The Maine Physical Activity and Nutrition Plan 2005-2010

Healthy Maine Partnerships

Physical Activity and Nutrition Program

Maine Health and Human Services' Public Health

Foreword

Scores of people across Maine were involved in the development of the Maine Physical Activity and Nutrition (PAN) Plan over several years. Key stakeholders participated in two planning processes and deserve acknowledgment. They gave freely of their time and expertise to help ensure that broad perspectives were included, existing plans and structures were utilized, and the Plan reflected the right direction for Maine. The stakeholders are listed in Appendix B.

A leadership team evolved from several key agencies to collaborate on the Plan and provided administrative oversight to the process. These individuals represented the Muskie School of Public Service at the University of Southern Maine; Maine Center for Public Health, Maine-Harvard Prevention Research Center; Department of Education; and Maine Health and Human Services' Public Health. They are invested in this Plan and express their gratitude to all of the partners for their dedication to the implementation of the Plan, knowing that it will benefit the citizens of Maine.

This Plan is intended to provide guidance for improving the health and well-being of Maine people. Nutrition and physical activity are essential ingredients in the recipe for good health. The process of implementing the Plan will need continued evaluation and assessment—a role to which Maine Health and Human Services' Public Health and its partners are committed. The next steps will require the sustained collaboration of all Maine people to move this Plan forward. We ask all of you—health professionals, business leaders, the food industry, policymakers, educators, media, and citizens alike—to join us in this important and exciting endeavor to improve nutrition and physical activity as we strive for a healthier Maine.

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1 Executive Summary

Maine, like the rest of the nation, has an epidemic of obesity. Data from 2002–2004 show the problem is pervasive from youth to adulthood. Over half of Maine adults (61%) are considered either overweight (38%) or obese (23%). Fifteen percent of Maine high school students are at risk for becoming overweight, a rate similar to national figures, and another 13% are considered overweight. Eighteen percent of Maine middle school students are at risk for becoming overweight and 13% are overweight. Similarly, 21% of Maine kindergarten students are at risk for becoming overweight and 15% are overweight. Overweight children are more likely to become overweight or obese adults and thus suffer from additional health conditions associated with obesity.

Nutrition and physical activity affect death and disability from many diseases and can impact the physical, mental, and emotional quality of life. Although there are many nutrition and physical activity issues in Maine, none are as compelling as the problems of excess weight gain and inadequate physical activity. Weight is a result of the balance or imbalance of how much food is consumed with how much energy is expended. Individual food choices greatly influence a person's weight gain and overall health. High-calorie, high-fat foods are convenient and readily available outside the home from restaurants, fast-food establishments, schools, vending machines, and other food service outlets—environments that do not encourage healthy choices. In addition, today's society enjoys technological advances that have reduced the need for daily physical activity and increased the time spent in sedentary endeavors.

An estimated 112,000 deaths per year are attributable to obesity among U.S. adults. In Maine, an estimated four people die every day from an underlying cause of poor nutrition or physical inactivity. Obesity is the number-two killer, after tobacco, in total number of deaths due to preventable causes. Obesity also creates a heavy economic burden. Obese people generally have higher health care costs and face greater health risks, and the rates of overweight and obesity are higher among Maine's disabled population. Not only can obesity result in disability, but disabilty can also be a factor in developing obesity.

Improving nutrition, increasing physical activity, and, in particular, reversing the trend toward overweight and obesity are issues that require broad, long-term solutions. The responsibility for improving the health of Maine citizens lies with individuals, local communities, and the State as a whole. It is time to address the policy and environmental factors impacting food and physical activity choices that can support Maine people in their efforts to become healthier.

This Plan serves as a guiding document for public health leaders, health care providers, educators, policy makers, and citizens to promote healthy eating and

Executive Summary *(continued)*

regular physical activity and improve health and the quality of life in Maine. Implementation of the Plan will require collaboration among all nutrition and physical activity programs and organizations. Maine engaged stakeholders to create this Plan and must rely on these State and local partners to bring the Plan to life by taking responsibility for implementing the strategies.

The Plan's objectives and strategies place emphasis on addressing the problem of obesity among youth and adult populations. The Plan distinguishes between objectives that address youth (all individuals age 18 and under) and those that address adults. Objectives to promote breastfeeding, which reduces the risk of childhood obesity, also have prominence. Because this Plan is for *all* Maine populations, it also includes objectives and strategies for food safety, food security, and eating disorders. Information regarding Maine populations who experience health disparities is included in the section on Profile of Maine beginning on page 17 and on page 41 in the section on Selected Populations.

The overarching nutrition and physical activity goal for Maine is to:

Increase the proportion of Maine people who are at a healthy weight and reduce the health risks associated with overweight and obesity, especially among populations who experience health disparities.

The Plan identifies long-term objectives designed to impact health status; intermediate objectives designed to impact behaviors; and short-term objectives designed to impact changes in knowledge, awareness, attitudes, the environment, or policies. Corresponding key strategies are specific and are designed to result in community and State policy and environmental changes to support healthy behaviors. Objectives that address the reduction and prevention of overweight and obesity have a corresponding evaluation plan.

Acronyms used throughout the Plan are identified in Appendix A. The Maine Physical Activity and Nutrition (PAN) Plan will be reviewed annually by Maine Health and Human Services' Public Health's Physical Activity and Nutrition Program (PANP) and updated as appropriate. The Plan is available on the Maine HHS Public Health Web site at www.maine.gov/dhhs/boh.

Figure 1 outlines eight focus areas of the Plan, with the long-term objectives identified with bullets and intermediate objectives identified with arrows.

Figure 1: The Maine PAN Plan Areas of Focus

- Reduce the proportion of youth who are at risk for overweight or who are overweight.
- Reduce the proportion of adults who are overweight or obese.

1. Physical Activity
   - ➡ Increase the proportion of youth who engage in vigorous physical activity that promotes cardio-respiratory fitness.
   - ➡ Increase the proportion of adults who engage in leisure-time physical activity.

2. Consumption of Fruits and Vegetables
   - ➡ Increase the proportion of youth who consume five or more servings of fruits and vegetables per day.
   - ➡ Increase the proportion of adults who consume five or more servings of fruits and vegetables a day.

3. Caloric Imbalance and Expenditure
   - ➡ Decrease sugar-sweetened beverage consumption among Maine youth.
   - ➡ Increase consumption of milk that is 1% fat or less among Maine youth.
   - ➡ Decrease adult consumption of energy-dense food choices from menus.

4. Television Time
   - ➡ Increase the proportion of youth who view television two or fewer hours a day.

5. Breastfeeding
   - ➡ Increase the proportion of mothers who are breastfeeding their babies at six months.

6. Food Safety
   - Reduce the number of food-borne illnesses caused by improper food handling.
     - ➡ Increase the proportion of consumers who follow food safety practices.

7. Food Security
   - Increase the proportion of Maine people who have enough food for an active, healthy life.
     - ➡ Increase the proportion of households in Maine that are food secure.

8. Eating Disorders
   - Reduce the proportion of Maine people who use weight loss strategies that endanger their health.
     - ➡ Reduce the number of people with eating disorders, including anorexia nervosa and bulimia nervosa.

• = Long-term objectives ➡ = Intermediate objectives

2 Introduction

Improving nutrition, increasing physical activity, and, in particular, reversing the trend toward overweight and obesity are issues that require broad, long-term solutions. The responsibility for improving Maine citizens' health lies with both the individual and the community. This Plan is intended to serve as a guiding document for public health leaders, health care providers, educators, policy makers, and citizens to promote healthy eating and regular physical activity and improve health and the quality of life in Maine. It is also designed to provide suggestions for action by public and private Maine organizations and agencies wishing to contribute toward these same efforts. The process of implementing the Plan will need continued evaluation and assessment—a role to which Maine Health and Human Services' Public Health and its partners are committed.

Implementation of the Plan will require collaboration among all State and local programs and organizations with nutrition and physical activity components. Appendix C provides an organizational chart of State Government programs related to physical activity and nutrition. Appendix D consists of a matrix listing a sample of Maine's physical activity and nutrition initiatives. Although there are many nutrition and physical activity issues in Maine, none are as compelling as the problems of excess weight gain, inadequate physical activity, and poor nutrition, with their relationship to chronic diseases. Maine must invest in health promotion and disease prevention now. Our future health depends upon that investment.

The components of the narrative section of this Plan include a description of the strategic planning processes; the demographic profile of Maine; the relationship of nutrition and physical activity to health; a synopsis of the health status of Maine citizens associated with nutrition and physical activity; and a summary of the burden of poor nutrition, physical inactivity, obesity, and other chronic diseases on Maine's citizens and systems. Brief descriptions of the conditions in Maine related to breastfeeding, food safety, food security, and eating disorders are included. Acronyms used throughout the Plan are identified in Appendix A. Please note that the name for the Bureau of Health, Department of Health and Human Services has been changed to the Maine Health and Human Services' Public Health. The PAN Plan includes references and figures that refer to the Bureau of Health, Department of Health and Human Services because these references and figures were published prior to the name change.

A vision and mission for Maine and a broad overarching goal with corresponding objectives and strategies for the period 2005–2010 complete the Plan. This Plan is for *all* Maine populations and includes objectives and strategies to address the problems of overweight and obesity in children, youth, and adult populations as well as key objectives and strategies for food safety, food security, and eating disorders. Input was gathered from a broad group of Maine stakeholders as well as a review of national recommendations. Documents that were reviewed include: *Healthy*

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People 2010—Conference Edition; Healthy Maine 2010; The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity; America's Children: Key National Indicators of Well-Being; Maine's Marks For Children, Families, and Communities: Leading By Results; and *Guide to Community Preventive Services—Promoting Physical Activity.* All six documents provided insight into priority nutrition and physical activity indicators and evidence-based effective interventions currently recognized by leading public health professionals. [1, 2, 3, 4, 5, 6]

Planning Processes

1999–2001 Strategic Planning Process

In 1999, Maine Health and Human Services' Public Health initiated the development of a strategic plan to address emerging nutrition and physical activity issues within the State. Several hundred people were invited to participate, representing a broad range of nutrition and physical activity programs throughout Maine. An advisory group was formed among these stakeholders to guide the planning process.

The advisory group conducted a needs assessment to determine the nutrition and physical activity issues to be included in the Plan. Focus groups were held with stakeholders in southern and northern Maine. The advisory group categorized the information gathered from the focus groups into eight key issues.

1. **Consistent Communication—**Public health professionals, health organizations, and the media must work together to provide the public with basic and consistent information.

2. **Resource Allocation—**Resources such as funding; safe facilities and opportunities for physical activity; the availability of healthy affordable food; and easily accessible, accurate information are all needed to support efforts to improve the nutrition and physical activity status of Maine citizens.

1 U.S. Department of Health and Human Services. Healthy People 2010, Conference Edition. Washington, D.C. January 2000.
2 Maine Department of Human Services, Bureau of Health. Healthy Maine 2010: Opportunities for All. December 2002.
3 U.S. Department of Health and Human Services. The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity. Rockville, MD: Office of the Surgeon General. 2001.
4 Federal Interagency Forum on Child and Family Statistics. America's Children: Key National Indicators of Well-Being. Washington, D.C.: U.S. Government Printing Office. 1999.
5 Maine Children's Cabinet. Maine's Marks For Children, Families, and Communities: Leading by Results. Augusta, Maine. 2001.
6 U.S. Department of Health and Human Services. Guide to Community Preventive Services—Promoting Physical Activity. Centers for Disease Control and Prevention. 2001.

3. **Consumer Education—**Maine citizens should have basic education on nutrition and physical activity in order to overcome the barriers to achieving a healthy lifestyle.

4. **State Public Health Infrastructure—**A public health system that acknowledges the value of nutrition and physical activity is necessary to support the Plan's goals and objectives.

5. **Societal Norms—**Maine citizens must perceive good nutrition, regular physical activity, and healthy body weight as the norm. Health delivery systems need to shift emphasis from treatment of disease to prevention and health promotion.

6. **Food Safety—**Illness can result from microbial or chemical contaminants in food. Maine citizens need knowledge to assure that the food they prepare and consume is safe.

7. **Food Security—**Food security for a household means access by all members at all times to enough food for an active, healthy life. Food security includes, at a minimum, the ready availability of nutritionally adequate and safe foods and an assured ability to acquire acceptable foods in socially acceptable ways (that is, without resorting to emergency food supplies, scavenging, stealing, or other coping strategies).[7] Strategies and policies must be adopted that ensure food security is realized for all Maine citizens.

8. **Rural Geography and Economic Diversity—**A variety of demographic factors must be considered when developing programs, including the economic diversity of Maine citizens and the rural, isolated nature of some areas of the State.

Since 1999, Maine Health and Human Services' (HHS) Public Health has begun work to address Key Issues 1, 3, and 4. The Healthy Maine Partnerships (HMP) were created and funded by the Maine HHS Public Health in 2001 with tobacco settlement monies to address tobacco use, poor nutrition, and lack of physical activity. Simultaneously, Maine HHS Public Health also proceeded with a Healthy Weight Awareness social marketing campaign to provide consistent nutrition and physical activity messages. One of the first messages recommended reducing soda consumption because national data showed extraordinarily high rates of soda consumption, particularly by teenage boys.[8] Additionally, Maine HHS Public Health submitted a proposal for and was awarded a capacity-building grant from the Centers for Disease Control and Prevention (CDC) to establish a State Physical

7 U.S. Department of Agriculture. Guide to Measuring Household Food Security, Revised 2000. Alexandria, VA: Food and Nutrition Service. March 2000.

8 U.S. Department of Agriculture, Agricultural Research Service. Data tables: Results from USDA's 1994–96 Continuing Survey of Food Intakes by Individuals and 1994–96 Diet and Health Knowledge Survey. 1997.

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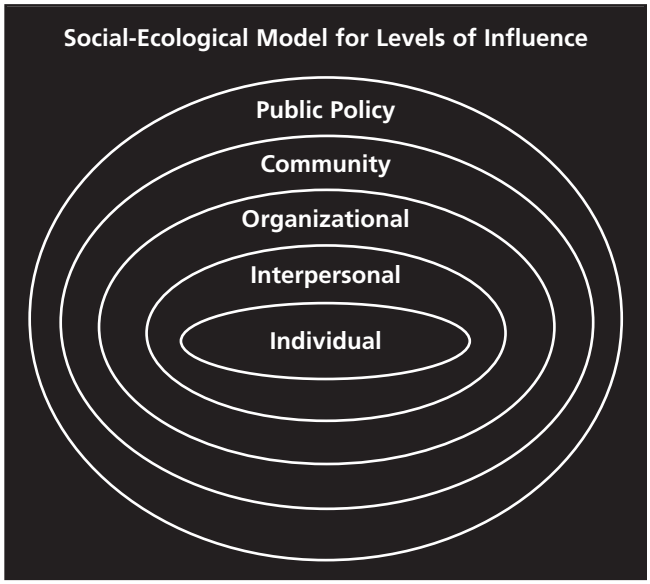
Activity and Nutrition Program. The purpose of the PAN Program is to prevent obesity and address other nutrition and physical activity issues that can prevent chronic diseases. The CDC made suggestions to Maine's initial draft PAN Plan, and the newly established PAN Program proceeded with the next cycle of identifying subsequent priorities for the Plan.

2003–2004 Strategic Planning Process

An extensive group of stakeholders was invited to participate in roundtable discussions in October 2003 to determine priorities for the period 2005–2010. These priorities align with the *Healthy Maine 2010* Plan, which corresponds to *Healthy People 2010*. Four workgroups were self-selected to develop strategies to reduce overweight and obesity and improve the nutrition and physical activity status of Maine people. These workgroups represented four settings where interventions could be focused: schools, communities, worksites, and health care. PAN Program staff met with the workgroups, drafted strategies from their recommendations, and further refined the strategies with input from the workgroup members. This intensive process resulted in the Maine PAN Plan goal and corresponding objectives and strategies. Strategies are designed to result in policy changes and economic, social, and physical environments that support improved nutrition and increased physical activity.



The strategies align with McLeroy's *Social-Ecological Model* as illustrated at the right.[9] This social-ecological model proposes that the most effective practices for changing health behaviors are actions that operate on multiple levels simultaneously, including individual, interpersonal, organizational, community, and public policy. Individual characteristics that influence behavior include knowledge, attitudes, beliefs, and personality traits. The interpersonal sphere includes family, friends, and social networks that provide social identity and role definition. The organizational level consists of rules, regulations, and informal structures. Community includes social networks, norms, standards, or

9 McLeroy KR *et al.* An ecological perspective on health promotion programs. *Health Education Quarterly.* 1988; 15(4):351–377.

other existing channels (e.g., public agenda, media agenda). The policy level consists of national, State, and local laws that regulate or support healthy actions.

Health promotion campaigns can reach individuals on many levels, but in order to effectively change behavior, strategies must address policy and the environment as well as the individual person. Policy and environmental change interventions may reduce barriers and make healthy options more accessible.[10] The implementation of a school classroom policy that assures fruits and vegetables will be served at classroom events is an example of increasing access to fruits and vegetables, thereby making healthy options more available to students. Access to an indoor facility can provide residents of a neighborhood with an opportunity to walk during the cold winter months.

As stated in the 2001 Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity:[11]

> *Key actions to address overweight and obesity include communication, action, research, and evaluation. Within this framework, effective actions must occur at multiple levels. Obviously, individual behavioral change lies at the core of all strategies to reduce overweight and obesity. Successful efforts, however, must focus not only on individual behavioral change, but also on group influences, institutional and community influences, and public policy. Actions to reduce overweight and obesity will fail without this multidimensional approach. Individual behavioral change can occur only in a supportive environment with accessible and affordable healthy food choices and opportunities for regular physical activity.*

10 Schmid TL, Pratt M & Howze E. Policy as intervention: environmental and policy approaches to the prevention of cardiovascular disease. *American Journal of Public Health*. 1995; 85(9):1207–1211.

11 U.S. Department of Health and Human Services. The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity. Rockville, MD: Office of the Surgeon General. 2001.

3 Profile of Maine

Demographics

Maine has a population of 1.3 million residing in sixteen counties of significantly varying sizes and population densities.[12] Approximately 10% of the State's population lives in Portland, Lewiston, and Bangor, with the majority of citizens living in rural towns and cities. Maine's birth rate has decreased in the last decade, while the proportion of the population age 65 and older has increased. By 2020, nearly one in five Maine residents will be over 65 years of age.[13, 14] Ethnically, Maine is predominantly white (97%), with small minority populations including African Americans, Asians, Latinos, and four Native American tribes. Since 1999, several thousand refugees have settled primarily in the southern portion of the State. These individuals came from Bosnia, Iran, Iraq, Russia, Liberia, Somalia, Sudan, Afghanistan, and Cuba.

Underemployment continues to be a problem because of the seasonal nature of much of the State's economy. According to the Bureau of Labor Statistics, the 2004 unemployment rate was 4.6% (not seasonally adjusted), compared to a national rate of 6.0%.[15] Maine's median household income in 2003 was $39,838 as reported by the U.S. Census. This income was well below the national average of $43,564 and was the lowest rate in New England. In March 2005, Maine's average monthly food stamp participation was 82,190 households and 156,680 individuals. From March 2001 to March 2005, the number of Maine households receiving food stamps increased by 54%.[16]

Poverty is a major factor associated with poor nutritional status, which in turn impairs the cognitive development of children. About 11% of Maine's population lives in poverty, a figure similar to the proportion observed nationally for the white population. Poverty and the risk of poverty are increasing in children, the elderly, working households, and those unable to work. One in four Maine children live in poverty. In 2003, about 40% lived in homes where the income was less than 200% of the poverty level. The percentage of Maine children living without health insurance dropped from 10% in 1998 to 7% in 2003. This decrease was a result of the State's efforts to enroll children in MaineCare, Maine's health care program for low-income families.

According to the U.S. Census, 10% of Maine's population was food insecure in 1998.[17] The number of food pantries and soup kitchens in Maine has increased significantly in the past decade.[18] Although data on the number of individuals

12 Maine State Planning Office, 2003.
13 Maine Department of Human Services, Office of Data, Research, and Vital Statistics, 2002.
14 Maine State Planning Office, 2003.
15 Maine Department of Labor, 2003.
16 Maine Department of Health and Human Services, Food Stamp Program data, 2005.
17 U.S. Census Bureau, 2000.
18 Maine State Planning Office, 2001.

Profile of Maine *(continued)*

served is not available, participation continues to grow, and the sponsors are unable to meet the demand.

Maine continues to encounter regional differences of prosperity, with southern and coastal counties, except Washington, experiencing faster economic growth than inland and northern counties.[19] Although poverty is highest in rural areas, there are poor people in urban areas as well. Living in a more impoverished community puts individuals at more risk, above and beyond their own education and income levels, because there are fewer health, nutrition, and physical activity resources available in poorer communities.

Population groups with higher poverty rates and less education generally also have poorer health. Maine has one of the lowest rates of college graduates in the United States. In 2000, 85% of adults were high school graduates; and 23% had attained a bachelor's degree. According to the 1990 National Adult Literacy Survey, 15% of Maine adults can read a little, but not well enough to fill out an application or read a food label.[20] Another 27% can perform more complex tasks, such as making comparisons, but do not have higher-level reading and problem-solving skills.

Nutrition, Physical Activity, and the Health Connection

Dietary modifications and increased physical activity can reduce the incidence of and morbidity associated with chronic disease. In particular, a healthy diet and regular physical activity are essential for maintaining a healthy weight. Research suggests that encouraging individuals to become more involved in physical activity can indirectly influence other health behaviors. Therefore, physical activity may be a gateway behavior for other positive lifestyle changes, such as smoking cessation.[21]

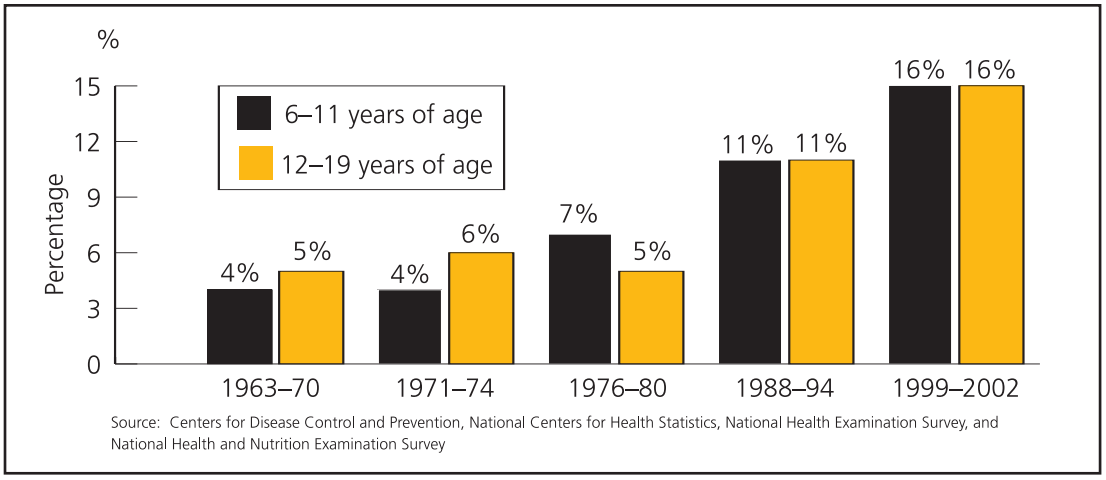
Coronary heart disease, cancer, stroke, and type 2 diabetes are four of the top-ten leading causes of death in the United States.[22] Obesity is associated with these four diseases, as well as with risk factors for coronary heart disease, such as high blood cholesterol and high blood pressure. Obesity is also associated with osteoarthritis, sleep apnea and pulmonary dysfunction, stroke, gallbladder disease, liver disease, and musculoskeletal disease.[23, 24] Furthermore, people with a body mass index

19 Maine State Planning Office, 2002.
20 Maine Department of Education, 2001.
21 Costakis CE, Dunnagan T & Haynes G. The relationship between the stages of exercise adoption and other health behaviors. *American Journal of Health Promotion.* 1999 Sept–Oct;14(1):22–30.
22 U.S. Department of Health and Human Services, National Center for Health Statistics. Report of Final Mortality Statistics, 1998 *Monthly Vital Statistics Report* 47(19). Centers for Disease Control and Prevention. 2000.
23 Must A *et al.* The disease burden associated with overweight and obesity. *Journal of the American Medical Association.* 1999; 282:1523–1529.
24 National Task Force on the Prevention and Treatment of Obesity. Overweight, obesity, and health risk. *Archives of Internal Medicine.* 2000; 160:898–904.

(BMI), a measure of weight in relation to height, at or greater than 30 have a 50%–100% higher risk of mortality from all causes than those with a BMI between 20 and 25.[25]

Recent studies report that 16% of children and adolescents ages 6 to 19 were overweight nationally (Figure 2), and another 15% were considered at risk of becoming overweight.[26]

Figure 2: Prevalence Of Overweight Among U.S. Children And Adolescents Ages 6–19 Years



Overweight children are more likely to become overweight or obese adults and are therefore at greater risk for chronic diseases as they age.[27] Of particular concern is the increase in prevalence of type 2 diabetes in children, as this disease is normally seen in adults older than 40. Overweight and obesity are risk factors associated with type 2 diabetes, and increasing rates of overweight and obesity may be related to the increase in type 2 diabetes in children. Regular physical activity can delay or perhaps prevent the onset of type 2 diabetes.[28]

Recent research published by the Centers for Disease Control and Prevention documents that diabetes has also increased rapidly among U.S. adults during the 1990s.[29] Between 1990 and 1998, a 70% increase in diabetes was found in the 30–39 age group, a 40% increase among people in their 40s, and a 31% increase among those in their 50s.

25 Calle EE *et al*. Body mass index and mortality in a prospective of U.S. adults. *New England Journal of Medicine*. 1999; 341:1097–1105.

26 U.S. Department of Health and Human Services. Overweight Among U.S. Children and Adolescents. Centers for Disease Control and Prevention, National Health and Nutrition Examination Survey. 2004.

27 U.S. Department of Health and Human Services. Healthy People 2010, Conference Edition. Washington, D.C. January 2000.

28 American Diabetes Association. The prevention or delay of type 2 diabetes. *Diabetes Care* 2002; 25(4): 742–749.

29 Mokdad AH *et al*. The continuing epidemics of obesity and diabetes in the United States. *Journal of the American Medical Association*. 2001; 286:1195–1200.

Profile of Maine *(continued)*

Good nutrition and physical fitness play an important role in overall health throughout life, as well as in preventing overweight and obesity. Food and physical activity habits and behaviors begin to develop at birth and continue to mature throughout childhood into the adult years. Thus, it is important to form good health habits during childhood and adolescence that will last a lifetime. *The Bright Futures Guidelines* provide a framework for health professionals to promote the developmental health and well-being of youth, in partnership with families and communities. The Guidelines recommend detailed nutrition and physical activity strategies and tools from birth to young adulthood.[30] The National Association for Sport and Physical Education (NASPE) recognizes that being active from an early age will help children be physically fit later in life. NASPE recommends physical activity guidelines for youth and adults, as well as national standards for physical education.[31]

The typical American diet is high in fat, cholesterol, and sodium; and low in dietary fiber. The Dietary Guidelines for Americans provide recommendations for healthy eating and physical activity behaviors, and the My Pyramid Food Guidance System is a useful framework to translate the Guidelines into daily food choices.[32, 33] However, only about 2% of American children eat a diet that follows the Food Guide Pyramid.[34] A diet based on whole grains, fruits, and vegetables is associated with a reduced risk of certain chronic diseases such as cancer, heart disease, and diabetes. The Dietary Guidelines recommend consumption of five or more servings of vegetables and fruits daily.

Although the focus is often on dietary excesses, many Americans lack adequate consumption of key nutrients including iron, folate, and calcium. Consumption of iron-rich foods is important for preventing iron-deficiency anemia among children as well as in women of reproductive age. Folate helps prevent neural tube defects in infants and may help prevent heart disease in some individuals. Calcium-rich foods are necessary to help build strong bones and prevent bone fractures and osteoporosis.

Disparities in health status indicators and risk factors for diet-related diseases are evident in many segments of the population based on gender, age, race and ethnicity, education, and income. Although overweight and obesity are observed in all population groups, obesity and related chronic diseases are particularly common among Latino, African American, Native American, and Pacific Islander

30 U.S. Department of Health and Human Services, National Center for Education in Maternal and Child Health. http://www.brightfutures.org.

31 National Association for Sport and Physical Education, www.aahperd.org/naspe.

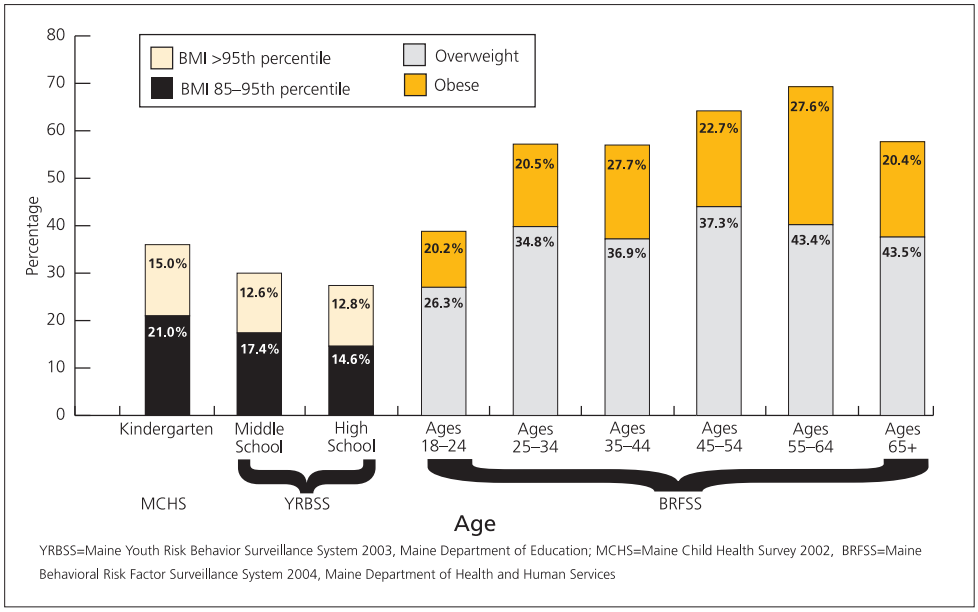
32 U.S. Department of Health and Human Services and U.S. Department of Agriculture. Dietary Guidelines for Americans, 2005. 6th Edition, Washington, D.C.: U.S. Government Printing Office, January 2005 (www.healthierus.gov/dietaryguidelines).

33 U.S. Department of Agriculture. MyPyramid, April 2005 (www.mypyramid.gov).

34 Munoz K *et al*. Food intakes of U.S. children and adolescents compared with recommendations. *Pediatrics* 1997; 100: 323–329.

women.[35] In Maine, adults 55–64 years of age have the highest body mass index as illustrated in Figure 3.

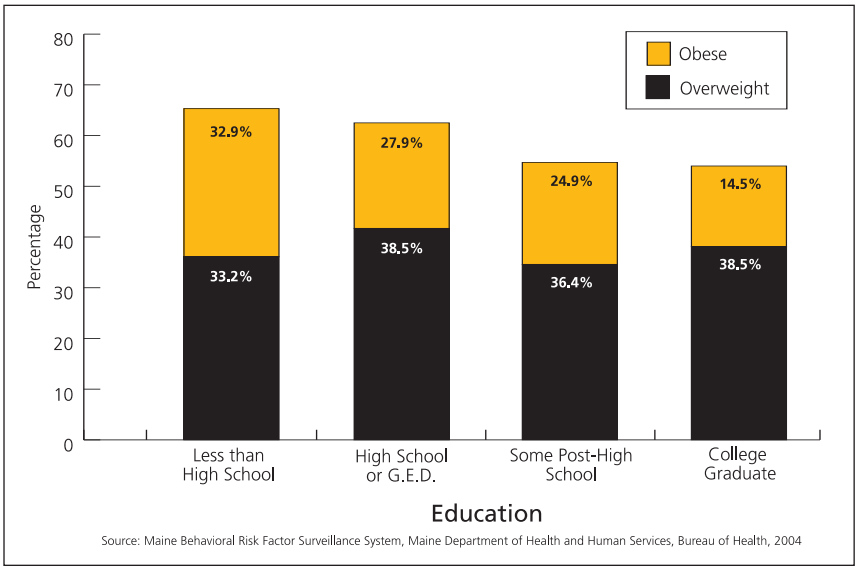
Figure 3: Maine Obesity And Overweight Rates By Age, 2004



YRBSS=Maine Youth Risk Behavior Surveillance System 2003, Maine Department of Education; MCHS=Maine Child Health Survey 2002, BRFSS=Maine Behavioral Risk Factor Surveillance System 2004, Maine Department of Health and Human Services

Maine men are more likely to be overweight (47%) than Maine women (29%); and slightly more men (24%) are obese than women (23%). It is difficult to assess rates of overweight and obesity among Maine's racial minorities due to small sample sizes. Maine adults with low socioeconomic status are more likely to be overweight or obese. Sixty-six percent of Maine adults with less than a high school education are overweight or obese, compared to 53% of those with a college degree (Figure 4).

Figure 4: Maine Adults Obese Or Overweight By Education, 2004



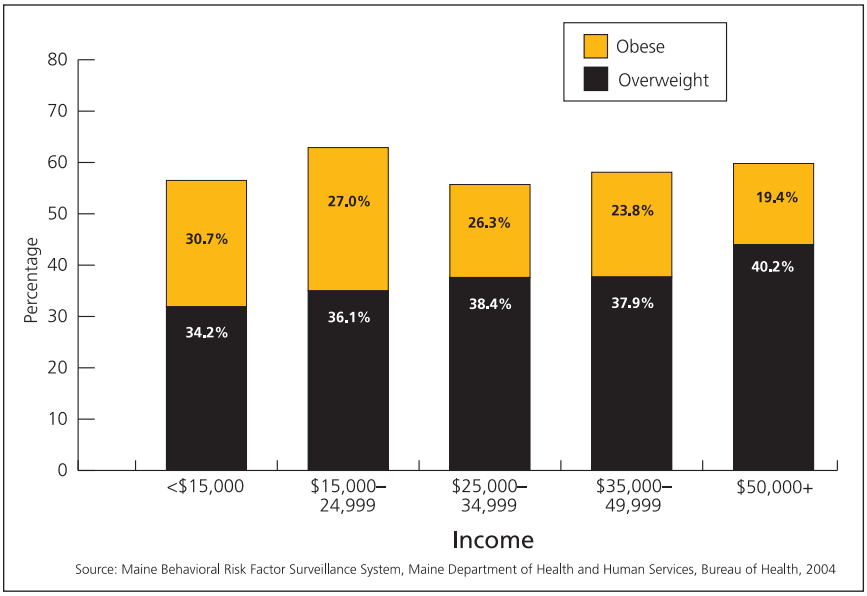
Source: Maine Behavioral Risk Factor Surveillance System, Maine Department of Health and Human Services, Bureau of Health, 2004

35 Maine Department of Human Services, Bureau of Health. *Healthy Maine 2010: Opportunities for All.* December 2002.

Profile of Maine *(continued)*

Thirty-one percent of Mainers with less than $15,000 annual household income are obese, compared to 19% of those with incomes of $50,000 or greater (Figure 5). Sixty-seven percent of Mainers who report a disability are overweight or obese, as compared to 56% of nondisabled adults.[36]

Figure 5: Maine Adults Obese Or Overweight By Income, 2004



Despite concerns about the increase in overweight, obesity, and certain excesses in U.S. diets, there remain segments of the population who suffer from malnutrition, including persons who are socially isolated and poor. The recognition of the consequences of food insecurity (limited access to safe, nutritious food) has led to the development of national measures to evaluate food insecurity and to assess related disparities among different population groups. People with low incomes as well as people of non-white race and ethnicity experience disparities related to food security and malnutrition, such as growth retardation and iron deficiency.

Trends in Overweight and Obesity, Physical Activity Status, and Food Choices of People in Maine

Overweight and Obesity

Weight is classified according to body mass index (BMI=weight [kilograms]/height [meters]^2) as outlined in Figure 6. Adults with a BMI at or above 30 are classified as obese, which is about 30 pounds overweight. Adults with a BMI at or above 25, but less than 30, are classified as overweight. Adults with a BMI less than 18.5 are considered underweight.

36 Maine Behavioral Risk Factor Surveillance System, Maine Department of Health and Human Services, 2002–2004.

Figure 6: Adult Body Mass Index (BMI) Chart

Locate the height of interest in the left-most column and read across the row for that height to the weight of interest. Follow the column of the weight up to the top row that lists the BMI. BMI of 19–24 is the healthy weight range, BMI of 25–29 is the overweight range, and BMI of 30 and above is the obese range.

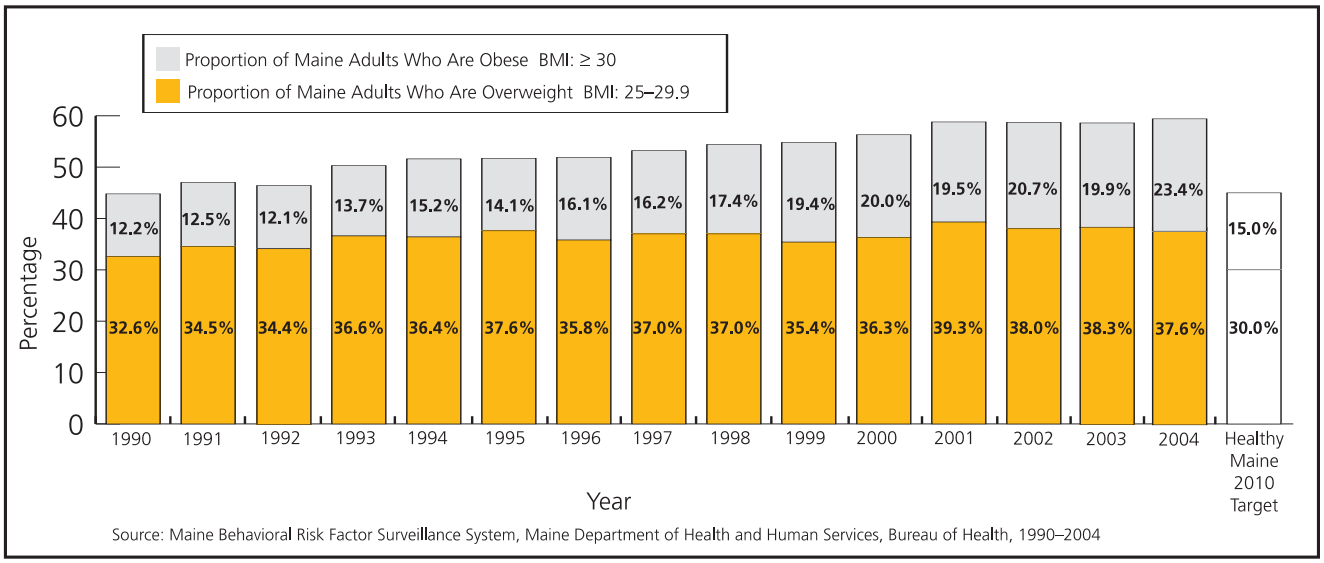
BMI	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
4'10''	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167
4'11''	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173
5'	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179
5'1''	100	106	111	115	122	127	132	137	143	148	153	158	164	169	174	180	185
5'2''	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191
5'3''	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197
5'4''	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204
5'5''	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210
5'6''	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216
5'7''	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223
5'8''	125	131	138	144	151	158	164	171	177	184	190	197	203	210	215	223	230
5'9''	128	135	142	149	155	162	169	176	182	189	196	203	209	215	223	230	236
5'10''	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243
5'11''	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250
6'	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258
6'1''	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265
6'2''	148	155	163	171	179	185	194	202	210	218	225	233	241	249	256	264	272
6'3''	152	160	168	176	184	192	200	208	216	228	232	240	248	256	264	272	279
	Healthy Weight						Overweight					Obese					

Source: Evidence Report of Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults, 1998. National Heart, Lung, and Blood Institute (NHLBI).

Profile of Maine *(continued)*

Obesity has become a public health epidemic in Maine. More than half (61%) of Maine's adults are considered overweight (38%) or obese (23%).[37] This is a dramatic increase since 1990, when only 45% of adults in Maine were considered overweight or obese. The incidence of obesity among adults increased steadily from 12% in 1990 to 23% in 2004. Figure 7 illustrates this alarming increase in the percentage of overweight and obese adults in Maine over the past decade.

Figure 7: Proportion Of Maine Adults Age 18 And Older Who Are Overweight And/Or Obese, 1990–2004



Source: Maine Behavioral Risk Factor Surveillance System, Maine Department of Health and Human Services, Bureau of Health, 1990–2004

Since 1990, data from self-reported studies indicate that obesity rates have increased for all groups—both sexes, all ages, all races, all education levels, and smokers and nonsmokers.[38] True obesity rates are likely to be underestimated because research indicates that participants tend to underestimate their weight and overestimate their height.[39, 40] Obesity is a significant risk factor for chronic diseases such as cardiovascular disease, diabetes, and some cancers; hence it is reasonable to assume that the risk for these diseases is also increasing.

Overweight among children is defined as being at or above the 95th percentile body mass index (BMI) for age and gender; and at risk for overweight is defined as

37 Maine Behavioral Risk Factor Surveillance System, Maine Department of Health and Human Services, 2004.
38 Maine Behavioral Risk Factor Surveillance System, Maine Department of Health and Human Services, 2004.
39 Rowland ML. Self-reported weight and height. *American Journal of Clinical Nutrition*. 1990; 52:1125–1133.
40 Palta M *et al*. Comparison of self-reported and measured height and weight. *American Journal of Epidemiology*. 1982; 115:223–230.

being between the 85th and 94th percentile BMI for age and gender. BMI is used to assess underweight, overweight, and at risk for overweight. BMI for youth is age- and gender-specific because body fatness changes with growth and maturity. The 2000 CDC growth charts are tools for evaluating the growth of children in clinical and research settings. The growth charts consist of a series of percentile curves that illustrate the distribution of selected body measurements in U.S. children, ages 2 to 20 years.[41]

During the past two decades, the percentage of children in the United States who are overweight has nearly doubled and the percentage of adolescents who are overweight has almost tripled.[42] Maine's prevalence of overweight and at risk for overweight does not differ appreciably from the national average for either boys or girls. Results from the 2003 Youth Risk Behavior Surveillance System document that 13% of Maine middle and high school students were overweight, with 18% of middle school and 15% of high school students at risk for overweight. Similarly, data from the Maine Child Health Survey indicate that 15% of children entering kindergarten in the fall of 2002 were overweight and 21% were at risk for overweight.[43, 44]

Physical Activity

One of the major contributing factors to weight gain is physical inactivity. *Healthy People 2010* recommends engaging in moderate physical activity for at least 30 minutes per day to help ensure caloric expenditure is balanced with caloric intake. Adequate physical activity for adults is defined as 30 minutes or more of moderate-intensity activity for five or more days per week or 20 minutes or more of vigorous activity for three or more days per week.[45] Accumulating physical activity in as little as three ten-minute increments over the course of a day has been proven as an effective way to increase physical fitness.[46]

A variety of factors contribute to the epidemic of overweight and obesity in Maine. Lack of education, insufficient motivation, limited access to supportive environments which enable healthy food choices, and low levels of participation in daily physical activity are all major issues that need to be addressed. Increasingly in today's society, workers are employed in jobs that require very little physical

41 U.S. Department of Health and Human Services, Centers for Disease Control and Prevention http://www.cdc.gov/growthcharts.

42 U.S. Department of Health and Human Services. Overweight Among U.S. Children and Adolescents. Centers for Disease Control and Prevention, National Health and Nutrition Examination Survey, 2004.

43 Maine Youth Risk Behavior Surveillance System, Maine Department of Education, 2003.

44 Maine Child Health Survey, Maine Department of Health and Human Services, 2002

45 U.S. Department of Health and Human Services. Physical Activity and Health: A Report of the U.S. Surgeon General. 1996.

46 Dunn AL, Andersen RE & Jakicic JM. Lifestyle physical activity interventions: History, short- and long-term effects, and recommendations. *American Journal of Preventive Medicine.* 1998; 15(4):398–412.

Profile of Maine *(continued)*

labor, while high-calorie, high-fat foods are convenient and readily available outside the home. In short, energy intake is exceeding energy needs.

In today's fast-paced society, many people cite lack of time as a barrier for being physically active. The societal trends of working many hours, commuting long distances, and working multiple jobs and the increase of single-parent households restrict the amount of leisure time available. Along with lacking the time to prepare healthy meals, many also feel that healthy meals are too expensive.

Research has found that the prevalence of leisure-time inactivity is inversely related to the degree of urbanization in the United States. The prevalence of inactivity was lowest (27%) in metropolitan centers and highest (37%) in rural areas.[47] The rural nature of Maine has a significant impact on the capacity to improve physical activity. Limited sidewalks, walking trails, bicycle paths, and other resources for physical activity in rural areas of the State are important environmental barriers. Simple access to facilities for physical activity is a major hurdle for many Maine citizens. Climate and hours of daylight also limit the opportunity to be active outdoors year-round—cold and ice in winter force many people to remain in their homes.

Almost half of Maine adults did not participate in sufficient levels of physical activity as illustrated in Figure 8. Recommended physical activity is defined as reported moderate-intensity activities in a usual week (e.g., brisk walking, bicycling, vacuuming, gardening, or anything else that causes small increases in breathing or heart rate) for at least 30 minutes per day, at least 5 days per week; or vigorous-intensity activities in a usual week (e.g., running, aerobics, heavy yard work, or anything else that causes large increases in breathing or heart rate) for at least 20 minutes per day, at least 3 days per week or both. This can be accomplished through lifestyle activities (e.g., household, transportation, or leisure-time activities). Insufficient physical activity is defined as doing more than 10 minutes total per week of moderate or vigorous-intensity lifestyle activities (e.g., household, transportation, or leisure-time activity), but less than the recommended level of activity. Inactivity is defined as less than 10 minutes total per week of moderate or vigorous-intensity lifestyle activities (e.g., household, transportation, or leisure-time activities).[48]

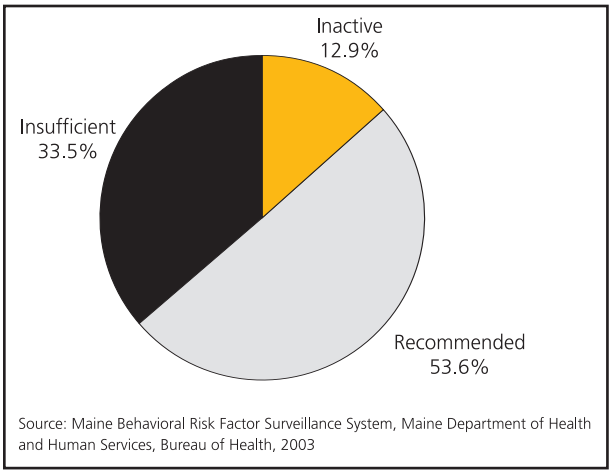
Twenty percent of Maine adults reported no leisure-time physical activity. No leisure-time physical activity is defined as no leisure-time physical activities (e.g., any physical activities or exercises such as running, calisthenics, golf, gardening, or walking) in the previous month. Only 11% of Maine college graduates reported no leisure-time physical activity, while among those with less than a high school

47 U.S. Department of Health and Human Services. Centers for Disease Control and Prevention. Self-Reported Physical Inactivity by Degree of Urbanization—United States, 1996. *Morbidity and Mortality Weekly Report,* 1998; 47(50):1097–1100.

48 Maine Behavioral Risk Factor Surveillance System, Maine Department of Health and Human Services, 2003.

education the rate is 45%. Twenty-seven percent of Maine adults living in a household with an income less than $25,000 reported no leisure-time physical activity compared with only 11% of adults living in a household with an income ≥$50,000.[49]

Figure 8: Physical Activity Levels For Maine Adults, 2003



Source: Maine Behavioral Risk Factor Surveillance System, Maine Department of Health and Human Services, Bureau of Health, 2003

As stated in the Centers for Disease Control and Prevention document *Promoting Better Health for Young People through Physical Activity and Sports:*[50]

> *Nearly 25% of the trips made from home in our nation cover a distance less than one mile, but 75% of those trips are made by automobile. A small increase in the percentage of trips that are walked rather than driven could result in significant public health benefits. Research has found that people walk more when they live in communities that have greater housing and population density and more street connectivity (i.e., streets lead to other streets and stores, rather than just ending in cul-de-sacs). Research also shows that people are more active in neighborhoods that are perceived as safe and that have recreational facilities nearby.*

Today's society has become very sedentary, and this has impacted the well-being of our youth. Technological advances have reduced the need for daily physical activity and increased the time spent in sedentary behaviors. Increased rates of overweight in children have coincided with a nationwide declining trend in walking and biking. Most children in the U.S. are bused or driven to school, and transportation via motorized vehicles becomes the norm as children grow older. During 2001–2003, the Maine Department of Transportation coordinated a research project to determine existing rates of bicycling and walking to school in the State. The findings show that, of the four schools surveyed, 85% of parents would not allow their children in grades K–8 to walk or bike to school even though 24% of them lived within one mile of the school. Parents of children in grades K–2 felt they were

49 Maine Behavioral Risk Factor Surveillance System, Maine Department of Health and Human Services. 2003.

50 U.S. Department of Health and Human Services and U.S. Department of Education. Promoting Better Health for Young People Through Physical Activity and Sports: A Report to the President from the Secretary of Health and Human Services and the Secretary of Education. Atlanta, GA: Centers for Disease Control and Prevention. 2000.

Profile of Maine *(continued)*

too young to walk to school; and parents of children in grades 3–8 felt parental supervision was necessary. Rural students were less likely to walk or bike to school except in rural village settings. The most frequent concerns cited by parents included safety in traffic, insufficient sidewalks, and vehicle speed.[51]

Physical activity continues to be displaced with television, electronic games, and computers. School budget cuts to physical education programs have also contributed to the decrease in youth physical activity rates. Low levels of physical activity are associated with an increased risk of obesity.

The National Association for Sport and Physical Education recommends:[52]

> *Elementary school children should accumulate at least 30 to 60 minutes of age- and developmentally appropriate physical activity on all or most days of the week. An accumulation of more than 60 minutes, and up to several hours per day, of age- and developmentally appropriate activities is encouraged for elementary school children. Extended periods of inactivity are discouraged for children.*

The Maine Youth Risk Behavior Surveillance System reveals that 36% of Maine high school students participated in an insufficient amount of physical activity. Also, over a quarter of Maine high school students (26%) watched three or more hours of television per day on an average school day.[53] National data show that the prevalence of obesity is lowest among children watching one or fewer hours of television a day and highest among those watching four or more hours of television a day.[54] A recent survey by the Kaiser Family Foundation indicates that more than half of all U.S. youth have television sets in their bedrooms, with an average of three televisions per home.[55] The Kaiser Family Foundation research on Kids and Media shows that, nationally, children ages 2 to 18 years of age spend an average of over four hours per day watching television or videotapes, playing video games, or using a computer. Most of this time (2 3/4 hours) is spent watching television. About 17% of children in the U.S. watch more than five hours of television per day.[56]

Schools are an ideal vehicle for providing nutrition and physical activity education because most children and adolescents can be reached in the school setting. Nutrition and physical education should be taught as part of a comprehensive school health education program that is aligned with the Maine *Learning Results*.

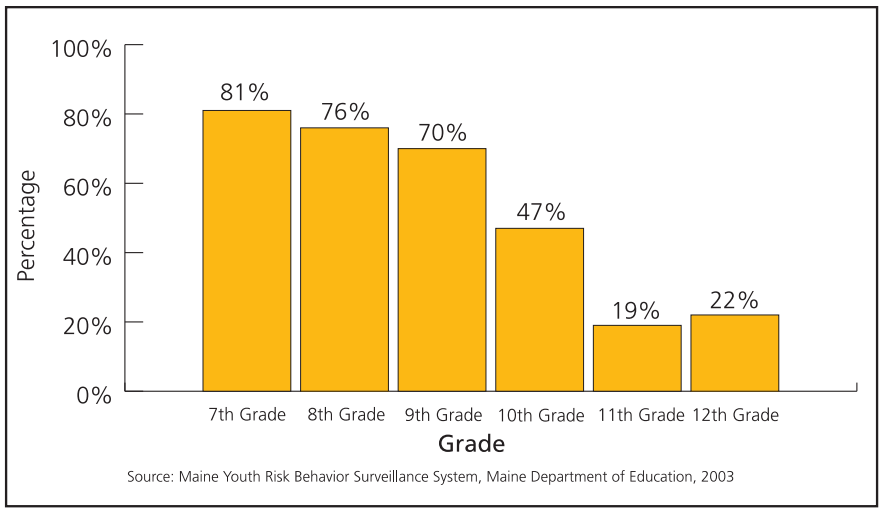
51 Maine Department of Transportation. Maine Safe Ways to School 2001-2003, Augusta, Maine. 2004.
52 Corbin C. & Pangrazi R. Physical Activity for Children: A Statement of Guidelines. Reston, VA: National Association for Sport and Physical Education. 2004.
53 Maine Youth Risk Behavior Surveillance System. Maine Department of Education, 2003.
54 U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. *Chronic Disease Notes and Reports*; Vol. 13, No. 2, Winter 2000.
55 Kaiser Family Foundation. Kids and Media at the New Millennium: A Comprehensive National Analysis of Children's Media Use. November 1999.
56 French SA, Story M & Jeffery RW. Environmental influences on eating and physical activity. *Annual Review Public Health*. 2001; 22:309–335.

Maine's *Learning Results* serves as the focal point for State and local efforts to improve student learning, define professional development needs, update local curriculum and instructional practices, and assess student achievement. The *Learning Results* identifies the knowledge and skills essential to prepare Maine students for work, higher education, citizenship, and personal fulfillment.[57]

A well-designed health curriculum that effectively addresses essential nutrition education topics can increase students' knowledge about nutrition, shape appropriate attitudes, and develop the behavioral skills that students need to plan, prepare, and select healthy meals and snacks. Programs that encourage specific, healthful eating behaviors and provide students with the skills needed to adopt and maintain those behaviors have led to favorable changes in student dietary behaviors and cardiovascular disease risk factors.[58] Participation in daily physical education in schools ensures at least a minimum amount of physical activity among children and adolescents and provides an opportunity to teach activities for lifelong physical fitness.

Although physical education has been recommended in Maine as part of a Comprehensive School Health Education Program, participation in physical education classes declines with grade level. The 2003 Maine Youth Risk Behavior Surveillance Survey shows about 81% of seventh grade students participated in physical education class on one or more days during an average school week, compared to only 22% of twelfth grade students (Figure 9).[59]

Figure 9: Percentage Of Maine Middle And High School Students Who Attended Physical Education Class On One Or More Days During An Average School Week By Grade, 2003

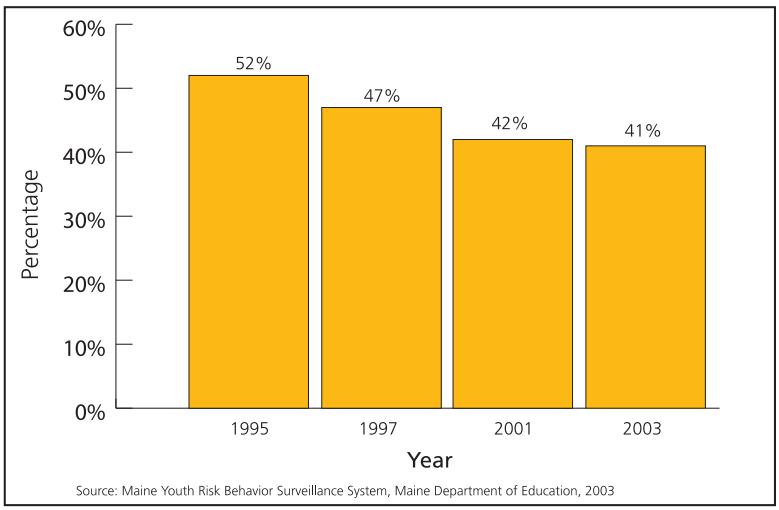


57 Maine Department of Education State of Maine *Learning Results*. Augusta, Maine. 1997.
58 U.S. Department of Health and Human Services. *Healthy People 2010*, Conference Edition. Washington, D.C. January 2000.
59 Maine Youth Risk Behavior Surveillance System. Maine Department of Education, 2003.

Profile of Maine *(continued)*

The trend for Maine high school students also shows a decline in physical education participation, from 52% in 1995 to 41% in 2003 as illustrated in Figure 10. Only 8% of Maine high school students attended physical education class daily.[60] This is well below the *Healthy People 2010* objective of increasing the proportion of adolescents who participate in daily school physical education to 50%.

Figure 10: Proportion Of Maine High School Students Who Attended Physical Education Class On One Or More Days During An Average School Week, 1995–2003



Food Choices

Food choices greatly affect a person's weight and overall health. In 1995, almost two-thirds of Maine adults consumed more than the recommended 30% of their calories from fat each day. More recent data shows that approximately 27% of Maine adults and only 23% of Maine high school students ate the recommended five servings of fruits and vegetables every day. Similarly, only 19% of Maine adults who have less than a high school education reported consuming five or more servings of fruits and vegetables daily, as compared to 35% of Maine college graduates.[61] Only 22% of Maine high school students drank the recommended three or more glasses of milk per day, with more males (29%) than females (14%) drinking three or more glasses per day.[62] Milk is an excellent, readily available source of calcium, which is important during adolescence when bone formation is critical.

60 Maine Youth Risk Behavior Surveillance System. Maine Department of Education, 1995-2003.
61 Maine Behavioral Risk Factor Surveillance System, Maine Department of Health and Human Services, 2003.
62 Maine Youth Risk Behavior Surveillance System, Maine Department of Education, 2003.

Although research has been conducted on the nutrition and physical activity status of Maine citizens, as summarized in the *Conspectus of Nutritional Assessments of the Maine Population Across the Lifespan, 1966–1999,* there are no other comprehensive, population-based studies that describe the eating and physical activity habits of Maine people.[63] However, according to the Healthy Eating Index, a measure of how well American diets conform to recommended healthy eating patterns, almost 90% of Americans have diets that are poor or need improvement.[64] Overall, Americans consume too many added sugars and added fats and do not consume enough fruits, vegetables, and whole grains.[65]

As stated in the Centers for Disease Control and Prevention Chronic Disease Notes and Reports:[66]

> *The goals of obesity prevention and control are twofold: prevention of weight gain for the entire population and weight loss for those who are overweight. These goals represent a critical public health challenge. The first goal, which involves preventing weight gain among the non-obese, the weight gain that accompanies aging, and further weight gain among the already obese, will arrest the progression of the epidemic and the development of the illnesses associated with obesity. The obesity epidemic developed concurrently with changes in the food supply, such as increased consumption of fast food and soft drinks, extraordinary serving sizes, and the surfeit of food products. Therefore, strategies to change food consumption include promoting fruit and vegetable consumption, substituting water for juice and soft drinks, and reducing our reliance on high-calorie fast foods. Because a variety of indicators suggest that physical activity declined over the same time period, sedentary behavior is also a contributing factor to the increase in obesity. Increased physical activity offers an important strategy for weight control. Therefore, environmental changes to promote physical activity are essential: we must restore physical education in schools, develop and promote worksite-based physical activity programs, and adopt alternatives to car use in communities.*

Excess energy intake is a major factor that influences an individual's body weight. National data show that, between 1984 and 1994, the average daily caloric intake per person increased by 340 calories. This extra 340 calories per day could lead to 36 pounds of additional body fat in a year if an individual's metabolism and physical activity level remained the same. Some of the increased consumption of calories appears to be the result of an increase in eating out. In 1995, one-third of the total food energy consumption came from foods eaten away from home.[67] When eating out, people tend to eat more food and/or higher calorie foods.

63 Cook RA, Leiter JL & Milan JA. *A Conspectus of Nutritional Assessments of the Maine Population Across the Lifespan*, 1966-1999. University of Maine Publication 746, May 2000.

64 Kennedy E *et al.* Diet Quality of Americans. Healthy Eating Index. U.S. Department of Agriculture, Economic Research Service, Food and Rural Economics Division. Agriculture Information Bulletin No. 750, 1999.

65 Putnam J, Kanter LS & Allshouse J. Per capita food supply trends: progress toward dietary guidelines. *Food Review.* 2000; 23(3):2–14.

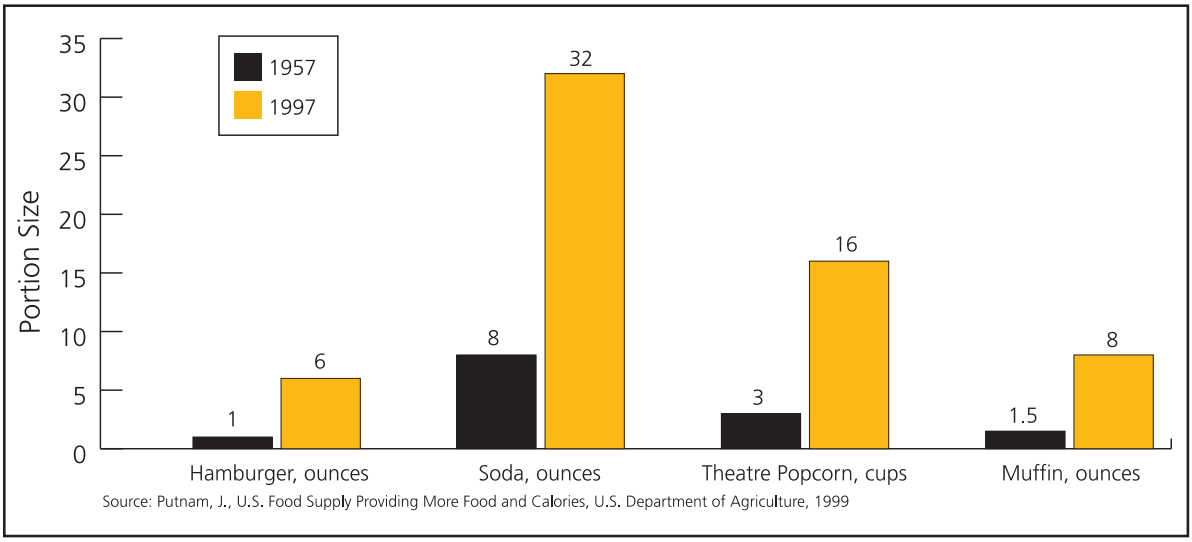
66 U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Chronic Disease Notes and Reports; Vol. 13, No. 2, Winter 2000.

67 Putnam J. U.S. food supply providing more food and calories. *Food Review.* 1999; 22(3):2–12.

Profile of Maine *(continued)*

Figure 11 shows an intriguing comparison of fast-food portion sizes in 1957 and 1997. In 1957, the typical fast-food hamburger consisted of about one ounce of cooked meat, jumping up to six ounces in 1997. Soda was eight ounces in 1957, compared with 32 to 64 ounces in 1997. A medium-size popcorn at the theatre was three cups in 1957, increasing to 16 cups in 1997. A muffin was less than one and a half ounces in 1957, compared with five to eight ounces in 1997.[68]

Figure 11: Average Fast-Food Portion Sizes In 1957 Versus 1997



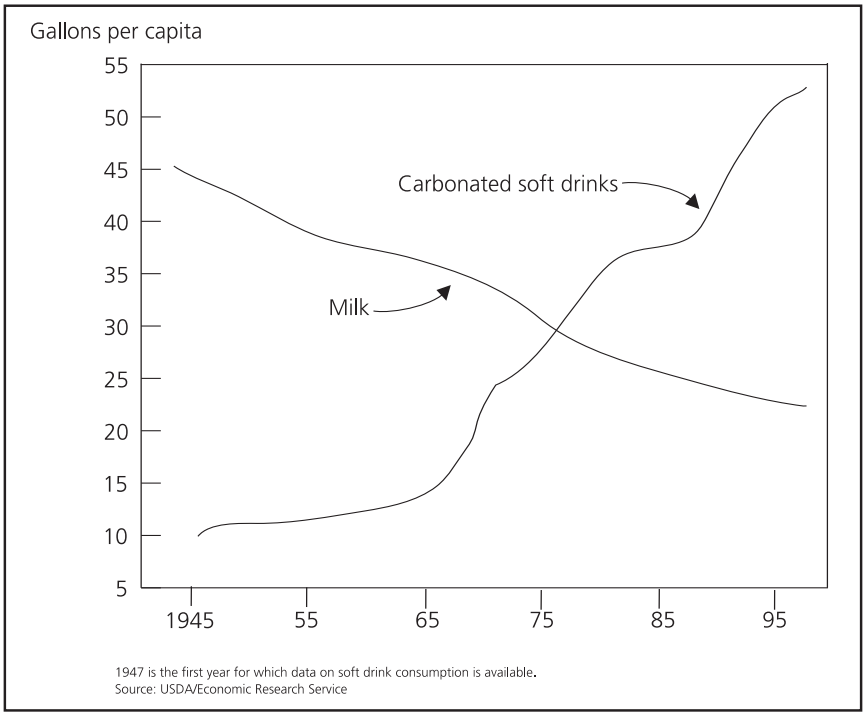
There is a well-established practice of restaurants offering and promoting larger portion sizes, especially in fast-food restaurants where a typical menu offers "super sized" items. Larger serving sizes are usually offered at a modest price increase, but offer a hefty increase in the amount of calories and fat. This environmental trend promotes obesity by providing more frequent opportunities to consume large quantities of food.[69] The temptation to get more food for less money is a contributing factor in the obesity epidemic.

The U.S. per capita consumption of caloric sweeteners is dramatically high. In 1999, the average American diet consisted of 34 teaspoons of added sugars per day.[70] The Dietary Guidelines for Americans recommends that people consuming 1,600 calories a day limit their intake of added sugars to three teaspoons per day, and up to 12 teaspoons for those consuming 2,800 calories.[71] Soft drinks are the leading source of added sugars in the diet, with an average 12-ounce soda providing ten teaspoons of sugar. Soft drink consumption nearly tripled among adolescent

68 Putnam J. U.S. food supply providing more food and calories. *Food Review.* 1999; 22(3):2–12.
69 Hill JO & Peters JC. Environmental contributions to the obesity epidemic. *Science.* 1998; 280:1371–1374.
70 Putnam J, Kanter LS & Allshouse J. Per capita food supply trends: progress toward dietary guidelines. *Food Review.* 2000; 23(3):2–14.
71 U.S. Department of Health and Human Services and U.S. Department of Agriculture. *Dietary Guidelines for Americans,* 2005. 6th Edition, Washington, D.C.: U.S. Government Printing Office, January 2005.

males between 1977 and 1995. Figure 12 shows the rise in the U.S. consumption of soft drinks compared to milk over five decades.

Figure 12: U.S. Soft Drink Consumption Compared To Milk, 1945–1995



Soda adds non-nutritious calories to the diet. Results from a recent study showed that students drinking an average of nine ounces or more of soft drinks daily consumed almost 200 calories more per day than those drinking no soft drinks. An extra 200 calories per day translates into a weight gain of 21 pounds in a year. This reinforces the notion that the extra calories from sugar-sweetened drinks could easily contribute to obesity.[72]

Until very recently, there was a growing trend in the availability of soft drink vending machines in schools and at worksites. Schools, worksites, and restaurants often have exclusive-rights contracts with the soda companies. These contracts have certain restrictions, such as numbers of vending machines and required volumes of sales. In 2002, 240 U.S. school districts entered into exclusive "pouring rights" contracts with soft drink companies.[73] The Maine Department of Education adopted ruling in 2005 that prohibits the sale of foods and beverages of minimal nutritional value, as defined by Federal regulation, at any time on school property of a school participating in any of the child nutrition programs.

72 Ludwig DS, Peterson KE & Gortmaker SL. Relation between consumption of sugar-sweetened drinks and childhood obesity: a prospective, observational analysis. *Lancet*. 2001; 357(9255):505–508.

73 Fried EJ & Nestle M. The growing political movement against soft drinks in schools. *Journal of the American Medical Association*. 2002; 288(17):2181.

Profile of Maine *(continued)*

As the food environment has changed to increase food availability, there has also been a dramatic change in exposure to messages that encourage food consumption. Television has been cited as a contributing factor to higher dietary energy or fat intake. Exposure to food advertising, especially commercials for fast food or convenience foods, may influence viewers' food choices toward higher-fat or higher-energy foods. Television is the most widely used advertising medium, which is not surprising given that televisions are present in 98% of U.S. households and adults spend an average of two hours per day watching television.[74]

In 1997, fast-food restaurants spent over 95% of their advertising budgets on television advertisements. Advertising by food service, mostly fast-food restaurants, accounted for 28% of the total mass-media advertising dollars spent by the food service industry. In 1997, Coca-Cola spent $277 million on advertising. In 1998, McDonald's spent $572 million, and Burger King spent $408 million. Contrast these figures with the $30 million spent by the "milk mustache" and "Got milk?" campaigns in 1996 and the $1 million spent in 1999 by the National Institutes of Health/National Cancer Institute to promote the "5 A Day" message. In 1997, the entire amount spent by the U.S. Department of Agriculture on nutrition education, evaluation, and demonstration was $333 million, or a mere 3% of what the food industry spent in the same year.[75]

It is apparent that the environment affects individual choices related to nutrition and physical activity. Therefore, appropriate interventions must address environmental factors as well as behavioral factors in the State's efforts to prevent and treat overweight and obesity.[76] All sectors of society must work together to help support healthy opportunities where Maine citizens live, work, play, and go to school.

74 French SA, Story M & Jeffery RW. Environmental influences on eating and physical activity. *Annual Review Public Health*. 2001; 22:309–335.

75 French SA, Story M & Jeffery RW. Environmental influences on eating and physical activity. *Annual Review Public Health*. 2001; 22:309–335.

76 U.S. Department of Health and Human Services. *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity*. Rockville, MD: Office of the Surgeon General. 2001.

4 Burden of Poor Nutrition, Physical Inactivity, Obesity, and Other Chronic Diseases

Nutrition and physical activity status affect death and disability and can impact the physical, mental, and emotional quality of life. Poor nutrition, inactivity, and tobacco use account for 35% of all deaths in Maine, with an estimated four people dying every day in Maine from an underlying cause of poor nutrition or physical inactivity.[77] Fourteen percent of all U.S. deaths have been attributed to poor diets and/or sedentary lifestyles.[78] Research has shown that a complete absence of physical activity is correlated with the highest risk for death and disability and some form of regular activity improves physical and mental health.[79]

Obese people generally have higher health care costs, face greater health risks, and are more likely to experience a disability.[80] People who are obese incur annual medical expenses that are 36% higher than those who are of normal weight.[81] Estimated annualized medical expenditures attributable to obesity are $357 million for adults in Maine; it is estimated to cost 11% of the State's Medicaid expenditures, or roughly $137 million per year.[82] These same authors state that medical spending attributable to overweight and obesity accounted for 9.1% of total annual U.S. medical expenditures in 1998.[83] Medicare and Medicaid finance approximately half of these costs. In 1999, it was estimated that the aggregate lifetime costs of health care associated with overweight for men and women ages 35 through 64 was $2.2 billion.[84, 85]

Obesity increases a person's risk of death from all causes by 50%–100%, more than previously thought.[86] The association between obesity and increased morbidity and mortality translates into substantially increased medical and disability costs. In 2000, the economic costs of obesity in the U.S. were $117 billion.[87] Most of the costs associated with obesity are due to type 2 diabetes, coronary heart disease,

77 Maine Department of Human Services, Bureau of Health. *Healthy Maine 2010: Longer and Healthier Lives*. December 2002.
78 McGinnis JM & Foege WH. Actual causes of death in the United States. *Journal of the American Medical Association*. 1993; 270(18):2207–2212.
79 U.S. Department of Health and Human Services. *Healthy People 2010*, Conference Edition. Washington, D.C. January 2000.
80 National Institutes of Health. *Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults. The Evidence Report*. NIH publication No. 98-4083, September 1998.
81 Sturm R. The effects of obesity, smoking, and drinking on medical problems and costs. *Health Affairs*. 2002 Mar-Apr; 21(2):245–253.
82 Finkelstein EA, Fiebelkorn IC and Wang G. State-level estimates of annual medical expenditures attributable to obesity. *Obesity Research*. 2004; 12(1); 18–24.
83 Finkelstein EA, Fiebelkorn IC and Wang G. National medical spending attributable to overweight and obesity: How much and who's paying? *Health Affairs*—Web Exclusive, May 14, 2003, 219–226. www.content.healthaffairs.org/cgi/content/full/hlthaff.w3.219v1/DC1.
84 Maine Department of Human Services, Bureau of Health Special Analysis, 1999.
85 Thompson D *et al*. Lifetime health and economic consequences of obesity. *Archives of Internal Medicine*. 1999; 159:2177–2183.
86 Calle EE *et al*. Body mass index and mortality in a prospective of U.S. adults. *New England Journal of Medicine*. 1999; 341:1097–1105.
87 U.S. Department of Health and Human Services. *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity*. Rockville, MD: Office of the Surgeon General. 2001.

Burden *(continued)*

and hypertension. In fact, obesity affects more people and is linked to an increase in chronic medical conditions and significantly higher costs of medication and health care than smoking. For example, when compared with normal weight individuals of the same age, gender, and social demographics, obese people suffer from an increase in chronic conditions of 67%. In contrast, the increase in chronic conditions for normal weight daily smokers is 25%.[88, 89]

Maine ranks nineteenth in the nation for deaths due to the four major chronic diseases: cardiovascular disease, cancer, chronic respiratory diseases, and diabetes.[90] These four represent the top four causes of death from chronic disease in Maine, and they all are influenced directly by diet and physical inactivity. Cardiovascular disease is the most common cause of death in Maine, accounting for about 40% of all deaths and resulting in greater costs than any other disease. The reported hospital costs of cardiovascular disease in Maine were $474 million in 2002—29% of all hospital charges.[91] Cancer accounts for about 25% of all deaths in Maine, the nation's tenth highest rate of death from all cancers.[92] Diabetes, although less common, results in the second greatest disease costs in Maine. The numbers of people in Maine diagnosed with diabetes has more than doubled, from an estimated 33,000 in 1994 to over 73,000 in 2002. The vast majority of these are type 2 diabetes, which is associated with obesity.[93]

Obesity in children and adolescents is associated with chronic diseases such as diabetes, asthma, sleep apnea, and gallbladder disease. Fifty-eight percent of overweight children, even as young as five, were found to have at least one additional risk factor for cardiovascular disease, and 20% were found to have two or more.[94] In the United States over the past twenty years, increases in the percentage of hospital discharges were found for obesity and obesity-related illnesses as follows: obesity, 197%; sleep apnea, 436%; and gallbladder disease, 228%. During this same period of time, obesity-associated annual hospital costs for youth aged 6 to 17 years have increased more than threefold, from $35 million in 1979–1981 to $127 million in 1997–1999.[95] Although the direct medical consequences of being overweight or obese are often emphasized, psychosocial consequences also are profound for adults as well as children.[96]

88 Wolf AM. What is the economic case for treating obesity? *Obesity Research.* 1998; 6(1):2S–7S.
89 Sturm R. The effects of obesity, smoking, and drinking on medical problems and costs. *Health Affairs*. 2002 Mar-Apr; 21(2):245–253.
90 U.S. Department of Health and Human Services. *The Burden of Chronic Diseases and Their Risk Factors. National and State Perspectives*. Centers for Disease Control and Prevention. February 2004.
91 Maine Health Data Organization/Maine Department of Human Services, Bureau of Health Special Analysis, 2002.
92 National Center for Health Statistics (NCHS). Report of Final Mortality Statistics, 1998. *Monthly Vital Statistics Report* 47(19). Centers for Disease Control and Prevention, 2000.
93 Maine Behavioral Risk Factor Surveillance System, Maine Department of Health and Human Services, 1994–2002.
94 Freedman D *et al*. The relation of overweight to cardiovascular risk factors among children and adolescents: the Bogalusa heart study. *Pediatrics*. 1999; 103(6):1175–1182.
95 Wang G & Dietz WH. Economic burden of obesity in youths aged 6 to 17 years: 1979–1999. *Pediatrics*. 2002; 109: 1195.
96 Dietz WH. Health consequences of obesity in youth: childhood predictors of adult disease. *Pediatrics*. 1998; 101(3):518–525.

5 The Benefit of Improved Nutrition and Physical Activity

A healthy diet and regular physical activity can reduce the risk of many chronic diseases for the general population, and improve the quality of life and health in people who have been diagnosed with chronic disease.[97, 98] Improved nutrition and regular physical activity can lead to significant cost reductions in health care. Studies indicate that, in as little as 18 months, health care costs can be reduced when adults become more physically active, maintain a healthy weight, and do not use tobacco products.[99] The Maine Dietetic Association compiled data on twelve case studies in which medical nutrition therapy was used during 1993 and demonstrated that the annual cost savings associated with nutrition intervention in these cases alone was $185,000.[100]

In another study, the Maine Dietetic Association found that by making healthy changes in diet and improving levels of physical activity, consumers often could reduce their medication dosages or stop taking the medication. The potential savings are significant, and Maine citizens could save an average of about $800 per capita as prescription drug use decreases or ceases.[101] In addition to cost savings, consumers who are able to safely decrease or cease their medication use will also help minimize and perhaps eliminate potential negative side effects associated with medications.

A recent study found that physically active individuals had lower direct medical costs than those who were inactive. Americans 15 years and older who participated in regular physical activity (at least 30 minutes of moderate activity three or more times a week) had average annual direct medical costs of $1,019, contrasted to costs of $1,349 for those who were inactive. This is an annual savings of $330 per person based on 1987 dollars.[102]

The reduction of health care costs associated with poor nutrition and physical inactivity has become an economic necessity. Nutrition and physical activity are essential components for improving health, and they must be integrated into all aspects of preventive health care. Data from the *National Weight Control Registry for Successes* demonstrate the poor success rate of treating obesity.[103] Consequently, public health leaders have looked towards changing policies and environments to create an environment where people can make healthy food choices and become more physically active.

97 U.S. Department of Health and Human Services. *Healthy People 2010, Conference Edition*. Washington, D.C. January 2000.

98 McGinnis JM & Foege WH. Actual causes of death in the United States. *Journal of the American Medical Association*. 1993; 270(18):2207–2212.

99 Pronk NP *et al*. Relationship between modifiable health risks and short-term health care charges. *Journal of the American Medical Association*. 1999; 282:2235–2239.

100 Maine Dietetic Association, Nutrition Services Payment System Committee. Nutrition Services Improve Health and Save Money for Maine Citizens, Cost-Effectiveness Case Studies for Maine. 1993.

101 *Maine Dietetic Association Newsletter*. Spring 2000.

102 Pratt M, Macera CA & Wang G. Higher direct medical costs associated with physical inactivity. *The Physician and Sportsmedicine*. 2000; 28(10).

103 http://www.lifespan.org/Services/BMed/Wt_loss/NWCR/Research/default.htm

The Benefit of Improved Nutrition and Physical Activity *(continued)*

Breastfeeding

Breastfeeding provides health benefits to both the infant and the breastfeeding mother, including reduced incidence of several acute and chronic diseases in children. Ideally, breastfeeding should occur for at least a full year. The American Academy of Pediatrics recommends breast milk as the optimal food for infants, a view the U.S. Surgeon General supports.[104] Unfortunately, the lowest rates of breastfeeding are associated with women whose infants are at highest risk of poor health and development. Women age 21 and younger and those with little education have the lowest rates for breastfeeding. Data from the 2003 Maine Pregnancy Risk Assessment Monitoring System (PRAMS) indicate that 78% of mothers surveyed initiated breastfeeding.[105] Maine Women, Infants, and Children Nutrition Program (WIC) data for 2003 indicate that 52% of infants participating in the Program were ever breastfed, 25% of infants were breastfed at least six months, and 17% were breastfed at least one year.[106] Maine breastfeeding rates at hospital discharge are tracked via the newborn screening filter paper forms. During 2003, 60% of the newborns screened were exclusively breastfed.[107] However, Maine has no current data system that provides information on the duration of breastfeeding for all infants from six months to one year. An enhanced data collection system will allow measurement of these indicators. Maine WIC and other organizations continue to collaborate on breastfeeding promotion and support for breastfeeding mothers.

Several publications provide guidance for implementing breastfeeding policy and environmental support. *The CDC Guide to Breastfeeding Interventions* provides guidance in selecting a breastfeeding intervention. Intervention descriptions include program examples, resources for further information, and simple action steps to get a program started.[108] The *Blueprint for Action* promotes a plan for breastfeeding based on education, training, awareness, support, and research. The plan lays out a framework based on the recommendation that infants be exclusively breastfed during the first four to six months of life, preferably for a full six months and ideally through the first year of life.[109] *Breastfeeding in the United States: A National Agenda* is a strategic plan for promoting and supporting breastfeeding in the nation. The U.S. Breastfeeding Committee's vision is that breastfeeding is the norm for infants and child feeding throughout the United States. Recommendations are made to reach the breastfeeding goals of *Healthy People 2010*.[110]

104 American Academy of Pediatrics. Breastfeeding and the use of human milk. AAP. 1997; 100(6):1035–1039.
105 Maine Department of Human Services. Office of Data, Research and Vital Statistics. Pregnancy Risk Assessment Monitoring System (PRAMS) Survey Data. 2003.
106 U.S. Department of Health and Human Services. Pediatric Nutrition Surveillance System. Centers for Disease Control and Prevention. 2003.
107 Maine Department of Health and Human Services, Maine Newborn Breastfeeding Surveillance System. 2003.
108 Shealy KR, Li R, Benton-Davis S, Grummer-Strawn LM. *The CDC Guide to Breastfeeding Interventions*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2005. http://www.cdc.gov/breastfeeding.
109 U.S. Department of Health and Human Services, HHS Blueprint for Action on Breastfeeding. Washington, D.C., Office on Women's Health. 2002. http://www.4woman.gov/Breastfeeding/index.htm.
110 United States Breastfeeding Committee. *Breastfeeding in the United States: a national agenda*. Rockville, MD: Health Resources and Services Administration, Maternal and Child Health Bureau. 2001. http://www.usbreastfeeding.org.

Food Safety

The proper handling of food is another factor critical to ensuring good health and nutrition. Food-borne illnesses may become more of a problem in the future. Factors that may contribute to this trend include emerging pathogens, a more global food supply, and an increase in the elderly population, who may have limited capacity to resist food-borne illness. Studies have shown that consumers have limited knowledge about the proper way to safely prepare, thaw, and store food.[111, 112] Food safety is an important component of nutrition education that should be incorporated into the health curriculum using the comprehensive school health education framework.

Guidance for implementing food safety policies can be obtained from the U.S. Food and Drug Administration's Center for Food Safety and Applied Nutrition. This Web site provides links to food safety advice from the Food and Drug Administration, the U.S. Department of Agriculture, the Centers for Disease Control and Prevention, and some State and local health agencies.[113] The Maine Department of Agriculture, Food, and Rural Resources and the Maine Department of Health and Human Services have adopted the Maine Food Code to help improve food safety at the retail level.[114] In addition, the University of Maine Cooperative Extension (www.umext.maine.edu) provides access to educational resources on various topics including food safety.

Food Security

Food security for a household means access by all members at all times to enough food for an active, healthy life. Food security includes the ready availability of nutritionally adequate and safe foods and an assured ability to acquire acceptable foods in socially acceptable ways; that is, without resorting to emergency food supplies, scavenging, stealing, or other coping strategies. Nutritionally vulnerable groups such as pregnant women, children, and the elderly, who all have increased nutrient needs when compared to healthy adults, are at risk of food insecurity and hunger.[115] Food security is a concern for Maine as well as the world. Indeed, hunger and the risk of hunger are widespread among Maine's low-income families with children.

111 Altekruse SF *et al*. Consumer knowledge of foodborne microbial hazards and food-handling practices. *Journal of Food Protection*. 1996; 59:287–294.

112 National Center for Health Statistics (NCHS). Report of Final Mortality Statistics, 1997. *Monthly Vital Statistics Report* 47(19). Centers for Disease Control and Prevention, 1999.

113 U.S. Food and Drug Administration, http://www.foodsafety.gov.

114 Maine Department of Health and Human Services and Maine Department of Agriculture, Food, and Rural Resources. State of Maine Food Code 2001. http://www.maine.gov/dhs/mhhs.

115 U.S. Department of Agriculture. *Guide to Measuring Household Food Security, Revised 2000*. Alexandria, VA: Food & Nutrition Service. March 2000.

The Benefit of Improved Nutrition and Physical Activity *(continued)*

Four in ten Maine children under 12 years of age are hungry or at risk of hunger. A national study of childhood hunger, the Community Childhood Hunger Identification Project, found 20,000 children in Maine under age 12 living in homes where hunger is a constant concern and another 64,000 children under age 12 at risk of hunger.[116] There is compelling evidence that malnutrition during any period of childhood can have detrimental effects on the cognitive development of children and their later productivity as adults.[117] Inadequate food intake limits the ability of children to learn even before the effects of hunger are severe.

Research shows that youngsters from food-insecure and hungry homes have poorer overall health status. They are sick more often, are much more likely to have ear infections, have higher rates of iron deficiency anemia, and are hospitalized more frequently. In short, going hungry makes kids sick. As a result, they miss more days of school and are less prepared to learn when they are able to attend, making the relationship between hunger, health, and learning of far greater importance than was previously realized. At-risk children are more likely to have poorer mental health, be withdrawn or socially disruptive, and suffer greater rates of behavioral disorders.

Maine's Millennium Commission on Hunger and Food Security was established in 1999 to address the issues of food security in the State. The Commission proposed strategies focusing on long-term food security that require changes in society's attitude toward hunger, in public policy, and in the social and economic systems as well as the food-producing and delivery systems. The recommendations are outlined in the Commission's final report, *Ending Hunger in Maine,* available via the Web site of the State Planning Office.[118] Other resources published by the U.S. Department of Agriculture include the *U.S. Action Plan on Food Security: Solutions to Hunger* and the *National Nutrition Safety Net: Tools for Community Food Security.*[119, 120]

Eating Disorders

Eating disorders represent significant health concerns for youth, especially girls, as well as women. Anorexia nervosa is a severe eating disorder, characterized by extreme and often life-threatening weight loss associated with a distorted body image and a pathological fear of gaining weight. Bulimia nervosa is an eating disorder that involves a cycle of binge eating and purging using vomiting, diuretics,

116 Maine Millennium Commission on Hunger and Food Security. Ending Hunger in Maine. Final Report, April 2002.
117 Tufts University, School of Nutrition Science and Policy, Center on Hunger, Poverty and Nutrition Policy. Statement on the link between nutrition and cognitive development in children. 1998.
118 Maine Millennium Commission on Hunger and Food Security. Ending Hunger in Maine. Final Report, April 2002. http://www.state.me.us/spo.
119 U.S. Department of Agriculture. U.S. Action Plan on Food Security: Solutions to Hunger. Foreign Agricultural Service. March 1999.
120 U.S. Department of Agriculture. The National Nutrition Safety Net: Tools for Community Food Security. Food and Nutrition Service. August 2003.

or laxatives.[121] Maine has limited Statewide data on the prevalence of eating disorders, and some related information exists. In 2003, seven percent of Maine's middle school students and six percent of Maine high school students reported that they vomited or took laxatives to lose weight.[122] These numbers have decreased significantly since 1997, but the issue of eating disorders continues to demand attention.

Several national resources provide guidance for implementing policy and environmental change to address eating disorders. The BodyWise Eating Disorders Initiative is a component of the U.S. Department of Health and Human Services *Girl Power!* Campaign. The BodyWise initiative provides information for school personnel and other adults to help create environments, policies, and programs that discourage disordered eating for girls ages 9–12.[123] The National Eating Disorders Association (NEDA, www.nationaleatingdisorders.org) and the National Association of Anorexia Nervosa and Associated Disorders (ANAD, www.anad.org) work to prevent eating disorders; valuable resources are available via the respective Web sites. In addition, the American Academy of Pediatrics has issued a policy statement regarding the physician's role in identifying and treating eating disorders.[124]

Selected Populations

Priority populations for addressing overweight and obesity in the PAN Plan are children, youth, and adults who are vulnerable to poor nutrition and lack of physical activity and their adverse effects on health. Four primary settings are identified to reach these populations: schools, communities, worksites, and health care.

Where possible, resources are primarily focused on children, adolescents, and adults who experience disparities in health status, morbidity and life expectancy, and quality of life. Maine data are limited on the impact of race, ethnicity, and sexual minority status on overweight and obesity. Some data indicate that there are lower rates of overweight and obese adults among racial minorities in Maine, but these sample sizes are small. Further data and analyses are important to understand the impact of health disparities on overweight and obesity in Maine. Also, more data is needed to assess the impact of rural versus urban residence on overweight and obesity. There appear to be differences in the rates of overweight and obese adults among geographical regions in Maine, with lower rates in southern Maine. When these rates are adjusted for income and age, these regional variations disappear. We do know that rural counties in Maine tend to have higher rates of poverty and an older population.[125] *Healthy Maine 2010* and other sources of data are the basis of stratifying measurements toward meeting long-term and intermediate

121 U.S. Department of Health and Human Services. *Healthy People 2010, Conference Edition*. Washington, D.C. January 2000.
122 Maine Youth Risk Behavior Surveillance System, Maine Department of Education, 2003.
123 U.S. Department of Health and Human Services. *BodyWise Handbook, Eating Disorders Information for Middle School Personnel*. Washington, D.C. September 1999.
124 American Academy of Pediatrics. Identifying and treating eating disorders. *Pediatrics*. 2003; 111(1):204–211.
125 Maine Department of Human Services, Bureau of Health. *Healthy Maine 2010: Opportunities For All*. December 2002.

The Benefit of Improved Nutrition and Physical Activity *(continued)*

objectives for populations. Potential stratifications for Maine citizens include age, gender, income, education, ethnicity, rural versus urban, and sexual orientation.

6 Local Intervention Sites

Infrastructure to Implement the Maine PAN Plan

The Maine Health and Human Services' Public Health's (Maine HHS Public Health) Physical Activity and Nutrition Program (PANP) is the administrative and technical expert lead for development and implementation of this Plan. The PANP has solicited additional external lead agencies that have agreed to enable implementation of the plan strategies. Key partner agencies are the Maine Department of Education (DOE); the Maine Department of Agriculture, Food and Rural Resources (DAFRR); the Maine Department of Transportation (DOT); the Maine-Harvard Prevention Research Center (M-HPRC); the Maine Nutrition Network (MNN); and the University of Maine Cooperative Extension (UMCE).

The PANP is the newest structural component of the Healthy Maine Partnerships (HMP) initiative. The HMP initiative links aspects of five Maine HHS Public Health State-level programs that collaborate to provide funding, training, technical assistance, program development, monitoring, evaluation, and oversight to 31 local Partnerships across Maine. These five programs are the PANP, the Maine Cardiovascular Health Program (MCVHP), the Coordinated School Health Program (CSHP), the Community Health Promotion Program (CHPP), and the Partnership For A Tobacco-Free Maine (PTM). These Maine HHS Public Health programs also collaborate with the Maine Department of Education's Coordinated School Health Program (CSHP), which includes Comprehensive School Health Education (CSHE) as a key part of the HMP infrastructure.

The HMP facilitates the coordination of State and local intervention activities. Each of the 31 local Partnerships include collaboration between a local lead agency and a participating School Administrative Unit (SAU) and is funded to implement comprehensive community-level interventions that promote and support a healthier lifestyle. The HMPs also support a Youth Advocacy Program (YAP) to involve youth from the community in interventions. These interventions emphasize developing policies and making changes to the local environment related to tobacco use prevention, increased physical activity, and improved nutrition.

The PANP is responsible for providing coordination across multiple Maine HHS Public Health programs with nutrition and physical activity components, including the Women, Infants, and Children Nutrition Program (WIC), the Diabetes Prevention and Control Program, the Breast and Cervical Health Program, the Comprehensive Cancer Control Program, and the Maternal and Child Health Nutrition Program. WIC is the lead agency for developing and implementing breastfeeding strategies, and the Program's *Loving Support* breastfeeding project is integrated into the strategies of this Plan. The *Coordinated Approach to Child Health* (CATCH) Program was initiated by the Maine Cardiovascular Health Program and is also referenced in the strategies. The PANP established the PAN Coordinating Council and the PAN Advisory Group made up of key Statewide partners to

Local Intervention Sites *(continued)*

provide strategic guidance for implementation of the Plan and nutrition and physical activity interventions. Appendix E outlines the structure and membership of the PAN Coordinating Council, and Appendix F describes the PAN Advisory Group.

Partner and Community Involvement in Interventions

Maine has a long-standing practice of collaboration among public health practitioners and stakeholders in program planning. The content of the Maine PAN Plan was developed with input from multiple stakeholders and Statewide health, nutrition, and physical activity program representatives. Participation by health care providers and community populations who are the focus of interventions is less well-established. However, the Healthy Maine Partnerships are positioned to enhance community involvement due to their requirements that school representatives (including students and parents) and community coalitions help drive their local interventions. HMP staff help assure that best practices and evidence-based interventions are integrated in school, community, and health care settings.

Successful techniques to involve the community are not specifically identified in the Plan, but these techniques will be modeled and promoted by the PANP staff along with the PAN Coordinating Council and PAN Advisory Group. Specific actions to assure community involvement will be incorporated into the infrastructure during local intervention planning processes. For instance, mini-grants could require community involvement to identify desired outcomes and interventions to reach those outcomes.

Community Engagement

In order for any behavior change in a population to be successful, people who are affected must be part of the planning and implementation process. In fact, what public health professionals deem important may not be a priority to individuals in a community. The public health professional has the role of bringing technical knowledge and expertise to the table. But it is the community itself, whether that community be in a school, worksite, health care setting, or larger community, that knows and can articulate what it desires for change and how that change can best be accomplished. Public health professionals and other allied workers can assist by framing the questions to be answered so that the community in partnership with health care can identify system/community assets, tools, and techniques that have been successful.

There are several models and techniques that are effective for engaging a community to design and achieve their own future. The *Community Toolbox* describes methods for approaching and working with a community. *Collaboration Framework, Appreciative Inquiry,* and *Future Search* are three methodologies that have also been

used in Maine's public health environments.[126, 127, 128, 129] *Appreciative Inquiry* and *Future Search* invite people in a system (e.g., schools, communities, worksites, health care) to envision their own desired future and plan how to reach that future. Inquiry is framed so that strengths are identified and people themselves take responsibility for designing and carrying out changes for themselves and their communities.

Interventions in health care settings will be aligned with the *Chronic Care Model.*[130] The *Chronic Care Model* identifies the essential elements of a health care system that encourage high quality chronic disease care. These elements are the community, the health system, self-management support, decision support, and clinical information systems. Evidence-based change concepts are combined under each element to foster productive interactions between informed patients who take an active part in their care and providers with resources and expertise. The model can be applied to a variety of health care settings and populations. The model achieves healthier patients, more satisfied providers, and cost savings. Using the *Chronic Care Model* can assure that nutrition and physical activity recommendations for individuals in a variety of settings align with health care system guidelines. Furthermore, the Model can help individuals be responsible for managing their own health. This is a departure from the present prevailing culture where individuals rely on the health care system and clinicians to assume responsibility for their health care.

126 www.ctb.ku.edu.
127 www.crs.uvm.edu/nnco/collab/framework.html.
128 www.appreciativeinquiry.cwru.edu and Cooperrider DL & Srivastva S. Appreciative Inquiry in Organizational Life: www.appreciative-inquiry.org/index.htm.
129 www.futuresearch.net.
130 www.improvingchroniccare.org.

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126 www.ctb.ku.edu.
127 www.crs.uvm.edu/nnco/collab/framework.html.
128 www.appreciativeinquiry.cwru.edu and Cooperrider DL & Srivastva S. Appreciative Inquiry in Organizational Life: www.appreciative-inquiry.org/index.htm.
129 www.futuresearch.net.
130 www.improvingchroniccare.org.

7 Existing Resources and Initiatives to Implement the Maine PAN Plan

The following examples represent current resources and initiatives in Maine that are essential in implementing the Plan strategies. The Maine State Government Web site (www.maine.gov) and the Healthy Maine Partnerships Web site at www.healthymainepartnerships.org provide links to the resources and initiatives outlined in this section of the Plan.

Maine State Government

Maine Department of Agriculture, Food and Rural Resources (DAFRR)

Maine Senior FarmShare Program

The Maine Senior FarmShare Program supports Maine farmers who provide fresh, unprocessed, locally grown produce free of charge to low-income seniors throughout the State. The program is based on $100 share arrangements between farms and individual seniors and between farms and agencies that distribute food to seniors via food pantries, meal sites, and housing sites. Farms are prepaid in the spring for the produce they commit to provide for seniors and agencies later in the season. The Maine Senior FarmShare Program is administered by the Maine Department of Agriculture in partnership with other State agencies and organizations, including the Maine Department of Health and Human Services, Office of Elder Services; the Maine Nutrition Network; University of Maine Cooperative Extension; Maine State Housing Authority; and Maine State Planning Office.

Maine Department of Conservation

Maine Trails Funding Program

The Maine Trails Funding Program (www.state.me.us/doc/parks) provides technical assistance as well as funding for recreational trails and other recreation facilities for Maine communities. Information is available on organization and structure of municipal parks and recreation boards, recreation programming, and facility development. The Transportation Efficiency Act for the 21st Century (TEA21) transfers a percentage of gasoline taxes paid on non-highway recreational use in off-highway vehicles from the Highway Trust Fund into the Recreational Trails Program for trail development, improvement, and maintenance.

Maine Department of Education (DOE)

Comprehensive School Health Education

Comprehensive School Health Education (CSHE) includes curriculum, instruction, and assessment that are sequential from kindergarten through high school and that meet the health education standards outlined in the Maine *Learning Results*.

Existing Resources and Initiatives *(continued)*

CSHE addresses physical, mental, emotional, and social aspects of health and provides knowledge and skills that promote and enhance lifelong healthy behaviors. CSHE includes ten mandated content areas:

1. Community health
2. Consumer health
3. Environmental health
4. Family life education
5. Growth and development
6. Personal health, including mental and emotional health
7. Nutritional health
8. Prevention and control of disease and disorders
9. Safety and accident prevention
10. Substance use and abuse prevention

Coordinated School Health Program

The Coordinated School Health Program (CSHP) is a joint program of the Maine Department of Education and the Maine Health and Human Services' Public Health. The CSHP has a second five-year cooperative agreement from the CDC Division of Adolescent and School Health. The eight components of Coordinated School Health are coordinated school health education; health promotion and wellness; physical environment; physical education and physical activity; school climate; nutrition services; school counseling, physical and behavioral health services; and youth, parent, family and community involvement. The CSHP includes an interdepartmental committee of program managers from seven different State agencies, a CSHP Key Advisory Committee of over 30 non-governmental organizations, and representation on the Governor's Children's Cabinet. The CSHP also supports a Web site, guidelines, training, and evaluation resources for school health programs.

Maine Guide

The Maine Guide showcases the process that the State of Maine developed for improving nutrition and physical activity environments in schools. Maine used the U.S. Department of Agriculture TEAM Nutrition's *Changing the Scene* tool kit to develop its own approach to combating the obesity epidemic and enhancing school performance. The Maine Guide includes a detailed description of Maine's *Changing the Scene* summits and the successes and challenges encountered, as well as Maine's plan for training school teams.

Restriction on Sale of Foods in Competition with The Total Food Service Program

The DOE rule, chapter 51—Child Nutrition Programs in Public Schools and Institutions—specifies that any food or beverage sold at any time on school property of a school participating in the National School Lunch or School Breakfast programs

shall be a planned part of the total food service program of the school and shall include only those items which contribute both to the nutritional needs of children and the development of desirable food habits, and shall not include foods of minimal nutritional value. However, the local school board or the Career and Technical Education Region cooperative board may permit, by policy, the sale of food and beverages outside the total food service program to school staff or to the public at community events sponsored by the school or held on school property. "Foods of minimal nutritional value" means: (a) in the case of artificially sweetened foods, a food which provides less than 5% of the Reference Daily Intake (RDI) for each of the eight specified nutrients per serving; (b) in the case of all other foods, a food which provides less than 5% of the RDI for each of eight specified nutrients per 100 calories and less than 5% of the RDI for each of eight specified nuturients per serving. The eight nutrients to be assessed for this purpose are protein, Vitamin A, Vitamin C, niacin, riboflavin, thiamin, calcium, and iron. This definition is applicable to the foods that are part of the total food service program of the school, and foods and beverages sold at food sales, school stores, and in vending machines.

Maine Health and Human Services' Public Health

Coordinated Approach to Child Health (CATCH)

CATCH is a research-based, multidimensional program designed to stimulate children in Maine's elementary schools to adopt healthier behaviors by changing organizational environments and policies that will

- provide students with opportunities to engage in healthy eating and physical activity behaviors;
- help students develop knowledge, skills, and attitudes necessary to adopt and maintain these behaviors;
- integrate physical activity and nutrition programs with family and community life.

CATCH provides an integrated set of physical activity and nutrition-related activities, programs, and messages delivered in the classroom, gymnasium, cafeteria, students' homes, and the community. It supports the CSHP and CSHE programs, and is aligned with the Maine *Learning Results*.

Good Work! Linking health to the bottom line: Cost-effective strategies for a healthier workplace Resource Kit

In September 2004, the Maine Cardiovascular Health Program, in collaboration with the Partnership For A Tobacco-Free Maine, developed the *Good Work! Linking health to the bottom line: Cost-effective strategies for a healthier workplace* Resource Kit. The kit was created to provide tools for Maine employers to improve employee health. It describes the link between healthy work environments and the bottom line, and identifies key elements of successful worksite wellness programs. The *Good Work!* kit offers a wide variety of strategies to support physical activity, nutrition, and tobacco-free lifestyles, as well as prevention and control of health

Existing Resources and Initiatives *(continued)*

risks related to cardiovascular disease and stroke. Most importantly, the kit provides successful strategies used by a variety of Maine employers. Statewide meetings were held with Healthy Maine Partnership directors, employers, and public health professionals to discuss uses of the *Good Work!* kit within their communities.

Healthy Maine Partnerships

The Healthy Maine Partnerships (HMPs) facilitate the coordination of the State and local intervention activities funded by the tobacco settlement and assure linkages with related program activities. Thirty-one local community/school partnerships were established as local intervention sites for the State-level tobacco-use reduction and tobacco-related chronic disease prevention and control programs. State-level support is provided to the local partnerships through collaboration between the Maine Health and Human Services' Public Health and the Maine Department of Education. The local partnerships program design is based on a community health promotion model with each partnership nurturing a broad coalition of community and school members, including a youth advocacy program, working together to implement policy and environmental change to support healthy lifestyles.

Healthy Maine Walks Coalition

The Healthy Maine Walks Coalition helps Maine citizens and visitors of all ages develop, find, and use walking routes in all Maine communities in order to help achieve the benefits of physical activity. Coalition membership consists of trails and health advocacy organizations from State departments as well as nonprofits. The coalition provides a Web site (www.healthymainewalks.org) that lists both outdoor and indoor walking routes throughout Maine and continues to encourage all communities in Maine to register a walk.

Healthy Weight Awareness Campaign

The Healthy Weight Awareness Campaign (HWAC) is a social marketing campaign developed by the Maine Health and Human Services' Public Health in collaboration with the Maine Nutrition Network and CD&M Communications. The Campaign was launched in October 2002 and is designed to provide Maine parents with information and simple steps to help keep their children and families healthy and active. The target audience is primarily families with limited income, with a secondary focus of the general public. Members of the target audience, including youth, participated in focus groups that formed the development and messages of the Campaign. Campaign components include messages about soda consumption, television and screen time, lifestyle physical activity, walking indoors and outdoors, portion size, and fruits and vegetables. Media includes a mix of newspaper, radio, television, posters, and direct mail.

Loving Support Campaign

The Loving Support Campaign is a social marketing campaign sponsored by the Women, Infants, and Children Nutrition Program (WIC). Initiated in 2003, the Campaign targets Somerset and Kennebec counties to increase the rate of breastfeeding by reinforcing breastfeeding as a normal way to feed a baby, employing a social norms marketing approach in physicians' offices, libraries, media outlets, and retail stores, as well as training in an 18-hour, hospital-based education program. Evaluation will be conducted by data analysis of breastfeeding rates and attitudinal surveys. The Campaign has provided books on breastfeeding to libraries, breastfeeding books to business waiting rooms all over the State, and a book on medications and breast milk to pharmacies.

Maine Child and Youth Weight Status Report

In 2004, the Maine Health and Human Services' Public Health disseminated the first Maine Child and Youth Weight Status Report. This report includes at risk for overweight and overweight surveillance data from the Maine Youth Risk Behavior Surveillance System (YRBSS) for middle and high school students. Maine HHS Public Health also conducts the Maine Child Health Survey (MCHS) in public schools at the kindergarten, third, and fifth grade levels every other year. Schools are randomly sampled within six geographic regions in Maine on a probability proportional to the enrollment in the school. The 2004 report includes at risk for overweight and overweight data from the Maine Child Health Survey conducted in the fall of 2002 with kindergarten students.

Maine Nutrition Network

The Maine Nutrition Network (MNN) is a Maine Health and Human Services program housed at the Muskie School at the University of Southern Maine. MNN (www.maine-nutrition.org) is a collaborative of public and private partners that coordinate and conduct nutrition activities to create an environment that supports health for Maine people. Nutrition and physical activity initiatives are developed to reach participants in the Food Stamp Program. These initiatives include:

- Maine-ly Nutrition, which provides elementary and middle school teachers with training, technical assistance, funding, and resources to incorporate nutrition education and physical activity into regular classroom teaching. The Department of Education and University of Maine Cooperative Extension are partners that work with MNN staff to provide training and technical assistance for this project.
- MNN collaborates with the Maine Health and Human Services' Public Health to implement the Healthy Weight Awareness Campaign to reach populations with low income, specifically those who participate in the Food Stamp Program.

Existing Resources and Initiatives *(continued)*

- MNN partners with the Department of Agriculture to provide nutrition education at farmers' markets. This partnership also results in the promotion of fresh local food to populations in Maine with limited incomes.
- The MNN mini-grant program supports local interventions. Mini-grants are awarded based on the quality of the proposal to improve nutrition and increase physical activity and to reach at-risk populations.

Physical Activity and Nutrition (PAN) Action Packets

The PAN Action Packets outline strategies, methods, tools, and resources that will lead to changes in policies and environments to support improved nutrition and increased physical activity. Best practices and evidence-based strategies are detailed in the packets. The PAN Action Packets are intended for use in local settings.

Where evidence does not exist, strategies are suggested and monitoring of program implementation and outcomes will determine the intervention effect. PAN Action Packets developed to date include the following:

- *Promoting Trail Development and Use of Safe Community Routes for Walking and Biking*
- *Develop Policies That Support Healthy Eating at Group Events*
- *Enhanced Access to Places for Physical Activity*
- *Develop Policies That Support Healthy Options in Vending Machines*
- *Create Environments That Increase Vegetable and Fruit Consumption*

Physical Activity and Nutrition Program

In June 2003, the Maine Health and Human Services' Public Health was awarded a five-year Cooperative Agreement from the Centers for Disease Control and Prevention for a State physical activity and nutrition program to prevent obesity and other chronic diseases. The Physical Activity and Nutrition Program provides needed resources to coordinate program efforts concerning cardiovascular health, cancer, diabetes, oral health, maternal and child health, and coordinated school health. Key activities for the first two years of this capacity-building grant include completion of a strategic plan for physical activity and nutrition for Maine and a pilot intervention: the A la Carte and Vending Policy in High Schools. The purpose of this intervention is to improve the competitive food and beverage venue environment in high schools and thus enhance the health of Maine youth.

Maine Health and Human Services, Office of Elder Services

Take Charge of Your Health: Eat Right and Keep Moving

This program is a collaboration between Maine's Area Agencies on Aging, the Maine Nutrition Network, and the Office of Elder Services. Registered Dietitians and other nutrition professionals are available to present nutrition education to groups of older people. Nutrition topics are varied and include the following:

- Eating for a healthy heart
- Eating five servings of fruits and vegetables daily
- Reducing fat
- Fiber for better health
- Calcium and osteoporosis
- Nutrition and cancer prevention
- Managing diabetes
- Nutrition and dental health
- Food safety

Maine State Legislature

The Commission to Study Public Health

The Commission to Study Public Health was created by Resolve 2003, chapter 95, and was by law given the task of studying obesity and recommending ways to reduce obesity, decrease the cost of health care, and better the public health. The Commission's 31 members represented a broad range of stakeholders concerned with public health, including health care and nutrition providers and professionals, educators, advocacy groups, food and beverage industry representatives, insurers, legislators, and executive agency representatives. The Final Report of the Commission to Study Public Health, including 27 recommendations, was presented to Maine's 122nd Legislature in January 2005. Enactment of Public Law 2005, chapter 435 includes the following:

1. A directive to the Department of Education to encourage nutrition education in public schools.
2. A requirement that calorie information on prepackaged a la carte items be posted.
3. A directive to the Department of Education to establish standards for food and beverages sold outside of the school meal programs. These standards are to be adopted through rulemaking. The rules are designated major substantive rules.
4. A directive to the Department of Education to implement a pilot program to install milk vending machines.
5. A directive to the Department of Education to collaborate with the Department of Agriculture, Food, and Rural Resources to implement the National Farm to School Program.

Existing Resources and Initiatives *(continued)*

Maine Department of Transportation

The Maine Department of Transportation (DOT) supports several programs to increase physical activity levels of Maine people by promoting walking and biking as part of routine daily transportation. The Bicycle/Pedestrian Coordinator at DOT is responsible for implementing these goals through advocating for sidewalks and paved shoulders as part of DOT highway projects, constructing separate improvements such as shared-use paths and sidewalks, and providing bicycle safety education to Maine schools. The DOT has also begun a Safe Routes to School Program that specifically constructs improvements near schools to increase bicycling and walking to school.

University of Maine Cooperative Extension

Eat Well Nutrition Education Program

Eat Well is a major Statewide outreach effort of the University of Maine Cooperative Extension. This program brings nutrition education to low-income individuals and families who live in urban and rural areas in Maine. Eat Well is made up of two nutrition education programs: Expanded Food and Nutrition Education Program (EFNEP), which targets low-income families with children, and Maine Family Nutrition Program (MFNP), which works with Food Stamp recipients regardless of age or family composition.

Allied Statewide Programs

Bicycle Coalition of Maine

The Bicycle Coalition of Maine (BCM) advocates bicycling safety, education, and access in Maine. This membership-based nonprofit organization also advocates for better walking facilities. The BCM focuses on developing safe routes to school, bicycle-friendly communities, and better roadways and trails Statewide. Their vision is that, as a result of the Bicycle Coalition of Maine's work, people living in and visiting Maine will have accessible and safe conditions where they may comfortably and responsibly bicycle and walk. Numerous resources, tips, events, and a bicycling trails database can all be found on their Web site (www.bikemaine.org).

Maine Dairy and Nutrition Council

The Maine Dairy and Nutrition Council (www.drinkmainemilk.org), an affiliate of the National Dairy Council, emphasizes scientific research, educational outreach to schools and health professionals, and nutrition education-based public relations to promote dairy foods consumption. The Council offers community nutrition education in a variety of settings promoting the DASH (Dietary Approaches to Stop Hypertension) eating plan, which includes increasing consumption of fruits

and vegetables and low fat dairy products.[131] The Maine Dairy and Nutrition Council also awards mini-grants to local community intervention sites to help promote nutrition education.

Maine Governor's Council on Physical Fitness, Sports, Health, and Wellness

The Maine Governor's Council on Physical Fitness, Sports, Health, and Wellness (www.mainephysicalactivity.org) works to improve the quality of life for all individuals in Maine by promoting healthy lifestyles through increased levels of physical activity, sports, and leisure activities and by supporting the cooperative efforts of schools, communities, businesses, and health institutions. The Council sponsors ACES (All Children Exercising Simultaneously), an international event to promote physical fitness in schools that takes place on the first Wednesday in May each year; Contest for Communities, a celebration recognizing Maine people who are involved in promoting physical activity; and Legislative Fitness Day, an event providing health screening stations and materials on health and physical activity specifically for legislators. Through these programs, the Council has been successful in raising the awareness of the importance of health and physical activity for the people of Maine.

Maine Center for Public Health

Maine-Harvard Prevention Research Center

The Maine-Harvard Prevention Research Center (M-HPRC) is a collaboration of the Harvard School of Public Health Prevention Research Center, with funding from the Centers for Disease Control and Prevention, Maine Center for Public Health (www.mcph.org), Maine Health and Human Services' Public Health, and Maine Department of Education.

- Workshops have been held annually since 2001 on nutrition and physical activity topics related to overweight. These workshops have become vehicles for collaboration among State and local partners to address the problem of overweight youth in Maine.

- Maine Youth Overweight Collaborative—the Maine-Harvard Prevention Research Center, in partnership with the Maine Center for Public Health, received funding from the Maine Health Access Foundation (MeHAF) to establish the Maine Youth Overweight Collaborative. The goal of the collaborative is to improve care and outcomes for youth who are at risk for overweight or overweight. Using the "Breakthrough Series Collaborative" model developed by the Institute for Health Care Improvement, clinical experts, primary care practices, and community partners are working together to develop local expertise and shared goals among clinical practice teams in order to improve management of and decrease youth overweight within the State.

131 U.S. Department of Health and Human Services. Facts about the DASH eating plan. National Institutes for Health. Publication No. 03–4082, May 2003.

Existing Resources and Initiatives *(continued)*

Take Time! A Physical Activity in Schools Initiative

In September 2004, fourteen Maine schools began participation in a pilot program called Take Time! Each school has agreed to provide opportunities every day during school for every student to be physically active for 10–20 minutes. The project was developed by a collaborative workgroup led by the staff of the Maine Center for Public Health, the University of Southern Maine Muskie School, as well as a number of other advocates from State and local agencies, including HMP School Health Coordinators. Each school that agreed to participate received resource materials developed by the Take Time! workgroup for schools to use to increase physical activity among all students beyond activities provided in physical education (PE) classes. Preliminary data from an evaluation of Take Time! indicate that the pilot program was successful and will continue in additional schools during the 2005–2006 school year. Furthermore, the Physical Activity and Nutrition Program plans to implement the high school version of Take Time! in at least one high school.

Maine Dietetic Association and Maine School Food Service Association

Joint Position of the Maine Dietetic Association and the Maine School Food Service Association—Nutrition Services in Maine Schools

This position paper, adopted in 2003, provides the rationale and recommendations for nutrition education and the reinforcement of that education by the foods available in the school environment. Specific recommendations for foods allowed in schools with recommended portion limits are included. The position paper is available at www.eatrightmaine.org.

Maine Recreation and Park Association

The Maine Recreation and Park Association (MRPA) is an organization comprised of professionals, students, commercial businesses, and citizen volunteers who are dedicated to the promotion of quality parks, recreation, therapeutic, and open space services for the people of Maine. MRPA (www.merpa.org) is dedicated to extending the value and benefits of parks and therapeutic services and agencies at the local, State, and national levels.

Coordination with Other Chronic Disease Prevention Efforts

The PAN Coordinating Council will enhance coordination and integration among State-level programs that address nutrition and physical activity. The Council was expanded from a Maine Health and Human Services' Public Health PAN workgroup, which included representatives from the Maine HHS Public Health nutrition and physical activity programs as well as the chronic disease programs, including Maine Cardiovascular Health, Diabetes Prevention and Control, Comprehensive Cancer Control, and Breast and Cervical Health. These State programs recognize

that improving nutrition and physical activity are integral to prevention of chronic diseases. The PAN Coordinating Council added representation from other State Government programs with an interest in nutrition and physical activity, including the Office of Elder Services, the Department of Education, the Department of Transportation, and the Department of Agriculture. The Maine HHS Public Health expects the synergy of coordination among these programs to enhance available and accessible services, group learning about what works in specific settings, and availability of nutrition and physical activity data.

The Maine PANP works closely with the Maine-Harvard Prevention Research Center (M-HPRC). The primary role of the M-HPRC is to promote evidence-based practice and measure outcomes. Efforts focus on addressing disparities and working to improve and develop collaborations that will lead to systems and policy changes in the areas of physical activity and nutrition. The PAN Coordinator and other PAN Coordinating Council members participate on the Maine-Harvard Prevention Research Center Steering Committee and participate in other M-HPRC projects.

The Coordinated School Health Program (CSHP) is a joint program of the DOE and Maine HHS Public Health. The CSHP has a second five-year cooperative agreement from the CDC Division of Adolescent and School Health. The eight components of Coordinated School Health are coordinated school health education; health promotion and wellness; physical environment; physical education and physical activity; school climate; nutrition services; school counseling, physical and behavioral health services; and youth, parent, family, and community involvement. The CSHP includes an interdepartmental committee of program managers from seven different State agencies, a CSHP Key Advisory Committee of over 30 non-governmental organizations, and representation on the Governor's Children's Cabinet. The CSHP also supports a Web site, guidelines, training, and evaluation resources for school health programs.

The DOE and Maine HHS Public Health have had a long history of working together to support comprehensive school health education (CSHE), one component of the CSHP. Local CSHE programs provide all students K–12 with the knowledge and skills to prevent HIV, chronic diseases, and other youth risk behaviors. The DOE is responsible for the leadership, regulation, and technical assistance for Local Education Agencies (LEA). CSHP and CSHE staff work with HMP and through other community partnerships to implement CDC guidelines on physical activity, obesity, nutrition, and tobacco use. The Maine HHS Public Health has provided the funding for two DOE health education positions since 1983 and, with the advent of the Fund for a Healthy Maine, provides funds for a school nurse consultant. The DOE provides funds for the Maine HHS Public Health CSHP manager.

8 Vision, Mission, Goal, Objectives, and Strategies

The Maine PAN Plan outlines the vision and mission for Maine and a broad overarching goal with corresponding objectives and strategies for the years 2005–2010. This Plan is for *all* Maine populations and includes objectives and strategies to address the problem of obesity in children, youth, and adult populations, as well as objectives and strategies for food safety, food security, and eating disorders. The Plan identifies the lead agency with a suggested time frame for each strategy. The lead agencies have agreed to enable implementation of the Plan strategies. The Maine PAN Plan will be reviewed annually by the Maine Health and Human Services' Public Health's Physical Activity and Nutrition Program (PANP) and updated as appropriate. The Plan is available on the Maine HHS Public Health Web site at http://www.maine.gov/dhs/boh.

Definitions

The **Vision** is our desired future. It represents the combined outcomes of many Statewide initiatives collaboratively working together.

The **Mission** states what we are doing and why. It gives clarity of purpose.

The **Goal** represents a broad outcome and provides focus for achieving the mission.

Objectives are Specific, Measurable, Attainable, Results-oriented, and Time-phased (S.M.A.R.T.) steps to accomplish goals. Objectives are short-term, intermediate, or long-term.

Indicators demonstrate the degree to which goals and objectives are met.

Strategies may be tasks, activities, and/or approaches that accomplish objectives.

Carrying out strategies will be focused in four primary settings: schools, community, worksites, and health care. Each of these settings has unique, as well as overlapping, systems for reaching Maine people.

Youth includes all individuals age 18 and under.

Vision, Mission, Goal, Objectives, and Strategies *(continued)*

The vision is **optimal health for all Maine people.**

The mission to accomplish the vision is to **improve nutrition and increase physical activity that promotes health and reduces chronic disease.**

The overarching nutrition and physical activity goal for Maine is to:

Increase the proportion of Maine people who are at a healthy weight and reduce the health risks associated with overweight and obesity, especially among populations who experience health disparities.

Objectives

The objectives provide a basis for planning, assessing, and evaluating progress toward the goal. Objectives are categorized as short-term (changes in knowledge, awareness, attitudes, the environment, or policies); intermediate (changes in behavior); or long-term (changes in health status); and were developed to be S.M.A.R.T.: Specific, Measurable, Attainable, Results-oriented, and Time-phased. Strategies are suggested for achieving each objective and were developed using McLeroy's *Social Ecological Model,* suggesting action at all five levels of influence: individual, interpersonal, organizational, community, and public policy.[132]

The indicators associated with each objective have been taken from *Healthy Maine 2010* objectives. Baseline data for Maine is not available for all objectives; gathering this data will be an essential first step for program developers. Potential data sources are listed as well.

132 McLeroy KR *et al.* An ecological perspective on health promotion programs. *Health Education Quarterly.* 1988; 15(4):351–377.

Youth Objectives and Key Strategies

LONG-TERM OBJECTIVE 1

Reduce to 10% and 5%, respectively, the proportion of youth who are at risk for overweight or overweight by 2010.

Population	Baseline	Data Source
High School	15% at risk for overweight 13% overweight	YRBSS, 2003
Middle School	18% at risk for overweight 13% overweight	YRBSS, 2003
Kindergarten	21% at risk for overweight 15% overweight	MCHS, 2002
WIC ≥2 Years	17% at risk for overweight 16% overweight	PedNSS, 2003

Youth: *Physical Activity*

INTERMEDIATE OBJECTIVE 1.1

Increase to 85% the proportion of youth who engage in vigorous physical activity that promotes cardiorespiratory fitness three or more days per week for a length of 20 or more minutes each time by 2010.

Population	Baseline	Data Source
High School	61%	YRBSS, 2003
Middle School	72%	YRBSS, 2003
Kindergarten	-	Not available

Youth Objectives and Key Strategies *(continued)*

SHORT-TERM OBJECTIVES 1.1.1 THROUGH 1.1.12

A. School

1.1.1

Increase the number of Maine schools offering daily physical education (PE) classes by 2010.

Baseline: High School 8%, YRBSS, 2003
Baseline: Middle School 15%, YRBSS, 2003

Key Strategies	Time Frame	Lead Agency
Identify funding to support a physical education consultant position at the Maine Department of Education.	Fall 2006	DOE
Provide schools with resources that assist with developing the structure and policies to offer daily PE classes including the Maine Guidelines for Coordinated School Health Program, CDC DASH Guidelines, CDC Community Guide Promoting Physical Activity, and National Association for School Boards of Education School Health Policy Guide.	Fall 2007	DOE
Establish a Statewide advocacy group including State and local policymakers (e.g., MAHPERD, MeSHEC, CSHP Key Advisory Group) to promote institution of daily PE in schools.	Fall 2006	DOE

1.1.2

Increase the number of PE teachers implementing curricula to increase time spent in being physically active in PE classes by 2010.

Baseline: Not available
Potential Sources: SHEP, HMP monitoring tool

Key Strategies	Time Frame	Lead Agency
Offer professional development for new and existing PE teachers focused on methods to increase time spent being physically active for all students during PE classes.	Spring 2007	DOE/MAHPERD
Invite K–5 PE teachers to participate on school teams that attend CATCH Program training.	Spring 2005	Maine HHS Public Health/ DOE

1.1.3

Increase the number of schools that offer an increased amount of time for supervised physical activity for all students during the school day by 2010.

Baseline: Not available
Potential Sources: HMP monitoring tool, SHEP

Key Strategy	Time Frame	Lead Agency
Provide schools and communities with resources and training designed to increase opportunities and environments for physical activity. Resources and training include best practices and standards from the Maine Guidelines for Coordinated School Health Program, CDC Community Guide Promoting Physical Activity, CDC Division of Adolescent and School Health (DASH) Guidelines, and PAN Action Packets focused on physical activity.	Spring 2006	Maine HHS Public Health/ DOE/MCPH

1.1.4

Increase the number of schools that offer an increased amount of time for supervised physical activity for all students before school and after school by 2010.

Baseline: Not available
Potential Sources: After School 21st Century grant recipients, HMP monitoring tool, Maine School-Age Care Alliance

Key Strategies	Time Frame	Lead Agency
Provide schools and communities with resources and training designed to increase opportunities and environments for physical activity. Resources and training include best practices and standards from the PAN Action Packets focused on physical activity, *Healthy Maine Walks, Coaching Maine Youth to Success,* ACES, *Winter Kids,* www.mainecshp.com, www.afterschoolpa.com.	Spring 2007	Maine HHS Public Health
Assist schools in planning processes with parents and communities in their efforts to increase the number of students safely walking and biking to school.	Fall 2005–ongoing	BCM/ Maine HHS Public Health/ DOE/DOT

Youth Objectives and Key Strategies *(continued)*

B. Community

1.1.5

Increase the number of media messages that support youth physical activity in community settings by 2010.

Baseline: Not available
Potential Sources: HMP monitoring tool, HWAC

Key Strategy	Time Frame	Lead Agency
Develop and deliver media tools (public service announcements, press releases, posters, maps, print materials) to market and promote local opportunities for youth physical activity, such as trails, parks, community gardens, and open facilities for recreation.	Fall 2006	Maine HHS Public Health/ DAFRR

1.1.6

Increase the number of communities with sidewalks, bike paths, trails, open facilities, and other places for physical activity by 2010.

Baseline: Not available
Potential Sources: HMP monitoring tool, DOT

Key Strategies	Time Frame	Lead Agency
Establish bike and pedestrian committees in each HMP community that include advocating for local, State, and Federal funding.	Spring 2005–ongoing	Maine HHS Public Health
Provide community decision makers with PAN Action Packets focused on physical activity and train them on their use.	Fall 2005–ongoing	Maine HHS Public Health/ MNN
Develop local plans to safely connect youth to neighborhoods, schools, and recreation areas.	Fall 2008	Maine HHS Public Health/ DOT/SPO

1.1.7

Increase the number of community opportunities (e.g., events, programs, facilities) for families to be physically active together by 2010.

Baseline: Not available
Potential Sources: HMP monitoring tool, key organization surveys, town recreation department data

Key Strategies	Time Frame	Lead Agency
Identify and promote existing Maine programs, facilities, and initiatives designed to increase physical activity (e.g., *Healthy Maine Walks, Winter Kids,* All Children Exercise Simultaneously [ACES]) to community decision makers.	Fall 2005–ongoing	Maine, HHS Public Health/ DOE/ MGCPFSHW
Provide community decision makers with PAN Action Packets focused on physical activity and train them on their use.	Fall 2005–ongoing	Maine HHS Public Health/ MNN
Establish liaisons with universities and colleges to provide physical activity opportunities for families, students, faculty, and the community.	Fall 2006	Maine HHS Public Health/ DOE

1.1.8

Increase the number of center-based early childcare settings where policies and/or programs support increased opportunities for children to be physically active by 2010.

Baseline: Not available
Potential Source: OCFS

Key Strategies	Time Frame	Lead Agency
Partner with M-HPRC to implement early child care research, disseminate research findings, and translate findings into Statewide policy.	Fall 2006	MCPH/M-HPRC
Educate licensed day care centers on physical activity guidelines, sample policies, and list of appropriate physical activities. Use Head Start as a model.	Spring 2007	OCFS/MNN

Youth Objectives and Key Strategies *(continued)*

C. Worksite

1.1.9

Increase the number of employers who provide educational programs promoting family physical activity by 2010.

Baseline: Not available
Potential Sources: Maine HHS Public Health, MGCPFSHW

Key Strategies	Time Frame	Lead Agency
Provide materials and educational programs for worksites (including schools as worksites) that promote physical activity.	Spring 2007	Maine HHS Public Health/ DOE/MGCPFSHW
Provide resources to school-based teams at the annual Maine Schoolsite Health Promotion Conference.	Summer 2005	DOE
Identify and promote existing Maine programs and initiatives designed to increase physical activity (e.g., *Winter Kids, March into May, Move and Improve,* ACES) to worksite decision makers.	Fall 2005	MGCPFSHW

D. Health care

1.1.10

Increase the number of clinicians who screen youth and advise for physical activity by 2010.

Baseline: Not available
Potential Sources: ME-AAP, Healthy People 2010 grant, MeHAF grant

Key Strategies	Time Frame	Lead Agency
Provide all clinicians with supportive tools (e.g., preprinted prescription pads) to help them to recommend physical activity.	Winter 2006	Maine HHS Public Health/ MASN/ME-AAP
Educate staff and clinicians about screening, assessment (including BMI), and counseling related to physical activity as part of routine health care.	Winter 2006	Maine HHS Public Health/ MASN/ME-AAP
Disseminate Maine Youth Overweight Collaborative strategies and findings Statewide.	Winter 2006	MCPH/ M-HPRC

1.1.11

Increase the number of clinicians who refer youth to community resources for physical activity by 2010.

Baseline: Not available
Potential Sources: Maine HHS Public Health, ME-AAP

Key Strategies	Time Frame	Lead Agency
Assist HMP in developing a PAN resource guide for providers to refer youth to local community organizations for physical activity (e.g., Boys and Girls Clubs, Community Centers, YMCAs, and YWCAs).	Winter 2006	Maine HHS Public Health/ MASN/ ME-AAP
Partner with MCPH Maine Youth Overweight Collaborative, ME-AAP, and HMP to create local referral networks for primary care clinicians in the collaborative.	Winter 2005	Maine HHS Public Health/ MCPH/ME-AAP/ M-HPRC

1.1.12

Increase the number of Maine insurance payers who reimburse for preventive services related to physical activity for youth by 2010.

Baseline: Not available
Potential Sources: MaineCare, EPSDT

Key Strategies	Time Frame	Lead Agency
Educate insurance companies about Clinical Guidelines for Preventive Services and/or other national clinical prevention standards in determining benefit packages.	Winter 2008	Maine HHS Public Health/ ME-AAP
Distribute information to insurers regarding cost-effectiveness of preventive services, including health screenings and physical activity counseling.	Fall 2008	MGCPFSHW

Youth Objectives and Key Strategies *(continued)*

Youth: *Consumption of Fruits and Vegetables*

INTERMEDIATE OBJECTIVE 1.2-A

Increase to 35% the proportion of Maine youth who consume five or more servings of fruits and vegetables per day by 2010.

Population	Baseline	Data Source
High School	23%	YRBSS, 2003
Middle School	-	Not available
Kindergarten	-	Not available

Youth: *Caloric Imbalance and Expenditure*

INTERMEDIATE OBJECTIVE 1.2-B

Decrease to 15% the proportion of Maine youth consuming two or more cans of soda per day by 2010.

Population	Baseline	Data Source
High School	19% consumed two or more cans of soda per day	MYDAUS/YTS, 2004
Middle School	18% consumed two or more cans of soda per day	MYDAUS/YTS, 2004
Kindergarten	Data analysis in progress	MCHS, 2003/2004

INTERMEDIATE OBJECTIVE 1.2-C

Increase to 25% the proportion of Maine youth who drink three or more glasses of milk per day by 2010.

Population	Baseline	Data Source
High School	22% drank three or more glasses per day (29% males, 14% females)	YRBSS, 2003
Middle School	-	Not available
Kindergarten	-	Not available

SHORT-TERM OBJECTIVES 1.2.1 THROUGH 1.2.14

A. School

1.2.1

Increase the number of schools with policies to improve nutrition (more fruits and vegetables, less fat, fewer sugar-sweetened beverages, more low fat and fat-free milk) in school vending machines, a la carte and school meal programs, and fund-raising events by 2010.

Baseline: Not available
Potential Sources: DOE, HMP monitoring tool

Key Strategies	Time Frame	Lead Agency
Distribute and provide training on use of resources for nutrition policy development for school vending machines, a la carte and school meal programs, and fund-raising events. Suggested resources include: the NASBE *Fit, Healthy and Ready to Learn;* Team Nutrition Changing the Scene; Joint Position of MDA/MSFSA for Nutrition Services in Maine Schools; and DOE rules for school vending machines. Work with school administrators; DOE; HMP School Health Coordinators; school food service staff; school nurses; parents; students; faith-based and private organizations; family practice physicians; and faculty to implement policies.	Fall 2006	Maine HHS Public Health/ DOE/ MNN
Provide school decision makers with PAN Action Packets focused on nutrition (group events, vending, etc.) and train them on their use.	Fall 2005	Maine HHS Public Health/ MNN
Provide PAN Action Packet focused on vending nutrition to food/beverage companies that serve schools.	Fall 2006	Maine HHS Public Health/ MNN
Conduct soda/snack a la carte and vending policy intervention in Maine high schools. Review results of intervention to expand to other Maine schools.	Fall 2005–ongoing	Maine HHS Public Health/ DOE

Youth Objectives and Key Strategies *(continued)*

1.2.2

Increase the number of school food service personnel who are certified by the School Nutrition Association (SNA) by 2010.

Baseline: Not available
Potential Source: MSFSA

Key Strategies	Time Frame	Lead Agency
Provide training packets and regional in-service training for food service personnel that can be applied toward SNA certification.	Fall 2007	DOE/MNN
Educate superintendents on their leadership role in providing support and identifying funding sources (including grants) for food service personnel to obtain training towards certification.	Fall 2007	DOE/MNN

1.2.3

Increase the number of schools that use evidence-based programs to improve nutrition by 2010.

Baseline: Not available
Potential Sources: DOE, HMP monitoring tool, MNN

Key Strategies	Time Frame	Lead Agency
Provide schools with strategies for improving nutrition. Include strategies from the Maine Guidelines for Coordinated School Health Program, CDC DASH Guidelines, and CATCH Program to assist schools with integrating nutrition into the health education curriculum.	Fall 2005	Maine HHS Public Health/ DOE/MNN
Distribute and train teachers to use evidence-based nutrition programs that can be easily incorporated into the health education curriculum.	Fall 2007	Maine HHS Public Health/ DOE/MDNC/MNN
Compile and distribute a list of regional contacts, including dietitians and nutrition educators, to provide and support nutrition instruction that is evidence-based.	Fall 2007	Maine HHS Public Health/ DOE/ UMCE

1.2.4

Increase the number of schools participating in lunch, breakfast, after-school, and summer meals programs by 2010.

Baseline: Not available
Potential Source: DOE

Key Strategy	Time Frame	Lead Agency
Provide information and technical assistance to schools to support participation in Federal nutrition programs.	Spring 2005	DOE

B. Community

1.2.5

Increase the number of media messages directed to Maine youth on the benefits of consuming more fruits and vegetables, less fat, fewer sugar-sweetened beverages, and more low fat and fat-free milk, and on how to maintain a healthy weight by 2010.

Baseline: Not available
Potential Sources: DAFRR, HMP monitoring tool, HWAC

Key Strategies	Time Frame	Lead Agency
Distribute materials that promote healthy venues ("success stories") that are available in community establishments.	Spring 2007	Maine HHS Public Health/ DOE
Develop and deliver a media campaign to market and promote local and/or seasonal foods.	Spring 2006	Maine HHS Public Health/ DAFRR/MNN
Conduct communication programs on healthy weight in the community.	Spring 2005	MDNC/MNN/ UMCE
Distribute posters and newsletters, including *Healthy Weight Awareness Campaign* (HWAC) messages, that promote health messages for display in school and community facilities.	Spring 2005	Maine HHS Public Health/ DOE

Youth Objectives and Key Strategies *(continued)*

1.2.6

Increase the number of community events to educate Maine youth on the benefits of consuming more fruits and vegetables, less fat, fewer sugar-sweetened beverages, and more low fat and fat-free milk, and on how to maintain a healthy weight by 2010.

Baseline: Not available
Potential Sources: DAFRR, HMP monitoring tool

Key Strategies	Time Frame	Lead Agency
Distribute promotional packets to existing and potential new sponsors for an annual 5 A Day Month event in September. Include promotion of locally grown produce in this event.	Spring 2007	Maine HHS Public Health/ DAFRR/ DOE
Distribute event organizer packets to HMPs with ideas such as taste-testing for community events.	Spring 2006	Maine HHS Public Health/ DOE
Identify partners with resources/materials to support community-wide events (e.g., UMCE, Maine Dairy & Nutrition Council).	Spring 2005	Maine HHS Public Health/ DOE/MDNC/UMCE

1.2.7

Increase the number of community organizations serving youth that have policies to improve nutrition (more fruits and vegetables, less fat, fewer sugar-sweetened beverages, more low fat and fat-free milk) at meetings and facilities by 2010.

Baseline: Not available
Potential Source: HMP monitoring tool

Key Strategies	Time Frame	Lead Agency
Provide HMP YAP Coordinators and youth with the *Develop Policies that Support Healthy Eating at Group Events* Action Packet and train them on its use. Assist YAP in working with community organization decision makers, including private and faith-based organizations, to implement nutrition policies.	Fall 2005	Maine HHS Public Health/ MDNC/MNN
Distribute farmers' market guides to HMP and assist HMP YAPs in developing collaborations to promote use of local foods by community organizations serving youth.	Spring 2005	Maine HHS Public Health/ DAFRR/ MNN

1.2.8

Increase the number of center-based early child care settings where policies and/or programs support improved nutrition (more fruits and vegetables, less fat, fewer sugar-sweetened beverages, more low fat and fat-free milk) by 2010.

Baseline: Not available
Potential Sources: OCFS, M-HPRC

Key Strategies	Time Frame	Lead Agency
Educate licensed day care centers on nutrition guidelines, sample policies, and provide list of approved foods/portions. Use Head Start as a model. Partner with UMCE and Maine Dairy & Nutrition Council to provide nutrition resources.	Spring 2007	Maine HHS Public Health/ OCFS/ MDNC/UMCE
Partner with M-HPRC to disseminate research findings and translate findings into Statewide policy.	Spring 2008	OCFS/MCPH/ M-HPRC

1.2.9

Increase the number of center-based child care settings participating in after-school and summer meals programs by 2010.

Baseline: Not available
Potential Source: OCFS

Key Strategies	Time Frame	Lead Agency
Provide information and technical assistance to center-based child care settings (including schools and faith-based organizations) to support participation in Federal nutrition programs.	Spring 2007	Maine HHS Public Health/ OCFS/DOE
Provide training packets and regional training sessions for center-based day care providers.	Spring 2007	Maine HHS Public Health/ OCFS

Youth Objectives and Key Strategies *(continued)*

C. Worksite

1.2.10

Increase the number of employers with policies that promote improved nutrition by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Key Strategy	Time Frame	Lead Agency
Provide training and technical assistance to HMP to identify worksites for interventions to implement policies for improved nutrition. An available resource is *Good Work! Linking health to the bottom line: Cost-effective strategies for a healthier workplace.*	Spring 2005	Maine HHS Public Health

1.2.11

Increase the number of employers with environments that promote improved nutrition by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Key Strategy	Time Frame	Lead Agency
Provide training and technical assistance to HMP to identify worksites for interventions to implement environments for improved nutrition. An available resource is *Good Work! Linking health to the bottom line: Cost-effective strategies for a healthier workplace.*	Spring 2005	Maine HHS Public Health

D. Health care

1.2.12

Increase the number of clinicians who screen and advise for improved nutrition in youth by 2010.

Baseline: Not available
Potential Sources: ME-AAP, M-HPRC

Key Strategies	Time Frame	Lead Agency
Educate staff and clinicians about screening, assessment (including BMI), and counseling related to nutrition as part of routine health care.	Winter 2006	Maine HHS Public Health/ MDA/ME-AAP
Distribute packets with nutrition screening guidelines, recommendations, and handouts for patients to clinicians in HMP communities.	Fall 2008	Maine HHS Public Health/ MDA
Disseminate Maine Youth Overweight Collaborative strategies and findings Statewide.	Fall 2008	MCPH/ M-HPRC

1.2.13

Increase the number of clinicians who refer youth to nutrition resources by 2010.

Baseline: Not available
Potential Sources: Maine HHS Public Health, ME-AAP, M-HPRC

Key Strategies	Time Frame	Lead Agency
Identify effective multi-component weight control programs for youth and share with clinicians.	Spring 2008	Maine HHS Public Health/ MDA
Distribute packets with nutrition handouts for youth and list of referral resources to clinicians in HMP communities.	Fall 2008	Maine HHS Public Health/ MASN/MDA/MDNC
Partner with MCPH, ME-AAP, and HMP to create local referral networks for primary care clinicians who are part of the Maine Youth Overweight Collaborative.	Winter 2006	Maine HHS Public Health/ MASN/MCPH/MDA/ ME-AAP/M-HPRC

1.2.14

Increase the number of Maine insurance payers who reimburse for services related to nutrition for youth by 2010.

Baseline: Not available
Potential Sources: MaineCare, EPSDT

Key Strategy	Time Frame	Lead Agency
Distribute information to insurers regarding cost-effectiveness of preventive services such as health screenings and nutrition counseling.	Spring 2008	Maine HHS Public Health/ MDA/ME-AAP

Youth Objectives and Key Strategies *(continued)*

Youth: *Television Time*

INTERMEDIATE OBJECTIVE 1.3

Increase to 85% the proportion of youth who view television two or fewer hours a day by 2010.

Population	Baseline	Data Source
High School	74%	YRBSS, 2003
Middle School	64%	YRBSS, 2003
Kindergarten	Data analysis in progress	MCHS, 2003/2004

SHORT-TERM OBJECTIVES 1.3.1 THROUGH 1.3.8

A. School

1.3.1

Increase the number of schools participating in TV Turn-Off Week by 2010.

Baseline: Not available
Potential Source: HMP monitoring tool

Key Strategy	Time Frame	Lead Agency
Provide schools with tools and promotional resources that support TV Turn-Off Week.	Winter 2005	Maine HHS Public Health/DOE

1.3.2

Increase the number of schools that incorporate the impact of TV viewing into their health curricula by 2010.

Baseline: Not available
Potential Sources: DOE, CSHP

Key Strategy	Time Frame	Lead Agency
Provide schools with lesson plans and classroom activities demonstrating the impact of TV viewing on health.	Winter 2006	Maine HHS Public Health/ DOE

1.3.3

Increase the number of youth who are involved in after-school activities in the school setting by 2010.

Baseline: Not available
Potential Source: YTS/MYDAUS

Key Strategies	Time Frame	Lead Agency
Distribute information regarding intramural programs and physical activities to student councils, PTA and PTO groups, and 21st Century grant sites.	Fall 2008	DOE/ MGCPFSHW
Design and establish a student-athlete mentor program for replication across grade levels.	Fall 2008	DOE/ MGCPFSHW

B. Community

1.3.4

Increase the number of youth who are involved in after-school activities in the community setting by 2010.

Baseline: Not available
Potential Sources: Recreation programs, local organizations/sponsorships

Key Strategies	Time Frame	Lead Agency
Provide marketing tools and resources to community organizations, including faith-based and private organizations, that serve youth to help increase participation in after-school activities.	Summer 2007	Maine HHS Public Health/ DOE/ MGCFPSHW
Provide materials and technical assistance to educate community program participants about physical activity as a lifelong habit *(Hearts-N-Parks)*.	Summer 2007	Maine HHS Public Health/ MRPA

Youth Objectives and Key Strategies *(continued)*

1.3.5

Increase the number of media messages discouraging youth TV viewing by 2010.

Baseline: Not available
Potential Sources: HMP monitoring tool, HWAC, YAP

Key Strategies	Time Frame	Lead Agency
Provide organizations that serve youth with messages and resources to display throughout their facilities that promote watching less TV.	Winter 2007	Maine HHS Public Health/ DOE
Develop and air radio and other media messages, including *Healthy Weight Awareness* Campaign (HWAC) messages, that discourage youth TV viewing.	Winter 2005	Maine HHS Public Health/ DOE

1.3.6

Increase the number of community organizations serving youth who participate in TV Turn-Off Week by 2010.

Baseline: Not available
Potential Sources: Maine HHS Public Health, OCFS

Key Strategy	Time Frame	Lead Agency
Identify models for TV Turn-Off Week (e.g., Penobscot model) and link TV Turn-Off Week activities in community organizations (including center-based day care settings, faith-based and private organizations) and schools.	Winter 2007	Maine HHS Public Health/ OCFS/DOE

C. Worksite

1.3.7

Increase the number of employers that provide educational materials regarding TV Turn-Off Week by 2010.

Baseline: Not available
Potential Source: HMP monitoring tool

Key Strategy	Time Frame	Lead Agency
Provide worksites with tools and promotional resources that support TV Turn-Off Week.	Winter 2008	Maine HHS Public Health/ MGCPFSHW

D. Health care

1.3.8

Increase the number of clinicians who assess and advise on youth TV viewing based on policy statements by 2010.

Baseline: Not available
Potential Sources: ME-AAP, M-HPRC

Key Strategies	Time Frame	Lead Agency
Partner with MCPH and M-HPRC to implement clinician research on television viewing interventions, disseminate research findings, and translate research findings into policy.	Spring 2007	MCPH/ ME-AAP/ M-HPRC
Provide clinicians with supportive tools and resources to help them to recommend a decrease in TV viewing to families.	Winter 2006	Maine HHS Public Health/ ME-AAP

Adults Objectives and Key Strategies

LONG-TERM OBJECTIVE 2

Reduce to 30% and 15%, respectively, the proportion of adults who are overweight or obese by 2010.

Baseline	Data Source
38% overweight	BRFSS, 2004
23% obese	BRFSS, 2004

Adults: *Physical Activity*

INTERMEDIATE OBJECTIVE 2.1

Reduce the proportion of adults who engage in no leisure-time physical activity to 15% by 2010.

Baseline	Data Source
20%	BRFSS, 2003

SHORT-TERM OBJECTIVES 2.1.1 THROUGH 2.1.12

A. School

2.1.1

Increase the number of schools offering opportunities for community physical activity by 2010.

Baseline: Not available
Potential Sources: Maine HHS Public Health, DOE

Key Strategies	Time Frame	Lead Agency
Develop and implement policies for schools to open their facilities for community use, including gymnasiums, ball fields, walking routes (indoor and outdoor), and school gardens.	Fall 2005	Maine HHS Public Health/ DOE/HMW
Provide school decision makers with PAN Action Packets focused on physical activity and train them on their use.	Fall 2005	Maine HHS Public Health/ DOE/MNN

Adults Objectives and Key Strategies *(continued)*

B. Community

2.1.2

Increase the number of communities with sidewalks, bike paths, trails, open facilities, and other places for physical activity by 2010.

Baseline: Not available
Potential Sources: HMP monitoring tool, DOT

Key Strategies	Time Frame	Lead Agency
Establish bike and pedestrian committees in each HMP community that include advocating for local, State, and Federal support.	Spring 2005–ongoing	Maine HHS Public Health
Provide community partners with PAN Action Packets focused on physical activity and train them on their use.	Fall 2005	Maine HHS Public Health/ DOE
Develop local plans for adults of all ages to safely connect by walking or biking to neighborhoods, schools, and recreation areas.	Fall 2008	Maine HHS Public Health/ DOT/SPO

2.1.3

Increase the number of messages promoting trails, bike paths, walking routes, and other places for physical activity by 2010.

Baseline: Not available
Potential Sources: HMP monitoring tool, Healthy Maine Walks Web site

Key Strategy	Time Frame	Lead Agency
Develop and deliver media tools, including *Healthy Maine Walks* and *Explore Maine by Bike* Web sites, to market and promote local opportunities for physical activity such as trails, parks, and open facilities for recreation.	Fall 2005	Maine HHS Public Health/ DOT

2.1.4

Increase the number of media messages that support physical activity in community settings by 2010.

Baseline: Not available
Potential Source: HMP monitoring tool

Key Strategies	Time Frame	Lead Agency
Develop and air TV, radio, and/or newsprint messages, including *Healthy Weight Awareness* Campaign (HWAC) messages, that promote physical activity.	Spring 2005	Maine HHS Public Health/ MNN
Develop and display posters and newsletters, including *Healthy Weight Awareness* Campaign (HWAC) messages, in community settings that serve adults of all ages to encourage daily physical activity.	Spring 2005	Maine HHS Public Health/ MNN

2.1.5

Increase the number of towns with comprehensive plans that include local design standards to support physical activity through the built environment by 2010.

Baseline: Not available
Potential Sources: Maine HHS Public Health, DOT, SPO

Key Strategies	Time Frame	Lead Agency
Provide sample design standards that support physical activity to local planning boards in each HMP community.	Winter 2008	Maine HHS Public Health/ DOT/SPO
Prioritize funding to towns implementing comprehensive plans that include local design standards to support physical activity.	Winter 2007	Maine HHS Public Health/ DOT/SPO

Adults Objectives and Key Strategies *(continued)*

C. Worksite

2.1.6

Increase the number of employers with policies that support employees' physical activity by 2010.

Baseline: Not available
Potential Sources: Maine HHS Public Health, regional wellness councils

Key Strategies	Time Frame	Lead Agency
Provide training and technical assistance to HMP, using the resource, *Good Work! Linking health to the bottom line: Cost-effective strategies for a healthier workplace,* to identify worksites for interventions to implement policies for increased physical activity.	Fall 2007	Maine HHS Public Health
Conduct assessment of regional Worksite Wellness Councils in Maine to identify and disseminate best practice resources for policies that support physical activity.	Fall 2008	Maine HHS Public Health

2.1.7

Increase the number of employers with environments that support employees' physical activity by 2010.

Baseline: Not available
Potential Sources: Maine HHS Public Health, MGCPFSHW, regional wellness councils

Key Strategies	Time Frame	Lead Agency
Provide training and technical assistance to HMP, using the resource, *Good Work! Linking health to the bottom line: Cost-effective strategies for a healthier workplace,* to identify worksites for interventions to create environments for increased physical activity.	Fall 2005	Maine HHS Public Health/ MGCPFSHW
Conduct assessment of regional Worksite Wellness Councils in Maine to identify and disseminate best practice resources for environments that support physical activity.	Fall 2008	Maine HHS Public Health

2.1.8

Increase the number of employers who offer educational and support programs for employees' physical activity by 2010.

Baseline: Not available
Potential Sources: Maine HHS Public Health, MGCPFSHW

Key Strategies	Time Frame	Lead Agency
Develop and disseminate guidelines for establishing and enhancing incentive programs for employees to participate in physical activity.	Winter 2006	Maine HHS Public Health/ DOE
Develop and disseminate educational tools that support and encourage daily physical activity (e.g., fact sheets, bulletin board templates, walking group formats).	Winter 2006	Maine HHS Public Health
Provide resources to school-based teams at the annual Maine Schoolsite Health Promotion Conference.	Summer 2005	DOE/ MGCPFSHW

D. Health care

2.1.9

Increase the number of clinicians who screen adults and advise for physical activity by 2010.

Baseline: Not available
Potential Sources: Maine HHS Public Health, MAFP

Key Strategies	Time Frame	Lead Agency
Provide clinicians with supportive tools and resources to help them to recommend physical activity for adults of all ages.	Winter 2006	OES/ Maine HHS Public Health/ MAFP
Educate staff and clinicians about screening, assessment (including BMI), and counseling related to physical activity as part of routine health care.	Winter 2006	OES/ Maine HHS Public Health/ MAFP

Adults Objectives and Key Strategies *(continued)*

2.1.10

Increase the number of clinicians who refer adults to community resources for physical activity by 2010.

Baseline: Not available
Potential Sources: Maine HHS Public Health, MAFP

Key Strategy	Time Frame	Lead Agency
Develop a resource guide for providers to refer adults to local community resources for physical activity (e.g., local gyms, adult education classes, community centers, senior centers, YMCAs, YWCAs).	Winter 2008	Maine HHS Public Health/ MAFP

2.1.11

Increase the number of Maine insurance payers who reimburse for adult preventive services related to physical activity by 2010.

Baseline: Not available
Potential Source: MaineCare

Key Strategy	Time Frame	Lead Agency
Educate insurance companies to use Clinical Guidelines for Preventive Services and/or other national clinical prevention standards in determining benefit packages.	Winter 2008	Maine HHS Public Health

2.1.12

Increase the number of Maine insurance payers who provide incentives for employers who address employee preventive health including physical activity by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Key Strategies	Time Frame	Lead Agency
Disseminate best practice information on insurers who currently offer incentives.	Winter 2007	Maine HHS Public Health
Educate employers regarding best practice models for worksite wellness.	Winter 2007	Maine HHS Public Health

Adults: *Consumption of Fruits and Vegetables*

INTERMEDIATE OBJECTIVE 2.2-A

Increase to 35% the proportion of adults who consume five or more servings of fruits and vegetables per day by 2010.

Baseline	Data Source
27%	BRFSS, 2003

Adults: *Caloric Imbalance and Expenditure*

INTERMEDIATE OBJECTIVE 2.2-B

Decrease adult consumption of energy-dense food choices from menus by 2010.

Baseline	Data Source
Developmental indicator: # fast-food visits per week	To be submitted to BRFSS

SHORT-TERM OBJECTIVES 2.2.1 THROUGH 2.2.13

A. School

2.2.1

Increase the number of schools offering nutrition education opportunities for families by 2010.

Baseline: Not available
Potential Sources: Maine HHS Public Health, DOE, UMCE

Key Strategies	Time Frame	Lead Agency
Distribute regular nutrition messages to HMPs that can be published in school newspapers, inserts, on menus, and in community newsletters.	Spring 2007	Maine HHS Public Health/ DOE
Assist schools with offering cooking classes to increase use of fruits and vegetables. Provide shopping tips for the supermarkets and farmers' markets, opportunities for use of school gardens, and nutrition education for families.	Spring 2007	Maine HHS Public Health/ DOE/ MNN/UMCE

Adults Objectives and Key Strategies *(continued)*

Key Strategies (continued)	**Time Frame**	**Lead Agency**
Assist schools in partnering with CATCH and MNN programs to offer nutrition education opportunities for families.	Spring 2005	Maine HHS Public Health/ MNN
Establish liaisons with universities and colleges to provide nutrition education opportunities to families, students, faculty, and the community.	Fall 2008	Maine HHS Public Health/ DOE/UMCE

B. Community

2.2.2

Increase the number of media messages directed to Maine adults on the benefits of eating more fruits and vegetables and making lower-calorie food choices, and on how to maintain a healthy weight by 2010.

Baseline: Not available
Potential Sources: HMP monitoring tool, HWAC

Key Strategies	**Time Frame**	**Lead Agency**
Develop and air TV, radio, and/or newspaper messages, including *Healthy Weight Awareness Campaign* (HWAC) messages, that promote improved nutrition.	Spring 2005	Maine HHS Public Health/ MNN
Conduct communication programs on healthy weight for adults.	Spring 2007	Maine HHS Public Health/ MDNC/MNN/UMCE
Develop and deliver a media campaign to market and promote local foods.	Spring 2006	DAFRR/ Maine HHS Public Health
Distribute regular features/nutrition messages to HMPs that can be published in newspapers and community newsletters.	Spring 2007	Maine HHS Public Health

2.2.3

Increase the number of community events to educate Maine adults on the benefits of eating more fruits and vegetables and making lower-calorie food choices, and on how to maintain a healthy weight by 2010.

Baseline: Not available
Potential Source: HMP monitoring tool

Key Strategies	Time Frame	Lead Agency
Distribute promotional planning packets to HMP for 5 A Day Month events, which take place in September.	Spring 2007	Maine HHS Public Health
Identify partners with resources/materials to support community-wide events promoting healthy weight, fruits and vegetables (e.g., UMCE, Maine Dairy & Nutrition Council).	Spring 2007	Maine HHS Public Health/ MDNC/ MNN/UMCE

2.2.4

Increase the number of community facilities used by adults that have policies to improve nutritional offerings (more fruits and vegetables and how to maintain a healthy weight) at meetings and events by 2010.

Baseline: Not available
Potential Source: HMP monitoring tool

Key Strategies	Time Frame	Lead Agency
Provide community decision makers, including representatives from private and faith-based organizations, with the *Develop Policies that Support Healthy Eating at Group Events* Action Packet and train them on its use.	Fall 2005	Maine HHS Public Health/ MNN
Distribute farmers' market guides to HMP and assist HMP in developing collaborations to promote use of local foods by community facilities that serve adults of all ages.	Spring 2005	OES/ Maine HHS Public Health/ DAFRR/MNN
Establish community gardens and/or offer farmers' markets in partnership with community facilities that serve adults of all ages.	Spring 2006	OES/ Maine HHS Public Health/ DAFRR/MNN

Adults Objectives and Key Strategies *(continued)*

Key Strategies *(continued)*	Time Frame	Lead Agency
Provide HMP with nutrition guidelines, sample policies, and resources to partner with convenience and grocery stores to implement point-of-decision education and prompts.	Spring 2007	Maine HHS Public Health/ MNN

2.2.5

Increase the number of center-based early child care settings where policies and/or programs support improved nutrition among staff and parents (more fruits and vegetables, lower-calorie food choices, and how to maintain a healthy weight) by 2010.

Baseline: Not available
Potential Source: OCFS

Key Strategies	Time Frame	Lead Agency
Distribute nutrition guidelines and sample policies with recommended portions for licensed day care providers to use and share with parents.	Spring 2008	Maine HHS Public Health/ OCFS
Distribute healthy eating packets with ideas for nutrition activities for licensed day care providers to use and share with parents.	Spring 2007	Maine HHS Public Health/ OCFS

2.2.6

Increase the number of restaurants that display nutrition information at point of decision by 2010.

Baseline: Not available
Potential Sources: Maine HHS Public Health, MeRA

Key Strategies	Time Frame	Lead Agency
Distribute nutrition guidelines and sample recipes to restaurants in HMP communities.	Spring 2009	Maine HHS Public Health/ MeRA
Identify Maine Restaurant Association member restaurants in HMP communities and offer *Diner's Choice* program.	Fall 2005	Maine HHS Public Health/ MeRA
Provide data and policy briefings to Maine legislators.	Spring 2005–Ongoing	MCHC/MCPH

C. Worksite

2.2.7

Increase the number of employers with policies that support improved nutrition for their employees by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Key Strategies	Time Frame	Lead Agency
Provide training and technical assistance to HMP to identify worksites for interventions to implement policies for improved nutrition. An available resource is *Good Work! Linking health to the bottom line: Cost-effective strategies for a healthier workplace.*	Spring 2005	Maine HHS Public Health
Provide worksite decision makers with PAN Action Packets focused on nutrition and train them on their use.	Spring 2005	Maine HHS Public Health/ MNN

2.2.8

Increase the number of employers with worksite environments that support improved nutrition for their employees by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Key Strategies	Time Frame	Lead Agency
Provide training and technical assistance to HMP to identify worksites for interventions to create environments for improved nutrition. An available resource is *Good Work! Linking health to the bottom line: Cost-effective strategies for a healthier workplace.*	Spring 2005	Maine HHS Public Health
Provide worksite decision makers with PAN Action Packets focused on nutrition and train them on their use.	Spring 2005	Maine HHS Public Health/ MNN

Adults Objectives and Key Strategies *(continued)*

2.2.9

Increase the number of employers who offer educational and support programs for employees' improved nutrition by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Key Strategies	Time Frame	Lead Agency
Disseminate information packets to worksites in HMP communities. Information includes nutrition guidelines and list of supportive activities to promote healthy food choices.	Spring 2008	Maine HHS Public Health
Provide resources to school-based teams at the annual Maine Schoolsite Health Promotion Conference.	Summer 2005	Maine HHS Public Health/ DOE/MNN

D. Health care

2.2.10

Increase the number of clinicians who screen and advise for improved nutrition in adults by 2010.

Baseline: Not available
Potential Sources: Maine HHS Public Health, MAFP

Key Strategies	Time Frame	Lead Agency
Distribute packets with screening guidelines, nutrition recommendations, and handouts for adults of all ages to clinicians in HMP communities.	Fall 2008	OES/ Maine HHS Public Health/ MAFP/MDA
Educate staff and clinicians about screening, assessment (including BMI), and counseling related to nutrition as part of routine health care.	Winter 2008	OES/ Maine HHS Public Health/ MAFP/MDA

2.2.11

Increase the number of clinicians who refer adults to community nutrition resources by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Key Strategies	Time Frame	Lead Agency
Distribute packets with screening guidelines, nutrition recommendations, handouts, and list of nutrition referral resources to clinicians in HMP communities.	Fall 2008	Maine HHS Public Health/ MAFP/ MDA
Identify effective multicomponent weight control programs for adults and share with clinicians.	Spring 2008	Maine HHS Public Health/ MAFP/MDA

2.2.12

Increase the number of Maine insurance payers who reimburse for preventive services for adults regarding nutrition by 2010.

Baseline: Not available
Potential Source: MaineCare

Key Strategies	Time Frame	Lead Agency
Distribute information to insurers regarding cost-effectiveness of preventive services, including health screenings and nutrition counseling.	Fall 2008	Maine HHS Public Health/ MDA
Develop a tool kit to educate insurance companies/employers on the benefits of including nutrition counseling. Distribute to HMP.	Fall 2007	Maine HHS Public Health/ MDA

Adults Objectives and Key Strategies *(continued)*

2.2.13

Increase the number of Maine insurance payers who provide incentives for employers who address employee preventive health including nutrition by 2010.

Baseline: Not available
Potential Sources: Maine HHS Public Health, regional wellness councils

Key Strategies	Time Frame	Lead Agency
Disseminate best practice information on insurers who currently offer incentives.	Winter 2007	Maine HHS Public Health
Educate employers regarding best practice models for worksite wellness.	Winter 2007	Maine HHS Public Health

Breastfeeding

INTERMEDIATE OBJECTIVE 2.3

Increase the proportion of mothers who are breastfeeding their babies at six months to 50% by 2010.

Baseline	Data Source
25%	PedNSS, 2003

SHORT-TERM OBJECTIVES 2.3.1. THROUGH 2.3.8.

A. School

2.3.1

Increase the number of high schools with day care and other parenting facilities that have breastfeeding support policies by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Key Strategy	Time Frame	Lead Agency
Assist school boards and superintendents in schools with day care and other parenting facilities with planning processes to adopt breastfeeding support policies.	Fall 2005	Maine HHS Public Health/ DOE

2.3.2

Increase the number of high schools that include breastfeeding education in the health curriculum by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Key Strategy	Time Frame	Lead Agency
Provide informational materials and resources to curriculum committees to include appropriate breastfeeding education.	Spring 2007	Maine HHS Public Health/ DOE

Adults Objectives and Key Strategies *(continued)*

B. Community

2.3.3

Increase the number of public places offering designated areas for breastfeeding by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Key Strategies	Time Frame	Lead Agency
Implement the *Breastfed Babies Welcome Here* Campaign. Disseminate signage, benefits to businesses of allowing breastfeeding on the premises, and content of the "Right to Breastfeed" Law.	Summer 2006	Maine HHS Public Health
Arrange a system of recognition awards for retailers and organizations that have policies and best practices in place that support breastfeeding.	Summer 2006	Maine HHS Public Health
Assess building/construction plans for inclusion of designated areas for breastfeeding.	Fall 2008	Maine HHS Public Health

2.3.4

Increase media messages that promote the benefits of breastfeeding in community settings by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Key Strategy	Time Frame	Lead Agency
Provide *Loving Support* Campaign materials to community organizations, local businesses, faith-based and private organizations, as well as other community settings. Materials include public service announcements, paid advertising, and breastfeeding-friendly books provided to local libraries to use in reading circles.	Spring 2006	Maine HHS Public Health

C. Worksite

2.3.5

Increase the number of employers with policies that support employees who are breastfeeding (designated areas, flextime) by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Key Strategies	Time Frame	Lead Agency
Develop and administer survey for local chambers of commerce members to elicit baseline data.	Fall 2005	Maine HHS Public Health
Provide sample policies and information on benefits to businesses of having employees breastfeed their babies.	Fall 2005	Maine HHS Public Health

D. Health care

2.3.6

Increase the number of "Baby-Friendly" designated hospitals by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Key Strategy	Time Frame	Lead Agency
Continue marketing and providing technical assistance to hospitals to establish "Baby-Friendly" designation.	Fall 2005–ongoing	Maine HHS Public Health

Adults Objectives and Key Strategies *(continued)*

2.3.7

Increase the number of clinicians who screen and advise for improved breastfeeding pre- and post-natally by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Key Strategies	Time Frame	Lead Agency
Partner with hospitals and primary care practices providing obstetrical and women's health services to include breastfeeding information in their newsletters, intranets, and bulletin boards.	Fall 2005	Maine HHS Public Health
Update the breastfeeding resource guide and disseminate to hospitals and primary care practices providing obstetrical and women's health services.	Fall 2005	Maine HHS Public Health
Print and disseminate laminated cards with information about breastfeeding norms, best practices, and resources for every exam room to hospitals and primary care practices providing obstetrical and women's health services.	Summer 2005	Maine HHS Public Health

2.3.8

Increase the number of clinicians who refer to community resources for breastfeeding promotion by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Key Strategy	Time Frame	Lead Agency
Print and disseminate laminated cards with information about community resources, breastfeeding norms, and best practices for every clinician and every exam room to hospitals and primary care practices providing obstetrical and women's health services.	Summer 2005	Maine HHS Public Health

Food Safety

LONG-TERM OBJECTIVE 3

Reduce by 10% the number of food-borne illnesses caused by improper food handling by 2010.

Baseline	Data Source
Developmental	To be determined

INTERMEDIATE OBJECTIVE 3.1

Increase to at least 79% the proportion of consumers who follow food safety practices by 2010.

Baseline	Data Source
72%	USDA, 1998

SHORT-TERM OBJECTIVES 3.1.1 THROUGH 3.1.4

A. School

3.1.1

Increase the number of schools that incorporate food safety and hand washing topics in their health curricula by 2010.

Baseline: Not available
Potential Source: DOE

Key Strategy	Time Frame	Lead Agency
Use the CSHE framework to provide schools with materials and resources aligned with the Maine *Learning Results* that enable them to incorporate food safety and hand washing.	Winter 2006	Maine HHS Public Health/ DOE

B. Community

3.1.2

Increase the number of center-based day cares and other community organizations that have hand washing information posted and food safety policies in place by 2010.

Baseline: Not available
Potential Source: OCFS

Adults Objectives and Key Strategies *(continued)*

Key Strategies	Time Frame	Lead Agency
Provide day cares with materials and teaching guides that enable them to incorporate hand washing and food safety in their day care facilities.	Winter 2006	Maine HHS Public Health/ OCFS
Distribute food safety guidance and teaching materials to community organizations, including faith-based and private organizations.	Spring 2007	Maine HHS Public Health/ DAFRR/DOE

C. Worksite

3.1.3

Increase the number of small business and nonprofit employers who have hand washing information posted and food safety policies in place by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Key Strategy	Time Frame	Lead Agency
Distribute food safety materials and teaching guidance to employers, including small businesses and nonprofits.	Spring 2007	Maine HHS Public Health/ DAFRR/DOE

D. Health care

3.1.4

Increase the number of health care practices and hospitals that have hand washing information posted and food safety policies in place by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Key Strategy	Time Frame	Lead Agency
Distribute food safety materials to health care practices and hospitals for display in waiting areas.	Spring 2007	Maine HHS Public Health/ DAFRR/DOE

Food Security

LONG-TERM OBJECTIVE 4

Increase by 20% the proportion of Maine people who have access in a socially acceptable manner to enough food for an active, healthy life by 2010.

Baseline	Data Source
Not available	

INTERMEDIATE OBJECTIVE 4.1

Increase to at least 94% the proportion of households in Maine that are food secure by 2010.

Baseline	Data Source
91%	U.S. Census Bureau, 1999

SHORT-TERM OBJECTIVES 4.1.1 THROUGH 4.1.5

A. School

4.1.1

Increase the number of schools that participate in school meals programs (breakfast, lunch, after school, summer) by 2010.

Baseline: Not available
Potential Source: DOE

Key Strategy	Time Frame	Lead Agency
Provide information and technical assistance to schools to support participation in Federal nutrition programs, particularly in low-income geographic areas.	Spring 2005	DOE

Adults Objectives and Key Strategies *(continued)*

B. Community

4.1.2

Increase the number of community-supported agriculture venues by 2010.

Baseline: Not available
Potential Source: DAFRR

Key Strategy	Time Frame	Lead Agency
Partner with the Department of Agriculture to provide information and technical assistance to establish more individual and community gardens, farmers' markets, and farm-share programs to raise awareness of local seasonal products.	Spring 2007	Maine HHS Public Health/ DAFRR/ DOE

4.1.3

Increase the number of households that receive information to improve food security by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Key Strategies	Time Frame	Lead Agency
Develop and disseminate sample menus and guidelines for smart shopping, and distribute *Eat Well* newsletters as direct mail to Food Stamp recipients and at WIC clinics.	Spring 2008	Maine HHS Public Health/ MNN/ UMCE
Provide information on food and nutrition assistance programs to Maine's most needy populations, including the elderly.	Spring 2008	OES/ Maine HHS Public Health/ DOE

C. Worksite

4.1.4

Increase the number of small businesses that provide exit-from-work packets that include information on food assistance programs by 2010.

Baseline: Not available
Potential Source: DOL

Key Strategy	Time Frame	Lead Agency
Partner with the Department of Labor to provide Federal nutrition program information to small businesses to include in exit-from-work packets.	Spring 2007	Maine HHS Public Health/ DAFRR/ DOE/DOL

D. Health care

4.1.5

Increase the volume and breadth of disseminated food assistance information to health care settings by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Key Strategy	Time Frame	Lead Agency
Disseminate food assistance program information to health care facilities for display in waiting areas.	Spring 2007	DAFRR/ Maine HHS/ Public Health/ DOE

Adults Objectives and Key Strategies *(continued)*

Eating Disorders

LONG-TERM OBJECTIVE 5

Reduce by 10% the proportion of Maine people who use weight loss strategies that endanger their health by 2010.

Baseline	Data Source
4% of male and 10% of female high school students vomited or took laxatives to lose weight or keep from gaining weight during the past 30 days.	YRBSS, 2003
19% of middle school students went without eating for 24 hours or more to lose weight or keep from gaining weight.	YRBSS, 2003

INTERMEDIATE OBJECTIVE 5.1

Reduce the number of people with eating disorders, including anorexia nervosa and bulimia nervosa, by 2010.

Baseline	Data Source
Developmental	To be determined

SHORT-TERM OBJECTIVES 5.1.1 THROUGH 5.1.4

A. School

5.1.1

Increase the number of schools that provide information about and identification of eating disorders by 2010.

Baseline: Not available
Potential Sources: Maine HHS Public Health, DOE

Key Strategies	Time Frame	Lead Agency
Provide education for parents, coaches, teachers, school nurses, and guidance counselors on identification of eating disorders.	Winter 2006	Maine HHS Public Health/ DOE

Key Strategies (continued)	Time Frame	Lead Agency
Use the CSHE framework to distribute resources and require teacher training regarding eating disorders. Provide technical assistance regarding the sensitivity and appropriateness for incorporation into the health education curriculum.	Fall 2008	Maine HHS Public Health/ DOE
Identify and disseminate appropriate referral systems for individuals with eating disorders.	Spring 2009	Maine HHS Public Health/ DOE

B. Community

5.1.2

Establish a model for community partnering to identify and refer individuals with eating disorders by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Key Strategies	Time Frame	Lead Agency
Develop a model for community partnering, identify initial community partners, and replicate with additional partners.	Spring 2008	Maine HHS Public Health/ DOE
Disseminate to community partners information about eating disorders, including health risks,warning signs, referral protocols, and confidentiality.	Fall 2008	Maine HHS Public Health/ DOE

C. Worksite

5.1.3

Establish a model for employee partnering to identify and refer individuals with eating disorders by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Adults Objectives and Key Strategies *(continued)*

Key Strategies	Time Frame	Lead Agency
Develop a model for employee partnering, identify initial worksite partners, and replicate with additional partners.	Spring 2008	Maine HHS Public Health
Disseminate to worksite partners information about eating disorders, including health risks, warning signs, referral protocols, and confidentiality.	Fall 2008	Maine HHS Public Health

D. Health care

5.1.4

Increase the number of health care providers who report screening for and treating/ referring individuals with eating disorders by 2010.

Baseline: Not available
Potential Source: Maine HHS Public Health

Key Strategies	Time Frame	Lead Agency
Identify and compile best practice protocols for screening and referrals for individuals with eating disorders.	Winter 2009	Maine HHS Public Health/ DOE
Disseminate screening and referral information to appropriate health care providers.	Winter 2009	Maine HHS Public Health/ DOE/ME-AAP

Training and Technical Assistance to Implement the Maine PAN Plan

It is anticipated that training and technical assistance for State- and local-level staff will be needed on the following:

- Evidence-based and promising strategies for nutrition and physical activity
- Community engagement approaches and methods
- Volunteer recruitment and management
- Evaluation and logic model development—to provide assistance to local programs for incorporating PAN strategies into local program plans
- Breastfeeding promotion and support
- Importance of nutrition and physical activity in health promotion efforts
- Use of the social marketing approach to identify populations, strategies, and interventions

The Maine PAN Program has coordinated an Implementation Plan Work Group including members from the PAN Coordinating Council. The Implementation Plan Work Group will develop guidance to facilitate the implementation of Maine PAN Plan strategies for local communities and State programs. Guidance will include priorities of the Maine PAN Plan; resources needed; use of the social-ecological model to identify behaviors and influences of population subgroups, particularly disparate groups; and population data sources. Guidance will also address barriers identified for population groups and proposed solutions to overcome barriers; opportunities to expand interventions in use by related Maine HHS Public Health programs; use of performance measures to guide future planning; and technical assistance resources.

Research is needed on environmental influences on obesity. In addition, there is a need for the development of an effective collaboration among the major societal sectors (government, corporate, community, nonprofit) to identify a cross-sector approach to the obesity problem. Environmental changes, such as modifying how food is marketed and priced or architectural design and urban planning, clearly have far-reaching economic and social implications. Public health agencies, communities, government, health organizations, faith-based organizations, the media, the food and health industries, and advocacy organizations must form alliances and have a sustained commitment to create a more health-promoting social, economic, and physical environment in order to stop the increasing trend of obesity.[133]

133 French SA, Story M & Jeffery RW. Environmental Influences on Eating and Physical Activity. *Annual Review Public Health*. 2001; 22:309–335.

10 Evaluation of the Maine PAN Plan

An evaluation workgroup was established with evaluation stakeholders consisting of staff from related State programs, representatives from other organizations and community groups, and other possible end users of the evaluation findings. The workgroup developed the Maine Physical Activity and Nutrition Program Evaluation Plan (PANPEP) 2003–2004, the first year of the PAN Program (PANP).

Because the PAN Program is integrally related to the Healthy Maine Partnerships, the Maine Cardiovascular Health Program, and the Community Health Promotion Program, evaluation plans necessitate coordination with these respective efforts. The PANPEP follows the CDC evaluation framework in that the workgroup reflects these partnerships, informs the evaluation planning process, and assures the evaluation plan's utility, feasibility, accuracy, and propriety.[134] The PANPEP concentrates on two main foci. These are (1) the Maine PAN Program process evaluation, and (2) the Maine PAN Plan process and outcome evaluation, involving tracking strategies and outcomes delineated in the Maine PAN Plan.

The Maine PAN Program is responsible for rigorous evaluation of Maine's pilot intervention and other interventions initiated as part of the PAN Program. The initial pilot intervention is the Soda/Snack a la Carte and Vending High School Intervention. This intervention is evaluating baseline and follow-up measurements in selected high schools in Maine. Measurements include school-wide assessments of food venues, including a la carte, vending, school food service, and foods brought from home, and individual student assessments. Students are participating in height and weight measurements for body mass index (BMI) and are completing food frequency, food behavior, and physical activity questionnaires.

Monitoring the outcomes of the Maine Health and Human Services' Public Health physical activity and nutrition efforts dictates the consistent and long-term tracking of key performance indicators. These indicators are outlined in the PANPEP and corresponding Logic Model. A Physical Activity and Nutrition Surveillance Plan is also being developed with the evaluation plan and will be used to collect, analyze, interpret, and disseminate data, including providing data to key stakeholders on a regular basis. This data will be used to influence decisions for Statewide prevention and control of overweight and obesity and related health problems in the future.

The Healthy Maine Partnerships are building their capacity to collect local data on nutrition and physical activity initiatives focused on policy and environmental change through the HMP monitoring tool. These endeavors present an opportunity for local intervention data sources and evaluation. Other Maine initiatives to enhance Statewide data collection and surveillance include activities

134 U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, *Morbidity and Mortality Weekly Report.* 1999; 48(RR11).

Evaluation of the Maine PAN Plan *(continued)*

that focus on building or enhancing: a routine source of population-based data on overweight, nutrition, and TV viewing in children prior to the seventh grade; an infrastructure for routine analysis and interpretation of nutrition and physical activity data; and the capacity to identify and assess populations that are disproportionately affected by the risk of obesity and other chronic diseases due to physical inactivity and/or poor nutrition.

In summary, Maine has begun to address the problem of overweight and obesity, but much remains to be accomplished to improve the nutrition and physical activity status of Maine citizens. The Maine PAN Plan provides guidance, resources, and strategies for integrating science-based evidence and promising practices related to overweight and obesity. All sectors of society must collaborate in the implementation of policy and environmental changes that will impact nutrition and physical activity. These initiatives will allow the State to make major strides in reversing the trend toward overweight and obesity and ultimately some of the related consequences. Furthermore, this emerging infrastructure will provide Maine with a valuable framework to address future physical activity and nutrition issues.

11

Appendix A

The Maine PAN Plan Acronym Key

Please note that the name for the Bureau of Health, Department of Health and Human Services has been changed to the Maine Health and Human Services' Public Health. The PAN Plan includes references and figures that refer to the Bureau of Health, Department of Health and Human Services because these references and figures were published prior to the name change.

ACES	All Children Exercising Simultaneously
BCM	Bicycle Coalition of Maine
BDS	Behavioral and Developmental Services
BMI	Body Mass Index
BRFSS	Behavioral Risk Factor Surveillance System
CATCH	Coordinated Approach to Child Health
CDC	Centers for Disease Control and Prevention
CHPP	Community Health Promotion Program
CSHE	Comprehensive School Health Education
CSHP	Coordinated School Health Program
DAFRR	Department of Agriculture, Food, and Rural Resources
DASH	Division of Adolescent and School Health (CDC)
DHHS	Department of Health and Human Services
DOE	Department of Education
DOL	Department of Labor
DOT	Department of Transportation
DPCP	Diabetes Prevention and Control Program
EPSDT	Early and Periodic Screening, Diagnostic, and Treatment
HMP	Healthy Maine Partnerships
HMW	Healthy Maine Walks
HWAC	Healthy Weight Awareness Campaign
LEA	Local Education Agencies
MAFP	Maine Academy of Family Physicians
MAHPERD	Maine Association for Health, Physical Education, Recreation and Dance
Maine HHS Public Health	Maine Health and Human Services' Public Health
MASN	Maine Association of School Nurses
MCH	Maternal and Child Health
MCHC	Maine Cardiovascular Health Council
MCHN	Maternal and Child Health Nutrition Program
MCHS	Maine Child Health Survey
MCPH	Maine Center for Public Health
MCVHP	Maine Cardiovascular Health Program
MDA	Maine Dietetic Association

MDNC	Maine Dairy & Nutrition Council
MeHAF	Maine Health Access Foundation
MeRA	Maine Restaurant Association
MeSHEC	Maine School Health Education Coalition
ME-AAP	Maine Chapter of the American Academy of Pediatrics
MGCPFSHW	Maine Governor's Council on Physical Fitness, Sports, Health, and Wellness
M-HPRC	Maine-Harvard Prevention Research Center
MNC	Maine Nutrition Council
MNN	Maine Nutrition Network
MRPA	Maine Recreation and Park Association
MSFSA	Maine School Food Service Association
MYDAUS	Maine Youth Drug and Alcohol Use Survey
NASBE	National Association for School Boards of Education
NASPE	National Association for Sport and Physical Education
OCFS	Office of Child and Family Services
OES	Office of Elder Services
OHP	Oral Health Program
PA	Physical Activity
PAN	Physical Activity and Nutrition
PANP	Physical Activity and Nutrition Program
PANPEP	Physical Activity and Nutrition Program Evaluation Plan
PE	Physical Education
PedNSS	Pediatric Nutrition Surveillance System
PNSS	Pregnancy Nutrition Surveillance System
PRAMS	Pregnancy Risk Assessment Monitoring System
PTA	Parent Teacher Association
PTM	Partnership For A Tobacco-Free Maine
PTO	Parent Teacher Organization
SAD	School Administrative District
SAU	School Administrative Unit
SHEP	School Health Education Profile
SNA	School Nutrition Association
SPO	State Planning Office
TV	Television
UMCE	University of Maine Cooperative Extension
USDA	United States Department of Agriculture
USM	University of Southern Maine
WELCOA	Wellness Councils of America
WIC	Women, Infants, and Children Nutrition Program
YAP	Youth Advocacy Program (HMP)
YMCA	Young Men's Christian Association
YRBSS	Youth Risk Behavior Surveillance System
YTS	Youth Tobacco Survey
YWCA	Young Women's Christian Association

Appendix B

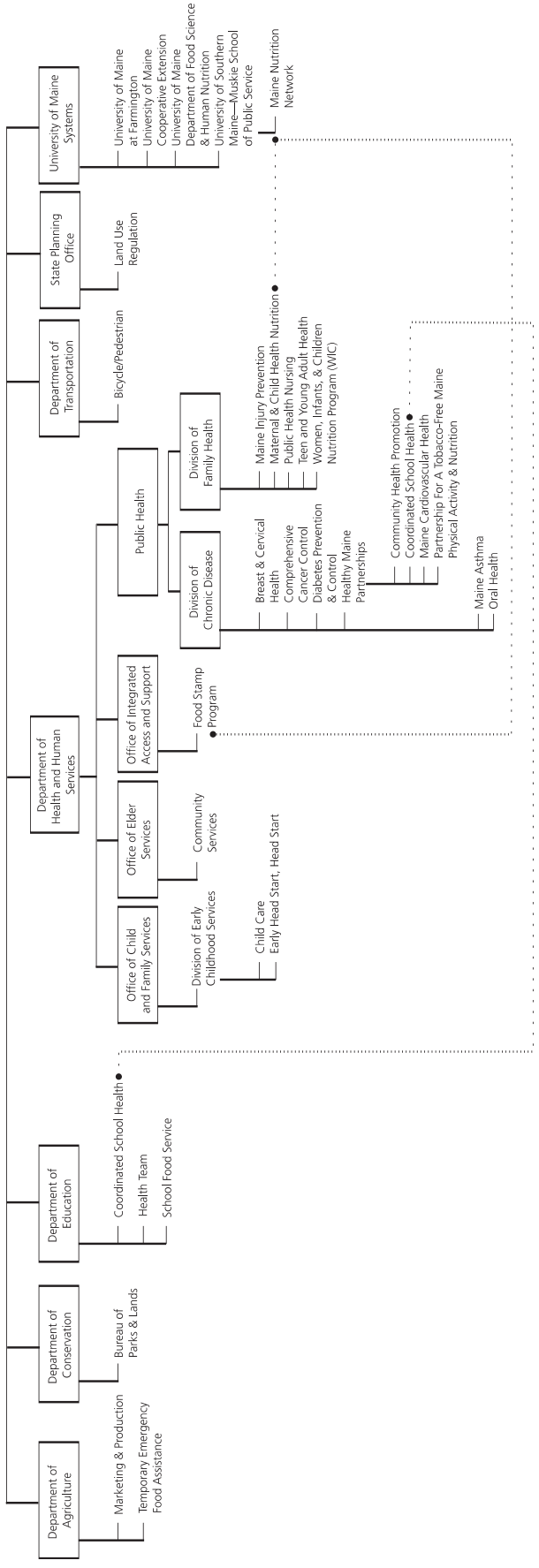
The Maine Physical Activity and Nutrition (PAN) Plan Stakeholders

Name	Organization
Joan Atkinson	Maine Nutrition Network
John Balicki	Maine Department of Transportation
Tony Barrett	East Coast Greenway Alliance
Christina Beaudoin	University of Southern Maine
Mary Ann Bennett	Maine Nutrition Network
Susan Berry	Coastal Hancock Healthy Communities
Mary Booth	MSAD #75, Topsham
Saskia Bopp	Maine Cardiovascular Health Council
Mary Bourque	Maine Health and Human Services' Public Health
Tina Chapman	Healthy Horizons, c/o United Way Mid-Maine
Richard Cook	University of Maine, Department of Food Science & Human Nutrition
Anne-Marie Davee	University of Southern Maine, Muskie School of Public Service
Denise Delorie	Fairfield Healthy Community
Carolyn DeWane	Healthline
Mark Ditullio	MaineGeneral Medical Center—Waterville PATCH
Thomas Downing	University of Southern Maine, Lifeline Center
Kay Dutram	University of Southern Maine, Muskie School of Public Service
Jaki Ellis	Maine Health and Human Services' Public Health
Elanna Farnham	Maine Governor's Council on Physical Fitness, Sports, Health, and Wellness
Ruth Fitzpatrick	National Center of Student Aspirations
Michael Fleming	Anthem Blue Cross Blue Shield
Pamela Foster-Albert	Maine Health and Human Services' Public Health
Jennifer Francis	Southern Maine Community College
Darlene French	Boothbay Harbor School System
Diane Friese	University of Southern Maine, Muskie School of Public Service
Karen Gallagher	Maine Health and Human Services' Public Health
Judy Gatchell	Maine Nutrition Network
Lucinda Hale	Maine Health and Human Services' Public Health
DeEtte Hall	Maine Department of Education
Patricia Hart	The Gallup Organization
Jaime Hebert	Maine Nutrition Network
Nellie Hedstrom	University of Maine Cooperative Extension
Kate Herlihy	Western Maine Pediatrics
Deanne Herman	Maine Department of Agriculture, Food, and Rural Resources
Brian Hill	Miles Memorial Hospital
Catherine Hoffmann	Maine Dairy & Nutrition Council
Hillary Holbrook	Consumers for Affordable Health Care
Kenneth Huhn	St. Joseph Health Care
Lori Kaley	University of Southern Maine, Muskie School of Public Service
Leigh Krischner	Martin's Point Health Care
Kelly LeBlond	Central Maine Medical Center, Heart & Vascular Institute
Courtney Lehnhard	Smith School, School District 22
Janet Leiter	Maine Health and Human Services' Public Health
Barbara Leonard	Maine Health and Human Services' Public Health
Dwight Littlefield	Maine Health and Human Services' Public Health
Gail Lombardi	Maine Health and Human Services' Public Health

Name	Organization
Stephanie Martyak	Consumers for Affordable Health Care
Andrea Mason	Medical Care Development
Betty Mason	Maine Health and Human Services' Public Health
Murle Masters	Micmac Health Organization
Dora Anne Mills	Maine Health and Human Services' Public Health
Mary Moody	Maine Department of Education
Grace Morgan	Maine Department of Education
Rick Morrow	Maine Health and Human Services, Office of Integrated Access and Support
Agnes Nelson	MSAD #56, Searsport
Tracy Nelson	Maine Medical Center
Krista Niezelski	University of Maine, Student
Brenda Obert	University of Maine, Farmington
Karen O'Rourke	Maine Center for Public Health
Joan Orr	Healthy Community Coalition
Mary Owen	Maine Health and Human Services' Public Health
Bettina Pearson	Breastfeeding Center of Maine
Kris Perkins	Maine Health and Human Services' Public Health
David Pied	MaineGeneral Medical Center
Sarah Platt	Maine Dairy & Nutrition Council
Michele Polacsek	Maine-Harvard Prevention Research Center
Bill Primmerman	Somerset Heart Health
Helen Rankin	MSAD #55, Hiram
Sunita Raynes	Maine Nutrition Network
Sandy Richard	Healthy Community Coalition
Burtt Richardson	Healthy Futures
Valerie Ricker	Maine Health and Human Services' Public Health
Abby Ring	Healthy Living
Patti Robinson	Maine Health and Human Services' Public Health
Anne Rogers	Maine Health and Human Services' Public Health
Amy Root	University of Southern Maine, Muskie School of Public Service
Anita Ruff	Maine Health and Human Services' Public Health
Chris Sady	Maine Nutrition Network
Molly Schwenn	Maine Health and Human Services' Public Health
George Shaler	University of Southern Maine, Muskie School of Public Service
Janet Sirois	MaineGeneral Medical Center
Andy Spaulding	Medical Care Development
Janet Spencer	Partnership for Healthy Communities
Martha Spencer	South Portland School Department
Jill Sullivan	Fairchild Semiconductor
Stephanie Swan	Maine Department of Education
Andrew Tenenbaum	Western Maine Pediatrics
Faith Thibodeau	Goodall Hospital
Edward Trainer	Medical Care Development
Amy Wagner	Healthy Living Project
Mary Walsh	Maine Health and Human Services, Office of Elder Services
Pat Watson	Stephens Memorial Hospital
Janet Whatley-Blum	University of Southern Maine
Dennise Whitley	American Heart Association
Debra Wigand	Maine Health and Human Services' Public Health
Kathy Wilbur	Maine Department of Education
Debbie Works	Maine School Food Service Association

Appendix C

Maine State Government Programs Related to Physical Activity and Nutrition



A Sample of Maine's Physical Activity and Nutrition Initiatives

The following matrix includes a sample of Maine's nutrition and physical activity initiatives. Information is intended to provide examples and may not fully represent all activities or coordinating partners of a given initiative.

Other organizations that are partners and collaborators with the programs and initiatives listed on the following pages include:

American Cancer Society, New England Division
American Diabetes Association, Maine Affiliate
American Heart Association, New England Affiliate
American Lung Association of Maine
Bicycle Coalition of Maine
Eastern Trail Alliance
Healthy Community Coalitions
Healthy Maine Walks Coalition
Maine Academy of Family Physicians
Maine Association for Health, Physical Education, Recreation, and Dance
Maine Association of Family and Consumer Science
Maine Association of Family and Consumer Science Educators
Maine Association of School Nurses
Maine Cardiovascular Health Council
Maine Chapter American Academy of Pediatrics
Maine Coalition for Food Security
Maine Dairy and Nutrition Council
Maine Dietetic Association
Maine Governor's Council on Physical Fitness, Sports, Health, and Wellness
Maine Lactation Consultant Association
Maine Nutrition Council
Maine Organic Farmers and Gardeners Association
Maine Principals' Association
Maine Public Health Association
Maine Recreation and Park Association
Maine Restaurant Association
Maine School Boards Association
Maine School Food Service Association
Maine School Health Education Coalition
Maine State Breastfeeding Coalition
Maine Superintendents Association
Maine Tribal Nations
Portland Trails

Department/ Organization	Program/ Initiative	Focus Area	Description	Coordinating Partners/ Projects
Maine Health and Human Services' Public Health	Physical Activity and Nutrition Program (PANP)	Physical Activity/ Nutrition	In 2003, Maine was awarded a five-year capacity-building grant from the Centers for Disease Control and Prevention to establish a Physical Activity and Nutrition Program (PANP). The purpose of the PAN Program is to prevent obesity and address other nutrition and physical activity issues that can prevent chronic diseases. The PANP provides resources to coordinate program efforts with cardiovascular health, cancer, diabetes, oral health, maternal and child health, and coordinated school health. Interventions target individual intentions and skills, social networks, organizations, and social and physical environments.	OES, OCFS, CSHP, DAFRR, DPCP, DOE, DOT, HMP, MCHN, MCVHP, MNN, OHP, UMCE, USM, WIC, Maine Comprehensive Cancer Control Program: implementing the State Physical Activity and Nutrition Plan; addressing caloric imbalance and expenditure; increasing breastfeeding rates, consumption of 5 A Day, and physical activity; and reducing television time.
Maine Health and Human Services' Public Health	Healthy Maine Partnerships (HMP)	Physical Activity/ Nutrition	Thirty-one local Healthy Maine Partnerships (HMP) based in nonprofit organizations are funded by the Tobacco Settlement to reduce tobacco use; increase physical activity; and improve nutrition to ultimately reduce cardiovascular disease, cancer, chronic lung disease, and diabetes. Each HMP subcontracts with a school administrative unit to support at least one school health coordinator. The HMPs emphasize policy and environmental changes at the local level.	MCVHP: Healthy Maine Walks, Healthy Weight Awareness Campaign MNN: Healthy Weight Awareness Campaign; training and technical assistance PANP: State Plan and other PAN activities

AAA=Area Agencies on Aging
CSHP=Coordinated School Health Program
DAFRR=Department of Agriculture, Food, and Rural Resources
DOE=Department of Education
DOT=Department of Transportation
DPCP=Diabetes Prevention and Control Program
HMP=Healthy Maine Partnerships
MCHN=Maternal and Child Health Nutrition Program
MCVHP=Maine Cardiovascular Health Program
Maine HHS Public Health=Maine Health and Human Services' Public Health
MNN=Maine Nutrition Network
OCFS=Office of Child and Family Services
OES=Office of Elder Services
OHP=Oral Health Program
OIAS=Office of Integrated Access and Support
PANP=Physical Activity and Nutrition Program
UMCE=University of Maine Cooperative Extension
USDA=U.S. Department of Agriculture
USM=University of Southern Maine
WIC=Women, Infants, and Children Nutrition Program

Department/ Organization	Program/ Initiative	Focus Area	Description	Coordinating Partners/ Projects
Maine Health and Human Services' Public Health	Maine Cardiovascular Health Program (MCVHP)	Nutrition/ Physical Activity	The Maine Cardiovascular Health Program (MCVHP) focuses on population-based prevention of cardiovascular disease through partnerships and collaborations with governmental and non-governmental organizations. A strong emphasis is placed on promoting heart-healthy policies and making physical and social environmental changes to address the risk factors of physical inactivity, poor nutrition, tobacco use, high blood pressure, and high cholesterol. Projects: * Healthy Weight Awareness Campaign (HWAC): social marketing and media campaign focusing on soda consumption, physical inactivity, screen time, and portion size * Healthy Maine Walks: registration and promotion of walking opportunities in Maine communities * Physical Activity and Nutrition Action Packets	HMP: all projects; provide technical assistance MNN: Healthy Weight Awareness Campaign; PAN Action Packets MCHN: Healthy Weight Awareness Campaign, PAN Program PANP: State Plan and other PAN activities
Maine Health and Human Services' Office of Integrated Access and Support, Maine Health and Human Services' Public Health, and University of Southern Maine	Maine Nutrition Network (MNN)	Nutrition/ Physical Activity	The Maine Nutrition Network (MNN) is a Maine Health and Human Services program that is housed at the University of Southern Maine Muskie School, Institute for Public Sector Innovation. The MNN is a coalition of public and private sector partners collaborating to improve the nutritional status of Maine residents who receive or are eligible to receive food stamps. This is accomplished through nutrition education and social marketing approaches such as public service announcements and media campaigns. Projects: * Healthy Weight Awareness Campaign * Provides mini-grants to partners for policy and environmental change * Maine-ly Nutrition: technical assistance, training, and resources for nutrition education in elementary and middle schools * Nutrition education at farmers' markets * Administers the DOE Team Nutrition Training Grant	Food Stamp Program: nutrition education to food stamp recipients MCVHP, MCHN, HMP: Healthy Weight Awareness Campaign DOE: Team Nutrition Training Grant OES: *Take Charge of Your Health* PANP: State Plan and other PAN activities

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CSHP=Coordinated School Health Program
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Maine Health and Human Services' Public Health	Maternal and Child Health Nutrition Program (MCHN)	Nutrition/ Physical Activity	The Maternal and Child Health Nutrition Program (MCHN) promotes good nutrition and healthy lifestyles for Maine's MCH population. The Nutrition Program ensures that the MCH population has access to comprehensive nutrition services that are culturally sensitive and scientifically sound. Projects: * MNN cooperative agreement * Healthy Weight Awareness Campaign * Physical Activity and Nutrition Action Packets	MCVHP, MNN: Healthy Weight Awareness Campaign, PAN Program MCPH: Obesity Surveillance PANP: State Plan and other PAN activities
Maine Health and Human Services' Public Health	Women, Infants, and Children Nutrition Program (WIC)	Nutrition	The WIC provides food, nutrition counseling, and access to health services to pregnant, postpartum breastfeeding and non-breastfeeding women, infants and children up to the age of five who are at or below 185% of the Federal poverty guidelines and are at medical or nutritional risk. Projects: * WIC Farmers' Market Nutrition Program provides WIC participants with fresh, nutritious foods from authorized farmers' markets and farm stands. * Using *Loving Support* to Build Breastfeeding-Friendly Communities * New England Partners Project to test Smart Card Technology in the delivery of WIC food and health benefits	Maine HHS, hospitals, local breastfeeding coalitions: breastfeeding initiative Head Start: New England Partners Project PANP: State Plan and other PAN activities
Maine Health and Human Services' Public Health	Maine Diabetes Prevention and Control Program (DPCP)	Nutrition/ Physical Activity	The Maine Diabetes Prevention and Control Program improves access to, and quality of, diabetes services and care for Maine's residents with diabetes. The Program coordinates the development of a variety of community interventions that address local health promotion and disease prevention activities, diabetes quality improvement office systems, physical inactivity, and nutrition.	PANP: State Plan and other PAN activities UMCE: Diabetes Education
Department of Education and Maine Health and Human Services' Public Health	Coordinated School Health Program (CSHP)	Nutrition/ Physical Activity	The Coordinated School Health Program promotes a coordinated and comprehensive approach to school health across State agencies and within local school systems. This approach includes physical education/physical activity, school nutrition services, and health education components. CSH Directors in the DOE and Maine HHS Public Health provide training and technical assistance to more than 50 SchoolHealth Coordinators Statewide through the HMP. School systems with SchoolHealth Coordinators have increased physical activity among students and staff as well as healthy nutrition policies.	HMP: School Health Coordinators PANP: State Plan and other PAN activities

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Maine Health and Human Services' Public Health	Oral Health Program (OHP)	Nutrition	The purpose of the Oral Health Program is to improve the oral health of Maine citizens by promoting oral health and preventing dental disease in children Grades K-6.The Program provides individual grants to schools, school districts, and agencies acting on behalf of schools throughout the State. Grant funds support health education activities, including nutrition education, stressing the relationship of nutrition to oral health status.	MNN, HMP PANP: State Plan and other PAN activities
Department of Education	Comprehensive School Health Education (CSHE)	Nutrition/ Physical Activity	Comprehensive School Health Education (CSHE) includes curriculum, instruction, and assessment that are sequential K-HS and that meet the health education standards outlined in the Maine *Learning Results.* CSHE addresses the physical, mental, emotional, and social aspects of health and provides knowledge and skills that promote lifelong healthy behaviors.	CSHP, MNN, HMP PANP: State Plan and other PAN activities
Department of Education	School Food Service	Nutrition	The School Food Service Office provides technical assistance, conducts reviews, and provides training. All programs participating in the School Nutrition Programs are required to meet the Dietary Guidelines for Americans. Projects: * After School Snack Program * National Breakfast Program * National School Lunch Program * School Milk Program * Summer Food Service Program * Team Nutrition Training Grants (includes Changing The Scene: Improving the School Nutrition Environment)	Maine HHS/MNN: Team Nutrition Training Grants PANP: State Plan and other PAN activities
Maine Health and Human Services, Office of Child and Family Services	Child Care, Head Start	Nutrition	Child Care and Head Start are responsible for the development and improvement of child care resources across the State. The programs administer, evaluate, and direct the expenditures of State and Federal dollars for the provision of child care. The programs manage grants, develop and manage programs to improve the quality of child care, and provide technical assistance concerning child care.	PANP: State Plan and other PAN activities

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Maine Health and Human Services, Office of Integrated Access and Support	Food Stamp Program	Nutrition	The Food Stamp Program provides benefits to eligible low-income people that they can use to buy food to improve their diets. Nutrition education targeted to food stamp recipients is implemented by the MNN, OES, and UMCE.	MNN, OES, UMCE: nutrition education to food stamp recipients PANP: State Plan and other PAN activities
Maine Health and Human Services, Office of Elder Services	Community Services	Nutrition/ Physical Activity	Community Services provides nutrition education and physical education to Maine seniors. The *Take Charge of Your Health: Eat Right and Keep Moving* program is designed to provide nutrition screening and group nutrition education to low-income seniors living in the community. Nutrition education is provided through Title III programs and contracted with local Area Agencies on Aging (AAA). Seniors participating in home-delivered meals programs and congregate dining are screened for nutrition risk; nutrition education in group settings is provided by dietetic technicians or registered dietitians on topics that address increasing the consumption of fruits and vegetables, making food choices based on the Food Guide Pyramid, food safety, and physical activity.	MNN: provides consultation through contracts with the 5 AAA Food Stamp Program, UMCE: nutrition education to food stamp recipients PANP: State Plan and other PAN activities
Department of Agriculture, Food and Rural Resources	*Get Real. Get Maine!* Maine Senior FarmShare	Nutrition	The Maine Department of Agriculture, Food, and Rural Resources is the State's lead agency dealing with all aspects of the food system from the field to the table. The Maine Department of Agriculture sponsors the *Get Real. Get Maine!* Web site, with links to farms, greenhouses, farmers' markets, community-supported agriculture farms, pick-your-own farms, and restaurants that feature Maine ingredients in their menus and recipes. The Department also sponsors Maine Senior FarmShare to link elders with locally grown produce.	MNN, OES, UMCE: Maine Senior FarmShare PANP: State Plan and other PAN activities
Department of Transportation	Office of Passenger Transportation	Physical Activity	The Office of Passenger Transportation is responsible for the development of an efficient, environmentally sensitive, and cost-effective passenger transportation system that encourages the use of alternate modes of transportation to meet the present and future needs of Maine citizens, business development, and tourism. The DOT provides Federal matching funds for bike paths and trails that further community physical activity goals. Projects: * Healthy Maine Walks	MCVHP, HMP: Healthy Maine Walks PANP: State Plan and other PAN activities

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Maine Center for Public Health (MCPH)	Maine-Harvard Prevention Research Center	Obesity	The Maine Center for Public Health is a private nonprofit organization whose mission is to improve the health of Maine citizens through an organized program of research, education/training, technical assistance, and policy analysis. The Maine-Harvard Prevention Research Center supports work in the area of childhood obesity. Projects: * Development of Statewide Childhood Obesity Surveillance System * Evaluation of local anti-obesity initiatives * Maine Youth Overweight Collaborative	Maine HHS Public Health DOE: Obesity Surveillance System Maine HHS Public Health DOE, HMP: evaluation of local initiatives PANP: State Plan and other PAN activities
University of Maine	UM Cooperative Extension (UMCE)	Nutrition/ Physical Activity	The University of Maine Cooperative Extension (UMCE) nutrition education program helps Mainers optimize their health by improving the quality of diets and food and the number of food choices. Educators in all counties provide educational programming to reduce health risk factors due to dietary habits or physical exercise practices. Projects: * Maine Family Nutrition Program * Expanded Food and Nutrition Education Program (EFNEP)	Food Stamp Program: nutrition education to food stamp recipients MNN, OES: Maine Senior FarmShare PANP: State Plan and other PAN activities
University of Southern Maine	Department of Sports Medicine	Nutrition/ Physical Activity	The Department of Sports Medicine, within the College of Nursing and Health Professions, offers a bachelor of science degree in sports medicine with majors in Athletic Training, Health Fitness, and Exercise Physiology. These innovative programs offer students the opportunity to gain clinical experience while using the most advanced sports medicine equipment available.	PANP: school intervention project

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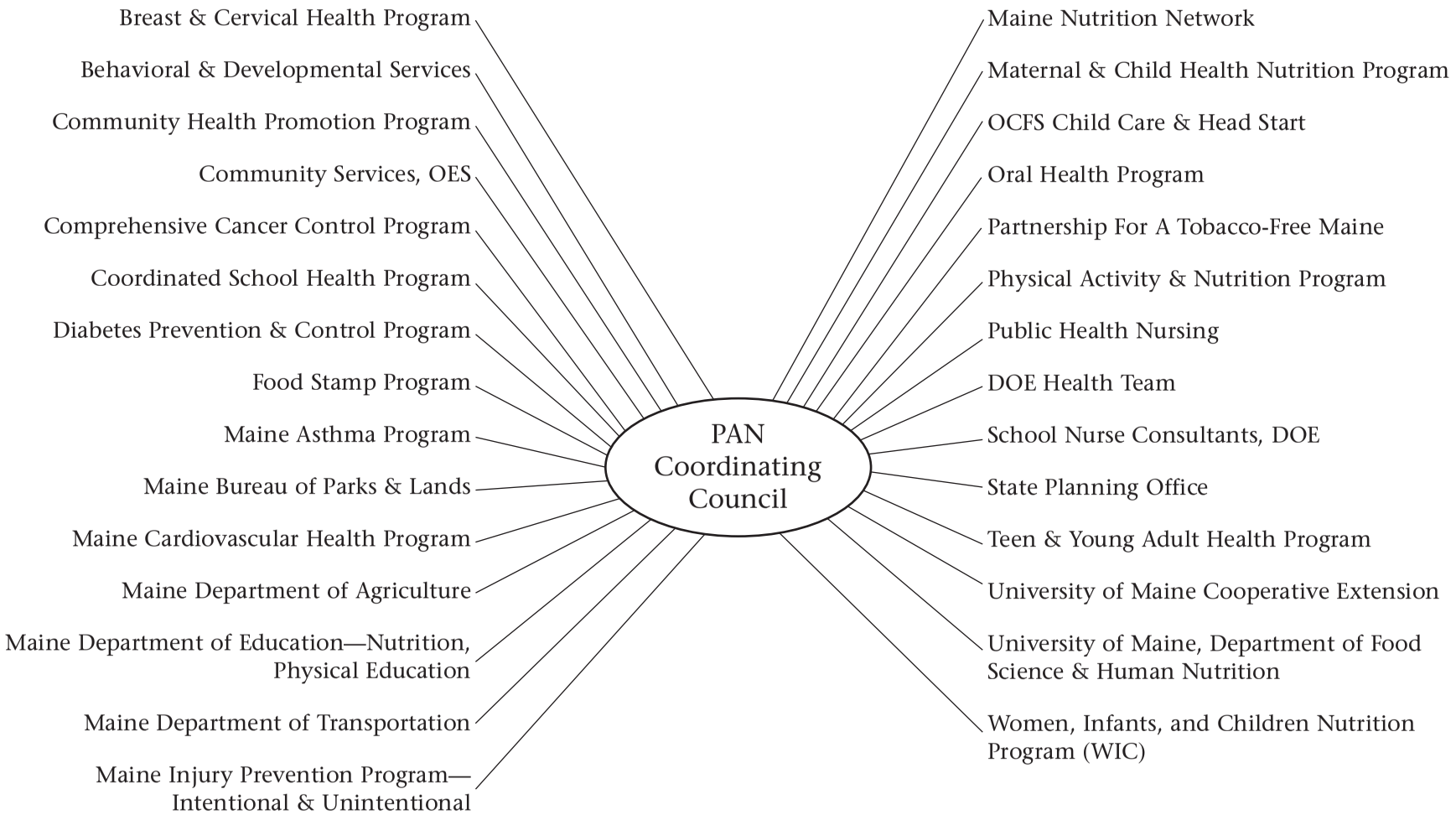
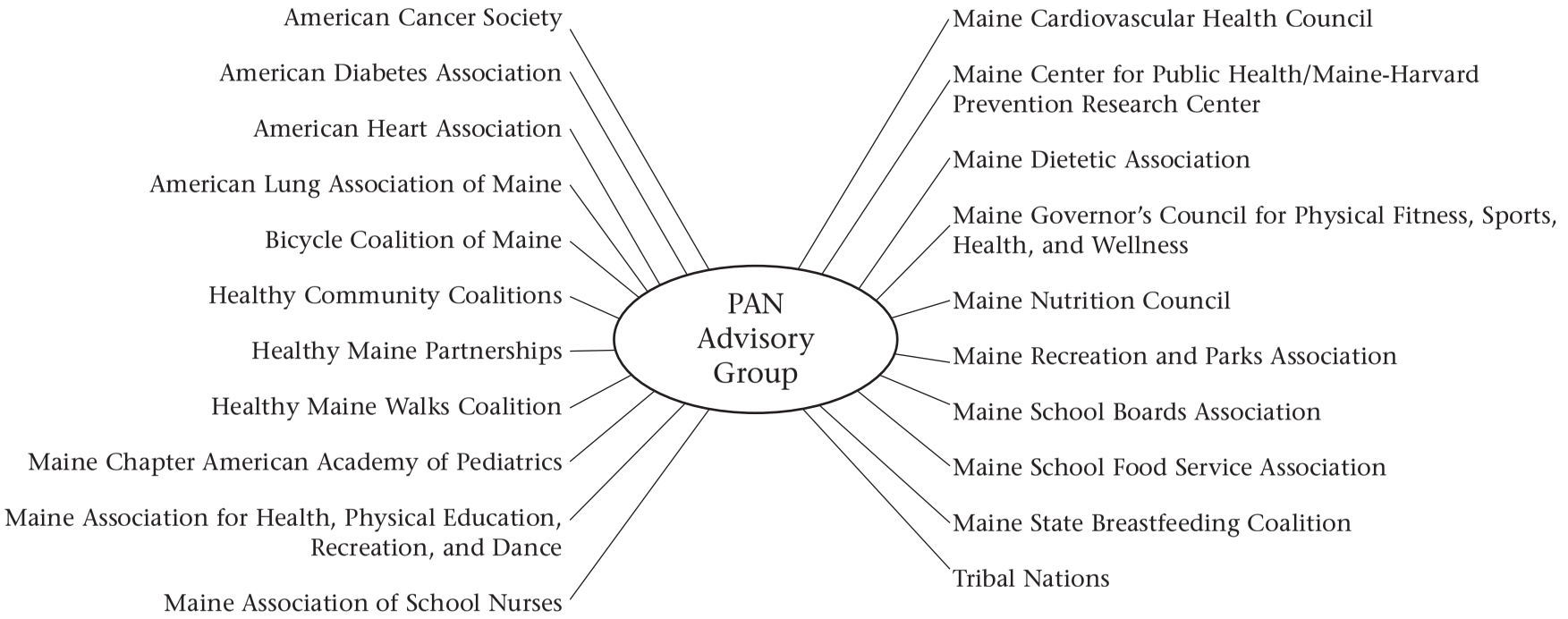
Physical Activity and Nutrition (PAN) Coordinating Council

The PAN Coordinating Council is made up of representatives of Maine State Government programs related to Physical Activity and Nutrition. The purpose of the PAN Coordinating Council is to communicate, coordinate, integrate, and leverage resources to promote optimal standards and practices in and across programs with physical activity and nutrition components.



Physical Activity and Nutrition (PAN) Advisory Group

The PAN Advisory Group is made up of non-government members whose purpose is to organize key stakeholders and to inform, communicate, and educate regarding the goals of the Physical Activity and Nutrition Program.



Maine Center for Disease Control and Prevention

John Elias Baldacci, Governor

John R. Nicholas, Commissioner

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Healthy Maine Partnerships

Physical Activity and Nutrition Program

Maine Health and Human Services' Public Health