



# **Preface**

For decades, it has been intuitively known that healthy eating and physical activity are "good for you." Historically, physical activity occurred in activities of daily living, such as household chores and recreational pursuits. Additionally, meals were typically prepared and eaten at home. However, our lifestyles have changed over the past decades. Laborsaving devices, such as the automobile and remote control, have replaced a more active way of living, and less nutritious foods have become more accessible through vending machines and "fast food" restaurants. Modern conveniences have contributed to a sedentary lifestyle and increase in chronic disease.

Despite tremendous medical advances, North Carolina faces the devastating human and financial costs of chronic diseases and disabilities. Overweight, obesity, and diabetes are at epidemic proportions. Heart disease, stroke, and cancer claim, prematurely, the lives of thousands and reduce quality of life.

Traditional health promotion efforts have focused on educating the individual about the benefits of a healthy lifestyle and strategies for adopting and maintaining healthy habits. These efforts have been moderately successful in achieving their goals. However, without policies and environments to support these behaviors, they are difficult to initiate and maintain. Individuals who want to become more active may be unable to do so due to a lack of opportunities in their community. Similarly, those who wish to eat a healthy diet may have limited food choices and social support.

The **Eat Smart, Move More...North Carolina** initiative was developed to address these significant health issues. The *North Carolina Blueprint For Changing Policies And Environments In Support Of Healthy Eating* and the *North Carolina Blueprint For Changing Policies And Environments In Support Of Increased Physical Activity* are the cornerstones of the initiative. The *Blueprints* can assist local communities in enhancing public awareness of the importance of healthy eating and physical activity and the need for supportive policies and environments. They provide strategies and activities for implementing policy and environmental change interventions that support these behaviors.

The *Blueprints* have been developed for all who are working to increase healthy eating and physical activity opportunities locally and statewide. We hope that you accept the challenge of making North Carolina a healthier place to work and live.

# Acknowledgements

The process of developing the North Carolina Blueprint For Changing Policies And Environments In Support Of Healthy Eating and the North Carolina Blueprint For Changing Policies And Environments In Support Of Increased Physical Activity has drawn upon the collective wisdom of many state and national individuals.

Proudly, the Physical Activity and Nutrition Unit (PAN) Unit, North Carolina Division of Public Health share the *Blueprints*, the cornerstones of the **Eat Smart**, **Move More...North Carolina** initiative.

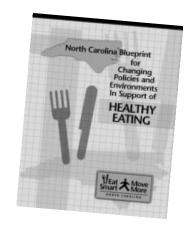
We believe that fostering policies and environments supportive of healthy eating and physical activity will enhance North Carolinians' ability to live healthier lives.

The *Blueprints* Leadership Team wishes to thank all the persons and their organizations that contributed to the *Blueprints*. We are especially grateful to those who reviewed draft segments (Appendix VIII); the Healthy Eating "Dynamic Dozen" who played a role in the planning of the first North Carolina Healthy Eating Summit; and participants of the Summit who greatly contributed to defining the outcomes for the *Blueprints* (Appendix IX).

The Physical Activity and Nutrition (PAN) Unit also thanks the Health Promotion Branch and our sister units within the North Carolina Division of Public Health, for their ongoing support. We also gratefully acknowledge the Centers for Disease Control funded North Carolina Cardiovascular Health Program, the North Carolina Heart Disease and Stroke Prevention Task Force and the North Carolina Advisory Committee on Cancer Coordination and Control for their financial support of the North Carolina *Blueprints*.

We hope the *Blueprints* will assist you in your efforts to help address the challenges of healthy eating and physical activity in your sphere of influence.

The lives of countless North Carolinians will be improved significantly when we integrate healthy eating and physical activity into our day-to-day lives.



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# **CHAPTER I**

# What is **Eat Smart**, **Move More... North Carolina**?

**Lat Smart, Move More...North Carolina** is a statewide initiative that promotes increased opportunities for healthy eating and physical activity through policy and environmental change interventions and enhanced public awareness of the need for such changes. Two companion documents were created through the **Eat Smart, Move More...North Carolina** initiative: the North Carolina Blueprint For Changing Policies And Environments In Support Of Healthy Eating and the North Carolina Blueprint For Changing Policies And Environments In Support Of Increased Physical Activity. The Blueprints provide the



strategies and activities necessary for community-based interventions to increase healthy eating and physical activity opportunities.

Staff of the Physical Activity and Nutrition (PAN) Unit, North Carolina Division of Public Health guide the

initiative, but the success of **Eat Smart, Move More...North Carolina** depends upon broad partnerships among organizations, communities, and individuals across the state. In addition to current partners within the North Carolina Department of Health and Human Services and the Division of Public Health, the initiative embraces the perspectives, expertise, and collective voice of diverse local community groups, health departments, colleges and universities, schools, hospitals, non-profit organizations, and professional organizations, among many others. The initiative and *Blueprints* support community partnerships for local and statewide organizations that together can make the vision of healthy communities a reality. **Figure 1** illustrates the mission, goals, and objectives of **Eat Smart, Move More...North Carolina**.



# **Public Awareness:**

The public's knowledge about a particular issue.

Mass Media: A medium of communication (such as newspapers, radio, or television) that is designed to reach a vast number of people.

# Organizational Communication:

Internal communication (such as a company newsletter) designed to reach organizational members.

**Policies:** Laws, regulations, and rules (both formal and informal) within a setting.

Environments: The entirety of the physical, biological, social, cultural, and political circumstances surrounding and influencing a specified behavior.

# Eat Smart, Move More...North Carolina MISSION STATEMENT:

To foster policies and environments supportive of healthy eating and increased physical activity.

# Eat Smart, Move More...North Carolina GOALS AND OBJECTIVES:

**Goal 1:** Increase public awareness of the importance of healthy eating and physical activity and the need for supportive policies and environments.

# **Objectives:**

- 1. Increase yearly the number of regular and consistent messages promoting healthy eating and physical activity (e.g., signage posted at elevators to encourage stair use and menu labels indicating healthy food items).
- 2. Increase yearly the amount of mass media coverage about the importance of healthy eating and physical activity and the need for supportive policies and environments (e.g., newspapers, television, radio, billboards).
- 3. Increase yearly the number of organizational communications about the importance of healthy eating and physical activity and the need for supportive policies and environments (e.g., newsletters, email messages, flyers).

**Goal 2:** Increase opportunities for healthy eating and physical activity by fostering supportive policies and environments.

# **Objectives:**

- 1. Increase yearly the number of facilities and/or environments that promote healthy eating and physical activity.\*
- 2. Increase yearly the number of policies, practices, and incentives to promote healthy eating and physical activity.\*
- \* This objective also includes enhancing or maintaining existing supports for healthy eating and physical activity.

While the focus of the *Blueprints* is on fostering policies and environments supportive of healthy eating and physical activity, increasing public awareness of the importance of these behaviors for good health is key to the success of the initiative. It heightens the visibility and credibility of healthy eating and physical activity as public health issues and the need for policies and environments that support these behaviors. Increasing public awareness of the need for policy and environmental changes should be coupled with the strategic use of media to frame the issue and the changes that are needed.

# Why policy and environmental change?

t has become increasingly apparent how closely an individual's health is linked to the social and physical environments (Pan American Health Organization, 1996). Comprehensive efforts to change health behavior must foster supportive policies as well as social and physical environments that encourage healthy lifestyles. Several national tools, including the following documents, emphasize the impact of policies and environments on individual health:

- Association of State and Territorial Directors of Health Promotion and Public Health Education (ASTDHPPHE), Centers for Disease Control and Prevention's (CDC) Policy and Environmental Change: New Directions for Public Health (ASTDHPPHE & CDC, 2001)
- Partnership for Prevention's Nine High Impact Actions Congress Can Take to Protect and Promote the Nation's Health (Partnership for Prevention, 2000)
- Nutrition and Physical Activity Work Group's (NUPAWG) Guidelines for Comprehensive Physical Activity and Nutrition Programs (Gregory, 2002)
- The National Governors Association (NGA) Center for Best Practices Issue Brief *The Obesity Epidemic—How States Can Trim the "Fat"* (NGA, 2002)

Facilities/Environmental Change: Changes to physical and social environments that provide new or enhanced supports for healthy behaviors.

Practices: The decisions and behavior of organizations, groups, and individuals and the ways that policies are implemented within a particular setting.

**Incentives:** Rewards for achieving a level of performance or goal.

The North Carolina *Blueprints* are consistent with these national publications in promoting policy and environmental changes to increase opportunities for healthy lifestyles. Additionally, many federal food assistance and nutrition education programs have successfully implemented policy change interventions to improve the individual's nutrition status. Historically, most nutrition programs were developed to prevent malnutrition and starvation, but over time as these health problems were addressed, the focus shifted to healthy eating and chronic disease prevention.

Various federal agencies and independent health organizations have issued recommendations for achieving a healthy diet, including the following documents:

- The Surgeon General's Report on Nutrition and Health in 1988
- The National Research Council's Report on Diet and Health: Implications for Reducing Chronic Disease Risk in 1989
- The U.S. Public Health Services' Healthy People 2000 and 2010: National Health Promotion and Disease Prevention Objectives in 1990 and 2000

Federal nutrition service programs, such as the School Meals Programs, the Food Stamp Program, and the Special Supplemental Nutrition Program for Women, Infants and Children Program (WIC), have been designed as policy interventions to provide healthy food resources and nutrition education so that individuals are able to meet the Dietary Guidelines for Americans. These guidelines, jointly issued every 5 years by the U.S. Department of Agriculture and the U.S. Department of Health and Human Services, help individuals find ways to enjoy food while taking action for good health.

# Progression of Food and Nutrition Programs

- **1946:** National School Lunch Program developed to ensure that young men would be 'fit' for military service.
- **1964:** Food Stamp Program developed to enable individuals with limited incomes to obtain adequate food.
- **1966:** School Breakfast Program developed to enhance school children's performance.
- **1972:** Women, Infants, and Children (WIC)
  Program developed to provide supplemental food as a prescription to improve the health of pregnant women and children.
- **1972:** Elderly Nutrition Program developed to enhance the quality of life for older individuals.

In recent years the National Academy of Sciences has issued reports, not only on nutrients needed to prevent deficiencies, but also when known, the optimal levels for disease prevention and the upper tolerable limits (http://www.nal.usda.gov/fnic).

Historically and traditionally, nutrition education efforts have focused on the individual and actions the individual can take to make healthy food choices consistent with the Dietary Guidelines. The guidelines can also be used as a basis for implementing policy and environmental change interventions at a

"The next major step forward in chronic disease prevention and health promotion will come through the increasing and widespread use of policy and environmental change interventions that can impact large segments of the population simultaneously."

> Policy and Environmental Change: New Directions for Public Health, 2001

community or organizational level. This includes fostering policies and environments that support healthy food and beverage choices. Policy and environmental change interventions can impact a broad audience and support long-term changes in health behaviors. These interventions are supported by enhanced public awareness of the need for healthy eating opportunities.

In his announcement of the *Call to Action to Prevent and Decrease Overweight and Obesity, 2001*, former Surgeon General David Satcher stated that the growing epidemic of obesity in youth and adults, if not reversed, could wipe out

the gains made in reducing heart disease, diabetes, cancer, and other chronic health problems. He goes on to say that addressing overweight and obesity is a community responsibility that requires a multifaceted public health approach capable of producing long-term results (USDHHS, 2001).

North Carolina is among the first states to create blueprints to improve the dietary and physical activity behaviors of its residents through policy and environmental change interventions. Many states share the common health concerns of rising obesity rates, increasing Type 2 diabetes in children, and a high prevalence of cardiovascular disease (CVD) and cancer. However, few 'how-to' manuals for policy and environmental change interventions exist for local efforts. Tools such as the North Carolina Prevention Partners Report Card and the North Carolina Healthy Carolinians' Community Assessment process may prompt local communities to address healthy eating and physical activity issues. Additionally, there are several North Carolina plans to address specific chronic diseases, such as heart disease, stroke, cancer, and diabetes with recommendations relevant to the *Blueprint*, which can be found in Chapter VI and Appendix I. The *Blueprints* support these and other efforts by seeking to increase opportunities for healthy lifestyles and enhance public awareness of the importance of healthy eating and physical activity.\*

<sup>\*</sup> The North Carolina Healthy Weight Initiative's plan, Moving Our Children Toward A Healthy Weight...Finding The Will and The Way, provides recommendations to affect policy, environmental, and individual/interpersonal change that supports healthy eating and physical activity to address the epidemic of childhood overweight.

# What are policy and environmental changes?

The concepts of policy and environmental change interventions may be confusing to health professionals as well as to the public. These interventions are designed to improve the health of all people, not just small groups of motivated or high-risk individuals. The following explanations are based on literature addressing policy and environmental change interventions and from practical experience of experts in the field.

**POLICY CHANGE** generally describes modifications to laws, regulations, formal and informal rules, as well as standards of practice. It includes fostering both written and unwritten policies, practices, and incentives that provide new or enhanced supports for healthy behaviors and lead to changes in community and societal norms. Policy changes can occur at different levels, such as the organizational level (a single worksite), the community level, (an entire school system), or at the society level (state legislation) and can often bring about

environmental changes. For example, a policy change related to healthy eating could include an informal faith organization policy to regularly provide water and healthy food options for all snacks and meals provided at events. Additionally, a school district could regulate foods and beverages available in vending machines during the school day. Finally, medical education institutions could require nutrition education training so that physicians and nurses can routinely counsel patients about healthy eating.

Media advocacy is an example of strategic use of media. It is an essential aspect of policy change and stimulates community involvement in addressing a particular

issue. Garnering media coverage that focuses attention on health-related policy issues can influence a community's attitudes and increase the demand for conditions that support healthy eating, potentially leading to policy and environmental changes.

**ENVIRONMENTAL CHANGE** describes changes to physical and social environments that provide new or enhanced supports for healthy behaviors. An environmental change is one that makes it easier for people to make a healthy food choice. Examples of changes to the physical environment include the availability of food items that are low in saturated fat in vending machines or on cafeteria lines. Snack vending machines could also include economically priced fruits or vegetable snacks. Changes to the physical environment can also include regular and consistent messages promoting healthy eating. For example, a label or signage that clearly identifies the low saturated fat or low calorie items in vending machines or on cafeteria lines could influence the customer to make a healthy selection.



Changing the social environment requires altering individuals' attitudes and perceptions about a particular behavior. It is a gradual process but can be accomplished in part by routine efforts to increase public awareness of the problem as well as potential solutions. Social environmental change includes the adoption of a behavior as the norm rather than the exception or



discourages a particular behavior. For example, a community group could adopt the practice of providing healthy food options at events and meetings. These choices then become the norm, and unhealthy choices are discouraged. Changes to the physical and social environment influence the availability of healthy foods, access to information for making food choices, and the accessibility, consistency, and attractiveness of nutrition education experiences.

Environmental changes may be the result of policy changes. For example, a policy to promote low fat milk consumption in schools may result in the addition of a special milk vending machine outside of the school cafeteria (physical environmental

change). A policy change to provide nutrition counseling through a physician's office may result in employees eating healthier foods (social environment change).

# What is considered success?

This *Blueprint* identifies a wide variety of intervention strategies and activities in which the outcomes support increased healthy eating opportunities for North Carolinians. A detailed list of potential outcomes is provided in Appendix II. Potential outcomes of interventions are identified in the following settings: community environment, schools/childcare, faith communities, worksites, community groups, and health care. Outcomes may be physical changes at facilities and in the environment or changes in a common practice, a policy, etc. The different types of outcomes can be categorized by settings and are depicted in **Figure 2**. Each community must assess its own needs and potential for change, and, therefore, the outcomes are not prioritized.

"Widespread efforts are needed to encourage physical activity and better nutrition through effective educational, behavioral, and environmental approaches to control and prevent obesity. North Carolina is one of our nation's leaders in developing an initiative to move communities to adopt healthy eating and physical activity policy and environmental changes in an effort to prevent and combat rising trends in obesity and other chronic diseases."

William H. Dietz, M.D., Ph.D., Director of the Division of Nutrition and Physical Activity, Centers for Disease Control and Prevention, 2002

# Figure 2.

Goal 2: Increase opportunities for healthy eating and physical activity by fostering supportive policies and environments.

**Objective 1:** Increase yearly the number of facilities and/or environments that promote healthy eating and physical activity.

### **Potential Outcomes:**

- support for farmer's markets, community gardens, food banks
- availability of storage and preparation equipment for healthy foods
- space to enjoy healthy eating, including breastfeeding facilities
- public transportation to farmers markets, community gardens, supermarkets



**Objective 2:** Increase yearly the number of policies, practices, and incentives that promote healthy eating and physical activity.

### **Potential Outcomes:**

- availability of healthy food choices in vending machines, snack bars, cafeterias, community organization meetings and events
- competitive pricing for healthy foods and beverages
- reimbursement for medical nutrition therapy
- repeal of food tax or re-instatement of soft drink tax

Focusing on policy and environmental changes acknowledges that collectively individuals can reduce or

eliminate the barriers to eating healthy. This document, along with its companion, the North Carolina Blueprint For Changing Policies And Environments In Support Of Increased Physical Activity, provide strategies and activities to aid local organizations in enhancing public awareness of the importance of healthy eating and physical activity and implementing policy and environmental change interventions that support these behaviors.





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# **Defining the Burden**

At least 10,000 lives or 14 percent of all preventable deaths, in North Carolina were attributed to dietary choices and physical inactivity in 2000 (Figure 3). Dietary patterns impact lifestyle diseases such as cardiovascular disease, cancer, and diabetes. Most North Carolinians are not aware of the array of concerns associated with lifestyle and diet. These personal and financial costs due to the overabundance of food and certain nutrients (e.g., sodium, fat) as well as the lack of some foods (e.g., fruits and vegetables) and certain nutrients (e.g., calcium) in the diet are not inevitable. A growing body of research suggests that healthy eating and regular physical activity can reduce costly chronic health conditions.

Clarification of healthy eating

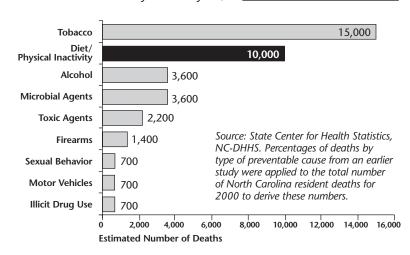
n order to describe the burden of unhealthy food choices, it is important to define "healthy eating." In everyday speech, terms such as "healthy eating" and "healthful eating" are replacing terms such as "balanced diet" and "eating right." Both consumers and professionals would benefit from a clarification of healthy eating. Generally, consumers are confused by dietary

recommendations (Geiger, 2001). At least half (55 percent) of Americans feel there is so much information that it's impossible to know how to eat healthy (Princeton Survey Research Associates, 1999). North Carolinians typically do not receive clarifying information from their health care professional. Only 35 percent of North Carolina adults reported that their health care provider counseled them about eating more fruits and vegetables within the past year. Additionally, only 30 percent received counseling regarding

"Many current diseases in North Carolina are preventable simply by 'eating smart' and 'moving more.' These healthy behaviors can enhance quality of life and reduce the economic burden on the individual, the community, and the state."

Leah Devlin, DDS, MPH Acting North Carolina State Health Director, 2002

Figure 3. Preventable Causes of Death in North Carolina. 2000





eating fewer high fat or high cholesterol foods. Among overweight adults, 41 percent had received counseling from their doctor about eating more fruits and vegetables, while only 38 percent reported receiving counseling about consuming fewer high fat and high cholesterol foods (BRFSS, 2001). Indeed, physicians feel ill prepared to counsel their patients (Kolasa, 2001). Only minimal nutrition education is required to graduate from any of the medical schools in North Carolina.

### **HEALTHY FOODS**

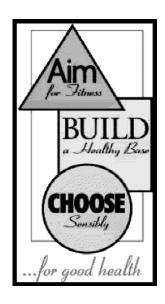
Although all foods can be part of a healthy diet, consumers and professionals seek to describe foods that are "healthy" when shaping policies and environments supportive of healthy eating. The following examples of state and national programs, which provide guidelines for defining "healthy foods," emphasize the complexity of this issue:

- The North Carolina Winner's Circle Healthy Dining Program allows recognition of menu items that do not exceed specific levels for fat and sodium and also includes one serving each of grains, fruits, vegetables, or dairy products.
- The National Institutes of Health will only include recipes in its publications that, per serving, have: 1) less than 12 gm of fat, 2) no more than 4 gm of saturated fat, c) less than 100 mg of cholesterol, and d) less than 600 mg of sodium
- The Food and Drug Administration has approved health claims for 15 nutrients. These claims can be placed on food products as long as each meets very specific criteria for the specific nutrient, and includes a minimum of certain other nutrients and no excess of fat, saturated fat, cholesterol, or sodium.

Because there is no universal agreement on the criteria for a "healthy food or beverage", examples of criteria and policies currently used may help guide local policymaking. These can be found in Appendix III.

# **DIETARY GUIDELINES FOR HEALTHY AMERICANS**

Every five years, a committee of experts reviews studies that describe the impact of eating patterns on health promotion and disease prevention for generally healthy adults and children over the age of 2 years. The *Dietary Guidelines for Americans* are developed and issued based on their recommendations. The *Guidelines* focus on ensuring adequate intake of nutrients such as carbohydrates and fiber, while moderating others such as dietary fat and sodium, that are linked to the development of chronic diseases. The current guidelines have 10 recommendations grouped into three categories: "Aim for Fitness," "Build A Healthy Base," and "Choose Sensibly." (Table 1) These guidelines can be used to describe healthy eating for generally healthy adults and children over the age of 2 years. They allow all foods in a healthy diet, as long as calories, fat, cholesterol, sugars, salt, and alcohol are not in excess (USDA-US DHHS, 2000).



**Table 1. Dietary Guidelines for Americans, 2000** 

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

The Nutrition Committee of the American Academy of Pediatrics is the recognized source of dietary guidelines for infants and suggests that breastfeeding is the preferred method of feeding through the first year of life. If formula is chosen, it should be iron-fortified. Solid foods should be

introduced no sooner than four to six months (American Academy of Pediatrics, 2001). The Centers for Disease Control and Prevention describes health promoting growth patterns for youth (http://www.cdc.gov). The USDA (1999) provides a Food Guide Pyramid, modified for servings, for children 2-6 years old.

# DIETARY GUIDELINES FOR PEOPLE WITH CHRONIC CONDITIONS

Dietary choices can impact individuals who have chronic diseases, such as heart disease, cancer, diabetes, or obesity. The association of nutrition with these diseases occurs principally through the role of diet in several primary and secondary risk factors. The consequences of these risk factors are reflected in high disease rates, premature death, disability, reduced productivity, and increased use of medical care.

It is difficult to identify the exact effect of individual food choices on health. The case of diet and hypertension serves as an example of the complexity of relationships among nutrients and health. Scientists have known for many years that consumption of nutrients such as calcium, potassium, sodium, protein, and magnesium each affect blood pressure. However, it was not until the Dietary Approaches to Stop Hypertension (DASH) clinical feeding trial conducted in the 1990's, that it became clear that dietary patterns, rather than individual nutrients, could impact health. Scientists can now describe the dramatic impact of diet on

# **Evolution of Dietary Recommendations**

**Late 1800's:** USDA provides dietary guidance to Americans.

**1914:** Cooperative Extension Service provides food and nutrition education programs.

**1943:** National Academy of Sciences (NAS) reports on the nutrients deficiency diseases.

Late 1970's: Shift toward reducing risks for chronic disease. Senate Select Committee on Nutrition and Human Needs issued the "Dietary Goals for the United States."

1980's to

**present:** USDA and US DHHS issue Dietary Guidelines every five years.

One of the most-cited statistics in public health is the imbalance of social investments in medical care compared with prevention activities. **Approximately 95** percent of the trillion dollars we spend as a nation on health goes to direct medical care services, while just 5 percent is allocated to population-wide approaches to health improvement. However, some 40 percent of deaths are caused by behavior patterns that could be modified by preventive interventions. Social circumstances and environmental exposure also contribute to preventable illness."

McGinnis et al. The Case for More Active Policy Attention to Health Promotion, blood pressure and blood cholesterol, because the DASH study assessed the combined consumption of all nutrients known to have an effect on blood pressure. Therefore, individuals with mildly elevated blood pressure would follow the DASH Diet researched by the National High Blood Pressure Education Program (http://www.nhlbi.nih.gov/hbp/prevent/h\_eating/h\_eating.htm) to lower blood pressure.

Other evidence based dietary recommendation for persons with chronic conditions are as follows:

- Adults and children over the age of 2 years with heart disease would follow the Therapeutic Lifestyle Change Diet developed by the National Cholesterol Education Program (http://www.nhlbi.nih.gov/guidelines/cholesterol/atp\_iii.htm).
- Individuals in need of weight reduction would follow a diet consistent with the guidelines developed by the National Heart Lung Blood Institute (NHLBI) Task Force (http://www.nhlbi.nih.gov/guidelines/obesity/ob\_home.htm).
- Individuals with diabetes mellitus would follow a diet consistent with guidelines presented jointly by the National Institutes of Health and the American Diabetes Association (http://care.diabetesjournals.org).
- Additional medical nutrition therapy protocols promoted by the American Dietetic Association that define healthy eating for people with chronic diseases can be found at http://www.eatright.org.

It is critical that the environment provides opportunities for North Carolinians with heart disease, cancer, diabetes, high blood pressure, and other chronic diseases to choose foods and beverages that will allow them to manage their health conditions. Knowing which foods support their health will allow these individuals to advocate for them in places where they live and work (e.g., access to fruits and vegetables).

# The profile of North Carolinians' food choices

In order to prevent deaths, disabilities, and financial costs attributed to inappropriate dietary choices, it is important to understand the extent to which the people in North Carolina do not meet dietary recommendations. The Youth Risk Behavior Surveillance System (YRBSS) and the Behavioral Risk Factor Surveillance System (BRFSS) are two data sources on dietary habits of youth and adults in both North Carolina and the United States. The YRBSS uses the consumption of milk products as an indicator of bone health as well as fruit and vegetable consumption as an indicator of dietary quality for youth. The BRFSS uses the consumption of fruits and vegetables as an indicator of dietary quality for adults.

### YOUTH

# Fruit and vegetable consumption

Dietary patterns with higher intakes of fruits and vegetables are associated with a variety of health benefits, including a decreased risk for some types of cancer (CDC YRBSS, 2001). High school students are not eating enough fruits and vegetables for their health. **Figure 4** shows that North Carolina youth are below the national average in consumption of five or more servings of fruits and vegetables daily (NC YRBSS, 2001). This is the case for both boys and girls, younger and older students, and students of all racial and ethnic groups. However, **Figure 5** does demonstrate that males (19.2 percent) are more likely than females (16.3 percent) to consume five or more servings of fruits and vegetables a day (NC YRBSS, 2001).

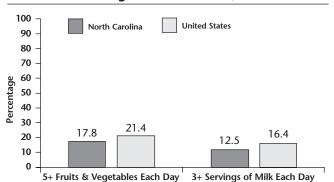
# Milk consumption

High school students, particularly girls, are not drinking enough milk. Milk is by far the largest single source of calcium for adolescents. Calcium is essential for the formation and maintenance of bones and teeth, and low calcium intake during the first two to three decades of life is an important risk factor in the development of osteoporosis (CDC YRBSS, 2001). North Carolina youth are below the national average in milk consumption (Figure 4). Gender has an impact on dietary patterns among youth as demonstrated in Figure 5. High school males are more likely to consume three or more servings of milk. Only 7 percent of high school females reported consuming three or more servings of milk each day (NC YRBSS, 2001).

# **ADULTS**

The American Dietetic Association tracks nutrition trends through a nationwide public opinion survey. The 2002 survey results indicated that about one third of Americans (38 percent) have made significant adjustments in their eating behavior to improve their health during the past two years. Approximately 30 percent of respondents said they felt that they know what healthful eating behaviors are and that they should eat a healthful diet, but have not done so. Finally, about 32 percent of respondents said they are not concerned about eating healthy, whether or not they feel informed about healthful eating

Figure 4. Healthy Eating Patterns Among North Carolina and US High School Students, 2001

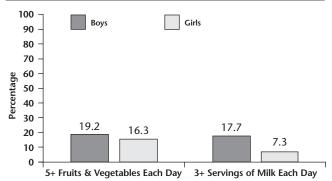


Data Source: North Carolina Youth Risk Behavior Surveillance System, North Carolina Department of Public Instruction, 2001.

"Overeating causes its own set of health problems; it deranges metabolism, make people overweight, and increases the likelihood of 'chronic' diseases—coronary heart disease, certain cancers, diabetes, hypertension, stroke, and others—that now are leading causes of illness and death in any overfed population."

Marion Nestle, Food Politics: How the Food Industry Influences Nutrition & Health, 2002

Figure 5. Healthy Eating Patterns Among North Carolina High School Students by Gender, 2001



Data Source: North Carolina Youth Risk Behavior Surveillance System, North Carolina Department of Public Instruction, 2001.



(American Dietetic Association, 2002). The BRFSS uses fruit and vegetable consumption as its primary indicator of the quality of dietary intake for adults.

# Fruit and vegetable consumption

North Carolina adults and those across the nation are not eating the recommended minimum number (five or more) of fruits and vegetables a day for better health. According to the 2000 NC BRFSS, only 22 percent of North Carolina adults eat five or more servings per day, and approximately 36 percent consume two servings or less each day (Figure 6). Nationally, only 23 percent of adults consume five or more servings daily (CDC BRFSS, 2000).

Figure 6. Fruit and Vegetable Consumption among North Carolina Adults, 2000

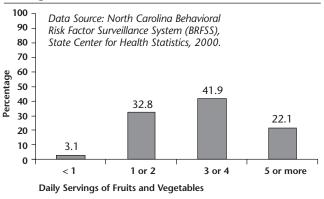


Figure 7. Eating 5+ Fruits & Veggies a Day among North Carolina Adults by Gender, 2000

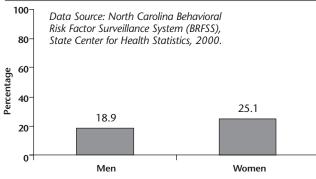
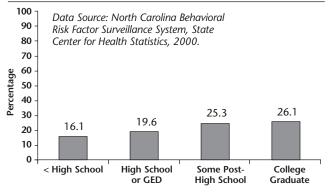


Figure 8. Daily Fruit and Vegetable Consumption by Education Level, North Carolina Adults, 2000



North Carolina BRFSS (2000) data indicated that males (19 percent) are less likely to consume five or more servings than females (25 percent) (Figure 7). Education level also has an impact on fruit and vegetable consumption (Figure 8). The percentage of adults consuming five or more servings daily increases with education level (NC BRFSS, 2000).

# **Eating out**

As foods eaten away from home comprise an increasingly significant portion of total caloric intake, the nutritional quality of those meals becomes more of a concern. Generally, the foods from away-from-home sources are higher in calories and fat compared with athome foods, in part because of larger portion size. According to the 6-County Survey conducted by the North Carolina Cardiovascular Health (CVH) Program (1999), approximately 78 percent of adults eat out at least once a week, and 70 percent of those surveyed said they would like more low-fat options when eating out. In view of the increase in consumer spending on meals consumed away from home, the North Carolina CVH Program initiated a survey to assess restaurants' support for heart health. According to the Heart Health Restaurant Survey, only 26 percent of restaurants used any type of labeling for healthy menu items in 1999-2000 (North Carolina CVH Program, 2000).

Using BRFSS and other data sources, North Carolina Prevention Partners graded 10 nutrition behaviors and strategies. The grading scales were developed using standard educational grading tools, and the grade of "D" or "F" was assigned to most behaviors (Figure 9).

### Figure 9. North Carolina Prevention Partners Nutrition Report Card

Data for the measures in the Year 2000 Prevention Report Card were gathered by the North Carolina Prevention Partners Report Card Working Group, involving epidemiologists, evaluators, and program staff of agencies working in various health sectors. The working group obtained the adult and youth behavioral data from the Centers for Disease Control and Prevention, in partnership with the Division of Public Health, NC DHHS, and the Department of Public Instruction. National and state data were also obtained by program staff using internal data sources, State Center for Health Statistics information and/or contacting national program offices.

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tables	F
Adults who eat 5 A Day fruits and/or vegetables	F
Adults who are overweight	F
Seniors who eat 5 A Day	F
Seniors who are overweight	F
Women taking folic acid prior to pregnancy (400 ug)	D
Restaurant labeling certain menu items as healthy	
Overweight adults counseled by provider about diet or nutrition	F
Private health plans offering nutrition benefit, rider, or program	D
Private health plans offering nutrition benefit, rider or program  Public health plans offering nutrition benefit, rider or program	Α
Public health plans offering fluctuon server, programs/nutrition centers	D
Hospitals offering weight control programs/nutrition centers	

# The human and financial costs of North Carolinians' food choices

piet and inactivity have been estimated to claim 10,000 lives or 14 percent of all preventable deaths in North Carolina in 2000 (NC-DHHS, 2000). As unhealthy diets and inadequate physical activity are major contributors of chronic disease (and death associated with them), the human and financial costs are reflected in the prevalence of these conditions and associated medical costs. It was not until the mid-1990's that economists were able to estimate the cost of inappropriate diet as related to cardiovascular disease, cancer, stroke, diabetes mellitus, hypertension, osteoporosis and neural tube defect (Table 2). In North Carolina, the annual cost of poor nutrition was estimated to be over 1.8 billion by North Carolina Prevention Partners. The preceding figures and those that follow are conservative and as more national attention is given to this area, better estimates of the true cost of dietary choices and physical activity will strengthen the case for prevention and control of chronic diseases.

"This is not about aesthetics and it's not about appearances.
We're talking about health."

David Satcher, M.D. Former Surgeon General, 2000

Table 2. Costs associated with major diet-related conditions add up (millions)

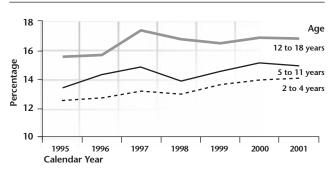
Diet-related health condition	Annual cost	Medical cost	Lost output
Coronary heart disease	\$56,300	\$48,300	\$8,000
Cancer	\$104,000	\$35,000	\$69,000
Stroke	\$19,700	\$16,900	\$2,800
Diabetes	\$40,000	na	na
Hypertension	\$17,400	\$14,900	\$2,500
Osteoporosis	\$10,000	na	na
Neural tube defect	\$900	na	na
from Frazao E. Food Review. 1996;19(1):2,5.			

# YOUTH Overweight

There has not been a systematic collection of height and weight data for a representative sample of youth in North Carolina. Therefore, data describing trends in overweight in children are limited in scope and generally come from reports of children who have received care in public health clinics. **Figures 10** and **11** show the trends in childhood overweight from 1995-2001 for children who have attended a North Carolina public health sponsored clinic. The North Carolina Nutrition and Physical Activity Surveillance System (NC-NPASS) also reports these figures as the best available statewide estimates. Between 1995 and 2001, the prevalence of overweight has increased dramatically among all age groups. The rates of overweight are now 12 percent, 20 percent, and 26 percent respectively for children ages 2-4 years, 5-11 years, and 12-18 years (NC NPASS, 2001).

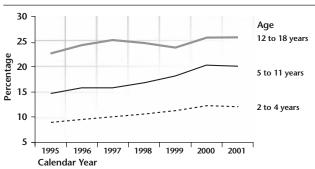
Wang and Dietz (2002) demonstrated a threefold increase in the economic burden of obesity in youths aged 6-17 years between 1979-1999. This increase included annual hospital costs associated with obesity-related discharges.

Figure 10. Prevalence of At-Risk for Overweight (BMI≥85th and <95th Percentile) in Children by Age Group, NC-NPASS,\* 1995 to 2001



\* North Carolina-Nutrition and Physical Activity Surveillance System (NC-NPASS) includes data on children seen in North Carolina Public Health Sponsored WIC and Child Health Clinics and some School Based Health Centers. Percentiles were based on the CDC/NCHS Year 2000 Body Mass Index (BMI) Reference.

Figure 11. Prevalence of Overweight (BMI≥95th Percentile) in Children by Age Group, NC-NPASS,\* 1995 to 2001



\* North Carolina-Nutrition and Physical Activity Surveillance System (NC-NPASS) includes data on children seen in North Carolina Public Health Sponsored WIC and Child Health Clinics and some School Based Health Centers. Percentiles were based on the CDC/NCHS Year 2000 Body Mass Index (BMI) Reference.

Obesity-associated annual hospital costs increased from \$35 million during 1979-1981 to \$127 million during 1997-1999 (Wang & Dietz, 2002). It is difficult to forecast the effect of this increase in childhood obesity on morbidity and mortality since this level of obesity has never before been experienced. However, it is expected to have an significant impact on the incidence of cardiovascular disease, cancer, Type 2 diabetes mellitus, osteoarthritis, work disability and sleep apnea.

### **ADULTS**

# Overweight & Obesity

Obesity and overweight are major contributors to many preventable causes of death and also raise the risk of developing high blood pressure, high cholesterol, cancer, diabetes, heart disease, stroke, and other illnesses. Figure 13 shows the trend from 1990 to 2000 in the percentage of North Carolina adults who are overweight or obese. Since 1990, the percentage of adults who are overweight has increased slightly, from 33 percent to 37 percent in 2000. During the same time, the prevalence of obesity has nearly doubled 13 percent to 22 percent.

Combined, this means that the majority of North Carolina adults, 59 percent, are now either overweight or obese. Figures 14 and 15 depict the national obesity epidemic. Economists are able to place an economic value on obesity-related health problems. In 1996, former U.S. Surgeon General C. Everett Koop estimated the costs to be \$40 billion in health care. In 2001, former U.S. Surgeon General David Satcher suggested they were \$117 billion (\$61 billion direct and \$56 billion indirect).

"The majority of North Carolina adults (59 percent) are either overweight or obese."

> North Carolina Behavioral Risk Factor Surveillance System, 2000

Figure 13. Percentage of North Carolina Adults Who Are Overweight or Obese, 1990-2000

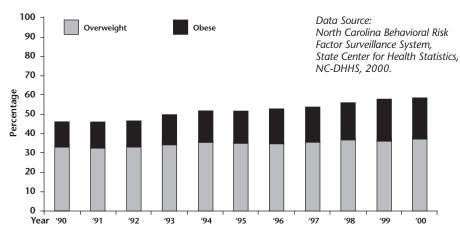


Figure 14.
Obesity\* Prevalence Among U.S. Adults, 1990

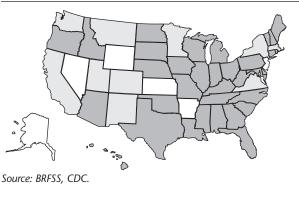
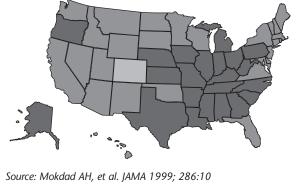


Figure 15.

Obesity\* Prevalence Among U.S. Adults, 2000



\*BMI≥30.0 or ~ 30 lbs. overweight for 5'4" person

# **CARDIOVASCULAR DISEASE**

Cardiovascular disease (CVD) is the leading cause of death in North Carolina. It accounts for nearly 40 percent of all deaths among North Carolinians, more than 26,000 deaths each year. Poor nutrition is a leading contributor to CVD. A diet high in fat and low in fiber contributes to elevated cholesterol, overweight, and diabetes. Dietary fat, excess caloric intake, and dietary cholesterol encourage the progression of atherosclerosis leading to CVD. Decreasing these risk factors is best accomplished by increasing grains and legumes, increasing fruit and vegetable intake, and increasing low-fat calcium sources in the diet. Additionally, increasing fruit and vegetable intake provides antioxidants and leaves less room in the diet for high fat foods.

### **CANCER**

Cancer is the second leading cause of death in North Carolina and is responsible for 23 percent of the state's deaths. It has been estimated that eating a proper diet, staying physically active, and maintaining a healthy weight can cut cancer risk by 30 to 40 percent. Some authorities believe that dietary choices coupled with not smoking can potentially reduce cancer risk by 60 percent to 70 percent. In the United States, as many as 375,000 cases of cancer, at current cancer rates, could be prevented each year through healthy dietary choices. A change such as eating the recommended five servings of fruits and vegetables each day could by itself reduce cancer rates more than 20 percent (American Academy of Family Physicians; American Institute for Cancer Research, 2002).

# **DIABETES**

Diabetes is a contributing factor to heart disease, blindness, hypertension, stroke, and kidney failure and its prevalence increases with age. **Figure 12** shows the trend from 1995 to 2000 in the percentage of North Carolina adults who have been diagnosed with diabetes. Since 1995, the percentage of adults who have diabetes has increased 42 percent (from 4.5 percent to 6.4 percent). Of the estimated 580,000 North Carolina adults who have this disease, approximately one third do not know it. Prevalence rates are 1.5 times higher

percent) than Whites (5.9 percent), and Native Americans have the highest rates (10.2 percent). The National Diabetes Prevention Program found that a healthy diet and physical activity are effective in preventing the onset of the disease (American Diabetes Association, 2002).

among African Americans (9.0

Data Source: North Carolina Behavioral Risk Factor Surveillance System, State Center for Health Statistics, NC-DHHS, 2000.

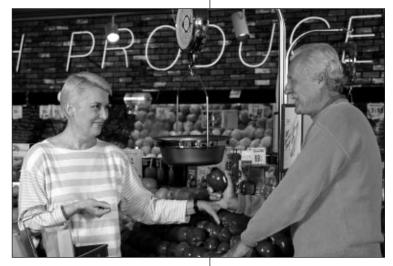
Figure 12. Prevalence of Diagnosed Diabetes Among North Carolina Adults, 1995-2000

### **OLDER ADULTS AND PEOPLE WITH DISABILITIES**

People 65 years of age and older are one of the fastest growing population groups and carry the greatest proportion of chronic disease burden, disability, and utilization of health care services. The Older Adult Health Committee, Governor's Task Force for Healthy Carolinians, recognized that quality of life

after age 65 can be enhanced if an individual has practiced good nutrition, remained physically active throughout life, avoided tobacco and excessive use of alcohol, maintained good habits that balance work, play and family and is fiscally healthy. The U.S. Senate Committee on Education and Labor estimated that 85 percent of the older population has one or more chronic conditions that have been documented to benefit from nutrition intervention.

Older North Carolinians suffer from both malnutrition and overweight. According to a recent report "Hunger Today in North



Carolina" compiled by researchers at the University of North Carolina at Greensboro, 68 percent of the elderly population in North Carolina are at high risk for poor nutrition. Only 26 percent of food stamp eligible older adults in North Carolina participate in the Food Stamp Program (North Carolina Department of Social Services, 2001). An evaluation of the home-delivered meals (Meals on Wheels) program administered by the North Carolina Division of Aging indicated that 89 percent of participants are at a moderate to high nutritional risk for malnutrition (North Carolina Division of Aging, 2001). A study by the North Carolina Cooperative Extension Service found that, among senior nutrition program participants, those who reported themselves in poor health were much more likely to be at high nutritional risk (NCSU—Partners in Wellness Project, 1998). According to the 2000 BRFSS, 56 percent of North Carolina adults 65 or older are overweight or obese, which is slightly below the national average of 59 percent. Although North Carolina adults age 65 or older consume more fruits and vegetables than other age groups, they still do not meet the recommended intake of 5 or more servings a day.

Nationwide, in 1993 it was estimated that one in four elderly suffered from malnutrition (AAFP, 2002). Malnourished Americans have greater health risks including more infections, longer healing time of injuries, higher risk of complications during surgery, and longer, more expensive hospital visits. Many suffer from nutrition related conditions including hypertension, cardiovascular disease, osteoporosis, and cancer. Older adults who modify their eating habits can experience reduced morbidity.

According to the 2000 NC BRFSS, 25 percent of North Carolina adults, more than 1.4 million people, are living with some type of disability. This is possibly an underestimate due to the sampling methods used by the BRFSS, which does not include people living in institutional settings or people with hearing

impairments who rely on text telephones, often called Telecommunications Device for the Deaf (TTY/TDD). Furthermore, the data also excludes people who are unable to complete the phone interview. Persons of all ages with disabilities may have difficulty obtaining and preparing healthy foods. For example, individuals with moderate to severe forms of arthritis may have problems opening jars or cans of food or chopping fruits and vegetables, thus making it harder to eat in general, and enjoy health promoting foods. Many persons with disabilities also have conditions that warrant medical nutrition therapy. For example, a stroke patient, in addition to having limited mobility, may also need to follow a prescribed heart healthy diet. Together, disabling conditions and prescribed diets to improve or maintain health are challenging for individuals of all ages.

A number of researchers are estimating the costs of chronic disease burden, disability, and utilization of health care services for older Americans. Osteoporosis, which is associated with poor calcium intake as well as inactivity, has resulted in hip fractures costing between \$13-18 billion each year (Barefield, 1996). Estimated cost savings are also being researched. For every dollar spent on nutrition screening and intervention, an estimated \$3.25 is saved (AAFP, 2002). The economic costs associated with an aging population coupled with disabling conditions will be enormous.

# **RACIAL AND ETHNIC GROUPS**

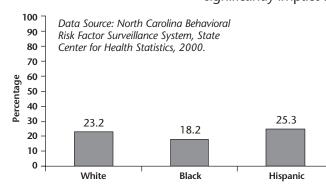
According to NC BRFSS data (2000), African Americans (18 percent) are less likely than Whites (23 percent) or Hispanics (25 percent) to meet the recommended intake of fruits and vegetables (Figure 16). These health disparities exist across many of the chronic diseases. Some racial and ethnic populations are more likely to have preventable chronic diseases related to unhealthy dietary habits. Interventions that improve dietary habits can significantly impact their health, quality of life, and health care costs. Programs

have been designed to address the specific cultural and health behavioral issues of African American and Mexican American populations, but very few interventions have explored the specific cultural needs of other groups such as Latinos, Asians, and American Indians (Taylor, Baranowski, & Young, 1998).

There has been great progress in North Carolina in reducing deaths from conditions such as cardiovascular disease and cancer, which are impacted by dietary choices. However, the declines have not been the same

for persons in all regions, gender and race. In fact, while gender differences are declining, those related to race are increasing (Mansfield, et al, 2001). In North Carolina, coronary heart disease death rates are currently higher for men than women, and are higher for African-American men and women that their white counterparts. In 1997, coronary heart disease death rates among African-American men were 8 percent higher than those among white men; coronary heart disease death rates among African-American women were 25 percent higher than those among white women (Cardiovascular Health Data Unit).

Figure 16. Eating 5+ Fruits & Veggies a Day among North Carolina Adults by Race/Ethnic Group, 2000



# **Other Nutrition-Related Issues**

### **FOOD SECURITY**

Food insecurity is the limited or uncertain availability of nutritionally adequate or safe foods. While food is now abundant in the United States and North Carolina, it is estimated that 12 percent of households are still food insecure at times. The North Carolina Hunger Network estimates more than 664,000 households are food insecure. While there are households in North Carolina without adequate foods, it is estimated that more than 6,908,398 pounds of produce is left un-harvested in the fields of North Carolina. (North Carolina Hunger Network, 2001).

Food insecurity represents its own burden including the paradoxical situation of obese individuals living in many of these households. Food choices or physiologic adaptations in response to episodic food shortages can cause increased body fat (Townsend, 2001).

The first and only statewide nutrition survey was conducted in 1970: 27 percent households had diets rated as optimum, 46 percent adequate, and 27 percent inadequate (North Carolina State Board of Health, 1971). About seven percent of households met less than 50 percent of their calorie needs. There are no data to estimate the percentages of North Carolinians currently consuming an adequate diet.

### FOOD BORNE ILLNESS

Food borne illness imposes a burden on public health. As outlined in the *Dietary Guidelines for Americans*, a healthy diet is a diet that poses little risk of food borne illness. This is especially true for pregnant women, infants and young children, older persons and people with weakened immune systems or certain chronic disease. Food borne illness contributes significantly to the cost of health care. The human illness costs due to major food borne pathogens in the United States in 1995 were 3.3-12.3 million cases of illness and up to 3900 deaths. Estimates of the financial costs of these illnesses were \$6.5-\$34.9 billion (1995 US\$) annually. Recent reports suggest that the incidence of food borne infection have dropped as a result of increased vigilance, however the total incidence of food borne disease remains high (MMWR, 2002).

# PRENATAL, INFANT, AND PEDIATRIC NUTRITION SURVEILLANCE

Many dietary factors are important to the health of the pregnant woman and her offspring. Some of these include prepregnancy folate intake and weight, hematocrit, weight gain during pregnancy, and consumption of nutritious foods. Approximately 42 percent of North Carolina women age 18-44 take folic acid daily (NC BRFSS 2000). Several national and state data sources are available to monitor the health status of pregnant women, infants, and children. The North Carolina Pregnancy Nutrition Surveillance System (NC-PNSS) provides data on maternal nutrition, access to health care, pregnancy history, and pregnancy outcome for women participating in the North

"Without access to supermarkets, which offer a wide variety of foods at lower prices, poor and minority communities may not have equal access to the variety of healthy food choices available to nonminority and wealthy communities."

Morland, et al, American Journal of Preventive Medicine, 2002 "In North Carolina, it was found that for each \$1.00 spent on WIC services, Medicaid savings in costs for newborn medical care were \$2.91. These positive findings were reconfirmed in 1997."

Buescher, et al, 1993 & 1997 Carolina health-department sponsored clinics. The North Carolina PNSS is administered through the Nutrition Services Branch within the Women's and Children's Health Section, North Carolina Division of Public Health. Through annual reports, NC-PNSS data are made available for use by public health professionals and other groups interested in evaluating the health status of pregnant women, targeting high-risk groups, and planning interventions—both community and statewide. For a detailed overview, please go to http://www.nutritionnc.com/nutrsurv.htm

North Carolina has been participating in the Centers for Disease Control and Prevention Pediatric Nutrition Surveillance System (PedNSS) since 1987 and currently collects information from the WIC Program, Public Health Well-Child Clinics, select School Based/School Linked Health Centers and select Children's Special Health Services Clinics. Records from these data sources are matched and compiled into a pediatric nutrition surveillance system, which is then analyzed on an annual basis. The North Carolina PedNSS is administered through the Nutrition Services Branch within the Women's and Children's Health Section, North Carolina Division of Public Health. Pediatric Nutrition Surveillance System continuously monitors the pediatric population from birth to 18 years of age. It focuses on the incidence of overweight (high weight-forlength/height), thinness (low weight-for-length/height), stunting (low length/height-for-age), iron deficiency anemia (low hematocrit; or low hemoglobin), low birthweight (less than 2500 grams), and breastfeeding. Enhancements to this system in the coming year will further the state's ability to monitor relevant nutrition and physical activity behaviors in this population. The data obtained through the enhanced surveillance and monitoring are called the North Carolina Nutrition and Physical Activity Surveillance System (NC NPASS). The data from NC NPASS will be used in a variety of ways to inform decision-makers and the public about issues related to pediatric overweight.

The costs and benefits of prenatal nutrition and infant feeding are numerous. For further information about the costs and benefits of Nutrition Service and Education programs (including prenatal and infant nutrition) refer to Appendix IV.

Understanding the impact of less healthful eating behaviors validates the need for effective policy and environmental change interventions addressing the epidemic of chronic diseases.

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# Improving the Health of Our Communities

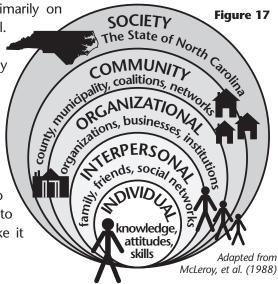
# A multi-level approach to change

any factors affect individuals' decisions and abilities to practice positive behaviors or to make needed lifestyle changes (such as eating an additional fruit or vegetable daily or following the DASH diet). These factors include the physical and social environments of their communities and organizations, the policies, practices, and norms within their social and work settings, and their access to information. The **Eat Smart, Move More...North Carolina** initiative bases its approach to health promotion on a multi-level model, also called a socio-ecological model. This framework for implementing health promotion programs acknowledges the various factors that influence an individual's ability and opportunity to change (**Figure 17**). It emphasizes that everyone lives within physical environments and social systems, sometimes called "social ecology", that influence individual health. Lasting changes in health behaviors require physical environments and social systems that support positive lifestyle habits (McLeroy, 1988).

Multi-Level Model:

An adapted version of the Socio-Ecological Model, that portrays the multiple factors that influence (either positively or negatively) the health behavior of an individual. The levels of influence are: individual, interpersonal, organizational, community, and society.

Traditionally, health behavior interventions have focused primarily on individual and interpersonal levels of the multi-level model. These interventions, including education, counseling, screenings, and displays at health fairs, have been moderately successful in educating individuals about the benefits of healthy lifestyles. However, successful behavior change is difficult to achieve and sustain without changes in the surrounding organizational, community, social, and physical environments. Interventions implemented at the upper three levels of the model depicted in **Figure 17** help to support those at the individual and interpersonal levels. According to the US DHHS (1999), "environmental interventions contribute to behavior change by... implementing measures that will make it



easier for people to engage in the desirable behaviors...while making it more difficult to engage in competing and less desirable behaviors." Confidence in adopting and maintaining a behavior may be strengthened when the environment supports the new behavior. Policies can assist in behavior change by stimulating changes in the physical environment that make healthy eating easier in addition to altering behavioral norms.

People who do not have opportunities to obtain healthy foods in their school, work, or community environments often are unable to act on the information provided through traditional nutrition education programs. In order for people to effectively use and act on information about healthy eating, their environments must be supportive. For example, parents may understand the benefits of a healthy school lunch and encourage their children to select the USDA approved meal. However, children may purchase less nutritious a la carte snack items and beverages, which are often high in fat and calories, sold in competition to school lunch. Those snacks and beverages are usually heavily advertised to children on

"Although ultimately it is individuals who must change their behavior, many barriers to that change exist in their environments. When we remove those barriers, either by providing circumstances in which good nutrition or physical activity choices are easier to make or by offering incentives for such choices, we support people's personal efforts to change."

Nutrition and Physical Activity Workgroup (NUPAWG), 2002 Centers for Disease Control and Prevention, Division of Nutrition and Physical Activity television. Additionally, school food service managers may be discouraged from serving additional fruits and vegetables at lunch in order to serve higher profit items that children tend to prefer.

Another example may include a person with diabetes committed to following a healthy diet but has limited access to healthy foods at faith organization or community functions or even in health care facilities where vending and fast food are the available choices. Individuals who are at risk for foodborne illnesses use safe food handling procedures at home but have little control over the practices of restaurant workers. The environment may not support working women who choose to breastfeed their babies because

their worksites do not provide clean, comfortable, and convenient facilities for pumping breast milk. In order for people to effectively use and act on information about healthy eating, their environments must be supportive. The use of mass media and tools such as media advocacy and social marketing not only effectively convey healthy eating messages, but they also help to frame issues and focus on policy and environmental change.

The North Carolina Blueprint For Changing Policies And Environments In Support Of Healthy Eating is designed to facilitate environmental and policy change by focusing primarily on the upper three levels of the multi-level approach: the organizational, community, and societal levels as depicted in **Table 4**. Enhanced public awareness of the need for such changes is essential to gaining community support for these efforts. Sample interventions are provided for each level. Appendix VI contains sample action plans for specific projects.

### **LEVEL**

### **APPLICATION**

# Policy & Environmental Strategies (systems-level Change)

### Society



Developing and enforcing state policies and laws that can increase beneficial health behaviors. Developing media campaigns that promote public awareness of the health need and advocacy for change.

**Examples:** Partnering with North Carolina Department of Agriculture to increase facilities (Farmer's Market's programs) for increasing the availability of fruits and vegetables; improving the quality of all foods and beverages sold in North Carolina schools; increasing incentives for the planning and development of healthier menus in communities; developing statewide media campaigns promoting the need for environments that encourage healthy food choices.

# Community



Coordinating the efforts of all members of a community (organizations, community leaders, and citizens) to bring about change. Developing and enforcing local policies and ordinances that support beneficial health behaviors.

**Examples:** Collaboration among community leaders to influence social norms and policies about nutrition; forming a community coalition to assess availability of high quality, nutritious foods in neighborhoods and local food establishments; Local Physical Activity and Nutrition Coalitions (LPANs) develop educational presentations for other groups; developing a media advocacy strategy promoting the need for environments that support healthy eating.

# **Organizational**



Changing the policies, practices, and physical environment of an organization (e.g., a workplace, a health care setting, a school/child care, a faith organization, or another type of community organization) to support behavior change.

**Examples:** Setting a policy about healthy foods to be included in all menus planned for events; sponsoring school, faith organization, and worksite nutrition events; including healthy eating messages in newsletters and websites.

# Individual/Interpersonal Strategies

# Interpersonal



Recognizing that groups provide social identity and support, interpersonal interventions target groups, such as family members or peers.

**Examples:** Written information given to parents; training lay health advisors; developing buddy systems and support groups like weight management clubs.

### Individual



Motivating change in individual behavior by increasing knowledge, or influencing attitudes or challenging beliefs.

**Examples:** Offering cooking classes; developing booths and displays for county fairs; offering one-on-one counseling; targeting behavior change through media campaigns (posters, billboards, newspaper stories, and radio/television/newspaper advertisements).

Coalition: An alliance of organizations to achieve a common purpose or joint action. The underlying concept behind coalitions is collaboration and resource sharing.

# **Intervention settings**

Settings, also referred to as channels, are the sites where interventions occur. They include worksites, faith organizations, health care settings, schools/childcare, community groups, and the physical environment of local communities. Individuals can be impacted in multiple intervention settings. Therefore, achieving the **Eat Smart**, **Move More...North Carolina** goals and objectives requires intervening concurrently in several settings. This necessitates a comprehensive approach to addressing the policies and environments of organizations and communities that affect individuals' health behaviors.

# **Building a foundation for healthier communities**

**S**ix critical factors in implementing policy and environmental change interventions have been identified though a nationwide assessment. They include (1) meaningful collaborations, (2) community support, (3) support of decision makers, (4) science-base support of the intervention, (5) adequate

funding and resources, and (6) skilled staff (Association of State and Territorial Directors of Health Promotion and Public Health Education, Centers for Disease Control and Prevention, 2001).

First, implementing policy and environmental interventions requires meaningful collaborations. A coalition is an effective means of convening individuals and organizations interested in promoting healthy eating. It is an alliance of varied organizations and groups united around salient issues or common interests or problems addressing

their goals through cooperation, advocacy, capacity building, social change, or community action (US DHHS, 1999). By joining together, agencies and organizations can maximize their resources and avoid duplicating efforts. Over half of the 100 counties in North Carolina have formed Local Physical Activity and Nutrition Coalitions (LPANs) to increase opportunities for healthy lifestyles in their communities.

The first step in building a coalition is to identify potential partners. These partners may share a common vision, have previously attempted a similar project, or represent a population that would enhance the coalition. A diverse membership that participates in planning, action, and maintenance is essential, though individuals who participate in the planning process are sometimes different from those who serve well in the implementation phase. The Local Physical Activity and Nutrition Coalition Manual: Guide for Community Action provides further information for member recruitment.

The CDC (1997) has established the following principles in developing partnerships: public health decisions must be based on sound science and

# Policy and environmental change interventions require:

- Meaningful collaborations
- Community support
- Support of decision makers
- Science-based support of the intervention
- Funding and resources
- Skilled staff

public good; benefits to society must be a higher goal than benefits to any partner in the collaboration; the participating agencies must be diligent stewards of public trust and funds; and the agencies and their employees should conduct business according to the ethical standards that govern each respective agency. Whether you are part of a private organization or working with one, these guidelines provide direction for developing and maintaining partnerships.

A coalition takes time to develop and undergoes a general process. Typically, the developmental stages are formation, implementation, maintenance, and achieving goals and objectives (Butterfoss, 1993). The coalition's mission and objectives are established during the formation stage. The goals of the coalition should be defined from the outset, along with the members' roles and responsibilities. Developing an action plan will assist the coalition in designing effective interventions to help reach its goals. These activities are initiated in the implementation stage and expanded during the maintenance stage. Evaluation is critical during the implementation and maintenance stages to determine if the interventions are being implemented as planned. Chapter V provides further detail on action planning and evaluation methods.

In addition to meaningful collaborations, the support of community members and decision-makers is essential to policy and environmental change interventions. Community efforts designed by a diverse group of citizens are likely to be representative of and supported by the community. The support of key decision-makers can be gained by inviting them to participate in the coalition or sharing information about the coalition and its activities.

Accurate data are necessary to guide the development of policy and environmental interventions. Conducting a needs assessment will aid in identifying a community's health needs and determining priorities. Interventions are designed based on this information, and their impact can be

evaluated through further data collection. Sound data help guide the progression of an intervention and provide credibility for the coalition as well as the intervention.

Most communities have resources which can assist the coalition in initiating and sustaining its efforts. Financial resources can be attained through grants, donations, or fundraising efforts. In-kind contributions are equally important and may include administrative resources for the coalition in general as well as project-specific contributions. Examples of administrative resources are meeting space, telephone access, computer and photocopier usage, postage, and administrative assistance. Project-specific

contributions can include donations of goods or services such as food preparation equipment, or the construction of cafeteria salad bars by volunteers. Coalition members, community businesses, or organizations may donate these resources.

"Communities can help when it comes to health promotion and disease prevention.... When school lunchrooms or workplace cafeterias don't offer healthy and appealing food choices, that is a community responsibility. When new or expectant parents are not educated about the benefits of breastfeeding, that's a community responsibility...."

David Satcher, M.D. Former Surgeon General, 2001



'Leading change requires facility in brokering partnerships and blending science and community action. These are skills that must be honed for the promotion of population health and that must be cultivated in our new generation of leaders."

McGinnis et al. The Case for More Active Policy Attention to Health Promotion, 2002



Additional in-kind resources may include the skills and expertise of coalition members. For example, individuals in the health care field may provide medical credibility and information for the coalition and its initiatives. Participation of local media personnel is also valuable to the coalition. They can assist in developing strategies for increasing public awareness about the need for policies and environments that are supportive of healthy eating. They may also provide media coverage for the coalition and its activities. The *Local Physical Activity and Nutrition Coalition Manual: Guide for Community Action* provides further information for planning and implementing Local Physical Activity and Nutrition Coalition (LPAN) interventions.

Finally, skilled staff is necessary for implementing policy and environmental change interventions. This is a new concept for many individuals working in the health field. Capacity building efforts and staff training may be necessary prior to initiating such interventions.

Once a coalition has developed its capacity to implement policy and environmental interventions and identified its specific needs within the local community, it is ready to address the goals and objectives of the **Eat Smart**, **Move More...North Carolina** initiative. These goals and objectives are discussed in detail in Chapter IV.

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# Changing Policies and Environments...

# Increasing Opportunities for Healthy Eating

The North Carolina Blueprint For Changing Policies And Environments In Support Of Healthy Eating and its companion document, the North Carolina Blueprint For Changing Policies And Environments In Support Of Increased Physical Activity were developed to assist local health promotion efforts in increasing opportunities for healthy behaviors. The Blueprints provide the strategies and activities necessary to achieve the **Eat Smart, Move More...North Carolina** goals: (1) increase public awareness of the importance of healthy eating and physical activity and the need for supportive policies and environments; and (2) increase opportunities for healthy eating and physical activity by fostering supportive policies and environments. These goals complement each other and, together with the objectives, provide the framework for implementing policy and environmental change.\*

# GOAL 1: Increase public awareness of the importance of healthy eating and increased physical activity and the need for supportive policies and environments.

Increasing public awareness of the importance of healthy eating is a critical step in getting the issue of healthy eating on the public agenda. A public awareness campaign informs the public about why they should be concerned about a particular issue. Media can provide visibility and credibility for a particular issue as well as aid in reaching opinion leaders, policy makers and the public. The use of social marketing techniques moves efforts beyond increasing knowledge to stimulating action on the part of the selected audience. Social marketing uses commercial marketing techniques to promote the adoption of a behavior that will improve the health or well being of a specific audience (Weinreich, 1999). It uses a consumer-oriented approach as well as identifies and responds to the needs of the audience.

### **Social Marketing:**

Applying advertising and marketing principles and techniques (e.g., applying the planning variables of product, promotion, place, and price) to health or social issues with the intent of bringing about behavior change. The social marketing approach is used to reduce the barriers to and increase the benefits associated with the adoption of a new idea or practice within a selected population.

#### **Public Awareness:**

The public's knowledge of a particular issue.

<sup>\*</sup> See companion document North Carolina Blueprint For Changing Policies And Environments In Support Of Increased Physical Activity for a description of goals and objectives as they relate to physical activity.

# Objective 1: Increase yearly the number of regular and consistent messages promoting healthy eating and physical activity.

Regular and consistent messages encourage healthy behaviors within various intervention settings. They can serve as point of decision prompts or as ongoing reminders for healthy eating. For example, healthy eating messages can be regularly incorporated into patient education materials distributed through health care settings. Additionally, signs near vending machines could designate healthy food choices, and restaurant menus could indicate healthy menu items through use of the Winner's Circle Healthy Dining Program logo. School cafeterias might hang posters promoting low fat or skim milk and water choices. Regular and consistent messages encourage individuals to eat healthy, which can assist in changing social norms. Consistent messages promoting healthy eating opportunities throughout various settings reinforce the "eat smart" message and facilitate the adoption of that behavior.

There has been a dramatic change in exposure to messages that encourage food and beverage consumption. (French et al, 2001) Exposure to food advertising, especially commercials for fast or convenience foods, appears to have influenced choices. Relative to national dietary recommendations, foods that are most heavily advertised are those that are over consumed. There are data indicating that dietary interventions aimed at promoting fruit and vegetable consumption have increased awareness and consumption (Agency for Healthcare Research and Quality, 2000).

Objective 2: Increase yearly the amount of mass media coverage about the importance of healthy eating and physical activity and the need for supportive policies and environments (e.g., newspapers, television).

Promoting public awareness about the importance of healthy eating and the need for supportive policies and environments requires a clearly defined media strategy. Social marketing techniques are useful tools for increasing public awareness. These techniques can be used to increase awareness of the importance of healthy eating as well as to frame the issues and stimulate action.

Social marketing uses commercial marketing techniques to promote the adoption of a behavior that will enhance health or well-being. Its process entails five general steps: (1) planning, (2) message and materials development, (3) pretesting, (4) implementation, and (5) evaluation and feedback (Weinreich, 1999). Planning provides the foundation on which the rest of the process is built. It includes understanding the problem and determining the appropriate audience. The second step, message



'Mass media interventions can reach all members of society and unify social action to drive consumer demand for healthy eating and physical activity in the marketplace and for change in the environment and public policy."

Nutrition and Physical Activity Workgroup (NUPAWG), 2002 Centers for Disease Control and Prevention, Division of Nutrition and Physical Activity development, is based on information gathered in the planning stage. It includes identifying appropriate channels for reaching the selected audience and developing effective messages for that audience. The third step of the social marketing process involves pretesting the messages and materials within a selected audience. This may involve the use of focus groups, interviews, or questionnaires. Based on the feedback gathered from such methods, the messages are refined and prepared for implementation. The implementation stage requires the determining how the messages will be sent, what type of media will be used (paid vs. free), and how publicity will be generated. The final step in the social marketing process is evaluation and feedback. This step provides feedback as to whether the program objectives have been met and helps shape future improvements to the process.

Objective 3: Increase yearly the number of organizational communications about the importance of healthy eating and physical activity and the need for supportive policies and environments (e.g., newsletters, email messages).

Internal communication sources can assist in changing the social and physical environments of organizations. Examples of organizational communications include newsletters, sermons, classes, lectures, posters, videos, announcements, training materials, employee benefits literature, and websites. These communication sources can be used to help organizational leaders and members understand the need for improving dietary habits and fostering policies to create supportive environments. For example, faith organizations could regularly include healthy eating messages in sermons, and health care settings could distribute healthy eating messages to patients and their families on a regular basis. These messages can facilitate the development of practices to regularly include healthy food options in organizational events or activities.

Organizational communications exist in various intervention settings (e.g., worksites, community groups), and messages disseminated through multiple organizations (and settings) reinforce the healthy eating message.



#### Media Advocacy:

The strategic use of mass media as a resource for advancing social or public policy initiatives. One of the main purposes of media advocacy is to stimulate community involvement in defining policy initiatives and to use their voices in order to be heard and seen.

Local community groups and organizations can develop events that will attract news media coverage to frame the issues for both policy makers and community members. Events can highlight the need for healthy eating opportunities in underserved areas. (e.g., the lack of or quality of fresh fruits and vegetables in low-income neighborhoods).

# Goal 2: Increase opportunities for healthy eating and physical activity by fostering supportive policies and environments.

Media advocacy is an integral part of policy and environmental change interventions. It is strategic use of the media to frame an issue around a social or policy initiative and to stimulate involvement of community members in defining and advocating for change. In planning for media advocacy, the use of media should be considered in relation to, and in support of, coordinated efforts directed toward social or policy change. Consideration should be given first to clearly defining the problem (e.g., the lack of accessible farmers' markets). Proposing a solution to the problem is the next step in the process. The third step includes identifying who has the power or authority to make the change, such as planning board members, county commissioners, etc. The fourth step entails identifying individuals, groups, associations, businesses, etc. who can be mobilized to influence and persuade those with the power to create change. This group could include community and business leaders, volunteer organizations, professional associations, or members of the local PTA. The fifth step involves framing the issue and developing a set of consistent messages that would convince those in power to take action. It is important to understand how the selected audience perceives the issue in order to properly frame the

message. The sixth step is determining the most credible messengers for the intended audience (e.g., a key stakeholder, an expert in the field, a person who can speak from personal experience). The same message can have a very different impact depending on who communicates it.

Media advocacy techniques, when used very strategically, include holding press conferences, writing letters to the editors of local papers, contacting editorial writers to explain the need for policy and environmental change to support healthy eating, and alerting the media to potential

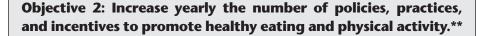
feature or news stories. Suggestions for topics can be given to local radio and television talk shows, and callers can then be organized to phone-in during those talk shows. If a community cable access channel is available (frequently at community colleges and universities) short programs can be developed that frame the issues. Local community groups and organizations can develop events that will attract news media coverage to frame the issues for both policy makers and community members. Events can highlight the need for healthy eating opportunities in underserved areas. (e.g., the lack of or quality of fresh fruits and vegetables in low-income neighborhoods). When events are carefully designed, the resulting news media stories promote awareness of what is needed, identify what must be changed, and help mobilize people to advocate for policy change.

# Objective 1: Increase yearly the number of facilities and/or environments that promote healthy eating and physical activity.\*\*

Environmental changes occur in the social and physical environments of organizations and communities. Interventions may focus on one specific organization (e.g., a school or worksite), a whole system (e.g., a school district) or an entire community. For example, worksites and health care settings may provide spaces to accommodate

breastfeeding or milk pumping. A school district might limit access to foods not approved for reimbursement in the USDA sponsored Child Nutrition Program. Within a community environment, changes may include increased availability of water fountains in public places, parks, and sporting areas.

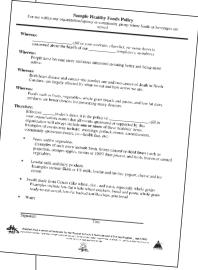
The availability and pricing of food is also related to the social and physical environments. It is known that overall availability per capita of calories, fat, fruits and vegetables have increased in the United States. While the consumption of milk has decreased, intake of cheese, pizza, and soft drinks have increased. The availability of soft drink vending machines in schools and worksites has also increased along with soft drink contracts in schools. Although income is not associated with total quantity for food consumed, it is associated with types of foods consumed. At the individual level, pricing has been shown to have a strong effect on food choices. Both food pricing and availability have been shown to influence food consumption.



Changes in the number of policies, practices, and incentives that support and promote healthy eating occur in various intervention settings. Policies are the laws, formal regulations, and more informal operating procedures within a setting. Practices are the decisions and behaviors of organizations, groups, and individuals and the ways that policies are implemented within a particular setting that in time lead to changes in organizational and community norms. Incentives can be used as motivation tools for individuals to adopt particular behaviors, such as employers providing flex-time for employees to participate in nutrition education. Implementing policy strategies in both public and private sectors can improve social and physical environments by increasing opportunities for healthy eating in communities and organizations.

Policy changes can be made at the organizational level as well as throughout the community. For example, community groups can provide healthy meals and snacks at meetings and include information on healthy lifestyles in the group's newsletters. Potential policy strategies within the community environment could include water fountains in parks. Communities can also expand the accessibility of their nutrition education programs and events by developing free and 'sliding-scale' opportunities.





\*\* This objective also includes enhancing or maintaining existing supports for healthy eating and physical activity. These goals and objectives support each other and provide the basis for the **Eat Smart, Move More...North Carolina** initiative. The use of tools such as media advocacy and social marketing increase public awareness of the need for policies and environments that support healthy behaviors. Carefully designed and coordinated media advocacy efforts can lead to policy and environmental change. These goals and objectives guide the action planning and evaluation processes, which are outlined in Chapter V.



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# Planning for Action and Measuring Success

### Why develop an action plan?

Preparing an action plan is essential for any individual or group working to increase local opportunities for healthy eating. An action plan can help coalitions increase public awareness of the importance of healthy eating and physical activity and the need for supportive policies and environments as well

as develop the strategies and steps for policy and environmental changes interventions. Whether you are part of a Local Physical Activity and Nutrition Coalition (LPAN); a subcommittee of a local Healthy Carolinians Task Force; a North Carolina Cooperative Extension agent; a county partner implementing the Color Me Healthy program, or a Health Promotion Program Coordinator preparing to address local health disparities, you can benefit by developing a Community Action Plan.

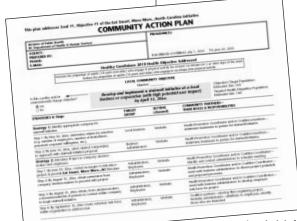
In addition to guiding the development of strategies and action steps, an action plan helps local organizations measure their progress by providing measurable reference points. The evaluation of activities and outcomes is necessary

to determine whether **Eat Smart, Move More...North Carolina**'s goals and objectives contribute to increasing healthy eating and physical activity opportunities. Evaluation processes in the *Blueprint* utilize the monitoring and surveillance mechanisms developed by the Health Promotion Branch within the North Carolina Division of Public Health (DPH). Evaluation takes place at both the state and local levels.



### Where to start

The LPANs, local health departments, North Carolina Cooperative Extension Service, and other community groups and organizations supporting the efforts of **Eat Smart, Move More...North Carolina** have varying capabilities and resources. Therefore, it may be appropriate to begin by



addressing the critical factors for implementing policy and environmental change interventions identified in Chapter III. They include forming meaningful collaborations, building community support, garnering the support of key decision-makers, developing science based support for the intervention, identifying funding sources, and obtaining skilled staff.

Understanding the action planning process will help local groups and organizations get started. This process includes assessing the issue, developing specific project details, identifying necessary resources, implementing the project, and evaluating the process and outcomes.

An initial assessment of the environments and policies within the community provides the basis for action plan development. Prioritizing community needs and focusing the action plan may involve activities such as surveying the number of regular and consistent messages prompting healthy eating in local organizations and throughout the community; identifying gaps in opportunities and services; and assessing existing policies and practices facilitating or creating barriers to healthy eating.

There are several tools that can be used to assess the current level of policy and environmental support for healthy eating. Examples include the Centers for Disease Control and Prevention (CDC) School Health Index, the North Carolina Faith Organization Survey, the North Carolina Worksite Survey, and the North Carolina Heart Health Restaurant Survey. These assessments can assist in action planning and be used to monitor the degree of policy and environmental change locally. These tools can be found on the **Eat Smart, Move More...North Carolina** website (http://www.EatSmartMoveMoreNC.com).

A needs assessment helps identify potential projects that will enhance healthy eating opportunities in the community. After a project has been selected, specific details can be planned. These details include the specific tasks to be accomplished, the individuals responsible for each task, time frames, and necessary resources. Project implementation is based on the action plan, but flexibility is essential. Time frames may be adjusted and task responsibilities may be shifted. The project is evaluated through both process and outcome evaluations as described later in this chapter.

### Structuring your action plan

An Eat Smart, Move More...North Carolina action plan should address both goals of the initiative. It should include clearly defined strategies, in addition to action steps that are time oriented. Strategies can be used to address both policy and environmental changes as well as to increase public awareness of the need for change. Sample action plans addressing the initiative's two goals and five objectives are provided in Appendix VII. Additionally, the North Carolina 2010 Health Objectives and the Healthy People 2010 Objectives related to healthy eating, found in Appendices V and VI, can provide guidance in action planning. The Health Promotion Branch team of Specialists, Physical Activity and Nutrition Regional Consultants, and Regional Cardiovascular Health Coordinators can assist local groups in developing an action plan. Additional information on developing an action plan can be found in the North Carolina Statewide Health Promotion Program's Program Planning Guide on the Eat Smart, Move More...North Carolina website: http://www.EatSmartMoveMoreNC.com

"If you clearly define your destination and accurately chart your course, you will be able to compare where you are with where you want to be."

Promoting Physical Activity: A Guide for Community Action, 1999

# **Evaluation of Eat Smart, Move More...North Carolina**

The Progress Check system, an electronic activity (data) reporting system developed by the Health Promotion Branch, collects information about the amount and types of efforts taken to facilitate policy and environmental changes that support healthy eating. It was initially designed for local health departments that receive North Carolina Statewide Health Promotion Program and North Carolina Cardiovascular Health Program funds to report relevant health promotion events and activities within their county and/or region. The system is used to report groundwork activities, such as planning products, assessments, and training received. It also tracks local efforts to create change through capacity building by providing training and technical assistance within a community. Advocacy efforts supporting initiatives, such as presentations to elected officials, media events, and actual changes in policies and environments are also documented in Progress Check.

One way to measure effort is through conducting a process evaluation that collects information related to the quantity and quality of local interventions. These efforts, documented on the local level, help to determine if the initiative is implemented as planned. Process evaluation also provides information to determine the best way to modify and improve collaboration and implementation of the initiative. The Progress Check System tracks process information through activities and accomplishments reported by local health departments and their partners. All reported activities across various population groups, specific risk factors, and intervention settings are centrally located for analysis throughout the state. Activity and outcome reports will be available for local, regional, and state review. Success stories that are results of local efforts along with common indicators of community change can be identified through this system.

Progress Check

# **Evaluation of environmental and policy changes**

Outcome evaluation conveys the results of local efforts and activities and the degree to which **Eat Smart**, **Move More...North Carolina** efforts have created or facilitated changes to increase healthy eating opportunities. The initiative has defined two types of policy and environmental change interventions, which are tracked using the Progress Check system. They reflect increased numbers of facilities and environments as well as policies, practices, and incentives that support the initiative. Facility and environmental changes are new or enhanced physical supports for healthy eating. Policies, practices, and incentives are new or enhanced community or organizational supports for healthy eating in the form of ordinances, written policies, protocols, and informal policies. Appendix II contains an extensive list of environmental and policy change examples.



# **Evaluating local public awareness efforts**

he Eat Smart, Move More...North Carolina initiative uses three methods for enhancing public awareness of the importance of healthy eating and the need for supportive polices and environments. They include regular and consistent messages promoting healthy eating, mass media coverage, and organizational communication. Regular and consistent messages are ongoing prompts that promote healthy eating. They can include signage posted near vending machines encouraging healthy food options. Mass media includes newspapers, television, radio, and billboards. Public awareness efforts using mass media will be tracked using measures such as the number of column inches in a newspaper article, the number of minutes of a television or radio spot, and the number and duration of billboard displays. Organizational communications can also be used to increase awareness of the need for policies and environments that support healthy eating. These efforts will be assessed through the number of distributed print media units (e.g., brochures, email recipients). Local community partners will also be able to report public awareness efforts in their local communities through Progress Check.

### 3 Methods for Enhancing Public Awareness

- Regular and consistent messages
- Mass media
- Organizational communications

Evaluation begins in the action-planning phase of an intervention. An action plan must incorporate evaluation measures from the onset to provide feedback on intervention implementation and outcomes.

# Long-term surveillance of environments and policies

In addition to the information documented in the Progress Check system, **Eat** Smart, Move More...North Carolina will benefit from other data sources that are coordinated or supported by the North Carolina Division of Public Health. While Progress Check is sufficient for capturing changes facilitated by local health departments, the system cannot provide community-level or state-level estimates of environmental and policy supports for healthy eating. For example, Progress Check cannot provide information on the proportion of communities that have implemented the Winner's Circle Healthy Dining Program. If the initiative's goals and objectives are met, long term behavior changes could be documented in the Behavioral Risk Factor Surveillance System (BRFSS) and the Youth Risk Behavior Surveillance System (YBRSS). The following data sources can provide information on the current status of statewide environmental and policy changes.

#### Data sources on the current status of statewide environmental and policy changes

Employers can be instrumental in helping workers be more physically active. North Carolina Division of Public Health (DPH) has conducted a survey of private and public worksites in North Carolina to determine the degree of support for employee health promotion. Important supports within worksites are: establishing and supporting a wellness or health promotion committee, healthy food options available, and signage encouraging healthy food choices. This survey was conducted in 2000, and DPH intends to conduct the worksite survey every four years.

Statewide Worksite Health Promotion Survey

The North Carolina Division of Public Health and the North Carolina Department of Public Instruction have collaborated to conduct a survey of middle school and high school policies and supports for health. The survey assessed healthy eating supports in schools/childcare including polices about offering fruits and vegetables in the school setting, policies establishing nutrition standards for foods sold in schools, and the presence of fast foods in the schools. This survey was conducted in spring 2002, and DPH intends to support the School Health Education Profile every two years.

School Health Education Profile (SHEP)

This system collects data on individuals who receive services in public health sponsored clinics. It has the capacity to generate sophisticated reports on the prevalence of overweight in children and youth in North Carolina, including county-level reports. These are available on the North Carolina Healthy Weight Initiative's website: www.nchealthyweight.com. With funding from the CDC Division of Nutrition and Physical Activity, the system is being enhanced to collect behavioral data in addition to anthropometric data. This will allow tracking over time of key behaviors of children and youth that are related to childhood overweight.

North Carolina
Nutrition and
Physical Activity
Surveillance System
(NC-NPASS)

Community-based interventions require the participation of multiple local partners. Chapter VI gives an overview of potential partners at the state level, and Appendix I provides a more extensive list of other state and local partners and their plans as they relate to healthy eating.



### **References and Resources**

Physical Activity and Nutrition Unit. (2002). North Carolina Blueprint For Changing Policies And Environments In Support Of Increased Physical Activity. Health Promotion Branch, Health Promotion and Chronic Disease Prevention Section, Division of Public Health, North Carolina Department of Health and Human Services. Raleigh, North Carolina. http://www.EatSmartMoveMoreNC.com

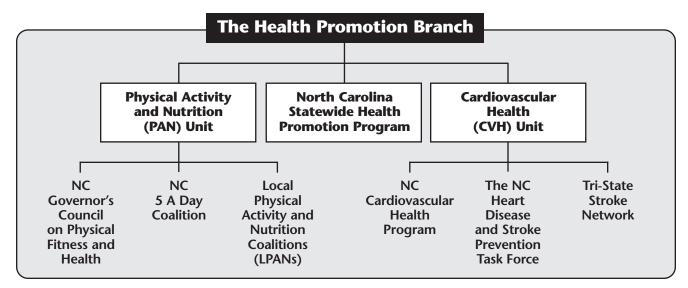
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# Health Promotion... Engaging Communities in Policy and Environmental Change

### **Health Promotion Branch**

here is significant interest and activity throughout the state in engaging communities in policy and environmental change. The Health Promotion Branch of the Division of Public Health (DPH) in the North Carolina Department of Health and Human Services (DHHS) leads statewide efforts in these areas, which includes the participation of multiple state and community organizations. The Branch has a Physical Activity and Nutrition Unit, a Cardiovascular Health Unit, a Statewide Health Promotion Program, and an Injury and Violence Prevention Unit to assist in building healthy communities and promoting healthy living throughout North Carolina. The units, which are described below, strive to implement the Branch's goals of increasing physical activity, improving nutrition, and ensuring comprehensive, community-based approaches to cardiovascular health and the prevention of cancer, diabetes, and other chronic diseases. In addition to other programs in the Division of Public Health, the Branch partners with multiple state, regional, and community organizations and groups to reduce identified health and behavioral risks for cardiovascular disease and other chronic diseases (See Appendix I).







Physical Activity and Nutrition Unit

### **Physical Activity and Nutrition Unit**

The Physical Activity and Nutrition (PAN) Unit oversees the health promotion goals specific to healthy eating and physical activity. It focuses on providing tools, resources, and technical assistance to local health departments, Local Physical Activity and Nutrition Coalitions, and community partners in developing and implementing policy and environmental strategies with an emphasis on healthy eating and physical activity. The PAN Unit is the lead agency in the **Eat Smart, Move More...North Carolina** initiative.

The PAN Unit provides leadership to and partners with a variety of lead agencies in promoting programs, projects, and initiatives focused on healthy eating and physical activity. The PAN Unit Head also serves as the Executive Director of the North Carolina Governor's Council on Physical Fitness and Health. The PAN Unit works closely with the Cardiovascular Health (CVH) Unit to promote multi-level policy changes that will increase healthy eating and physical activity opportunities in community environments. The Unit has a Physical Activity Specialist and a Nutrition Specialist to help provide content-specific technical support for healthy eating and physical activity interventions. Three PAN Regional Consultants provide technical assistance to local health

department programs funded by the Statewide Health Promotion Program and work with the CVH Regional Program Consultants in the media regions across the state.

Physical Activity and Nutrition (PAN) Unit





### NORTH CAROLINA GOVERNOR'S COUNCIL ON PHYSICAL FITNESS AND HEALTH

The North Carolina Governor's Council on Physical Fitness and Health was created in 1979 by legislative mandate with the mission of promoting interest in and sponsorship of programs that encourage physical fitness and healthy lifestyles for all North Carolinians. The Governor's Council has 10 members; eight appointed by the Governor and one each appointed by the House of Representatives and the Senate. Members of the Council, as well as other state and local partners, serve on one of three committees: Legislation and Resource Development, Public Awareness, and Best Practices.

#### **NORTH CAROLINA 5 A DAY COALITION**

The North Carolina 5 A Day Coalition promotes better health for all North Carolinians by encouraging them to eat more fruits and vegetables. The Coalition has over 160 members who represent multiple governmental and industry partners. Members work collaboratively in spreading the 5 A Day message. The PAN Unit, in conjunction with the 5 A Day Coalition Steering

Committee, provides direction for the North Carolina 5 A Day Program. The Coalition has four committees that support its efforts. The

Physical Activity and Nutrition (PAN) Unit

committees are Resource Development, Communications and Marketing, Local Interventions for Children and Adults, and Special Events.

### LOCAL PHYSICAL ACTIVITY — AND NUTRITION COALITIONS

The Physical Activity and Nutrition Unit supports the establishment and development of Local Physical Activity and Nutrition Coalitions (LPAN). LPANs provide voluntary, grassroots support to promote healthy eating and physical activity interventions through policy and environmental change at the community level. These coalitions may assess community needs and barriers, inventory facilities, and advocate for policies in their communities to increase opportunities for healthy eating and physical activity.



**The Health Promotion Branch** 

### **Statewide Health Promotion Program**

The North Carolina Statewide Health Promotion Program in the Health Promotion Branch provides funding for health promotion programs at local health departments. The Statewide Health Promotion Program's goal is to support Local Health Promotion Coordinators and their community partners in planning and implementing community-based programs addressing policy and environmental change interventions that promote cardiovascular health and reduce risk of chronic disease due to tobacco use, physical inactivity, and poor nutrition.

**The Health Promotion Branch** 

### **Cardiovascular Health Unit**

Task Force and the Tri-State Stroke Network.

The Cardiovascular Health (CVH) Unit houses the North Carolina Cardiovascular Health Program, and the CVH Data Unit. The Unit also provides administrative and technical support for the North Carolina Heart Disease and Stroke Prevention

Health (CVH) Unit

#### NORTH CAROLINA CARDIOVASCULAR HEALTH PROGRAM

In 1998, North Carolina was one of the first two states in the country to receive comprehensive grant funding from the Centers for Disease Control and Prevention (CDC) to address the burden of cardiovascular disease. CDC is establishing a national cardiovascular health program and, as of 2001, 28 states have been funded at various levels. These state grants are primarily focused on



promoting physical activity and heart-healthy nutrition through policy and environmental change. Some funds are also dedicated to other risk factors.

The North Carolina CVH Program funds six regional CVH Coordinators located in the counties of Cabarrus, Henderson, Pitt, Robeson, Surry, and Wake (regions defined by major media markets). The Regional CVH Coordinators work with the state Physical Activity and Nutrition (PAN) Regional Consultants to 1) convene regional meetings that focus on collaboration, planning, and networking, and 2) serve as a resource to their region for technical assistance on policy and environmental change strategies.

In 1999, North Carolina received additional grant funding to address the racial disparities in cardiovascular disease rates. Craven County and Nash/Edgecombe Counties have North Carolina CVH Programs that focus on implementing policy and environmental change

interventions with a focus on African American communities.

Cardiovascular Health (CVH) Unit



### THE NORTH CAROLINA HEART DISEASE AND STROKE PREVENTION TASK FORCE

The North Carolina Heart Disease and Stroke Prevention Task Force was established by the state legislature in 1995. Its mission is to prevent premature death and disability due to heart disease and stroke. The Task Force's initial charge was to:

- 1. develop a profile of the burden of cardiovascular disease in North Carolina;
- 2. publicize that burden and its preventability, and
- 3. develop a comprehensive statewide plan to prevent it.

The North Carolina General Assembly appropriated funds in 1997 for a CVH Data Unit to develop and coordinate the cardiovascular health data necessary for planning, implementing, and evaluating the N.C. Heart Disease and Stroke Prevention Task Force's Plan to Prevent Heart Disease and Stroke. Since 1997, these funds have been used to expand knowledge of cardiovascular health in North Carolina through supporting new analyses of existing data; collecting and analyzing new data to fill gaps in knowledge; integrating and interpreting information from multiple sources for dissemination and use; and developing partnerships with key people and organizations involved in CVH-related data activities.

The Task Force completed its charges by June 1999 with the publication and dissemination of the *North Carolina Plan to Prevent Heart Disease and Stroke*. The Task Force remains in effect to oversee funding for and implementation of the plan. "Start with Your Heart" is the tag line of the Task Force's Public Awareness Campaign. The campaign focuses on the state's most at-risk counties and uses a strategy that includes outdoor advertising, bus wraps, direct mail/newsletters, radio spots, and a web page. The campaign has been able to greatly extend its reach through partnerships with the North Carolina Nutrition Network, Subway Sandwich Stores, Inc. and Lowes Foods, Inc.

### THE NORTH CAROLINA PLAN TO PREVENT HEART DISEASE AND STROKE

This statewide plan was developed to promote community-based prevention activities to improve the cardiovascular health of North Carolinians. The *North Carolina Plan to Prevent Heart Disease and Stroke* provides a comprehensive vision that builds upon the capacity of existing services and promotes new strategies for preventing cardiovascular disease. The Plan addresses eight risk factors: unhealthy eating, physical inactivity, tobacco use, high blood pressure, elevated blood cholesterol, overweight, diabetes, psychosocial factors, and stress. The Plan will be updated and the new version released in 2004.

The following sample strategies from the current North Carolina Plan to Prevent Heart Disease and Stroke support the North Carolina Blueprint For Changing Policies And Environments In Support Of Healthy Eating.

- 1. Establish the Partners in Healthy Eating Restaurant Program (now called Winner's Circle) statewide by certifying and promoting healthy menu items in five restaurants per county in at least 75 counties across the state by 2003.
- 2. Participate in and support nutrition education social marketing strategies to priority populations, (e.g., food stamp eligibles).
- 3. Create communication strategies with synergistic social marketing messages, which deliver consistent messages to the public built on the Canadian Vitality Initiative (avoiding negative messages around food and physical activity and promoting awareness of healthy weight, rather than low body weight).
- 4. Partner with the North Carolina Nutrition Network to encourage grocery stores in low income neighborhoods to carry and market more fruits and vegetables.
- 5. Utilize social marketing to make people aware of the lifestyle changes, particularly dietary changes, necessary to reduce elevated blood cholesterol.
- 6. Support legislation to repeat the food tax.
- 7. Support the incorporation of a comprehensive and integrated nutrition curriculum that is continuous from K-12th grade into North Carolina public schools.
- Create a school system policy ensuring that healthy eating environments are provided for children. Promote vending machines and chain restaurants that support healthful foods and require that commercial food sources meet the USDA's Dietary Guidelines.
- Create policies ensuring that schools and other public institutions provide meals that are in agreement with the dietary guidelines.



"North Carolina carries more than its share of suffering, death, and expense from cardiovascular disease (CVD). It is high time that we take on the challenge of becoming as good at preventing CVD as we are at treating it."

Ed N. Warren North Carolina Senate Chair, North Carolina Heart Disease and Stroke Prevention Task Force, 1999

- 10. Replicate and build on the success of the Black Churches United for Better Health project to increase fruit and vegetable consumption in faith communities.
- 11. Support nutrition education programs encouraging high fruit, vegetables, and calcium consumption to reduce blood pressure.
- 12. Worksites and churches can provide classes with the help of community organizations and local health departments to give people the skills they need to reduce cholesterol levels by preparing and selecting low cholesterol foods and increasing physical activity.
- 13. Establish worksite policies to offer healthful food options in worksite cafeterias, food stands, snack bars, and vending machines
- 14. Create a statewide marketing campaign supported on the local level by health departments and local fitness and nutrition councils and in-store promotions to guide consumers to healthful menu items.
- 15. Participate in a state 5 A Day Challenge to eat five fruits and vegetables a day that can be encouraged and supported by local health departments and coalitions.
- 16. Create a statewide listserve to encourage the sharing of resources and coordination of efforts by nutritionists and those interested in advancing nutrition initiatives in the state.

The following objectives are taken from North Carolina's proposal to the Centers for Disease Control and Prevention for the next five years of funding for the State Cardiovascular Health Program. Data to assess each objective is listed in parentheses.

- 1. By 2010, increase to at least 30 percent the proportion of adults who consume at least five daily servings of fruits and vegetables. (Source: BRFSS; Baseline: 22.1 percent in 2000.)
- 2. By 2010, increase to at least 30 percent the proportion of high school students who consume at least five daily servings of fruits and vegetables. (Source: YRBSS; Baseline: 17.8 percent in 2001.)
- 3. By 2010, increase the proportion of adults who often or usually drink low-fat milk (1 percent milkfat or less), among those who drink milk. (Potential data source: BRFSS).
- 4. By 2010, increase the proportion of high school students who often or usually drink low-fat milk (1 percent milkfat or less), among those who drink milk. (Potential data source: YRBSS).



For more information on the Plan, the Task Force, and the Cardiovascular Health Program, log on to www.startwithyourheart.com

Cardiovascular Health (CVH) Unit

#### TRI-STATE STROKE NETWORK

The Tri-State Stroke Network grew out of a Tri-State Stroke Summit sponsored by the North Carolina Heart Disease and Stroke Prevention Task Force and cosponsored by the State Health Directors of North Carolina, South Carolina and Georgia in September 1999. North Carolina was subsequently funded by CDC to establish and staff the Network. The Network includes public health and medical professionals, policy makers, and advocates and has strives to increase public awareness of stroke symptoms and the need to treat stroke as a medical emergency.

The Network advocates for:

- 1. increased funding for stroke research, prevention, and control,
- **2.** development of a research initiative designed to discover the reasons for the geographic disparity in stroke deaths that affects the Tri-State area, and
- **3.** development and implementation of stroke prevention and control programs in the Tri-State area.

The Health Promotion Branch Programs described above are just a few examples of potential partners and resources. Each community has its own unique resources and potential collaborators for addressing healthy eating and physical activity. Many more state public (North Carolina Department of Health and Human Services and Division of Public Health) and private partners are described in Appendix I. Examples of successful partnerships at the state and community levels can be found in Chapter VII.

### **References and Resources**

North Carolina Heart Disease and Stroke Prevention Task Force. (1999). *North Carolina Plan to Prevent Heart Disease and Stroke 1999-2003*. Health Promotion Branch, Health Promotion and Chronic Disease Prevention Section, Division of Public Health, North Carolina Department of Health and Human Services. Raleigh, North Carolina.

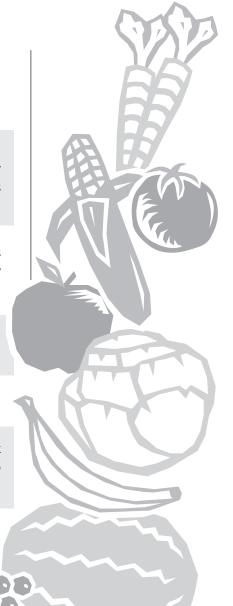


# Changing Communities...

# North Carolina Success Stories in Healthy Eating

# Imagine North Carolina eating "smarter" where...

- ...youth and adults can select water as well as other beverages; and can select from a range of favorite foods, including fruits, vegetables, and low fat, low calorie foods at their community events, schools, and religious centers.
- ...restaurants, including fast food venues, receive high food safety ratings and also participate in the Winner's Circle program, providing healthy options for diners.
- ...physicians and other health care providers are skilled in giving safe and healthy eating advice and medical nutrition therapy.
- ...employees can purchase easily identified healthy snacks and meals.
- ...nutrition education and healthy school breakfasts and lunches do not compete with high calorie and high fat foods and beverages offered to students to generate revenue.
- ...affordable, high quality fresh fruits and vegetables are available in supermarkets, convenience stores, and local farmers markets.



Just imagine...
...the vision
of a North Carolina
enjoying healthy
and safe food
every day

...the vision of a North Carolina reducing its risks for obesity and chronic diseases. ...children can choose healthy snacks and drinks when at play or in sporting events.

...people of all ages and sizes and shapes make health promoting food choices.

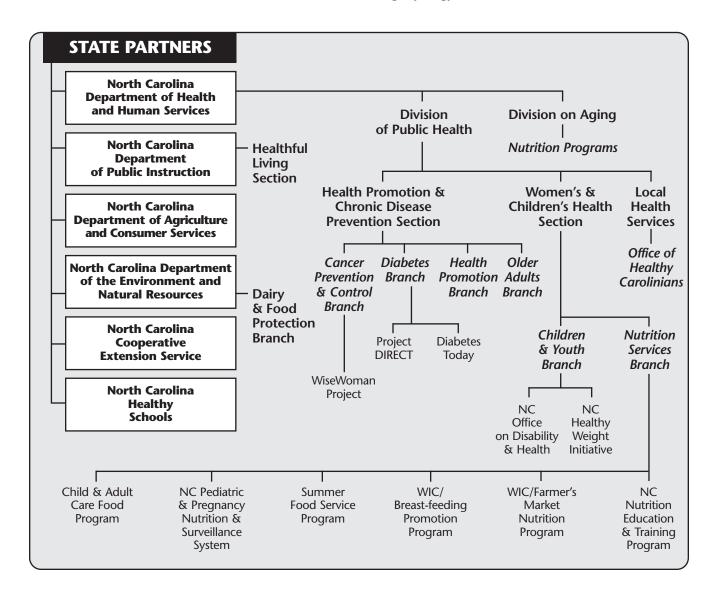
The Community Change Chronicles are local, regional and state success stories based on community policy and environmental changes supporting healthy eating. The following Community Change Chronicles¹ were developed using an information collection tool designed to capture success stories in a uniform way from partners across North Carolina. These success stories occur in different settings across our state and represent a variety of policy and environmental changes in support of healthy eating. For additional success stories visit http://www.EatSmartMoveMoreNC.com.

<sup>&</sup>lt;sup>1</sup>The staff of the North Carolina Cardiovascular Health (CVH) Program developed and began in 2001 the *Community Change Chronicles* for Start With Your Heart.



### Building Healthy Communities In North Carolina... State and Community Partners

The following programs and organizations are potential partners for local health promotion efforts. There are several plans from North Carolina public health agencies that recognize the importance of healthy eating for prevention and management of chronic disease. A brief comment about each of these plans is included to demonstrate the common themes and encourage synergy.



### **STATE PARTNERS**

# North Carolina Department of Health and Human Services

The North Carolina Department of Health and Human Services protects the public's health, fosters self-reliance, and helps the vulnerable. It works through



local offices, schools, and hospitals, building a stronger North Carolina by strengthening the citizens in all 100 counties.

http://www.dhhs.state.nc.us

— DIVISION OF PUBLIC HEALTH The Division of Public Health (DPH) covers a wide range of public health programs and services, all aimed toward protecting and improving the health of the people who live and work in North Carolina. http://www.dhhs.state.nc.us/dph



Health Promotion and Chronic Disease Prevention Section

The purpose of the **Health Promotion and Chronic Disease Prevention Section** is to fulfill, through leadership, community capacity building, the promotion of healthful living, disease prevention, and reduction of the risk and consequences of the leading causes of death.

### **Cancer Prevention and Control Branch**

The Cancer Prevention and Control Branch of the Division of Public Health works to develop and implement effective strategies to prevent, detect, and control cancer and to promote activities which enhance comprehensive cancer initiatives. They provide professional and public education to improve the ability of communities to prevent, detect or control cancer. The Cancer Prevention and Control Branch also provides funding for communities to conduct screening for the early detection of cancer and to assist with treatment services. The branch collaborates with communities to foster cancer control through advisory councils and coalitions and promotes partnerships to deliver high quality comprehensive cancer services. http://www.communityhealth.dhhs.state.nc.us/cancer.htm

The Advisory Committee on Coordination and Control has developed *The North Carolina Cancer Control Plan (2001-2006)* in conjunction with the Cancer Prevention and Control Branch. The following strategies of this plan are relevant to the *North Carolina Blueprint For Changing Policies And Environments In Support Of Healthy Eating*:

- 1. Create environmental supports for healthy eating and physical activity in regulated childcare settings through a nutrition and physical activity environmental rating scale.
- 2. Increase the number of culturally appropriate cues and messages regarding the protective effect of fruit and vegetable consumption in the reduction of risk for cancer.

- 3. Develop and implement WIC (Special Supplemental Nutrition Program for Women, Infants, and Children) and CACFP (Child and Adult Care Food Program) policy changes that support dietary and physical activity behavior changes in low-income and minority children 2-5 years of age participating in WIC and CACFP.
- 4. Develop and distribute the North Carolina Strategic Plan for the Prevention of Child and Adolescent Overweight and Related Chronic Disease Risk Factors.
- 5. Develop and implement enhancements to the North Carolina Pediatric Nutrition Surveillance System to monitor the prevalence of relevant nutrition and physical activity behaviors among children.
- 6. Identify, or develop, and implement effective, culturally appropriate interventions in addressing each of the stated objective areas, e.g., increase fruit and vegetables intake, achieve and maintain a healthy body weight, prevent initiation of alcohol use by youth, reduce consumption of high-fat foods.
- 7. Introduce legislation to provide for development and implementation of a multi-faceted, statewide intervention program to increase intake of fruits and vegetables and limit fat consumption, particularly from animal sources.
- 8. Develop and implement a multi-faceted, statewide intervention program to increase fruits and vegetables and limit fat consumption, particularly from animal sources. Intervention program will include promotion of the Institute of Medicine's recommendation that the Mandatory school-health curriculum include health topics, including nutrition.
- 9. Secure stable, core funding for local programs and build/maintain central state-level capacity (To increase the number in North Carolina who eat 5 A Day).
- 10. Identify and work with commissions, task forces, funders, and providers of alcohol prevention services to incorporate strategies and activities to prevent initiation of alcohol use.

### WiseWoman Project

The Centers for Disease Control and Prevention-funded **North Carolina WiseWoman Project** promotes the concepts of 5 A Day, Winner's Circle, and the Dietary Guidelines for Americans through patient and community education. The North Carolina WiseWoman Project, through coordination with state and local health promotion programs, supports participation in community-based interventions that promote behavior change to reduce risk of heart disease, hypertension and stroke.





Health
Promotion and
Chronic Disease
Prevention
Section

#### **Diabetes Branch**

The **Diabetes Branch** is responsible for helping North Carolina citizens reduce the impact of diabetes through leadership, education, communication, community involvement, and capacity building, advocacy, and policy development. The Branch currently serves the citizens of North Carolina by increasing awareness of diabetes and enhancing community-based efforts to reduce the burden of diabetes in the state. http://www.communityhealth.dhhs.state.nc.us/diabetes.htm

The Diabetes Prevention and Control Program (DCP) is involved in several activities and interventions that promote policy and environmental change around healthy eating for people with diabetes and those at risk for the disease. http://www.ncdiabetes.org

The Diabetes Advisory Council (DAC) of the NC DCP advocates regularly through correspondence and other contact with US Congressional Members to support diabetes-related legislation.

The following action steps from the North Carolina Diabetes Plan support the North Carolina Blueprint For Changing Policies And Environments In Support Of Healthy Eating:

- 1. Collaborate with the North Carolina Division of Public Health's Health Promotion Branch and the Women and Children's Health Section to advocate for low-fat choices in school menus, increased physical activity options and other health promotion programs
- 2. Increase awareness among state level leadership organizations to promote activities which address the needs of people with diabetes and those at risk, e.g., assuring healthy food choices for people with diabetes during church sponsored events.
- 3. Collaborate with professional schools of medicine, pharmacy, nursing, and nutrition, and with state and community colleges to include Patterns of Care (POC) in their respective curricula.

See http://www.ncdiabetes.org for more information.

### **Project DIRECT**

A demonstration and research project specifically targeting African American residents in Southeast Raleigh, North Carolina, **Project DIRECT**, offers community programs and interventions in physical activity, nutrition, diabetes self-management education, faith-based health promotion, and quality improvement initiatives for diabetes care.

 The Church Nutrition Training (CNT) program is designed to provide influential church members, especially kitchen leaders, their designees, or others responsible for meal preparation, with the skills and knowledge necessary to make healthy changes in the foods offered at various church functions. Specifically, the goal of this training is to teach individuals how to modify old recipes and introduce them to new recipes that are lower in fat and appropriate for individuals with dietary restrictions.

2. The Diabetes Care component of Project DIRECT includes provision of a series of Diabetes Self-Management Workshops for adult persons diagnosed with diabetes. In an effort to assist participating individuals in developing and maintaining healthier behaviors, controlling their diabetes and preventing complications, the curriculum includes sessions on *Healthy Eating and Diabetes Management, Nutrition & Meal Planning, and Practical Eating.* 

### **Diabetes Today**

This model, developed by CDC, is grounded in the philosophy that people can take charge of diabetes at the local level. The model includes the development of community coalitions around diabetes, community assessment and identification of a problem, development and implementation of an intervention, and evaluation. The Diabetes Prevention and Control Program funds this initiative through eleven local health departments, the North Carolina Commission of Indian Affairs and the General Baptist State Convention (targeting African American churches in the state). Several of the coalitions have worked with local restaurants to promote healthy eating. This has led to menu changes offering healthier selections.

#### **Health Promotion Branch**

The Health Promotion Branch programs are described in Chapter VI. This includes the Physical Activity and Nutrition Unit which is the lead unit for the **Eat Smart, Move More...North Carolina** initiative.

http://www.communityhealth.dhhs.state.nc.us

Health
Promotion and
Chronic Disease
Prevention
Section

#### **Older Adults Branch**

The goal of the **Older Adults Health Branch** is to help promote the health and quality of life of North Carolina's older adults. North Carolina's aging population is one of the fastest growing in the country. Prevention and intervention to keep this population healthy and vital are essential to maintaining quality of life and controlling health care costs. The Older Adult Health Promotion Program serves as a resource on older adult health promotion; provides technical assistance and training on health promotion and aging; identifies, develops and disseminates program information; and serves as a liaison with other state agencies and organizations. http://www.communityhealth.dhhs.state.nc.us/oldadult.htm

### Women's and Children's Health Section —

The mission of the Women's and Children's Health Section (WCH) is to assure, promote, and protect the health and development of families with emphasis on women, infants, children, and youth. The Women's and Children's Health Section programs place a major emphasis on the provision of preventive health services beginning in the pre-pregnancy period and extending throughout childhood. The Section also administers several programs serving individuals who are developmentally disabled or chronically ill. Branches of the section include Women's Health, Immunization, Children and Youth, Nutrition Services, and Developmental Evaluation Centers. http://wch.dhhs.state.nc.us

The U.S. Department of Health and Human Services' Maternal and Child Health Bureau annually updates its plan that has both federal and state measures. See http://www.mchdata.net/index.html. Relevant to the North Carolina Blueprint to For Changing Policies And Environments In Support Of Healthy Eating are the following objectives from the Maternal and Child Health Block Grant Plan:

- 1. Increasing the mothers who breastfeed their infants at hospital discharge
- 2. Increase the percent of women who gain more than 15 pounds during pregnancy
- 3. Reduce the number of children ages 5-18 years who are obese
- 4. Increase the percent of women of childbearing age taking folic acid regularly.

#### Children and Youth Branch

The Children and Youth Branch strives to enhance the health, growth, and development of all children through health promotion, prevention, early identification, treatment, and intervention. Whenever possible, services are offered within family-centered, community-based systems of care.

#### North Carolina Office on Disability and Health

The North Carolina Office on Disability and Health (NCDOH) is a partnership between the Women's and Children's Health section of the North Carolina Division of Public Health and the Frank Parker Graham Child Development Institute at the University of North Carolina at Chapel Hill. It works to reduce the health disparities experienced by persons with disability in North Carolina and to promote health and wellness of persons through an integrated program of policy, practice, and research. The goals of North Carolina Office on Disability and Health are to:

- 1. increase awareness and understanding of the health related needs of individuals with disabilities;
- 2. improve access and inclusion;
- 3. develop health promotion interventions and educational materials for persons with disability, families, and professionals;
- 4. conduct and report on research and data collection; and

5. affect policy related to these areas. North Carolina Office on Disability and Health focuses its activities in the following areas: access to health care, women's health, physical activity and recreation, research and surveillance, and information dissemination and technical assistance. http://www.fpg.unc.edu/~ncodh

### North Carolina Healthy Weight Initiative

The North Carolina Healthy Weight Initiative has a comprehensive plan to reverse the overweight trend and reduce the risk for chronic disease in North Carolina children and youth, 2-18 years of age. The plan, Moving Our Children Toward A Healthy Weight...Finding The Will and The Way, was developed by a Task Force of 100 persons from throughout the state. The plan provides recommendations and strategies that can guide action by individuals and groups to effect policy, environmental and interpersonal change that supports healthy eating and increased physical activity. It is available in print as well as on the Initiative's website http://www.nchealthyweight.com. The website also has additional resources to promote local and state action to reduce childhood overweight, including updates on policy, environmental and educational interventions for children 2-5 years of age. Relevant to the North Carolina Blueprint For Changing Policies And Environments In Support Of Healthy Eating are the following recommendations from Moving Our Children Toward A Healthy Weight...Finding The Will and The Way:

- 1. Limit consumption of sugar-sweetened beverages.
- 2. Provide appropriate portion sizes of foods and beverages.
- 3. Prepare and eat more meals at home.
- 4. Set state standards for all foods and beverages available in schools, after-school programs, and child care.
- 5. Create an environment that makes healthy eating and active lifestyles the norm rather than the exception.
- 6. Ensure a comprehensive, continuous and reliable system for monitoring body mass index (BMI), weight-related chronic diseases, and nutrition and physical activity behaviors in children and youth.

#### **Nutrition Services Branch**

Activities of the Nutrition Services Branch promote sound nutrition habits among infants, children, and women in their child-bearing years. Branch staff works with county, state, and private agencies to improve health status by reducing the incidence of nutritional risk factors, improving pregnancy outcomes, and hastening recovery from illness and injury through the provision of technical assistance, education, and supplemental foods. Programs and systems administered by NSB include the Special Supplemental Nutrition Program for Women, Infants and Children (WIC), the Child & Adult Care Food Program (CACFP), the Summer Food Service Program for Children (SFSP), the North Carolina Pediatric & Pregnancy Nutrition and Surveillance System (NCPASS), the Breastfeeding Program and the Nutrition Education & Training (NET Program). For information more view http://www.nutritionnc.com.



Women's and Children's Health Section

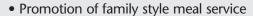


### Child and Adult Care Food Program

The Child and Adult Care Food Program (CACFP) provides standards and reimbursement for meals served in child and adult day care facilities. The goal of the program is to provide nutritious meals for program participants. The US Department of Agriculture (USDA) establishes the minimum meal pattern requirements and the reimbursement rate for all meals and snacks. The specific meal pattern requirements can be found at www.nutritionnc.com/snp/cacfp.htm.

While USDA pattern standards are the minimum requirements, the NSB has established policies that limit the offering of highly sweetened breads and grain products through CACFP. Additional policies that address the fat, sodium, and sugar content of foods reimbursed through CACFP are included in the recommendations for the North Carolina Healthy Weight Initiative.

A variety of nutrition education opportunities are offered through the CACFP across the state. These include:



- 5 A Day promotion—Future dissemination of the "5 A Day Fun for Every Season" activity book for kids to preschoolers in child care centers. This activity book includes activities, recipes, and pictures of fruits and vegetables to enhance children's experience with these foods.
- Garden-Grow Your Own
- Farm and supermarket tours
- Food preparation
- Fit to Learn: Promote developmentally appropriate physical activities for children in child care—children over 2 years of age.

In addition to the above, program sponsors participate in ongoing food safety education, including:

- **Fight Bac!**: Promotes four steps that fight bacteria and support food safety.
- Food Safety Kit: Collaborative effort with Food Lion and Partnership for Children in the dissemination of Food Safety Kits to preschool children.

CACFP providers have participated in the NCSU Cooperative Extension initiatives including:

Color Me Healthy
 What's In a Meal

All of these activities in the child care environment contribute to the promotion of good nutrition in a structured learning environment and help to build the foundation for lifetime habits.



### **Summer Food Service Program**

The goal of the **Summer Food Service Program** (SFSP) is to provide nutritious meals to low-income children when school is not in session. The USDA establishes the minimum meal pattern requirements and the reimbursement rate for all meals and snacks. The specific meal pattern requirements can be found at http://www.nutritionnc.com.

Children ages five to 18 participate in SFSP. The program must be offered in a setting where additional child enrichment opportunities are available. Several successful nutrition education strategies are ongoing at local SFSP sites. These include:

- Master Gardener classes
- 5 A Day promotion
- Farm and supermarket tours
- On-site physical activity opportunities

### Special Supplemental Nutrition Program for Women, Infants and Children

The Women, Infants and Children (WIC) Program is a federal program designed to provide food to low-income pregnant, post-partum, and breastfeeding women, infants, and children until the age of five. The program provides a combination of nutrition education, supplemental foods, breastfeeding promotion and support, and referrals for health care. WIC has proven effective in preventing and improving nutrition related health problems within its population.

The United States Department of Agriculture (USDA) funds the WIC Program. The Nutrition Services Branch within the North Carolina Division of Public Health administers it. County health departments, community and rural health centers and community action agencies provide the services. The following Breastfeeding Promotion activities and the Farmer's Market Nutrition Program are both run as part of the WIC Program. For more information view http://www.nutritionnc.com

#### **Breastfeeding Promotion**

The North Carolina Nutrition Services Branch collaborates on several projects to help effect policy and environmental changes to encourage and support mothers to choose and continue to breastfeed their infants through at least the first year of life whenever possible. One project has been very successful by partnering with the Cooperative Extension Program to provide the **In-Home Breastfeeding Support Program**, currently available in over forty counties in North Carolina. The breastfeeding support programs are funded with a variety of funding sources including the WIC Program and grants from the Smart Start Program, private grants such as the Kate B. Reynolds Foundation, March of Dimes, hospital and local community sponsors, and the North Carolina Nutrition Network Program.





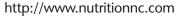
A second example is the Mother-Friendly Businesses Awards from the Department of Health and Human Services. These awards recognize businesses for their supportive employee policies, flexible work schedules and environments, as well as privacy, space, equipment, and lactation services available for their nursing employees. Award winners receive a certificate of excellence and "Breastfed Babies Welcome Here" window decal. Additional information is available at http://www.nutritionnc.com.

A third example is the adaptation and expansion of materials originally developed by the Mississippi WIC Program to support breastfeeding in Child Care Settings. A workshop for regional and state consultants was held earlier this year to introduce the materials, provide breastfeeding best practices training, and to alert consultants about the need for consistent rules and interpretation of policies and rules on the proper storage and handling of pumped breast milk in child care centers. Consultants and trainers from various departments and divisions who provide regulatory and consultation services to the child care industry participated. Information is available on the WebPages at http://www.nutritionnc.com. Additional training will be offered in the future.



### **Farmer's Market Nutrition Program**

The Farmers' Market Nutrition Program (FMNP) is run adjunctively with the WIC Program in about half of the local agencies in North Carolina so women and children ages 2-4 receive coupons to obtain fresh, seasonal produce at local farmers' markets. FMNP agencies focus on promotion and collaboration to accomplish environmental changes to optimize utilization of the FMNP and farmers' markets. Staff are trained to explain benefits of the FMNP to eligible WIC participants. Also, staff in some agencies collaborate with local farmers' market associations to hold special "Farmers' Market Days" whereby local farmers set up to sell their produce in a parking lot outside the WIC agency. In other agencies, farmers or cooperative extension agents may come in and conduct nutrition classes with food demonstrations and taste testing of various seasonal produce. Staff members have also presented at local farmers' market annual meetings, and at child care centers to expand the scope of knowledge of the FMNP. Agencies have visual promotions like posters, bulletin boards, flyers and recipe tear-off pads so information about the FMNP and the benefits of fruits and vegetables are clearly displayed.





The **NET Program** coordinates numerous nutrition education initiatives aimed at improving students' knowledge about healthful eating and provides training and technical assistance for improving school nutrition environments. The NET Program works closely with the Child Nutrition Services Section in the Department of Public Instruction (NCDPI) to



implement its initiatives. The placement of the NET Program within the North Carolina Department of Health and Human Services has created an environment of collaboration between public health and education at both the state and local levels. The NET Program's potential audience includes 117 school systems with more than 2,150 public and charter schools; over 82,000 teachers educating approximately 1.3 million students; and more than 14,000 Child Nutrition directors, supervisors, managers and assistants providing an average of 1,076,249 daily meals.

In addition to its collaboration with Child Nutrition Services, the NET Program has created numerous partnerships to strengthen its ability to carry out its mission. The primary collaborative effort is the School Nutrition Action Committee (SNAC) which represents three state governmental agencies: the Department of Public Instruction, the Department of Health and Human Services, and the North Carolina Cooperative Extension Service. Visit http://www.nutritionnc.com.

### North Carolina Pediatric (PedNSS) & Pregnancy Nutrition and Surveillance System (PNSS)

The **Pediatric and Pregnancy Nutrition and Surveillance System**, described in Chapter II, monitors nutrition-related health conditions for children birth to 18 years of age and pregnant women. Reports from both systems are available. For an overview, visit http://www.nutritionnc.com.

**Local Health Services** exists to strengthen the capacity of North Carolina local health departments who, through local programs and services, strive to create healthy people and communities in North Carolina. Local Health Services serves as liaison with local health departments for general problem solving and technical support. http://www.communityhealth.dhhs.state.nc.us/lochlth.htm

### **Office of Healthy Carolinians**

The Office of Healthy Carolinians was established in 1992 upon the recommendation of the Governor's Task Force on Health Objectives for the year 2000. This office oversees certification of local Healthy Carolinian task forces. These local task forces share the common mission of improving the health and safety of citizens of North Carolina. The local task forces serve as an umbrella for programs to assure effective use of resources, to build community consensus to mobilize and respond to health risks and to establishing public/private partnerships. The Healthy Carolinians website and the 2010 Healthy Carolinians 2010: North Carolina's Plan for Health and Safety objectives can be reached at http://www.healthycarolinians.org.

### **Local Health Services**



### **NC DHHS**

### DIVISION - OF AGING



The **Division of Aging** seeks to promote independence and enhance the dignity of North Carolina's older persons and their families and to ready younger generations to enjoy their later years. Partnering with Area Agencies on Aging, local services and programs, senior leaders, and other public and private interests, the Division is the state agency responsible for planning, administering, coordinating, and evaluating a community-based system of opportunities, services, and protections to advance the social, health, and economic well being of older North Carolinians. The Division is currently revising the State Plan for Older Adult Health/Healthy Aging. Healthy eating is addressed as it relates to quality of life and lifestyle disease prevention. The Division is also a primary sponsor of the Senior Games.

http://www.dhhs.state.nc.us/aging

### **Nutrition Programs, MOW, Congregate Meals**

The Division of Aging administers the Elderly Nutrition Program authorized by the Older Americans Act. The **Nutrition Program** provides meals in group settings, such as in senior or community centers, and in the home. These programs are referred to as the **Congregate Meal** and **Meals on Wheels** program, respectively. Other nutrition services authorized by the Older Americans Act include nutrition screening, education, and nutrition counseling. The congregate program provides older adults with positive social interaction and informal support systems as well as opportunities for meaningful community involvement such as volunteerism. The Division of Aging collaborates with several agencies to provide various types of nutrition education programs and the Senior Farmers Market Nutrition Program.

## North Carolina Department of Public Instruction The Healthful Living Section focuse

The **Healthful Living Section** focuses on improving the health and physical education of students K-12. Health

education and physical education combine to form a broad based Healthful Living Curriculum that allows students to establish positive responses to negative risk behaviors. This curriculum enables students to develop lifelong health behaviors that will also improve attendance and performance in school. http://www.ncpublicschools.org/curriculum/health/index.html

# North Carolina Department of Agriculture and Consumer Services

The North Carolina Department of Agriculture and Consumer Services is interested in promoting healthy eating by developing action plans incorporating Farmers Markets (both existing markets and new markets). They would also like to investigate promoting healthy North

Carolina foods to the catering industry and schools. Identifying barriers, such as economic considerations, and working towards policies to reduce or eliminate them, would progressively support locally grown healthy foods. For more information visit their website http://www.ncagr.com

NCDA & CS www.ncagr.com

#### **DAIRY & FOOD PROTECTION BRANCH**

The Dairy and Food Protection Branch protects public health through development of standards, review of plans, and monitoring of enforcement activities for food handling, establishments, and loading, establishments.

handling establishments and lodging establishments. Standards enforced through county health departments include rules governing restaurants, food stands, mobile food units, meat markets, hotels, bed and breakfasts, and summer camps. The Milk Sanitation Program protects the public health by regulating the sanitary production, transportation, processing, and distribution of Grade "A" milk and milk products. This agency is interested in food safety from the standpoint of disease prevention and bioterrorism control. It can partner with information on safe foodhandling techniques. Many people don't understand the need to wash fruits and vegetables or that cooked vegetables can make them sick if not held at proper temperatures—the Branch can supply some of that information. For more information, visit http://www.deh.enr.state.nc.us/ehs/food/fli.htm

# North Carolina Department of Environment & Natural Resources

NCDENR

The North Carolina Cooperative Extension Services, Department of Family and Consumer Sciences (FCS) has a 70+year history of serving as the outreach arm for The

Cooperative Extension Service of North Carolina State University (NCSU). The focus of the NCCES and FCS is to improve the health and quality of life of North Carolinians and their communities through education. The infrastructure for FCS exists in all 100 counties and on the Cherokee Indian Reservation. It includes one or more Family and Consumer Educators (FCE), who are part of the County Extension Center. The FCEs interact with county residents to assess educational needs and issues. The staff delivers training for childcare providers and public school teachers, conduct parent workshops, and provides informal educational opportunities for families. Specialists from NCSU develop nutrition and physical activity education materials and food safety training for individuals and families. For more information on North Carolina Cooperative Extension and FCS, visit their website at

# North Carolina Cooperative Extension Services



**North Carolina Healthy Schools** is a partnership between the Department of Public Instruction and the Department of Health and Human Services. It focuses on

improving the health of students and staff by providing coordination and resources in eight component areas of school health. The component areas include health education, safe environment, mental and social health, staff wellness, health services, nutrition services, physical education, and family involvement. With all of these components in place and working together, students will be healthier; in school, in class, and ready to learn.

North Carolina Healthy Schools



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http://www.nchealthyschools.org

http://www.ces.ncsu.edu.

### **Community Partners**

### **VOLUNTARY ORGANIZATIONS** (listed in alphabetical order)

### Alice Aycock Poe Center for Health Education

The Alice Aycock Poe Center for Health Education is a non-profit organization that provides innovative health education programs for preschoolers, schoolage children, and adults in five learning theaters. The Center's learning theaters are designed to provide a fun environment for learning about different health topics—nutrition, dental health, general health, family life, and drug education. http://www.poehealth.org

### **America's Second Harvest**

America's Second Harvest is the nation's largest domestic hunger relief organization. Through a network of over 200 food banks and food-rescue programs, they provide emergency food assistance to more than 23 million hungry Americans each year, eight million of whom are children. In North Carolina, eight food bank or food rescue organizations are members of Second Harvest.

America's Second Harvest solicits donated food and grocery products from the nation's food and grocery industry and distributes it to hungry people across America. Growers, manufacturers, distributors, and retailers all support America's Second Harvest through their generous donations. These donations consist primarily of surplus food that might otherwise go to waste were it not for the effective distribution channel provided by the America's Second Harvest network.

For a listing of North Carolina food banks or food rescue organizations associated with America's Second Harvest, visit http://www.secondharvest.org/foodbanks/state search nc.html

### **Duke Diet and Fitness Center**

The Center's long experience has been in providing an intensive "immersion style" approach to lifestyle change. Their clientele is a higher socioeconomic group, who come to Durham from all over the world. Most of them suffer from severe obesity and associated medical problems. However, much of what they teach is very applicable to a wider population. While their work does not allow much time for "extra" activities, they are personally interested in doing more "outreach" in order to help address the needs of a larger population, especially the needs of their local community. The Center is open to the idea of providing at least informal consultative assistance to this important initiative. http://www.dukedietcenter.org

### Heartquest

Heartquest is a National Heart, Lung, and Blood Institute-funded project that strives to reduce the cardiovascular disease burden in Robeson and Columbus Counties. Heartquest includes health care, provider, emergency response, lay health educator, health promotion, and community policy change interventions. The community policy change works is based on creating environmental changes that support healthy eating and physical activity



choices and reduce environmental tobacco exposure. The project is working to encourage restaurant owners to include heart healthy options or to mark existing heart healthy options on their menus through a community-based letter writing campaign in Columbus County. A community change chapter has been included in the lay health educator training manual which will raise awareness of the need to make environmental and policy changes and give trainees simple tools to begin working on community change.

### Institute of Nutrition, University of North Carolina

The Institute is a non-profit, inter-institutional, and multidisciplinary organization of The University of North Carolina faculty and administrators. The Institute membership represents many disciplines from the Nutritional, Agricultural, Life, Medicinal, Health, Biological, Physical, Social, and Behavioral Sciences. The Mission of The Institute of Nutrition is to assist The University of North Carolina System and the various North Carolina State Health Agencies in promoting the nutritional well being of North Carolinians through education, research and communication and to enhance the awareness of the importance of contemporary nutrition issues. See <a href="http://coretest.ecu.edu/nuhm/Institute/main.htm">http://coretest.ecu.edu/nuhm/Institute/main.htm</a> for more information including a speaker's bureau.



The American Cancer Society is the nationwide community-based voluntary health organization dedicated to eliminating cancer as a major health problem by preventing cancer, saving lives, and diminishing suffering from cancer, through research, education, advocacy, and service. http://www.cancer.org

### North Carolina Affiliate American Heart Association

The American Heart Association is a national voluntary health agency whose mission is to reduce disability and death from cardiovascular diseases and stroke. http://www.americanheart.org

### North Carolina Area Health Education Center

Since 1972, the North Carolina Area Health Education Center (AHEC) has forged a link between the state's academic medical centers and the communities of North Carolina. The nine regional AHECs create a statewide classroom for health science students, primary care residents, and practicing health professionals. This partnership has brought about high quality, accessible education for health professionals in all 100 counties. The North Carolina AHEC program welcomes the opportunity to collaborate with academic and community partners to develop educational programs that respond to the many changes occurring in the healthcare environment. Visit the web site to identify the nearest AHEC. http://www.med.unc.edu/ahec/welcome.htm

### North Carolina Cattlemen's Beef Council

The North Carolina Cattlemen's Beef Council has educational materials related to nutrition and healthy eating. These publications can be shared with educational entities to help enhance the public's knowledge of how beef fits into a well-balanced, healthy diet. Visit http://www.nccattle.com for more information.



The University of North Carolina

### **North Carolina Colleges and Universities**

Several North Carolina public and private colleges and universities have accredited training in dietetics. These programs may have students and faculty that can be involved in projects. Those institutions include:

Appalachian State University, Department of Family and Consumer Sciences Boone, North Carolina 28608-2630

http://www.appstate.edu

The University of North Carolina at Chapel Hill, Department of Nutrition McGavran-Greenberg Hall, CB #7461, Chapel Hill, North Carolina 27599-7461 http://www.sph.unc.edu/nutr

Western Carolina University, Department of Health Sciences Cullowhee, North Carolina 28723 http://www.wcu.edu/aps/healths/ndhome.html

North Carolina Central University, Department of Human Sciences P.O. Box 19615, Durham, North Carolina 27707-0099 919-530-7983

Bennett College, Professional Studies Department 900 East Washington Street, Greensboro, North Carolina 27401-3239 http://www.bennett.edu

North Carolina A & T State University
Department of Human Environment and Family Sciences
102 Benbow Hall, 1601 East Market Street
Greensboro, North Carolina 27411-1064
336-334-7850

University of North Carolina at Greensboro, Nutrition and Foodservice Systems P.O. Box 26170, Greensboro, North Carolina 27402-6170 http://www.uncg.edu/nfs

East Carolina University, School of Human Environmental Sciences Department of Nutrition and Hospitality Management Greenville, North Carolina 27858-4353 http://www.ecu.edu/hes/nuhm/NUHMhome.htm

Meredith College

Department of Human Environmental Sciences, Foods and Nutrition 3800 Hillsborough Street, Raleigh, North Carolina 27607-5298 919-760-8079

Lenoir Community College, Dietetic Technician Program P.O. Box 188, Kinston, North Carolina 28502-0188 252-527-6223

Gaston College, Dietetic Technician Program P.O. Box 600, Lincolnton, North Carolina 28093-0600 704-748-1065

Some colleges and universities have programs in public health nutrition, health education, physical activity, education, and child development that might have students and faculty who can be involved in projects. Some community colleges in

North Carolina provide technical training in food service, and dietetics. For information about colleges visit these web sites:

North Carolina Community College System http://www.ncccs.cc.nc.us/index.html

Links to North Carolina Colleges and Universities http://www.50states.com/college/ncarolin.htm

### The North Carolina Hunger Network

Founded in 1990, the North Carolina Hunger Network is a statewide, diverse membership organization committed to ending hunger and malnutrition through education, advocacy, and research. The Network promotes communications and coordination among diverse groups to generate a cohesive approach to influencing policies and programs affecting poverty, hunger and malnutrition. See http://www.nchungernet.org.



The following activities are relevant to the North Carolina Blueprint For Changing Policies And Environments In Support Of Healthy Eating:

- Conduct public education and information activities designed to raise awareness about hunger and poverty in North Carolina and foster support for programs and policies that combat hunger and poverty.
- Establish legislative priorities and conduct advocacy on hunger and related issues.
- Work with regional, national, and international organizations to end hunger, malnutrition, and poverty.

### **North Carolina Nutrition Network**

The North Carolina Nutrition Network (NCNN) is a network of public and private agencies and organizations. It expands the reach and approach of current nutrition education efforts by incorporating the use of social marketing principles and tools in planning activities. It is one of 22 networks nationwide designed to ensure nutrition education for food stamp eligible individuals. NCNN is administered by North Carolina Cooperative Extension Service. Visit http://www.ncnutrition.org to view the Network's annual plan.



### North Carolina Pork Council

The North Carolina Pork Council is interested in supporting the **Eat Smart**, **Move More...North Carolina** initiative in assisting restaurants in becoming part of Winner's Circle. Pork is a high quality, healthy product that provides protein, iron, zinc, and B vitamins. Modern production has reduced the fat content of pork by 31 percent, reduced cholesterol by 10 percent, and reduced calories by 14 percent. http://www.ncpork.org

### **North Carolina Prevention Partners**



North Carolina Prevention Partners (NCPP), a statewide nonprofit organization housed in the Public Health Institute at the University of North Carolina at Chapel Hill, is working to improve health across the state and to assist employers in identifying the leading prevention issues in order to contain health care spending and boost employee productivity. NCCP leads the North Carolina BASIC Preventive Benefits Initiative that aims to create voluntary changes within the health insurance industry to offer preventive benefits beginning with physical activity, nutrition, and tobacco use. NCPP has also led the effort to develop Winner's Circle, a healthy dining options program, and Quit Now North Carolina to strengthen the tobacco cessation infrastructure available to North Carolinians wishing to quit smoking.

Winner's Circle Healthy Dining program is a collaborative program designed by North Carolina Prevention Partners in cooperation with the North Carolina Cardiovascular Health and Physical Activity and Nutrition Units designed to encourage eating establishments to provide healthy food items as well as menu cues to those healthy foods and beverages. This program had expanded into school cafeterias and includes a partnership with the North Carolina Division of Public Health Nutrition Services Branch and the North Carolina Department of Public Instruction. For specific nutrient criteria, visit http://www.ncwinnerscircle.org

Visit the web site http://www.ncpreventionpartners.org to see the Behaviors and Strategies relevant to the *North Carolina Blueprint For Changing Policies And Environments In Support Of Healthy Eating*. See http://www.ncwinnerscircle.org for information about the healthy dining program.

### Southeast United Dairy Industry Association, Inc.

Southeast United Dairy Industry Association, Inc (SUDIA) is an affiliate of National Dairy Council (NDC) and provides nutrition education and milk marketing materials FREE to eligible school districts. Pyramid Café and Pyramid Explorations are classroom nutrition education materials for second and fourth grade teachers. Expanding Breakfast and Cold Is Cool training programs help school food service personnel increase school breakfast participation and ensure that cold milk is offered as part of a quality school meal program. Cafeteria promotion materials help school food service professionals generate excitement around school meals and promote positive, fun eating environments at school. NDC's award-winning educational materials promote healthy eating and an active lifestyle to both children and adults. Finally, SUDIA and NDC Websites provide resources for health professionals and school professionals alike, including milk vending and cooler information, activity calendars and downloadable educational materials for audiences of all ages. http://www.southeastdairy.org

### **PROFESSIONAL ORGANIZATIONS**

### North Carolina Alliance for Athletics, Health, Physical Education, Recreation, and Dance

North Carolina Alliance for Athletics, Health, Physical Education, Recreation, and Dance (NCAAHPERD) is a professional organization that provides advocacy, professional development, and unity for health, physical education, recreation, dance, and athletics professionals and students in order to enhance the health of North Carolinians. The non-profit, incorporated, educational organization, along with six related associations, initiates legislation and advocates for quality curricula for health and movement education. http://www.ncaahperd.org

### N C A A H P E R D North Carolina Alliance for Athletics, Health, Physical Education, Recreation and Dance.

### **North Carolina Dietetic Association**

The North Carolina Dietetic Association (NCDA) is an affiliate of the American Dietetic Association. Registered dietitians are professionals who provide reliable nutritional information. North Carolina requires that dietitians/nutritionists practicing in the state be licensed. Many of these dietitians belong to the NCDA. NCDA is the advocate of the dietetic profession serving the public through the promotion of optimal nutrition, health, and well-being. http://www.eatrightnc.org



The organizations described above are examples of potential partners and resources. Each community has its own unique resources and potential collaborators for addressing healthy eating and physical activity. Examples of successful partnerships at the state and community levels can be found in Chapter VII.

### **References and Resources**

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North Carolina Diabetes Advisory Council. (1999). *North Carolina Statewide Diabetes Plan*. Diabetes Prevention and Control Unit, Diabetes Branch, Health Promotion and Chronic Disease Prevention Section, Division of Public Health, North Carolina Department of Health and Human Services. Raleigh, North Carolina.

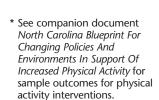
### APPENDIX II

### Examples of Healthy Eating Environmental/Policy Change Outcomes

This Appendix contains potential outcomes within the following intervention settings: community environment, schools/childcare, faith communities, worksites, community groups, and health care. The outcomes are categorized as by the; initiative's objectives: increase yearly the number of regular and consistent messages promoting healthy eating, increase yearly the number of facilities and/or environments that promote healthy eating, and increase yearly the number of policies, practices, and incentives to promote healthy eating within each of the settings.\* Each community must assess its own needs and potential for change; therefore, the outcomes for any given community are not prioritized.

### Community Environment

This setting includes the physical and social environments within the community.



**Regular and consistent messages:** Increase yearly the number of regular and consistent messages promoting healthy eating.

- materials promoting venues (e.g., Healthy Restaurant's County Dining Guide) that support healthy eating (e.g., are part of Winner's Circle, Farmers Market), available in community establishments or through websites
- materials promoting Food Assistance programs that offer healthy foods (e.g., EFNEP, In home breastfeeding programs, WIC, etc.)
- grocery/cafeteria arrangement of fruits and vegetables (packaging, visual arrangement, placement within facility, etc.)
- restaurant (or other eating out venue) labeling healthy items (e.g., menu, tent cards, includes Winner's Circle stickers)
- signage or labeling for healthy food/beverage options (e.g., groceries, convenience stores, vending machines, government buildings, medical center cafeterias)
- regularly featured health promotion topics and messages (e.g., media organizations—television, radio, newspaper, community newsletter)
- community event celebrating healthy eating
- grocery/cafeteria displays strategically placed to promote healthier items (e.g., fruits and vegetables, 5 A Day, etc.)
- signage around vending in public areas
- other regular and consistent messages supporting healthy eating

**Facilities and Environment:** Increase yearly the number of facilities and/or environments that promote healthy eating.

- food/beverage preparation equipment for preparing healthy food (e.g., ovens (if replacing fryer), blender to make smoothies, roasting pans, steamer) at community facilities (e.g., senior center)
- physical improvement promoting nutrition (e.g., new salad bar, fruit bar, cafeteria upgrade, dedicated consumer education racks or computer kiosks with ongoing healthy eating and physical activity materials)
- community food garden (e.g., creation, maintenance, improvement, expansion)
- farmer's market facility (e.g., increased community accessibility, improvement, expansion)
- space and/or equipment provided for breastfeeding (e.g., designated and appropriate)
- food assistance programs (e.g., food banks/soup kitchens, etc.) (e.g., maintenance, improvement, expansion)—especially focused on offering healthier food options
- water products (bottled water) or equipment purchase (water cooler or fountain)
- other facility or environmental support for healthy eating

**Policies, Practices and Incentives:** Increase yearly the number of policies, practices, and incentives to promote healthy eating.

- addition of healthy items to vending machines in public places (e.g., pretzels, low fat popcorn, bottled water, 100 percent juice, low-fat milk) or replacement of high fat items with lower fat (e.g., replace whole milk with 1 percent or less)
- farmer's market facility more accessible (e.g.—closer to low income neighborhood, better transportation provided; new location within a community)
- food/beverage distribution companies providing healthy options
- funding to promote nutrition (e.g., support for local farmer's market)
- incentive for making healthy eating choices (e.g., WIC vouchers, farmer's market voucher)
- policy to serve healthy food/beverage within community program (e.g., day camp switching to 100 percent juice or low fat milk)
- practice to serve healthy food/beverage at community events (e.g., annual festival)
- addition of healthy items to restaurant menus or altering recipes to make items healthier
- adoption of Winner's Circle Program (restaurant must qualify with at least one item) by restaurants and hospital cafeterias
- creation of community coalitions as catalysts for community change
- implementation of healthy eating ratings in restaurant rating and award system for food service operators
- new or expanded public transportation to farmers market, recreational facilities
- creation of food markets in low socio-economic neighborhoods
- promotion of field gleaning programs

### Community Environment



### **Community Environment**



- changed or repealed food tax
- reinstate tax on soft drinks
- practice or policy implemented on appropriate food and beverage portion sizes
- subdivision ordinance to accommodate healthy food options (e.g., greenspace set aside for community food gardens)
- policy or practice in support of breastfeeding
- implementation of other North Carolina Plans that relate to physical activity and/or healthy eating with a policy and environmental change focus (e.g., Healthy Weight Plan, CVH Plan, CA Control Plan, Diabetes Plan, Child Health Plan; MCH Block Grant; Preventive Health Block Grant, Food Policy Council, North Carolina Hunger Plan, etc.
- other policy, practice, or incentive to promote healthy eating

### Schools/ Childcare

This setting includes public, private, and home schools and childcare settings.



**Regular and consistent messages:** Increase yearly the number of regular and consistent messages promoting healthy eating.

- regularly featured healthy eating/nutrition education topics and messages in school/child care media (e.g., newsletter, announcements, bulletin board, communications folders, school menus, etc.)
- signage or labeling for healthy food/beverage options (e.g., vending machines, menu boards, etc.)
- signage to encourage drinking water
- signage around vending
- signage at food outlets near schools supporting healthy choices
- labeling of healthy items by cafeteria and other school/child care food venues (e.g., menu, tent cards, includes Winner's Circle stickers, etc.)
- classroom visits to a farm, dairy, or supermarket
- materials promoting schools/child care settings that support healthy eating (e.g., are part of Winner's Circle) available in school/child care and community venues (including websites)
- healthy lunch box ideas sent regularly to parents through communications folders or to private school principals and to homeschoolers
- materials developed for public schools provided to private schools and home-schoolers
- materials (e.g., Color Me Healthy) developed for and provided to childcare centers
- other regular and consistent messages supporting healthy eating

**Facilities and Environment:** Increase yearly the number of facilities and/or environments that promote healthy eating.

- food/beverage preparation and serving equipment for preparing and serving healthy food (e.g., roasting pans; salad and raw vegetable/fruit bar serving equipment)
- physical improvement promoting nutrition (e.g., new salad bar, fruit bar, cafeteria upgrade, dedicated student education racks or computer kiosks with ongoing healthy eating materials, family style meal service)
- school/child care food garden (e.g., creation, maintenance, improvement, expansion)

- space (attractive and sufficient) for children to sit and eat unrushed meals (e.g., increase or enhance)
- space and/or equipment provided for breastfeeding (e.g., designated and appropriate)
- water products (bottled water) or equipment purchase (water cooler or fountain)
- removal of deep fat fryers from food preparation areas
- other facility or environmental support for healthy eating

**Policies, Practices and Incentives:** Increase yearly the number of policies, practices, and incentives to promote healthy eating.

- addition of healthy food/beverage item; replace high fat items with lower fat food/beverage item (e.g., replace whole milk sales with 1 percent or less); replace low juice content drinks with 100 percent juice in cafeteria, snack bar, vending machines; have items meet portion size requirements
- policy regarding nutrition standards for all foods available in schools/childcare facilities
- addition of healthy items to vending machines (e.g., pretzels, low fat popcorn, bottled water, 100 percent juice, low-fat milk) (vendors provided with approved lists)
- food service staff included in efforts to educate students about Dietary Guidelines for Americans
- incentives for healthy foods (e.g., discounts for healthy choices)
- nutrition guidelines for after-school/childcare programs (e.g., healthy snacks and beverages)
- nutrition guidelines in school/childcare (e.g., healthy snacks at concession stands, requirement for vendors to provide healthy food/beverage alternatives, lists of approved foods for fundraisers;
- policy increasing time students have to eat
- policy limiting access to food/beverages of low nutrient density
- addition of physical education (PE), physical activity, nutrition, or health question(s) on end-of-year tests
- childcare center implements North Carolina "Color Me Healthy" program
- policy prohibiting use of physical activity or food/beverage as incentives/ disincentives (e.g., withholding PE as punishment, rewarding achievement with food/beverages of low nutrient density)
- student advocacy groups for health promotion or enhanced health promotion advocacy role of existing groups (e.g., students as part of healthy menu planning team)
- employ nutrition educator in school district to provide teacher training, materials, and support
- provide subsidy funding to offset any additional expenses in providing healthy foods and beverages
- recess before lunch
- policy to support access to therapeutic and/or calorie controlled diets for children receiving physician prescription for them
- availability of medical nutrition therapy services for children at school/day care
- limit access to vending machines to hours non-competitive with child nutrition program

### Schools/ Childcare



### Schools/ Childcare



- change policy that allows students to leave campus for lunch
- change policy that allow parents to bring foods purchased in fast food outlets to campus during meal hours
- change policy or practice (e.g., specifications) in getting food bids that specify food/beverages meet certain nutrition criteria (Dietary Guidelines for Americans, Winner's Circle)
- policy or practice to encourage parents, teachers to eat with children; family-style food services for pre K and K-3
- policy to support healthy eating in staff cafeteria, break room, etc.
- policy or practice supporting staff development for personal nutrition
- provide funding for distribution of healthy eating materials to students, staff, and parents
- provide universal free breakfast and lunch that meet healthy eating criteria
- policy or practice supporting purchase of local fruits and vegetables from area growers or commodity groups
- policy or practice that nutrition education is offered and coordinated throughout the school/child care setting (classroom, cafeteria, etc.)
- policy or practice integrating nutrition into core curriculum areas such as math, science, and language arts
- strengthen food and nutrition education in the classroom; tie lunch room promotions with classroom teaching
- policy or practice evaluating impact of changes on student and staff health, not only on costs
- establishment/maintenance of coordinated school health committee addressing the school nutrition environment
- policy or practice in support of breastfeeding for parenting teens
- establishment of environmental rating system for regulated childcare settings (e.g., rated for healthy eating and physical activity aspects)
- other policy, practice, or incentive to promote healthy eating

### Faith Organizations

This setting includes all faith organizations and related groups.



**Regular and consistent messages:** Increase yearly the number of regular and consistent messages promoting healthy eating.

- signage or labeling for healthy food/beverage options
- signage around vending within church
- regularly featured health promotion topics and messages in organizational media (e.g., bulletin, newsletter, bulletin board, website)
- practice of pastor or deacon incorporating health promotion messages into sermon on a regular basis
- provide lists, on a regular basis, of healthy foods and beverages members can donate to food banks
- provide lists, on a regular basis, of healthy foods, recipes and safe food handling tips suitable for church based meals and functions
- other regular and consistent messages supporting healthy eating

**Facilities and Environment:** Increase yearly the number of facilities and/or environments that promote healthy eating.

- food/beverage preparation equipment for preparing healthy food (e.g., ovens (if replacing fryer), blender to make smoothies, roasting pans, steamer) at church/faith-based facilities
- physical improvement promoting nutrition (e.g., new salad bar, fruit bar, dedicated consumer education racks or computer kiosks with ongoing healthy eating and physical activity materials)
- space and/or equipment provided for breastfeeding (e.g., designated and appropriate)
- food assistance programs (e.g., food banks/soup kitchens, etc.) run by the faith organization (e.g., maintenance, improvement, expansion) especially focused on offering healthier food options
- on-site food garden (e.g., creation, maintenance, improvement, expansion)
- water products (bottled water) or equipment purchase (water cooler or fountain)
- other facility or environmental support for healthy eating

**Policies, Practices and Incentives:** Increase yearly the number of policies, practices, and incentives to promote healthy eating.

- addition of healthy food/beverage item; replace high fat items with lower fat food/beverage item (e.g., replace whole milk with 1 percent or less); replace low juice content drinks with 100 percent juice items meet portion size requirements
- church-supported weight management or healthy eating program (support group, nutrition classes, healthy cooking class)
- church supported classes on disease management of conditions affected by diet and physical activity (e.g., diabetes, hypertension, cardiovascular disease, cancer)
- nutritional guidelines related to serving healthy food/beverage alternatives at church functions that serve food/beverages (including activities like mother's morning out, vacation bible school)
- establishment/maintenance of ministry of health
- policy or practice to incorporate health promotion into a specific church sponsored function (e.g., activity breaks at meetings, healthy food/beverages for daycare program or meals for needy)
- provide healthy eating and physical activity training to lay health advisors (e.g., Train the Trainer approach)
- policy or practice in support of breastfeeding
- other policy, practice, or incentive to promote healthy eating



### **Worksites**

This setting includes all places where individuals are employed.



**Regular and consistent messages:** Increase yearly the number of regular and consistent messages promoting healthy eating.

- regularly featured health promotion topics and messages in organizational media (e.g., newsletter, payroll stuffers, bulletin board)
- flyers on healthy bag lunches distributed to employees
- cafeteria or vending machine regularly labeling healthy items (e.g., menu, tent cards, posters, including Winner's Circle stickers)
- materials promoting worksite venues (e.g., Healthy Vending and Cafeteria Dining Guide) that support healthy eating (e.g., are part of Winner's Circle), available throughout worksite or through worksite website
- cafeteria or vending machine signage or labeling healthy food/beverage items (e.g., menu, tent cards, includes Winner's Circle stickers)
- worksite event celebrating healthy eating and physical activity
- cafeteria displays strategically placed to promote healthier items (e.g., fruits and vegetables, low fat milk)
- signage around vending in public areas
- other regular and consistent messages supporting healthy eating

**Facilities and Environment:** Increase yearly the number of facilities and/or environments that promote healthy eating.

- food/beverage preparation equipment for preparing healthy food (e.g., ovens (if replacing fryer), blender to make smoothies, roasting pans, steamer, water pitchers) at worksite facilities
- physical improvement promoting nutrition (e.g., new salad bar, fruit bar, cafeteria upgrade, dedicated consumer education racks or computer kiosks with ongoing healthy eating materials)
- worksite food garden (e.g., creation, maintenance, improvement, expansion)
- seasonal farmer's market provided on worksite grounds (e.g., creation, improvement, expansion)
- space and/or equipment provided for breastfeeding (e.g., designated and appropriate)
- space and or/equipment provided for alternative vending (e.g., healthy snack closets supported by workplace groups)
- water products (bottled water) or equipment purchase (water cooler or fountain)
- other facility or environmental support for healthy eating

**Policies, Practices and Incentives:** Increase yearly the number of policies, practices, and incentives to promote healthy eating.

- addition of healthy food/beverage item; replace high fat items with lower fat food/beverage item (e.g., replace whole milk with 1 percent or less); replace low juice content drinks with 100 percent juice items meet portion size requirements
- worksite-supported weight management or healthy eating program (support group, nutrition classes, healthy cooking class)
- worksite-supported classes on disease management of conditions affected by diet and physical activity (e.g., diabetes, hypertension, cardiovascular disease, cancer)

- nutritional guidelines or policy related to serving healthy food/beverage alternatives at worksite functions that serve food/beverages (including activities like meetings, employee trainings, etc.)
- establishment/maintenance of worksite wellness committee
- provide healthy eating and physical activity training to worksite employees designated to provide training to fellow employees (e.g., Train the Trainer approach)
- policy allowing paid work time or other incentives (e.g., contests, awards) for physical activity and diet/nutrition programs or behaviors
- upgraded benefits package for reimbursement for medical nutrition therapy
- policy or practice to subsidize food service costs so that healthy items can be offered at the same or lower price than less healthy items
- food service venues within worksite participate in Winner's Circle Healthy Dining Program
- practice that supports employees to use child care settings that meet healthy eating and physical activity guidelines (e.g., serve healthy foods, etc.)
- policy or practice in support of breastfeeding
- other policy, practice, or incentive to promote healthy eating

### Worksites



**Regular and consistent messages:** Increase yearly the number of regular and consistent messages promoting healthy eating.

- regularly featured health promotion topics and messages in organizational media (e.g., newsletter, bulletin board)
- vending machine or other food/beverage venue signage or labeling healthy food/beverage items (e.g., menu, tent cards, includes Winner's Circle stickers)
- community group event celebrating healthy eating
- signage around vending in public areas
- other regular and consistent messages supporting healthy eating

**Facilities and Environment:** Increase yearly the number of facilities and/or environments that promote healthy eating.

- food/beverage preparation equipment for preparing healthy food (e.g., ovens (if replacing fryer), blender to make smoothies, roasting pans, steamer) at community group facilities (e.g., Elks, Boys & Girls clubs, etc.)
- physical improvement promoting nutrition (e.g., new salad bar, fruit bar, cafeteria upgrade, dedicated consumer education racks or computer kiosks with ongoing healthy eating and physical activity materials)
- community-group food garden (e.g., creation, maintenance, improvement, expansion)
- Farmer's market facility (e.g., increased community accessibility, improvement, expansion)
- space and/or equipment provided for breastfeeding at communitygroup facility (e.g., designated and appropriate)
- food assistance programs (e.g., food banks/soup kitchens, etc.) supported by community group (e.g., maintenance, improvement, expansion)—especially focused on offering healthier food options

### **Community Groups**

This setting includes all social and civic groups for all ages within the community.



### **Community Groups**



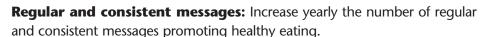
- water products (bottled water) or equipment purchase (water cooler or fountain)
- other facility or environmental support of healthy eating

**Policies, Practices and Incentives:** Increase yearly the number of policies, practices, and incentives to promote healthy eating.

- addition of healthy food/beverage item; replace high fat items with lower fat food/beverage item (e.g., replace whole milk with 1 percent or less); replace low juice content drinks with 100 percent juice items meet portion size requirements
- community group supported weight management or healthy eating program (support group, nutrition classes, healthy cooking class)
- community group-supported classes on disease management of conditions affected by diet and physical activity (e.g., diabetes, hypertension, cardiovascular disease, cancer)
- nutritional guidelines or policy related to serving healthy food/beverage alternatives at community group functions that serve food/beverages (including activities like meetings, conferences, group functions, etc.)
- establishment/maintenance of community group wellness committee
- provide healthy eating and physical activity training to community group members designated to provide training to fellow members (e.g., Train the Trainer approach)
- policy allowing incentives (e.g., contests, awards) for physical activity and diet/nutrition programs or behaviors
- policy or practice to subsidize food service costs so that healthy items can be offered at the same or lower price than less healthy items
- food service venues within community group facility participate in Winner's Circle Healthy Dining Program
- policy requiring healthy food/beverage alternatives at all group functions in which food/beverage is served (e.g., water, fruits and vegetables, etc.)
- policy or practice in support of breastfeeding
- other policy, practice, or incentive to promote healthy eating

### **Health Care**

This setting includes hospitals, health departments, primary care facilities, physicians offices, and health insurance companies.



- regularly featured health promotion topics (nutrition, availability of medical nutrition therapy services, etc.) and messages in organizational media (e.g., patient or family materials)
- vending machine or other food/beverage venue signage or labeling healthy food/beverage items (e.g., menu, tent cards, includes Winner's Circle stickers)
- community group event celebrating healthy eating and physical activity
- signage around vending in public areas
- signage/posters that on a continuing basis educate consumers about healthy eating/nutrition issues (e.g., encouraging patients to ask health care providers about healthy eating; portion/serving sizes; Dietary Guidelines for Americans)
- other regular cues or messages supporting healthy eating

**Facilities and Environment:** Increase yearly the number of facilities and/or environments that promote healthy eating.

- food/beverage preparation equipment for preparing healthy food (e.g., ovens (if replacing fryer), blender to make smoothies, roasting pans, steamer) in break areas and other food service areas at health care facilities (e.g., hospital, health department, community health center, etc.)
- physical improvement promoting nutrition (e.g., new salad bar, fruit bar, cafeteria upgrade, dedicated consumer education racks or computer kiosks with ongoing healthy eating and physical activity materials)
- community food garden (e.g., creation, maintenance, improvement, expansion)
- farmer's market facility (e.g., increased community accessibility, improvement, expansion)
- space and/or equipment provided for breastfeeding (e.g., designated and appropriate)
- food assistance programs (e.g., food banks/soup kitchens, etc.) (e.g., maintenance, improvement, expansion)—especially focused on offering healthier food options
- water products (bottled water) or equipment purchase (water cooler or fountain)
- other facility or environmental support healthy eating

**Policies, Practices and Incentives:** Increase yearly the number of policies, practices, and incentives to promote healthy eating.

- addition of healthy food/beverage item or discontinue less healthy food beverage item available to patients/clients; replace high fat items with lower fat food/beverage item (e.g., replace whole milk with 1 percent or less); replace low juice content drinks with 100 percent juice items meet portion size requirements
- health care supported weight management or healthy eating program (support group, nutrition classes, healthy cooking class)
- health care-supported classes on disease management of conditions affected by diet and physical activity (e.g., diabetes, hypertension, cardiovascular disease, cancer)
- nutritional guidelines or policy related to serving healthy food/beverage alternatives at health care functions that serve food/beverages (including activities like meetings, conferences, group functions, etc.)
- guideline or practice to regularly incorporate nutrition in patient or family education
- policy or guideline encouraging healthy food/beverages to be served or available to patients and families
- establishment/maintenance of health care setting wellness committee
- provide healthy eating training to health care employees designated to provide training to clients/customers or community members (e.g., Train the Trainer approach)
- policy allowing incentives (e.g., contests, awards) for diet/nutrition programs or behaviors
- inclusion of benefits provided by insurers for nutrition
- upgrade of health professions training programs (pre-service and continuing education) improving curriculum for nutrition



### **Health Care**



- employment of registered dietitians to provide medical nutrition therapy for adults and youth
- policy or practice to subsidize food service costs so that healthy items can be offered at the same or lower price than less healthy items
- food service venues within health care facility participate in Winner's Circle Healthy Dining Program
- policy requiring healthy food/beverage alternatives at all group functions in which food/beverage is served (e.g., water, fruits and vegetables, etc.)
- policy or practice in support of breastfeeding
- other policy, practice, or incentive to promote healthy eating



### Defining Healthy Foods

any organizations and agencies have developed criteria to describe food items or food consumption patterns as "healthy" or "healthful". These are often used to assist consumers in comparing food items for specific nutrient components to either select or avoid. There is no single definition of healthy foods. Most programs develop criteria to encourage the consumption of less fat, saturated fat, dietary cholesterol and sodium. Some programs, like 5 A Day, are designed to promote fruits and vegetables as low fat foods.

These core criteria are listed below. Consult references for full descriptions.

### NATIONAL HEART LUNG BLOOD INSTITUTE

Any recipe used in its publications must have (per serving)

- Less than 12 grams fat
- No more than 4 gm saturated fat
- Less than 100 mg dietary cholesterol
- Less than 600 mg sodium

See "Stay Young At Heart Program" http://nhlbiinfo@rover.nhlbi.nih.gov

### NATIONAL CANCER INSTITUTE AND PRODUCE FOR BETTER HEALTH—5 A DAY PROGRAM

All juice products must be 100 percent juice or juice concentrate may not have added fat or sugar and no more than 480 mg sodium/8oz.

Any recipe promoted must

- Contribute at least one serving of a fruit and/or vegetable per portion of a recipe.
- Have less than 30 percent calories from fat or 3 gm total fat/100 gram serving
- Less than 10 percent calories from saturated fat or 1 gm saturated fat/100 gram serving
- No more than 100 mg cholesterol
- No more than 480 mg sodium







### NORTH CAROLINA WINNER'S CIRCLE HEALTHY DINING PROGRAM

**For a Meal:** Minimum of 2 servings of fruit and/or vegetables AND 1 serving of grains or beans OR 1 milk serving (285 mg calcium) AND all items must have 30 percent or less calories from fat (maximum 3 grams fat per 100 calories) AND less than 1500 mg sodium.

**For single item or side dish:** Minimum of 1 serving of fruit and/or vegetables OR 1 serving of grains or beans OR 1 milk serving (285 mg calcium) OR Bottled Water (non sweetened) AND all items must have 30 percent or less calories from fat (maximum 3 grams fat per 100 calories) AND less than 1000 mg sodium.

**Snacks (any prepackaged food).** Snack items must have at least 12 grams of complex carbohydrates per serving and have 30 percent or less calories from fat AND less than 600 mg. sodium. Foods such as fruits, vegetables, lowfat milk, bread, rice pasta, etc. already meet the single item criteria so this is only for pre-packaged foods.

See: http://www.ncwinnerscircle.org

### AMERICAN HEART ASSOCIATION FOOD CERTIFICATION PROGRAM

Based on the standard serving sizes established by the U.S. government, a product may

- Include up to 3 grams total fat, up to 1 gram saturated fat, and up to 20 mg cholesterol
- Must not exceed a sodium disqualifying level of 480 mg
- Must include at least 10 percent of the Daily Value for at least one of six nutrients: protein, dietary fiber, vitamin A, vitamin C, calcium or iron
- Seafood, game meats, and meat and poultry products must contain less than 5 grams total fat, less than 2 grams saturated fat and less than 95 mg cholesterol per standard serving and per 100 grams.

See: http://www.aha.org

### STATE OF CALIFORNIA NUTRITION STANDARDS FOR FOOD SOLD IN SCHOOLS

In 2001, California was the first state to re-introduce standards for snacks and beverages sold to elementary and middle school students outside of the federal meal programs.

**Elementary schools:** Snacks may have no more than 35 percent calories from fat; no more than 10 percent calories from saturated fat and be no more than 35 percent sugar by weight. Beverages allowed are milk, water, or juice that is at least 50 percent fruit juice with no added sweeteners.

**Middle schools:** Carbonated beverages may be sold after the end of the last lunch period.

See: http://www.ca.gov

### US DEPARTMENT OF AGRICULTURE FOOD AND NUTRITION NATIONAL SCHOOL LUNCH AND BREAKFAST PROGRAMS

Nutrition standards for these school meal programs have been established for calories, total fat, saturated fat, protein, calcium, Vitamins A and C and iron. The programs provide two meal-planning options: food based or nutrient based. Reimbursement is dependent upon meeting criteria. Serving sizes vary by grades. See: http://www.fns.usda.gov

"This report [Foods Sold in Competition with USDA School Meal Programs, A Report to Congress] makes it clear that the availability of foods sold in competition with school meals jeopardizes the nutritional effectiveness of the programs and may be a contributor to the trend of unhealthy eating practices among children and subsequent health risks."

Shirley R. Watkins, Under Secretary Food, Nutrition and Consumer Services U.S. Department of Agriculture, 2001

### US DEPARTMENT OF AGRICULTURE FOOD AND NUTRITION SERVICES CHILD AND ADULT CARE FOOD PROGRAM and NATIONAL SCHOOL LUNCH PROGRAM AFTER-SCHOOL SNACKS

To be reimbursed, a snack must contain at least two different components out of the following: 1) a serving of fluid milk; 2) a serving of meat or meat alternative; 3) a serving of vegetable(s) or fruit(s) or full strength vegetable or fruit juice; 4) a serving of whole grain or enriched bread and/or cereal. See http://www.fns.usda.gov

### US DEPARTMENT OF AGRICULTURE FOOD AND NUTRITION SERVICES FOODS OF MINIMAL NUTRITIONAL VALUE

Regulations that identify food and beverages that may not be sold in competition with breakfast and school lunch periods in foodservice areas.

**Artificially sweetened foods:** Provide less than five percent of the RDI/serving for each of eight nutrients: protein, vitamin A, vitamin C, niacin, riboflavin, thiamin, calcium, and iron.

**All other foods:** Provide less than five percent of the RDI/ 100 calorie serving for each of eight nutrients in: protein, vitamin A, vitamin C, niacin, riboflavin, thiamin, calcium, and iron.

### **Categories of food of minimal nutritional value:**

- 1. soda water, including beverages with added vitamins, minerals, and protein
- 2. water ices, water ices which contain fruit or fruit juices are not included
- 3. chewing gum
- 4. certain candies, hard candies, jellies and gums, marshmallow candies, fondant, licorice, spun candy, and candy coated popcorn

See http://www.fns.usda.gov



### US FOOD AND DRUG ADMINISTRATION NUTRITION LABELING AND EDUCATION ACT

Nutrient claims. Health claims See http://vm.cfsan.fda.gov

### **ADMINISTRATION ON AGING**

Nutritional quality of meals offered in the Title III program. See: http://aoa.dhhs.gov

### **CENTER FOR SCIENCE IN THE PUBLIC INTEREST**

Best Bites program—rates commercial food products in "Nutrition Action" magazine. Criteria vary by food product.

See: http:///www.cspinet.org

### **LOWE'S FOODS**

Lowes has a new in-store Start With Your Heart shelf labeling program. Foods must meet one of more of the American Heart Association guidelines for healthy foods, or must be made of ingredients that are good for the heart and overall health. Lowes has also established nutrition criteria for recipes published in company publications available to the public.



### **APPENDIX IV**

### Cost-Benefit Analysis for Nutrition Service and Education Programs

utrition interventions have demonstrated cost effectiveness in changing individual food behaviors. A few examples are given to recognize that a multi-level strategy is needed to support healthy eating and demonstrate that change is possible.

### SPECIAL SUPPLEMENTAL FOOD PROGRAM FOR WOMEN, INFANTS AND CHILDREN (WIC)

Numerous scientific studies show that pregnant women who participate in the WIC program seek earlier prenatal care and consume a healthier diet. The improved nutrition and nutrition education provided to enrolled women and children result in longer pregnancies, fewer very low birth weight babies, and fewer fetal and infant deaths. In 1992, the U.S. Government Accounting Office estimated an overall annual savings of \$51 million in federal and state health care funds if the Women, Infant, Children program served all eligible pregnant women. For example, in that year it cost \$544 a year for a pregnant woman to participate in WIC. By contrast, it costs the tax payers \$22,000 per pound to nurture a low birth weight baby (less than 5.5 pounds) to the normal weight of 7 pounds in a neonatal intensive care unit. WIC prenatal care benefits reduce the rate of very low birth weight babies by 44 percent. In North Carolina, it was found that for each \$1.00 spent on WIC services, Medicaid savings in costs for newborn medical care were \$2.91 (Buescher et al, 1993). These positive findings were reconfirmed in 1997 (Buescher and Horton, 2000). While the estimates are broad, the cost of not breastfeeding to the nation is \$1.186 to \$1.301 billion annually (Governmental Accounting Office, 2001).

### **EXPANDED FOOD AND NUTRITION EDUCATION PROGRAM**

The Expanded Food and Nutrition Education Program was designed to assist homemakers with limited resources to acquire knowledge, skills, attitudes, and practices necessary for healthy diet. The long-term goal is to improve health and disease prevention. A cost-benefit analysis found the initial cost to benefit ratio to be \$1.00/\$10.64. This translates into a positive cost-benefit based on potential prevention of diet related chronic diseases and conditions.



### NATIONAL SCHOOL LUNCH AND SCHOOL BREAKFAST

Over 26 million children per day received school meals in 1999 when an analysis was undertaken to determine if school meals would meet nutritional requirements specified by the *Dietary Guidelines for Americans*. These reforms were found to be economically feasible (Lutz et al, 1999).

### MEDICAL NUTRITION THERAPY

Private insurance payers provide few nutrition benefits. Yet, medical nutrition therapy saves money by providing alternatives to more costly therapies, by decreasing length of hospital stay, and by preventing the need for surgery and hospitalizations. In November 1996, the American Dietetic Association contracted with The Lewin Group to conduct an econometric study of the cost of covering medical nutrition therapy as a Part B benefit of the Medicare program. Additionally, the American Dietetic Association provides regular updates to the discussion of cost-effectiveness of medical nutrition therapy (http://www.eatright.org/acost-effectiveness.html). Unfortunately, only minimal nutrition education is required to graduate from any of the medical schools in North Carolina. Physicians report they are unprepared to counsel patients. Only 46 percent of North Carolina adults reported their doctor ever counseled them about diet or eating. Among overweight adults, less than half (41 percent) had received counseling from the doctor about their eating habits (BRFSS, 1997).

### **FOOD LABELING**

In preparation for nutrition labeling which was implemented in 1994, the Food and Drug Administration and the USDA estimated a savings of between \$5.6 and \$15.3 billion over 20 years if labeling resulted in consumers selecting items slightly lower in fat, saturated fat, and cholesterol. While these benefit estimates were crude, they do suggest that small changes in the diet of an individual can yield large benefits for the population. Surveys since the implementation of labeling do show that Americans are reading Nutrition Facts labels and that they have an effect on choices of some individuals, especially in selecting lower-fat items.



### North Carolina 2010 Health Objectives

### **NUTRITION**

- Increase the proportion of adults eating five or more servings of fruits and vegetables each day.
- Increase the percent of middle schools and high school students who eat any fruit or fruit juice on a given day.
- Increase the percent of middle school and high school students who eat any vegetables on a given day.
- Decrease the percent of middle schools and high school students who eat high-fat meats on a given day.
- Decrease the percent of students who eat high-sugar snack foods on a given day.

### **OVERWEIGHT AND OBESITY**

- Reduce the percent of children and adolescents who are overweight or obese.
- Reduce the proportion of adults who are obese.
- Increase the proportion of adults who are at a healthy weight.

### **RELATED NORTH CAROLINA 2010 HEALTH OBJECTIVES**

- Heart Disease and Stroke
- Cancer
- Diabetes
- Arthritis/Osteoporosis
- Physical Activity
- Substance Abuse (alcohol)

### **References and Resources**

Governor's Task Force for Healthy Carolinians. *Healthy Carolinians 2010: North Carolina's Plan for Health and Safety.* 2000. www.healthycarolinians.org



### **APPENDIX VI**

### Healthy People 2010 Objectives



- 19-1 Increase the proportion of adults who are at a healthy weight.
- 19-2 Reduce the proportion of adults who are overweight.
- 19-3 Reduce the proportion of children and adolescents who are overweight or obese.
- 19-4 Reduce growth retardation among low-income children under age 5 years.
- 19-5 Increase the proportion of persons aged 2 years and older who consume at least two daily servings of fruit.
- 19-6 Increase the proportion of persons aged 2 years and older who consume at least three daily servings of vegetables, with at least one-third of them being dark green or orange vegetables.
- 19-7 Increase the proportion of persons aged 2 years and older who consume at least six daily servings of grain products, with at least three being whole grains.
- 19-8 Increase the proportion of persons aged 2 years and older who consume less than 10 percent of calories from saturated fat.
- 19-9 Increase the proportion of persons aged 2 years and older who consume no more than 30 percent of calories from total fat.
- 19-10 Increase the proportion of persons aged 2 years and older who consume 2,400 mg or less of sodium daily.
- 19-11 Increase the proportion of persons aged 2 years and older who meet dietary recommendations for calcium.
- 19-15 (Developmental) Increase the proportion of children and adolescents aged 6 to 19 years whose intake of meals and snacks at school contributes to good overall dietary quality.
- 19-16 Increase the proportion of worksites that offer nutrition or weight management classes or counseling.
- 19-17 Increase the proportion of physician office visits made by patients with a diagnosis of cardiovascular disease, diabetes, or hyperlipidemia that include counseling or education related to diet and nutrition.

### **References and Resources**

U.S. Department of Health and Human Services. *Healthy People 2010: Understanding and Improving Health*. 2nd ed. Washington, DC: U.S. Government Printing Office, November 2000.

http://www.health.gov/healthypeople/Document

### **APPENDIX VII**

# **COMMUNITY ACTION PLAN**

Division of Public Health NC Department of Health & Human Services		PROGRAM(S):		
AGENCY: PREPARED BY: PHONE: E-MAIL:		FOR PERIOD COVERING:	RING:	ТО
Healthy Caroli	linians 2010 H	Ithy Carolinians 2010 Health Objective Addressed	Addressed	
	LOCAL COMMUNITY OBJECTIVE Number	WITY OBJECTIVE		
Is this a policy and/or ← environmental change objective?  □ yes □ no				Objective's Target Population: Estimated Size: Targeted Health Disparities Population: Estimated Size:
STRATEGIES & Steps TAR GRO	TARGET	SETTING (channel)	COMMUNITY PARTNERS— THEIR ROLES & RESPONSIBILITIES	IERS— OONSIBILITIES

### This plan addresses Goal #1, Objective #1 of the Eat Smart, Move More...North Carolina initiative **COMMUNITY ACTION PLAN**

Division of Public Health NC Department of Health & Human Services	<b>PROGRAM(S):</b> Carolina County Physical Activity & Nutrition Coalition Carolina County Health Promotion Program
AGENCY: Carolina County Health Dept. PREPARED BY: Jane Eatsmart PHONE: FAT-SMA-RTNC	
E-MAIL: janeeatsmart@carolinacounty.nc.org	FOR PERIOD COVERING: July 1, 20XX TO June 30, 20XX

# Healthy Carolinians 2010 Health Objective Addressed

day.	H	Objectives Target Population: Health Care Employees and Customers	
Increase the proportion of adults who are at a healthy weight. ncrease the proportion of adults eating five or more servings of fruits and vegetables each day.	LOCAL COMMUNITY OBJECTIVE	Number	By June 20XX, work with 2 health care settings (hospital and health department)
			Is this a policy and/or <pre>environmental change objective?</pre>

Estilliated Size, 3000	Targeted Health Disparities Population:	Low-income residents	Estimated Size: 1500
By June 20XX, work with 2 health care settinas (hospital and health department)	od/beverage items in vending mach	through point of purchase signage (posters, healthy item icons, etc.).	,
C : + : : - : - : - : - : - : - : - : - :	ge objective?		

**x** yes □

STRATEGIES & Steps	TARGET GROUP	SETTING (channel)	COMMUNITY PARTNERS— THEIR ROLES & RESPONSIBILITIES
Strategy 1: Identify successful point of purchase programs	Employees and	Health Care	Local Physical Activity & Nutrition Coalition—Winner's Circle (WC)
for vending machines that market healthy items and assess	customers of	(Hospital and	Healthy Dining Program Committee—this group is already using
interest and gain commitment among vending machine	Health Dept.	Health Dept.)	the WC Program successfully in restaurants and will serve as
companies, health department and hospital administrators	and Hospital	Community—	the coordinating committee for this project. Members include:

hine Health Dept. Health Promotion Coordinator—Chair of the LPAN and coordinator for this project.  Local Cooperative Extension—Food & Nutrition Agent—Analyzes foods and beverages and determines if items qualify.  Hospital Marketing & PR Coordinator—Assists in idea generation and PR plans for the LPAN.	LPAN WC Committee—see above	LPAN WC Committee—see above	Hospital Marketing & PR Coordinator—identifies and contacts vending machine company that services the hospital.  Health Dept. Health Promotion Coordinator—identifies and contacts vending machine company that services the health dept.  Vending Machine Company Representative—agrees to be liaison with coordinating committee and their company.
Vending Machine Contractor	Health Care	Health Care	Health Care
Vending Machine company representatives	N/A	N/A	Vending Machine companies
for promoting healthy vending items.	Step 1: By August 20XX, research successful point of purchase vending programs (e.g., Winner's Circle) that market healthy food items.	Step 2: By September 20XX, establish nutrient criteria for healthy vending items (e.g., criteria used for Winner's Circle).	Step 3: By October 20XX, make contact with vending machine companies that service the health department and hospital vending machines to assess interest in point of purchase program to market healthy food/beverage items.

STRATEGIES & Steps	TARGET	SETTING (channel)	COMMUNITY PARTNERS— THEIR ROLES & RESPONSIBILITIES
Step 4: By October 20XX, conduct informal surveys with health dept. and hospital administrators to assess interest in marketing healthy food items in vending machines.	Administrators (Hospital & Health Dept.)	Health Care	LPAN WC Committee—develops informal survey questions. Hospital Marketing & PR Coordinator—contacts appropriate hospital administrators for program buy-in. Health Dept. Health Promotion Coordinator—contacts appropriate health dept. administration for program buy-in. Health Director—makes final decision on project and informs staff and Board of Health of decision. Hospital CEO—makes final decision on project and informs other staff of decision.
Step 5: By November 20XX, develop memorandum of understanding or agreement with administrators to implement this program in their health care settings.	Administrators (Hospital & Health Dept.)	Health Care	LPAN WC Committee—drafts memorandum of understanding for health care settings and vending machine company.  Hospital Marketing & PR Coordinator & Health Dept. Health Promotion Coordinator—contact and secure respective MOU's. Vending Machine Representative—secures signature of Vending Machine Company CEO for MOU.
<b>Strategy 2:</b> Develop marketing plan for promoting healthy food items through point of purchase program.	Health Care employees and customers	Health Care	See below.
Step 1: By September 20XX, develop list of potential ways to market healthy vending options for meetings with vending machine companies and administrators.	Health Care employees and customers Administrators (Hospital & Health Dept.) Vending Machine Company reps.	Health Care	LPAN WC Committee—develops draft marketing ideas.
Step 2: By October 20XX, develop draft budget and marketing plan, after meetings with the above.	Same as above	Health Care	<b>LPAN WC Committee</b> —develops draft budget and potential funding sources.
Step 3: By November, 20XX finalize budget and marketing plan and determine criteria for success (e.g., was the program effective and why).	Same as above	Health Care	<b>LPAN WC Committee</b> —finalizes budget, marketing plan and determines criteria for success (evaluation).
Step 4: By December 20XX, order and/or secure all point of marketing purchase marketing materials for vending machine programs.	Same as above	Health Care	<b>LPAN WC Committee</b> —each member orders or secures materials based on program needs and member abilities. Secures funding from outside sources as needed.
<b>Strategy 3:</b> Implement and evaluate vending machine point of purchase programs	Same as above	Health Care	
Step 1: By January 20XX, develop and conduct pre-point of purchase program survey with employees and customers at each health care setting.	Health Care employees and customers	Health Care	<b>LPAN WC Committee</b> —develops survey and identifies others who can assist in implementing surveys in respective health care settings.

STRATEGIES & Steps	TARGET	SETTING	COMMUNITY PARTNERS—
	GROUP	(channel)	THEIR ROLES & RESPONSIBILITIES
Step 2: By January 20XX, vending machine items that meet WC criteria are identified	N/A	Health Care	Local Cooperative Extension Agent works with fellow LPAN WC Committee to identify foods sold in each setting's vending machines that meet nutrient criteria set by the Winner's Circle Program.  LPAN WC Committee shares information with administrators and vending machine company representatives.
Step 3: By February 20XX, implement vending machine point of purchase program(s).	Health Care employees and customers	Health Care	<b>LPAN WC Committee</b> —each member agrees to take on various roles for project implementation and identifies others who can assist in implementation.
Step 4: By February 20XX, use all available methods to promote the new program (organizational media, posters, e-letters to employees, newsletters).	Health Care employees and customers	Health Care	LPAN WC Committee—each member agrees to take on various roles for project implementation and identifies others who can assist in implementation.
Step 5: By March 20XX, conduct evaluation of program with health care setting employees, customers, and administrators.	Health Care employees and customers	Health Care	<b>LPAN WC Committee</b> —each member agrees to take on various roles for project evaluation and identifies others who can assist in evaluation.
Step 6: By April 20XX and ongoing, complete follow up surveys with vending machine companies, employees, customers, and administrators of health care settings to determine ongoing promotional campaign and program improvements.	Administrators (Hospital & Health Dept.) Vending Machine Company reps	Health Care	LPAN WC Committee—coordinates survey implementation process.  Employees and Customers of Health Dept. and Hospital—complete surveys.  Health Director and Hospital CEO—complete surveys.  Vending Machine Company Representative—completes survey.
Step 7: By may 20XX and ongoing, modify point of purchase program as needed to best meet needs of partners and success of program.		Health Care	<b>All partners</b> agree upon changes needed and begin to implement.
<b>Strategy 4:</b> Document and share project successes, partners, limitations, evaluation results, etc. with other local and state partners.	Local and State Partners	Health Care	
Step 1: By May 20XX, compile project results and share with all local partners.	Local Partners	Health Care	LPAN WC Committee—each member agrees to assist in data analysis and report generation and to share with respective administrators and community.
Step 2: By June 20XX, share project results with state partners.	State Partners	Health Care	Health Dept. Health Promotion Coordinator—writes up success story, shares with partners, edits as needed and shares with state partners.  Each LPAN WC committee member—shares with respective state partners as appropriate.
Step 3: By June 20XX, assess interest in expansion of program to other community settings.	Other Local Partners	Health Care Other Settings	<b>LPAN WC committee</b> —identifies and assesses potential settings for program expansion and shares with group.

# This plan addresses Goal #1, Objective #2 of the Eat Smart, Move More...North Carolina initiative

# **COMMUNITY ACTION PLAN**

Division of Public Health NC Department of Health & Human Services	PROGRAM(S): Carolina County Physical Activity & Nutrition Coalition Carolina County Health Promotion Program
AGENCY: Carolina County Health Dept. PREPARED BY: Jane Eatsmart	
PHONE: EAT-SMA-RTNC E-MAIL: janeeatsmart@carolinacounty.nc.org	FOR PERIOD COVERING: July 1, 20XX TO June 30, 20XX

# Healthy Carolinians 2010 Health Objective Addressed

aay.	Objective's Target Population: Carolina County resident	Estimated Size: 32,000 Targeted Health Disparities Population: N/A Estimated Size: N/A
increase the proportion of datatis edung live of more servings of mais and vegetables each day.	LOCAL COMMUNITY OBJECTIVE  Number	By June 2005, at least 2 types of mass media coverage will be printed/aired displaying the need for healthy eating establishments (e.g., Winner's Circle Dining Program) in Carolina County.
		Is this a policy and/or ★ environmental change objective?  ▼ yes □ no

Please note: This action plan was written to showcase mass media coverage strategies, as part of a larger effort to create policy and environmental change. Generally speaking, planning for policy and environmental change (as shown in Goal 2 action plan examples) should be done concurrently with public awareness activities (as shown in this and the other Goal 1 action plans).

THEIR ROLES & RESPONSIBILITIES COMMUNITY PARTNERS—

(channel) SETTING

**TARGET** GROUP

STRATEGIES & Steps

STRATEGIES & Steps	TARGET GROUP	SETTING (channel)	COMMUNITY PARTNERS— THEIR ROLES & RESPONSIBILITIES
<b>Strategy 1:</b> Establish and maintain relationships with local media outlets for media advocacy purposes.	Media	Community Environment	<b>Project Coordinator and Health Dept. Partners</b> —develops story idea to pitch to specific media representatives.
Step 1: By August 20XX, update current list of media contacts. Media	Media	Community Environment	<b>Project Coordinator</b> —works with Partners to update list of media contacts.
Step 2: By September 20XX, pitch at least one story idea about why healthy eating environments are needed and important to local media (radio and/or TV/cable).	Media	Community Environment	Project Coordinator and Health Dept. Partners—develops story idea to pitch to specific media representatives.
Step 3: By January 20XX, pitch 2nd story idea about the impact of the Winner's Circle (WC) Healthy Dining Program on the health of citizens in Carolina County to local media.	Media	Community Environment	<b>Project Coordinator and Health Dept. Partners</b> —develops story idea to pitch to specific media representatives.

STRATEGIES & Steps	TARGET	SETTING	COMMUNITY PARTNERS—
<b>Strategy 2:</b> Implement the Winner's Circle Healthy Dining Program and develop public awareness and marketing/promotional plan that would use local media outlets.	Media	Community	Project Coordinator and Health Dept. Partners—implements the Winner's Circle Program.
Step 1: By July 20XX, results of Community Assessment completed and report generated showcasing impact of eating environments on health of Carolina County citizens.	Media	Community Environment	Project Coordinator and Health Dept. Partners—completes Community Assessment with community representatives and compiles results.
Step 2: By August 20XX, Winner's Circle program planning begun and initial eating out venues identified.	Media	Community Environment	<b>Project Coordinator and Health Dept. Partners</b> —implements the WC program and begins to identify eating out venues.
Step 3: By September 20XX, develop and implement public awareness and marketing/promotional plan for the Winner's Circle Program in Carolina County.	Media	Community Environment	Project Coordinator and Health Dept. Partners—develop and implement public awareness and marketing/promotional plan for the Winner's Circle Program.
Step 4: By March 20XX, evaluate media advocacy and marketing/promotional plan for the Winner's Circle program in Carolina County.	Media	Community Environment	Project Coordinator and Health Dept. Partners—evaluates public awareness and marketing/promotional plan for the Winner's Circle Program.

This plan addresses Goal #1, Objective #3 of the Eat Smart, Move More...North Carolina initiative

# COMMUNITY ACTION PLAN

Division of Public Health NC Department of Health & Human Services	PROGRAM(S): Carolina County Health Department	. Department
AGENCY: Carolina County Health Dept. PREPARED BY: Jane Eatsmart PHONE: EAT-SMA-RTNC		
E-MAIL: janeeatsmart@carolinacounty.nc.org	FOR PERIOD COVERING: July 1, 20XX TO June 30, 20XX	TO June 30, 20XX

# Healthy Carolinians 2010 Health Objective Addressed

H -/:H -/:H	Objective's Target Population: Church members	Estimated Size: 280 Targeted Health Disparities Population: African Americans Estimated Size: 280
LOCAL COMMONITY OBJECTIVE	Number	By May 20XX, contribute to at least 5 organizational media events promoting healthy eating in one African American church in Carolina County.
		Is this a policy and/or ← environmental change objective?  ■ yes □ no

Please note: This action plan was written to showcase mass media coverage strategies, as part of a larger effort to create policy and environmental change (as shown in the Goal 2 action plan examples) should be done concurrently with public awareness activities (as shown in this and the other Goal 1 action plans).

STRATEGIES & Steps	TARGET	SETTING (channel)	COMMUNITY PARTNERS— THEIR ROLES & RESPONSIBILITIES
<b>Strategy 1:</b> Lay Health Ministry of Church develops action plan to promote healthy eating throughout all church venues.	Congregation	Faith organization	Lay Health Ministry—members may include pastor; nurse; physician; food/social committee representative, etc. Health Dept. Health Promotion Coordinator—will serve in an advisory capacity to the Lay Health Ministry to provide them with materials, health data and information, sample newsletter ideas, etc. Church Pastor—as leader of the church will work with Lay Health Ministry and provide overall support to all activities planned by the Lay Health Ministry team.
Step 1: By September 20XX, lay health ministry identifies healthy eating as a priority for all church based events and gains commitment of pastor and other church leaders as appropriate.	Congregation	Faith organization	Lay Health Ministry (LHM)—gains commitment of pastor and church leaders for activities.

STRATEGIES & Steps	TARGET GROUP	SETTING (channel)	COMMUNITY PARTNERS— THEIR ROLES & RESPONSIBILITIES
Step 2: By November 20XX, lay health ministry identifies all ways that healthy eating can be regularly promoted (via print or other method) within the church (e.g., through sermons by minister; church bulletins; bulletin boards; newsletters; etc.).	Congregation	Faith organization	LHM—identifies all ways that health eating can be regularly promoted within the church and shares information with pastor and church leaders.  Health Dept. Health Promotion Coordinator—will serve in an advisory capacity to the Lay Health Ministry.
Step 3: By December 20XX, lay health ministry develops action plan and gains support by pastor for church-based media events to promote the need for healthy eating and ways the church will support healthy eating for its members.	Congregation	Faith organization	
<b>Strategy 2:</b> Lay Health Ministry implements and evaluates church-based media events to support policy or practice changes that support healthy eating at church venues.	Congregation	Faith organization	See below.
Step 1: By February 20XX, lay health ministry develops or secures at least 5 church-based media events (e.g., message in bulletin about why healthy eating is important to the church and it's members; bulletin board promoting the advantage of fruits and vegetables being served at church functions; sermonette by pastor about how changes made to add more fruits and vegetables to church suppers will assist church members in staying healthy; etc).	Congregation	Faith organization	LHM—develops or secures materials to promote throughout congregation.  Health Dept. Health Promotion Coordinator—provides LHM with materials, health data and information, sample newsletter ideas, etc.
Step 2: By March 20XX, lay health ministry implements church-based media events.	Congregation	Faith organization	LHM—begins to implement organizational media events (e.g., message in bulletin about why healthy eating is important to the church and it's members; bulletin board promoting the advantage of fruits and vegetables being served at church functions; sermonette by pastor about how changes made to add more fruits and vegetables to church suppers will assist church members in staying healthy; etc.)  Health Dept. Health Promotion Coordinator—collects samples of materials developed with permission of LHM.
Step 3: By May 20XX, lay health ministry develops and implements evaluation for church based media events and recommends new/enhanced media event opportunities.	Congregation	Faith organization	LHM—evaluates activities and develops new materials as appropriate.  Health Dept. Health Promotion Coordinator—serves in an advisory capacity to the Lay Health Ministry and assists with evaluation efforts as appropriate.

# This plan addresses Goal #2, Objective #1 of the Eat Smart, Move More...North Carolina initiative

# COMMUNITY ACTION PLAN

Division of Public Health NC Department of Health & Human Services	ices		PROGRAM(S):	Carolina County Physica Carolina County Health I	PROGRAM(S): Carolina County Physical Activity & Nutrition Coalition         Carolina County Health Promotion Program
AGENCY: Carolina County Health Dept. PREPARED BY: Jane Eatsmart PHONE: EAT-SMA-RTNC E-MAIL: janeeatsmart@carolinacounty.nc.org	e.org		FOR PERIOD CC	for Period Covering: July 1, 20XX	TO June 30, 20XX
	Healthy C	thy Carolinians 2010 Health Objective Addressed	Health Objectiv	e Addressed	
11	ncrease the proportion	of adults eating five or	r more servings of fr	Increase the proportion of adults eating five or more servings of fruits and vegetables each day.	.Xr
		LOCAL COMMU Number	LOCAL COMMUNITY OBJECTIVE Number		Objective's Target Population:
Is this a policy and/or ← environmental change objective?    yes  no	By June 2. businesses) t	By June 20XX, work with local partners (growers and businesses) to create a mini farmers market at 2 worksites in Carolina County	ork with local partners (g e a mini farmers market in Carolina County	rowers and at 2 worksites	Estimated Size: 300 Targeted Health Disparities Population: African American, Native American Indian Estimated Size: 200
STRATEGIES & Steps		TARGET	SETTING (channel)	COMMUNITY PARTNERS— THEIR ROLES & RESPONSIBILITIES	IERS— PONSIBILITIES
<b>Strategy 1:</b> Assess interest among local growers and worksites for creation of mini-farmers market.	owers and et.	Local farmers worksite employees worksite administrators	Worksite and Community Environment	See below.	
Step 1: By November 20XX, Research successful farmers markets programs that have been brought to worksites in North Carolina.	essful farmers to worksites	Local farmers	Worksite and Community Environment	Project Coordinator—	Project Coordinator—coordinates data collection, collates data.
Step 2: By January 20XX, conduct informal surveys with local farmers to assess interest in selling their produce via an alternative method.	surveys with ir produce	Local farmers	Community Environment	Project Coordinator—develops, conducts with local farmers; seeks input from other partners as appropriate.  Local Farmers—complete interest survey.	Project Coordinator—develops, conducts and analyzes surveys with local farmers; seeks input from other community partners as appropriate.  Local Farmers—complete interest survey.
Step 3: By January 20XX, assess and gain commitment with local worksite administrators to allow farmer's market program to be offered at their worksite.	ommitment armer's market	Worksite administrators	Worksite	Project Coordinator—develops, conducts with worksite administrators; seeks input fr partners as appropriate.  Local Worksite Administrators—provide su of employees to gauge interest, support in process; grant permission for community r Farmer's Market program (as appropriate).	Project Coordinator—develops, conducts and analyzes surveys with worksite administrators; seeks input from other community partners as appropriate.  Local Worksite Administrators—provide support, allow surveying of employees to gauge interest, support initiative throughout process; grant permission for community members to utilize the Farmer's Market program (as appropriate).
Step 4: By January 20XX, conduct informal surveys with worksites to assess employee interest in purchasing local produce at their facilities.	surveys with local chasing local	Worksite employees	Worksite and Community Environment	Project Coordinator and Worksite with employees and analyze results.	Project Coordinator and Worksite Team—implement survey         with employees and analyze results.

STRATEGIES & Steps	TARGET	SETTING (channel)	COMMUNITY PARTNERS— THEIR ROLES & RESPONSIBILITIES
Step 5: By February 20XX, compile survey results, determine feasibility of project and identify potential partners.	Local farmers employees worksite administrators	Worksite and Community Environment	Project Coordinator and local Implementation Team—made up of worksite representatives, farmers, and other community members (as appropriate)—assist in compiling results and determining feasibility of project.
<b>Strategy 2:</b> Organize meetings and develop an action plan with local growers and worksites interested in partnership.	Local farmers worksite employees worksite administrators	Worksite	Project Coordinator and local Implementation Team—made up of worksite representatives, farmers, and other community members (as appropriate)—develop action plan and memorandum of understanding for working together in partnership.
Step 1: By March 20XX, use results from Strategy 1 to link growers and worksites and invite them to a planning meeting.	Local farmers worksite employees worksite administrators	Worksite	Project Coordinator and local Implementation Team—as described above.  Project Coordinator—arranges meeting place and handles all meeting logistics.
Step 2: In March 20XX, plan and implement meeting with interested growers and worksites to begin development of ideas for mini-farmers markets.	Local farmers worksite employees worksite administrators	Worksite	Project Coordinator and local Implementation Team—as described above.  Project Coordinator—arranges meeting place and handles all meeting logistics.
Step 3: By April 20XX, finalize plans with local growers, worksites and additional partners to implement project.	Local farmers worksite employees worksite administrators	Worksite	<b>Local Implementation Team</b> —as described above; invite additional partners into project as appropriate and develop MOU with them.
<b>Strategy 3:</b> Implement mini-farmers markets at designated . worksites			See below.
Step 1: By May 20XX, develop marketing plan with local partners to establish use of mini-farmers markets by worksite employees and the community as appropriate.	Local farmers worksite employees worksite administrators	Worksite Community Environment	Local Implementation Team—develops marketing plan.
Step 2: By June 20XX, use appropriate mass media and organizational media to promote the farmers market programs.	Media worksite marketing/ PR professionals	Worksite Community Environment	<b>Local Implementation Team</b> —develops and sends out appropriate mass media and organizational media to promote the project.
Step 3: By June 20XX, farmers market program at 2 worksites is established.	Local farmers worksite employees worksite administrators community at large (as approp.)	Worksite Community Environment	<b>Local Implementation Team</b> —assists in all aspects of the farmer's market implementation; Invites other community members to participate in program as established by MOU's.
<b>Strategy 4:</b> Evaluate success of mini-farmers market with growers, worksite, and community as feasible.	See below.		
Step 1: By April 20XX, determine criteria for success in partnership with local growers and worksites.	Local farmers worksite employees worksite administrators	Worksite Community Environment	<b>Local Implementation Team</b> —determines criteria for success; reviews MOU's and includes in criteria for success.

STRATEGIES & Steps	TARGET	SETTING (channel)	COMMUNITY PARTNERS— THEIR ROLES & RESPONSIBILITIES
Step 2: By October 20XX, evaluate whether mini-farmers markets were successful through criteria established above.	Local farmers Worksite worksite employees Community worksite Environment administrators	Worksite Community Environment	See above.
Step 3: By November 20XX, develop action plan with growers and worksites for continuation of project in 20XX based on evaluation results.	Local farmers Worksite worksite employees Community worksite Environment administrators	Worksite Community Environment	<b>Local Implementation Team</b> —develops new action plan; invites in new partners (worksites or growers) as appropriate and feasible.

# This plan addresses Goal #2, Objective #2 of the Eat Smart, Move More...North Carolina initiative **COMMUNITY ACTION PLAN**

Division of Public Health NC Department of Health & Human Services	PROGRAM(S): Carolina County Physical Activity & Nutrition Coalition Carolina County School System
AGENCY: Carolina County Health Dept. PREPARED BY: Jane Eatsmart	Local Physical Activity & Nutrition Codition
PHONE: EAT-SMA-RTNC	
E-MAIL: janeeatsmart@carolinacounty.nc.org	FOR PERIOD COVERING: July 1, 20XX TO June 30, 20XX

# Healthy Carolinians 2010 Health Objective Addressed

Targeted Health Disparities Population: African American, Latino and low socioeconomic background children Estimated Size: 1000 Objective's Target Population: Estimated Size: 1200 School children Increase the percent of middle school and high school students who eat any fruit or fruit juice on a given day. Increase the percent of middle school and high school students who eat any vegetables on a given day. will have established a policy to promote fruits and vegetables throughout the school nutrition environment. By June 2005, at least three schools in Carolina County LOCAL COMMUNITY OBJECTIVE Number environmental change objective? Is this a policy and/or

× yes

			Estilliated size. 1000
STRATEGIES & Steps	TARGET GROUP	SETTING (channel)	COMMUNITY PARTNERS— THEIR ROLES & RESPONSIBILITIES
<b>Strategy 1:</b> Compile results from School Health Index completed in 4 schools during last school year and use results to determine fruit and vegetable policy direction in each school.		Schools	See below.
Step 1: By July 20XX, results from School Health index (with emphasis on fruit and vegetable availability) conducted last school year by Carolina County School Nutrition Action Teams tallied and shared among all 4 schools.	School Administrators, Teachers, Students, Child Nutrition Staff	Schools	School Health Action Team—made up of School Nurse, Health Educator, Principal, Student, Teacher, Cafeteria Manager, PE Teacher, School Healthful Living Coordinator, Health Dept. Health Promotion Coordinator, and other Local Physical Activity & Nutrition Coalition members as appropriate. Each member will assist in completing the School Health. SHI results tallied for all 4 schools and shared among teams.
Step 2: By September 20XX, results from SHI combined and shared with school administrators and school-system administrators.	School` Administrators School-system Administrators	Schools	<b>School Health Action Teams</b> will coordinate meetings with school system administrators to share SHI results and potential action plans.
Step 3: By October 20XX, direction of common policy changes among schools are determined.		Schools	<b>School Health Action Teams (SHAT)</b> and Administrators to decide on common policy changes.
<b>Strategy 2:</b> Identify (if available) and secure success stories for N/A policies implemented in schools promoting fruits and vegetables.	N/A s.	Schools	See below.
Step 1: By July 20XX, research success stories for policy changes in schools promoting fruits and vegetables.	Other schools within state or county	Schools	<b>LPAN Coalition members</b> —assist SHAT in identifying success stories for policy changes.

STRATEGIES & Steps	TARGET	SETTING (channel)	COMMUNITY PARTNERS— THEIR ROLES & RESPONSIBILITIES
Step 2: By October 20XX, compare results of SHI and success stories gathered to determine policy changes for schools.	School Administrators, Teachers, Students, Child Nutrition Staff	Schools ,	School Health Action Teams—review SHI and success stories and determine possible policy changes.
<b>Strategy 3:</b> Implement and evaluate policy level changes in the school nutrition environment.	School Staff Students, Parents	Schools	See below.
Step 1: By November 20XX, school administrators in at least 3 of the 4 schools sign policy changes for each of their schools to promote fruit and vegetable consumption.	School Administrators	Schools	School Administrators—will set policy changes based on SHAT recommendations and school priorities.
Step 2: By December 20XX, school health team determines action plan for implementing policy changes.	School Health Action Team	Schools	School Health Action Team—each member will assist in action plan formation and various roles/responsibilities (e.g., Cafeteria Manager to order fruit and vegetable items to support policy change and work with appropriate vendors; Health Teacher identifies Healthful Living Curriculum that support fruit and vegetable consumption and organize teacher inservices; Principal coordinates meeting with PTO to discuss fundraising efforts promoting fruits and vegetables, etc.).
Step 3: By January 20XX, school health team begins to implement action plan.	School Health Action Team All school employees and children	Schools	School Health Action Teams—as determined above.  Health Department Health Promotion Coordinator works with principal to contact local media for potential public awareness.
Step 4: By January 20XX, school health teams notify all staff regarding policy change and action plan.	School Health Action Team All school employees and children	Schools	All School employees receive inservice on new policy changes.
Step 5: By March 20XX, school health teams evaluate effect of policy changes with students, staff and parents.	School Staff Students Parents	Schools	<b>School Health Action Team members</b> coordinate evaluation of policy change with all effected individuals and report results to School Administrators.
Step 6: By April 20XX, School Board reviews results of policy changes and determines if districtwide policies are feasible.	Board of Education	Schools	School Health Action Teams—share results of evaluation of policy changes with School Board.  School Board—changes policies as feasible and appropriate.

# **APPENDIX VIII**

# **Blueprints** Leadership Team and Reviewers

### **LEADERSHIP TEAM**

(listed in alphabetical order)

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Sara and Stewart Sanders

# APPENDIX I

# Healthy Eating Summit Participants "Dynamic Dozen"

# NORTH CAROLINA HEALTHY EATING SUMMIT—JANUARY 22, 2002

(listed in alphabetical order)

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Carol Shields, Pitt County Public Health Center

Mrs. Leolia Spaugh, Strengthening The Black Family

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## "THE DYNAMIC DOZEN"

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<sup>\*</sup>Denotes individuals who participated in a planning and brainstorming session for the Healthy Eating Summit and this document, November, 2001.

# **Glossary of Terms\***

**Action Steps** are steps outlined in a Community Action Plan that describe how and when a strategy, used to meet an objective, will be accomplished.

**Accessibility** means that buildings, structures, programs, transportation services, etc. are designed or modified to enable persons with activity limitations and disabilities to utilize them without undue difficulty.

**Accessible Communication** refers to computers and technology used by people with disabilities to assist them in communication. For example, many people who are hard of hearing or have speech difficulties use a telecommunications device (TTY) instead of a standard telephone.

**Activity limitation** refers to limitations an individual may experience when performing everyday functions or tasks, such as communication, self-care, and mobility.

**Adaptation** means modifying activity equipment or techniques so that an individual with a limitation or disability can participate in an activity. For example, in golf, placing large flags to mark pin placement on the green for those with low vision or strapping a grip surface onto a club so that an individual with limited grasp due to arthritis or finger amputations can use the club.

**Advocacy Efforts** are efforts used to create a shift in public opinion and mobilize the necessary resources and forces to support an issue, policy, or constituency.

**Americans with Disabilities Act (ADA)** is a civil rights law that prohibits discrimination against, or segregation of, persons with disabilities in all activities, programs, or services offered by state and local government and goods and services offered by private companies and in commercial facilities. Some ADA features related to physical activity include adequate space for wheelchairs to move between fitness equipment; accessible pool entrances; accessible trails and sidewalks.





\* For use in this document as well as the North Carolina Blueprint For Changing Policies And Environments In Support Of Increased Physical Activity.



**At-Risk-For-Overweight** describes children and youth with BMI ≥85th and ≤95th percentile for age and gender. Children over the 85th percentile at age 6 can be expected to be overweight adults; 70-80 percent of overweight teens can expect to be overweight adults.

**Barrier Free Design** refers to architectural design that is accessible and accommodates people with a variety of abilities, (eg. ramps for wheelchairs and strollers and delivery personnel).

**Behavioral Risk Factor Surveillance System (BRFSS)** is an ongoing data collection program sponsored by the Centers for Disease Control and Prevention to monitor the prevalence of major behavioral risks among adults associated with premature morbidity and mortality.

**Body Mass Index (BMI)** is an indicator of body size based on height and weight with good correlation to body fat. It is calculated as weight in kilograms divided by height in meters squared. The standard adult categories are underweight (BMI less than 18.5 kg/m²), normal (18.5-24.9 kg/m²), overweight (25-29.9 kg/m²), and obese (30 or more). For children (ages 2-20), a BMI below the 5th percentile for age and gender is underweight; between the 85th and 95th percentile is at risk for overweight; at or above the 95th percentile is overweight. For more information on BMI or to calculate your BMI, visit www.nhlbisupport.com/bmi.

**Body Mass Index Formula:** BMI: Weight (kg)

Height (m)<sup>2</sup>

**Capacity Building** is a process to enhance the ability of a group or institution to manage change, resolve conflict, enhance coordination, foster communication, and ensure that data and information are shared.

**Cardiovascular Disease** is any abnormal condition of the heart or blood vessels. Cardiovascular disease includes coronary heart disease, stroke peripheral vascular disease, congenital heart disease, endocarditis, and many other conditions.

**Childhood Overweight** describes children with greater than a 95th percentile BMI for age and gender for youth over 2 years of age.

**Chronic Disease** is an illness that is prolonged, does not resolve spontaneously, and is rarely cured completely.

**Coalition** describes an alliance of organizations to achieve a common purpose or joint action. The underlying concept behind coalitions is collaboration and resource sharing.

**Color Me Healthy** is a program designed to reach limited resource children ages four and five with fun, innovative, interactive learning opportunities on physical activity and healthy eating. It is developed for use in family day care homes, Head Start classrooms, and childcare centers during "Circle Time."

**Community Action Plan** is a plan that counties and districts develop and submit yearly to the North Carolina Statewide Health Promotion program to describe how the local health department will utilize Statewide Health Promotion funds to meet the program requirements. The Plan aids local agencies in focusing objectives, determining strategies to meet objectives, identifying staff and critical community partners, and determining target population, setting, resources, and time frame to meet objectives.

**Community Environment** is the built and/or social environment (e.g., public spaces, retail, senior centers, and community policies).

**Community Groups** are groups within a community with a service or social mission (e.g., garden club, civic club, etc.)

**Community Partners** are individuals and/or groups in the community which work together for a common goal. This may include key contacts, community-based organizations, county agencies, policy makers, and advocacy groups.

**Competitive Foods** are any foods offered at school (e.g., a la carte, vending, or school store) other than meals served through USDA's school meal programs: school breakfast, school lunch, or after-school snack programs. These foods and beverages often are, but need not be, high fat, high calorie and high sugar containing (e.g., soda, sport and fruit drinks, ice cream products, salty snack foods).

**County Planning Guide** is a document for local health departments and districts receiving funds from the Statewide Health Promotion Program to assist them and their community partners in developing an effective annual plan for their health promotion program.

**Dietary Guidelines for Americans** are ten evidenced based dietary recommendations that were issued in 2000 and are now national policy.

**Disability** refers to a functional limitation that interferes with a person's major life activities, such as the ability to walk, hear, learn, see, and communicate. Disability is a social phenomenon, resulting not just from medical or health considerations, but from interactions with society and the environment. An adult with spina bifida is able to work and swim competitively. However the individual may be limited in their physical activity options by the lack of accessibility to the pool and locker room. Disability should not discourage people from striving for the benefits of physical activity and engaging in an array of physical activity opportunities.

**Eat Smart, Move More...North Carolina** is a statewide initiative focused on fostering policies and creating environments supportive of healthy eating and physical activity. The initiative is supported by the Physical Activity and Nutrition Unit, North Carolina Division of Public Health.

**Environment** is the entirety of the physical, biological, social, cultural, and political circumstances surrounding and influencing a specified behavior.



**Exercise** is planned, structured, and repetitive bodily movement done to improve or maintain one or more components of physical fitness. This is one type of physical activity.

**Facilities/Environmental Change** describes changes to physical and social environments that provide new or enhanced supports for healthy behaviors.

**5 A Day Campaign** is a nationwide campaign to encourage the consumption of five servings of fruits and vegetables each day to reduce risks for chronic conditions.

**Food Insecurity** describes limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways.

**Health Disparities** describes differences in health status among distinct segments of the population including differences that occur by gender, race or ethnicity, education or income, disability, or living in various geographic localities. Usually implies that one group (e.g., African Americans, women) have poorer indicators of health or receive less aggressive treatment.



**Healthy Eating** describes following a dietary pattern consistent with the Dietary Guidelines for Americans.

**Healthy Food** has no single best description. See Appendix III of North Carolina Blueprint For Changing Policies And Environments In Support Of Healthy Eating for examples of food items or consumption patterns considered healthy.

**Incentives** are rewards for achieving a level of performance or goal.

**Inclusion** means having the same choices and opportunities that others have and is a process in which persons with disabilities have the

opportunity to participate fully in the community activities offered to others. Inclusion is what results when people with and without disabilities live, learn, work, play, and exercise together.

**Indicator** refers to measures of specific environments and policies related to physical activity and healthy eating on which information is systematically and routinely collected and used to monitor changes in these environments and policies over time.

**Intervention** is an organized or planned activity that interrupts a normal course of action within a selected group of individuals or the community at large in order to diminish an undesirable behavior or to enhance or maintain a desirable one. In health promotion, interventions are linked to improving the health of the population or to diminishing the risks of illness, injury, disability, or death.

**Levels of Impact** is a method of reporting an event or activity in the Progress Check Evaluation system. Levels are environmental or policy action (EPA), environmental or policy outcome (EPO), or media coverage (MC). Level of potential impact could be: state, region, county, municipality, neighborhood, multiple organizations, single organizations, or other.

**LHD** stands for a Local Health Department.

**LPAN** stands for a Local Physical Activity and Nutrition Coalition.

**Mass Media** is a medium of communication (such as newspapers, radio, or television) that is designed to reach a vast number of people.

**Media Advocacy** is the strategic use of mass media as a resource for advancing social or public policy initiatives. One of the main purposes of media advocacy is to stimulate community involvement in defining policy initiative and to use their voices in order to be heard and seen.

**Medical Nutrition Therapy** is a food and beverage-based plan designed for management of a specific condition such as diabetes, hypertension, or metabolic syndrome. A registered or licensed dietitian usually provides medical nutrition therapy. This may be referred to as a therapeutic diet.

**Moderate Activity** is an amount of activity sufficient to burn approximately 150 kilocalories of energy per day, or 1000 kilocalories per week. The duration of time it takes someone to achieve a moderate amount of activity depends on the intensity of the activities chosen.

**Moderate-Intensity Physical Activity** is any activity performed at 50 to 69 percent of maximum heart rate. For most people, it is equivalent to sustained walking, is well within most individuals' current physical capacity, and can be sustained comfortably for prolonged period of time (at least 60 minutes). A person should feel some exertion but also should be able to carry on a conversation comfortably during the activity.

**Multi-Level Model** is an adapted version of the Socio-Ecological Model, that portrays the multiple factors that influence (either positively or negatively) the health behavior of an individual. The levels of influence are: individual, interpersonal, organizational, community and society.

**North Carolina 2010 Health Objectives** are a comprehensive and ambitious statewide agenda that provides a direction for improving the health and well being of North Carolinians over the next decade. The entire document can be viewed at www.healthycarolinians.org

**North Carolina Healthy Weight Initiative** is a statewide initiative that has three major components to promote increased healthy eating and physical activity: (1) planning for comprehensive nutrition and physical activity programs to prevent overweight and related chronic disease in children 2-18 years of age; (2) enhancing a statewide nutrition and physical activity surveillance system; and, (3) implementing a multi-level pilot intervention that targets pre-school children and their families.

**Nutrient Density** is a term used to describe the nutritional value of a food based on its nutrient to calorie level. A soda, which provides many calories but limited other nutrients, is considered a low nutrient density food. Skim milk, a beverage that provides protein and many vitamins and minerals in a small number of calories and fat is considered a high nutrient density food.



**Obesity** is defined as a Body Mass Index (BMI)  $\geq$  30 kg/m<sup>2</sup> for adults and is considered a disease by the National Institutes of Health. Obesity is linked to higher incidences of type 2 diabetes, hypertension, cardiovascular disease, gout, osteoarthritis, and some cancers in adults.

**Organizational Media** is internal communication (such as a company newsletter) designed to reach organizational members.

**Outcome Evaluation** is a process of reviewing actions to determine whether the program met the stated long-term goals and objectives.

**Overweight** is defined by the National Institutes of Health as a Body Mass Index (BMI) >25-29.9 kg/m². Individuals with risk factors for chronic disease would medically benefit from a 10 percent weight reduction. In children (age 2-20 years) overweight has been defined as a gender and age specific BMI at or above the 95th percentile, based on the Centers for Disease Control and Prevention revised growth charts.

**PAN** is the Physical Activity and Nutrition Unit, North Carolina Division of Public Health, home of **Eat Smart, Move More...North Carolina** initiative.

**Physical Activity** describes any bodily movement that is produced by the contraction of skeletal muscle and that results in energy expenditure.

**Physical Fitness** is a set of attributes that persons have or achieve that relates to the ability to perform physical activity. Performance-related components of fitness include agility, balance, coordination, power, and speed. Health-related components of physical fitness include body composition, cardiorespiratory function, flexibility, and muscular strength/endurance.

**Planning Products** describes a tangible product that is a result of planning activities within the North Carolina Statewide Health Promotion Program. These are actual "tools" or "products" used to promote the health promotion initiatives. (This will be reported in Progress Check) Examples: an action plan, grant applied for and submitted, a new staff position (not turnover), survey tool developed, resource guide, policy/practice change materials, (such as a guide for healthy vending options).

**Policies** are laws, regulations, and rules (both formal and informal) within a setting.

**Policy Change** is modifications to laws, regulations, formal and informal rules as well as standards of practice. Policy change may occur at the organizational, community, or societal levels.

**Pouring Rights** are the rights established by a contract to serve a specific brand of products (usually soft drinks) exclusively without competition (e.g., vending machines in schools).

**Practices** describes the decisions and behavior of organizations, groups, and individuals and the ways that policies are implemented within a particular setting.



**Process Evaluation** provides documentation during program implementation in order to make adjustments for improvement of the program.

**Progress Check Evaluation System** is an electronic system developed to monitor activities and accomplishments reported by local health departments receiving Statewide Health Promotion funds. This system measures, through quarterly reports, the effort necessary for policy and environmental changes that support healthy eating and physical activity. Reporting into the *Progress Check* system can be done at any time.

**Proportionate Risk Factor Cost Appraisal** is an appraisal about the impact of sedentary lifestyle on medical and workers compensation costs in the State of North Carolina.

**Public Awareness** is the public's knowledge of a particular issue.

**Regular and Consistent Messages** are prompts that encourage healthy behaviors. They may occur at the point of decision or be ongoing reminders for healthy eating and physical activity.

**Regular Physical Activity** is a level of physical activity done frequently enough to reap some health benefit (e.g., an accumulated 30 minutes or more of moderate-intensity activity on 5 or more days of the week or an accumulated 20 minutes or more of vigorous-intensity activity on 3 or more days of the week).

**Sedentary Lifestyle** describes a lifestyle characterized by little or no physical activity.

**Settings** describes the site where interventions occur. This would also include what was formerly called the channel (e.g., community, faith, schools/childcare, worksites).

**Social Marketing** is applying advertising and marketing principles and techniques (e.g., applying the planning variables of product, promotion, place, and price) to health or social issues with the intent of bringing about behavior change. The social marketing approach is used to reduce the barriers to and increase the benefits associated with the adoption of a new idea or practice within a selected population.

**Start With Your Heart Campaign** is the North Carolina Cardiovascular Health Program's social marketing campaign that encourages healthy eating and physical activity and reduces heart disease and stroke.

**Strategies** describe plans to achieve a local community objective. They are used in North Carolina Statewide Health Promotion Program's Community Action Plans.

**Target Audience** is a group of individuals or organization, community, or society that is the focus of a specific health promotion effort.



**Universal Design** is an approach to accessibility that concentrates on making all aspects of an environment accessible to all people, regardless of ability. It increases the overall usability of the environment, accommodates a wide range of individual preferences and abilities, minimizes hazards and adverse consequences, is easy to understand, and communicates necessary information effectively. Examples include a power door at facility entrance, uncluttered fitness space, multi-station exercise equipment.

**Winner's Circle Healthy Dining Program** is a collaborative program designed by North Carolina Prevention Partners in cooperation with the North Carolina Cardiovascular Health and Physical Activity and Nutrition Units designed to encourage eating establishments to provide healthy food items as well as menu cues to those healthy foods and beverages. For specific nutrient criteria, visit http://www.ncwinnerscircle.org

**Vigorous Intensity Physical Activity** is described as hard or very hard physical activity requiring sustained, rhythmic movements and performed at 70 percent or more maximum heart rate according to age. Vigorous activity is intense enough to represent a substantial physical challenge to an individual and results in significant increases in heart and respiration rate.

**Youth Risk Behavior Surveillance System (YRBSS)** is a program developed to monitor priority health-risk behaviors that contribute to the leading causes of mortality, morbidity, and social problems among youth in the United States. It is sponsored by the Centers for Disease Control in Atlanta.



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# Want to Make a Difference?

Do you want to create an environment supportive of physical activity and healthy eating in your community? Please contact the Physical Activity and Nutrition (PAN) Unit staff to learn more about the **Eat Smart, Move More...North Carolina** initiative or visit www.EatSmartMoveMoreNC.com.







State of North Carolina Michael F. Easley, Governor

Department of Health and Human Services Carmen Hooker Odom, Secretary

Leah Devlin, DDS, MPH Acting State Health Director

Division of Public Health Health Promotion and Disease Prevention Section

Health Promotion Branch Physical Activity and Nutrition Unit