

Overweight and Obesity in Rhode Island: Developing Programs to Combat the Obesity Epidemic

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An estimated two-thirds of American adults are overweight or obese (Body Mass Index (BMI)=25-29.9; BMI \geq 30, respectively), an increase of 110% over the past two decades.¹⁻³ Furthermore, over the past 10-years the prevalence of obesity in this country has increased nearly 40%, with estimates indicating that 26% of Americans are obese.⁴

Obesity is most prevalent among the nation's two largest ethnic minority groups. Among adults, 24.7% of Non-Hispanic Whites are obese whereas 35.3% of African Americans and 27.5% of Hispanics are obese.⁵ Compared to men, African American (34% vs. 53.9%) and Mexican American (31.6% vs.

42.3%) women have higher rates of obesity.⁶

Overweight and obesity are associated with serious medical problems, including type 2 diabetes, cardiovascular disease, liver problems, and cancer.⁷ Obesity-related health problems cost our country \$52 billion dollars per year and account for an estimated 400,000 deaths each year.^{8,9} Some researchers predict that the increased rates of obesity and associated ailments will cause the first decline in life expectancy in 100 years.^{10,11}

Eating and activity behaviors contribute to the obesity epidemic. For 10 consecutive years, over 75% of Americans have not met national standards for fruit

and vegetable consumption⁴ (at least 5 servings of fruits and vegetables per day¹²) and more than 50% have failed to meet physical activity guidelines⁴ (30-minutes of moderate-intensity physical activity on five or more days per week¹³).

OVERWEIGHT AND OBESITY IN RHODE ISLAND

The prevalence of obesity in Rhode Island has closely paralleled that of the nation. (Figure 1)⁴ Over the past decade, the number of obese adults has nearly doubled. In 2007, 22% of Rhode Island adults were obese, up from 13% in 1995.⁴

SHAPE-UP RHODE ISLAND: A STATE-WIDE OBESITY INITIATIVE

A Healthy People 2010 objective is to reduce the proportion of obese adults to 15%. No state has met this objective. A variety of approaches to the obesity epidemic are being evaluated, including increasing access to healthier foods through farmers' markets and community gardens and increasing access to physical activity by developing parks, trails, and walking clubs.

One approach in Rhode Island is the Shape-Up Rhode Island (SURI) campaign. This state-wide campaign was created in 2005 by Rajiv Kumar and Brad Weinberg, medical students at Brown University. All adults in Rhode Island are invited to participate in this team-based 12 to 16-week program designed to increase physical activity and help individuals lose weight. The program has grown from approximately 2,000 in 2006, to 7,000 in 2007 and 12,000 in 2008.

Among the almost 5000 participants who enrolled in the SURI 2007 weight loss campaign, 70% completed the 12-week program. On average these individuals lost 3.2 kg, with 30% losing 5% or more of their body weight. Whereas 38% were obese at baseline only 31% were obese at follow-up.

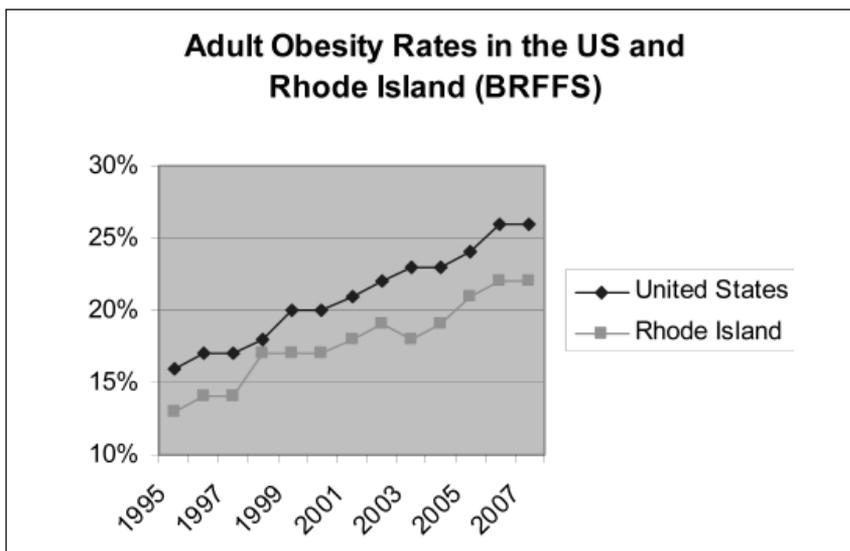


Figure 1.

Table 1. Prevalence of obesity, regular physical activity, and consumption of at least 5 daily servings of fruits and vegetables.

	Obesity (%)	Regular Physical Activity (%)	Consume \geq 5 Fruit & Vegetable Servings Per Day (%)
African Americans	30	17	22
Hispanics	20	16	18
Non-Hispanic Whites	17	23	28

Rhode Island BRFSS 1998-2000.

OVERWEIGHT AND OBESITY AMONG RHODE ISLAND'S ETHNIC MINORITIES

While state-wide programs may be effective at reducing obesity among the general population, programs that target Rhode Island's ethnic minorities are imperative. African Americans (67%) and Hispanics (62%) in Rhode Island have higher rates of overweight or obesity than Non-Hispanic Whites (54%).¹⁴ African Americans and

Hispanics also have greater risk factors for obesity. According to the Behavioral Risk Factor Surveillance Survey, African Americans and Hispanics are less likely to meet the recommended guidelines for physical activity and consumption of fruits and vegetables. (Table 1) Contributing factors such as lower socioeconomic status are also more prevalent among African Americans and Hispanics in the state. Hispanics are more likely to live

below the poverty level and less likely to graduate from high school than African Americans or Non-Hispanic Whites.⁴ In 2006, Hispanics were reported to have a higher prevalence rate of diabetes (12.5%) than African Americans (11.6%) or Non-Hispanic Whites (6.8%).¹⁴

DEVELOPING WEIGHT LOSS PROGRAMS FOR HISPANICS IN RHODE ISLAND

Given that Hispanics are the largest ethnic minority group in Rhode Island¹⁵ and are at high risk for developing type 2 diabetes, weight loss interventions targeting this community are in great need.

Providence County is a well-suited site to implement and evaluate a behavioral weight loss intervention that includes Hispanics. Hispanics in Rhode Island, representing 10% of the population, constitute a diverse group: Dominican (27.4%), Puerto Rican (21.7%), Guatemalan (17.1%), Columbian (9.5%), and Mexican (6.9%).¹⁵ Over 90% of Hispanics in the state reside in Providence County, which includes Providence, Pawtucket, and Central Falls.¹⁵

The Weight Control & Diabetes Research Center administered a questionnaire in Spanish or English at several community organizations in Providence County. The purpose was to assess interest and needs in a weight loss program among Hispanics in Rhode Island.

Data are available from 89 respondents. Most are female (87%) and overweight or obese (73%). More than half of respondents reported being advised by their physician to lose weight within the last year. While only 4% reported being diagnosed with diabetes, nearly ten times as many have family members with the disease.

Only 11% of respondents have participated in commercial weight loss programs. However, 80% indicated an interest in participating in a weight loss program. Respondents indicated a preference for a program delivered in Spanish. Almost half reported a preference for classes taught by a Latino/a. Most respondents did not prefer a program composed of only Latinos or members of the same sex.

We are also conducting a small feasibility study that evaluates whether enhancing social support by partnering 27 Latinas with a female friend or family member promotes recruitment and retention in a 12-

Table 2. Preliminary data of survey assessing interest in a weight loss program among Hispanics in Providence County (N=89).

	Number	Mean ± standard deviation	Percent (%)
Sex			
Female	77		86.5
Male	12		13.5
Age	87	37.1 ± 12.1	
Annual Income			
< \$10,000	25		31.6
\$10,00-19,999	21		26.6
\$20,000-29,999	13		16.5
\$30,000-39,999	11		13.9
\$40,000-49,999	4		5.1
≥\$50,000	5		6.3
Ethnicity			
Dominican	36		41.8
Colombian	19		22.1
Puerto Rican	14		16.3
Guatemalan	6		6.9
Mexican	4		4.6
Other	7		8.3
Doctor advised weight loss within the last 12 months	62		53.2
Foreign born	78		90.7
Years in United States		12.5 ± 8.4	
Diagnosed with type-2 diabetes			
Self	4		4.5
Family member	34		38.2
BMI			
Obese	29		33.7
Overweight	34		39.5
Normal	21		24.4
Underweight	2		2.3
Participated in a commercial weight loss program	10		11.5
Interested in participating in a weight loss program	87		83.9
Weight loss program intervention preference			
Delivered in Spanish	52		65.8
Latino/a instructor	36		46.1
Group composed of only Latino members	18		22.8
Group composed of only same sex members	29		36.7

week behavioral weight loss program. Our eventual goal is to conduct a larger randomized-controlled study which determines weight loss outcomes among Latina participants in a behavioral weight loss program.

CONCLUSION

The prevalence rates of overweight and obesity in Rhode Island have increased exponentially in the past two decades. State-wide initiatives such as Shape-Up Rhode Island show promise at reducing rates of obesity in the general population. However, because Rhode Island's Hispanics and African Americans are disproportionately affected by obesity and associated health ailments, more attention must be paid to reduce rates of obesity among ethnic minorities.

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