



Eat Move Smart More

North Carolina's Plan to Prevent Overweight,
Obesity and Related Chronic Diseases

2007-2012

Final Report



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Introduction

Eat Smart, Move More North Carolina is a statewide movement that promotes increased opportunities for healthy eating and physical activity wherever people live, learn, earn, play and pray. Eat Smart, Move More NC is guided by the Eat Smart, Move More NC Leadership Team, a partnership of organizations who work to increase opportunities for healthy eating and physical activity. The Leadership Team is made up of a broad range of partners representing different sectors, all working to make healthy eating and physical activity the easy choice for North Carolinians.

Eat Smart, Move More: North Carolina's Plan to Prevent Overweight, Obesity and Related Chronic Diseases, 2007-2012 (called North Carolina's Obesity Prevention Plan 2007–2012 in this report) was created to guide the Eat Smart, Move More NC movement. It was created by the Eat Smart, Move More NC Leadership Team to serve as the one Plan to guide the efforts of everyone working on obesity prevention across the state.

North Carolina's Obesity Prevention Plan 2007–2012 outlined four goals for creating a North Carolina where eating smart and moving more is the norm, not the exception. It was based on the best available evidence to address the Centers for Disease Control and Prevention's core behaviors for obesity prevention: eat smaller portion sizes, drink less sugar-sweetened beverages, watch less TV, be more physically active, eat more fruits and vegetables, prepare more meals at home and breastfeed your baby.

North Carolina's Obesity Prevention Plan 2007-2012 consisted of four goals:

1. Increase healthy eating and physical activity opportunities for all North Carolinians by fostering supportive policies and environments.
2. Increase the percentage of North Carolinians who are at a healthy weight.
3. Increase the percentage of North Carolinians who consume a healthy diet.
4. Increase the percentage of North Carolina adults, youth and children ages two and up who participate in the recommended amounts of physical activity.



The four goals of North Carolina's Obesity Prevention Plan 2007–2012 were supported by specific, measureable objectives and a list of recommended strategies. This report highlights the progress that North Carolina has made on each of the four goals. The first section of this report illustrates the progress toward the second, third and fourth goals as measured by North Carolina's surveillance data on healthy eating, physical activity and weight status. The second section of this report illustrates the progress toward the first goal by highlighting work being done by individuals and organizations across the state to make healthy eating and physical activity the easy choice for North Carolinians.

The Eat Smart, Move More NC Leadership Team

The Eat Smart, Move More NC Leadership Team provides an opportunity for organizations across the state to come together, share resources and learn from each other. Quarterly meetings are held to provide an opportunity for members to hear from national, state and local speakers on topics relevant to obesity prevention. In addition, members stay

informed of current projects and events being conducted by other members via a quarterly e-letter that is distributed electronically prior to each meeting.

The Leadership Team is led by an Executive Committee and operates under a set of Bylaws as well as an Organizational Structure, Policies and Procedures guidance document. Ad hoc committees are established as needed to carry out the work of the Leadership Team. To learn more about the Leadership Team or to become a member, visit www.EatSmartMoveMoreNC.com and click on the “contact us” link to request a membership application.

“In 2006, the Eat Smart, Move More NC Leadership Team released *Eat Smart, Move More: North Carolina’s Plan to Prevent Overweight, Obesity and Related Chronic Diseases, 2007-2012*. Over the last five years, the Leadership Team has worked to guide its implementation. Organizations across the state have adopted strategies from the Plan and, as a result, have changed practices, policies and environments to make healthy eating and physical activity the easy choice for North Carolinians.

We appreciate the participation and commitment of Leadership Team members from across the state who shared their stories in the quarterly Eat Smart, Move More NC e-letter, attended quarterly Leadership Team meetings, and served on the Leadership Team committees. It is their collaborative work that continues to guide this movement.

The work that started with the 2007-2012 Plan will continue with *North Carolina’s Plan to Address Obesity: Healthy Weight and Healthy Communities, 2013-2020*. We will build upon current efforts, apply the lessons we have learned over the last five years, and continue to base our work on the best available evidence to help North Carolinians eat smart and move more.”

—David Gardner, 2011–2013 Chair of Eat Smart, Move More NC Executive Committee

The Eat Smart, Move More NC Executive Committees

The Eat Smart, Move More NC Leadership Team is led by an Executive Committee. The Executive Committee members must be active members of the Leadership Team and are elected annually by the Leadership Team. The following individuals have served on the Eat Smart, Move More NC Executive Committees:

Eat Smart, Move More NC Executive Committee, 2007–2009

Chair

Greg Griggs, MPA, CAE
Director of Professional Services, NC Academy of Family Physicians

Vice Chair

Carolyn Dunn, PhD
Professor and Nutrition Specialist, NC Cooperative Extension
NC State University

Committee Chairs ADVOCACY

David Gardner, DA
Director, Corporate and Community Health
WakeMed

COMMUNICATIONS

Patrick Gibbons
Communications Director, RTI International

IMPLEMENTATION

Maggie Sauer, MS, MHA
Director, Community Practitioner Program
NC Medical Society Foundation

Eat Smart, Move More NC Executive Committee, 2009–2011

Chair

Carolyn Dunn, PhD, RD
Professor and Nutrition Specialist, NC Cooperative Extension
NC State University

Vice Chair

Maggie Sauer, MS, MHA
Associate Executive Director
NC Medical Society Foundation

Members At Large

David Gardner, DA
Section Chief
NC Healthy Schools
NC Department of Public Instruction

Kevin Cain

President and CEO
John Rex Endowment

Pam Seamans, MPP
Policy Director
NC Alliance for Health

Eat Smart, Move More NC Executive Committee, 2011–2012

Chair

David Gardner, DA
Executive Director
NC Center for Health and Wellness
University of North Carolina at Asheville

Vice Chair

Vondell Clark, MD
Medical Director
Catawba Valley Medical Center’s Healthy House

Members at Large

Kevin Cain
President and CEO
John Rex Endowment

Maggie Sauer, MS, MHA
President and CEO
NC Foundation for Advanced Health Programs

Pam Seamans, MPP
Executive Director
NC Alliance for Health

Betsy Vetter
NC Director of Government Relations
American Heart Association/American Stroke Association
Mid-Atlantic Affiliate

Past Chair

Carolyn Dunn, PhD, RD
Professor and Nutrition Specialist
NC Cooperative Extension
NC State University

A Coordinated Approach to Obesity Prevention in North Carolina



Reference

1. Keener, D., Goodman, K., Lowry, A., Zaro, S., & Kettel Khan, L. (2009). Recommended community strategies and measurements to prevent obesity in the United States: Implementation and measurement guide.

The Eat Smart, Move More NC Leadership Team has worked to identify and address areas where statewide coordination can assist obesity prevention work and to measure progress on the goals and objectives of North Carolina’s Obesity Prevention Plan 2007–2012.

In 2009, the Eat Smart, Move More NC Policy Strategy Platform was created. The Platform provides a synthesis of the policy recommendations made by various North Carolina task forces established over the previous five years. It is intended to provide a central location for recommended policy strategies to address obesity. The Platform is updated annually.

Also in 2009, two reports were created by ad hoc committees of the Leadership Team to help measure progress on North Carolina’s Obesity Prevention Plan 2007–2012: the Key Measures Report and the Surveillance Plan. The Key Measures Report was created to determine how to measure progress on the first goal of North Carolina’s Obesity Prevention Plan 2007–2012, which is to “increase healthy eating and physical activity opportunities for all North Carolinians by fostering supportive policies and environments.” The committee selected two key measures from the Recommended Community Strategies and Measurements to Prevent Obesity in the United States: Implementation and Measurement Guide¹: (1) discourage consumption of sugar-sweetened beverages and (2) increase opportunities for extracurricular physical activity. The Surveillance Plan was created to clarify how to monitor progress on the behavior- and weight-related objectives of North Carolina’s Obesity Prevention Plan 2007–2012.

All of these documents are available at www.EatSmartMoveMoreNC.com.

Eat Smart, Move More NC Committee Chairs

The Eat Smart Move More NC Executive Committee established ad hoc committees to carry out the work of the Leadership Team. The following individuals have served as Chairs of these committees:

2007–2011 Advocacy Committee Co-Chairs

David Gardner, DA
Section Chief
NC Healthy Schools
NC Department of Public
Instruction

Greg Griggs
Executive Vice President
NC Academy of Family
Physicians

2011–2012 Policy Committee (formerly the Advocacy Committee)

Pam Seamans, MPP
Executive Director
NC Alliance for Health

2009–2010 Key Measures Committee

Lori Carter-Edwards,
PhD
Director of Health
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2009–2010 Surveillance Committee

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Physical Activity and
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2011–2012 Writing Team for North Carolina’s Plan to Address Obesity: Healthy Weight and Healthy Communities, 2013–2020

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2010–2012

Lori Rhew, MA, PAPHS
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Physical Activity and
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NORTH CAROLINA'S PROGRESS

Reviewing the Numbers

North Carolina's Obesity Prevention Plan 2007-2012 includes specific, measureable objectives related to weight status, healthy eating and physical activity. These objectives are found under goals two, three and four of the Plan. This Reviewing the Numbers section uses key data points from North Carolina's surveillance systems to assess progress on these objectives.

The following three surveillance systems serve as the key data sources for North Carolina's Obesity Prevention Plan 2007-2012:

- **Behavioral Risk Factor Surveillance System (BRFSS)**
- **Child Health Assessment and Monitoring Program (CHAMP)**
- **Youth Risk Behavior Survey (YRBS)**

Understanding the Data Sources

BRFSS and CHAMP data collected in 2011 cannot be used to assess change from previous years. Changes in survey methodology starting in 2011 for both BRFSS and CHAMP preclude the comparison of 2011 data with earlier data.

The following article provides more information about the changes in BRFSS methodology that took effect in 2011: Pierannunzi C, Town M, Garvin W, Shaw F, Balluz L. (2012, June 8). Methodologic changes in the Behavioral Risk Factor Surveillance System in 2011 and potential effects on prevalence estimates [Electronic version]. *Morbidity and Mortality Weekly Report*, 61(22); 410-413. Retrieved January 17, 2013, from www.cdc.gov/mmwr/preview/mmwrhtml/mm6122a3.htm?s_cid=mm6122a3_w.

The Behavioral Risk Factor Surveillance System, or BRFSS (available at www.schs.state.nc.us/schs/brfss/index.html, accessed December 2, 2012), provides self-reported data on adults. The Child Health Assessment and Monitoring Program, or CHAMP (available at www.schs.state.nc.us/schs/champ/index.html, accessed December 2, 2012), provides parent-reported data on children and youth. The Youth Risk Behavior Survey, or YRBS (available at www.nchealthyschools.org/data/yrbs/, accessed December 2, 2012), provides self-reported data on middle and high school students, although only high school YRBS data are featured in this report. There is overlap in that the high school students represented by YRBS data are also included in the group of children for whom CHAMP data are available (children ages 10 to 17).

This Reviewing the Numbers section summarizes North Carolina's progress related to healthy weight, healthy eating and physical activity. It highlights relevant data points through a brief discussion of each objective in North Carolina's Obesity Prevention Plan 2007-2012. The Plan's objectives follow two formats. Some specify degrees of improvement from baseline for North Carolina to achieve (e.g., 14 percentage points more), while others set benchmarks for North Carolina to reach by 2012 (e.g., 52% of adults). The



Healthy Behaviors table on page 11 (Healthy Behaviors: Comparing Baseline and Recent Data) displays data for the objectives that aim for an improvement from baseline, and the Healthy Behaviors table on page 12 (Healthy Behaviors: Assessing Progress toward Benchmarks) displays data for the objectives that set specific numerical benchmarks.

THE EAT SMART, MOVE MORE NC SURVEILLANCE PLAN

In 2009, an ad hoc committee of the Eat Smart, Move More NC Leadership Team developed a Surveillance Plan to clarify how to monitor progress on the behavior- and weight-related objectives of North Carolina's Obesity Prevention Plan 2007-2012. The Surveillance Plan provided useful guidance in the development of this Reviewing the Numbers summary. The Surveillance Plan specified which data indicators from BRFSS, CHAMP and YRBS are best for assessing progress. It also specified the most appropriate baseline year for each indicator. Since the questionnaires for BRFSS, CHAMP and YRBS are modified every year or two, and because not all behaviors are assessed every year, baseline years vary by indicator. The Surveillance Plan is available at www.EatSmartMoveMoreNC.com.



SURVEY METHODOLOGY

Basic information about survey methodology is useful for understanding the strengths and limitations of each data source.

The Behavioral Risk Factor Surveillance System (BRFSS) is a random digit dialed telephone survey of state residents age 18 and older about their own health. The Child Health Assessment and Monitoring Program (CHAMP) is a telephone survey of adults about the health of their children and is a follow-up survey to BRFSS. BRFSS and CHAMP interviews are conducted throughout the year and data are analyzed annually (on a calendar-year basis). BRFSS respondents with children ages 0 to 17 living in their households are invited to participate in the CHAMP survey. One child is randomly selected from the household, and the adult most knowledgeable about the health of the selected child is interviewed in a follow-up survey.

The Youth Risk Behavior Survey (YRBS) is a paper-based survey, unlike BRFSS and CHAMP, of middle school and high school students that is conducted once every two years in schools across the state to ask the students about health-related behaviors. Only the high school YRBS data are used for this report since most of the indicators related to obesity prevention (e.g., body weight, fruit and vegetable consumption) are not assessed by the middle school YRBS questionnaire.

BRFSS and CHAMP are coordinated by the State Center for Health Statistics of North Carolina's Division of Public Health. YRBS is coordinated by the North Carolina Healthy Schools Program, a partnership between North Carolina's Department of Public Instruction and Division of Public Health.

HEALTHY WEIGHT

Body weight is classified into four categories: underweight, normal weight, overweight and obese. An individual's gender (for children and youth only), height and weight are used to calculate a body mass index, which is then used to determine the person's weight status category.

The healthy weight objective set forth in North Carolina's Obesity Prevention Plan 2007-2012 was that there would be no increase in the percentage of North Carolina adults, youth and children who were classified as overweight or obese. The data showed that North Carolina did accomplish this objective among youth ages 10 to 17, but not among adults or high school students.

Youth Ages 10 to 17

North Carolina has begun to see improvement in weight status among youth ages 10 to 17 according to the Child Health Assessment and Monitoring Program (CHAMP). The percentage of North Carolina youth ages 10 to 17 who were overweight or obese improved from 33.7% in 2007 to 30.1% in 2010. A closer look at these numbers shows that the improvement was in the overweight category. There was a statistically significant decrease in the prevalence of overweight from 19.9% in 2007 to 13.0% in 2010. The obesity prevalence, on the other hand, increased from 13.8% in 2007 to 17.1% in 2010.

Using CHAMP to Assess Weight Status

CHAMP weight status data, based on BMI-for-age percentile, are limited to ages 10 to 17 because the height and weight data collected through CHAMP are less reliable for children under age 10 than for children age 10 and over.

CHAMP weight status data from year 2007 and later are more reliable than data collected previously because in 2007, CHAMP added a survey question to determine how the reporting parent arrived at the child's height and weight (e.g., measured, parent estimate, parent asked child). Respondents who did not report that the child's height and weight were measured in an accurate way were asked to measure the child using a tape measure or bathroom scale and called back to report the more accurate measurement. For this reason, 2007 was used as the baseline year for CHAMP weight status data.

High School Students

Though high school students are included in the group of children for whom CHAMP results are available (children ages 10 to 17), analysis of YRBS data gives an opportunity to focus specifically on the characteristics of the high school student population. YRBS collects data from the students themselves, while CHAMP gathers information from their parents. According to YRBS, the percentage of high school students who were overweight or obese increased from 26.9% in 2001 to 28.8% in 2011. (The use of 2001 as a baseline year, although several years prior to the start of North Carolina's Obesity Prevention Plan 2007-2012, was recommended by the Surveillance Plan described on page 5.)

Adults

Overweight and obesity have continued to become more prevalent among North Carolina adults. Data from the Behavioral Risk Factor Surveillance System (BRFSS) showed a statistically significant increase in the percentage of adults who were overweight or obese from 58.8% in 2001 to 65.3% in 2010. The change in obesity prevalence was more drastic than that of overweight. The percentage of obese adults increased from 22.9% to 28.6% from 2001 to 2010, while the percentage of overweight adults increased from 35.9% to 36.7% during the same period of time.

Supplemental Data on Children Ages 2 to 4

The North Carolina Nutrition and Physical Activity Surveillance System (NC-NPASS) offers supplemental data on the weight status of North Carolina's children. It collects measured, rather than parent-reported, height and weight data from local health departments for children ages 2 to 4 who participate in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) Program. Among these WIC participants ages 2 to 4, the percentage who were overweight or obese increased from 26.0% in 2001 to 31.9% in 2011.

The following article produced by the State Center for Health Statistics provides more information on CHAMP methodology: Miles D, Herrick H, Ford C. (May 2010). The North Carolina Child Health Assessment and Monitoring Program: Survey methodology and data collection [Electronic version]. Statistical Primer No. 18. Retrieved January 17, 2013, from www.schs.state.nc.us/schs/pdf/Primer18_WEB_051210.pdf.

Healthy Weight

This table shows data on key indicators for the healthy weight objective under the second goal of North Carolina's Obesity Prevention Plan 2007-2012, which reads, "By December 31, 2012, there will be no increase in the percentage of North Carolina adults, youth and children who are classified as overweight or obese."

Indicator	Baseline Data	Comparison Data	North Carolina's Objective	Met Objective?
Percentage of youth ages 10 to 17 who are overweight or obese (CHAMP)	33.7% (2007)	30.1% (2010)	≤ 33.7% (No increase from 2007)	Yes
Percentage of youth ages 10 to 17 who are overweight (CHAMP)	19.9% (2007)	13.0% (2010)	≤ 19.9% (No increase from 2007)	Yes
Percentage of youth ages 10 to 17 who are obese (CHAMP)	13.8% (2007)	17.1% (2010)	≤ 13.8% (No increase from 2007)	No
Percentage of high school students who are overweight or obese (YRBS)	26.9% (2001)	28.8% (2011)	≤ 26.9% (No increase from 2001)	No
Percentage of high school students who are overweight (YRBS)	14.2% (2001)	15.9% (2011)	≤ 14.2% (No increase from 2001)	No
Percentage of high school students who are obese (YRBS)	12.7% (2001)	12.9% (2011)	≤ 12.7% (No increase from 2001)	No
Percentage of adults who are overweight or obese (BRFSS)	58.8% (2001)	65.3% (2010)	≤ 58.8% (No increase from 2001)	No
Percentage of adults who are overweight (BRFSS)	35.9% (2001)	36.7% (2010)	≤ 35.9% (No increase from 2001)	No
Percentage of adults who are obese (BRFSS)	22.9% (2001)	28.6% (2010)	≤ 22.9% (No increase from 2001)	No

HEALTHY BEHAVIORS

North Carolina's Obesity Prevention Plan 2007-2012 includes objectives related to eating fruits and vegetables, breastfeeding, making healthy choices when eating out, eating less fast food, preparing and eating more meals at home, drinking fewer sugar-sweetened beverages and being physically active. Each objective is discussed in the following pages, and key data points are provided in the Healthy Behaviors tables on pages 11 and 12.

Fruits and Vegetables

The data suggest that North Carolinians did not increase their fruit and vegetable consumption over the course of North Carolina's Obesity Prevention Plan 2007–2012. North Carolina did not meet the 2012 target set forth in the Plan, which stated that 14% more North Carolina adults, youth and children would consume five or more servings of fruits and vegetables each day. Behavioral Risk Factor Surveillance System (BRFSS) data showed a statistically significant decrease in the percentage of adults who consumed five or more servings of fruits and vegetables per day, from 23.2% in 2003 to 20.6% in 2009. Similarly, data from the Child Health Assessment and Monitoring Program (CHAMP) showed a statistically significant decrease among children and youth ages 1 to 17 consuming five or more servings per day (counting 100% fruit juice), from 65.1% in 2005 to 57.7% in 2010. On the other hand, Youth Risk Behavior Survey (YRBS) data suggested slight improvement, though not statistically significant, among high school students. In 2011, 19.4% of high school students consumed five or more servings per day, up from 17.8% in 2003.

Breastfeeding

North Carolina has made progress in breastfeeding over the past several years according to CHAMP, which North Carolina's Obesity Prevention Plan 2007–2012 uses as the primary data source for breastfeeding-related objectives. To assess progress on these objectives, only the CHAMP data for children under age five were used. The percentage of children under age five among whom breastfeeding was initiated increased from 70.1% in 2005 to 77.3% in 2010, surpassing the benchmark of 75% set forth in the Plan. The percentage who were breastfed for at least six months also improved, increasing from 37.2% in 2005 to 43.3% in 2009.¹ While North Carolina has not yet



reached the Plan's target of 50%, these data indicate progress.

The National Immunization Survey is also useful for assessing progress related to breastfeeding. This survey is the primary data source for breastfeeding at the national level, allowing for comparison across all states, and serves as the basis for CDC's annual Breastfeeding Report Card. The 2012 Breastfeeding Report Card for the United States, based on data for children born in 2009, showed that breastfeeding was initiated among 68.2% of North Carolina's children, with 38.3% breastfeeding at six months of age. According to the National Immunization Survey, North Carolina did not meet either of its breastfeeding objectives for 2012 (75% initiating breastfeeding, 50% breastfeeding at six months of age).

Healthy Choices

North Carolina's Obesity Prevention Plan 2007-2012 included an objective that more North Carolinians would make healthy choices when eating out. While BRFSS does provide some data related to this objective, there are not enough data available to assess change over time. BRFSS data collected in 2006 showed that 74.1% of North Carolina adults were somewhat likely (47.2%) or very likely (26.9%) to choose foods or

beverages labeled as healthy when eating out. In 2009, BRFSS collected data on adults making healthy choices specifically at sit-down restaurants. These data showed that 43.6% of adults always (11.5%) or most of the time (32.1%) made healthy choices when eating out at sit-down restaurants. The 2006 and 2009 data are not comparable since the survey questions are slightly different, and BRFSS data on healthy choices when eating out are not available from any other year prior to 2011. As mentioned earlier, BRFSS data from 2011 and later cannot be compared to BRFSS data from prior years due to changes in survey methodology that took effect in 2011.

Fast Food

Eating less fast food is another healthy behavior emphasized by North Carolina's Obesity Prevention Plan 2007–2012. The objective for 2012 was for 25% fewer children to eat fast food three or more times per week. North Carolina did not meet this objective. In fact, CHAMP data showed no significant change from 12.3% of children and youth ages 1 to 17 eating fast food three or more times per week in 2005 to 12.8% in 2009. Additional data were collected on fast food *meals* per week (as opposed to fast food *times* per week) by both BRFSS (in 2009 only) and CHAMP (in 2010 only). In 2009, 17.5% of North Carolina adults ate three or more meals from fast food restaurants per week, and in 2010, 11.3% of children and youth ages 2 to 17 ate three or more meals from fast food restaurants per week. The assessment of change over time in the number of fast food *meals* per week is not possible since data are only available for one year prior to 2011.

Meals at Home

North Carolina reached its 2012 target for the consumption of meals prepared at home among adults and high school students but fell just short of reaching its target among the general child and youth population monitored by CHAMP. The objective was for at least 70% of North Carolinians to prepare and eat their main meal at home at least five times per week. Data from BRFSS showed that 74.9% of adults ate a main meal that was prepared at home five or more days per week in 2009. Data from YRBS showed that 74.9% of high school students ate dinner at home with their families² five or more times per week in 2011. Data from CHAMP showed that 69.6%—just shy of the 70% target—of households with children ate a main meal together that was prepared at home five or more times

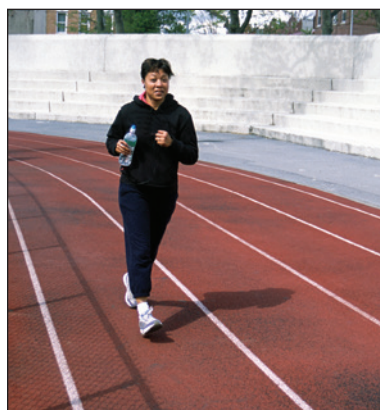
in a typical week in 2010. The data also suggest slight improvement over time. BRFSS data show a statistically significant increase—from 72.0% in 2007 to 74.9% in 2009—in the percentage of adults eating a main meal that was prepared at home five or more days per week. CHAMP data show an improvement, though not statistically significant, in the percentage of households with children eating a main meal together that was prepared at home five or more times in a typical week, from 67.8% in 2007 to 69.6% in 2010.

Sugar-Sweetened Beverages

North Carolina's 2012 target for sugar-sweetened beverage consumption set forth in North Carolina's Obesity Prevention Plan 2007–2012 was that the percentage of adults, youth and children who typically consume more than one 12-ounce serving of sugar-sweetened beverages per day would not exceed 50%. BRFSS and CHAMP data showed that the North Carolina adult and child/youth populations met this objective. In 2009, 33.0% of adults drank sugar-sweetened beverages more than one time per day. In 2010, 35.7% of children and youth ages 1 to 17 drank sweetened beverages³ more than one time per day. On the other hand, a review of YRBS data indicated that high school students did not meet the mark, with 51.8% drinking sugar-sweetened beverages more than one time per day in 2011. However, YRBS did show improvement over time, with a statistically significant decrease in the percentage of high school



students drinking sweetened beverages more than one time per day from 60.0% in 2007 to 51.8% in 2011.⁴ Similarly, CHAMP data showed improvement over time in the percentage of all children and youth ages 1 to 17 drinking sweetened beverages more than one time per day, with a statistically significant decrease from 39.2% in 2005 to 35.7% in 2010. BRFSS data on sugar-sweetened beverage consumption among adults are not yet available for multiple years to assess change over time.



Physical Activity

One of the two physical activity objectives for adults in North Carolina's Obesity Prevention Plan 2007-2012 was that at least 46% would get the recommended amount of physical

activity each week by 2012. According to BRFSS data, North Carolina met that benchmark in 2009, when 46.4% of adults participated in the recommended amount of physical activity. In the case of BRFSS data from 2001 through 2009, the "recommended amount of physical activity" refers to (1) moderate physical activity for 30 or more minutes per day, five or more days per week or (2) vigorous physical activity for 20 or more minutes per day, three or more days per week. North Carolina saw a statistically significant increase in physical activity among adults from 2001 to 2009, with the percentage who get the recommended amount of physical activity each week improving from 42.4% in 2001 to 46.4% in 2009.

North Carolina's second physical activity objective for adults was that no more than 15% would

participate in no leisure-time physical activity. North Carolina did not meet this target, with 25.7% of adults participating in no leisure-time physical activity in 2010, according to BRFSS data. There has been no statistically significant change in the percentage of adults getting no leisure-time physical activity over the last decade, from 26.4% in 2001 to 25.7% in 2010.

North Carolina's Obesity Prevention Plan 2007-2012 included a physical activity objective specific to children and youth as well. It is recommended that children and youth participate in at least 60 minutes of physical activity every day, and North Carolina's objective was that at least 52% of children and youth would meet this recommendation by 2012. Both CHAMP and YRBS provide data related to this objective. CHAMP provides data on the percentage who spend 60 minutes or more in physically active play *on a typical day*. A *typical day* is not necessarily *every day*, but these data are the most relevant CHAMP data available. In 2009, 90.2% of children and youth ages 2 to 17 spent 60 minutes or more in physically active play on a typical day, according to CHAMP. This indicates success in meeting North Carolina's objective, although it is possible that parents (who report CHAMP data) may perceive their children to be more physically active than they actually are. YRBS showed lower numbers, with 26.0% of high school students reporting being physically active for 60 minutes or more per day (i.e., "on seven of the past seven days") in 2011. Both CHAMP and YRBS allow for the assessment of change over time. CHAMP data showed an increase from 73.0% in 2005 to 90.2% in 2009 in the percentage of children and youth ages 2 to 17 who spent 60 minutes or more in physically active play on a typical day. YRBS data showed the percentage of high school students to be holding steady, with 25.9% getting at least 60 minutes of physical activity per day in 2005 and 26.0% in 2011.

Technical Notes

1. For six-month breastfeeding duration, 2009 is the latest year for which CHAMP data are available because of a change to the survey questionnaire in 2010. Data for six-month breastfeeding duration were provided by the State Center for Health Statistics upon special request and may differ slightly from the data available in CHAMP web tables.
2. The YRBS questionnaire did not specify that the dinner was prepared at home.
3. The CHAMP questionnaire asked about consumption of "sweetened beverages such as soda pop, sweet tea, fruit punch, Kool-Aid, sports drinks or fruit drinks" but did not specify *sugar*-sweetened beverages. It is possible that parents could have included drinks flavored with artificial sweetener (e.g., diet soda) when they estimated their children's consumption. The questionnaire did specify that 100% fruit juices should not be considered.
4. There was a difference in the wording of the YRBS question between 2007 and 2011. In 2011, the survey asked about sugar-sweetened beverages, while in 2007, the survey asked more generally about sweetened beverages, which could include drinks flavored with artificial sweetener (e.g., diet soda).

Healthy Behaviors: Comparing Baseline and Recent Data

The objectives in North Carolina's Obesity Prevention Plan 2007–2012 follow two formats, as described on page 4. This Healthy Behaviors table displays data for the objectives that aim for an improvement from baseline. The Healthy Behaviors table on page 12 (Healthy Behaviors: Assessing Progress toward Benchmarks) displays data for the objectives that set specific numerical benchmarks.

Indicator	Baseline Data	Recent Data	North Carolina's Objective	Met Objective?
FRUITS AND VEGETABLES				
By December 31, 2012, 14% more North Carolina adults, youth and children will consume five or more servings of fruits and vegetables each day. (North Carolina's Obesity Prevention Plan 2007-2012, Goal 3, Objective A)				
Percentage of adults who consume five or more servings of fruits and vegetables per day (BRFSS)	23.2% (2003)	20.6% (2009)	≥ 37.2% (14 percentage points more than 23.2%)	No
Percentage of children and youth who consume five or more servings of fruits (including 100% fruit juice) and vegetables per day (CHAMP)	65.1% (2005)	57.7% (2010)	≥ 79.1% (14 percentage points more than 65.1%)	No
Percentage of high school students who consume five or more servings of fruits and vegetables per day (YRBS)	17.8 % (2003)	19.4% (2011)	≥ 31.8% (14 percentage points more than 17.8%)	No
FAST FOOD				
By December 31, 2012, 25% fewer North Carolina children ages 2 to 17 will eat fast food three or more times per week. (North Carolina's Obesity Prevention Plan 2007-2012, Goal 3, Objective D)				
Percentage of children and youth who eat fast food three or more times per week (CHAMP)	12.3% (2005)	12.8% (2009)	≤ 9.2% (25% less than 12.3%)	No



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Healthy Behaviors: Assessing Progress toward Benchmarks

The objectives in North Carolina's Obesity Prevention Plan 2007–2012 follow two formats, as described on page 4. This Healthy Behaviors table displays data for the objectives that set specific numerical benchmarks. The Healthy Behaviors table on page 11 (Healthy Behaviors: Comparing Baseline and Recent Data) displays data for the objectives that aim for an improvement from baseline.

Indicator	Recent Data	North Carolina's Objective	Met Objective?
BREASTFEEDING			
By December 31, 2012, the proportion of North Carolina infants who are breastfed will increase to 75% and the proportion of infants who are breastfed for at least six months will increase to 50%. (North Carolina's Obesity Prevention Plan 2007-2012, Goal 3, Objective B)			
Percentage of children under age five who were ever breastfed (CHAMP)	77.3% (2010)	≥ 75.0%	Yes
Percentage of children under age five who were breastfed for at least six months (of those who were ever breastfed) (CHAMP)	43.3% (2009)	≥ 50.0%	No
MEALS AT HOME			
By December 31, 2012, at least 70% of North Carolinians will prepare and eat their main meal at home at least five times per week. (North Carolina's Obesity Prevention Plan 2007-2012, Goal 3, Objective E)			
Percentage of parents who report that household eats a main meal together that was prepared at home five or more times in a typical week (CHAMP)	69.6% (2010)	≥ 70.0%	No
Percentage of adults who eat a main meal prepared at home five or more days per week (BRFSS)	74.9% (2009)	≥ 70.0%	Yes
SUGAR-SWEETENED BEVERAGES			
By December 31, 2012, the percentage of North Carolina adults, youth and children who typically consume more than one 12-ounce serving of sugar-sweetened beverages per day will not exceed 50%. (North Carolina's Obesity Prevention Plan 2007-2012, Goal 3, Objective F)			
Percentage of high school students who drink sugar-sweetened beverages one or more times per day (YRBS)	51.8% (2011)	≤ 50.0%	No
Percentage of children and youth who drink sweetened beverages more than one time per day (CHAMP)	35.7% (2010)	≤ 50.0%	Yes
Percentage of adults who drink sugar-sweetened beverages more than one time per day (BRFSS)	33.0% (2009)	≤ 50.0%	Yes
PHYSICAL ACTIVITY			
By December 31, 2012, at least 46% of adults will get recommended¹ amounts of physical activity each week and fewer than 15% will report no leisure-time physical activity. (North Carolina's Obesity Prevention Plan 2007-2012, Goal 4, Objective A)			
By December 31, 2012, at least 52% of youth and children will participate in at least 60 minutes of physical activity every day. (North Carolina's Obesity Prevention Plan 2007-2012, Goal 4, Objective B)			
Percentage of adults who participate in the recommended amount of physical activity (BRFSS)	46.4% (2009)	≥ 46.0%	Yes
Percentage of adults who participate in no leisure-time physical activity (BRFSS)	25.7% (2010)	< 15.0%	No
Percentage of children and youth who spend 60 minutes or more in physically active play per day (CHAMP)	90.2% (2009)	≥ 52.0%	Yes
Percentage of high school students who are physically active for 60 minutes or more per day (YRBS)	26.0% (2011)	≥ 52.0%	No

1. In the case of BRFSS data from 2001 through 2009, the "recommended amounts of physical activity" refers to (1) moderate physical activity for 30 or more minutes per day, five or more days per week or (2) vigorous physical activity for 20 or more minutes per day, three or more days per week.

Making It Easier to Eat Smart and Move More

“Partnerships are the key to success. In the Physical Activity and Nutrition Branch at the NC Division of Public Health, we believe that ‘none of us is as strong as all of us.’ The Eat Move, Move More NC movement exemplifies this fact. It will take all of us working together, using proven strategies in a coordinated approach, to make healthy eating and physical activity the easy choice for all North Carolinians. We are proud to be a partner in this movement.”

**—Cathy Thomas, Branch Head
Physical Activity and
Nutrition Branch, NC
Division of Public Health**

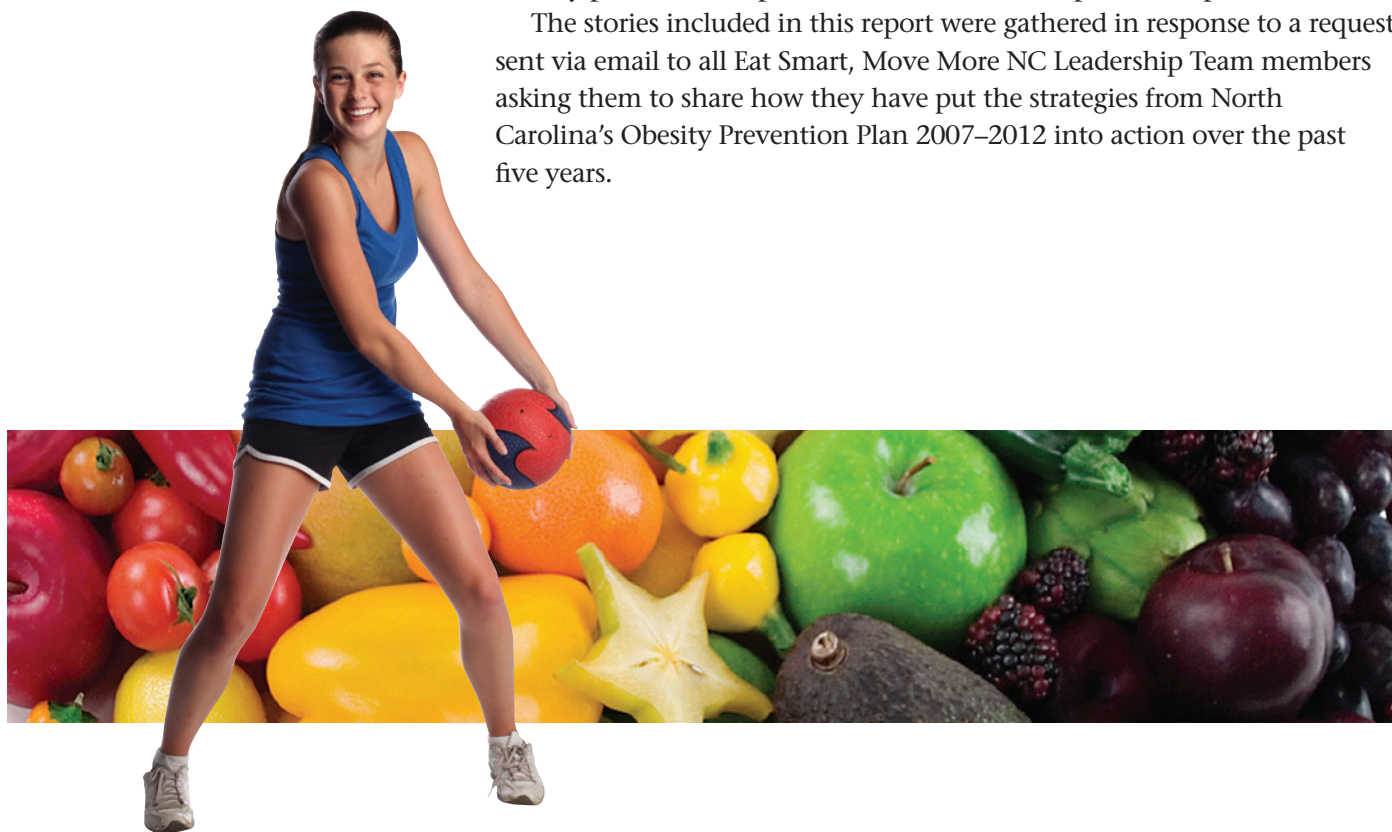
The first goal of North Carolina’s Obesity Prevention Plan 2007–2012 was to increase healthy eating and physical activity opportunities for all North Carolinians by fostering supportive policies and environments. This section of the report shares the stories of individuals and organizations across the state who are working to make healthy eating and physical activity the easy choice.

People need knowledge, opportunity and support to make healthy choices. North Carolina’s Obesity Prevention Plan 2007–2012 outlined strategies that can be put into place to make it easier for people to eat smart and move more. The strategies were organized into three areas:

1. Individuals and families
2. Community and schools
3. Policies and environments

Putting the strategies in each of these areas into practice requires a broad range of professionals representing different sectors of the community, including economic development and business leaders, farming and agricultural groups, city and regional planners, transportation planners, parks and recreation staff, schools, colleges and universities, physical activity professionals, public health officials and philanthropic foundations.

The stories included in this report were gathered in response to a request sent via email to all Eat Smart, Move More NC Leadership Team members asking them to share how they have put the strategies from North Carolina’s Obesity Prevention Plan 2007–2012 into action over the past five years.



INDIVIDUAL AND FAMILY STRATEGIES

Individual and Family Strategies from *Eat Smart, Move More: North Carolina's Plan to Prevent Overweight, Obesity and Related Chronic Diseases, 2007-2012*:

- Prepare and eat more meals at home.
- Serve portions appropriate to a family member's age and activity level.
- Enjoy more fruits and vegetables (fresh, frozen, canned, dried) at home and whenever you eat out.
- Offer water as the standard beverage at meals and snacks.
- Limit sugar-sweetened beverages to occasional servings of moderate portion size.
- Learn to eat only when hungry and stop when full.
- Limit eating out and choose restaurants with healthy options.
- Limit the number of fast-food meals eaten each week.
- Help all family members learn to assess the amount to eat when served large portions so that caloric intake and physical activity are balanced.
- Breastfeed infants for at least the first 4 to 6 months of life.
- Establish physical activity as a routine part of everyday life for all family members.
- Learn about public facilities for physical activity in your neighborhood and establish a regular physical activity plan for your family.
- Limit the amount of television, video game and computer use by all family members.
- Encourage active play as an alternative to television watching and video games.
- Teach children and youth to critique television advertising and resist pressure to buy foods and beverages high in calories and low in nutrients.

Be Active North Carolina

Be Active North Carolina has the goal of empowering one million people to be more active, more often. Over the past five years, this non-profit organization has encouraged physical activity among individuals. Be Active North Carolina partners with worksites, schools and faith communities throughout the state. They develop and leverage resources within the Appalachian region and Triad region as two distinct and vibrant Be Active Partnerships.



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"Be Active continues to lead North Carolina's efforts to become more physically active, and does so in partnership with Eat Smart, Move More NC and a wide variety of organizations and partnerships around the state. Be Active strives to gain individual commitments to become healthier, more active people and will continue to provide programs, trainings and supportive environments to enable people across the state to achieve an active lifestyle."

—Gary Gardner,
President and CEO,
Be Active North Carolina



The NC Expanded Food and Nutrition Education Program is making a real difference in the lives of families by helping them to adopt the core behaviors for obesity prevention. EFNEP classes were taught to 24,152 families with young children between 2007 and 2011, and pre/post surveys show the following:

- **58.9% of participants reported eating more fruit**
- **52.7% reported eating more vegetables**
- **44% increased their daily physical activity**
- **59.3% reported decreasing the amount of sugary beverages they drank**
- **57.6% reported eating more meals together as a family**

The North Carolina Expanded Food and Nutrition Education Program

The North Carolina Expanded Food and Nutrition Education Program (EFNEP) is making a real difference in the lives of families by helping them to adopt the core behaviors for obesity prevention. North Carolina EFNEP is a federally funded educational program conducted through the Cooperative Extension Service at NC State University and NC A&T State University. EFNEP teaches classes based on the core strategies for obesity prevention outlined in North Carolina's Obesity Prevention Plan 2007–2012. Through the classes taught between 2007 and 2011, they reached 24,152 families with young children and 69,241 school-aged youth. As a result of these classes, 58.9% of participants reported eating more fruit, 52.7% reported eating more vegetables, and 44% increased their daily physical activity. In addition, 59.3% reported decreasing the amount of sugary beverages they drank and 57.6% reported eating more

meals together as a family. These changes were measured through a pre/post recall and survey.

Program Coordinator, Lorelei Jones, credits the EFNEP staff for their dedication and commitment to helping families build the knowledge, skills and confidence to eat smart and move more. Lorelei notes, "The EFNEP staff work tirelessly to make a positive difference in their communities. They meet families where they are by showing them how to prepare and eat healthy foods with limited resources and budgets in mind. Staff members encourage families and youth to set personal goals and celebrate their progress along the way. They also help participants establish walking clubs, connect them with other agencies that offer healthy food and physical activity opportunities, and empower them to shape their communities by advocating for improvements to their built environment—such as adding walking paths or gardens—that help promote active living."

"There are few programs that have more fully embraced Eat Smart, Move More, North Carolina than the Expanded Food and Nutrition Education Program (EFNEP). At a time when they were updating their curriculum to address contemporary nutrition issues facing North Carolina, they looked to Eat Smart, Move More NC to provide the core messages. Their new curriculum was built around the goals and measurements offered in *Eat Smart, Move More: North Carolina's Plan to Prevent Overweight, Obesity and Related Chronic Diseases, 2007-2012*. EFNEP will continue to be an integral part of the Eat Smart, Move More NC movement as they serve limited resource families."

—Dr. Carolyn Dunn, NC State University

Eat Smart, Move More, Weigh Less

Eat Smart, Move More, Weigh Less, a 15-week weight management program, is helping individuals across the state achieve and maintain a healthy weight. The 15-week program, offered in weekly one-hour sessions, is based upon proven strategies for weight management. Each lesson informs, empowers and motivates participants to live mindfully as they make choices about eating and physical activity.

Through the NC HealthSmart initiative, the NC State Health Plan for Teachers and State Employees began offering the Eat Smart, Move More, Weigh Less program to its members at their worksites in 2009, and

For every \$1 spent on Eat Smart, Move More, Weigh Less, \$2.16 can be saved in medical care and lost productivity costs.*

*Results from analysis of data obtained from classes offered through a grant-funded program to State employees in North Carolina between August 2009 and August 2010.

online in 2011. Both the response to and results from the program have been outstanding. As of November 2012, 336 classes had been completed serving 6,056 members with a 70% completion rate (attended 10 of 15 classes). Analysis of the 259 on-site classes between August 2009 and December 2011 found a decrease in obesity and hypertension and an increase in normal weight and blood

pressure among participants. Most participants reported enrolling to lose weight or better manage a health condition, and program satisfaction topped 90%. Another survey of individuals who completed the course found 74% of the 174 respondents had maintained or lost more weight six months after the program ended. Initial findings show online and on-site classes reporting similar outcomes. To learn more, go to www.esmmweighless.com.

“As a Wellness Consultant working with businesses across North Carolina, I am constantly in search of evidence-based programs to refer to my clients. I have been delighted to work with the Eat Smart, Move More, Weigh Less program and consider it a “best practice” in the wellness field. My clients have had rave reviews of the program, and I will continue to refer more clients to this program to combat the epidemic of obesity in North Carolina and the US.”

**—Twyla Hutchins Hill, RN, BSN, COHN-S
Health Management Officer, Hill, Chesson & Woody**



Kids in Parks

The Kids in Parks program three-year results:

- 15,000 child-miles hiked
- 2.3 million calories burned
- 7,500 hours spent “unplugged” and outdoors by kids

Move more at the park! The Kids in Parks program, an initiative of the Blue Ridge Parkway Foundation, the Blue Ridge Parkway and the Blue Cross and Blue Shield of North Carolina Foundation, is working with partners in North Carolina and throughout the country to provide a network of family friendly trails called TRACK Trails. These trails connect various public lands in an attempt to get kids “unplugged,” outdoors and reconnected with nature for their health and the health of our parks. Each TRACK Trail has a series of brochure-led self-guided adventures designed to turn an ordinary hike into a fun-filled adventure. Kids earn prizes for TRACKing their TRACK Trail adventures in their online nature journal on the Kids in Parks website. North Carolina enjoys the largest number of TRACK Trails in the country, featuring 17 Hiking TRACK Trails and three Nature Trail Disc Golf Course TRACK Trails. As of November

2012, more than 650 individual Trail TRACKers had registered more than 900 trail adventures, with approximately 13% having registered adventures from more than one TRACK Trail location. The average age of the program’s hiking Trail TRACKers is 7.5 years, and the average age of the program’s Nature Trail Disc Golf TRACKers is 14.5 years old.

Learn more about the Kids in Parks program by visiting <http://kidsinparks.com>.

COMMUNITY AND SCHOOLS STRATEGIES

Community and Schools Strategies from *Eat Smart, Move More: North Carolina's Plan to Prevent Overweight, Obesity and Related Chronic Diseases, 2007-2012*:

- Conduct and/or support highly visible, community-wide campaigns with messages directed to large audiences through different types of media, including television, radio, newspapers, movie theaters, billboards and mailings. These campaigns should include strategies such as support or self-help groups, physical activity counseling, risk factor screening and other community events. Engage community leaders as role models to promote healthy eating and physical activity.
- Create and support worksite interventions for overweight treatment and prevention. Interventions should be multicomponent and aimed at healthy eating, physical activity and cognitive change.
- Establish and support a network of accessible, family-based and culturally relevant interdisciplinary weight management services for children, youth and adults.
- Include screening and obesity prevention services as part of routine health care.
- Expand routine tracking of Body Mass Index by health care professionals who also offer relevant evidence-based counseling and guidance, serve as role models and provide leadership in their communities for obesity prevention efforts.
- Increase awareness of prevention and treatment programs for adults and children.
- Ensure equitable access to childhood and adult overweight prevention and treatment services to reduce health disparities.
- Increase access to community gardens and farmers' markets where fresh fruits and vegetables can be grown or purchased.
- Work with farmers to increase the availability of fruits and vegetables that can be sold locally.
- Increase access to a variety of affordable healthy foods in grocery stores and restaurants in all neighborhoods.
- Provide and support physical improvements for child care facilities and schools that promote healthy eating, such as steamers, blenders, salad bars, milk machines and removal of fryers.
- Prohibit advertising or service of sugar-sweetened beverages in schools or child care.
- Assure that all public buildings have designated and appropriate space provided for women who are breastfeeding and for storage of breast milk.
- Display point-of-decision prompts (signs) by elevators or escalators that encourage people to use nearby stairs for health benefits or weight loss.
- Encourage physical activity by building, strengthening and maintaining social networks that provide supportive relationships for behavior change (e.g., setting up a buddy system, making contracts with others to complete specified levels of physical activity, or setting up walking groups or other groups to provide friendship and support).
- Create and support programs that teach behavioral skills to help participants incorporate physical activity into their daily routines. The programs should be tailored to each individual's specific interests, preferences and readiness for change and should teach behavioral skills such as 1) goal-setting and self-monitoring of progress toward those goals, 2) building social support for new behaviors, 3) behavioral reinforcement through self-reward and positive self-talk, 4) structured problem-solving to maintain the behavior change, and 5) prevention of relapse into sedentary behavior.
- Expand opportunities for physical activity through physical education classes, intramural and interscholastic sports programs and other physical activity clubs, programs and lessons; after-school use of facilities, use of schools as community centers; and walking and biking to school programs.
- Increase the availability of quality, daily physical activity and physical education in schools for all children.
- Provide fun physical activities in after-school programs.
- Compile and publicize a listing of existing facilities that provide safe, inclusive and affordable opportunities for physical activity in the community.
- Encourage the promotion of physical activity in faith communities and expanded use of their physical activity facilities.

FirstHealth of the Carolinas

FirstHealth of the Carolinas, a health care system that primarily serves Moore, Montgomery, Richmond and Hoke counties, proactively works to improve the health of the community by increasing access to care, providing health education programs and promoting healthy lifestyles by improving access to healthy foods and enhancing opportunities for physical activity.

In 2008, FirstHealth convened a group of community partners, including school administrators, Pinehurst Parks and Recreation, and parents, to address the concerns of traffic congestion at Pinehurst Elementary School. As a result of working together, the group established the Pinehurst Walks! initiative, which aims to increase the number of children that can safely walk and bike to and from school. Fit Community funds were used to construct a one-quarter-mile greenway between the school and the nearby Cannon Park and coordinate a weekly walking school bus program to encourage regular trail use. Parents now drop their children off at Cannon Park while adult volunteer supervisors lead “buses” of young pedestrians to school. Students and parents have embraced the new morning commute, and teachers have noticed that children now start the day more alert and ready to learn.

FirstHealth worked with additional community partners to extend the trail around the park and build a .35-mile sidewalk in the adjoining neighborhood, which also connects to an existing greenway trail. This further contributes to students being able to walk to school on a daily basis. Moreover, fifth grade student council members presented results from a walkability audit that they conducted to the Pinehurst Village Council, which demonstrated the potential value of installing a new path that would connect the school to the library and village center. The Council voted to fund the greenway, resulting in another popular connection to the school.

The efforts for the walking school bus have been sustained by the Pinehurst Elementary School’s Parent Teacher Association (PTA) through the formation of a walking school bus sub-committee. An estimated 100 students walk to school each week.



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Fit Community

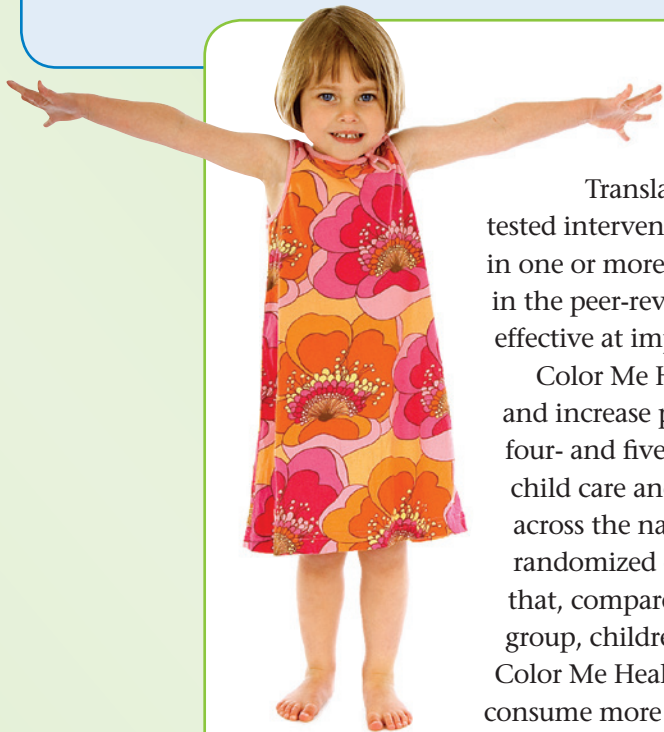
Between 2006 and 2012, Fit Community supported 38 North Carolina communities with funding to implement two-year initiatives to create healthier places to live, work and play. Fit Community, led by Active Living By Design, part of the North Carolina Institute for Public Health at the UNC Gillings School of Global Public Health, and funded by the NC Health and Wellness Trust Fund, helped generate policy and environmental changes that promote active living and healthy eating across the state in a variety of settings, including parks, recreation and trail facilities; schools; pedestrian and bicycle infrastructure; gardens and work sites. In addition, 27 municipalities and counties received three-year Fit Community designation awards, recognizing their efforts to support physical activity, healthy eating and tobacco use prevention across communities, schools and workplaces.

A rich archive of resources, lessons learned and stories are now available to community partnerships, funders and technical assistance providers engaged in similar work across the state and nation. Learn more by visiting <http://activelivingbydesign.org/events-resources/resources/fit-community-case-studies>.

The Eat Smart, Move More NC University Collaborative

The Eat Smart, Move More NC University Collaborative, a partnership of universities from across the state, provides an opportunity for researchers to communicate, coordinate and avoid competition when applying for research funding. The Collaborative consists of six major universities and four schools of medicine: Duke University, East Carolina University, North Carolina State University, University of North Carolina at Chapel Hill, University of North Carolina at Asheville and Wake Forest University, as well as the North Carolina Division of Public Health.

The mission of the University Collaborative is to facilitate strong working relationships among university-based researchers as well as governmental and community partners that result in the creation and dissemination of new knowledge for optimal strategies for the prevention, evaluation and treatment of childhood obesity in NC. Their vision is to lead the nation in state-based inter-institutional medical and public health collaboration regarding the childhood obesity epidemic.



Color Me Healthy

In 2012, the Center for Training and Research Translation selected Color Me Healthy as one of its research-tested interventions—interventions for which efficacy has been tested in one or more research studies and the findings have been published in the peer-reviewed literature. Research-tested interventions must be effective at improving one or more obesity-related outcomes.

Color Me Healthy is proven to improve fruit and vegetable intake and increase physical activity among four- and five-year-old children in child care and preschool settings across the nation. Data from a randomized controlled trial suggest that, compared to the control group, children who participate in Color Me Healthy are more likely to consume more fruit and vegetables when presented with fruit and vegetable snacks. The increased consumption continued even three months after the program ended.

Learn more by visiting <http://colormehealthy.com>.



“Since starting to use Color Me Healthy in the classroom, I spend more time talking about fruits, vegetables and nutrition in general, and as a result, the children are more willing to try new fruits and vegetables.”

—Child care provider

Joint Use Agreement Connects Duke Healthy Lifestyles Clinic and Durham Parks and Recreation

The Duke Healthy Lifestyles Clinic and the Durham Parks and Recreation Department are proving the power of partnerships. The Duke Healthy Lifestyles Clinic is an outpatient obesity treatment clinic that addresses obesity by engaging a team of medical professionals, licensed dietitians, physical therapists and mental health providers. The Duke Healthy Lifestyles Clinic wanted to offer opportunities for its patients and their families to be physically active. Space was limited at their facility, so they turned to Durham Parks and Recreation Department for help. Those early conversations resulted in the adoption of a Joint Use Agreement, which sought to better serve patients of the clinic and increase access to physical activity opportunities for members in the community.

Duke Healthy Lifestyles' patients are now able to use Durham's Edison Johnson Park facilities six days a week for two hours each day. Patients can access the pool, recreation center, basketball court, kitchen for healthy cooking classes, community garden and walking trails. In exchange, the Duke Healthy Lifestyles Clinic seeks grant funding to enhance park facilities.

"One of the benefits of our partnership with the Durham Parks and Recreation Department is the ability to apply for different types of grant funding. The Parks and Recreation Department can apply for funding that we may not be aware of or may not be able to apply for and vice versa. In addition, our unique partnership through the Joint Use Agreement makes our project more appealing to funders. It's been worth the challenges of contract negotiations. There is the potential for long term system-wide change as a result of our partnership, in terms of examining existing vending standards and partnering with a city-run organization."

—Julia Wacker, Duke Healthy Lifestyles Clinic Program Manager

Unique Partnership Cools Local Children

When multiple government agencies and the public work closely together, the sky is the limit! No longer will the children in one neighborhood use a fire hydrant to cool off during hot summer months. A Community Development Block Grant for the City of Oxford (in Granville County) from the NC Department of Commerce included \$150,000 for a recreation project. When the neighborhood property originally targeted by the City for a playground became unavailable, the Granville-Vance District Health Promotion Coordinator, in her dual role as

City Commissioner (and then Mayor), encouraged partnering with Oxford Housing Authority (OHA) to find space for a splash park which could bring water play to the neighborhood during times of hot weather. Negotiations between the City, the grantor, and OHA opened the door to funding a city project that would not be located on city property.

Oxford Planning, Engineering, Public Works, and Parks and Recreation Departments came together with OHA to work out the details, including a commitment by the City to provide in-kind water and sewer lines along with the water for park operations once it opened. Oxford Housing Authority in turn contributed money for several project enhancements.

May 2012 saw city, housing, and health officials celebrating with area residents Oxford's first neighborhood splash park that, while owned and operated by OHA, is also open to the public. With a Joint Use Agreement that clarifies roles and responsibilities for the partners, all are proud to be part of a truly unique partnership that increases opportunities for healthy, active play for local children!



Safe Routes to School

Safe Routes to School is making it safer for North Carolina children to walk and bicycle to and from school. NC Department of Transportation (NCDOT) awards funds to local governments, partners and school systems to improve walking and biking infrastructure. Projects include the following:

- Bike paths
- Crosswalks
- Additions or improvements to sidewalks
- School zone signage and traffic calming mechanisms within a two-mile radius of a school
- Programs that encourage walking and biking to school, enforce safety for walking and biking to school, or evaluate these activities

North Carolina was funded to establish a Safe Routes to School state network that supports the National Safe Routes to School program through the following actions: advocating state strategic



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highway safety plans that consider pedestrians; implementing and improving state level Safe Routes to School programs; adding Safe Routes to School goals into school wellness policies; developing and securing state-level funding for bicycle and pedestrian traffic safety curricula and training programs for schools; enacting policies

that create street-scale improvements for walking and bicycling; changing statewide school siting policies to encourage school placement near residential areas; and implementing existing legislation that makes it easier for children to walk or bicycle to and from school.

All of these efforts are paying off. Over 232 schools have been directly impacted by funding from Safe Routes to School, and as funds continue to be awarded, grassroots adoption of walking and bicycling to school programs continue to expand in most school districts.



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“Impacts in Mecklenburg County illustrate the growth of the Safe Routes to School program when technical assistance is offered at the local level. Increased technical assistance to Mecklenburg County’s Safe Routes to School program has resulted in the program expanding to eight schools, 33 events with over 6,420 participants. In 2011, for International Walk to School Day, 1,581 kids participated. In one school, over 80% of the student body walked to school.”

—Terry Lansdell, North Carolina Advocacy Organizer
Safe Routes to School National Partnership



“The Making Pitt Fit Community Garden was established to help participants increase their levels of physical activity and consumption of fresh fruits and vegetables. Besides growing and donating hundreds of pounds of fresh vegetables to a local food bank, the fostering of new friendships and the sharing of information and resources among people with similar interests were additional benefits.”

—Joni Young-Torres,
Pitt County Community Garden
Technician, NC Cooperative
Extension Service

North Carolina Community Garden Partners

The North Carolina Community Garden Partners (NCCGP) is a statewide partnership made up of a wide variety of organizations and individuals interested in community gardening. Partners include community and faith-based organizations, universities, NC Cooperative Extension, public health agencies, gardeners, non-profits and many others. The vision of the NCCGP is to increase the quantity, quality and sustainability of community gardens in North Carolina with the end result of increasing community food security and improving access to healthy food. One of the first activities that the Partners undertook was to identify and survey existing community gardens. It is believed there are now more than 250 community gardens across the state, and that number continues to grow. Highlights of NCCGP's accomplishments over the past four years include conducting a strategic planning session that led to improved organizational development; co-sponsoring the statewide *Growing Communities: Community Building and Organizational Development through Community Gardening* workshop that reached 50 community garden organizers; partnering with the NC Recreation and Park Association on their Nourishing NC initiative to fund 100 community gardens; and creating a community garden listserv connecting over 260 stakeholders across the state.

Learn more by visiting www.NCCGP.org or www.facebook.com/NCCCommunityGardenPartners.



Farm to Fork: Building a Sustainable Local Food Economy in North Carolina

In 2008 and 2009, the Center for Environmental Farming Systems (CEFS) convened hundreds of food system stakeholders across the state in regional meetings, which concluded with a statewide summit, to develop “game changer” strategies to transform North Carolina’s food system. These strategies and other outcomes of the process are detailed in *From Farm to Fork: A Guide to Building North Carolina’s Sustainable Local Food Economy*. CEFS and its partners—including healthcare professionals, local government officials, nutritionists, anti-hunger groups, faith-based organizations, economic developers, funders, entrepreneurs, youth-based organizations, retailers, consumers and other academic institutions—have accomplished most of these “game changers,” and others are underway. Accomplishments include the establishment of the Sustainable Local Foods Advisory Council and the development of the NC 10% Campaign. Learn more by visiting www.cefs.ncsu.edu/whatwedo/foodsystems/slfac.html and www.ncsu.edu/project/nc10percent/index.php.

“The Farm to Fork initiative was successful because individuals from across the state, representing many different sectors that are impacted by food, were involved in developing the strategies. This engagement in the process resulted in widespread participation in implementing the ‘game changer’ strategies.”

—Nancy Creamer, Director, Center for Environmental Farming Systems, and Distinguished Professor of Sustainable Agriculture and Community Based Food Systems, NC State University



Healthy Corner Stores

Easy access to fresh, healthy food is now a reality for some low-income communities in Pitt County. As part of a Communities Putting Prevention to Work (CPPW) grant received in 2010, the Pitt County Health Department established the Making Corner Stores Fit for Pitt initiative. The initiative is designed to address food deserts—areas with limited or no access to fresh and healthy foods—which are prevalent in low-income communities throughout Pitt County. Individuals living in these communities often rely on corner/convenience stores to provide access to groceries. Project staff convened with local corner/convenience store owners and local farmers to identify ways they could work together to increase the availability and affordability of healthier foods in these outlets. The Making Corner Stores Fit for Pitt initiative resulted in improvements in products, prices, placement and promotion of healthy foods. Pitt County now has four corner stores that are increasing access to healthy foods. The stores report a net profit between 30% and 32% from this initiative. The owners are optimistic and have many ideas about how to continue increasing access to quality, healthy foods, while making it financially viable as well.

“The local store owners also serve on the newly-formed Making Corner Stores Fit for Pitt Steering Committee to discuss the future vision of the initiative, challenges and overcoming barriers, and celebrate successes. The steering committee demonstrates local ownership of the project and ensures a commitment to...transforming the community into a healthier place to live, work and play.”

—Diana Craft, Access to Healthy Foods Coordinator for Pitt County

Health Care: Helping Patients Eat Smart and Move More

The NC Academy of Family Physicians (NCAFP) and other medical provider associations, like the NC Pediatric Society, used the goals and objectives in North Carolina's Obesity Prevention Plan 2007-2012 to create quality improvement opportunities for their physicians seeking Continuing Medical Education credits or Maintenance of Certification Part IV credits. The strategies outlined in the Plan also served as a roadmap for addressing health disparities while examining and treating adolescent obesity.

"North Carolina's Obesity Prevention Plan has helped, and will continue to help, guide medical providers' efforts to curb the increasing obesity rates. We will continue to address obesity prevention through a wide variety of strategies, including regular BMI screenings and referrals to community-based resources."

—Greg Griggs, MPA, CAE, Executive Vice President,
NC Academy of Family Physicians



Healthy House

Catawba Valley Medical Center's Healthy House, a facility dedicated to both preventing and treating childhood obesity, is teaching at-risk children across Catawba County to make healthy choices. The Healthy House's prevention

initiative, the Wellness FAN (Fitness, Awareness, & Nutrition) program, seeks to make a sustainable difference. It provides education, activities and resources that can lead to the prevention of obesity in high-risk children. The modules engage the students in observational learning and participatory behavior consistent with the "show, don't tell" approach that has proven superior to traditional methods of learning. For example, in one module the children pretend to go on a picnic and get the opportunity to make choices among various food items. If it is a healthy choice ("everyday food"), they place the item in the picnic basket; if it is an unhealthy item ("sometimes food"), they place it in the trash can.

"Our objectives were based on North Carolina's Obesity Prevention Plan 2007-2012. Specific objectives were to increase the number of Head Start children at a healthy weight, increase the number of children who eat five or more servings of fruits and vegetables each day, decrease fast food consumption, and decrease sweetened beverage consumption. In addition, we had objectives of decreasing sedentary activities such as screen time, and increasing physical fitness, specifically endurance and flexibility.

We are happy to report that we observed an increase in fruit and vegetable consumption,

a decrease in screen time, and an increase in endurance. By the end of the second year, we had also observed a decrease in BMI and an increase in flexibility. Fast food consumption and sweetened beverage consumption still remain significant challenges. We speculate that this might be due to a combination of learned and well-practiced behaviors that are highly resistant to change and reinforced by messaging from media sources such as TV commercials. Much work remains to be done by all of us from the individual to the community and to the policy level."

—Vondell Clark, Medical Director, Healthy House

HIGHLIGHTS OF POLICY AND ENVIRONMENTAL STRATEGIES

Policy and Environmental Strategies from *Eat Smart, Move More: North Carolina's Plan to Prevent Overweight, Obesity and Related Chronic Diseases, 2007-2012*:

- Implement policies to encourage providing healthy options in age-appropriate portion sizes in all situations where food and beverages are served, including worksites, government agencies, schools, after-school programs, clubs, faith organizations and restaurants.
- Develop and implement a mechanism for use of electronic benefit transfer (EBT) in farmers' markets and produce stands.
- Create policies that provide economic incentives to encourage production and distribution of healthy foods and beverages, including fruit and vegetables.
- Develop and maintain breastfeeding friendly policies and environments at worksites, healthcare agencies and faith organizations.
- Prioritize capital improvement projects to increase opportunities.
- Expand opportunities for physical activity including recreational facilities, parks, playgrounds, sidewalks, bike paths and safe streets in neighborhoods.
- Involve worksites, coalitions, agencies and communities in attempts to change the local environment to create opportunities for physical activity. Such changes include creating walking trails, building exercise facilities or providing access to existing nearby facilities.
- Build new bike paths, sidewalks, accessible walking trails and parks where the need exists.
- Review transportation policies and traffic patterns and revise to facilitate safe walking and biking.
- Adopt local policy that sets standards for green space and sidewalks in new developments.

"Good health is good for business. Companies want to locate in areas with a skilled, healthy and productive workforce. They are looking for places where people want to live, places that support healthy eating and physical activity."

—Libby Smith, Senior Community Development Advisor, NC Department of Commerce

Statewide Policies in Support of Breastfeeding

Thanks to new policies adopted in North Carolina, nursing mothers may discover that

it is a little easier to find private places for breastfeeding or expressing milk. In July 2010, the North Carolina Division of Child Development passed a policy requiring all licensed child care centers and family day care homes to provide space, other than a bathroom, where a mother may breastfeed or express milk. In addition, July 1, 2010, marked the first day of implementation for the Lactation Policy, a policy passed by the NC Office of State Personnel requiring state agencies to provide space and paid break time for women to breastfeed or express milk as needed.



WorkHealthy AmericaSM

NC Prevention Partners helps businesses improve employee health and decrease healthcare costs through WorkHealthy AmericaSM, a unique web-based approach to creating healthy workplace environments.

WorkHealthy AmericaSM focuses on four core topics: tobacco-free places and people, nutrition and healthy food, physically active workplaces, and a culture of wellness. Employers conduct a web-based assessment of their workplace's wellness policies, benefits and environment. Then they receive tailored feedback along with detailed action plans to guide them through the how-to's of establishing evidence-based wellness policies and programs. NC Prevention Partners provides ongoing training through community Prevention Academies, live webinars, 200+ on-demand tools and case studies, e-bulletins, and blogs to help address common barriers. This support creates a community where companies actively learn from and share with each other.

Since 2006, over 340 organizations across North Carolina have participated in WorkHealthy AmericaSM, including hospitals, schools and state agencies, and a specific focus on businesses in Asheville, Burlington, Charlotte and Greensboro, as well as Burke, Lenoir, and Rowan Counties.

Learn more about WorkHealthyAmericaSM by visiting www.ncpreventionpartners.org.



The Red Apple Project

NC Prevention Partners' Red Apple Project (the nutrition and healthy food section of WorkHealthy AmericaSM) assists hospitals across North Carolina

in making healthy foods the easy and affordable choice through five core principles: access to healthy foods, marketing and labeling, pricing, benefits and incentives, and education. Once the hospital environment reflects these core principals, the hospital

achieves Red Apple status. Ninety-five of North Carolina's 129 hospitals reached Red Apple status between 2008 and 2011. In 2012, NC Prevention Partners raised the bar to a Gold Apple standard, which 14 hospitals had achieved as of the summer of 2012.

In recognition of the impact and success of the Red

Apple Project, NC Prevention Partners was awarded the US Health and Human Services' Healthy Living Innovation Award in 2011, one of only eight organizations recognized nationally for cutting edge work in health promotion.

Learn more about the Red Apple Project by visiting www.ncpreventionpartners.org.

"Everyone deserves to live and work in a healthy, supportive environment. WorkHealthy AmericaSM makes it easy for employers to assess their organization's prevention policies and systems and begin making improvements."

—Dr. Meg Molloy, President and CEO
of NC Prevention Partners



Faithful Families Eating Smart and Moving More

The Faithful Families Eating Smart and Moving More (Faithful Families) program effects changes in individual behavior, practices and environments of faith communities to promote healthy eating and physical activity. Resources for the program include a nine-session Faithful Families curriculum and the Eating Smart and Moving More Planning Guide for Faith Communities.

The Faithful Families curriculum is co-taught by nutrition and physical activity educators and trained lay leaders from faith communities in small group sessions. The nine-session curriculum includes simple lessons that help participants to plan, shop, fix and eat healthier meals. The lessons also include tips for moving more, healthy recipes with taste testing, and discussion questions that connect participants' spiritual and physical health. According to recent data, 83% of participants in Faithful Families classes report positive changes in at least one or more nutrition practice.

The Eating Smart and Moving More Planning Guide assists faith leaders in adopting policy and environmental change for their faith community and establishing health committees. More than 45 faith communities have enacted over 170 policy and environmental changes as a result of this program.

Faithful Families has been accepted as a "Practice-Tested Intervention" by the Center for Training and Research Translation (Center TRT). Center TRT, in collaboration with the Centers for Disease Control and Prevention's (CDC) Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases, has developed a process for reviewing, translating and disseminating interventions. This process is applied to obesity



prevention interventions that have been tested through research studies or have been developed and evaluated in practice. Interventions are recommended by expert reviewers and CDC for dissemination. Faithful Families is the first faith-based intervention to achieve this status.

"First Baptist Church has a community minded vision for promoting health in our county. In 2000, we built a Family Life Center for the members of the church and made it available at no cost to the community. Our vision is to impact our community for Christ by providing community members with a safe, welcoming place to exercise. A variety of programs are offered including yoga, aerobics and Zumba classes, as well as use of our fitness room. Our facilities are well used by our community youth. We annually host Upward basketball and cheerleading with over 400 participants, open gym play for all ages from seniors to preschoolers, and many sports camps. We have had a community garden for the past four years, with much of the produce given to our local soup kitchen."

—Cindy Hall, Minister of Outreach and Activities
First Baptist Church, Sanford (a Faithful Families community)

Partners in Health and Wholeness

The NC Council of Churches is supporting places of worship in changing policies, practices and environments that make healthy eating and physical activity the easy choice. In the spring of 2009, the NC Council of Churches developed Partners in Health and Wholeness (PHW), a faith-based health initiative, funded by the Blue Cross and Blue Shield of North Carolina Foundation. The mission of PHW is to promote health as a practice of faith and to improve the health of clergy and congregants through increased physical activity, healthy eating and tobacco use prevention and cessation. PHW has established a certification process for places of worship that make these changes. Congregations have the opportunity to achieve three different tiers of health certification: bronze, silver and gold. Upon completion, they also become eligible to receive a mini-grant to expand their health-related efforts, as long as funds last.



Since January 2010, more than 160 congregations across 40 different counties, representing more than 56,000 people of faith, have become Partners in Health and Wholeness-certified. As a result of Partners in Health and Wholeness, congregations are:



- serving healthier church meals
- maintaining tobacco-free buildings
- planting community gardens
- hosting youth events that encourage healthy lifestyles
- providing healthy snacks and beverages to children and youth
- adopting formal policies related to healthy eating and physical activity
- addressing health as a faith issue from the pulpit

To learn more about Partners in Health and Wholeness, visit www.healthandwholeness.org.



"As we learn better, we must do better...we can't do ministry work while we are sick...we are committed to making our people healthier."

—Pastor Anthony Farrar of Faith Missionary Baptist Church,
working with Wake County Human Services on nutrition and healthy cooking

Increasing Access to EBT at Farmers' Markets

The Riverfront Farmers' Market in downtown Wilmington is helping to make healthy food access a snap. Since becoming a member of the statewide North Carolina 21st Century Farmers' Markets program, the market is now set up to accept Supplemental Nutrition Assistance Program (SNAP) benefits through Electronic Benefit Transfer (EBT). The SNAP program, also known as food stamps, is referred to in North Carolina as the Food and Nutrition Services Program.

Accepting SNAP EBT at the Riverfront Farmers' Market increases the availability of fruits and vegetables for low-income individuals across Wilmington.

"I don't understand why every farmers' market wouldn't apply. There is no expense to it... Leaflight offers training, technical assistance, even tokens for each market," says R.T. Jones, the Riverfront Farmers' Market Manager. This program "opened up an additional form of revenue to farmers and increased the fruit and vegetable consumption for the low-income population."

Initially, some of the farmers had concerns about how they would get paid, but more and more vendors joined as they saw how easy and successful the program was. "We are really happy to be involved," says Mr. Jones of the Riverfront Farmers' Market's involvement in the 21st Century Farmers' Markets program. The Riverfront Farmers' Market is also a member of the Feast Down East sustainable food coalition.

Leaflight is a ten year old educational, scientific and charitable 501(c)3 North Carolina non-profit corporation. The Leaflight's services include research, education, planning and policy for local, regional, state and federal agencies, non-profits, businesses and citizens. Since inception, Leaflight's major focus has been food systems. Leaflight is enhancing local, regional, state and national food security through systematic and programmatic projects.

21st Century Farmers' Markets Program

Leaflight administers the 21st Century Farmers' Markets program in cooperation with a variety of partners. The 21st Century Farmers' Markets program implements the USDA, Food and Nutrition Service, Supplemental Nutrition Assistance Program (SNAP) for NC's agricultural direct farm-to-market retailers. These retailers include farmers' markets, tailgate markets, mobile mini-markets, delivery routes, farmer cooperatives and Certified Roadside Farm Stands. Program services include enrollment, training, promotion and administration.

Since 2009, Leaflight has helped 34 markets obtain USDA permits, equipment, supplies, training and financial support, transacting more than \$1 million on behalf of NC farms and farmers' markets.

Learn more about Leaflight by visiting www.leaflight.org.



North Carolina Sustainable Local Food Advisory Council

The NC Sustainable Local Food Advisory Council was created through legislation in 2009, as mandated in NC G.S. 106-830, "to contribute to building a local food economy, thereby benefiting North Carolina by creating jobs, stimulating statewide economic development, circulating money from local food sales within local communities, preserving open space, decreasing the use of fossil fuel and thus reducing carbon emissions, preserving and protecting the natural environment, increasing consumer access to fresh and nutritious foods, and providing greater food security for all North Carolinians." The 27-member council includes the Commissioner of Agriculture, State Health Director, Secretary of Commerce, six farmers, one commercial fisherman and representatives from non-government organizations and agencies. Statutory duties of the council are to consider programmatic issues, develop policies and submit an annual report to the NC General Assembly which includes findings, recommendations, legislative proposals and proposals for administrative action. Since 2009, a number of system level changes to support access to healthy foods have occurred that have supported a variety of the strategies in North Carolina's Obesity Prevention Plan 2007-2012.

To learn more visit www.ncagr.gov/localfood/documents/2012_NCSLFAC_Annual_Report.pdf.

North Carolina Alliance for Health

The North Carolina Alliance for Health was created in 2002 to advocate for an increase in North Carolina's cigarette tax (then the lowest in the nation at 5 cents). By 2005, they had built a broad coalition of organizations from across the state to support the effort and had achieved legislative success with a moderate increase in the cigarette tax.

In 2008, the Trust for America's Health approached the Alliance about a grant to promote obesity policy at the state level. The Alliance voted to broaden its mission to include obesity policy and began consulting with obesity policy experts about how to move forward. The Alliance created a committee structure to consider obesity-related issues and recruited interested organizations and individuals to the effort to advocate for obesity policy changes in NC.

Each year the Alliance sets its policy priorities with input from all partners. The 2013–2014 obesity policy priorities are:

- **Nutrition:** Promote the implementation of policies that require that all foods and beverages available in schools meet national nutrition guidelines and are fully funded. Advocate for policies identified to reduce exposure to marketing and advertising of unhealthy foods in schools.
- **Physical Activity/Physical Education:** Promote the implementation of quality, comprehensive Physical Education (PE) statewide according to national PE standards set by the National Association for Sport and Physical Education (NASPE).

- **Worksite Wellness:**

- Support policies which promote a healthy work environment for employees.
- Support the adoption and implementation of evidence-based procurement standards for food sold or offered in state government venues.
- Support the implementation of evidence-based guidelines for healthy eating options for the Legislative Building cafeteria and/or snack bar.

- **Built Environments:**

- Promote the ability of local communities to support routine physical activity and healthy eating through built environment supports, including multi-modal transportation infrastructure (e.g., mass transit, sidewalks, bike lanes), recreation opportunities (e.g., parks, trails greenways), and food venues (e.g., grocery stores, farmers' markets, community gardens). Support the integration of healthy land use ("sustainable communities") and multi-modal transportation options ("complete streets" policies).
- Monitor and support the development of the North Carolina Department of Transportation's Complete Streets Policy.
- Monitor and support the work of the North Carolina Sustainable Communities Task Force.

- **Support funding for evidence-based obesity prevention programs.**

The Alliance uses the Eat Smart, Move More NC Policy Strategy Platform to inform its obesity policy priorities.



"The North Carolina Alliance for Health's expansion to address obesity prevention, in addition to tobacco prevention, has been an important landmark in the state's public health landscape over the past few years. Due to their efforts to address various pressing health issues simultaneously, the Alliance continues to function as the key advocacy leader for preventive health in North Carolina."

—Roxanne (Leopper) Elliott, 2008–2011 Obesity Committee Chair

The John Rex Endowment

“Children’s activity levels and eating habits are heavily influenced by factors beyond their control. Our investment in various healthy weight projects with specific strategies is founded on the understanding that there is no one single solution to the complex problem of childhood overweight and obesity but there are many opportunities for positive change.”

—Kevin Cain, President and CEO, John Rex Endowment

In 2006, the John Rex Endowment made a long-term commitment to invest in the prevention of childhood overweight and obesity in Wake County. Since that time, they have awarded \$6 million in grant funds for obesity prevention projects to help young people eat smart and move more.

Reflecting on all of its healthy weight grants, the John Rex Endowment concluded that overweight and obesity among Wake County children and youth is a complex community problem and requires a community solution. Working across institutions has challenges, yet it is critical to foster collaboration and align resources. Further, effective and sustainable policy and environment change strategies are dependent on meaningful and engaged participation by youth, families, professionals and other individuals impacted by childhood overweight and obesity.

Based on lessons learned and a review of best practices, the John Rex Endowment has identified the following priorities for future healthy weight grants:

- The foundation will actively encourage and promote cross-sector community collaboration in overweight and obesity prevention efforts.
- The emphasis will be on settings where children and youth spend time with intentional regard for impact on underserved youth and children who are at-risk of being overweight or obese.
- Ongoing healthy weight investments will also include support for the development of skills and capacity in implementing policy advocacy strategies.

To learn more about the John Rex Endowment, visit www.rexendowment.org.

“With the John Rex Endowment funding, Advocates for Health in Action (AHA) has built a successful collaborative of partners, working together to make Wake County a place where healthy eating and active living are the norm. AHA is now the ‘Go To’ source for local foods, school wellness and organizational policy change.”

—Sheree Vodicka, Director of Wake County’s Advocates for Health in Action



The Reidsville Area Foundation

The Reidsville Area Foundation, a grant making organization in Rockingham County, North Carolina, is helping address the health needs of Rockingham County residents by funding policy and environmental change projects that make it easier for residents to eat smart and move more.

The Foundation led a county-wide effort for the Rockingham County Healthcare Alliance and has participated in funding its operating costs as well as various projects. The goal of the Alliance is to increase access to healthcare services for disadvantaged citizens of the county through a collaborative effort. With support from the Department of Public Health, safety net and service providers, and both hospitals in the county, over \$2 million in grant funding was secured in the first two years of operation.



www.pedbikeimages.org/Dan Burden

The Reidsville Area Foundation was the lead funder, along with county and municipal governments, of a county-wide Greenways and Trails Master Plan developed by the Dan River Basin Association. The plan focuses on connectivity of greenways and trails inside the county as well as connectivity with surrounding county trails.

The Foundation is also working with schools to increase opportunities for students across their county to eat healthy and be physically active. With help from the Blue Cross and Blue Shield of

NC Foundation, the Reidsville Area Foundation awarded funding to cafeterias in four pilot elementary schools to purchase food preparation and serving equipment that makes it easier to prepare and process fresh local foods. They also participated in funding the paving of walking tracks at all 16 elementary schools in the county, some of which are open to the community during non-school hours. Anecdotal evidence points to extensive usage of these tracks by students, school staff and community members.

The Foundation provides staff support for healthy eating and physical activity by funding two positions: a Student Health Coordinator for the school system and a Community Gardens Coordinator for the Cooperative Extension. The Student Health Coordinator coordinates health and physical activity programs for all 14,000 students of Rockingham County Schools. In addition, the Coordinator oversees the Wellness Grant Program funding by the Reidsville Area Foundation that seeks to provide support to projects and programs developed by individual schools. The Community Gardens Coordinator helps expand community gardens in the county and provides technical assistance when needed. Mini-grants of up to \$250 are awarded through Cooperative Extension to help with fertilizer and seed costs for groups, neighborhoods, schools and other organizations that wish to start community gardens.

The Foundation also has committed over \$1,000,000 in funding for the Rockingham County Student Health Centers, which provides comprehensive health care to high school students through education, treatment, prevention and referral.

The Reidsville Area Foundation demonstrates the importance of collaboration and working across sectors to create communities where healthy eating and physical activity are the easy choice.

For more information on the Reidsville Area Foundation, please visit www.rafoundation.org.

North Carolina's Statewide Health Promotion Program

North Carolina can be proud of the work that the Statewide Health Promotion Program accomplished in collaboration with schools, worksites, faith communities, health care and other community partners. This program, housed in the NC Division of Public Health, made it easier for North Carolinians to eat smart, move more, and avoid tobacco use by establishing policies and environments supportive of active living, healthy eating and tobacco-use prevention and cessation.

The most effective public health approach to chronic disease prevention includes a combination of interventions that address all aspects of people's lives—as individuals, as people in relationships, as members of groups, as residents in a community, and as people affected by public policy. The NC Statewide Health Promotion Program, implementing strategies from North Carolina's Obesity Prevention Plan 2007-2012, used this multi-level approach by building individuals' knowledge and skills, encouraging new attitudes, and changing policies and environments to support healthy behaviors.

Since 2007, the NC Statewide Health Promotion Program has resulted in 3,237 partnerships, policy changes and environmental changes, including 90 new gardens, 16 new bike/pedestrian plans, and 381 changes to the built environment to make healthy eating and physical activity easier for North Carolinians.

No matter how motivated or passionate one group may be, policy and environmental changes cannot be accomplished independently. Collaboration and commitment of community partners are essential to implementing and sustaining an effective health promotion program. This is accomplished through institutionalizing policies and practices within communities and organizations. The success of the program stems from the development of a network of community practitioners who understand and can lead a system and environmental change movement. It also means involving a multiplicity of stakeholders who can develop long-term buy-in and support throughout the community to sustain the efforts.

communities have built paths, greenways and parks; worksites offer physical activity breaks and healthy vending options; faith communities have built trails and support healthy eating.

Through the Eat Smart, Move More Community Grants program, partners create and build momentum to maintain community-wide change by organizing and maximizing community assets and resources. Partners have been successful in garnering both additional funds and in-kind donations. For example, local contractors have donated construction materials, labor and heavy equipment use to put in walking trails, playgrounds and gardens. One local endowment provided funds to foster the development of gardens in all their schools, not just the one that received the original Eat Smart, Move More Community Grant.

For more information, visit www.EatSmartMoveMoreNC.com and click on Funding.

Eat Smart, Move More Community Grants

The Eat Smart, Move More Community Grants, administered by the Physical Activity and Nutrition (PAN) Branch of the NC Division of Public Health, support local health departments and their community partners in developing sustainable policy and environmental changes in their communities. The purpose of the program is to provide funding to local communities to implement strategies that advance the goals and objectives of North Carolina's Obesity Prevention Plan 2007–2012. These grants support North Carolina residents to become more physically active, make healthy food choices, and prevent and reduce overweight and obesity. Through funding from the Centers for Disease Control and Prevention and the state of North Carolina, the PAN Branch has successfully administered over 199 community grants.

Since 2007, the Eat Smart, Move More Community Grants have resulted in 320 partnerships, policy and environmental changes including seven facilities or equipment supporting breastfeeding, 45 additions to recreational facilities or equipment, 13 new gardens and three stairwell enhancements to make healthy eating and physical activity easier for North Carolinians.

The Eat Smart, Move More Community Grants have brought together communities, fostered partnerships and facilitated sustainable changes. As a result of these changes, youth move more in the classroom and eat healthier in the cafeteria;

"Pitt County enjoys a strong heritage of community collaboration. County departments including public health, planning, recreation, engineering and schools have worked cooperatively with community partners to develop a shared vision for impacting the health and well-being of all citizens. Partners have worked diligently to support policy and environmental change for developing infrastructure, programs and activities to increase physical activity and good nutrition. Limited financial resources, the ability to bring strategic partners on board, and arduous governmental processes have required persistence in moving toward our shared vision. Observing the positive impacts in the lives of our citizens energizes the team and brings new partners to join the effort!"

—Alice F. Keene, Past Director, Community Schools & Recreation, and James F. Rhodes, AICP, Planning and Development Director



Ashe County Schools Focus on Health

The Ashe County Schools decided to focus on health in their *Ashe County Schools Strategic Plan*.

The focus of Priority Area III in the plan, called Healthy and Responsible 21st Century Students, highlights the importance of both a healthy body and mind for the children of Ashe County.

The Priority Area has five separate goals, but each focuses on improving the health of students and faculty alike. This is an innovative goal that includes the staff of the school, which is critical because if students do not have good guidance in all aspects, they cannot follow their leader's example.

Goals in the Priority Area include "support access to nutritious foods/beverages that meet/exceed national standards for all students and employees." This will involve conducting a review of the county's current wellness policy and developing new, healthier guidelines.

In addition to the healthy food and beverage goal, there is a goal supporting physical activity on the school campus and in the community. The goal hopes to "encourage lifetime physical activities for all students, employees and community members." It includes supporting alternative sports, enhancing recess and classroom activities and promoting health and safety programs.



Dr. Travis Reeves, Superintendent of Ashe County School District and member of the Appalachian District leadership team for Communities Putting Prevention to Work, led the Ashe County School District in a community-school collaborative strategic planning process that included student wellness as a top priority. He has also worked to empower staff to implement new opportunities for wellness. Dr. Reeves openly embraces opportunities to learn more about the risks that may impede a strong graduation rate by using the Youth Risk Behavior Survey data. Furthermore, he encourages community agencies and school personnel to come together to create solutions. He hosted the 5K Ashe Dash Inaugural Race in which he encouraged students in the Go Far running club, along with their family members and others, to keep working to embrace a healthy lifestyle. This same day, May 15, was proclaimed as the Ashe County Annual Fitness Day by county leaders, which Dr. Reeves is carrying forward throughout the year by encouraging schools to host Family Fitness nights. His positive influence has made great strides in helping to support a healthier community in Ashe County and the entire Appalachian District.

The City of Belmont: A Picture of Active Living

More students in Belmont are walking to and from school thanks to a partnership between the City of Belmont, Gaston County Schools and the Gaston County Health Department. These organizations worked together to make walking to school safer



www.pedbikemages.org/Dan Burden

and easier for elementary, middle and high school youth in their community.

According to Adrian Miller, the Assistant City Manager for the City of Belmont, "The greatest success has been the new sidewalk being built to connect South Point High School with a 300-home neighborhood that is about a half mile from the school. Students were already walking to the high school but did not have a sidewalk between the neighborhood and the school, so they were walking in the street or in the grass. After several parents and students came to the City Council to request a sidewalk, we added it to our Capital Improvements Plan and had it ready for the 2012-2013 school year. These students now have a 5-foot-wide sidewalk from their home to the high school, making walking safer and more convenient."

Walk in Belmont? You've Got a "Hero"

As published in the *Gaston Gazette*
By Bernie Petit

July 06, 2010
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For at least 100 years, Belmont has been a town where you lived near where you worked and you walked everywhere. So says City of Belmont senior planner Adrian Miller, whose goal is to help keep it that way.

"That's what makes a place a great place to live," he said. "That's the difference between having an active, vibrant community and a bedroom community. By making a nice, walkable community like we have, you get people out of the car and they interact with each other. "It's good for your mental, physical and overall health."

Agreeing with Miller's point of view is the Gaston County Health Department, which named him a Public Health Hero for 2010 because of his role in spearheading Belmont's efforts to make being active a daily routine for its residents.

"I don't have a public health background, but as a city planner, what we do can affect public health, so this is certainly a nice honor to receive from the Health Department," he said.

Miller, an active member and past chairman of the Health Department-sponsored Fitness & Nutrition Council, "has been instrumental in bringing program and environmental changes that make it easier for Belmont community members to live healthier lifestyles," said Health Department director Colleen Bridger.

Through the first-year partnership with the school, students were encouraged to walk or ride their bikes to school. If they lived too far away from the school to walk, their parents could park at First Foursquare Gospel Church and let them walk the rest of the way.

Impacting Health Outside the Physician's Office

The following account was provided by Stuart Levin, MD, a physician (internal medicine and pulmonary medicine) with Wake Internal Medicine Consultants, Inc.

“Medical school taught me about caring for the patient, but it took me years to learn the key role of caring for the community in maintaining health. As a general internist, I’ve seen the dramatic rise in obesity in the face of more sedentary lifestyles over the past several decades. Like most primary care physicians, I’ve worked with many patients suffering the complications of obesity such as diabetes. An increasingly large portion of my job includes collaboration with patients on chronic disease management. I talk to patients every day in the office about the need to eat less and exercise more.

As of 2003, 6% of the state’s total medical expenditures for adults were attributable to obesity, and this has certainly risen since then. Diabetes prevalence has more than doubled in NC since 1995, the year after I started in my practice. I’m not a policy wonk, but I know that promoting healthy lifestyles for individuals often involves much broader interventions than those that can be accomplished only in the physician’s office. For example, patients often respond that they don’t have the opportunity to incorporate exercise in their daily routine in the face of more demands at work. Through some unexpected events over the past few years, I have had the good fortune to become involved in a project with the potential to promote healthy lifestyles by targeting policy and environmental barriers to physical activity.

I’ve lived in West Raleigh for 18 years and have had the rare privilege of working within walking distance of my house. I’ve found this to be a nice form of exercise as well as a stress release (*except* at the points where vehicles and pedestrians intersect). I work on Blue Ridge Road, the eastern border of an approximately 2000-acre parcel known as the Blue Ridge Corridor comprised of primarily state-owned land with surrounding (but

not central) residential development. My part of town is also home to a number of major employers of regional and statewide significance, including Rex Healthcare and the NC Museum of Art (NCMA) as well as the NCSU College of Veterinary Medicine, NC State Fairgrounds and PNC Arena (formerly RBC Center). As former director of the PRIME (Pulmonary/Renal/ICU) service line at Rex Hospital and an active member of the NCMA, I was aware a number of years ago of Rex’s plans to expand their footprint in West Raleigh on existing undeveloped land as well as the Museum’s intention for a new building. Additionally, as not only a resident and worker but also as a pedestrian in the Blue Ridge Corridor area, it was clear to me that the infrastructure was not keeping up with the level of development.

In 2008, I became chair of a group of stakeholders concerned with planning for the Blue Ridge Corridor. Initially comprised of only the Rex and NCMA executive teams, the Blue Ridge Stakeholders Advisory Group subsequently expanded to include all the major institutions along the Corridor. The goal of the stakeholder group was to create sustainable, integrated development through a partnership among State, City, and private property owners that emphasized collaboration and master plan integration and enhancements. In view of the economic potential for development, the City of Raleigh planning office has worked closely with the Blue Ridge Corridor stakeholder group. After obtaining the input of hundreds of area residents and employees, a plan for the Corridor was recently submitted to and approved by the Raleigh City Council to support urban infill in this area.

So, what’s health got to do with it? At its most fundamental level, implementing the Corridor plan can result in increasing utilitarian physical activity. Although there is east-west connectivity in the Corridor through a nationally recognized greenway system, Blue Ridge Road itself has remained unconnected and in fact along most of its north-south length is generally hostile to non-vehicular traffic. The Blue Ridge Corridor plan was designed to integrate access along the Corridor for bicyclists and pedestrians as well as incorporate public transportation. The introduction of mixed use development (including workforce housing) will result in people living closer to their workplaces and being more active. Increasing urban density has the potential



to decrease dependence on single-use vehicular transit to get to every destination.

Does this have any health impact outside the Corridor? In fact, the Corridor plan has statewide implications for at least two reasons:

Health Impact Assessment. According to the National Research Council definition, Health Impact Assessments (HIAs) are designed to consider the health implications of a proposed policy, plan, program or project and to provide recommendations on monitoring and managing health effects. No HIAs had been carried out in NC prior to 2010, and the Blue Ridge Corridor HIA represents one of the first in concert with a planning project. The Blue Ridge Corridor HIA, led by Dr. Jackie MacDonald Gibson of the UNC Gillings School of Global Public Health, is designed primarily to quantify health impacts of adding sidewalks, trails and pedestrian improvements in the Corridor. Quantifying these impacts will provide policymakers additional information on potential savings to the health care system by such improvements in relation to other projects in the future.

Complete Streets. NC DOT has adopted a new mission statement within the past year:

Connecting people and places safely and efficiently, with accountability and environmental sensitivity to enhance the economy, health and well-being in North Carolina

This policy mandates interdependent, multi-modal transportation networks that safely accommodate access and travel for all users. Essentially, cars will not be the only consideration for future transportation planning as “health in all policies” incorporates public health concerns. The Blue Ridge Corridor is likely to be a pilot project for this policy.

Developing healthy and sustainable communities will require silo-busting through the collaborative input of experts from the fields of public health, urban planning and transportation as well as primary care physicians and other concerned citizens. As I have found out, physicians have the capacity, if not the training, to impact health-related decisions outside of the health sector. Sometimes it just takes a few steps outside your office...”

—Stuart Levin, MD, Wake Internal Medicine Consultants, Inc.

In Summary

North Carolina is moving more people toward a healthier weight. The obesity epidemic took longer than five years to develop and will take longer than five years to reverse. Important strides have been made over the previous five years: new partnerships have been formed and existing partnerships have been strengthened; partners from sectors outside of health have come to understand that their work influences the health of community residents and are partnering to create healthier communities; and the evidence for effective obesity prevention strategies has continued to increase. The stories in this report illustrate how organizations and individuals across our state have made healthy eating and physical activity the easy choice.

North Carolina's Plan to Address Obesity: Healthy Weight and Healthy Communities, 2013-2020 will guide North Carolina's obesity prevention efforts over the next seven years. We will build upon current efforts, use effective strategies, and continue to work together to make North Carolina a place where eating smart and moving more are the easy choice.



