



# Overweight, Weight Loss, and Dietary Behavior Health Risks Among Rhode Island Public High School Students 1997 through 2005

The Youth Risk Behavior Survey (YRBS) is an anonymous and voluntary survey among random samples of high school students in over 50 states, territories, and municipalities nationwide. The Centers for Disease Control and Prevention developed the YRBS to monitor risk behaviors for the major causes of mortality, disease, injury, and social problems among youth and adults in the United States. In the spring of 1997, 2001, 2003 and 2005, Rhode Island (RI) administered the YRBS to 1,528, 1,392, 1,814 and 2,362 adolescents, with response rates of 60%, 63%, 66%, and 71% respectively. Weighted findings are representative of 9<sup>th</sup> to 12<sup>th</sup> grade public high school students statewide and can be used to make important inferences concerning health-risk behaviors. The RI Departments of Health, Education, and Mental Health, Retardation, and Hospitals provide funding and other support for the YRBS.

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## KEY FINDINGS

### *Overweight and Weight Loss Behaviors*

Between 2001 and 2005 there was a significant increase in the percentage of Rhode Island high school students who were overweight<sup>1</sup> (no data exist for 1997). In 2005, 13% of students were overweight, and 15% were at risk of being overweight.<sup>2,3</sup> At the same time, 33% described themselves as being slightly or very overweight, a significant increase over 29% in 1997. Although females were considerably more likely than males to describe themselves as overweight, the actual percentage of males who were overweight was nearly twice the percentage for females in 2005. Males were also slightly more likely to be at risk of being overweight than were females in 2005. Over 40% of students were trying to lose weight in each of the four survey periods, with rates among females consistently about twice as high as males. In 2005, the percentage of females trying to lose weight was 59% compared to 32% among males. There was little difference by grade level in the percentage of students trying to lose weight in 2005.

Diet (less food, lower calories, or less fat) and exercise were the two most common means of trying to lose weight or to keep from gaining weight. The percentage of Rhode Island high school students who dieted hovered around 40% between 2001 and 2005. Females were far more likely to diet than males, with rates of 50% and 28%, respectively, in 2005. There was a significant increase in the percentage of males who exercised to lose weight, increasing from 40% in 1997 to 52% in 2005. Exercise among females stayed relatively constant in the 64% to 70% range between 1997 and 2005, which was consistently above the rate for males. Only 5% of students were trying to lose weight by purging (vomiting or taking laxatives) in 2005. This percentage was fairly stable over time despite a significant decrease from 9% in 1997 to 6% in 2005 in the rate of females who used purging. In 2005, 12% of Rhode Island students fasted to lose weight, with females twice as likely to fast than males (16% vs. 8%).

### *Dietary Patterns – Intake of Fruits, Vegetables and Milk*

In the week prior to the 2005 survey, a lesser proportion of Rhode Island high school students consumed carrots (52%), green salad (69%), and potatoes (74%) than consumed other vegetables (82%), fruit juice (84%), and fruit (86%). Overall, only 25% of students had the recommended five or more servings of fruits and vegetables per day. There was little difference by sex or grade in the five a day measure. In 2005, 18% of Rhode Island students drank 3 or more glasses of milk per day, down significantly from the 23% reported in 2001. This trend was due primarily to a substantial decline among males. Despite this decline, males were still far more likely than females to consume milk, with rates of 24% and 13%, respectively, in 2005.

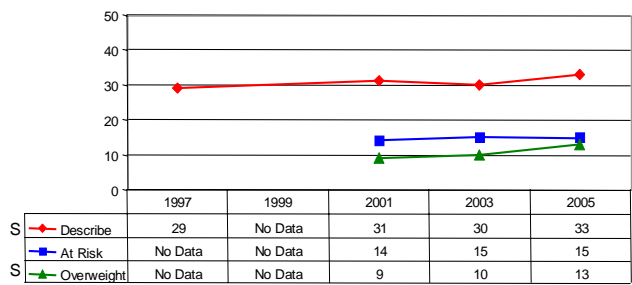
- <sup>1</sup> Students at greater than or equal to the 95<sup>th</sup> percentile for Body Mass Index (BMI), by age and sex, were considered overweight based on reference data from the National Health and Nutrition Examination Survey.
- <sup>2</sup> Students at greater than or equal to the 85<sup>th</sup> percentile for BMI but less than the 95<sup>th</sup> percentile, by age and sex, were considered at risk of being overweight based on reference data from the National Health and Nutrition Examination Survey.
- <sup>3</sup> Students self-reported the height and weight values used in the calculation of BMI. Studies have shown that self-reported height and weight may tend to underestimate the actual proportion of students who are overweight or at risk of being overweight.

# Overweight, Weight Loss, and Dietary Behavior

## Risk Behavior: Overweight and Weight Loss Behaviors

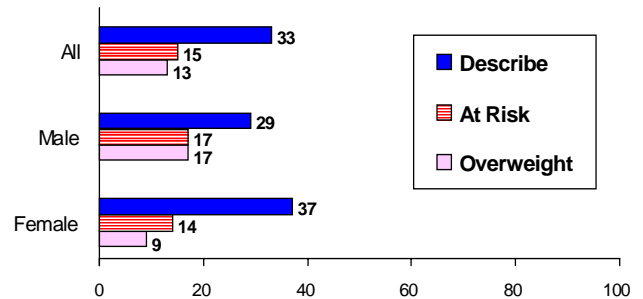
**Rationale:** Overweight and obesity are increasing in both genders and among all population groups. In 2001-2002, 66% of adults were either overweight or obese and 16% of adolescents aged 12-19 years were overweight in the United States. In 2001-2002, there were more than twice as many overweight children and more than three times as many overweight adolescents as there were in 1980. Approximately 112,000 deaths a year nationwide are currently associated with overweight and obesity. If left unabated, overweight and obesity may soon overtake tobacco as the leading cause of death. Overweight or obesity acquired during childhood or adolescence may persist into adulthood. In adolescence, obesity is associated with hyperlipidemia, hypertension, abnormal glucose tolerance, and adverse psychological and social consequences. Studies have shown high rates of body dissatisfaction and dieting among adolescent females, with many engaging in unhealthy weight control behaviors such as fasting and self-induced vomiting which can lead to abnormal physical and psychological development. It is estimated that as many as 7% to 8% of females in the United States suffer from anorexia nervosa and/or bulimia nervosa during their lifetime.

**Percentage of RI high school students who described themselves as overweight or who were at risk of being overweight or who were currently overweight\* - YRBS**



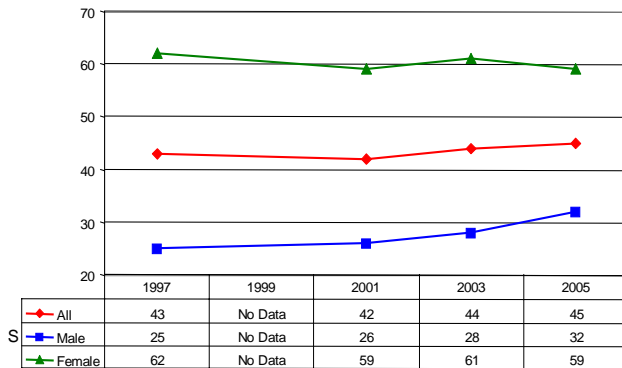
\* Students who were  $\geq 95^{\text{th}}$  percentile for body mass index, by age and sex, based on reference data were considered overweight while students who were  $\geq 85^{\text{th}}$  percentile but  $< 95^{\text{th}}$  percentile, were considered at risk of being overweight.

**Percentage of RI high school students who described themselves as overweight or who were at risk of being overweight or who were currently overweight\* - 2005 YRBS**

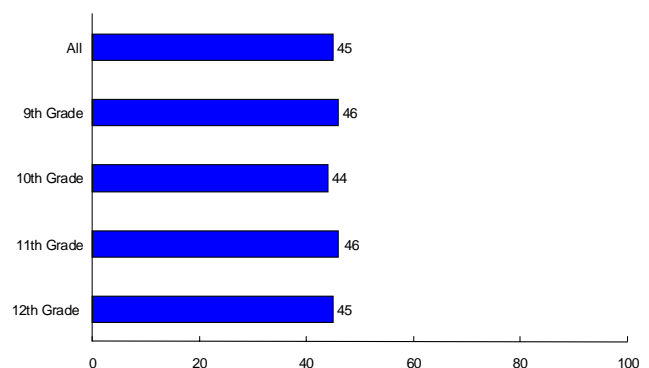


\* Students who were  $\geq 95^{\text{th}}$  percentile for body mass index, by age and sex based on reference data were considered overweight while students who were  $\geq 85^{\text{th}}$  percentile but  $< 95^{\text{th}}$  percentile, were considered at risk of being overweight.

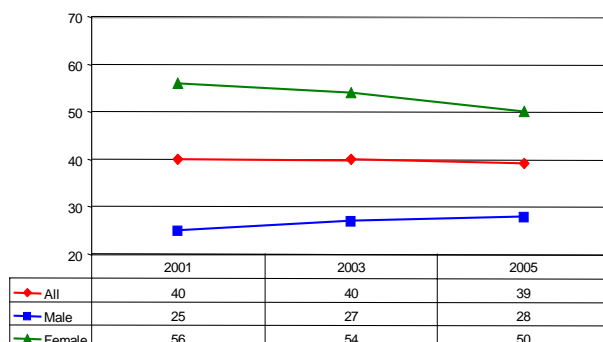
**Percentage of RI high school students who were trying to lose weight - YRBS**



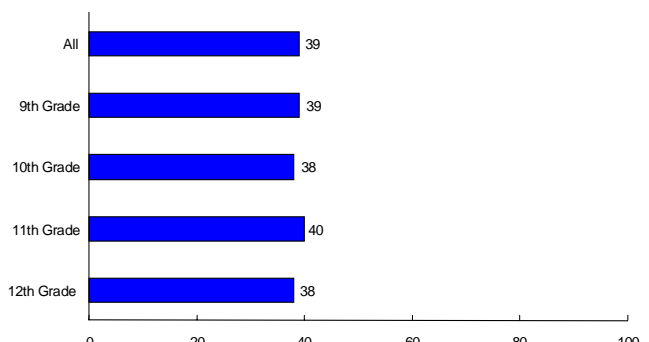
**Percentage of RI high school students who were trying to lose weight - 2005 YRBS**



**Percentage of RI high school students who ate less food, fewer calories, or foods low in fat to lose weight or to keep from gaining weight during the past 30 days - YRBS**



**Percentage of RI high school students who ate less food, fewer calories, or foods low in fat to lose weight or to keep from gaining weight during the past 30 days - 2005 YRBS**



Note: An "S" next to the line graph legend box denotes a statistically significant linear change.

Source: 1997 Rhode Island Youth Risk Behavior Survey (n=1528)

2003 Rhode Island Youth Risk Behavior Survey (n=1814)

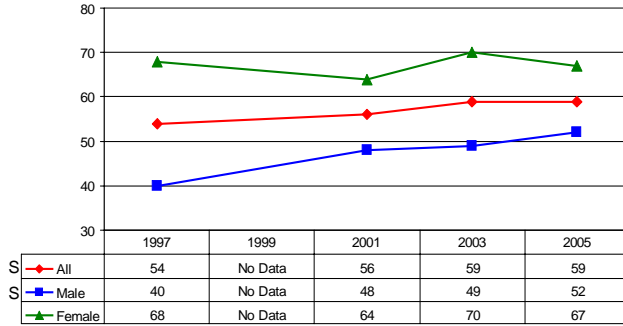
2001 Rhode Island Youth Risk Behavior Survey (n=1392)

2005 Rhode Island Youth Risk Behavior Survey (n=2362)

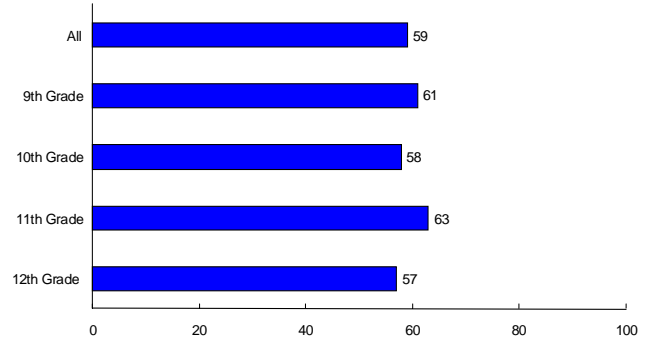
# Overweight, Weight Loss, and Dietary Behavior

## Risk Behavior: Overweight and Weight Loss Behaviors (Continued)

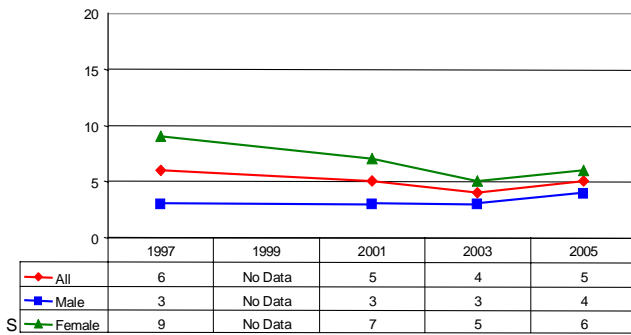
Percentage of RI high school students who exercised to lose weight or to keep from gaining weight during the past 30 days - YRBS



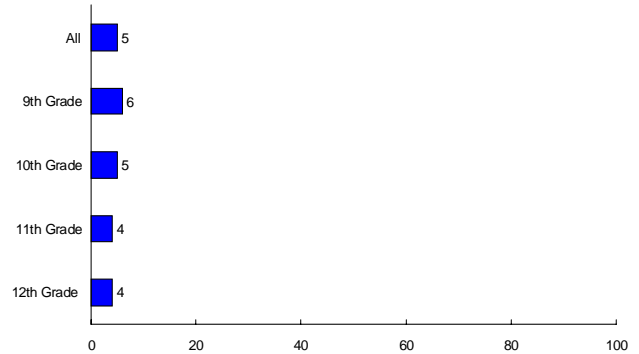
Percentage of RI high school students who exercised to lose weight or to keep from gaining weight during the past 30 days - 2005 YRBS



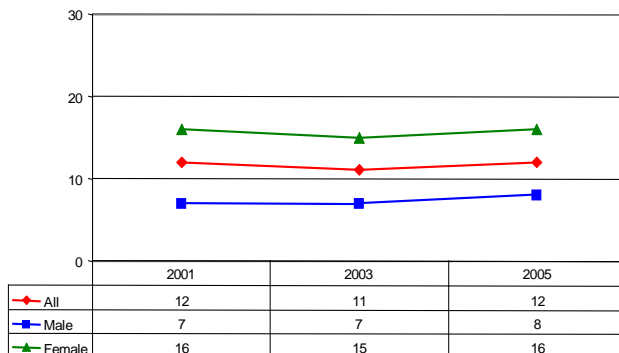
Percentage of RI high school students who vomited or took laxatives to lose weight or to keep from gaining weight during the past 30 days - YRBS



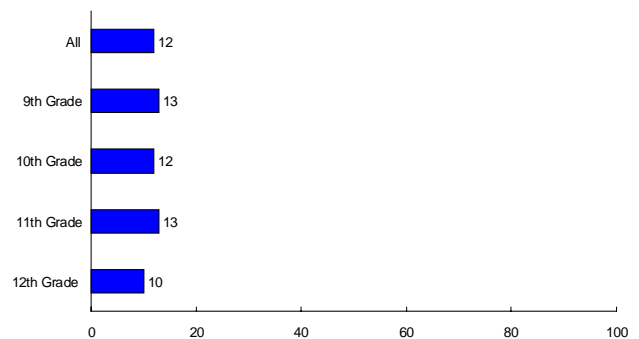
Percentage of RI high school students who vomited or took laxatives to lose weight or to keep from gaining weight during the past 30 days - 2005 YRBS



Percentage of RI high school students who went without eating for 24 hours or more to lose weight or to keep from gaining weight during the past 30 days - YRBS



Percentage of RI high school students who went without eating for 24 hours or more to lose weight or to keep from gaining weight during the past 30 days - 2005 YRBS

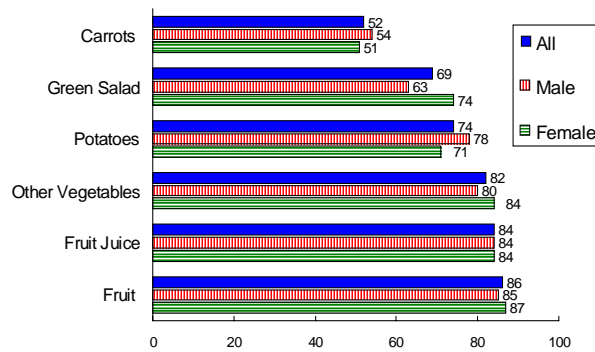


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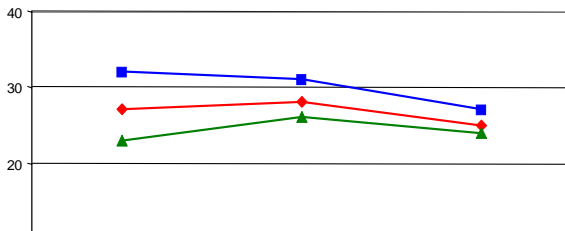
## Risk Behavior: Dietary Patterns - Intake of Fruits, Vegetables and Milk

**Rationale:** Fruits and vegetables are good sources of complex carbohydrates, vitamins, minerals, and other substances that are important for good health. There is probable evidence to suggest that dietary patterns with higher intakes of fruits and vegetables are associated with a decreased risk for some types of cancer. Although data are limited, an increased intake of fruits and vegetables appears to be associated with a decreased risk of overweight. Milk is by far the largest single source of calcium for high school students. In the United States, only 55% of females aged 14-18 years old consumed the recommended daily amount of calcium (1300 mg/day) with the average intake of calcium for girls in this age group being 713 mg/day. Calcium is essential for forming and maintaining healthy bones and teeth. Low calcium intake during the first two to three decades of life is an important risk factor for developing osteoporosis.

Percentage of RI high school students who ate or drank the following at least once during the past seven days - 2005 YRBS

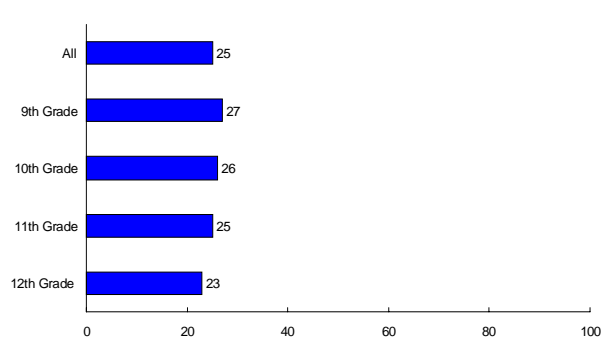


Percentage of RI high school students who ate five or more servings of fruits and vegetables per day during the past seven days - YRBS

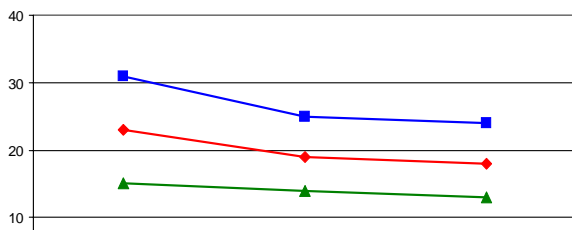


	2001	2003	2005
All	27	28	25
Male	32	31	27
Female	23	26	24

Percentage of RI high school students who ate five or more servings of fruits and vegetables per day during the past seven days - 2005 YRBS



Percentage of RI high school students who drank three or more glasses of milk per day during the past seven days - YRBS



	2001	2003	2005
All	23	19	18
Male	31	25	24
Female	15	14	13

Percentage of RI high school students who drank three or more glasses of milk per day during the past seven days - 2005 YRBS

