



Nutrition and Overweight

U.S. Department of Health & Human Services • Public Health Service

January 21, 2004

PROGRESS REVIEW



In the 17th in a series of assessments of *Healthy People 2010*, Senior Executive Advisor to the Assistant Secretary for Health Larry Fields chaired a focus area Progress Review on Nutrition and Overweight. Dr. Fields noted that achieving and maintaining healthy weights is a principal component of the President's *HealthierUS* initiative and the Department of Health and Human Services (HHS) *Steps to a HealthierUS* initiative. In conducting the review, Dr. Fields was assisted by staff of the Food and Drug Administration (FDA) and the National Institutes of Health (NIH), the co-lead agencies for this *Healthy People 2010* focus area. Also participating were representatives of other HHS offices and agencies, including Surgeon General Richard Carmona. Dr. Carmona recounted some of his experiences in visiting schools in many states to urge determined action to prevent childhood obesity, which can predispose adults to a lifetime of overweight. Besides HHS staff, representatives of the Department of Education (ED) and the Department of Agriculture (USDA) took part in the review as well. ED has a special interest in ensuring that public school students have the opportunity to adopt healthy eating habits and to actively engage in activities to promote physical fitness. USDA partners with HHS in producing the quinquennial editions of the *Dietary Guidelines for Americans*, which serves as the Federal Government's principal nutrition policy document and is the basis for many of the *Healthy People 2010* objectives for Nutrition and Overweight.

The complete text for the Nutrition and Overweight focus area of *Healthy People 2010* is available at www.healthypeople.gov/document/html/volume2/19nutrition.htm. The meeting agenda, tabulated data for all focus area objectives, charts, and other materials for the Progress Review can be found at www.cdc.gov/nchs/about/otheract/hpdata2010/focusareas/fa19-nutrition.htm.

Data Trends

Edward Sondik, Director of the Centers for Disease Control and Prevention's (CDC's) National Center for Health Statistics, presented an overview of data that measure the status of the six focus area objectives featured in the review. In emphasizing the severity of the problem of obesity, Dr. Sondik noted that the cost to the United States in 2000 was more than \$100 billion. Dietary factors are associated with 4 of the 10 leading causes of death—coronary heart disease, some types of cancer, stroke, and type 2 diabetes—as well as with high blood pressure and osteoporosis. Overall, the data on the three *Healthy People 2010* objectives for the weight status of adults and children reflect a trend for

the worse. Also, the three objectives for fruit, vegetable, and grain consumption have shown little or no progress in this decade.

The age-adjusted proportion of adults aged 20 years and older who are obese (i.e., having a body mass index [BMI] of 30.0 or more) increased from 23 percent in the survey period 1988–1994 to 31 percent in 1999–2000. For males, the increase was from 20 to 28 percent, and for females, from 25 to 33 percent. The 2010 target for adult obesity, based on measured weights and heights, is 15 percent (Obj. 19-2). Among racial and ethnic groups for whom data are available, the trend toward increasing obesity is most pronounced for adult black females

(50 percent of whom were obese in 1999–2000, up from 38 percent in 1988–1994) and for adult Mexican American females (40 percent of whom were obese in 1999–2000, compared with 35 percent in 1988–1994).

Over 60 percent of people with self-reported diabetes were obese in 1999–2000, an increase of about 50 percent since 1988–1994. By 2002, most states from Texas to North Dakota eastward had adult obesity rates above 20 percent (based on self-reported weights and heights). In 1995, no states had such high rates. The age-adjusted proportion of adults aged 20 years and older who are at a healthy weight (i.e., having a BMI in the range from 18.5 to 25.0) decreased from 42 percent in 1988–1994 to 34 percent in 1999–2000. The decrease was from 45 to 35 percent for females and from 38 to 32 percent for males. The target is 60 percent (Obj. 19-1).

The proportion of children and adolescents aged 6 to 19 years who are overweight increased from 11 percent in 1988–1994 to 15 percent in 1999–2000. The proportion of overweight females rose from 10 to 15 percent, and of overweight males, from 12 to 16 percent. For Mexican American children and adolescents, the proportion overweight in 1999–2000

was 24 percent; for black children and adolescents, 22 percent. Less than 5 percent of children and adolescents, male or female, were overweight in 1966–1970. The target is 5 percent (Obj. 19-3).

The age-adjusted average number of daily servings of fruit consumed by people 2 years of age and older changed little, going from 1.6 in 1994–1996 to 1.5 in 1999–2000. Two to four servings are recommended (Obj. 19-5). Vegetable intake also showed little change: an average of 3.4 daily servings in 1994–1996 compared with 3.3 in 1999–2000. Three to five servings are recommended, with at least one-third being dark green or orange vegetables (Obj. 19-6). In 1999–2000, only 8 percent of vegetable servings consumed by children aged 2 to 19 years were dark green or orange, whereas fried potatoes constituted about one-half (46 percent). For adults 20 years of age and older, the proportions were as follows: dark green and orange vegetables, 11 percent; fried potatoes, 22 percent. In 1999–2000, the proportion of all grain products consumed that were whole grain was 12 percent for children and 13 percent for adults. The target for all is that one-half be whole grain (Obj. 19-7).

Key Challenges and Current Strategies

In the presentations that followed the discussion of data, the principal discussants were Murray Lumpkin, Principal Associate FDA Commissioner; Allen Spiegel, Director of NIH's National Institute of Diabetes and Digestive and Kidney Diseases; and Barbara Alving, Acting Director of NIH's National Heart, Lung, and Blood Institute. Participants in the review identified a number of obstacles to achieving the objectives and discussed activities under way to meet these challenges, including the following:

- Americans live in an environment that promotes obesity. Food is abundant and portion sizes have increased, while opportunities for physical activity have diminished. Because the contributing factors to overweight and obesity

are complex—including genetic, metabolic, behavioral, environmental, cultural, and socioeconomic components—reversing the epidemic will take concerted action by all sectors of society.

- The amount of advertising dollars spent to encourage people to eat large quantities of less healthful food far exceeds the amount spent to promote healthy eating and other healthy lifestyle choices.
- The public is besieged by claims and counterclaims for the benefits of faddish diets (e.g., low or high carbohydrate, low fat, high protein) that are not based on sound scientific evidence.

- For evolutionary reasons, human physiology is predisposed to conserve and store weight, not to shed excess amounts.
- Lack of acceptance of obesity as a disease by a large part of the public, healthcare providers, and third-party payers limits the success of some approaches to prevent and decrease overweight and obesity.
- Most schools do not require daily physical education classes at all grade levels. State standards for physical education vary widely, including time requirements, curricula, and educator qualifications and training. In addition, the recess break has been eliminated or shortened in many systems.
- Overweight and obese children are often ridiculed and bullied by their peers, which may lead to even less physical activity on their part.
- Technological advances have tended toward engineering physical activity out of daily life in the industrialized world and have promoted sedentary behavior, especially in choices of entertainment (e.g., computers and video games).
- A Memorandum of Understanding between ED, USDA, and HHS establishes a framework of cooperation for the three departments to work together to encourage youth to adopt healthy eating and physical activity behaviors.
- The *5 A Day for Better Health Program* is a partnership between the fruit and vegetable industry, USDA, the HHS CDC and National Cancer Institute (NCI), and several nonprofit community-based health organizations. By providing information about the health benefits to be gained, the program seeks to increase Americans' consumption of fruits and vegetables to five to nine servings daily.
- The FDA Obesity Working Group will recommend an action plan directed at achieving a number of goals—including enhancement of food labels to assist consumers in preventing weight gain and reducing obesity; facilitation of the development of therapeutics for treating obesity; and collaboration with a range of public and private organizations and Federal agencies, including the Federal Trade Commission, to provide better nutrition information to consumers.
- Healthcare practitioners are now able to consult evidence-based guidance for treating overweight and obesity presented in the NIH report *Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: Evidence Report*.
- Through its *Consumer Health Information for Better Nutrition* initiative, FDA is seeking ways that food labels can provide consumers with more information about dietary guidance and emerging diet-disease relationships. For example, in cooperation with NCI/NIH, the agency is encouraging dietary guidance messages on fruit and vegetable products that meet the *5 A Day for Better Health Program* criteria.
- ED will invest \$70 million in fiscal year 2004 to encourage lifetime fitness activities and healthy eating habits. In that funding cycle, ED has extended grant periods from 1 year to up to 3 years to enhance continuity and sustainability.
- The NIH Obesity Research Task Force was established by the NIH Director in April 2003 to develop a strategic plan to include short-term and long-term goals for basic, clinical, and population research. The plan builds on research advances from previous efforts and is based on identification of future areas of greatest scientific opportunity and need. The proposed research will concentrate on lifestyle modification, biological/medical approaches to preventing and treating obesity, and breaking the link between obesity and associated diseases.

Approaches for Consideration

During the review, the following suggestions were made for steps to bring about further progress toward achievement of the six featured objectives that promote healthy weights and food choices:

- Because most postpubertal children regain any lost weight within a year, promote the initiation of behavioral therapy for obese children before the onset of puberty. Such therapy should include the teaching of social skills to counter taunting and to maintain and develop friendships.
 - Apply health literacy principles to communications about nutrition, healthy eating, and obesity and ensure that such messages are culturally appropriate.
 - Educate the public about the health benefits of being physically active at any size and the possible added benefit of thereby attaining modest weight reduction.
 - Promote partnerships with community planners to design neighborhoods that encourage and support increased opportunities for physical activity in appropriate and safe locations.
 - Educate the public on how to use the nutrition-facts panel on food products and on how to select appropriate portion sizes for healthful diets, including clarification of the difference between “serving size” and “portion size.”
 - Encourage schools to find health-promoting ways to offset potential revenues lost from vending machine sales in the event such machines are banned in some jurisdictions.
 - In concert with ED, demonstrate to schools that regularly scheduled periods set aside for physical education during the school day can boost academic achievement by students, rather than detract from it.
- Offer incentives for worksites to provide safe, convenient, and affordable venues for employees to engage in physical activity.
 - Expand research to find methodologies for determining the genetic components of metabolic rates and caloric intake and expenditure.
 - Urge medical schools to incorporate training on the prevention and treatment of obesity into their curricula. In a parallel effort, work with medical associations and healthcare organizations on developing means for educating healthcare professionals already in practice.
 - Develop and implement strategies to increase physical activity among people with disabilities. This step should include the use of media that feature disabled adults who can serve as role models of physical fitness for youth who have disabilities.

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