

HEALTH BEHAVIORS: NUTRITION AND EXERCISE

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Definition(s)

Body Mass Index (BMI) is equal to weight in kilograms divided by the square of height in meters (w/h^2). For people aged 20 and older, a BMI of 27.3 or more for women and 27.8 or more for men is considered to be overweight.¹

Size

San Diego County

Adults

The percentage of people locally with a Body Mass Index of 27 or greater (25.9%) is less than the state percentage (30.2%).² **(Table 1)**

In 1997, 67.4% of adults surveyed exercised three out of the last seven days. This is a slight decrease from 1993 when 68.6% exercised.³ **(Table 2)**

Adolescents

According to the 1997 Youth Risk Behavior Survey of San Diego City Schools high school students:⁴

- ◀ 28% thought they were overweight.
- ◀ 41% were attempting weight loss at the time of the survey.
- ◀ 5% had taken laxatives or vomited and 6% had taken diet pills to lose weight or to keep from gaining weight during the 30 days preceding the survey.
- ◀ Only 65% reported attending physical education class daily and only 57% reported participating in vigorous physical activity for at least 20 minutes on 3 or more of the seven days preceding the survey. **(Fig. 1)**
- ◀ Whites were above the overall average percentage of students that exercised in three out of the last seven days, and ethnic minorities were below the average percentage. **(Fig. 2)**
- ◀ 76% of students aged 15 or younger exercised in three out of the last seven days. By age 18 it dropped to 50%. **(Fig. 3)**

National

35% of adults, 12% of adolescents ages 12-17, 14% of children ages 6-11, and 8% of pre-school children are overweight.⁵

Nearly one-half of all youth between the ages of 12 – 21 are physically inactive.³

Less than 10% of the US adult population reports regular, vigorous physical activity that involves large muscle groups in dynamic movement for 20 minutes or longer, 3 or more days per week. One in four adults do not participate in any regular physical activity.¹

More than 90% of people with eating disorders are adolescent and young adult women.⁶

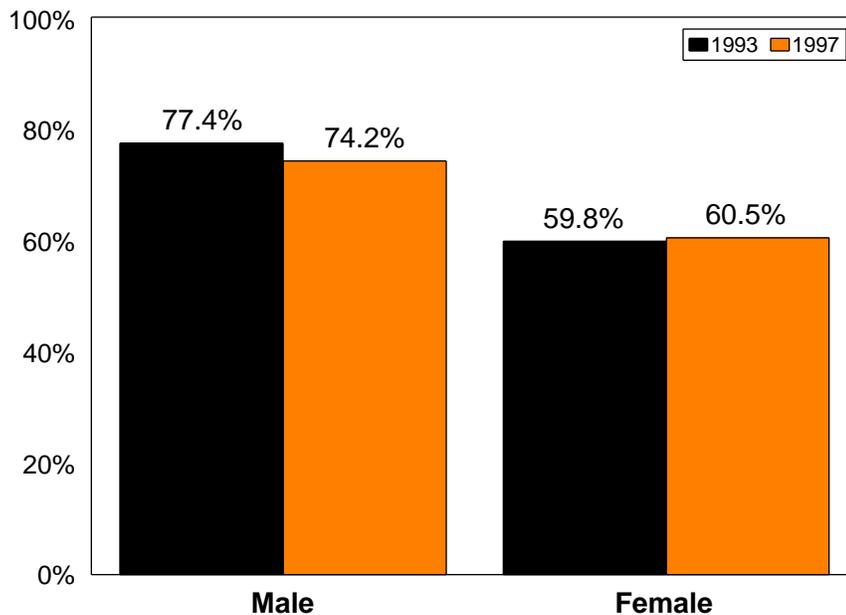
Table 1
Percentage of Adults with a Body Mass Index of 27 or Greater* by Gender, San Diego County 1996²

Overall	Male	Female	California 1996	National	HP 2000 Objective
25.9%	34.2%	20.2%	30.2%	Not Available	20%

Table 2
Percentage of Surveyed Adults who Exercised 3 out of the Last 7 Days³

San Diego County 1997	Current Trends 1993-97	California 1995	National 1995	HP2000 Objective
67.4%	Decreased 68.6%-67.4%	Not Available	63.7%	75%

Figure 1
Percentage of Surveyed High School Students who Exercised 3 out of the Last 7 Days by Gender, San Diego City Schools, 1993 and 1997⁴



* For people aged 20 and older, a BMI of 27.3 or more for women and 27.8 or more for men is considered to be overweight.¹

Approximately 1 percent of adolescent girls develop *anorexia nervosa*, a dangerous condition in which they can literally starve themselves to death. Another 2 to 3 percent of young women develop *bulimia nervosa*, a destructive pattern of excessive overeating followed by vomiting or other “purging” behaviors to control their weight.⁶

Seriousness

Healthy People 2000 Objective: The San Diego County percentage of adults who said they participated in a physical activity during the past month (80.4%)² is less than the Healthy People 2000 Objective (85%). **(Table 3)**

Eating Disorders: One in ten cases of anorexia nervosa leads to death from starvation, cardiac arrest, other medical complications, or suicide.⁶

Physical activity:⁷

- ◀ Coronary heart disease (CHD), the predominant risk associated with a sedentary lifestyle, is the leading cause of mortality in the US.
- ◀ An estimated 35% of people with an excess risk of CHD could have that risk eliminated by becoming more physically active.
- ◀ Physical activity and fitness reduce morbidity and mortality for at least six chronic conditions: coronary heart disease, hypertension, obesity, diabetes, osteoporosis, and mental health disorders.

Nutrition:⁷

- ◀ Diseases associated with dietary excess and imbalance rank among the leading causes of illness and death in the US.
- ◀ Major diseases in which diet plays a role include coronary heart disease, some types of cancer, stroke, hypertension, obesity, and non-insulin-dependent diabetes mellitus.
- ◀ Nutritional factors have also been linked to osteoporosis, constipation, intestinal diverticular disease, iron deficiency anemia and oral cavity disease.
- ◀ Studies have shown that low birth weight and neonatal mortality are more common in pregnant women with very poor nutritional status and in those who fail to gain adequate weight during pregnancy.

Dietary factors are associated with four of the ten leading causes of death including coronary heart disease, some types of cancer, stroke, and diabetes. These health conditions are estimated to cost over \$200 billion each year in medical costs and lost productivity. Dietary factors are also associated with osteoporosis, which affects more than 25 million people in the US and is the major underlying cause of bone fractures in postmenopausal women and the elderly.¹

Community Concerns

Focus Group Discussion:

- ◀ Participants in the **African American** group raised concerns about obesity for African American women. The group felt that community education efforts need to be brought into the neighborhoods.
- ◀ The **Asian/PI** group reported that many in the Asian community who immigrated to the US had healthy lifestyles in their native countries. After they arrived in the US they began to adopt new habits, such as eating fast food, and driving rather than walking for transportation. They attribute the increasing rates of disease directly to poor diet and lack of exercise.

Table 3
Percentage of San Diego Adults Surveyed who Said they Participated in a Physical Activity or Exercise in the Past Month (n=378)²

San Diego County 1996	Current Trends 1993-97	California 1996	National	HP2000 Objective
80.4%	Not Available	78.1%	Not Available	85%

Figure 2
Percentage of High School Students Surveyed who Exercised 3 out of the Last 7 Days by Race/Ethnicity, San Diego City Schools, 1993 and 1997⁴

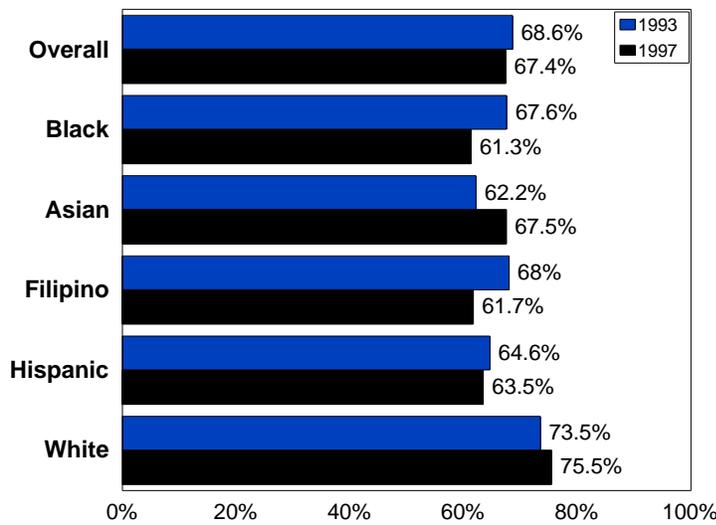
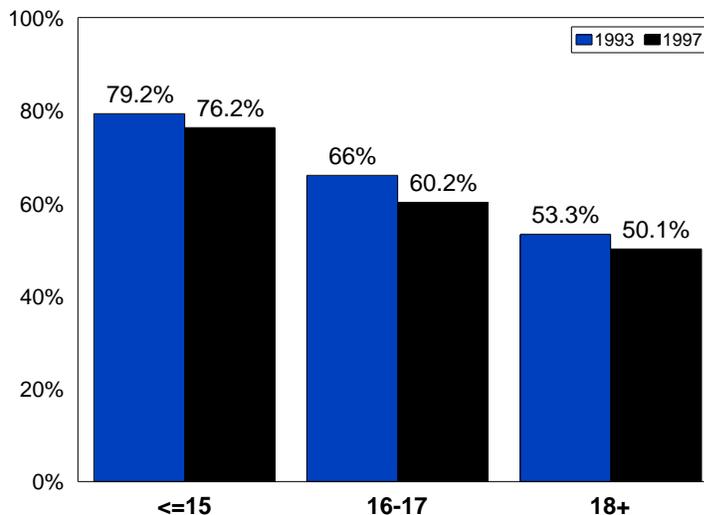


Figure 3
Percentage of High School Students Surveyed who Exercised 3 out of the Last 7 Days by Age, San Diego City Schools, 1993 and 1997⁴



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Risk Factors

Risk factors that lead to eating disorders include:⁶

- ◀ Personality disorders including low self-esteem, feelings of helplessness, and a fear of becoming fat.
- ◀ Genetics
- ◀ Environment including having family members that are very concerned about weight and appearance, participating in professions and/or activities that emphasize thinness such as modeling, dancing, gymnastics, wrestling, and long-distance running
- ◀ Biochemistry

Eating disorders have been linked to mental health problems such as depression and obsessive-compulsive disorder.⁶

High Risk Populations

Age(s): N/A

Gender: More San Diego County males (34.2%) have a BMI of 27 or greater than females (25.9%).

Race/Ethnicity: Black women, Hispanics, Samoans, and the poor.²

Eating disorders:⁶

- ◀ Adolescent and young adult women; people who go on frequent or strict diets

Body weight perception:⁴

- ◀ Female students in San Diego (35%) were significantly more likely than male students (22%) to describe themselves as being overweight.
- ◀ Female students (55%) were significantly more likely than male students (27%) to report attempting weight loss at the time of the survey.
- ◀ Female students were significantly more likely than male students to report taking laxatives, vomiting, or taking diet pills to lose weight or to keep from gaining weight during the 30 days preceding the survey.

Physical activity:

- ◀ Men are more likely to be physically active than women; 18 through 29 year olds are more likely to be active than other age groups; and physical activity is positively associated with increasing education and income levels.¹
- ◀ Male students in San Diego (74%) were significantly more likely than female students (60%) to report vigorous physical activity for at least 20 minutes on 3 or more of the seven days preceding the survey.⁴

Prevention

Physical activity:

- ◀ The American College of Sports Medicine and the Centers for Disease Control and Prevention recommend that every adult accumulate 30 minutes or more of moderate-intensity physical activity on most, preferably all, days of the week.⁷
- ◀ The American Heart Association and the American Academy of Family Physicians (AAFP) recommend that physicians counsel patients in selecting an exercise program and promote regular exercise. The American Academy of Pediatrics recommends teaching the importance of regular, moderate to vigorous physical activity as a way to prevent illness in adult life, and encouraging parents to serve as role models by participating in regular physical activity.⁷
- ◀ Recent findings suggest that the quantity and quality of school physical education programs have a significant positive effect on the health-related fitness of children and youth by increasing their participation in moderate to vigorous activities.¹

Nutrition:

The Dietary Guidelines for Americans recommend:¹

- ◀ Eat a variety of foods
- ◀ Maintain or improve one's weight by balancing food intake with physical activity
- ◀ Choose a diet that is plentiful in grain products, vegetables, and fruits, moderate in salt, sodium, and sugars, and low in fat, saturated fat, and cholesterol
- ◀ If consuming alcoholic beverages, do so in moderation

Healthy behaviors for nutrition and physical activity need to start with children and then be maintained throughout adulthood. Family, schools, worksites, institutional food services, and food-related businesses such as supermarkets, fast food outlets, restaurants, and carryout facilities are all important outlets for nutrition information.¹

Prenatal programs providing nutritional support for pregnant women have been associated with improved perinatal outcomes.⁷

Model Programs

5 A Day Power Play Campaign (619/594-2794 or 760/414-4919)

- ◀ The project director contacted at the above phone number describes this as a statewide nutrition program for fourth and fifth graders
- ◀ The focus is on eating five servings of fruits and vegetables every day
- ◀ In San Diego, the campaign is targeting low income families
- ◀ Participants include schools, community youth organizations including YMCAs and Boys and Girls Clubs, farmers' markets, supermarkets, restaurants and fast food outlets, media, and community organizations such as hospitals, parent groups, and churches
- ◀ Activities include classroom curriculum, gardening, field trips, cooking classes, recipe contests, media messages, restaurant tours, and in store ads and coupons

Food on the Run, California Project LEAN (Low Fat Eating for America Now)⁸
San Diego, California (619/594-3704)

- ◀ Food on the Run is a student driven nutrition campaign at Hoover High School spearheaded by Project LEAN, which is based at the San Diego State University Department of Exercise and Nutritional Sciences.
- ◀ Campaign components include peer counseling, hip hop dance classes, public service announcements, nutrition lessons, and low fat menu offerings
- ◀ Works in conjunction with SWAP (Student Wellness Advocacy Program) which provides peer counseling on a variety of health issues including nutrition, physical activity, teen pregnancy, and drugs
- ◀ Nutrition lessons have been integrated into class curriculum including math, biology, home economics, and English as a second language
- ◀ Cafeteria offers High on Health reduced fat menu options; menu options being adopted at all twenty schools in the San Diego City Schools district
- ◀ Local fast food outlets added low fat options to their menus and promoted low fat items; the nearby Taco Bell began to offer a “Border Lite” menu as a result of this program.
- ◀ The program has been so successful that it is currently being expanded to ten additional California school regions

Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Young People

The following guidelines were recommended by the Centers for Disease Control and Prevention:⁹

1. Establish policies that promote enjoyable, lifelong physical activity among young people.
2. Provide physical and social environments that encourage and enable safe and enjoyable physical activity.
3. Implement physical education curricula and instruction that emphasize enjoyable participation in physical activity and that help students develop the knowledge, attitudes, motor skills, behavioral skills, and confidence needed to adopt and maintain physically active lifestyles.
4. Implement health education curricula and instruction that help students develop the knowledge, attitudes, behavioral skills, and confidence needed to adopt and maintain physically active lifestyles.
5. Provide extracurricular physical activity programs that meet the needs and interests of all students.
6. Include parents and guardians in physical activity instruction and in extracurricular and community physical activity programs, and encourage them to support their children's participation in enjoyable physical activities.
7. Provide training for education, coaching, recreation, health-care, and other school and community personnel that imparts the knowledge and skills needed to effectively promote enjoyable, lifelong physical activity among young people.
8. Assess physical activity patterns among young people, counsel them about physical activity, refer them to appropriate programs, and advocate for physical activity instruction and programs for young people.
9. Provide a range of developmentally appropriate community sports and recreation programs that are attractive to all young people.
10. Regularly evaluate school and community physical activity instruction, programs, and facilities.

Resources

Local

Kaiser Permanente Health Education, (619) 641-4456
Kaiser Permanente Positive Choice, (619) 268-0400
Paradise Valley Hospital, Center for Health Promotion, (619) 470-4346
Scripps Memorial Hospital, Community Health Outreach, (619) 626-6945
Grossmont Hospital, Wellness Center, (619) 644-4250
American Heart Association, (619) 291-7454, www.amhrt.org

National

National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, www.cdc.gov/nccdphp
Center for Nutrition Policy and Promotion, www.usda.gov/fcs/cnpp.htm
US Department of Agriculture, www.usda.gov
Weight Control Information Network, www.niddk.nih.gov/health/win.htm

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