

**GUIDELINES
FOR COMPREHENSIVE
PROGRAMS TO
PROMOTE HEALTHY EATING
AND PHYSICAL ACTIVITY**

GUIDELINES FOR COMPREHENSIVE PROGRAMS TO PROMOTE HEALTHY EATING AND PHYSICAL ACTIVITY

Nutrition and Physical Activity Work Group

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Editor



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In memory of those who died on September 11th
and for a nation that must continue—
we dedicate this document to those who work every day
to bring joy and health to our communities.

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PREFACE

Many people in America today die or are disabled by chronic diseases, diseases that could be controlled or even avoided through better nutrition and increased physical activity. Yet making these choices is difficult. As Americans, we live in a society that makes it easy to eat a lot of high-calorie foods and to avoid being active. How can we counteract these trends to make it easier for people to live healthier lifestyles? Our objective in this document is to answer this question.

We are the state Nutrition and Physical Activity Work Group (NUPAWG), and we decided to begin by formulating guidelines for state and local health advocates who want to create their own comprehensive nutrition, physical activity, and obesity control programs. Our group represents key national, state, and local public health and education partners, working together to improve the nation's dietary and physical activity practices. With assistance from the Centers for Disease Control and Prevention's Division of Nutrition and Physical Activity (CDC-DNPA), we developed this document, *Guidelines for Comprehensive Programs to Promote Healthy Eating and Physical Activity*. We used the *Best Practices for Comprehensive Tobacco Control Programs* (1999) as a model for these guidelines.

For this document, we have identified seven program components:

- I. Leadership, Planning/Management, and Coordination
- II. Environmental, Systems, and Policy Change
- III. Mass Communication
- IV. Community Programs and Community Development

V. Programs for Children and Youth

VI. Health Care Delivery

VII. Surveillance, Epidemiology, and Research

For each component, we have a rationale for its inclusion, sample activities, sample practices and programs, and resources and references. When choosing practices and programs to include in this document, we looked for those that were

- focused on the elimination of disparities,
- affordable and sustainable,
- population-based,
- science-based and effective,
- replicable and relatively easy to implement,
- well-defined with clear goals and measurable objectives,
- valued by stakeholders,
- comprehensive and inclusive,
- acceptable to the target population,
- accessible, and
- focused on growing communities and building social capital.

Please note that for some activities and examples not all criteria were appropriate.

We are aware that many of the existing nutrition and physical activity programs, policies, and interventions have limited evaluation and data on effectiveness in changing behaviors and improving health outcomes. However, we felt it was important to take a first step toward defining the scope and nature of comprehensive programs for nutrition and physical activity and to highlight examples of programs and interven-

tions that seem to be succeeding. This document captures a point in time, describing the current efforts that address the disease risk factors of suboptimal nutrition and inactivity.

We also have included two appendixes in this document. One describes two case studies about state funding to provide a real-world basis for estimating the funding required to build a statewide comprehensive program. The other links the guidelines in this document to the Essential Public Health Services (EPHS), which are described in the introduction. We created this document to be used with other key public health and chronic disease prevention documents, including the *Healthy People*

2010: Objectives for the Nation (2000), the *CDC Guide to Community Preventive Services* (<http://www.thecommunityguide.org>), and the *CDC Guide to Best Practices in Chronic Disease Prevention and Control* (in press).

We hope this document helps a wide range of people: health department managers, boards of health, voluntary agencies, school administrators, business managers, university research programs, local government and community planners, legislators, advocates, and the media. We think that it is a good start in encouraging the necessary change in American communities that will ultimately result in healthier lives for all.

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INTRODUCTION

Poor diet and physical inactivity cause 310,000 to 580,000 deaths each year and are major contributors to disabilities that result from diabetes, osteoporosis, obesity, and stroke. The facts are clear: We are faced with urgent health issues and startling trends that must be addressed. Consider the following:

- Chronic diseases account for 7 out of every 10 deaths in the United States and for more than 60% of total medical care expenditures.
- Approximately one-third of cancer cases are attributed to poor diet and lack of exercise, the same as the proportion of cancer deaths attributed to smoking.
- For cases of heart disease and hypertension, 20% to 40% are attributed to diet and as much as 90% of diabetes cases may be due to overweight and obesity.
- Approximately 61% of adults are overweight or obese.
- The prevalence of overweight children and adolescents has more than doubled in the last 20 years. At least 10% of school-aged children and 14% of teens are overweight.
- Of the 5- to 10-year-old children that are overweight, 60% have at least one associated biochemical or clinical cardiovascular risk factor such as hyperlipidemia, elevated blood pressure, or increased insulin level.

According to the report *Healthy People 2010* (2000), about 75% of Americans eat too little fruit, 95% eat too few vegetables, and 64% eat too much saturated fat. In addition, 12% of households are food insecure. The diets of many

population subgroups exceed recommendations for diet elements such as total fat, saturated fat, and calories, and their diets fall significantly short of the recommendations on other important elements such as calcium for adolescent girls.

Just one in four adults gets sufficient regular physical activity to provide health benefits; another one in four reports no regular physical activity at all. In effect, 60% of American adults do not get the recommended amount of daily physical activity (Healthy People 2010). The trend is not promising for our youths: Physical activity rates drop off sharply in junior high school for girls and in high school for boys. By the end of high school, rates for girls and boys are comparable to adult rates.

Obesity is recognized as the first chronic disease whose spread looks like an infectious disease epidemic. It substantially raises the risk of hypertension, blood cholesterol, type 2 diabetes, coronary heart disease, stroke, gallbladder disease, osteoarthritis, sleep apnea and respiratory problems, and cancers of the endometrium, breast, prostate, and colon. Results from the Third National Health and Nutrition Examination Survey (NHANES III), show that persons with a body mass index (BMI) greater than or equal to 27 have a greater than 70% chance of having an obesity-related comorbidity.

The rapid increase in the prevalence of obesity in the United States is a result of environmental and behavioral factors that foster eating more higher-calorie foods more frequently and burning fewer calories through physical activity. Obesity and a sedentary lifestyle present a serious and growing concern and financial burden for individuals, our health care system, and society.

Obesity is not only an issue for adults. Type 2 diabetes, formerly considered a disease of middle age, is increasing in children and young adults. Recent research indicates that not only do young children have risk factors associated with cardiovascular disease, but atherosclerosis is occurring in preschool children as well.

The chronic disease epidemic takes a disproportionate toll in poor and underserved populations, and the nation has failed in its efforts to reduce chronic disease mortality among these populations. Prevalence and risk of chronic diseases, including the rate of diabetes, stroke, heart disease, being overweight, and obesity, are consistently higher for many populations. For example, while cancer rates for White adults have remained relatively stable during the past 25 years, rates among Black males have increased by 18% and among Black females by nearly 10% (NCHS 1997). The disparity in overall mortality and chronic disease between higher and lower socioeconomic groups continues to increase in the United States (Pappas 1993).

The United States spends more on health care than any nation in the world, yet it continues to have some of the poorest health outcomes in the industrialized world. In part, this disparity is due to an overemphasis on treatment, technology, and health services rather than primary prevention and action to improve social conditions and reduce inequities that cause ill health. Current funding for health promotion programs is limited.

The CDC's Division of Nutrition and Physical Activity has an annual budget of \$16 million compared to the \$100 million that CDC is given for programs to reduce the use of tobacco, which kills about the same number of Americans as unhealthy eating and physical inactivity. According to the U.S. Department of Agriculture and the CDC, better nutrition and physical activity could reduce health and other costs by at least \$148 billion a year.

GOALS OF A COMPREHENSIVE NUTRITION AND PHYSICAL ACTIVITY PROGRAM

The goals of a comprehensive approach to nutrition and physical activity are to

- promote healthy eating that follows national dietary guidance policy;
- maintain recommended levels of moderate and vigorous physical activity from

childhood through adolescence into adulthood;

- eliminate disparities in diet, physical activity, and overweight among disadvantaged population groups;
- increase access to healthy foods and to opportunities to be active for every age and population group; and
- promote healthy weight among adults and children.

The goals and the guidelines outlined in this document are consistent with the focus of the Essential Public Health Services (EPHS) that state that governmental public health agencies serve as facilitating points for assessing performance of EPHS within state or community public health systems. A wide variety of public, private, and voluntary organizations make up a public health system and contribute to EPHS delivery. Coordination of EPHS provides the foundation needed by public health systems to effectively carry out any public health improvement program in states or communities (see appendix B).

Essential Public Health Services

Monitor health status to identify health problems.

Diagnose and investigate health problems and health hazards.

Inform, educate, and empower people about health issues.

Mobilize partnerships to identify and solve health problems.

Develop policies and plans that support individual and statewide health efforts.

Enforce laws and regulations that protect health and ensure safety.

Link people to needed personal health services and ensure the provision of health care when otherwise unavailable.

Ensure a competent public and personal health care **workforce**.

Evaluate effectiveness, accessibility, and quality of personal and population-based health services.

Research new insights and innovative solutions to health problems.

THEORETICAL MODEL

The foundation for these guidelines is based on the understanding that health promotion includes not only educational activities but also advocacy, organizational change efforts, policy development, economic supports, environmental change, and multimethod strategies (*Theory at a Glance*). This ecological perspective highlights the importance of approaching public health problems at multiple levels and stressing interaction and integration of factors within and across levels. When developing this document, NUPAWG members used the social-ecological model as a guide, which has five successively more complex levels (or spheres) of influence:

- **Intrapersonal or individual factors**—Individual characteristics that influence behavior

ior such as knowledge, attitudes, beliefs, and personality traits.

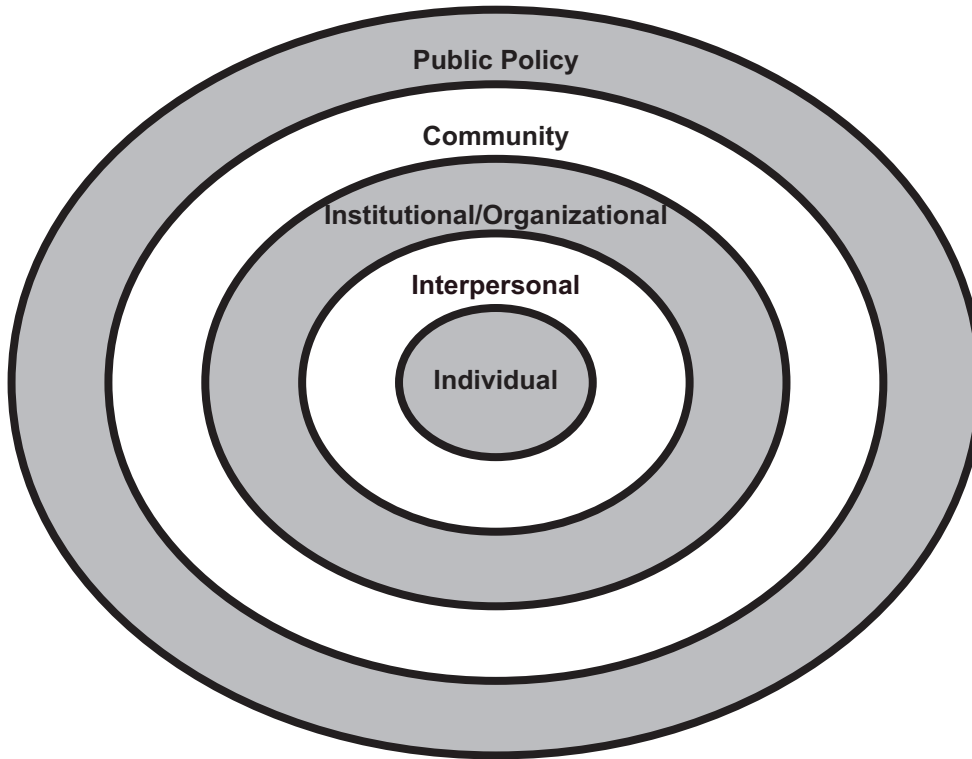
- **Interpersonal factors**—Interpersonal processes and primary groups that include family, friends, and peers, all of which provide social identity, support, and role definition.

- **Institutional factors**—Rules, regulations, policies, and informal structures, which may constrain or promote recommended behaviors.

- **Community factors**—Social networks and norms (or standards), which exist formally or informally among individuals, groups, and organizations.

- **Public policy**—Local, state, and federal policies and laws that regulate or support healthy actions and practices for disease prevention, early detection, control, and management.

A Social-Ecological Model for Levels of Influence



Public Policy: local, state, and federal government policies, regulations, and laws

Community: social networks, norms, standards and practices among organizations

Institutional/Organizational: rules, policies, procedures, environment, and informal structures within an organization or system

Interpersonal: family, friends, peers that provide social identity, support and identity

Individual: awareness, knowledge, attitudes, beliefs, values, preferences

Based on data from McElroy KR, Bibeau D, Steckler A, Glanz K. An ecological perspective on health promotion programs. *Health Education Quarterly* 15:351-377, 1988.

Research has shown that health promotion succeeds most when promoters analyze problems and plan programs while keeping in mind these various levels of influence. Thus, a comprehensive planning system, such as social marketing, starts with extensive research to assess needs at multiple levels. This research involves consumer and market analysis; epidemiological assessment; behavioral, educational, environmental, and organizational diagnosis; and administrative and policy assessment.

While individual-based intervention programs have been widely used to address nutrition and physical activity, there is a great need to design, implement, and evaluate interventions focused on institutional, community, and policy levels to effect change among large populations.

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