

## **Fruits and Vegetables Found Inadequate in U.S. Diet**

ATLANTA, March 15 -- Adults in the U.S. need a major bolus of fruits and vegetable in their diets if they are to achieve the national objectives set by "Healthy People 2010," according to the CDC.

Only about one third of U.S. adults consume fruits two or more times a day and slightly more than a quarter eat vegetables three or more times a day, found the CDC in a report published in the March 16 issue of the *Morbidity and Mortality Weekly Report*.

U.S. adults have a way to go if they are to achieve the "Healthy People 2010" goals, wrote Heidi M. Blanck, Ph.D., of the CDC, and colleagues.

The goals include increasing to 75% the percentage of persons two years or older who eat at least two daily servings of fruit and to 50% the proportion who eat at least three daily servings of vegetables, with at least a third being dark or orange vegetables.

The data from the 2005 Behavioral Risk Factor Surveillance System, which included 305,504 persons from all 50 states and the District of Columbia, found that by state the percentage of those consuming at least two fruits a day ranged from 19.2% to 37.8%. The percentages for three vegetables a day ranged from 20.9% to 39%.

Major finding were:

In 2005, approximately 32.6% of the U.S. adult population surveyed consumed fruit two or more times a day and 27.2% ate vegetables three or more times a day.

Fruit consumption was 28.7 among women and 36.4% among men.

By age, fruit consumption rates ranged from 27.9% among those 35 to 44 years old to 45.9% among those 65 or older.

Hispanics had the highest prevalence (37.2%), while non-Hispanic whites had the lowest rates (31.2%).

College graduates had the highest rates (37.4%) compared with those having lower levels of education, as did persons who earned \$50,000 a year or more (32.4%), compared with those who earned less.

Persons who were not overweight or obese (BMI < 25) had the highest prevalence of twice daily fruit consumption (36.0%), while obese persons (BMI ≥ 30) had the lowest prevalence (28.1%).

Rates for eating vegetables three or more times a day were 22.1% among men and 32% among women and ranged from 20.9% among persons 18 to 24 years to 33.7% among those age 65 or older.

Other rates for vegetable eaters were:

Among racial/ethnic groups, whites had the highest prevalence (28.6%), and Hispanics had the lowest (20.4%).

College graduates had the highest level (33.3%) compared with lower education levels, as did persons earning at least \$50,000 per year (30.3%) compared with those earning less.

Persons who were not overweight or obese had the highest prevalence (28.9%), and overweight persons had the lowest (26.0%).

The findings in this report are subject to several limitations, the investigators said. These include the fact that estimates of fruit and vegetable consumption in the Behavioral Risk Factor Surveillance System module are lower than other methods of dietary assessment. Second, the Behavioral Risk Factor Surveillance System did not include persons without landline telephones so that the findings might not be representative of the entire U.S. population.

Also the Behavioral Risk Factor Surveillance System response rate was low, which might lead to an over- or underestimation of consumption. BMI data were self-reported, which also might have caused an underestimation of BMI.

Finally, the investigators noted that this analysis reported consumption according to the number of times per day the foods were eaten, whereas the Healthy People 2010 objectives are in terms of the number of servings a day.

In expanding the findings, *MMWR* editors wrote that to meet the 2010 national objectives, a more sustained and effective public health response is needed, including continued surveillance, identification of barrier to eat more fruits and vegetables, and environmental changes, such as increasing the amount of fruits and vegetables in vending machines and promoting healthful food advertising and the availability of healthful foods.

The 2005 U.S. Dietary Guidelines, they wrote, suggest that fruit and vegetable consumption should be related to sex, age, and physical activity. For adults, the recommended levels are three to five servings of fruit and four to eight servings of vegetables a day.

In addition to the National Cancer Institutes' "5 A Day for Better Health" program and various CDC programs, state and local programs have effectively increased fruit and vegetable consumption, the editors said.

These include school-based interventions, programs for preschoolers, and church programs serving the black community. CDC programs also support state initiatives that provide nutritional education and access to fruits and vegetables through community gardens, farmers, markets, and restaurants.

In conclusion, the CDC editorialists wrote that the lack of success in meeting these national goals indicates a need for additional measures to educate and motivate persons to make healthier dietary choices.

Nutritional interventions should go beyond increasing individual awareness, they said, and should "target the family, local community, and overall society to eliminate barriers to healthy eating, provide support for persons who are making healthy changes, increase resources for populations with greater

need, and emphasize nutritional policies that have an impact on society."

Medpage Today

March 15, 2007

<http://www.medpagetoday.com/PrimaryCare/DietNutrition/tb/5263>