2013	HIGH SCHOOL 2013
Barrington	22%	96%	30%	1.18	95%	6%	10%
Bristol	16%	93%	54%	3.04	78%	15%	14%
Burrillville	22%	100%	58%	0.37	91%	15%	12%
Central Falls	8%	100%	0%	37.20	64%	14%	9%
Charlestown	34%	100%	0%	0.37	89%	14%	11%
Coventry	14%	100%	49%	0.72	79%	15%	13%
Cranston	7%	77%	25%	4.85	83%	12%	12%
Cumberland	24%	90%	39%	1.90	86%	11%	15%
East Greenwich	6%	84%	55%	1.76	93%	8%	8%
East Providence	8%	87%	20%	7.72	78%	15%	17%
Exeter	33%	99%	0%	0.14	93%	12%	7%
Foster	11%	100%	0%	0.08	89%	13%	13%
Glocester	18%	100%	0%	0.28	89%	13%	13%
Hopkinton	21%	100%	0%	0.20	89%	14%	11%
Jamestown	26%	100%	57%	0.63	NA	10%	NA
Johnston	9%	35%	29%	2.55	80%	13%	14%
Lincoln	20%	93%	48%	1.97	91%	13%	12%
Little Compton	17%	98%	0%	0.14	NA	--	NA
Middletown	15%	65%	33%	3.20	84%	14%	13%
Narragansett	18%	91%	47%	1.63	93%	14%	10%
New Shoreham	27%	97%	100%	0.84	--	--	--
Newport	12%	90%	9%	8.70	83%	13%	10%
North Kingstown	10%	66%	44%	1.07	91%	9%	9%
North Providence	5%	80%	34%	10.78	85%	11%	12%
North Smithfield	9%	72%	58%	0.74	92%	10%	10%
Pawtucket	10%	77%	6%	14.68	74%	13%	11%
Portsmouth	26%	100%	67%	0.98	94%	12%	9%
Providence	12%	94%	5%	25.58	74%	13%	9%
Richmond	22%	100%	0%	0.42	89%	14%	11%
Scituate	31%	100%	0%	0.13	91%	13%	11%
Smithfield	13%	83%	77%	1.73	88%	10%	14%
South Kingstown	19%	65%	47%	0.79	83%	8%	13%
Tiverton	14%	99%	57%	0.69	85%	13%	13%
Warren	14%	89%	97%	5.48	78%	15%	14%
Warwick	7%	79%	33%	4.82	84%	16%	16%
West Greenwich	43%	100%	0%	0.23	93%	12%	7%
West Warwick	4%	79%	16%	7.49	78%	14%	14%
Westerly	19%	100%	21%	1.83	84%	13%	12%
Woonsocket	13%	90%	29%	10.43	57%	15%	16%
Rhode Island	19%	86%	27%	1.95	82%	13%	12%

Sources and Notes:

Columns 1-4: Rhode Island Department of Health and Prov Plan, Healthy Communities Measures, 2011 and 2013. For a full explanation of methodology and terminology with community measures, see the RI Data Hub website at <http://ridatahub.org>

Columns 5-7: Rhode Island Department of Education, *SurveyWorks!*, 2013-2014.

Outdoor public recreation space defined as local and state conservation lands with either year-round or limited (due to seasonal factors) access as well as parks and playgrounds.

Near is defined as as .25 mile (for urban communities) or 5 mile (for rural communities) straight line distance.

Food desert is defined as living >1 mile (for urban communities) or >10 (for rural communities) from the nearest supermarket, supercenter, or large grocery store.

-- Insufficient data or school district/town does not participate in survey.

NA: Community has no high school.

Recommendations

Reducing overweight and obesity will require a comprehensive, multi-system approach shared among families, health care providers, communities, and schools. Strategies that would help to reduce overweight and obesity among children and adolescents in Rhode Island include:

Families

- ◆ Families can significantly improve their children's health by providing healthy eating options (including infant breastfeeding), and encouraging regular physical activity, limiting entertainment screen time to less than two hours a day, and discussing their own and their children's weight status with relevant health care providers.
- ◆ Parents can advocate to be sure that all places where children are cared for and learn, including child care settings, schools districts, before- and after-school programs, and camps establish policies regarding physical activity, the availability of healthy foods and beverages, and nutrition education.

Health Care System

- ◆ Professional development should be offered so that all pediatric health care providers in Rhode Island can regularly track patient height and weight, calculate BMI for age and sex, and offer appropriate anticipatory guidance and referrals.
- ◆ Oral health care providers should be encouraged to promote healthy eating habits as part of routine preventive dental care.
- ◆ All hospitals and health care providers should use maternity care practices that support new mothers to breastfeed, such as the Baby-Friendly hospital standard. Children who are breastfed are at reduced risk for obesity.
- ◆ Health plans should continue to incentivize benefits that support screening, diagnosis, counseling, and treatment for children and adolescents who are obese or overweight, including age- and ability-appropriate nutrition education and physical activity programs.
- ◆ Health care providers, including dietitians and nutritionists, along with community leaders should develop and scale evidence-based opportunities and programs that work with young people and their families to address overweight and obesity, including community-based lifestyle change programs.
- ◆ Continue to ensure access for all children to affordable, comprehensive health and dental coverage, including RIte Care and RIte Smiles.

Communities

- ◆ Local governments, health agencies, and community groups should expand opportunities for physical activity (i.e., maintain public recreation space, explore "complete street policies" to support walking and biking, and institute joint use agreements for public facilities, such as schools and libraries).
- ◆ Communities can foster access to healthy foods by ensuring resident access to local farms and farmers' markets and large grocery stores, and enrollment in food and nutrition programs (such as WIC and SNAP).
- ◆ Governments and business leaders should consider providing financial incentives to community groups, businesses, and nonprofit organizations for the implementation of strategies to promote healthy eating and active living, particularly in low-income communities.
- ◆ Strategies, policies, and practices adopted should be tailored to the unique needs of the community, especially given differences between rural and urban communities.

Recommendations

Schools

- ◆ Local school district Health and Wellness Subcommittees that are mandated by state and federal laws should ensure inclusive participation of diverse stakeholders including students, teachers, parents, and other community members; regularly update and communicate their policies; and use assessment tools to regularly monitor and review progress and compliance.
- ◆ The number of minutes required for Physical Education (PE) in Rhode Island should be increased to better align with national recommendations of 150 minutes per week for elementary school and 225 minutes per week for middle and high school. PE teachers should be provided with annual professional development opportunities to strengthen the quality of PE.
- ◆ Elementary school recess should have a minimum number of required minutes, allow for both structured and unstructured play, be scheduled before lunch, and not be withheld as punishment or for academic reasons, as recommended by the American Academy of Pediatrics.
- ◆ Expand physical activity opportunities offered to students before, during, and after school by implementing a comprehensive school physical activity program and/or a “safe routes to school” program.
- ◆ All schools should encourage full participation of eligible students in all school meal programs and ensure that all food and beverages sold or distributed meet required nutritional standards.
- ◆ Professional development on weight-based stigma, bias, and bullying should be provided to all school teachers and administrators.

Child Care and After-School Programs

- ◆ Strengthen licensing standards and the BrightStars Quality Rating and Improvement System to promote good program practices regarding nutrition, physical activity, and screen time in early learning, child care, and after-school settings.
- ◆ Provide child care and after-school program providers with professional development and tools (such as the evidence-based “I am Moving, I am Learning” program) so they can offer healthy nutritional options and age- and ability-appropriate physical activity.

Data and Coordination

- ◆ The Rhode Island Department of Health, health care providers, insurers, and electronic health record vendors should work together to ensure that height and weight measurements of Rhode Island children and youth are systematically collected and reported by the KIDSNET system.
- ◆ State agencies, such as the Rhode Island Department of Health and the Rhode Island Department of Education, should continue current youth surveys, including the *Youth Risk Behavior Survey* and *SurveyWorks!*, which are the only sources of important district- and state-level trend data relating to overweight and obesity in order to inform policy change and measure progress.
- ◆ The Rhode Island Department of Health (DOH), in partnership with the Executive Office of Health and Human Services (EOHHS), Department of Human Services (DHS), Department of Children, Youth, and Families (DCYF), Office of the Health Insurance Commissioner (OHIC), and the Department of Education (RIDE), along with health care providers, hospitals, insurers, community agencies, schools, and others should coordinate and collaborate initiatives in order to better monitor trends and progress, eliminate system gaps in prevention and/or treatment and identify and scale evidenced-based interventions, policies, or programs that can accelerate progress in reducing child and adolescent obesity in Rhode Island.

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