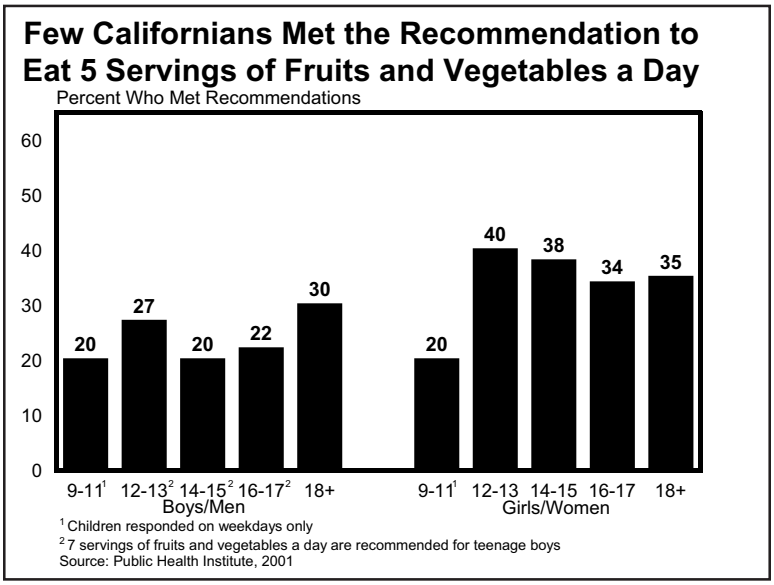
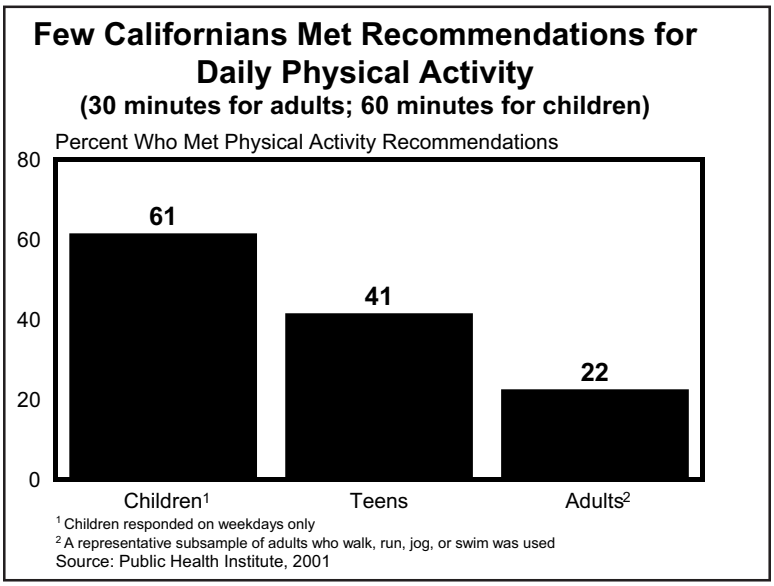
Special Report to the American Cancer Society

Are Californians Meeting ACS Nutrition Guidelines for Cancer Prevention?

Findings from Three Statewide Surveys of Children, Teens, and Adults

Revised August 2002





"*For the American Cancer Society to reach its goal of reducing cancer incidence by 25 percent within the next 14 years, the public must meet our nutrition guidelines before 2010. Overall health will be improved, and risks of other serious chronic illnesses—including diabetes, heart disease and obesity—will be significantly lowered. The goal is achievable, but only if we intensify our efforts now.*"

Maria Reyes Mason, M.D.
President, American Cancer Society, California Division

California Department of Health Services

THE CALIFORNIA ENDOWMENT

American Cancer Society®

Importance of This Report

Poor diet and physical inactivity are the leading preventable cause of cancer[1] and the second actual cause of premature death, following tobacco use.[2] The American Cancer Society's Nutrition Guidelines are designed to help achieve its new national goal for 2015—to reduce the rate of new cancer by one-quarter.

The *ACS* Guidelines on Diet, Nutrition, and Cancer Prevention:

1. ***Choose most of the foods you eat from plant sources.***
   ⇨Eat 5 or more servings of fruits and vegetables each day .
2. ***Limit your intake of high-fat foods, particularly from animal sources.***
   ⇨Choose foods low in fat .
3. ***Be physically active: achieve and maintain a healthy weight.***
   ⇨Be at least moderately active for 30 minutes or more on most days of the week.
   ⇨Stay within your healthy weight range .
4. ***Limit consumption of alcoholic beverages, if you drink at all.***

Adults, teens and children living in California have an abundant fruit and vegetable supply and a mild climate that should make healthy eating and daily exercise easy. For the first time, statewide surveys are able to profile how well cancer prevention guidelines are being achieved by Californians in three life stages, beginning with children at age 9.

The surveys are:

- 1999 *California Children's Healthy Eating and Exercise Practices Survey of 9-11 year olds (CalCHEEPS)*
- 1998 *California Teen Eating, Exercise, and Nutrition Survey* of 12-17 year-olds *(CalTEENS)*
- 1999 *California Dietary Practices Survey* of Adults (*CDPS*)

This Special Report is provided for *Spring into Health!*, the American Cancer Society's annual Cancer Awareness Month campaign. It highlights the most recent findings in six areas of nutrition and cancer prevention.

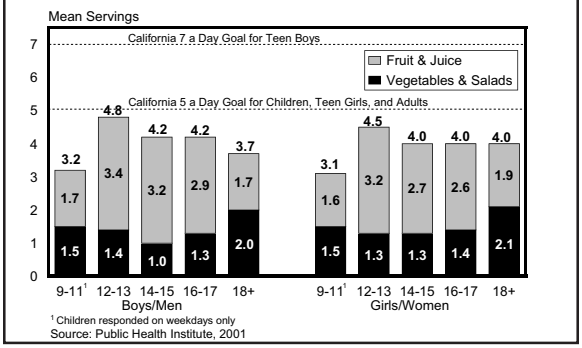
These areas are:

- Fruit and vegetable consumption
- Fast food
- Belief about the need for eating 5 fruits and vegetables a day
- Gardening to grow fruits and vegetables
- Physical activity
- Healthy weight

Fruit and Vegetable Consumption

Children, adults, and teen girls need at least 5 servings of fruits and vegetables each day for good health, while 7 servings are recommended for teenage boys.[3] The California surveys found that, at all ages, a minority of Californians reported eating enough total servings of fruits and vegetables to reduce

Californians Fell Short of Fruit and Vegetable Goals, Particularly for Vegetables



[1] Children responded on weekdays only
Source: Public Health Institute, 2001

cancer risk. Research consistently associates eating vegetables with lower cancer risk,[4] and health authorities advise that vegetables make up 3-5 servings of the 5-9 total servings of fruits and vegetables needed each day.[3,5] Surprisingly, Californians reported eating

[1] Colditz GA, DeJong W, Emmons K, Hunter DJ, Mueller N, Sorenson G, eds. (1997). Harvard Report on Cancer Prevention. Vol. 2: Prevention of Human Cancer. Cancer Causes Control 1997; (8 suppl 1); s1-s50.
[2] McGinnis JM and Foege W (1993). Actual causes of death in the United States. JAMA, 270, (18), 2207-2212.

[3] California Department of Health Services (1990). *The California Daily Food Guide: Dietary Guidelines for Californians*. Sacramento, CA.
[4] World Cancer Research/American Institute for Cancer Research (1997). *Food, nutrition and the prevention of cancer: A global perspective*. Washington, DC.

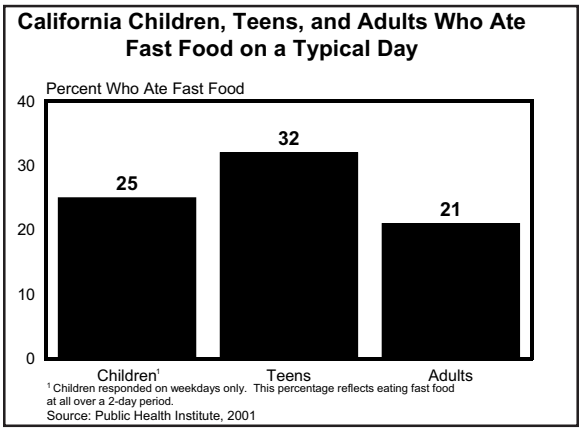
especially low amounts of vegetables. Adults reported about 2 servings, teens about 1.3 servings and children about 1.5 servings.

How does California compare to the rest of the country?

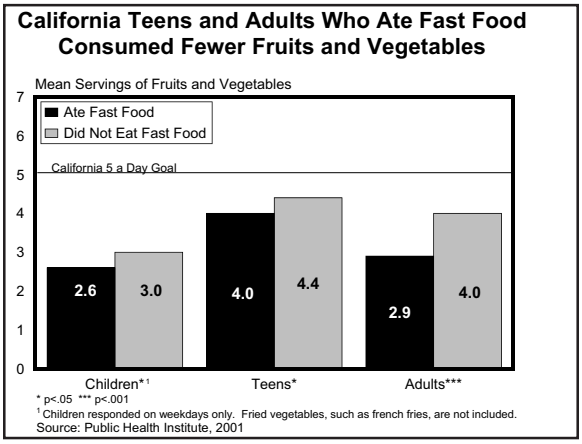
Methods used in national and California surveys are not identical, so precise comparisons are not available. The USDA reports that, on average in 1994-1996, American children ate 2.2 servings of vegetables, teens ate 3.2 servings, and adults ate 3.6 servings each day.[6] In all three age groups, Californians appear to eat fewer servings of vegetables and more servings of fruit, a pattern opposite of that found in national surveys. This finding warrants further investigation.

Fast Food

Foods eaten away from home tend to be higher in total and saturated fat and lower in fiber and calcium than foods eaten at home.[7] This is especially true of foods offered by fast food establishments.

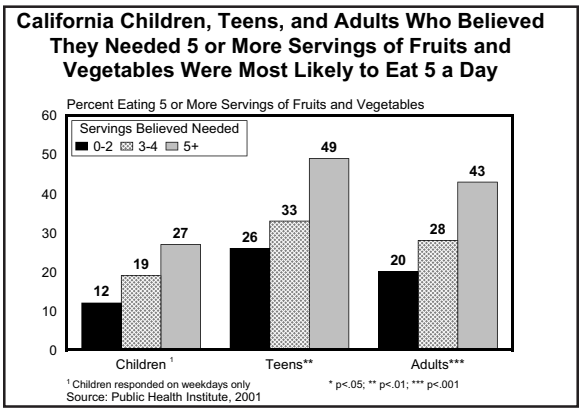


Though fast food is very much a part of life, Californians see fast food as a barrier to eating healthy foods, such as fruits and vegetables. Eighty-nine percent of adults reported that they thought fruits and vegetables were hard to buy in fast food restaurants. Fast food consumption was negatively associated with fruit and vegetable consumption.



This relationship, particularly for adults, was associated with eating fast food, not from eating out in general. Those who dined at other types of restaurants consumed 4.0 servings of fruits and vegetables daily, not significantly different from individuals who did not eat out at all.

Belief About Eating 5 a Day



Approximately one-half of all adults and teens and over one-third of children reported that they thought they should eat at least 5 servings of fruits and vegetables a day for good health.

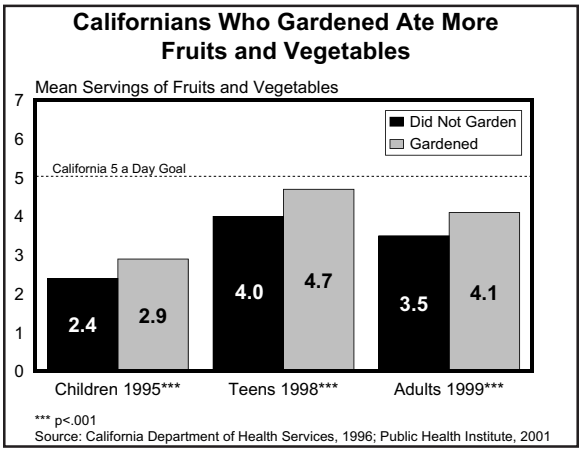
This belief corresponded positively to behavior. California teens and adults believed they should eat 5 servings of fruits and vegetables a day were much more likely to report doing so.

[5] United States Department of Agriculture/United States Department of Health and Human Services (2000). *Nutrition and Your Health: Dietary Guidelines for Americans*. Washington, DC.
[6] United States Department of Agriculture (1998). *Food and Nutrient Intakes by Individuals in the United States, 1994-1996*. Report No. 96-2. Beltsville, MD.
[7] Lin H and Frazo E (1997). Nutritional quality of foods at and away from home. *Food Review, Vol 20*, 33-40.

Gardening

Many people believe that gardening promotes good health. The California Department of Education's *Garden in Every School* initiative, launched in 1995, uses gardening to help track core curricula, develop skills, introduce new foods, and promote healthy eating at over 650 sites across the state. The overall goal is for school, home, and community gardens to increase access to and reduce the costs of fruits and vegetables, and to provide enjoyable physical activity.

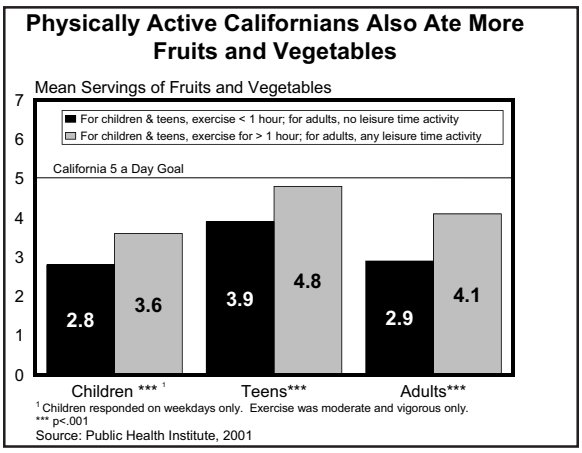
California surveys asked adults and teens whether they had ever gardened to grow food. About half of California teens and adults reported that they had ever gardened. The data for children were available from a 1995 special study with four low-resource school districts and found that almost three-quarters of fourth and fifth graders also had gardened.[8]



All three California studies found strong positive associations between gardening and fruit and vegetable intake. Furthermore, among teens that gardened, half reported getting regular physical activity. Among teens that did not garden, only a third were regularly active. Similarly, a study of low-income urban gardeners found that gardeners ate more vegetables and fewer sugary foods or sweet drinks than did non-gardeners.[9] Urban gardeners also found life more satisfying and reported having more positive activities in their lives.

Physical Activity

Recommended guidelines call for adults to get at least 30 minutes of physical activity on most days of the week and at least 60 minutes for children and teens. The proportion of Californians meeting these recommendations fell sharply with age. From a high of 61 percent of children, rates dropped to only 41 percent of teens and just 22 percent of adults reaching the respective targets.



Physical activity was positively associated with fruit and vegetable consumption in children, teens, and adults. Children and teens who reported getting an hour or more of physical activity on a typical day ate significantly more servings of fruits and vegetables, as did adults who reported having any leisure time activity.

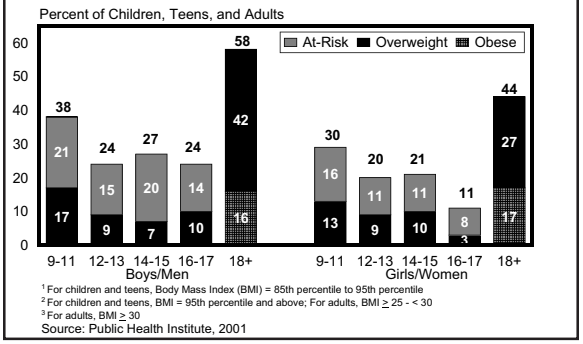
Healthy Weight

Exercising and eating a low-fat diet with plenty of fruits and vegetables are behaviors that help maintain a healthy weight and protect against cancer and other chronic diseases. Dietary intake and exercise findings from the three statewide surveys show consistent patterns that may contribute to overweight. In fact, all three surveys found high rates of unhealthy weight.

[8] California Department of Health Services and Public Health Institute (1996). *The California Children's 5 a Day–Power Play! Campaign evaluation study of activities in the school channel*. Sacramento, CA.

[9] Blair D, Giesecke C, and Sherman S (1991). A dietary, social, and economic evaluation of the Philadelphia Urban Gardening Project. *Journal of Nutrition Education, 23*, 161-167.

California Boys and Men Were More Likely Than Girls and Women to Report Being At-Risk,[1] Overweight,[2] or Obese[3]



[1] For children and teens, Body Mass Index (BMI) = 85th percentile to 95th percentile
[2] For children and teens, BMI = 95th percentile and above; For adults, BMI ≥ 25 - < 30
[3] For adults, BMI ≥ 30
Source: Public Health Institute, 2001

At most ages, higher proportions of boys and men reported unhealthy weights than did girls and women, with the gender difference becoming most noticeable at age 14 years, coinciding with entry into high school. More under-reporting in a socially desired direction by women may account for part of the difference. However, for most people, self-reported weights are lower than measured weights, so the actual rates of at-risk, overweight and obesity in both genders may be higher than reported above.

Conclusions

Californians in three different life stages appear to fall short of meeting the American Cancer Society's Guidelines on Diet, Nutrition, and Cancer Prevention. Specifically:

- Fruit and vegetable consumption is low.
- Eating fast food is frequent and associated with eating fewer fruits and vegetables and, in other research, more total and saturated fat.
- Rates of physical activity are low.
- High proportions of Californians report being at an unhealthy weight.

Conversely, positive associations were found with fruit and vegetable consumption and believing in the need to eat 5 servings of fruits and vegetables each day, being physically active, gardening, and eating fast foods less often.

Increasing public belief in the benefits of these practices and encouraging Californians of all ages to adopt them may help achieve the ACS nutrition guidelines and contribute to the ACS goal to reduce cancer death rates one-quarter by the year 2015.

About the Surveys

The *California Dietary Practices Survey* of Adults

This survey has been conducted every other year since 1989. In 1999 1,492 adults, 18 years and over, were selected by random digit dialing techniques. The response rate was 55 percent. Participants provided a 24-hour fruit and vegetable dietary recall and answered questions addressing out-of-home eating, physical activity, height and weight, and gardening practices, as well as demographic variables. The 1999 survey will be fully reported in the future.

The *California Teen Eating, Exercise, and Nutrition* Survey

This survey was first administered in 1998 and will be conducted every other year. The survey sample of 1,213 adolescents, 12 through 17 years of age, was selected through random-digit-dialing after securing parental permission. The response rate was 85 percent. Participants provided a 24-hour fruit and vegetable dietary recall and answered related questions on out-of-home eating, school, physical activity, height and weight, and gardening. The 1998 survey was reported in 2000. The 2000 survey will be fully reported in 2002.

California Children's Healthy Eating and Exercise Practices Survey

This survey was first administered in 1999 and will be conducted every other year. The 1999 survey sample included 814 children, 9 to 11 years of age, from households participating in a market research panel. Parents were asked to assist their child in keeping a 2-day food and physical activity diary during the school week. A subsample of 394 children then took part in a non-assisted telephone survey on daily exercise, healthy eating, and health beliefs. The response rate for the diary was 41 percent and 51 percent for the telephone survey. The 1999 survey will be fully reported later in 2001.

These surveys are administered by the Public Health Institute with funds from The California Endowment and the United States Department of Agriculture.

California Children's 5 a Day—Power Play! Campaign

The California 5 a Day Plus Physical Activity Campaign is a statewide initiative to encourage Californians to consume 5 or more servings of fruits and vegetables and be physically active every day. These two behavioral objectives are designed to reduce the risk of diet-related chronic diseases, especially cancer, heart disease, diabetes, and obesity.

The *California Children's 5 a Day—Power Play!* Campaign uses a tested, multi-channel, community- based approach to target 9 to 11-year-old children and their families with the 5 A Day and physical activity messages. Each year, it reaches nearly half of California's estimated 400,000 low-income 9 to 11-year old children. Local lead agencies in eleven *Power Play!* regions receive funding to coordinate a community coalition and oversee implementation of the Campaign in six community channels—schools, community youth organizations, farmers' markets, supermarkets, food services and the media. Free *5 a Day—Power Play!* educational and promotional materials are provided to *Campaign* participants working with low-income children. Local efforts also are supported by paid advertising on children's television.

Since 1999, over 650 schools have been involved, and the lead agencies continue to expand the number of regional participants.

The *Campaign* partners with the American Cancer Society, California Department of Education, and California Department of Food and Agriculture. It is funded by The California Endowment and the United States Department of Agriculture.

For more information, visit **www.ca5aday.com**, call **1-888-EAT-FIVE**, or contact Katy Brooks at (916) 445-7030.

Spring Into Health!, American Cancer Society

The American Cancer Society is concerned that 80% of California children ages 9 to 11 do not eat the recommended five servings of fruits and vegetables each day or get enough exercise.

Our Spring Into Health Day! is one way of reaching children at an age when they are developing life-long eating and exercise habits. This special day, scheduled for April 25, 2001, focuses on the *5 a Day—Power Play!* message for 4th and 5th graders by asking them to eat at least 5 servings of fruits and vegetables and to engage in physical activity for at least 30 minutes.

The event will be held in schools throughout the state and features a variety of activities that help raise nutrition and physical activity awareness with our state's children and their caregivers. Although it is a one-day event, the goal is to encourage healthy behavior every day.

For more information, please contact the American Cancer Society at **1-800-ACS-2345** or **www.cancer.org**.