Washington State Nutrition & Physical Activity Plan

Policy & Enviromental Approaches

Washington State Department of Health
Diabetes, Nutrition & Physical Activity Program

June 2003

STATE OF WASHINGTON

DEPARTMENT OF HEALTH
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Dear Community Partners:

The Nutrition and Physical Activity Plan represents a bold step to address some of the leading causes of preventable death and illness and to stop the obesity epidemic in Washington State. Implementing this plan represents an opportunity to develop policies and modify our environments to encourage healthy lifestyle choices by individuals and their families. Through its implementation, the burden of chronic diseases such as diabetes, heart disease and arthritis will be reduced. The plan's central purpose is to help Washingtonians live healthier lives.

I thank the broad coalition of experts from many sectors who worked with the Department of Health to create this plan, including state and federal agencies, educational institutions, nonprofit organizations, local health departments, and private industry. It provides our state with a wide range of public health opportunities with clear objectives and examples. It represents the very best in public health planning.

Achievement of the plan's objectives require policy makers in state and local government and private industry to create physical, social, economic, and political environments that reduce barriers to being physically active and eating healthy. It demands that all of us work together, using both traditional and innovative approaches, to help Washington communities be healthy and Washington residents live healthy lives. I challenge all of us to work together to achieve its ambitious and important vision.

Thank you for your time, energy, and resources to help bring it to life.

Sincerely,

Mary C. Selecky
Secretary

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Executive Summary

Purpose

The purpose of the plan is to provide a framework in which policy makers can work together to build and support environments that make it easier for Washington residents to choose healthy foods and be physically active. Creating healthy environments in communities across the state will:

- Slow the increase in the proportion of adults who are obese.
- Reduce rates of chronic disease.
- Improve the quality of life.

Overarching Goals

The overarching goals of the *Washington State Nutrition & Physical Activity Plan* are to increase the proportion of Washington State residents:

- Whose diets reflect the Dietary Guidelines for Americans.
- Who get at least 30 minutes of moderate activity on five or more days a week.

The vision for the Washington State Nutrition & Physical Activity Plan is that Washington residents will enjoy good nutrition, have active lives, and live in healthy communities.

Dietary Guidelines for Americans

- Aim for a healthy weight
- Be physically active each day
- Let the pyramid guide your food choices
- Choose a variety of grains daily, especially whole grains
- Keep food safe to eat
- Choose a diet low in saturated fat and cholesterol and moderate in total fat
- Choose beverages and food to moderate your intake of sugars
- If you drink alcoholic beverages, do so in moderation
- Choose and prepare foods with less salt
- Choose a variety of fruits and vegetables daily

Physical Activity Guidelines

The recommended minimum amount of physical activity for optimal health is at least 30 minutes of moderate activity on five or more days a week.

"Obesity and overweight conditions are reaching nearly epidemic levels across the nation and in Washington State. This plan takes a bold step in addressing this crisis and related health conditions."

– Maxine Hayes, Washington State Health Officer

The underlying theme of the *Washington State Nutrition & Physical Activity Plan* is the need to promote nutrition and physical activity simultaneously at several levels – for individuals, for families, within institutions and organizations, in communities, and through public policy.

The plan emphasizes building a strong foundation at the institutional, community, and policy levels so that it will be easier for individuals to choose healthy lifestyles.

It establishes nutrition and physical activity objectives to meet the overarching goals, and priority recommendations to achieve the objectives. These recommendations will serve as a guide for groups and institutions across the state as they join the effort to build health-promoting communities.

Good nutrition and physical activity are part of the solution to the nearly epidemic public health challenges facing the nation and Washington State. The active support of state and community leaders is critical to creating environments in which individual residents may improve their quality of life by living in healthy, active communities.

Indicators of an Epidemic

- Obesity rates over the last decade have doubled.
- More than half of all Washington State residents are obese or overweight.
- Rates of chronic disease and disabling conditions that are associated with poor diet and lack of exercise continue to escalate year after year.
- Rocketing medical costs for obesity-related diseases are crippling Washington State's ability to provide affordable health care coverage.
- The population over 65-years-old in Washington is increasing faster than in many other states.

Physical Activity Objectives & Priority Recommendations

Increase the Number of Physical Activity Opportunities Available to Children

- Adopt school-based curricula and policies that provide quality, daily physical education for all students
- Encourage policies that provide kindergarten through 12th grade (K-12) students with opportunities for physical activity outside of formal physical education classes
- Provide opportunities to replace sedentary behaviors, such as watching television, with physical activity

Increase the Number of People Who Have Access to Free or Low-Cost Recreational Opportunities for Physical Activity

- Provide adequate funding for state and local recreation sites and facilities
- Develop model policies to increase access to public facilities for physical activity
- Increase the number of worksites that have policies that enhance activity opportunities

Increase the Number of Active Community Environments

- Utilize urban planning approaches – zoning and land use – that promote physical activity
- Incorporate transportation policy and infrastructure changes to promote non-motorized transit
- Enhance safety and perceived safety to improve community walkability and bikeability

Nutrition Objectives & Priority Recommendations

Access to Health-Promoting Foods

- Increase the consumption of vegetables and fruits
- Ensure that worksites provide healthful foods and beverages
- Ensure that K-12 schools provide healthful foods and beverages

Reduce Hunger and Food Insecurity

- Provide adequate support for nutrition and food programs
- Improve access to nutrition programs

Increase the Proportion of Mothers Who Breastfeed Their Infants and Toddlers

- Ensure that health care settings, childcare facilities, and worksite environments are breastfeeding friendly

Ongoing Collaboration

The activities proposed in the Nutrition & Physical Activity Plan will take place within a context that includes working with partners, communication, cultural competence, and surveillance, assessment and evaluation. The plan will be presented to policy makers in communities and agencies across Washington State.

The goals and objectives of the plan will be achieved through ongoing collaboration between agencies, organizations, and communities. The Department of Health and its partners will evaluate progress toward each of the objectives and monitor the dissemination and impact of the plan itself.

Washington State Nutrition and Physical Activity Advisory Group

The Nutrition & Physical Activity Plan is one outcome of a year of strategic planning by the Nutrition & Physical Activity Advisory Group. The 35-person group includes officials from state and local agencies, and representatives from advocacy organizations from across the state. The group brings together expertise from education, transportation, planning, nutrition, physical activity, agriculture, parks and recreation, economic development, and health care.

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Washington State Nutrition and Physical Activity Plan:

Policy and Environmental Approaches

About the Plan

The Vision: Washington residents will enjoy good nutrition, have active lives, and live in healthy communities

The Purpose: The purpose of the Washington State Nutrition and Physical Activity Plan is to provide a framework in which policy makers at the state, local, and institutional levels can work together to support and build environments that make it easier for Washington residents to choose healthy foods and to be physically active in order to:

- Slow the increase in the proportion of adults and children who are obese
- Reduce rates of chronic diseases that are associated with obesity
- Improve quality of life

Developing the Plan:

Nutrition and Physical Activity Advisory Group

The plan is one outcome of a series of advisory group meetings that were held in 2001 and 2002. Advisory group members represent a wide variety of agencies and approaches to food and nutrition, physical activity, transportation and community development. Advisory group meetings included training on broad-based approaches to obesity prevention and a strategic planning process. Advisory group members took the results of their strategic planning activities back to the organizations that they represent. Agencies across the state have agreed to champion parts of the plan that are within their scope of work.

The Plan's Focus

A plan to address all possible facets of obesity prevention would be unwieldy and unrealistic. As the advisory group became more familiar with the work that was being done across the state, the range of possible strategies for obesity prevention, and existing evidence about obesity prevention, a consensus emerged to start with environmental and policy approaches. These approaches will build a foundation for stemming the rapid increase in rates of overweight and obesity. Campaigns that increase awareness and knowledge of individuals and the efficacy of health care professionals to address obesity prevention and treatment will be more successful when Washington residents live in environments that make it easier to eat well and be active.

Why an Environmental and Policy Approach?

On an individual level obesity can be prevented if people simply move more and eat less. Unfortunately, social, cultural and environmental constraints make it difficult for most individuals to follow this advice, as evidenced by the fact that over half of Washington State adults are either overweight or obese. The purpose of this plan is to make it easier for the residents of Washington State to choose health-promoting nutrition and physically active behaviors. Please see Appendix B for the plan's conceptual framework.

Behavior choices and subsequent health outcomes are profoundly influenced by culture and the food and activity opportunities available the individual and community levels. The Institute of Medicine reminds us that, "Health and well being are affected by a dynamic interaction between biology, behavior, and the environment, an interaction that unfolds over the life course of individuals, families, and communities (1)."

Criteria for the Plan's Priority Recommendation

The advisory group considered many potential approaches to the problem of obesity in Washington State. Criteria developed by the Washington State Department of Health (DOH) and approved by the Nutrition and Physical Activity Advisory Group (NPAAG) were used to prioritize these approaches. The priority recommendations should be:

- Related to obesity and chronic disease prevention
- Population based
- Evidence based, theoretically sound, or recommended by nationally recognized authorities or experts
- Those that affect a relatively large portion of the population
- Based on measurable objectives

A more detailed explanation of the criteria may be found in Appendix C.

Overarching Strategies for the Plan

Listed below are four overarching strategies. These strategies are essential components of each of the priority recommendations.

Working with Partners

DOH led the development of this plan with funds from the Centers for Disease Control and Prevention. DOH continue to provide essential leadership for obesity prevention efforts. However, genuine solutions to the challenging problem of obesity will require the concerted effort of many partners and collaborators. Other state agencies such as the Office of the Superintendent of Public Instruction, the Department of Social and Health Services, the Department of Agriculture, and the Department of Transportation will join in these efforts. Professional association and advocacy groups will contribute by educating their members about the issues and developing effective policies to support the plan.

Community development and mobilization is key to the success of this plan. Daily choices about food and physical activity are determined by the immediate environment. Although they are often driven by national and state policies, the most effective policies to promote nutrition and physical activity are made at the local level. The City of Moses Lake is piloting the approaches presented in this plan. The city convened a local nutrition and physical activity planning group. The group chose three of the priority recommendations from this plan, those that support community gardens, breastfeeding, and a connected system of paths and trails. The Moses Lake planning group developed a local plan to implement changes in policies that will make it easier to make healthy choices in Moses Lake. Progress in Moses Lake will be closely monitored and the successes and lessons learned in Moses Lake will be shared with other communities in Washington State.

Communication

Clear, consistent and effective messages will be sent to all Washington State residents about the recommended activities implemented from this plan. DOH and the partner agencies for this plan are committed to using effective communication to make sure that individuals and policy makers within communities and institutions are aware of the importance of making the healthy choice the easy choice. This plan will be used as a springboard to promote nutrition and physical activity in the media and at state and local meetings and conferences.

As they are implemented across the state, each of the priority recommended approaches will be accompanied by an awareness campaign. The Community Guide to Preventive Services (2) strongly recommends awareness campaigns because they have been shown to contribute to the success of environmental and policy changes. For instance, signs and media coverage increase the use of trails and paths in a community. Awareness campaigns will help potential partners and the public understand why the activities outlined in this plan are important and how they are being implemented.

Surveillance, Assessment, and Evaluation

Successful population based obesity prevention efforts should include monitoring of health data and evaluation of health promotion programs. Obesity rates continue to rise as shown by existing surveillance systems that have monitored changes over time. However, there are few surveillance data concerning behaviors that are associated with the increase in obesity, and very little is known about the weight status of Washington State's children. Improved surveillance of problems associated with nutrition and physical activity would also be of value to decision-makers across the state. As the plan is implemented changes will be initiated to make it easier to be active and eat healthy foods. Public health has a responsibility to evaluate the impact of these changes and to share both successes and lessons learned. Systems of surveillance, assessment, and evaluation will be continually improved. Results of these efforts with will be communicated with all partners and stakeholders. DOH will monitor progress toward each of the objectives put forth in this plan. Please see Appendix G for details about the evaluation plan.

Cultural Competence

Nutrition and physical activity are perceived differently across cultures within the state. Real change in nutrition and physical activity behaviors will not happen unless health promotion efforts are culturally competent. There are five essential elements that contribute to a system's, institution's or agency's ability to become more culturally competent (3).

These are to have:

1. a value of diversity;
2. the capacity to assess the ability to serve diverse populations;
3. knowledge, attitudes, and skills to deal effectively with the dynamics inherent when cultures interact;
4. institutionalized cultural knowledge; and
5. a service delivery process that deals effectively with cultural diversity.

DOH and it's partners are committed to undertake all actions outlined in this plan in the spirit of cultural competence. DOH and it's partners will proceed with respect and awareness of differences in the way nutrition and physical activity are perceived and the way behavioral choices are made. Environmental and policy changes can reduce disparities in health outcomes because they benefit all Washington State residents.

Using the Plan:

The *Washington State Nutrition and Physical Activity Plan* presents a framework that can be used to make healthy living easier for all of us. The framework has the potential to influence the lives of large numbers of diverse citizens and to provide beneficial, sustainable changes for the health of Washington State residents.

The plan includes six objectives, three for nutrition and three for physical activity. There are 15 priority recommendations to meet these objectives. For each approach and strategy examples of activities that can be done have been included. These examples are not necessarily meant to be prescriptive, but rather to provide information about activities that are working in communities now. The reference section provides links to more information about each activity.

Agencies, institutions and groups involved in these efforts will champion the priority recommendations in their own work plans. It is DOH and it's partner's hope that the plan will also stimulate new ideas, partnerships and coalitions. To that end, members of the Nutrition and Physical Activity Advisory Group, and DOH will present this plan to policy makers across the state to increase awareness about actions that can be taken to prevent further increases in obesity rates.

Nutrition, Physical Activity and the Health of Washington State

The United States spends more money per capita on health care than any other country in the world, but 25 countries have longer average lifespans (1). Medical care cannot compensate for lifestyles that do not promote health. Women who maintain a desirable body weight, eat a healthy diet, have regular physical activity, do not smoke, and consume a moderate level of alcohol have 83% less risk of heart disease than women who do not have these health promoting behaviors (2). A healthy diet and adequate physical activity are essential to a healthy life.

Individuals, families, and society pay a high cost when physical activity and healthy diets are not part of daily life. Poor diet and lack of physical activity cause at least 300,000 deaths in the US each year (3). Only tobacco use causes more preventable deaths. Poor diet and physical inactivity are associated with the disabilities and lower quality of life that result from diabetes, cardiovascular disease, cancer, osteoporosis, obesity and stroke. These chronic diseases account for seven of every 10 United States deaths and for more than 60% of medical care expenditures (3). In 2000, the total cost attributable to obesity in the United States was $117 billion (4). Of this amount, $61 billion was due to direct medical costs and $56 billion to lost productivity. Medical care expenditures could be profoundly reduced by developing effective ways to promote nutrition and physical activity.

Please see the Health of Washington State for a more detailed look at health status data and a description of data collection methods (5).

Obesity

Well over half of the adult population of Washington State is either overweight or obese. These figures continue to go up year after year. The prevalence of obesity in Washington State has doubled in the past decade. In 1990, 9.4% of adults were obese; in 2001, 19.3% were obese (5). The most recent national data for 2001 show that this increase continues across the country (6).

Obesity in adults is defined as a body mass index (BMI) of 30 or more. Overweight is defined as a body mass index of 25 to 29.9. Body mass index is based on an individual's height and weight and is calculated by dividing weight in kilograms by height in meters squared (see Appendix J).

The percentage of young people who are overweight has more than doubled in the last 20 years in the United States (4). In Washington State about 7% of youth in grades 9 through 12 were

overweight and 14% were at risk of overweight in 1999. For children and youth, being at risk of overweight is defined as being between the 85th and 95th percentile for body mass index and overweight is being above the 95th percentile based on reference data from the 1970's.

Concern about body weight is not merely a cosmetic issue. Overweight and obesity are associated with diabetes, high blood pressure, high blood cholesterol, asthma, arthritis, and poor health status (6).

The social and financial costs of obesity are not distributed evenly among all Washington State residents. Asian and Pacific Islanders have the lowest prevalence of obesity, while African Americans and American Indians have the highest prevalence (5). Adults who did not graduate from college have a higher prevalence of obesity.

Chronic Disease

The chronic disease burden in Washington State may be reduced significantly if people begin to choose active lives and nutritious diets.

Sedentary lifestyles are associated with higher rates of heart disease, high blood pressure, colon cancer, type 2 diabetes, falls and fractures, and obesity (7). Consuming at least five daily servings of vegetables and fruits may prevent cancer, especially cancer in the mouth, pharynx, larynx, esophagus, lung, stomach, colon, rectum, bladder, and cervix (8) coronary heart disease, stroke, cataract formation, diverticulosis, and hypertension may also be prevented by increasing vegetable and fruit intake (9). Increasing consumption of vegetables and fruits might also be an effective strategy in the treatment of obesity (10).

Based on current available literature colorectal cancer has a clear relationship to nutritional and physical activity behaviors. Coronary heart disease is the leading cause of death and lost-life expectancy in Washington State and in the nation, accounting for one of every five deaths (11). Coronary heart disease accounted for 8,613 deaths in Washington State in 2000 (age-adjusted death rate: 159 per 100,000). Although coronary heart disease age-adjusted death rates in Washington State declined steadily from the 1980s to the early 1990s, the downward trend slowed in the late 1990s.

Apparently 234,000 people in Washington State are known to have diabetes, and over 110,000 are estimated to have diabetes but do not know it. The estimated overall prevalence is more than 5½ % of the general population. Diabetes was associated with 56,485 hospitalizations in 2000 (rate: 1038 per 100,000). Rates of diabetes-related hospitalizations have steadily increased in Washington State since 1987.

Colorectal cancer is the fourth most common cancer and the second leading cause of cancer deaths in Washington State. In 1999, 2,911 Washingtonians were diagnosed with colorectal cancer and 994 died of the disease. The 1999 Washington State age-adjusted incidence rate was 54.5 per 100,000 people. Colorectal cancer incidence rates remained stable from 1992 to 1999.

Healthy Aging

In Washington State the proportion of the population that is over age 65 is increasing faster than in most other states (12). The number of people aged 65 and older is expected to double, and will exceed 1.2 million in 2020 (13). As the state's population ages the burden and costs of chronic conditions may continue to increase substantially if the health care needs of older adults are not reduced. Almost one-third of U.S. health care expenditures, or $300 billion each year, is for older adults. Not including inflation, health

care spending is estimated to increase 25% between now and 2030 simply because the population will be older (14).

Increasing numbers of older adults means greater numbers of people at highest risk for disease and disability. Three quarters of the nation's and Washington State's health care costs are due to chronic diseases (1,2), yet 70% of the physical decline associated with aging is preventable (3). It is becoming increasingly important to prevent or delay the onset of chronic conditions through improved nutrition and increased physical activity among older adults through policy and environmental change. For example, the National Blueprint – Increasing Physical Activity Among Adults Age 50 and Older calls for instituting urban design policies that are built around the needs and preferences of older adults. Indeed, people of all ages would likely benefit form such changes as more pedestrian and bicycle-friendly communities, mixed-use development, slower traffic patters, better street lighting, and improved access to quiet green spaces, all of which have been identified as incentives to older adults being physically active (4).

Nutrition

Healthy eating lowers the risk of developing chronic diseases including cardiovascular disease, hypertension, some types of cancer, diabetes, and osteoporosis (3). Many possible food choices contribute to a healthy diet, and it is challenging to examine the quality of the diet as a whole.

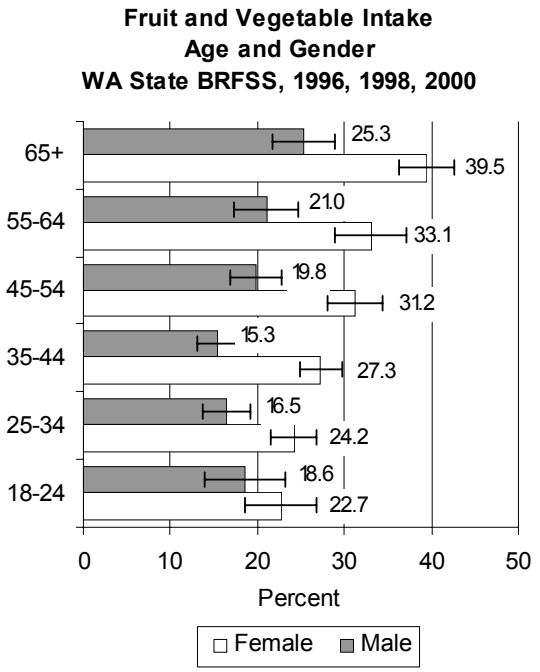
The Dietary Guidelines for Americans were developed by the U.S. Department of Agriculture and the U.S. Department of Health and Human Services to provide recommendations for healthy diets for all Americans (17).

These Guidelines have been used as a basis for the priority recommendations in this plan. The Guidelines recommend that Americans aim for a healthy weight and be physically active every day. The specific recommendations that pertain to diet are:

- Let the food pyramid guide your food choices
- Choose a variety of grains daily, especially whole grains
- Choose a variety of vegetables and fruits daily
- Choose a diet that is low in saturated fat and cholesterol and moderate in total fat
- Choose beverages and foods to moderate your intake of sugars
- Choose and prepare foods with less salt
- If you drink alcoholic beverages, do so in moderation

The U.S. Department of Agriculture's Center for Nutrition Policy and Promotion developed the Healthy Eating Index (HEI) to measure overall dietary quality based on the Dietary Guidelines for Americans (18). The HEI consists of 10 components, each representing different aspects of a healthful diet: Components 1-5 measure the degree to which a person's diet conforms to serving recommendations for the five major food groups of the Food Guide Pyramid (grains, vegetables, fruits, milk, and meat); Components 6 and 7 measure total fat and saturated fat consumption, respectively, as a percentage of total food energy intake; Components 8 and 9 measure total cholesterol and sodium intake; and Component 10 examines variety in a person's diet. According to the HEI diets of Americans have slightly improved from 1989 to 1999-2000 (18).

In Washington State the Behavior Risk Factor Surveillance System (BRFSS) measure vegetable and fruit intake for adults. The recommended intake is at least five servings of vegetables and fruits each day. Combined data for 1996, 1998, and 2000 show that 30% of women and only 19% of men meet the recommendations for five servings of vegetables and fruits per day (5). In 2000, only 25% of Washington State adults reported consuming vegetables and fruits at least five times a day. Young adults are less likely to meet recommendations for vegetables and fruits than older adults.



Physical Activity

The benefits of physical activity are well known. Physical activity is essential to healthy aging and is an effective component of treatment for mental health disorders (19). Children and adults of all ages benefit from the immediate effects of being active and from long term protection against disease and disability.

For public health benefits the recommended minimum amount of physical activity is at least 30 or more minutes of moderate activity on five or more days a week. When work-related activity was considered along with leisure time activity 46% of Washington State adults reported activity at the recommended level in 2000 (5). When just leisure time activities were counted, only 27% of adults meet recommended activity levels. These figures have changed little since data were first gathered in 1987.

For cardiovascular fitness vigorous activity for 20-60 minutes per day on three to five days a week is recommended (7). Only 17% of adults in Washington State meet these recommendations (3).

Children and youth are usually more active than adults. In 1999, 35% of Washington students in grades 9 though 12 reported meeting recommendations for moderate activity at least 30 minutes on five or more days each week (5).

In 1998, the lack of regular physical activity in adults in Washington State caused an estimated (20):

- 27 percent of all diabetes
- 20 percent of all osteoporotic falls with fractures
- 15 percent of all cases of colon cancer
- 12 percent of all heart disease
- 12 percent of all cases of high blood pressure

In 1998, for the above five medical problems, insufficient physical activity was responsible for an estimated:

- 1,272 deaths
- 5,768 hospitalizations
- $18.6 million in hospital charges

Existing Assets and Efforts

In Washington State, efforts are already underway to decrease the health problems associated with poor nutrition and physical inactivity.

DOH has been successful in building capacity for surveillance and health promotion for physical activity and 5 A Day. The Washington Coalition for Promotion of Physical Activity, founded by DOH, Northwest American College of Sports Medicine, Washington Alliance for Health, Physical Education, Recreation and Dance, and the University of Washington Health Promotion Research Center has 125 active members and a strong history of successful conferences and public awareness campaigns (www.BeActive.org).

DOH has also been an active partner in the Northwest Obesity Prevention Project (http://depts.washington.edu/obesity/). The goal of the Project was to build capacity to address issues of obesity in the region. To that end, the Project convened three workshops for public health professionals. The skills and knowledge that evolved from workshops are reflected in this plan. The Project has now become part of the Center for Public Health Nutrition at the University of Washington (www.cphn.org). The Center will continue to serve the needs of public health professionals as they meet the challenges of obesity prevention in Washington State.

In preparation for this plan, a Statewide Environmental and Policy Efforts Related to Physical Activity or Nutrition Survey was sent to targeted state-level organizations in Washington State. The purpose of the survey was to provide baseline information about existing efforts and potential partners. The existing efforts were divided into five policy areas for both nutrition and physical activity. Thirty-two respondents reported that they were actively engaged in either nutrition or physical activity efforts in 2002. The three policy areas that the respondents reported the most effort were:

Nutrition:

- Improving access to nutritious foods in communities
- Making it easier to eat well at worksites
- Making it easier to eat well at schools

Physical activity:

- Developing opportunities for active transportation
- Making it easier to be active at worksites
- Making it easier to be active at schools

This plan builds on the work of concerned citizens and organizations across the state to make Washington State a place where residents will enjoy good nutrition, active lives, and healthy communities.

Washington State Nutrition and Physical Activity State Plan

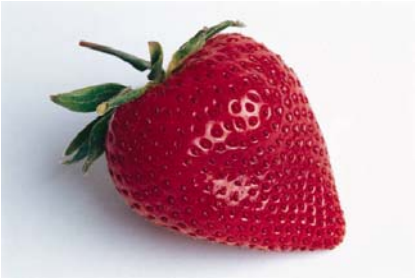
Overarching Goals

1. Increase the proportion of adults and children who have diets that reflect the Dietary Guidelines for Americans

2. Increase the proportion of adults and children who meet physical activity recommendations

Nutrition and Physical activity are essential to the health of the people of Washington State. The State Nutrition and Physical Activity Advisory Group established the following priority recommendations as a guide for groups and institutions across the state as they join the effort to build health-promoting communities. These recommended activities will help to address the overarching goals of increasing the proportion of Washington State residents who meet recommendations for healthy diets and adequate physical activity. Each of the recommendations meet the criteria provided in Appendix C. Each recommendation serves the purpose of this plan to provide a framework in which policy makers at the state, local and institutional levels can work together to support and build environments that make it easier to choose healthy foods and to be physically active in order to:

- Slow the increase in the proportion of adults and children who are obese
- Reduce rates of chronic diseases that are associated with obesity
- Improve quality of life



Washington State Nutrition and Physical Activity State Plan

Nutrition Objectives

These objectives are designed to increase the proportion of adults and children who have diets that reflect the Dietary Guidelines for Americans. This goal will be met when Washington State residents have access to healthy foods including a variety of vegetables and fruits at home, school, and work, and when they have the resources to purchase recommended foods. An objective to increase the number of infants and toddlers that have the optimal diet provided by breastfeeding is included. Infancy and early childhood set the stage for life-long health and development.

The three priority objectives for Nutrition are:

1. To increase access to health promoting foods
2. To reduce hunger and food insecurity in Washington State
3. To increase the proportion of mothers who breastfeed their infants and toddlers

For each objective priority recomendations are presented. They are, to the extent possible, based in existing evidence about effective ways to reduce rates of obesity by improving the diets of Washington State residents. Brief examples of each of the recommendations are included to demonstrate how policies and environments can be used to promote healthy food choices.

Nutrition Priority Recommendations:

- Increase the consumption of vegetables and fruits
- Assure that worksites provide healthful foods and beverages
- Assure that schools Kindergarten through 12th grade (K-12) provide healthful foods and beverages
- Provide adequate support for nutrition and food programs
- Improve access to nutrition programs
- Assure that health care settings, childcare facilities, and worksite environments are breastfeeding friendly

NUTRITION OBJECTIVE 1:

INCREASE ACCESS TO HEALTH PROMOTING FOODS

Washington State Department of Health

NUTRITION OBJECTIVE 1: INCREASE ACCESS TO HEALTH PROMOTING FOODS

A. Increase the consumption of vegetables and fruits

Americans should eat five to nine servings of vegetables and fruits each day. This recommendation comes from the Centers for Disease Control and Prevention in conjunction with the National Cancer Institute, the Produce for Better Health Foundation, the U.S. Department of Agriculture, and the American Cancer Society. The recommendation is driven by evidence that components of vegetables and fruits such as fiber, phytochemicals, and essential nutrients protect against cancer and cardiovascular disease (1).

Vegetables and fruits may help to prevent overeating, and a diet with plenty of vegetables and fruits probably lowers the risk of developing obesity. Vegetables and fruits are low in calories and high in water and fiber (2). They add a variety of tastes, colors, and textures to meals and snacks. One study found that people reduced overall energy intake by 30% when vegetables were added to an entrée (3), and weight loss intervention studies find that adults with higher vegetable and fruit consumption are less likely to be overweight (4).

Examples of Activities:

Support Farmers' Market Programs that make vegetables and fruits more accessible and available to disadvantaged populations: The Washington State WIC Farmers' Market Nutrition Program successfully provides vegetables and fruits from farmers' markets to nutritionally at risk women, infants and children and increases awareness and use of the markets (4).

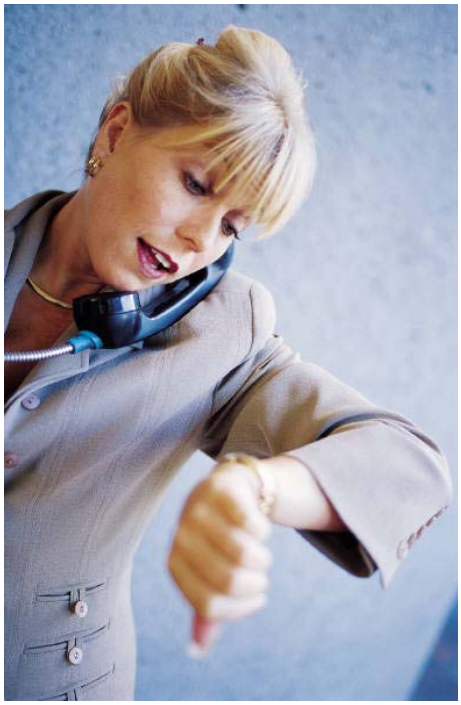
Increase the availability of and access to local community gardens: The Tahoma Food System (TFS) is a Washington State-based non-profit organization. Organization members have started many community food projects including community gardens project and the Square Foot Nutrition Project, which primarily targets low-income youth in schools. The food projects have been a success. Not only have low-income families been given opportunities to grow and consume fresh produce, but the gardens have become a "real community gathering place" for community members. To date, thousands of Washington State residents have been impacted by TFS-sponsored community gardening activities (9).

Develop public/private partnerships to increase access to supermarkets and Farmers' Markets in underserved areas: The local food environment makes a difference in the foods that people choose (10). Underserved community members living in rural areas in Washington State

often have limited access to supermarkets and farmers' markets that supply healthy foods such as vegetables and fruits. Bussing programs can be used to increase access to large-scale supermarkets and farmers' markets with high quality produce. The infrastructure for bussing programs exists in Washington State. Churches and other community-outreach organizations have idle busses that can be used for transportation to and from large-scale supermarkets and farmers' markets. The Washington State Office of Community Development has a strong interest in building these programs for rural Washington State.

B. Assure that worksites provide healthful foods and beverages

Changes that make it easier to choose health promoting foods at work have the potential to reach many adults in Washington State. The most frequently cited barrier to eating vegetables and fruit is that vegetables are hard to get at work (1). Employers can make a difference in several ways. Worksites with formal and informal guidelines that support healthful food choices and eating patterns exert a powerful influence. Employers can offer healthy foods at meetings and social events, schedule work and meetings to allow adequate time for eating, provide storage and cooking facilities for healthy foods from home, and provide healthy foods in vending machines and cafeterias.



Worksite nutrition interventions based on education alone have a modest impact on actual food consumption and usually require worksite release time for classes and activities. However, changes in the variety and pricing of foods offered at worksites have been shown to increase intake of healthy foods and to reach a large percentage of employees (2).

The Surgeon General's Report recommends that worksites provide protected time for lunch and assure that healthy

foods are available (3). Federal worksites have begun to explore ways to create environments that support healthy eating.

Examples of Activities:

Provide health-promoting snacks in vending machines: At the National Institutes of Health, a program titled *Better Choices* has been implemented in most of the snack vending machines. Featured are snacks that are lower in total fat, saturated fat, salt, and calories than traditional vending fare. A green and white label has been affixed to the machines identifying the selection criteria, and arrows point to *Better Choices* snack items. About one-fourth of the slots in each machine are designated for the *Better Choices* program. Further expansion of this program is planned (4).

Provide health-promoting foods in cafeterias: The Waters Corporation, a Massachusetts-based company, successfully improved workplace health by making dietary-related institutional changes. A "healthy-choice bar" was created and healthy food options and fresh and steamed vegetables were made available in an on-site cafeteria. As a result of Waters Corporation's efforts, employees began to order and eat healthy entrees, and cafeteria patronage and sales increased (5). The Seattle 5 A Day Worksite Program lead to increased vegetable and fruit consumption at several large worksites by targeting individual and institutional changes including the addition of more attractive vegetable and fruit offerings in cafeterias (6).

Provide health-promoting foods at meetings and workshops: *Meeting Well* is a package of tools and trainings that have been developed by the American Cancer Society (7). *Meeting Well* includes ideas for healthy foods, action-packed meetings, menu planning, and special and themed events. The Society also offers one-hour trainings on how to implement *Meeting well* at worksites. In Washington State the American Cancer Society has collaborated with a Seattle caterer to provide healthy box lunches that meet nutrition guidelines.

C. Assure that K-12 schools provide healthful foods and beverages

Most children in Washington State spend several hours of each day in school. Schools reinforce health education messages when they provide children with a variety of health promoting foods in an attractive environment, provide adequate time to eat school lunch and breakfast, adopt policies that limit access to less nutritious foods and beverages, and make it easy for staff and teachers to model healthy eating choices (1).

Most American children fail to meet the recommendations of the Dietary Guidelines for Americans (2). Over the past 20 years the proportion of foods eaten by children as part of school meals has declined while fast food consumption has increased (2). The diets of Washington State's children can be improved by increasing the number of children who participate in school meals. USDA funded school lunch and breakfast programs are required to meet nutritional standards set by USDA's Food and Nutrition Service. Children who participate in the National School Lunch program have higher intakes of several key nutrients and are more likely to consume vegetables and milk (3). Children who are well nourished are ready to learn.

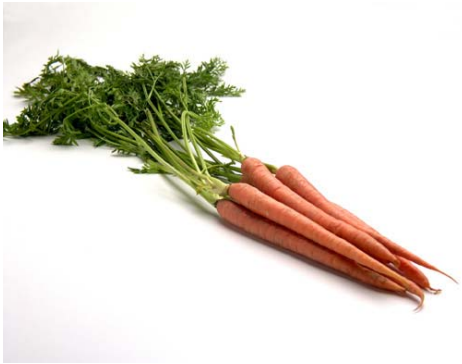
Examples of activities:

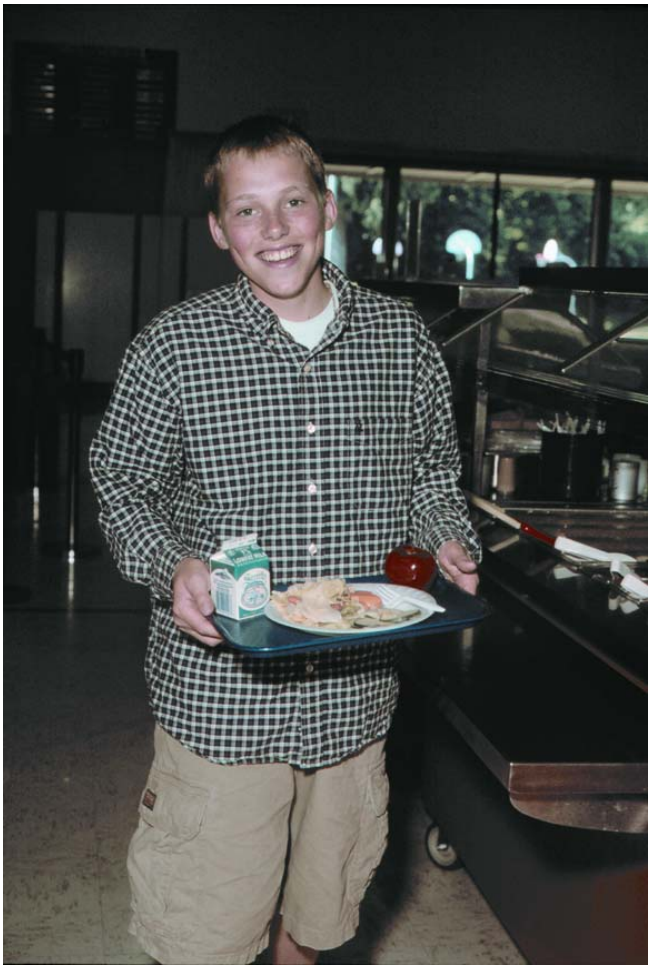
Support the Washington School Food Service Association (WSFSA) Long-Range Legislative Plan (4): The WSFSA plan calls for policies that reduce financial and organizational barriers to school lunch and breakfast for all students. These policies specifically address the negative impact of non-nutritious foods that compete with school meals and access to school meals by children from families with limited financial resources. WSFSA strongly supports statewide adherence to core concepts of *nutrition integrity* defined as "a guaranteed level of performance that assures that all foods available in schools for children are consistent with recommended dietary allowances and dietary guidelines and, when consumed, contribute to the development of lifelong, healthy eating habits." (4)

Adopt policies that assure that all foods and beverages available on school campuses and at school events contribute toward eating patterns that are consistent with the Dietary Guidelines for Americans: These policies refer to food and beverages available from vending machines, school stores, sports events, parent meetings, and staff meetings. Criteria for healthy foods have been developed by the Center for Public Health

Advocacy (5) and have been adapted for use by the legislature as part of California SB 19 (6). The Healthy Student Initiative in Seattle Public Schools encourages healthy eating in Seattle schools by providing foods and beverages that meet these standards.

Support the use of community supported agriculture programs in local schools: In "Farm-to-School" programs, schools purchase produce from local farmers for use in school cafeterias. Farm-to-School programs enhance the economic stability of farmers, increase participation in school lunch programs, and provide opportunities for students to learn about nutrition, food production and food economics (7,8,9). The cafeteria at Lincoln Elementary School, Olympia Washington, has a local, organic foods salad bar. The salad bar serves fresh romaine lettuce, mixed salad greens, fresh chopped/grated vegetables and fruits, fish and canned beans for protein, bread, and canned fruits. The school serves a hot lunch in addition to the salad bar, and children can choose from both options at once. In the first two months of operation, 30% of the student body chose the salad bar as their full lunch option. The program has increased parent and staff participation in the school lunch program. This brings in additional revenue for the school lunch program and provides role models for the children. Since the opening of the salad bar at Lincoln Elementary, one additional school in the district has started serving a local, organic salad bar, and two additional schools have requested to begin serving the salad bar option in the coming year.





NUTRITION OBJECTIVE 2:

REDUCE HUNGER AND FOOD INSECURITY IN WASHINGTON STATE

Washington State Department of Health

NUTRITION OBJECTIVE 2: REDUCE HUNGER AND FOOD INSECURITY IN WASHINGTON STATE

For several years, Washington State has had one of the highest rates of hunger and food insecurity in the county. Food insecurity is defined as "not having sufficient resources to have access to enough food for active, healthy lives for all household members." Between 1999 and 2001, 12.5% of Washington State's residents reported that they were food insecure, and 4.6% reported that they had times when family members were actually hungry because they could not buy enough food (1).

Children who experience hunger and food insecurity in their homes are more likely to have behavioral problems, do poorly in school, require more medical care and hospitalizations, and develop chronic disease as adults (2). Hungry children under 12 were twice as likely to be anemic than non-hungry children in low-income households. Food insecure children under age three were 33 percent more likely to have been hospitalized compared to food-secure children. In a national sample, food-insufficient pre-school and school aged children had more frequent stomachaches, headaches and colds (2). Providing children with access to food at school can alleviate some of the learning problems faced by hungry children. Improved nutrition results in better health. In turn, children perform better in school, absenteeism is reduced, and behaviors improve (3).

Food insecurity is associated with obesity and overweight. Townsend and colleagues found that the prevalence of overweight among women increased as food insecurity increased, from 34% for those who were food secure, to 41% for those who were mildly food insecure, and to 52% for those who were moderately food insecure (4). In Washington State the situation is similar. Among 17,371 people who responded to the Washington State Behavior Risk Factor Surveillance System telephone interviews from 1995 through 1999, those who reported food insecurity were 40% more likely to be obese compared to those who did not report food insecurity, controlling for age, race, ethnicity, physical activity, and fruit and vegetable intake (5). At this time, the reasons behind the relationship between hunger and obesity are not clear (6). It may be that low income families purchase cheaper foods that have high sugar and fat content in order to make their food dollars go further. It may also be that the "feast or famine" cycle of periodic hunger causes metabolic adaptations that lead to greater fat deposition (4).

The health and educational achievement of many Washington State residents can be improved by reducing food insecurity.

A. Provide adequate support for nutrition and food programs.

Nutritional safety net programs include the Special Supplemental Nutrition Program for Women Infants and Children (WIC), WIC Farmers' Market Nutrition Program, Food Stamp Program (known in Washington State as the Basic Food Program), National School Lunch Program, School Breakfast Program, Summer Food Service Program, Child and Adult Care Food Program, Nutrition Program for the Elderly, Emergency Food Assistance Program, and the Cooperative State Research, Education, and Extension Service.

Food assistance programs work. In households where food stamp benefits are more than $17.54, the nutritional quality of food consumed by the family is improved by food stamp participation (7). Preschoolers, whose families use food stamps, have higher intakes of some nutrients than children of the same age and income level whose families do not use food stamps (8).

Proven and effective food assistance programs are in place, but these programs face challenges as they try to assure that all families are food secure in changing times. Almost one third of Americans who are eligible for food stamps do not use them (9).

The American Dietetic Association has these suggestions for supporting food assistance programs (6):

- Educate eligible clients on the availability and benefit of federal and non-federal resources available in the community and recommend participation
- Develop and evaluate innovative programs that improve the food security of individuals, households, and communities
- Serve as advocates for the nutritionally vulnerable and those groups at increased risk for food insecurity
- Assist in efforts to improve food access and acquisition by individuals and reduce edible food loss (e.g., food gleaning)
- Support legislative and regulatory processes that promote uniform, adequately funded food assistance programs, nutrition education, and programs to promote and support the economic self-sufficiency of individuals and families

Examples of activities:

Support food programs that act as nutritional safety nets for families and children:

USDA has developed a set of tools, Together We Can! (9) that can be used by individuals and communities to support the work of federal programs. When these tools are used, federal programs are more effective because they are attuned to local economic history and culture. Food assistance programs can be supported by advocacy for nutrition education, individual attention to elders who require food assistance, bringing the Summer Food Service Program to needy children, and organization of food drives, gleaning events, community gardens or other fund raising and awareness activities. Individuals can volunteer to provide transportation, childcare, assistance with forms, and education about nutrition and food safety. Groups and individuals can educate themselves about the causes and consequences of hunger so that they can advocate for the most effective programs to address this problem in their communities.

In Washington State this kind of community work is carried out by the Washington Food Coalition, a group of 275 non-profit organizations whose common goal is to alleviate hunger. Members include food banks, soup kitchens, and food distribution centers. The coalition advocates at the federal level on behalf of emergency food programs, and serves as a unified network of anti-hunger programs for Washington State (10).

Promote family economic security for those transitioning from welfare to work and for working poor families: Many families in Washington State have left the welfare rolls. Between July 1997 and June 1999 the Temporary Assistance to Needy Families (TANF) caseload declined

by 31 percent (11). However, there are indications that the families of parents who move from welfare to low income jobs are at risk for food insecurity and hunger. Fourteen percent of TANF leavers reported feeling hungry, and 40 percent reported that they cut their meal size since leaving the TANF rolls (11). Some families may still be eligible for food stamp benefits but do not apply because they don't know about their eligibility or because it is difficult to complete the application process due to work and childcare responsibilities (12).

Families transitioning from welfare to work are at risk of food insecurity if family wages are too low to pay for the high cost of housing and childcare. Washington State's Community Jobs Initiative was implemented in 1997. The goal of this program is to give participants the skills and work experience they need to find unsubsidized employment in work that benefits the community. Community Jobs provides its participants with valuable work experience and skills training, including vocational/occupational training, and adult education. These skills lead to job placement and job retention. As of 1999, over 600 participants were enrolled in Community Jobs. Community Jobs graduates typically earn more than state minimum wage (13). Rates of hunger in young families in Washington State can be lowered by continuing to support these families as they strive for self-sufficiency.

B. Improve access to nutrition programs

The most vulnerable residents of Washington State often face the most difficulties in using food assistance programs. To begin with, families need to be aware of programs and to have accurate information about eligibility and how to apply. Secondly, families need a certain level of resources just to begin to use food assistance programs. These include language skills or the knowledge of how to find someone who will help with language difficulties, transportation, basic literacy, access to food shopping, and facilities for

food storage and preparation. The National Nutrition Safety Net: Tools for Community Food Security offers many suggestions for ways to make it easier for families to obtain the food assistance they need (1).

Examples of activities:

Develop model policies and funding recommendations that enhance nutrition programs that work with populations that are at risk for hunger and food insecurity: Innovative community efforts can make all the difference to hungry families. Since 1993, the Washington State legislature has supported the School Breakfast Program by creating a pool of funds to supplement federal reimbursement. As a result, the program has fed an additional 40,000 children since 1993 (2). Tacoma Public Schools go a step further by providing breakfast for every child, regardless of income level. Soap Lake School District provides free breakfast and lunch to all children.

Summer can be a hungry time for children who rely on school lunch and breakfast programs. The Summer Food Service Program is available to fill this need, but does not come close to serving all eligible children across the state. Some communities have made a commitment to use innovative ways to feed as many children as possible. For example, the Kent School District has created a mobile Campus Café which makes stops at three different apartment complexes, and serves over 100 children per day during the summer months. In addition, the district operates 21 summer food sites in schools, housing complexes, and parks (2).

Maximize access to the Basic Food Program, Supplemental Nutrition Program for Women, Infants, and Children (WIC), Basic Food Nutrition Education Program (BFNEP), Senior Meal Programs, food banks, and child nutrition programs: One of the most effective ways to maximize access is to build a strong outreach network that includes all the food assistance programs and reaches into each community and cultural group.

Programs can be expanded to reach those most at risk when services are designed to reach specifically targeted populations. Special attention should be given to assuring that nutrition education programs such as the BFNEP and WIC are geographically sited to reach underserved populations and those at greatest risk of developing obesity and chronic diseases.

It is also important to provide services at times that work for low-income families and to simplify the application process. In California, Senate Bill 2013 (3) requires the Department of Social Services to simplify and shorten the application for food stamps. In addition, local action has been undertaken in California counties. Such activities include: 1) extending Department of Social Services' hours; 2) community outreach; and 3) application assistance. Incorporating these changes improves food stamp participation.

NUTRITION OBJECTIVE 3:

INCREASE THE PROPORTION OF MOTHERS WHO BREASTFEED THEIR INFANTS AND TODDLERS

Washington State Department of Health

NUTRITION OBJECTIVE 3: INCREASE THE PROPORTION OF MOTHERS WHO BREASTFEED THEIR INFANTS AND TODDLERS

Human milk is recognized as optimal nutrition for infant and child health, growth, and development (1). Research consistently demonstrates that breastfed children are healthier and incur fewer health care costs. While breastfeeding rates appear to be increasing (2), they are still not in line with the Healthy People 2010 goal of 75% for the early postpartum period nor with the continued breastfeeding goal of 50% at six months of age (3). If breastfeeding rates were increased to the levels recommended by the U.S. Surgeon General, it would save an estimated 3.6 billion dollars in health care costs (4).

A. Assure that health care settings, child care facilities, and worksite environments are breastfeeding friendly

A woman's ability to successfully breastfeed her infant depends in part on the support she receives from the health care system, the workplace, and from family and community members. Breastfeeding education and promotion start before birth and are further supported by hospital practices that encourage breastfeeding over formula feeding unless medically indicated. With the rise in dual income families, more than 70% of mothers with children under three years of age work full time (5). A supportive environment that promotes maternal and child health benefits employers because it leads to less staff turnover, less absenteeism, improved worker productivity, and increased worker loyalty (6).

Example activities:

Establish hospital and maternity center practices that promote breastfeeding: As recommended in the Blueprint for Action (6), the Seattle-King County Breastfeeding Coalition developed Model Breastfeeding Standards for King County Hospitals in 1996 (7). These Standards are consistent with policies and procedures outlined in the Baby-Friendly Hospital Initiative (BFHI) established by UNICEF and the World Health Organization, an initiative which recognizes hospitals and birth centers that have taken steps to provide an optimal environment for the promotion, protection and support of breastfeeding (8). Evergreen Hospital Medical Center in Kirkland was the first hospital in the United States to be designated a Baby-Friendly Hospital by this international health program (9).

Train health care professionals who provide maternal and child care: Evergreen Hospital Medical Center in Kirkland has long been recognized as a national leader and innovator in lactation support and education. Evergreen provides a series of courses for health professionals that address the care of breastfeeding mothers and infants and the design and enhancement of lactation support programs.

Develop incentive programs that encourage employers to provide breastfeeding-friendly worksites: The 2001 Washington State law "exempts the act of breastfeeding or expressing breast milk from the indecent exposure laws" and "encourages employers to accommodate breastfeeding mothers RCW 9A.88.010." Several employers in Washington State have been recognized by the Breastfeeding Coalition of Washington for their leadership and contribution to promoting and supporting breastfeeding as a vital part of the health and development of children and their families. Weyerhaeuser Company received the first Outstanding Employer Award in 1999. Weyerhaeuser supports "New Moms" rooms equipped with company-supplied, top-of the-line electric breast

pumps, refrigerators, cots and chairs. Weyerhaeuser also provides flexible work schedules, educational material on breastfeeding, lactation consultant services and information on their intranet (10).

Develop policies that require child care facilities to provide quality breastfeeding support: As recommended in the Blueprint for Action (6), child care centers can help increase breastfeeding rates by supporting breastfeeding mothers. Centers can provide safe storage facilities and procedures for using expressed breastmilk. They can respect a mother's instructions about avoiding non-breastmilk feedings, and provide a quiet and comfortable place for mothers to breastfeed on site. The Breastfeeding Coalition of Washington has developed information for mothers about breastfeeding in the child care setting (10). These guidelines can assist child care facilities in developing policies supportive of breastfeeding.

The on-site child care facilities at Northwest Hospital and Medical Center (11) in Seattle and ICOS Corporation (12) in Bothell have an "open door policy" to encourage employees to breastfeed or play with their child during work breaks. Child care providers call mothers when their child is hungry and have facilities to hold and thaw breastmilk. The on-site child care facility at Northwest Hospital also has a comfortable sitting area for mothers to nurse or pump.

Washington State Nutrition and Physical Activity State Plan

Physical Activity Objectives

These objectives are designed to increase the proportion of adults and children who meet recommendations for moderate or vigorous physical activity. The objectives focus on three areas, community recreation, physical activity opportunities for children and active community environments.

Objectives for Physical Activity:

1. To increase the number of people who have access to free or low cost recreational opportunities for physical activity
2. To increase the proportion of children who meet recommendations for moderate or vigorous physical activity
3. To increase the number of active community environments in Washington State

Promising recommendations have been identified for each of the objectives. They are, to the extent possible, based in existing evidence about effective approaches to reducing rates of obesity by making it easier for Washington State residents to be physically active. Brief examples of each of the approaches are included in the following pages to demonstrate how policies and environments can be used to promote physical activity.

Physical Activity Priority Recommendations:

- Provide adequate funding for state and local recreation sites and facilities
- Develop model policies to increase access to public facilities for physical activity
- Increase the number of worksites that have policies that enhance physical activity opportunities
- Adopt school based curricula and policies that provide quality, daily physical education for all students
- Encourage policies that provide K-12 students with opportunities for physical activity outside of formal PE classes

- Provide opportunities to replace sedentary behaviors such as watching television with physical activity
- Utilize urban planning approaches – zoning and land use – that promotes physical activity
- Incorporate transportation policy and infrastructure changes to promote non-motorized transit
- Enhance safety and perceived safety to improve community walkability and bikeability

PHYSICAL ACTIVITY OBJECTIVE 1:

INCREASE THE NUMBER OF PEOPLE WHO HAVE ACCESS TO FREE OR LOW COST RECREATIONAL OPPORTUNITIES FOR PHYSICAL ACTIVITY

OCD Photo / Rita R. Robinson

Washington State Department of Health

PHYSICAL ACTIVITY OBJECTIVE 1: INCREASE THE NUMBER OF PEOPLE WHO HAVE ACCESS TO FREE OR LOW COST RECREATIONAL OPPORTUNITIES FOR PHYSICAL ACTIVITY

A. Provide adequate funding for state and local recreational sites and facilities.

Supporting high-participation, and low-cost activities that do not pose financial barriers to individuals can encourage physical activity. Recreation sites and facilities are important parts of the public infrastructure, and they are essential to the health and well being of Washington State residents.

Washington State has plentiful land and facilities for recreational activities, but most of the lands that are classified as "recreational" are "located at higher elevations distant from populated areas, and able only to host relatively low-participation, challenging activities that demand high skill sets (1)." According to a recent Interagency Committee for Outdoor Recreation report, Washington residents engage in a wide variety of recreational activities, but they are most likely to participate in those that are low cost and close to home. The most popular activities statewide are walking and bicycling (2).

Residents who walk and bicycle often use streets and roads for recreational purposes. Motor vehicle traffic is a significant and intimidating presence. "Safety" is one of the most important attributes of a recreational setting (3). Local trails and paths for walking and bicycling are in high demand across the state. Trails and paths that are separated from traffic encourage people to walk and bicycle by providing a recreational environment that is safer than walking or bicycling on streets and roads.

Parks with open space provide additional recreational opportunities. Recent budget cuts have meant that local parks have either been forced to cease operations altogether or to transfer authority to local cities. The Washington Parks System is one of the largest and most heavily used state park systems in the United States. With 125 parks, Washington State ranks fourth among all 50 states in day-use attendance. However, Washington ranks 47th in state dollars spent per park visitor. This equates to 78 cents per visitor compared to a nationwide average of $1.96 per visitor (4).

The Washington State Parks and Recreation Commission recently started to charge a daily vehicle parking permit fee of five dollars for many parks. The Commission is asking those who use the

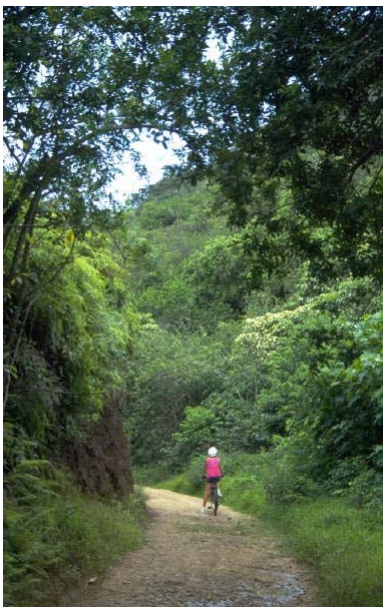
parks to help pay for the costs of maintenance and development. Some individuals may qualify to apply for free annual parking permits, but the cost and inconvenience may discourage many residents from using the parks for physical activity (4).

Examples of activities:

Reallocate funding to support local and city parks and recreational facilities that are low cost, high demand activities and are used by disadvantaged populations. Availability of local recreational facilities impacts the public's health. All Washington State residents should have access to recreational facilities, including sidewalks. The public's health is served when plans for community development and siting of facilities are made with health consequences in mind. This happens when public works departments, transportation agencies, public health, and parks and recreation departments come together to plan for systems of trails and other facilities. A collaborative approach to planning, construction and management is a critical first step in securing funds to build an infrastructure for recreational opportunities for residents across the state.

Provide funding to maintain established local and city parks and recreational facilities, especially trails and paths for walking and bicycling. Parks and other recreational sites are a matter of public health and should be funded accordingly (2, 6). Without adequate funding, local governments may be forced to rely on public-private ventures that will provide additional amenities and operating revenue for parks (5). Policy makers should consider the public health impact when making decisions about funding to local park and recreation programs.

Provide funding to support land acquisition and construction of new trails and paths for walking and bicycling. In Washington State the number of funded projects are small in comparison to actual requests for trail and path funding (2). Opportunities for new trails and paths are lost as local agencies cut budgets.



Here are some examples of funded projects that will increase physical activity:

- The City of Castle Rock is building a trail along the Cowlitz River, improving safety for community members who were previously obliged to walk or bicycle on busy roads with no shoulders.
- Kitsap County Parks and Recreation is building the 2-1/2 mile long Clear Creek Trail in the urban core of the unincorporated community of Silverdale.
- Anacortes Parks and Recreation Department is converting a former rail corridor to a 2.75 mile paved waterfront trail to provide recreational and commuting cyclists and pedestrians a means to enjoy the shore of Fidalgo Bay while providing an alternate to SR 20 for cyclists traveling to the Anacortes ferry terminal.

B. Develop model policies to increase access to public facilities for physical activity

In the Guide to Community Prevention Services, the Center for Disease Control and Prevention strongly recommend creating or enhancing access to public places for physical activity (1).

Schools, community recreation centers, malls and parks are community cornerstones that can be used as places for physical activity. Concerns about safety and access before or after hours of usual operation can be addressed in part by policy changes (2). By removing financial barriers, all community members and families will have access to such facilities for recreation and play.

Examples of activities:

Open public school gym facilities and athletic grounds in Washington State for the public: The Community Schools Program in the Moses Lake School District coordinates the use of school district facilities by outside groups, non-profit youth organizations, for-profit organizations, and other agencies after school hours and during the summer (3). The local high school is open for walkers from 3:30 to 9:00 p.m. every day school is in session. The Skagit County Parks and Recreation Department has utilized Juvenile Justice grant funds to open school gymnasiums to youth ages 12 to 18 on weekends in five Skagit County communities (4).

Address policies related to liability issues regarding the use of public spaces for recreational purposes: It is important to assure individual safety and to monitor appropriate use of public spaces. Insurance liability and supervision of participants are essential components of these strategies. For example, the Community Schools Program in the Moses Lake School District requires that all organizations that participate in their program provide a certificate of liability

insurance and arrange for a district supervisor to monitor activities (3).

Encourage cities and towns to use existing public facilities to meet the requirements for parks and recreation in their community comprehensive plans: The City of Moses Lake has a variety of assets including parks, recreation facilities, trails, greenbelts and open space. The comprehensive plan for the city sets forth a goal to "provide public facilities and services in a manner that protects investment in existing facilities and maximizes the use of existing facilities (5)." In Spokane, the Parks and Recreation Department acquired the "Trolley Trail" which uses over a mile of a previous rail corridor. The trail connects the city with rural trails including the Fish Lake Trail and the Spokane Centennial Trail (6).

C. Increase the number of worksites that have policies that enhance physical activity opportunities

In 2001, 69% of all non-institutionalized Americans over the age of 16 worked at some time during the year (1). In the hours they spend at home many adults have responsibilities to children and aging family members that limit opportunities to be physically active. Worksite policies that promote physical activity have the potential to make a difference in the health of a majority of adults (2).

There are promising examples of ways to provide workers with opportunities and incentives for being active. Worksite "exercise" programs typically attract a limited number of participants and often have high dropout rates over time (3). However, long term success can be achieved by modifying the total work environment and adopting corporate strategies that support a more active lifestyle for all employees (4).

Examples of activities:

Provide employee benefit packages that include coverage for physical activity: Microsoft, Nintendo and Honeywell provide employees with memberships at PRO Sports Club in Bellevue. In addition to an array of workout facilities, PRO Sports offers the *20/20 Lifestyles Clinic*. The clinic is staffed by a full-time physician and a team of nutritionists and personal trainers, who provide an intense 10-week wellness program and ongoing follow up. For those who take advantage of it, this employee benefit improves risk factors for chronic diseases such as high body mass index, hypertension, and elevated cholesterol levels (5).

Offer lower insurance premiums or rebates for employees who can document participation in regular physical activity: This policy is recommended in Promoting Physical Activity: A Guide for Community Action (3), and builds on the success of similar efforts that have worked in tobacco control. Regular physical activity is associated with lower health care costs even over a relatively short period of 18 months (6). In Washington State, officers of the Redmond Police Department are eligible to receive an annual pay incentive on the basis of successfully completing a physical fitness evaluation. Officers testing to the "distinguished" level receive 2.5% of their monthly salary. Those testing to the "competent" level receive 1.5% of their monthly salary (7).

Provide worksite shower facilities and flex time to allow for physical activity before or during the workday: Worksite facilities can foster sustainable behavior change (8). Several employers in Washington State provide facilities that encourage physical activity as part of commute trip reduction. Workers use commute time as an opportunity to be active or refresh themselves with vigorous exercise during the workday. For example, Public Health-Seattle & King County has included showers in new clinic sites. This has led to a worksite culture that fosters physical activity.

Point of Decision Prompts that encourage people to use the stairs: Create signs to encourage people to use the stairs. Include messages about the importance of physical activity for health and/or messages that remind employees about the availability of the stairs as a physical activity opportunity. Post the signs by elevators and escalators to encourage employees to be more physically active throughout the day.

PHYSICAL ACTIVITY OBJECTIVE 2:

INCREASE THE NUMBER OF PHYSICAL ACTIVITY OPPORTUNITIES AVAILABLE TO CHILDREN

Washington State Department of Health

PHYSICAL ACTIVITY OBJECTIVE 2: INCREASE THE NUMBER OF PHYSICAL ACTIVITY OPPORTUNITIES AVAILABLE TO CHILDREN

Schools, families, and communities can work together to encourage active lifestyles. It is easier for children to be active when they are provided with effective physical education programs, safe and attractive play areas, sports facilities and equipment, developmentally appropriate non-competitive activities, high quality child care, good role models, and access to sidewalks and bike paths (1,2,3).

Recommendations for Adolescents: The International Consensus Conference on Physical Activity Guidelines for Adolescents recommends that "all adolescents...be physically active daily, or nearly every day, as part of play, games, sports, work, transportation, recreation, physical education, or planned exercise, in the context of family, school, and community activities." Additionally, it is recommended that "adolescents engage in three or more sessions per week of activities that last 20 minutes or more at a time and that require moderate to vigorous levels of exertion (4)."

Recommendations for Elementary Students: The National Association for Sport and Physical Education states that elementary aged children should accumulate at least 30 to 60 minutes of age and developmentally appropriate physical activity from a variety of physical activities on all, or most days of the week (5).

Recommendations for Infants and Toddlers: The National Association of Sport and Physical Education states that toddlers should accumulate at least 30 minutes daily of structured physical activity; preschoolers at least 60 minutes. Toddlers and preschoolers should engage in at least 60 minutes and up to several hours per day of daily, unstructured physical activity and should not be sedentary for more than 60 minutes at a time except when sleeping (6).

A. Adopt school based curricula and policies that provide quality, daily physical education for all students.

At the same time that rates of childhood obesity and diabetes have been increasing, participation in school-based physical education has been decreasing. From 1991-1995 participation in daily physical education programs in American high schools dropped from 42% to 25% (7). Participation in high school physical education classes drops off as students get older. Nationally, only 20% of high school seniors attended PE classes daily (8). On the 1999 Youth Risk Behavior

Survey (YRBS), about 44% of Washington State students in grades nine through 12 reported participating in daily physical education (9).

School-based physical education is an effective way to improve physical fitness (10). Some studies have also found decreased body fatness over time in children who participate in well-designed physical activity programs (10).

Washington State has made a commitment to improving the health of Washington State's children as a part of Washington State Education Reform in 1993 and the Essential Academic Learning Requirements (ELARs), Revised Code of Washington (RCW) 28A.150.210. Please see Appendix E. Implementation of the health and fitness ELARs is scheduled for 2006. The revised code will assure that all students have opportunities to develop knowledge and skills that are essential to health and fitness. The Essential Academic Learning Requirements for Health and Fitness are based on National Standards (5, 11). Three key elements of these guidelines are highlighted in the following examples of strategies to promote quality physical education.

Examples of activities:

Teach skills that promote lifelong physical activity:
Some activities are more likely than others to be continued past the school years. Teaching the skills needed for these activities will help prevent chronic disease over the lifespan. Many adults report that their unpleasant school PE experiences lead them to avoid physical activity after graduation (12). A lifelong physical activity approach has been shown to work in the opposite way. Students who participated in a Conceptual Physical Education program that combined both classroom and physical skills teaching with a focus on lifelong fitness were less likely to be sedentary than those who participated in a traditional sports-oriented program (13). Examples of lifelong activities include walking, dancing, swimming, hiking, and cycling.

These activities can be described by the following attributes:

- Non-competitive
- Enjoyable
- Don't require a great deal of mental effort
- Can be done alone, without a partner or teammates
- Provide a sense of mastery and increasing fitness

Increase the time that students are actively involved in PE at school: National guidelines for elementary age students state that children should accumulate at least 30 to 60 minutes of physical activity on all or most days of the week. One thing that schools can do to meet these guidelines is to provide daily physical education. National guidelines recommend requiring daily PE for students in kindergarten through grade 12 (14). Equally important, is the time that students actually spend being active during physical education. Many competitive team sports require only intermittent activity, and over-reliance on these activities during physical education classes may exclude less skilled children altogether. Activities such as dance, rope skipping and in-line skating can provide fun and exercise for almost all students. Seattle Public Schools offers *Success-Oriented P.E*. The program is recognized nationally for its eclectic curriculum, staff training, and unique loaner equipment program for unusual sports. Success-Oriented P.E. includes circus arts (juggling and unicycles), table tennis, mountain bikes, fencing, orienteering, roller-skating, crew, yoga, rock climbing, a variety of dance forms, and global sports. The program includes an annual gathering in celebration of physical activity. Children in Seattle schools have some of the highest P.E. participation and fitness scores in the nation (15).

Train teachers in physical education and enhance the training of physical education teachers: It takes competence and skill to provide the kind of physical education classes described in these examples. Many elementary school classroom teachers have had little or no formal training in physical education**,** and the training of

physical education teachers may not have kept up with advances in the field (12). Physical education should be taught by qualified physical education teachers. These teachers should be provided with ongoing training in new techniques. Student activity levels can be increased by in-service teacher training that provides teachers with the skills and competence they need to increase the amount of physical education class time spent on moderate or vigorous physical activity (14).

Spokane Public Schools revised its curriculum based in the state ELARs for Health and Fitness. Through a five-year process Spokane Schools have created a progressive, developmentally appropriate K-10 curriculum, *Fit for the Future*. The program was successful because the district received a federal Physical Education for Progress grant that provided equipment and teacher in-service training.

B. Encourage policies that provide K-12 students with opportunities for physical activity outside of formal PE classes.

Schools can impact physical activity in many ways. Eighty percent of high school student leaders think that it is important for schools to promote physical activity by providing more opportunities for students to get involved in physical activity. Fifty-five percent think that more physical education classes are important (1).

Current recommendations for physical activity emphasize the importance of "lifestyle" activity taking advantage of opportunities to move throughout the day. The National Coalition for the Promotion of Physical Activity recommends daily physical activity breaks for children in after school programs that meet the needs and interests of all youth (2). Middle school students have been found to be more active before and after school and during breaks in the school day when there are safe, attractive, and supervised places for them to move and play (3). Schools can serve as a resource and referral center for community-based activities for students, staff, and families.

The President's Council on Physical Fitness states that "Communities should be made to be friendly and safe for children to be physically active by providing safe paths to walk or cycle to school, and by the opening of school gyms for after-hours physical activities (4)."

Examples of activities:

Support "Safe and Active Routes to School" and "Walk Your Child to School" activities (5)**:** Most children in Washington State use a car or bus to get to school. There are many barriers to walking or biking to school. Children may live too far from school to walk or bike. Many children must carry heavy loads of books, musical instruments and sports equipment because schools do not offer adequate locker space. A recent report by the National Academy of Sciences (6) states that walking or riding a bicycle to school are associated with increased risk of injury. A program to promote safe riding habits and use of helmets should be an integral part of any effort to increase bicycle ridership. Walking promotion should include careful review of local conditions and safety considerations, and walkway improvements should be considered where necessary. Many communities are working to make changes so that their children will be able to take advantage of traveling to school as an opportunity to be more active. Please see the last example in priority recommendations C, Physical Activity Objective 3 for more information.

Design or Renovate Schools to Enhance Physical Activity Facilities: These may include safe areas to secure bicycles, lights in outdoor fields, walking trails on school grounds, well-equipped playing fields and physical activity centers that students can use before and after school and during school breaks (7). In Thurston County, the Capital High School environmental club has increased bicycling by building bike lockers. Club members conducted a survey of the student population and found that very few students were biking to school because of concerns over theft, vandalism, and exposure of bikes to the rain during the day. The students applied for Thurston County alternative transportation funds and built the new lockers with the help of welding students from the community college.

C. Provide opportunities to replace sedentary behaviors, such as watching television, with physical activity.

Sedentary living has been identified as the "silent enemy" in the war against chronic disease (1). The majority of parents feel that television and computers or video games are the biggest barriers to their child's physical activity (2). While interventions to reduce TV viewing time in children have had an impact on children's weight (3, 4), they have not necessarily been associated with increased physical activity (5). Changing the environment so that children have alternatives to sedentary behaviors is a positive way to make it easy for children to be active. In Washington State DOH and it's partners will continue to work to:

- Support efforts to provide quality child care and after school programs
- Develop, implement, and evaluate policies and regulations that support optimal physical activity in licensed child care facilities and programs for youth.
- Provide training and technical assistance to child care providers and volunteers who work with children and youth about developmentally appropriate physical activities.

Examples of activities:

Enhance Physical Activity in After School Programs: Children who have access to programs or facilities for safe physical activity are more likely to be physically active. The Dunlap Elementary YWCA, Out of School Time, in Seattle provides a good example of an after school program that promotes activity for elementary school children. The program has a large gym and offers the children bikes, balls, hula-hoops and other active play equipment.

Enhance Physical Activity in Programs for Youth: Barriers such as lack of transportation and cost prevent many children from participating in after school, weekend, and summer programs. The National Coalition for Promotion of Physical Activity suggests that programs that target underserved populations develop policies that support access to community based physical activity programs by offering transportation, sliding fee scale options, and training for volunteer coaches, parents, and others who are responsible for the delivery of organized youth sports programs (6).

Youth programs that do not focus on sports can also provide opportunities for physical activity. For example, the California Adolescent Nutrition and Fitness Program (CANFit) provides an interactive, hands-on workshop for providers who work with low-income, multi-ethnic youth ages 10-14. The workshop features nutrition and physical activities and games that have been tested and proven effective in increasing physical activity levels of adolescents (7).

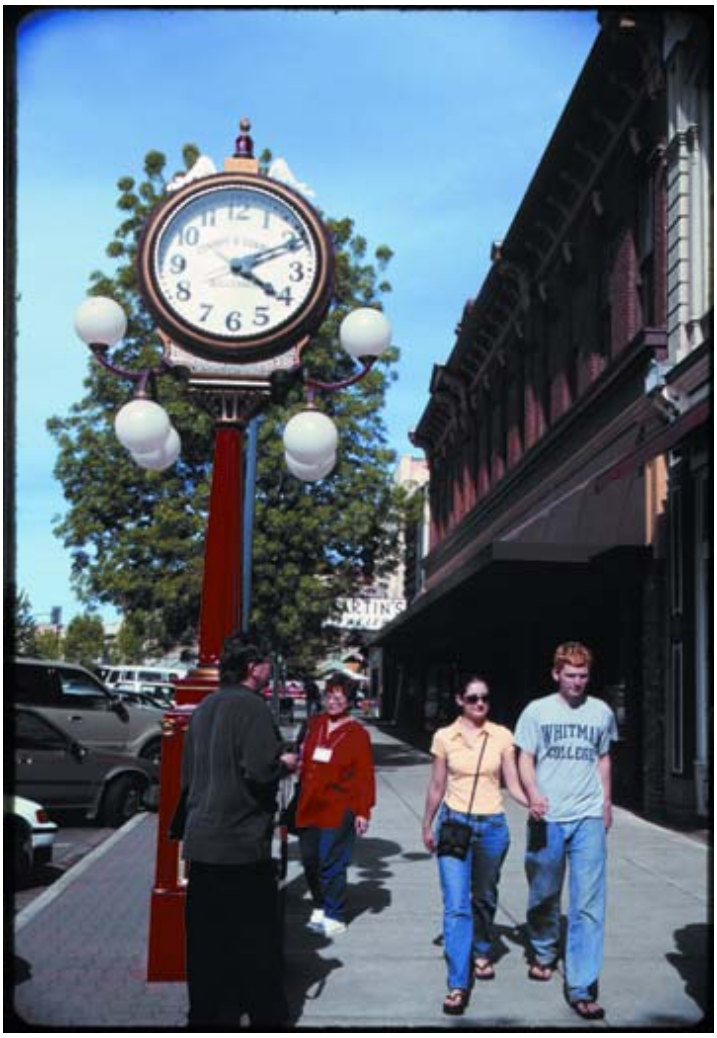
Enhance Physical Activity in Child Care Programs for Young Children: In Washington State 160,000 children are enrolled in licensed childcare centers (8). The National Association for Sport and Physical Education says all children from birth to age five "should engage in daily physical activity that promotes fitness and movement (9)."

"Preschool children should have at least 60 minutes a day of structured physical activity, including non-competitive games, balance stunts and simple tumbling, dancing or movement to music; at least 60 minutes -- and up to several hours -- a day of unstructured activity and, especially, opportunities for safe climbing, balancing, swinging, hanging and sliding. This is more likely when childcare providers provide a space where the child can mold and change his or her surroundings through physical activity and play. Outdoors, at least 75 square feet of play space is recommended; indoors, a space of at least five by seven feet in a childproofed area or room is suggested for daycare facilities and the home (9)." Staff training is an effective way to enhance physical activity in childcare programs. In North Carolina, over 4,000 childcare workers have been trained to use a Be Active Kids tool kit. Childcare providers report changes in attitudes, knowledge, and behaviors among staff and children (10).

An exemplary example of a program for young children that meets the guidelines for physical activity is the Northwest Center in Seattle. The Center serves a high proportion of children with special health care needs. The curriculum calls for outside play twice a day. The playground is designed to promote large and small motor skills and to be accessible to all children. Televisions and video games are not used in the center.

PHYSICAL ACTIVITY OBJECTIVE 3:

INCREASE THE NUMBER OF ACTIVE COMMUNITY ENVIRONMENTS IN WASHINGTON STATE



Washington State Department of Health

PHYSICAL ACTIVITY OBJECTIVE 3: INCREASE THE NUMBER OF ACTIVE COMMUNITY ENVIRONMENTS IN WASHINGTON STATE

"Active Community Environments are places where people of all ages and abilities can easily enjoy walking, bicycling, and other forms of recreation (1)." These areas support and promote physical activity with sidewalks, bicycle facilities, paths and trails, parks and open spaces, and recreational facilities. They are also places where mixed use development is promoted and people live within a connected grid of streets that allow easy walking between homes, work, schools, and stores (1).

A. Utilize urban planning approaches - zoning and land use - that promote physical activity

The ability to be physically active is in part dependent on how community human environment is designed and built. With increased suburbanization, more and more Washington State residents live in automobile-oriented communities rather than an environment where other modes of active transport (walking, cycling, and other non-motorized methods) are encouraged.

A person's immediate environment or neighborhood is the most important determinant of physical activity (2). Existing policies, including current zoning practices and independent, disconnected development patterns, have created an environment that makes walking and biking challenging (3). Walking and bicycling can be encouraged by changing these policies in Washington State communities.

Examples of activities:

Develop and disseminate model zoning and land use policies: Active community environments are supported when land is parceled and used to promote active transportation (4). Zoning codes that encourage the location of shops, schools, and housing in proximity to one another create walkable / bikeable communities (5). In its Comprehensive Plan, the City of Kirkland seeks to orient land use in its downtown core to the pedestrian (6). Dedicating land for retail, restaurant, office, residential, cultural and recreational activities provides visual interest and stimulates foot traffic, affording residents opportunities for physical activity (6).

Promote mixed-use development for walkable and bikeable communities: The most active walking areas allow and encourage a rich mix of land uses: homes, schools, churches shops, restaurants and offices (4). Communities around the state are now encouraging such development including Bellevue, Olympia, Redmond, Seattle and Spokane. The College of Architecture and Urban Planning at the University of Washington has developed a tool planners can use to identify areas with high potential pedestrian activity (7). Even without a concentrated "development" approach, establishing and maintaining neighborhood sidewalks can create walkable environments.

Work to modify school land-use requirements specific to parking space availability: Reducing automobile parking requirements at schools and locating parking to minimize conflicts with pedestrians and bicyclists will encouraging staff, families and students to use alternate forms of transportation (4). At Mercer Island High School in Western Washington State, parking privileges are only available to seniors. Only 40% of the students of driving age are permitted to drive to school.

Work to keep schools in neighborhoods rather than on the edges of communities: Develop life long healthy habits by providing opportunities for children to walk and bike to school. Schools located within residential areas promote activity-based transportation rather than automobile use (8). Schools that are built on undeveloped land at the edges of towns discourage active forms of transportation. Active community environments are preserved by renovating older schools in walkable communities. The renovation of Latona Elementary School on Queen Anne Hill in Seattle provides an example (9). Not only was the school transformed, but the surrounding area was revitalized, and the community is now more livable, safe, and walkable.

B. Incorporate transportation policy and infrastructure changes to promote non-motorized transportation

Fear of traffic is one of the most frequently cited reasons for not walking or biking to and from destinations. This fear may be overcome by creating a safe, connected and integrated bicycle and pedestrian system and improving cross walks, street lighting, and traffic signals (1).

While states have experienced a 40 percent increase in federal transportation dollars in the last few years, Washington State only spent one percent of federal transportation funds on pedestrian and bicycle projects (2). All states, including Washington State, can take advantage of federal funds to support such projects. It is essential that policy makers understand the public health implications of building infrastructure for non-motorized transportation.

Examples of activities:

Encourage communities to have non-motorized transportation citizen committees that report to the governing body (i.e. city council, mayor, etc.): Communities with the most non-motorized facilities and success in developing non-motorized policies are those that have created formal non-motorized transportation advisory committees (3). These committees identify the highest priority needs and assure that policy makers allocate funding for infrastructure changes. For example, in the city of Olympia a group of concerned and dedicated citizens has guided the city through effective changes in policy and infrastructure for several years.

Develop model policies for bicycle and pedestrian-oriented transportation systems: Getting safely from one side of the street to the other requires adequate crossing times, especially for aging or disabled pedestrians. The City of Seattle has implemented timed crossing signals so that pedestrians are aware of how much time they have to cross an intersection before the traffic direction changes (4). Other important policies include adequate lighting, sidewalks and safe crossings along transit corridors.

Encourage economic incentives for non-motorized transportation: Surveys suggest that many Americans would bike to work if their employers offered financial or other incentives (3). The Commute Trip Reduction (CTR) (5) law passed in 1991 requires Washington State employers with more than 100 full-time employees to develop and implement CTR programs that encourage employees to seek alternatives to single occupant automobile transportation. As an incentive for promoting alternative transportation, employers are offered tax or non-tax credits. Providing incentives to smaller businesses and their employees (< 100 employees) and in small communities (counties with < 150,000 residents) has the potential to reach over 50% of Washington State's workforce (6).

Build connectivity between trails, paths, neighborhoods and schools, and sidewalks to enhance the ability to be physically active: In Active Community Environments, mixed use development and a connected grid of streets provide more opportunities for people to walk, bike, and be active (7). To promote such connectivity, the City of Olympia and Climate Solutions collaborated on the Neighborhood Connections Project. The process of identifying, designing and planning connections which adjoin neighborhoods and streets bicycle has resulted in a well-connected network of bicycle and pedestrian facilities for the City of Olympia (8).

The City of Moses Lake has partnered with the Rivers, Trails, and Conservation Assistance Program of the National Park Service to develop a network of linked paths for exercise, recreation, transportation and tourism (9). Signage improvements and detailed trail maps will complement these efforts to increase opportunities for physical activity in Moses Lake.

Develop a trail/path system in a community and educate the public on how to use it: A network of safe trails, paths, and supporting facilities makes it easy to leave the car at home and use non-motorized ways to get to desired destinations (1). The 27 miles of trail connecting Ballard to Redmond, the Burke-Gilman/Sammamish River Trail, invites users of all ages. Between 1985 and 1995, the percentage of people using the trail increased 85%, from 1400 to 2600 users per day (10). Perhaps because of its convenience and location, the percentage of people using the trail for commuting rather than recreational purposes between 1985 and 2000 went from 6% to 32% (10). The trail avoids dangerous traffic crossings with bridges and tunnels, and the trail is ADA Accessible at most points. Several parks with water, restrooms, and picnic facilities line the course of the trail. The public can learn about the trail through maps and trail guides (11).

Encourage traffic-calming measures, such as speed bumps and bulb-outs: A pedestrian hit at 35 miles per hour has an 85% chance of being killed. The same pedestrian hit at 20 miles per hour would have an 85% chance of recovery. Therefore, slowing vehicle speeds is very important to non-motorized safety (12). The City of Kirkland recently completed its latest neighborhood traffic-calming project. In one case, traffic circles were as effective as a speed bump, in reducing speeds by 6 mph (13). By reducing speeds, community safety has greatly improved. Curb extensions also referred to as bulb-outs were also constructed. Curb extensions make pedestrians more visible to motorized traffic and shorten the crossing distance between the curbs so that pedestrians are able to cross the street more quickly.

C. Enhance the safety and perceived safety of communities to improve walk-ability and bike-ability.

Improving and protecting community safety can create healthier, more livable neighborhoods and communities.

Concerns about crime and community safety are major barriers to active transportation for older adults, adults and young people. Fear of traffic and crime is often cited as the major reason parents don't allow their children to walk to school (1). Walking is one of the most hazardous methods of travel in the United States (2). While only five percent of all trips are made on foot, 12 percent of all traffic deaths are pedestrians.

There are effective ways to enhance pedestrian safety. Nationally, half of all pedestrian fatalities occur on roadways that run through residential neighborhoods. In an effort to move more cars through a given area in less time, residential streets have been widened. Unfortunately, increasingly wider streets encourage increasingly faster vehicular speeds and result in more pedestrian deaths (3). Narrow streets promote slower traffic. Many pedestrian collisions occur near bus stops or at street crossings without a traffic signal or stop sign. Improved bus stop facilities, pedestrian safety measures and traffic law enforcement will help to make people feel and be safer when they take trips that combine public transportation with walking (4).

The perception of safety is important. Many people say that they would use a bicycle for short or medium distance trips if "safe routes" were available, but even when these routes are available the perception of danger often remains (5).

Examples of activities:

Enhance pedestrian safety by enforcing vehicle speed limits: As speeds increase, the risks to pedestrians and cyclists increase dramatically. Speeding motor vehicles are probably the most common concern of walkers on both local and arterial streets (1). Community safety can be improved by reducing speed limits in high pedestrian traffic areas and enforcing posted speed limits that are consistent with adjacent land uses for bicycling and walking (1). The City of Kirkland has a long standing policy of enforcing crosswalk laws. Drivers in the city consistently yield to pedestrians resulting in more people making trips on foot (6).

Encourage policies that support training of all law enforcement officers about pedestrian and bicycle safety: Law enforcement can be an influential partner in promoting active and safe communities. Training at the Washington State Police Academy, and subsequent in-service

training programs, focus on understanding and enforcing the laws (e.g. bicycle helmet and pedestrian right-of-way) that govern pedestrian and bicycle safety. In addition, officers are trained to investigate accidents involving pedestrians and bicyclists. Statewide citizen education for bicycle or pedestrian safety is not routinely offered by police officers but could be a powerful tool in making Washington State communities safe. The Washington State Traffic Commission has developed a "roll call" video for police officers on pedestrian and bicycle safety (7). A program for adults and children developed by the city of Redmond police stages "pedestrians" (plain-clothes officers) crossing in the crosswalk. Enforcement officers observe and stop motorists who do not obey crosswalk laws (8). This program has been used successfully in communities around Washington State as well as nationally.

Implement community policing and block watch programs in communities: Neighborhood watch groups that increase safety and reduce crime can increase physical activity when they make residents feel more comfortable about walking or playing outside. Many neighborhoods and communities in Washington State have active programs. In Lynnwood, a volunteer group borrowed bicycles from the local police unit to patrol area malls, shopping centers and trails. The group acts as a high-visibility deterrent to crime. The "Police Citizen's Patrol" extended the official Police Bike Patrol Unit's presence, especially during the busy holiday shopping season in 2002 (9).

Promote safe and active routes to school: Even when distances to school are one mile or less, fewer and fewer children walk or bike and more and more ride a yellow bus or get a ride from family or friends (1). Careful review of local conditions and safety considerations is critical before encouraging walking and biking to school. The Kids Walk-to-School Program, promoted by the Centers for Disease Control and Prevention, involves school officials, parents, and children. This program works to improve safe and active routes to school by increasing awareness of the importance of taking advantage of the trip to school as an opportunity to be active. It also alerts communities to unsafe conditions that need to be addressed for all community members who want to use the sidewalks. Many schools in Washington State participate in Walk to School Day (10). In Kitsap County, the Bremerton-Kitsap Health Department worked with nine elementary schools last year to promote Walk to School Day. Strong community involvement and souvenirs to reinforce awareness of the rules for safe walking made for a very successful program (11). Once families and schools participate in this event, they realize that they could promote walking to school year round (12).

IV. Summary & Next Steps

This plan will be presented to policy makers in communities and agencies across Washington State. As understandings about the importance of policies that make it easier to eat well and be physically active grow, all Washington State residents will benefit. Environmental approaches provide a foundation for slowing the rate of increase in obesity in the state. Environmental changes will be complemented by new and ongoing efforts to provide each individual and family with the skills and knowledge they need to take advantage of nutrition and physical activity opportunities. Additional strategies (see appendix G) may be used and recommended as a priority when more conclusive scientific evidence becomes available to help support those strategies. Future editions of the plan will highlight individual and interpersonal approaches that will complement the institutional, community, and environmental and policy recommendations presented in this plan. All of these efforts are integral components of a comprehensive approach to nutrition and physical activity.

This plan has been developed to be a living document. Washington State's work toward reversing obesity trends has just begun. With this document, communities such as Moses Lake, government agencies representing health, transportation, agriculture, and education, large and small worksites, schools, and health care facilities will make progress toward building healthful environments by working together, sharing results, and learning from each other.

Appendix A

Glossary

Active Community Environments (ACE): These are places where people of all ages and abilities can easily enjoy walking, bicycling, and other forms of recreation. These areas support and promote physical activity. ACES have sidewalks, on-street bicycle facilities, multi-use paths and trails, parks, open space, and recreational facilities. They encourage mixed-use development and a connected grid of streets, allowing homes, work, schools, and stores to be close together and accessible to pedestrians and bicyclists.

Body Mass Index (BMI): A common measure expressing the relationship (or ratio) of weight-to-height. BMI is a mathematical formula in which a person's body weight in kilograms is divided by the square of his or her height in meters (i.e., weight/height^2). The BMI is more highly correlated with body fat than any other indicator of height and weight (NRC p563). Individuals with a BMI of 25 to 29.9 are considered **overweight**, while individuals with a BMI of 30 or more are considered **obese**.

Community: A social unit that usually encompasses a geographic region in which residents live and interact socially, such as a political subdivision (e.g., a county, city or town) or a smaller area (e.g., a section of town, a housing complex, or a neighborhood). A community may be a social organization (formal or informal group of people who share common concerns or interests). Often, a community is a composite of subgroups defined by a variety of factors, including age, sex, occupation, socioeconomic status, physical activity history, and current physical activity preferences.

Environment: The entirety of the physical, biological, social, cultural, and political circumstances surrounding and influencing specific behavior.

Focus groups: A small group of people (about 8-10) who together respond to a set of questions and undertake a discussion on a selected topic. All participants represent a targeted audience and are encouraged to express their views related to the topic.

Healthy foods: Foods that follow the USDA Nutritional Guidelines for Americans; that have no more than 30 percent of calories from fat, no more than 10 percent of calories from saturated fat,

and no more than 35 percent added sugar by weight (except fresh, dried or canned vegetables and fruits); nutritious foods.

Intersectoral: Developing coalitions and planning with a variety of agencies, including health, non-health, government, and voluntary. These agencies may include criminal justice, transportation, parks and recreation, urban planning, transit, builders, employers, commute trip reduction, insurers, local government, environmental protection, agriculture, food processors and providers.

Media advocacy: The strategic use of media to apply pressure for changes in public policy. One of the main purposes of media advocacy is to increase the capacity of communities to develop and use their voices in order to be heard and seen.

Media Literacy: An educational initiative that aims to increase understanding and enjoyment of how the media work, how they produce meaning, how they are organized, and how the media construct reality.

Moderate physical activity: energy expenditure comparable to brisk walking at least 30 minutes per day on five or more days a week.

Obesity: An excessively high amount of body fat or adipose tissue in relation to lean body mass. The amount of body fat (or adiposity) includes concern for both the distribution of fat throughout the body and the size of the adipose tissue deposits. Body fat distribution can be estimated by skinfold measure, by waist-to-hip circumference ratios, or by techniques such as ultrasound, computed tomography, or magnetic resonance imaging. Individuals with a BMI of 30 or more are considered obese.

Overweight: Overweight refers to increased body weight in relation to height, when compared to some standard of acceptable or desirable weights. Overweight may or may not be due to increases in body fat. For example, professional athletes may be very lean and muscular, with very little body fat, yet they may weigh more than others their same height simply because of their larger muscle mass. While they may qualify as "overweight," they are not necessarily "over fat." Individuals with a BMI of 25 to 29.9 are considered overweight.

Sedentary: Not physically active on a regular basis.

Physical fitness services: Activities where the primary focus is exercise and include exercise classes, provision of exercise equipment, and provision of personal trainers. Physical fitness services do not include instructional lessons, such as those for tennis, golf, martial arts, and other activities where the primary focus is instruction.

Smart codes: Zoning codes that allow and encourage compact, mixed-use neighborhoods where residential, commercial, and civic buildings are within close proximity. They foster pedestrian and bicycle activity, public safety, environmental protection, long-term investment, efficient use of infrastructure, and efficient provision of public services.

Social marketing: Applying advertising and marketing principles and techniques (i.e., applying the planning variables of product, promotion, place, and price) to health or social issues with the intent of bringing about behavior change. The social marketing approach is used to increase the acceptability of a new idea or practice within a target population.

Unhealthful foods: Foods that have more than 30 percent of calories from fat, more than 10 percent of calories from saturated fat, more than 35 percent added sugar by weight (except for fresh, dried or canned vegetables and fruits); foods with minimal nutritional value; low nutrient-dense foods; non-nutritious foods; foods that are not conducive to health.

Recommendations (Nutrition and Your Health: Dietary Guidelines for Americans):

Aim for fitness:

- Aim for a healthy weight
- Be physically active each day

Build a Healthy Base

- Let the food pyramid guide your food choices
- Choose a variety of grains daily, especially whole grains
- Choose a variety of fruits and vegetables daily
- Keep food safe to eat

Choose Sensibly

- Choose a diet that is low in saturated fat and cholesterol and moderate in total fat
- Choose beverages and foods to moderate your intake of sugars
- Choose and prepare foods with less salt
- If you drink alcoholic beverages, do so in moderation

Recommendations (Physical Activity):

The Surgeon General of the United States, the Centers for Disease Control and Prevention, and the American College of Sports Medicine, have concluded that for adults, the following amounts of regular physical activity are associated with important health benefits:

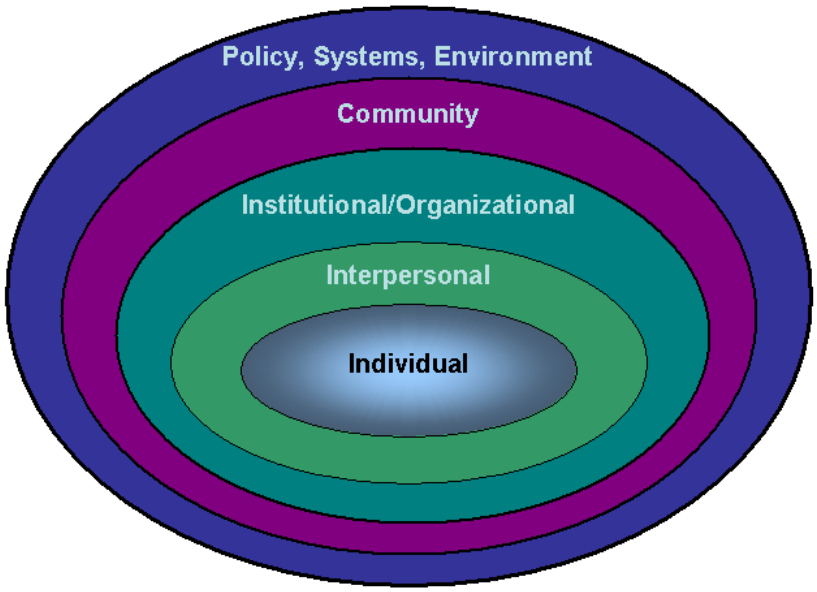
- Thirty minutes or more of moderate-intensity physical activity on most, preferably all, days of the week.

Surveillance System: A continuous, systematic collection of health-related data.

Appendix B

Conceptual Framework

The Social-Ecological Model, Inter-Sectorial Approaches and the Role of Public Health



We live our lives within several broad spheres of influence. Each in turn affects the other. Health promotion approaches that are based on the social-ecological model focus on the behavior choices of each individual as well as situations within each sphere that can influence health behaviors (1). The following factors influence behaviors at each level:

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

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

Institutional/organizational: rules, policies, procedures, environment, informal structures

Community: social networks, norms standards and practices

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

Health behaviors are most likely to change when work is done within all spheres of influence at the same time (1). For example, individuals can be reached with targeted promotional media messages like the Be Active (www.beactive.org) campaign that was successful in changing awareness and understanding about recommendations for physical activity in targeted media audiences in Washington State. Interpersonal support can be provided through one-on-one or small group activities such as the Chronic Disease Self-Management Program that The Department of Health supports in Washington State communities. At the institutional level, it can be made easier for individuals to carry out behavior change by working with employers to support walking or biking to work. At the community level, physical activity can be encouraged by enhancing pedestrian safety. At the social structure level work can be done with transportation and urban planning experts to develop city plans that make it easier for citizens to walk or bike to work, libraries, churches, schools, entertainment, shopping and other services.

This multilevel approach is essential to sustaining healthy choices in the population over time. Individually focused models alone have not been sufficient to change the nutrition and physical activity patterns of the population. Environmental and policy approaches have a long history of success in improving health and well being in areas like food safety and traffic fatalities (1).

Obesogenic Environments

This plan is driven by the rapid increase in obesity rates nationally and in Washington State. The plan presents an "upstream," preventive approach to the problem of obesity because even the best obesity treatment programs are only effective over the short term (2). It is clear that the rapid increase in obesity is not due to some fundamental change in human biology, but it is probably associated with an increasingly "obesogenic" environment that has made it more and more difficult for individuals to get the activity and health promoting foods that they need. Obesogenic environments are defined as "the sum of influences that the surroundings, opportunities, or conditions of life have on promoting obesity in individuals or populations (3)." This environment has been broadly influenced by factors that constrain healthy eating and physical activity in communities, homes and schools, such as food marketing, media, federal and state policies related to food and agriculture, urban design, education, and transport (3).

Inter-Sectorial Approaches & The Role of Public Health

Behavioral scientists have turned their attention to finding effective ways to change the obesogenic environment. Policy changes in the realms of education, food labeling and advertising, food assistance programs, health care and training, transportation, urban development, commerce and taxation can lead to improvements in nutrition and activity patterns.

Any one profession, institution, or agency alone cannot do this work. In developing and implementing this plan the recommended steps listed below are being followed (2):

- Form a state-based intersectoral coordinating group to develop policy on nutrition and physical activity;
- Identify opportunities to re-allocate existing resources from ongoing initiatives in other sectors that are in line with nutrition and physical activity policy priorities;
- Educate leaders and provide guidance to decision makers about nutrition and physical activity issues.

Public health can provide leadership to this work. The three core functions of public health can be directly applied to the efforts of this plan. The process is to **assess** the barriers to healthy food and activity choices that contribute to the obesogenic environment; then **develop policies** that address barriers and enhance opportunities to choose healthy behaviors; and finally, to **assure** that all Washington State citizens have access to health-promoting environments.

One of the primary responsibilities of public health is to minimize the effects of societal and economic constraints that lead to health disparities. Environment and policy interventions have the potential to reach all residents of the state. State and community-level decisions have, over time, inadvertently resulted in communities where it is often difficult to be physically active and to make healthy food choices. This becomes especially troublesome for children, the elderly, the disabled, and the poor for whom transportation is an issue. One role of DOH is to perform the policy development and assurance functions of public health by encouraging the institutions, agencies, and communities of Washington State to consider the effects on health and well being of all citizens as they make policy and planning decisions.

National Recommendations

In focusing on environmental and policy approaches in this plan, Washington State joins a national movement to seek out and address the root causes of the rapid increase in obesity. The following national guidelines, and many others, emphasize the importance of policy change:

- The National Governor's Association Center for Best Practices: The Obesity Epidemic – How States can "Trim the "Fat"(4)
- The Surgeon Generals' Call to Action to Prevent and Decrease Overweight and Obesity (5)
- The Centers for Disease Control and Prevention: The Guide to Community Preventive Services – Physical Activity (6)
- The American Heart Association: Guide for Improving Cardiovascular Health at the Community Level (7)
- The Nutrition and Physical Activity Workgroup: Guidelines for Comprehensive Programs to Promote Healthy Eating and Physical Activity (8)
- The Society for Nutrition Education: Guidelines for Childhood Obesity Prevention Programs: Promoting Healthy Weight in Children (9)
- The American Academy of Pediatrics: Promoting Physical Activity (10)
- The U.S. Department of Health and Human Services: Healthy People 2010 (Appendix D)

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Appendix C

Criteria for Nutrition and Physical Activity Strategies and Objectives

Strategies and Objectives should be:

Related to Obesity: The purpose of the grant for which the plan is being developed is to prevent obesity. Strategies that are clearly related to preventing obesity will be ranked relatively high, while strategies where the relationship is not as clear will be ranked lower. Strategies that have no relationship to obesity prevention will be omitted.

Population-based: Since the focus of the grant is on policy and environmental changes to foster a reduction in obesity, strategies should be population-based. Social marketing can be population-based if the purpose is to change community norms, thus setting the stage for policy and environmental changes and if it targets groups of people rather than individuals.

Evidence-based, theoretically sound, or recommended by nationally recognized authorities or experts:

Evidence-based: The Center for Disease Control and United States Preventive Services Task Force Guide to Community Preventive Services will be used as the criteria to determine whether a strategy is evidenced-based as follows:

1. Most suitable: studies with concurrent comparison groups and prospective measurement of intervention (strategy) and outcome.
2. Moderate suitability: studies with retrospective designs or multiple pre or post measurements but no concurrent comparison group
3. Least suitable: single pre and post measurements and not concurrent comparison group OR exposure and outcome measured in a single group at the same point in time.

Strategies that have multiple studies in categories 1 and 2 indicating the same outcome are strongly evidence-based. Strategies where there are some, but not a sufficient number of studies in categories 1 and 2 to make strong statements of evidence-based effectiveness, would rank lower on being evidence-based. If studies fell into category 3 or if there were no formal studies, then the effectiveness of the strategy is not evidence-based.

Theoretically sound: For strategies that have not been formally studied, there needs to be a logic model linking the strategy to the intended goal. The plan might include a recommendation that if a strategy that is theoretically sound, but not evidence-based, is undertaken, it is important to include an outcome, rather than a process evaluation.

Recommended by a national group: Generally, nationally recognized authorities or experts recommend strategies that are based on quality standards relevant to their work. Therefore, recommendations by nationally recognized groups support the strategy as being evidence-based, theoretically sound or otherwise advisable.

Large impact for the resources used: Strategies that affect a relatively large portion of the population have the potential to have a greater impact in reducing obesity than those that affect a relatively smaller portion of the population. Therefore, DOH recommend ranking strategies that affect a large portion of the population relatively higher than those that affect fewer people.

Measurable: It is important to know how successful a particular strategy is in helping to meet an objective. Therefore, DOH recommend that objectives that are measurable be ranked higher than those that are not measurable. Being measurable does not mean that they are currently measured, only that they are written in a manner that makes them capable of being measured.

Appendix D

Healthy People 2010 Goals

Physical Activity

Improve health, fitness, and quality of life through daily physical activity.

22-1 Reduce the proportion of adults who engage in no leisure time physical activity

22-2 Increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day

22-3 Increase the proportion of adults who engage in vigorous physical activity that promotes the development and maintenance of cardio-respiratory fitness three or more days per week for 20 or more minutes per occasion

22-4 Increase the proportion of adults who perform physical activities that enhance and maintain muscular strength and endurance

22-5 Increase the proportion of adults who perform physical activities that enhance and maintain flexibility

22-6 Increase the proportion of adolescents who engage in moderate physical activity for at least 30 minutes on five or more of the previous seven days

22-7 Increase the proportion of adolescents who engage in vigorous physical activity that promotes cardio-respiratory fitness three or more days per week for 20 or more minutes per occasion

22-8 Increase the proportion of the Nation's public and private schools that require daily physical education for all students

22-9 Increase the proportion of adolescents who participate in daily school physical education

22-10 Increase the proportion of adolescents who spend at least 50 percent of school physical education class time being physically active

22-11 Increase the proportion of adolescents who view television two or fewer hours on a school day

22-12 Increase the proportion of the Nation's public and private schools that provide access to their physical activity spaces and facilities for all persons outside of normal school hours

22-13 Increase the proportion of worksites offering employer-sponsored physical activity and fitness programs

22-14 Increase the number of trips made by walking

22-15 Increase the number of trips made by bicycling

Nutrition and Obesity

Promote health and reduce chronic disease associated with diet and weight.

19-1 Increase the proportion of adults who are at a healthy weight

19-2 Reduce the proportion of adults who are obese.

19-3 Reduce the proportion of children and adolescents who are overweight or obese.

19-4 Reduce growth retardation among low-income children under age five years.

19-5 Increase the proportion of persons aged two years and older who consume at least two daily servings of fruit.

19-6 Increase the proportion of persons aged two years and older who consume at least three daily servings of vegetables, with at least one-third being dark green or orange vegetables.

19-7 Increase the proportion of persons aged two years and older who consume at least six daily servings of grain products, with at least three being whole grains.

19-8 Increase the proportion of persons aged two years and older who consume less than 10 percent of calories from saturated fat.

19-9 Increase the proportion of persons aged two years and older who consume no more than 30 percent of calories from total fat.

19-10 Increase the proportion of persons aged two years and older who consume 2,400 mg or less of sodium daily.

19-11 Increase the proportion of persons aged two years and older who meet dietary recommendations for calcium.

19-12 Reduce iron deficiency among young children and females of childbearing age.

19-13 Reduce anemia among low-income pregnant females in their third trimester.

19-14 Reduce iron deficiency among pregnant females

19-15 Increase the proportion of children and adolescents aged six to 19 years whose intake of meals and snacks at school contributes to good overall dietary quality.

19-16 Increase the proportion of worksites that offer nutrition or weight management classes or counseling.

19-17 Increase the proportion of physician office visits made by patients with a diagnosis of cardiovascular disease, diabetes, or hyperlipidemia that include counseling or education related to diet and nutrition.

19-18 Increase food security among U.S. households and in so doing reduce hunger

Appendix E

Introduction to Health and Fitness: Essential Academic Learning Resources

Health and Fitness for Today and Tomorrow

An understanding of good health and fitness concepts and practices is essential for students. Businesses have already begun to realize the extent to which poor health can undermine an employee's effectiveness and ability to succeed. The same is true of students. Teaching our students good health and safety principles can lead to a life of healthy practices, resulting in more productive, active, and successful lives. The Essential Academic Learning Requirements in health and fitness establish the concepts and skills necessary for safe and healthy living, and in turn, for successful learning.

Essential Academic Learning Requirements—Health and Fitness

1. The student acquires the knowledge and skills necessary to maintain an active life: movement, physical fitness, and nutrition.

To meet this standard, the student will:

1.1. Develop fundamental and complex movement skills as developmentally appropriate.

1.2. Safely participate in a variety of developmentally appropriate physical activities.

1.3. Understand the concepts of health-related physical fitness and develop and monitor progress on personal fitness goals.

1.4. Understand the relationship of nutrition and food nutrients to physical performance and body composition.

2. The student acquires the knowledge and skills necessary to maintain a healthy life: recognize patterns of growth and development, reduce health risks, and live safely.

To meet this standard, the student will:

2.1. Recognize patterns of growth and development.

2.2. Understand the concept of control and prevention of disease.

2.3. Acquire skills to live safely and reduce health risks.

3. The student analyzes and evaluates the impact of real-life influences on health.

To meet this standard, the student will:

3.1. Understand how environmental factors affect one's health (air, water, noise, chemicals).

3.2. Gather and analyze health information.

3.3. Use social skills to promote health and safety in a variety of situations.

3.4. Understand how emotions influence decision-making.

4. The student effectively analyzes health and safety information to develop health and fitness plans based on life goals.

To meet this standard, the student will:

4.1. Analyze health and safety information.

4.2. Develop a health and fitness plan and a monitoring system.

Appendix F

List of Additional Strategies

The following is a list of additional strategies to address the many underlying factors that contribute to physical activity and healthy eating behaviors.

Work for the inclusion of nutrition labeling on all foods sold in Washington State.

- Provide information in supermarkets and restaurants so that consumers know what they are buying and how it impacts their health.
- Develop public support for nutrition labels that highlight unhealthy characteristics associated with the food product, such as high levels of fat, sodium, trans fatty acids, or sugar.

Identify a wellness magnet school to serve as an example to other schools to provide enhanced access to physical activity and nutrition opportunities.

Work for insurance reimbursement for nutrition and physical activity counseling so that people can receive information and support for primary prevention of chronic diseases.

Increase the number of commercial food establishments that provide healthy foods and beverages in reasonable portion sizes.

- Encourage the food industry to provide healthy choices such a greater fruit and vegetable selection.

Decrease prevalence of diabetes through the implementation of the Diabetes Prevention Program curriculum to promote nutrition and physical activity with populations at risk

- Identify populations with pre-diabetes
- Establish community educational centers to deliver science-based curriculum which emphasizes nutrition and physical activity

Increase quality of life for people living with chronic conditions with lifestyle changes that may address nutrition and physical activity.

- Expand the network of community-based programs offering the Chronic Disease Self-Management Program

Appendix G

Evaluation and Monitoring Data Plan

There will be two approaches to the evaluation of this plan. The first approach will be to use surveillance systems to monitor progress at the state-level. Secondly, the success of this work in specific communities will be measured.

First Approach: Statewide Assessment

This will be measured at three different levels. The first level is to measure progress toward the goals and objectives outlined in the plan. Progress toward the physical activity-overarching goal will be measured using data from existing questions on Behavioral Risk Factor Surveillance System (BRFSS) and the Youth Health Survey (YHS). The nutrition-overarching goal cannot be measured given our current resources, but is potentially measurable using the Healthy Diet Index. Methods for measuring progress toward each of the 6 objectives are provided below. The second level is to monitor environmental and policy changes that occur as a result of these efforts. The third level is to measure the progress toward the overall purpose of the state plan by monitoring the prevalence of obesity and chronic diseases related to obesity. Physical activity levels and the consumption of vegetables and fruit will also be monitored. A detailed description of all surveillance systems discussed in this approach can be found at the end of this appendix.

Level 1: To assess progress on the State Plan objectives

- Increase the access to health promoting foods.

  The proposed method of measuring progress toward this objective is to develop and add question(s) to BRFSS.

- Reduce hunger and food insecurity.

  This objective will be measured using data from the Current Population Survey Food Security Supplement.

- Increase the percent of mothers who breastfeed their infants and toddlers.

  This objective will be measured using data from the Pregnancy Risk Assessment Monitoring System (PRAMS) and from the Special Supplemental Nutrition Program for Women, Infants and Children (WIC).

- Increase the number of persons in communities that have access to free and low cost recreational opportunities for physical activity.

  The proposed method of measuring progress toward this objective is by developing and adding questions to BRFSS. Physical activity information is collected biennially.

- Increase the number of physical activity opportunities specifically available to children

  The proposed method of measuring this objective is by developing and adding questions to the School Health Education Profile (SHEP).

- Increase the number of active community environments.

  Active communities have promote physical activity thru urban planning and policies that promote non-motorized transit, enhance safety and perceived safety, and improve walk-ability and bike-ability of the community. DOH will collaborate with other state and local agencies and organizations such as Community, Trade and Economic Development, Department of Transportation, and the Association of Washington Cities to collect data about urban planning, transportation and safety or perceived safety.

Level 2: To monitor environmental and policy efforts related to nutrition and physical activity

- Continue to collect data on environmental and policy efforts related to nutrition and physical activity using a survey of statewide efforts, and a survey of local efforts (Nutrition and Physical Activity Scorecard).
- Routinely analyze existing data and make these aggregate data available to state and local governments, public health agencies, the media and other interested citizens.

Level 3: To monitor body mass index, nutritional intake and status, physical activity levels, knowledge and perception on an ongoing basis, and the prevalence of chronic diseases related to obesity

- Continue to collect surveillance data from the BRFSS, HYS, and the Pediatric Nutrition Surveillance System (PedNSS).
- Collaborate with university researchers and state partners to develop new state-specific questions to monitor topics related to nutrition, physical activity and weight.
- Routinely analyze existing data and make these aggregate data available to state and local governments, public health agencies, the media and other interested citizens.

Second Approach: Community Assessment

The success of work in specific communities will be measured by an evaluation plan that each community develops with technical assistance from the Department of Health. The community evaluation plan will have short-term process indicators to track progress and assess short-term impacts. The short-term indicators will include community nutrition and physical activity policies, environmental supports, and/or governmental actions that were initiated, modified or planned as a result of this work. Long-term indicators will include physical activity levels, dietary behaviors, and the prevalence of obesity and related chronic diseases in the community. Progress toward long term objectives will be measured by using BRFSS to oversample residents in each community.

Surveillance System Descriptions

Behavioral Risk Factor Surveillance System (BRFSS)

The Behavioral Risk Factor Surveillance System (BRFSS) uses a telephone interview to gather information about health status, behavior that influences health, and use of health care services. English-speaking Washington residents aged 18 years and older living in households with telephones are chosen to participate by a random selection process. The BRFSS provides national and state data for following trends in obesity, physical activity, and fruit and vegetable consumption among adults 18 years and older.

Frequency: Ongoing data collection; obesity data reported annually, physical activity and nutrition data reported biennially

Agency: Centers for Disease Control and Prevention; DOH Diabetes, Nutrition and Physical Activity Section

Timeline: Meetings are held in the fall to discuss questions that will be included on the next year's BRFSS. Data usually become available for analysis in July.

Analysis: Prevalence estimates will be analyzed by age and sex, race and ethnicity, educational and income level, and urban and rural location when possible.

Healthy Youth Survey (HYS)

HYS is a survey that measures adolescent health behaviors and related risk and protective factors among Washington students in public schools in Grades 6, 8, 10, and 12. The HYS provides state data for assessing trends in obesity, physical activity, and nutrition. National comparisons may be available from the Youth Risk Behavior Survey.

Frequency: Fall of even numbered years

Agency: Office of Superintendent of Public Instruction; Department of Health; Department of Social and Health Services' Division of Alcohol and Substance Abuse; and the Office of Community Development

Timeline: Meetings will be held beginning the fall previous to administration. Data will be available for analysis in February following administration.

Analysis: Prevalence estimates will be analyzed by grade and sex when possible.

Pediatric Nutrition Surveillance System (PedNSS)

PedNSS uses data collected from health, nutrition, and food assistance programs for infants and children, such as WIC. Data is available for children under the age of 5. Available data include: socio-demographic variables (ethnicity/race, age, geographic location), birth weight, anthropometric indices (height/length, weight), iron status (hemoglobin and/or hematocrit), and breastfeeding.

Frequency: Data reported on a monthly basis; data are analyzed semi-annually and annually

Agency: Centers for Disease Control and Prevention

Pregnancy Risk Assessment Monitoring System (PRAMS)

PRAMS is an ongoing population-based surveillance system that collects information about risk factors during pregnancy and infancy, as well as access to prenatal and pediatric health care. The survey is sent to new mothers two to six months after they deliver their babies. PRAMS are conducted by the Washington State Department of Health in collaboration with CDC, and collects data annually. Breastfeeding data are available for initiation, and 1 and 2 months postpartum

Frequency: Ongoing data collection; data reported annually

Agency: Centers for Disease Control and Prevention; DOH Office of Maternal and Child Health

Analysis: Prevalence estimates will be analyzed by age and race and ethnicity when possible.

School Health Education Profile (SHEP)

The purpose of this survey is to collect information regarding curricula, guidelines, and frameworks for required health education courses, professional preparation of lead health education teachers, in-service training and parental and community involvement in choosing health education topics. Information is collected regarding grades 6-12. The survey is sent to principals and lead school health educators every other year. Currently, the surveys are not sent to private and alternative schools.

Frequency: Every other year

Agency: Centers for Disease Control and Prevention, Washington State Department of Health, and Office of the Superintendent of Public Instruction

Existing Statewide Environmental and Policy Efforts Related to Physical Activity and Nutrition

This is a key informant 70-item survey to monitor activities regarding statewide environmental and policy efforts to promote physical activity and nutrition in Washington State. Surveys are sent to targeted individuals and organizations that work at the state level. Because the sampling for this survey uses a convenience sample, the results may not be representative of all people working on these efforts. Questions are evenly distributed to topics concerning physical activity and nutrition.

Frequency: Initial assessment conducted in Winter 2002; survey to be administered every two years

Agency: Washington State Department of Health, Diabetes, Nutrition and Physical Activity Section

Nutrition and Physical Activity Scorecard

This will be a very short web based survey completed by "100 Friends of Nutrition and Physical Activity in Washington State." Information will be collected on those involved in policy and working with the media on physical activity and nutrition issues.

Frequency: Data to be collected and reported on an annual basis

Agency: University of Washington Evaluation Team to develop and implement a sampling plan, collect, compile and analyze data

Special Supplemental Nutrition Program for Women, Infants and Children (WIC)

WIC is a nutrition program for low-income women, infants and children. WIC provides nutrition education, health assessment, the provision of food vouchers, and referral to community resources including health care.

Frequency: WIC breastfeeding data are currently available up to 8 months postpartum (data could be collected up to 2 years postpartum in the future).

Agency: Washington State Department of Health

Population Survey Food Security Supplement

This supplement is sponsored by the US Department of Agriculture, and carried out by the US Census Bureau.

Frequency: Data have been collected on a yearly basis since 1995. State-level results using a three-year rolling average will be available yearly starting this year, however since yearly changes are likely to be small, data comparisons will be done every three years.

Agency: United States Department of Agriculture

Appendix H

Resources

The following listed resources are by far not an all inclusive list, but the listings may help provide the direction to answer some specific questions.

Nutrition and Physical Activity

American Dietetic Association
120 South Riverside Plaza, Suite 2000
Chicago, IL 60606-6995
(312) 899-0040
http://www.eatright.org/

Division of Nutrition and Physical Activity
National Center for Chronic Disease
Prevention and Health Promotion,
Centers for Disease Control and Prevention
4770 Buford Highway, NE, MS/K-24
Atlanta GA 30341-3717
(770) 488-5820
http://www.cdc.gov/nccdphp/dnpa/

Produce for Better Health Foundation
5341 Limestone Road
Wilmington, DE 19808-1249
(302) 235-2329
http://www.5aday.org

Shape Up America!
c/o WebFront Solutions Corporation
15757 Crabbs Branch Way
Rockville, MD 20855
Phone: 301-258-0540
http://www.shapeup.org/

Healthy Mothers, Healthy Babies of Washington State
11000 Lake City Way NE
Suite 301
Seattle, WA 98125
(206) 284-2465
http://www.hmhbwa.org

American College of Sports Medicine
P.O. Box 1440
Indianapolis, IN 46206-1440
National Center (317) 637-9200
Regional Chapter Resource Center
(317) 637-9200, ext. 138
http://www.acsm.org

Additional Resources

Center for Public Health Nutrition
305 Raitt Hall
Box 353410
Seattle, WA 98195
206-616-1569
http://depts.washington.edu/uwcphn

Northwest Obesity Prevention Project
http://depts.washington.edu/obesity/index.html

Washington State Department of Health
1112 SE Quince Street
PO Box 47890
Olympia, Washington 98504-7890
(360) 236-4010
http://www.doh.wa.gov/

Appendix I

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NUTRITION OBJECTIVE 1: INCREASE ACCESS TO HEALTH PROMOTING FOODS

A. Increase the consumption of vegetables and fruits.

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B. Assure that worksites provide healthful foods and beverages

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C. Assure that K-12 schools provide healthful foods and beverages

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NUTRITION OBJECTIVE 2: REDUCE HUNGER AND FOOD INSECURITY IN WASHINGTON STATE

A. Provide adequate support for nutrition and food programs.

1. Nord M, Andrews M, Carlson S. Household food security in the United States, 2001. U.S. Department of Agriculture, Economic Research Service, Food and Rural Economics, Food Assistance and Nutrition Research Program, 2001. [Online]. Available: http://www.ers.usda.gov/publications/fanrr29/fanrr29.pdf

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B. Improved access to nutrition programs.

1. U.S. Department of Agriculture. The National Nutrition Safety Net: Tools for Community Food Security. Washington, DC: U.S. Department of Agriculture, Food and Nutrition Service, 2000. [Online]. Available: http://www.fns.usda.gov/fsec/FILES/SafetyNet.pdf
2. Washington Food Coalition. [Online]. Available: http://www.wafoodcoaliton.org
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NUTRITION OBJECTIVE 3: INCREASE THE PROPORTION OF MOTHERS WHO BREASTEED THEIR INFANTS AND TODDLERS

A. Assure that health care settings, childcare facilities, and worksite environments are breastfeeding friendly

1. American Academy of Pediatrics. Workgroup on breastfeeding: Breastfeeding and the Use of Human Milk. Pediatrics 1997;100:1035-1039.
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10. Breastfeeding Coalition of Washington, Healthy Mothers, Healthy Babies Coalition of Washington. [Online]. Available: http://www.hmhbwa.org/bcw
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PHYSICAL ACTIVITY OBJECTIVE 1: INCREASE THE NUMBER OF PEOPLE WHO HAVE ACCESS TO FREE OR LOW COST RECREATIONAL OPPORTUNITIES FOR PHYSICAL ACTIVITY

A. Provide adequate funding for state and local recreational sites and facilities.

1. The Interagency Committee for Outdoor Recreation. 1999 Public and Tribal Lands Inventory: Final Report. Olympia, WA: The Interagency Committee for Outdoor Recreation, 2001.
2. State Comprehensive Outdoor Recreation Planning: Final Assessment. Olympia, WA: The Interagency Committee for Outdoor Recreation, 2002. [Online]. Available: http://www.iac.wa.gov/downloads/SCORP_Oct_2002.doc
3. The Interagency Committee for Outdoor Recreation. Voices of Washington: Public Opinion on Outdoor Recreation and Habitat Issues. Olympia, WA: The Interagency Committee for Outdoor Recreation, 1995.

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7. The Spokane Centennial Trail. Spokane, WA. [Online]. Available: http://www.spokanecentennialtrail.org

B. Develop model policies to increase access to public facilities for physical activity

1. Centers for Disease Control and Prevention. The Guide to Community Preventive Services – Physical Activity. [Online]. Available: http://www.thecommunityguide.org/pa/
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C. Increase the number of worksites that have policies that enhance physical activity opportunities

1. U.S. Department of Labor. Work Experience of the Population in 2001. Washington, DC: U.S. Department of Labor, Bureau of Labor Statistics, 2002. [Online]. Available: http://www.bls.gov/news.release/work.nr0.htm
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4. McElroy M. Resistance to Exercise: A social analysis of inactivity. Champaign, IL: Human Kinetics, 2002.
5. Kidd K. Health Outcomes of Weight Loss, Washington [thesis]. Seattle, WA: University of Washington, 2000.
6. Pronk NP, Goodman MJ, O'Connor PJ, Martinson BC. Relationship between modifiable health risks and short-term health care charges. JAMA 1999; 282:2235-2239.
7. Redmond Police Department Salary & Benefits. Redmond, WA: Redmond Police Department, 2001. [Online]. Available: http://www.ci.redmond.wa.us/insidecityhall/police/benefits.asp
8. Oldenburg B, Sallis JF, Harris D, Owen N. Checklist of Health Promotion Environments at Worksites (CHEW): Development and measurement characteristics. Am J Health Promot 2002;16:288-299.

PHYSICAL ACTIVITY OBJECTIVE 2: INCREASE THE NUMBER OF PHYSICAL ACTIVITY OPPORTUNITIES AVAILABLE TO CHILDREN

A. Adopt school based curricula and policies that provide quality, daily physical education for all students.

1. Goran MI, Reynolds KD, Lindquist CH. Role of physical activity in the prevention of obesity in children. Int J Obes Relat Metab Disord 1999;23 (Suppl 3):S18-33.

2. Sallis JF, Conway TL, Prochaska JJ, McKenzie TL, Marshall SJ, Brown M. The association of school environments with youth physical activity. Am J Public Health. 2001;91:618-620.

3. The Prevention Institute. A Center for Healthy Behaviors (2001). Promoting Physical Activity among Youth: It's Everyone's Business. Columbus, OH

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5. National Association for Sport and Physical Education (NASPE). Physical Activity for Children: A Statement of Guidelines, p3 © 1998. National Association for Sport and Physical Education, Council on Physical Education for Children, 2003. [Online]. Available: http://www.aahperd.org/naspe/pdf_files/input_activity.pdf

6. National Association for Sport and Physical Education (NASPE). Physical Activity Guidelines for Toddlers. National Association for Sport and Physical Education, 2002. [Online]. Available: http://www.aahperd.org/naspe/template.cfm?template=toddlers.html.

7. Gregory, Susanne, ed. Guidelines for Comprehensive Programs to Promote Healthy Eating and Physical Activity. Champaign, IL: Human Kinetics, 2002.

8. Grunbaum JA, Kann L, Kinchen SA, Williams B, Ross JG, Lowry R et al. Youth Behavior Risk Surveillance -- United States, 2001. MMWR 2002 June 28;51(SS04):1-64.

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15. Boss S. Gym Class Renaissance. Northwest Education Magazine, 2000. [Online]. Available: http://www.nwrel.org/nwedu/fall_00/renaissance.html

B. Encourage policies that provide K-12 students with opportunities for physical activity outside of formal PE classes.

1. Action for Healthy Kids, 2002. [Online]. Available: http://www.actionforhealthykids.org/docs/poll_data_s.pdf

2. National Coalition for Promoting Physical Activity. Physical Activity for Youth Policy Initiative. [Online]. Available: http://www.ncppa.org/publicaffairspolicy_index.asp

3. Sallis JF, Conway TL, Prochaska JJ, McKenzie TL, Marshall SJ, Brown M. The association of school environments with youth physical activity. Am J Public Health 2001;91:618-620.

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6. Go for Green (Ottawa, Canada). The Case for Safe and Active Routes to School: An Information and Discussion Paper, 1999. [Online]. Available: http://www.goforgreen.ca/asrts/pdf/The%20Case%20for%20ASRTS-E.PDF

C. Provide opportunities to replace sedentary behaviors such as watching television with physical activity

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11. Action for Healthy Kids. What's Working: Physical Education/Activity Program. [Online]. Available: http://www.actionforhealthykids.org/docs/ww/physed.pdf

PHYSICAL ACTIVITY OBJECTIVE 3: INCREASE THE NUMBER OF ACTIVE COMMUNITY ENVIRONMENTS IN WASHINGTON STATE

A. Utilize urban planning approaches - zoning and land use - that promote physical activity

1. Centers for Disease Control and Prevention. Active Community Environments. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 2002. [Online]. Available: http://www.cdc.gov/nccdphp/dnpa/pdf/aces.pdf
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4. Wilkinson WC, Eddy N, MacFadden G, Burgess B. Increasing Physical Activity Through Community Design: A Guide for Public Health Practitioners. Washington, DC: National Center for Bicycling and Walking, 2002.
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6. City of Kirkland Comprehensive Plan: Moss Bay Neighborhood. Kirkland, WA: City of Kirkland, 2002. [Online]. Available: http://www.ci.kirkland.wa.us/
7. Moudon A, Hess P. Tools for Identifying Land Use Areas with Potential for Pedestrian Travel & Prioritizing Investments. Seattle WA: University of Washington, 2001.
8. Beaumont C, Pianca E. Why Johnny can't walk to school. Washington DC: National Trust for Historic Preservation, Building Better Communities, 2000.
9. National Trust for Historic Preservation's Historic Neighborhood Schools. [Online]. Available: http://www.nationaltrust.org/issues/schools/success/Latona_WA.pdf

B. Incorporate transportation policy and infrastructure changes to promote non-motorized transit

1. Wilkinson WC, Eddy N, MacFadden G, Burgess B. Increasing Physical Activity Through Community Design: A Guide for Public Health Practitioners. Washington, DC: National Center for Bicycling and Walking, 2002.
2. Mean Streets 2002, Surface Transportation Policy Project, Pedestrian Safety and Reform of the Nation's Transportation Law: Washington, DC: Surface Transportation Policy Project, 2002. [Online]. Available: http://www.transact.org/PDFs/ms2002/MeanStreets2002.pdf
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4. Seattle Department of Transportation. Traffic Signal Program. Seattle, WA: Seattle Department of Transportation. [Online]. Available: http://www.seattle.gov/transportation/trafficsignals.htm
5. Washington State Department of Transportation. Commute Trip Reduction Law (RCW 70.94.521). Olympia, WA: Washington State Department of Transportation, 1991. [Online]. Available: http://www.wsdot.wa.gov/tdm/tripreduction/CTRLaw.cfm
6. Washington State Employment Security Department. Olympia, WA: Washington State Employment Security Department, 2002 [Online]. Available: http://www.wa.gov/esd/lmea/labrmrkt/size/statsiz.htm
7. Centers for Disease Control and Prevention. Active Community Environments. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 2002. [Online]. Available: http://www.cdc.gov/nccdphp/dnpa/pdf/aces.pdf
8. Climate Solutions. Neighborhood Connections: Retrofitting the Suburbs to Improve Connectivity to Improve Bicycle and Pedestrian Transportation. Olympia, WA: Climate Solutions, 2001. [Online]. Available: http://www.climatesolutions.org/pubs/pdfs/NeighConnect.pdf
9. An Action Plan to Promote Nutrition and Physical Activity. Healthy Communities Moses Lake. Moses Lake, WA: Healthy Communities Moses Lake Advisory Committee, 2002. [Online]. Available: http://depts.washington.edu/dohuwnps/hcmlplan.htm
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C. Enhance the safety and perceived safety of communities to improve walk-ability and bike-ability.

1. Wilkinson WC, Eddy N, MacFadden G, Burgess B. Increasing Physical Activity Through Community Design: A Guide for Public Health Practitioners. Washington DC: National Center for Bicycling and Walking, 2002.
2. Surface Transportation Policy Project. Mean Streets 2002. Washington, DC: Surface Transportation Policy Project, Pedestrian Safety and Reform of the Nation's Transportation Law, 2002. [Online]. Available: http://www.transact.org/PDFs/ms2002/MeanStreets2002.pdf
3. Surface Transportation Policy Project. Mean Streets 1997. Washington, DC: Surface Transportation Policy Project, Pedestrian Safety and Reform of the Nation's Transportation Law, 1997. [Online]. Available: http://www.ewg.org/pub/home/reports/meanstreets/meanstreets.pdf
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5. National Survey on Active Transportation, Go for Green. Ottawa, Canada: Environics, 1998. [Online]. Available: http://safety.fhwa.dot.gov/fourthlevel/pdf/Bike_Flash.pdf
6. City of Kirkland. Kirkland, WA: City of Kirkland, Department of Transportation. Available from: URL: http://www.ci.kirkland.wa.us/depart/pw/trans.htm
7. Washington State Traffic Safety Commission. [Online]. Available: http://www.wa.gov/wtsc/
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9. Bicycle Alliance of Washington. [Online]. Available: http://www.bicyclealliance.org/

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Appendix J

Body Mass Index Table

	Normal						Overweight					Obese										Extreme Obesity														
BMI	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
Height (inches)	Body Weight (pounds)																																			
58	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167	172	177	181	186	191	196	201	205	210	215	220	224	229	234	239	244	248	253	258
59	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173	178	183	188	193	198	203	208	212	217	222	227	232	237	242	247	252	257	262	267
60	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179	184	189	194	199	204	209	215	220	225	230	235	240	245	250	255	261	266	271	276
61	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185	190	195	201	206	211	217	222	227	232	238	243	248	254	259	264	269	275	280	285
62	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191	196	202	207	213	218	224	229	235	240	246	251	256	262	267	273	278	284	289	295
63	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197	203	208	214	220	225	231	237	242	248	254	259	265	270	278	282	287	293	299	304
64	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204	209	215	221	227	232	238	244	250	256	262	267	273	279	285	291	296	302	308	314
65	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324
66	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216	223	229	235	241	247	253	260	266	272	278	284	291	297	303	309	315	322	328	334
67	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223	230	236	242	249	255	261	268	274	280	287	293	299	306	312	319	325	331	338	344
68	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230	236	243	249	256	262	269	276	282	289	295	302	308	315	322	328	335	341	348	354
69	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236	243	250	257	263	270	277	284	291	297	304	311	318	324	331	338	345	351	358	365
70	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243	250	257	264	271	278	285	292	299	306	313	320	327	334	341	348	355	362	369	376
71	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250	257	265	272	279	286	293	301	308	315	322	329	338	343	351	358	365	372	379	386
72	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258	265	272	279	287	294	302	309	316	324	331	338	346	353	361	368	375	383	390	397
73	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265	272	280	288	295	302	310	318	325	333	340	348	355	363	371	378	386	393	401	408
74	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272	280	287	295	303	311	319	326	334	342	350	358	365	373	381	389	396	404	412	420
75	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279	287	295	303	311	319	327	335	343	351	359	367	375	383	391	399	407	415	423	431
76	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287	295	304	312	320	328	336	344	353	361	369	377	385	394	402	410	418	426	435	443

Source: Adapted from *Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report.*

Notes

Notes

For More Information

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Tricycle/walker: www.pedbikeimages.org/Dan Burden