

## DIETARY AND EXERCISE PATTERNS

Establishing healthy eating and physical exercise habits at an early age is important. Both dietary and exercise patterns formed during childhood can carry into adulthood producing life-long health benefits.<sup>1</sup>

Importance of Healthy Dietary Practices. High fat diets are associated with increased risk of obesity, heart disease, diabetes mellitus, some types of cancer, and other health problems.<sup>2</sup> Furthermore, people often consume high fat foods while failing to eat foods high in complex carbohydrates and dietary fiber, both of which contribute to good health.<sup>3</sup> High calorie intake, in combination with lack of physical activity, is thought to account for increases in obesity among adolescents. It is estimated that adolescents in the U.S. get an average of 38% of their calories from fat, more than is recommended by health experts.

Individuals who are overweight in adolescence are at greater risk of being overweight as adults. One in five (21%) adolescents in the U.S. are overweight, and the prevalence has increased over the past decade.<sup>4</sup> To reverse this trend, young people need to increase the nutritive value of the foods they eat, reduce their fat intake, increase their fruit and vegetable intake, and engage in more physical activity.

Society's emphasis on being thin contributes to the prevalence of eating disorders, such as anorexia nervosa (a disease in which people severely limit their food intake), and bulimia (a disease which involves excessive overeating followed by episodes of "purging" through vomiting, use of laxatives, or compulsive exercising).<sup>5</sup> Although eating disorders are most common in young females, an estimated 5 to 10% of eating disorders occur in males. About one in ten cases of eating disorders lead to death from starvation, cardiac arrest, or suicide.<sup>6</sup>

Importance of Regular Physical Activity. Regular physical activity increases life expectancy and reduces the risk of many health problems including heart disease, high blood pressure, cancer, osteoporosis, diabetes mellitus and mental health problems (such as depression and anxiety). Vigorous physical activity is associated with a wide range of positive health outcomes for children and youth

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<sup>1</sup> U.S. Department of Health and Human Services, Public Health Service. Chronic Diseases and Health Promotion. Reprints from the Mortality and Morbidity Weekly Report: 1990-1991 Youth Risk Behavior Surveillance System. Note: "Vigorous exercise" is defined as activities that cause sweating and hard breathing for at least 20 minutes.

<sup>2</sup> Public Health Service. (1988). The Surgeon General's Report on Nutrition and Health, 1988. Washington, DC: U.S. Department of Health and Human Services, Public Health Service Pub. No. (PHS) 88-50210.

<sup>3</sup> Public Health Service. (1988). The Surgeon General's Report on Nutrition and Health, 1988, Washington, D.C.: U.S. Department of Health and Human Services Pub. No. (PHS) 88-50210. Washington, DC: U.S. Department of Health and Human Services.

<sup>4</sup> Center for Disease Control and Prevention. (1994). "Prevalence of Overweight Among Adolescents - United States, 1988-91." Morbidity and Mortality Weekly Report, 43 (44). Note: Healthy People 2000 objective 1.2 refers to reducing overweight to no more than 15% among adolescents ages 12 to 19. (U.S. baseline in 1976-80 was 15% for adolescents ages 12 to 19.) Data on overweight prevalence among San Francisco youth is not available.

<sup>5</sup> National Institute of Mental Health. (1993). Eating Disorders. U.S. Department of Health and Human Services, NIH Pub. No. 93-3477. Note: In the U.S., approximately 1% of adolescent females develop anorexia nervosa, and an additional 2 to 3% of adolescent females develop bulimia.

<sup>6</sup> Stein, RF. (1987). "Comparison of Self- Concept of Nonobese and Obese University Junior Female Nursing Students." Adolescence, 22: 77-90.

including reduced rates of obesity and hypertension, increased self-esteem, and decreased rates of teen pregnancy.<sup>7</sup>

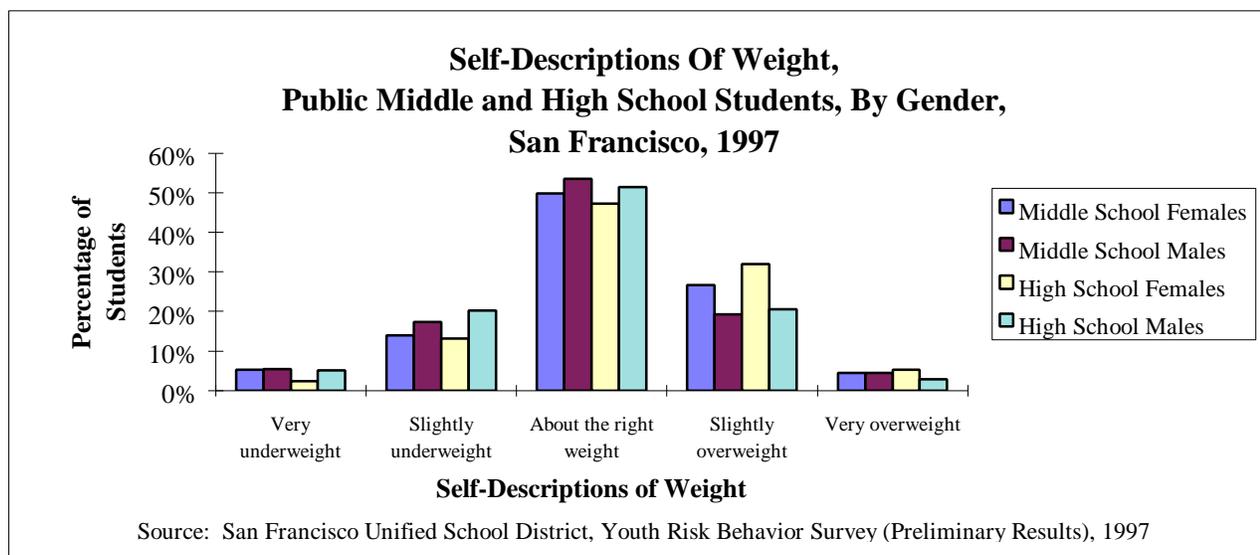
Physical education programs at school have been found to have a positive effect on the health of young people.<sup>8</sup> Despite the growing evidence of the benefits of regular physical activity, our society is becoming more sedentary, and an important public health challenge is for people of all ages to adopt more physically active lifestyles and behaviors.

### Data Source

Data for this section was obtained from the 1997 San Francisco Youth Risk Behavior Survey (YRBS) conducted by the San Francisco Unified School District. The San Francisco YRBS asked students in San Francisco public middle and high schools to report self-perceptions of their body weight, efforts to change/maintain body weight, food choices, exercise patterns, and behaviors that may indicate eating disorders or other health problems.

### Self-Perceptions of Weight

When asked how they perceived themselves in terms of weight, only about half of middle and high school students consider their weight to be “about right” (52% and 49%). Twenty-seven percent of middle and 30% of high school students said they were slightly or very overweight and 21% of middle school and 20% of high school students said they were slightly or very underweight. Females were more likely than males to consider themselves overweight than males, in both middle (31% vs. 24%) and high school (37% vs. 24%). (Refer to detailed data in the Appendix.) Perceptions of weight have remained relatively stable since 1991.

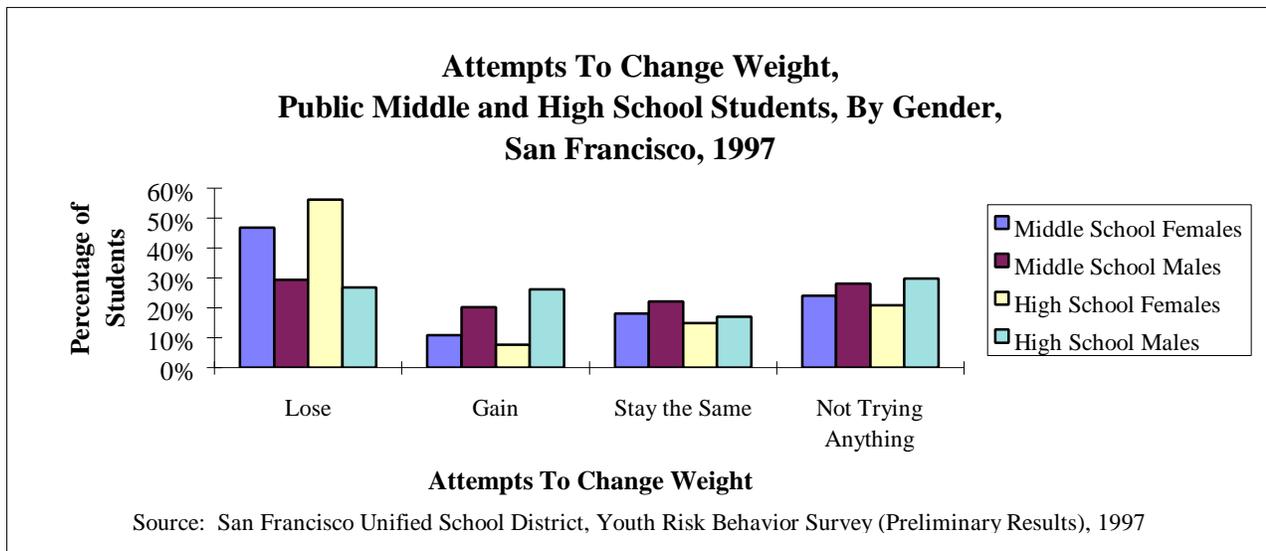


About three-fourths of middle and high school students (74% and 75%) had attempted to change their weight, either lose weight, gain weight, or stay the same weight. The remainder of students had not tried to do anything about their weight. About four out of ten middle school (38%) and high school

<sup>7</sup> The President’s Council on Physical Fitness and Sports, *Physical Activity and Sport in the Lives of Girls*, Washington, D.C.

<sup>8</sup> U.S. Department of Health and Human Services. (1985). “National Children and Youth Fitness Study, I and II.” *Journal of Physical Education, Recreation, and Dance*, 56: 44-90 and 58: 50-96.

(41%) students reported that they were trying to lose weight.<sup>9</sup> Again, significantly more females than males reported attempting to lose weight, in both middle (47% vs. 29%) and high school (56% vs. 27%). (Refer to detailed data in the Appendix.) The proportion of students trying to lose weight have increased slightly since 1995, when it was 35% of middle school and 39% of high school students.

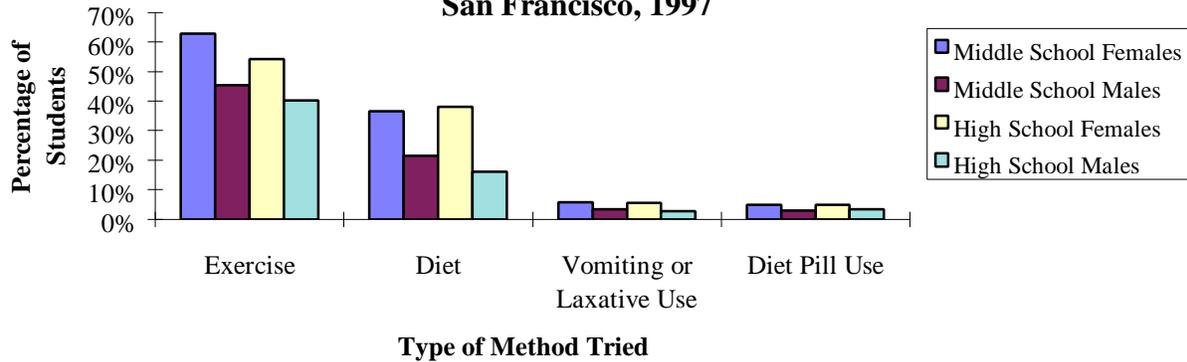


About half of students reported exercising (54% of middle school and 47% of high school) as a way to lose or keep from gaining weight. Many students reported that they dieted (29% of middle and 27% of high school).<sup>10</sup> A small percentage of students reported using unsafe weight control techniques, such as vomiting or taking laxatives (5% in middle and 4% in high school), and taking diet pills (4% in both middle and high school) in order to lose or keep from gaining weight. Use of unsafe methods was more common among females than males, in both middle and high school. (Refer to detailed data in the Appendix.)

<sup>9</sup> Middle school students were asked what they had ever tried to lose weight (lifetime); high school students were asked whether they had tried to lose weight within the past 30 days (current).

<sup>10</sup> Middle school students were asked what they had ever done to change their weight (lifetime); high school students were asked what they had done within the past 30 days to change their weight (current).

**Methods Tried To Lose or Keep From Gaining Weight,  
Public Middle and High School Students, By Grade Level and Gender,  
San Francisco, 1997**



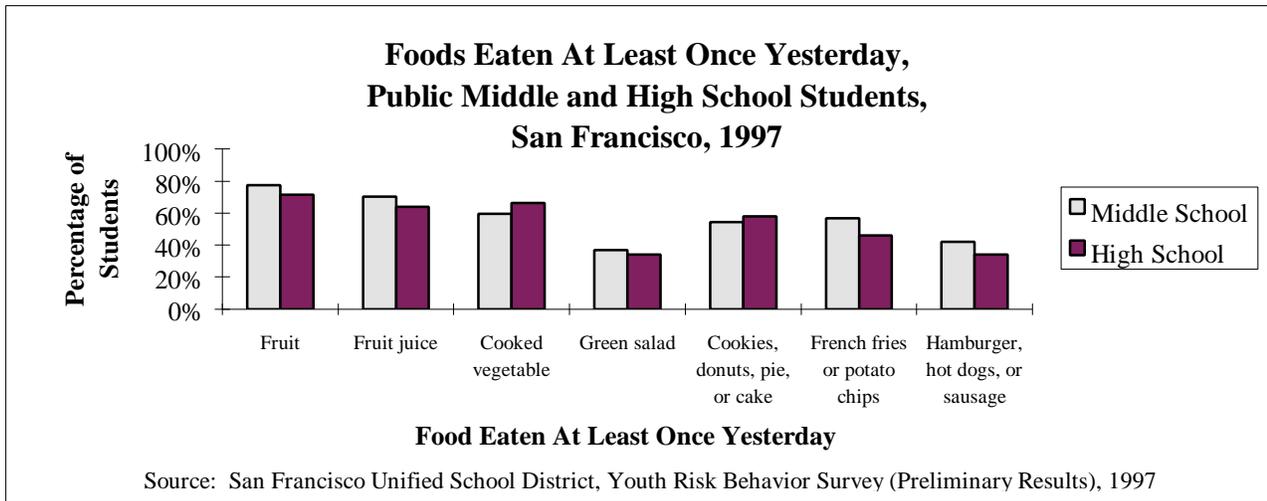
Source: San Francisco Unified School District, Youth Risk Behavior Survey (Preliminary Results), 1997

**Dietary Patterns**

The 1997 YRBS asked students about their food intake on the day before completing the survey. About three-fourths of middle (77%) and high school (71%) students said that they ate fruit, and most (70% of middle; 64% of high school) drank fruit juice at least once on the day before the survey. Most middle and high school students ate cooked vegetables at least once (60% of middle and 66% of high school) while only one-third ate green salad at least once the day before the survey (37%; 34%).<sup>11</sup>

Both middle and high school students reported they they had, on the day before the survey, consumed foods typically high in fat content including hamburgers, hot dogs, or sausage (42% of middle and 34% of high school), french fries or potato chips (57% and 46%), and cookies, doughnuts, pie, or cake (54% and 58%).

<sup>11</sup> Healthy People 2000 objective 2.6 refers to increase complex carbohydrate and fiber-containing foods in the diets of people ages 2 and older to an average of 5 or more daily servings for vegetables and fruits, and to an average of 6 or more daily servings for grain products.



### Exercise Patterns

A majority of students reported that they had engaged in aerobic exercise three or more days in the previous week, although the percentage is much higher for middle school students (74%) compared to high school students (52%). This indicates that middle school students have nearly reached the Healthy People 2000 objective 1.4 that at least 75% of children and adolescents ages 6 to 17 engage in vigorous physical activity at least 3 days per week.<sup>12</sup> The percentage of students engaging in aerobic exercise for three or more days in the week has been relatively stable since 1991 for middle school students and has dropped since 1993 for high school students (62%).

About half of both middle school (50%) and high school students (46%) said they did strengthening exercises three or more days in the previous week, or slightly higher than in 1995 (46% and 41%, respectively). This indicates that San Francisco adolescents have achieved the Healthy People 2000 objective 1.6 that 40% of people ages 6 and older regularly perform physical activities that enhance and maintain muscular strength, muscular endurance, and flexibility.

Nearly all (96%) of middle school students reported usually going to physical education class at least one day a week, and 87% usually go for five days a week. However, the level of attendance at physical education classes at the high school level is significantly lower, with only 38% attending physical education class five days a week, and 48% not attending at all. San Francisco's middle school adolescents have achieved the Healthy People 2000 objective 1.8 that at least 50% of children and adolescents in the 1st through 12th grade participate in daily school physical education. However, high school adolescents have fallen short of reaching the objective.

<sup>12</sup> Data on exercise levels of San Francisco children younger than the middle school level is not available.