

North Carolina's Plan to Address Obesity: Healthy Weight and Healthy Communities 2013-2020

Kathryn Kolasa PhD, RD, LDN
Kay Craven MPH, RD, LDN, CDE
Family Medicine

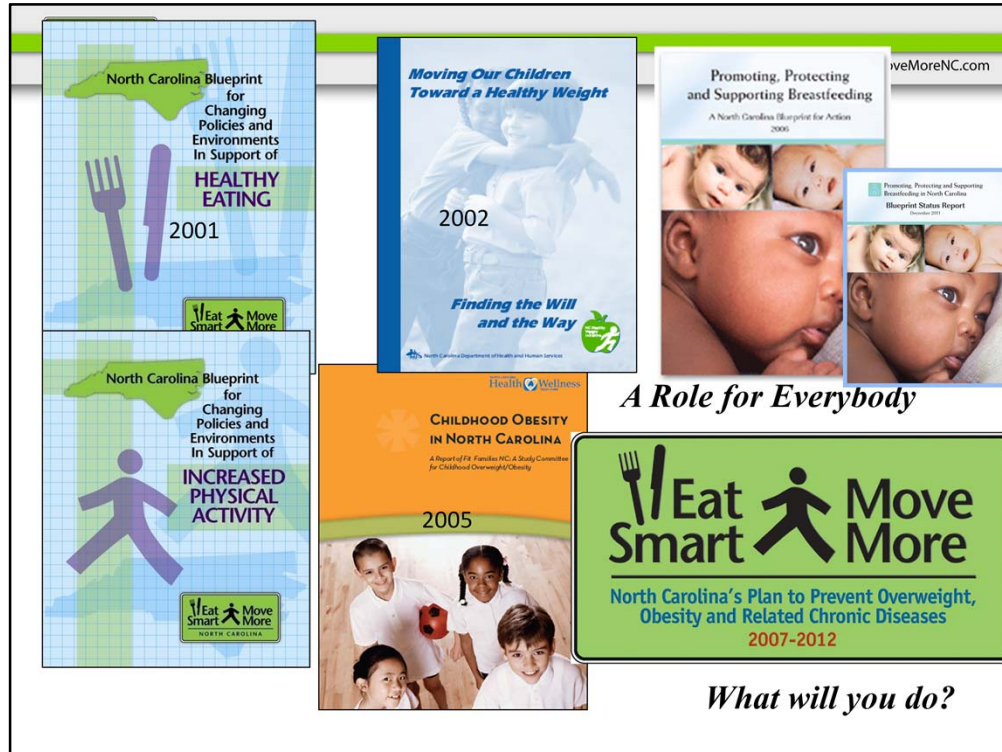


North Carolina's new Obesity Prevention Plan titled *North Carolina's Plan to Address Obesity: Healthy Weight and Healthy Communities 2013-2020* was released on January 24th.

Objectives

- Describe the core behaviors to address overweight and obesity included in the 2013-2020 plan;
- Describe strategies for health care; worksites; and colleges & universities to encourage adoption of six core behaviors;
- Describe local efforts to implement the state plan; and,
- Commit to at least one strategy.

Acknowledge Vidant Health's support for Dr. Kolasa's participation on planning and writing teams



Personal involvement started with 2001 Health Eating Blueprint. I was senior author of that Blueprint and got me involved in world of policy. NC may have been the first state to have this type of plan. In 2002 played a small part in the healthy weight for children plan. Not much evidence at that time. I was appointed by the governor to represent the East on the Childhood Obesity Task Force and we issued a report in 2005 Catherine Sullivan formerly of our department provided leadership for the breastfeeding plan and Dr. Weismiller and I played a role in its development. I was on the first NC Obesity plan. About 25 states have these plans.. If not required, an understanding that you will have one to get CDC funding; and now the 2013 plan .. The evidence has been evolving...

Eat Smart, Move More North Carolina Movement

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.



Let's start with some background. The Eat Smart, Move More North Carolina is a movement across our state to help people eat smart and move more wherever they live, learn, earn, play and pray. Anyone who works to make healthy eating and physical activity the easy choice for North Carolinians is considered part of this movement.

Started in 2003 and organizational structure formalized in 2006

Eat Smart, Move More North Carolina Leadership Team

A partnership of organizations who work to increase opportunities for healthy eating and physical activity – 80+ member organizations

Members include: East Carolina University; the Allied Health Division of East Carolina University; Vidant Health

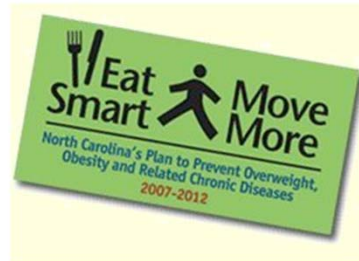
www.EatSmartMoveMoreNC.com

The Eat Smart, Move More NC movement is guided by the ESMM NC Leadership Team. The Leadership Team is a partnership of organizations who work to increase opportunities for healthy eating and physical activity. Any organization whose mission aligns with the mission of the Leadership Team is welcome to join. There are currently over 80 partner organization in the Eat Smart, Move More NC movement.

You can learn more about the Eat Smart, Move More NC Leadership Team and movement by visiting the our web site, listed on your screen. If you are interested in becoming a member of the Leadership Team, you can click on the “contact us” page of the web site for more information.

North Carolina's Obesity Prevention Plan 2007-2012

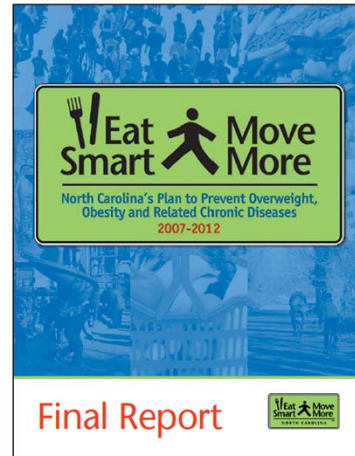
*Eat Smart, Move More: North Carolina's
Plan to Prevent Overweight, Obesity
and Related Chronic Diseases,
2007-2012*



The Eat Smart, Move More NC Leadership Team created and released the first state plan in 2006. It provided a unique opportunity for every organization working in obesity prevention to focus on common goals and objectives, and use the same strategies. This plan guided our efforts for the past five years.

Final Report on North Carolina's Obesity Prevention Plan 2007-2012

Spring 2013 Release



In spring 2013, we will be releasing a final report on the 2007- 2012 Plan. The report will provide an update on the progress that was made on North Carolina's Obesity Prevention Plan 2007-2012. It will include progress on reaching the goals and objectives of the Plan, as well as stories from communities across the state that have put the Plan's strategies into action.

North Carolina's Obesity Prevention Plan Development Process

September 2011

- On-Line Survey answered by 124 professionals

September 2011 – March 2012

- The writing team, planning team and the Executive Committee worked on a draft of the Plan

March 2012

- Expert review of a draft of the Plan by 14 professionals

June 2012

- Statewide review of a draft of the Plan: sent to all members of Leadership Team; 60 submitted written comments; 2 webinar town halls with 70 attendees

Summer/Fall 2012

- Writing team reviewed and responded to each comment

January 2013

- Release of North Carolina's new Obesity Prevention Plan- January 24th State Health Director's Conference

North Carolina's Plan to Address Obesity: Healthy Weight and Healthy Communities, 2013-2020 was created under the guidance of the 2011-2012 Eat Smart, Move More NC Executive Committee. The Executive Committee established a writing team and a planning team to oversee the development and review of the Plan. The six member writing team was led by the Past Chair of the Executive Committee. The writing team was responsible for the overall writing and coordination of the Plan development. The planning team consisted of members of the writing team plus seven additional members from the Eat Smart, Move More North Carolina Leadership Team. The planning team guided the development of the Plan and provided feedback on early drafts of the Plan.

The development process began in September 2011 with an on-line survey. One hundred and twenty four professionals from across the state responded to questions about the current obesity prevention plan to inform the development of the new plan. A writing team and planning team composed of representatives from the Eat Smart, Move More NC Leadership Team created a draft plan under the advisement of the Executive Committee that was informed by the survey feedback.

In March, a review of the plan was conducted by technical experts. Overall, the Plan was reviewed by 14 subject matter experts.

In June 2012, we conducted a statewide review of the Plan. An email was sent to all the members of the Eat Smart, Move More NC Leadership with an opportunity to review the document and provide feedback. Over 60 people responded electronically. We also held

virtual town hall meetings during this time (webinars) and over 70 people attended.

The plan will be released next week, on January 24th, at the State Health Directors Conference.

The Plan:

- aligns with Healthy North Carolina 2020 objectives
<http://www.publichealth.nc.gov/hnc2020/>
- is based on the most recent evidence base of what works for obesity prevention
- incorporates recommendations from the Eat Smart, Move More NC Policy Strategy Platform (www.EatSmartMoveMoreNC.com)
- is based on feedback from professionals across the state collected through the on-line survey, planning team and expert review

The plan:

- Aligns with Healthy North Carolina 2020 objectives
- Is based on the most recent evidence base of what works for obesity prevention
- Incorporates recommendations from the Eat Smart, Move More NC Policy Strategy Platform
- Is based on feedback from professionals across the state collected through the on-line survey, planning team and expert review

Intended Audience

Professionals working in any of the following settings who want to promote health and prevent obesity:

- Health care
- Child care
- Schools
- Colleges and universities
- Work sites
- Faith-based organizations and other community organizations
- Local government
- Food and beverage industry

The Plan is intended for a broad audience – for professionals working in in any of the following settings who want to promote health and prevent obesity:

Health care

Child care

Schools

Colleges and universities

Work sites

Faith-based organizations and other community organizations

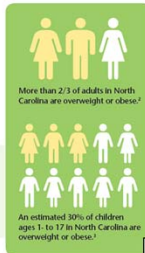
Local government

Food and beverage industry

The Problem

Obesity affects everyone. Obesity is an American problem. It is also a North Carolina problem, from Murphy to Marine and every town in between. Obesity affects our families, schools, and businesses, and it threatens our economy. Obesity is a health concern, a social dilemma, a personal challenge, an economic burden, and a policy issue. The obesity crisis has some symptoms of society more than others, but this problem crosses

all lines of ethnicity, race, socioeconomic class, gender, age, and ability. The primary concern related to overweight and obesity is the health risks they pose. Overweight and obesity increase the risk of chronic disease, including heart disease, stroke, type 2 diabetes, and some forms of cancer. The high rates of overweight and obesity in our state and nation cause decreases in life expectancy, productivity, and quality of life.



Overweight and Obesity Defined

Overweight
Adults: BMI* between 25 and 29.9
Children: BMI for age ≥ 85th percentile

Obese
Adults: BMI 30 or higher
Children: BMI for age ≥ 95th percentile

*BMI = body mass index, an approximate index of body fat. The formula for calculating BMI is: weight (kg) / [height (m)]² or weight (lb) / [height (in)]² × 703



Join the Eat Smart, Move More North Carolina Movement
To make the healthy choice the easy choice, we will all need to work together.
www.EatSmartMoveMoreNC.com

1 North Carolina's Plan to Address Obesity: Healthy Weight and Healthy Communities 2013-2020

- NC 17th highest rate in U.S.
- Adult obesity rate predicted to be 58% by 2030; would increase related health care costs by 17.7%
- can reduce spending if reduce average BMI by 5% by 2030
- www.healthymamericans.org

The Cost

The costs of overweight, obesity, and their associated health problems have a significant financial impact on the U.S. health care system and thus on the U.S. economy.

High rates of overweight and obesity cause increases in the costs of health care related to excess weight. A clear relationship exists between rising rates of overweight and obesity and increases in medical spending. The costs of overweight, obesity, and their associated health problems have a significant financial impact on the U.S. health care system and thus on the U.S. economy. The costs associated with overweight and obesity include both direct and indirect costs. Direct costs include diagnostic, preventive, and treatment services related to overweight, obesity, and their associated diseases, such as diabetes. Indirect costs include income lost as a result of decreased productivity, restricted activity, and absenteeism.¹⁷ It was estimated that in 1998 medical costs associated with overweight and obesity accounted for nine percent of total U.S. medical expenditures, or more than \$18 billion per year. Today,

It is estimated that the bill for overweight and obesity has risen to more than \$146 billion per year. The increased costs associated with overweight and obesity put an economic burden on both public and private health care systems. The capita health care spending for an obese person is roughly 40% higher than for someone of normal weight.¹⁸ Medicaid and Medicare pay approximately half of the medical costs associated with obesity.¹⁹ Excess weight in adults costs North Carolina over \$1.6 billion annually (medical costs plus lost productivity).²⁰

It is projected that the direct health care costs attributable to overweight and obesity will more than double every decade. By 2030, costs could be as high as \$163 billion a year, or one penny on health care dollars.²¹ As we search for ways to decrease health care costs, we must make healthy weight a top priority and reduce rates of overweight and obesity.

- Excess weight costs NC \$17.6 billion Annually (medical costs & lost productivity)
- Medicaid and Medicare pay about half of the related medical care costs

- The Plan outlines the problem of obesity and the cost.
- 2/3 adults are overweight or obese
- 30% children 10-17 years old
- Excess weight in adults costs NC \$17.6 billion annually (medical costs and lost productivity)
- care for overweight person is 42% higher than normal weight
- text box if from Trust for America's Health and RWJ report, F as in Fat: How obesity threatens Americas future, 2012
- if BMI is 40 get it down 2 points to 38... that is a weight loss of

BMI and Mortality

- Lots of press recent systematic review and meta-analysis in JAMA (Flegal et al; 2012;309:71-82) no increased mortality risk in overweight adults
 - Greatest risks BMI >35 and BMI <18.5
- BMI known to be imperfect measure; recommendation to add waist circumference since 1998
- Aggressive management of weight related co-morbidities could be lowering the predictive value of BMI
- *Doesn't address quality of life and morbidity?!*

Core Behaviors to Address Overweight and Obesity

Increase physical activity^{18,19}

Physical activity is critical for lifelong weight management. Physical activity burns calories both during and after activity. Physical activity most consists of not only aerobic activities that get the heart pumping, such as walking or bicycling, but also activities that strengthen muscles and bones and increase flexibility. Adults should do at least 150 minutes of moderate-intensity aerobic activity per week and muscle-strengthening activities that are moderate or high intensity and involve all major muscle groups on 2 or more days a week. Children and adolescents should do 60 minutes or more of physical activity daily. As part of that 60+ more minutes of daily physical activity, children and adolescents should include muscle-strengthening and bone-strengthening physical activity on at least 3 days of the week.



1 North Carolina's Plan to Address Obesity: Healthy Weight and Healthy Communities

Increase consumption of fruits and vegetables^{14,17}

Fruits and vegetables in their natural state are low in calories and high in vitamins and minerals. For people who eat a diet rich in fruits and vegetables, it is relatively easy to eat more food intake while consuming fewer calories. According to the Centers for Disease Control and Prevention, the consumption of low-calorie foods such as fruits and vegetables is associated with better weight management. The federal Dietary Guidelines for Americans recommend eating 2 cups of fruit and 2½ cups of vegetables each day. Guidelines for fruits, vegetables and dairy. The guidelines stress the importance of choosing a variety of colors, with an emphasis on deep green and orange fruits and vegetables, such as spinach, kale, cantaloupe, and carrots.



Decrease consumption of sugar-sweetened beverages^{16,20}

According to the United States Department of Agriculture, per capita soft drink consumption has increased almost 500 percent over the past 30 years. According to the National Health and Nutrition Examination Survey (NHANES-2005), calories from regular soft drinks (not diet) account for an estimated 200 dietary calories per day for 25 percent of Americans and 200 to 600 dietary calories per day for another 20 percent of Americans. Therefore, reducing the number of sugar-sweetened beverages, i.e., soda, sweet tea, energy drinks and sports drinks, that Americans drink each day will cut calories and lead to weight loss.



Core Behaviors to Address Overweight and Obesity, continued

Reduce consumption of energy-dense foods^{21,41}

Foods that are energy-dense contain a large number of calories, mostly from fat and sugar. Foods and drinks can also be high in calories because of large portion sizes. Today Americans consume an average of 250 more calories per day than they did in the 1970s, mostly in the form of starches and sugars (men consume 148 more calories per day; women 133). Eating fewer calories by decreasing the number of calorie-rich foods consumed and/or decreasing the portion size of those foods are two evidence-based strategies for managing weight.



Decrease television viewing and screen time^{42,44}

On average, American adults spend half their leisure time in front of a television screen. Kids now spend screen and a half hour every day in front of some type of screen, television or otherwise—often two or more screens at the same time. Studies show that adults who watch more than two hours of television a day tend to weigh more than people who watch less than that. Children who watch more television have higher body weights than children who watch less. Watching less television allows more time for physical activity, and it reduces exposure to food advertisements for foods that are high in fat and sugar.



Increase breastfeeding initiation, duration, and exclusivity^{47,49}

The health effects of breastfeeding infants are well-documented. Breastfeeding decreases many risks, including childhood overweight and obesity. Children who are not breastfed are more likely to be overweight and obese than those who are breastfed. The duration (length of time an infant is breastfed) and exclusivity (not feeding other foods or drinks while breastfeeding) of breastfeeding are both associated with lower rates of overweight and obesity.



Be Part of the Solution



Yourself. Eat smart and move more to achieve and maintain a healthy weight.



Your Family. Create a home environment conducive to eating smart and moving more.



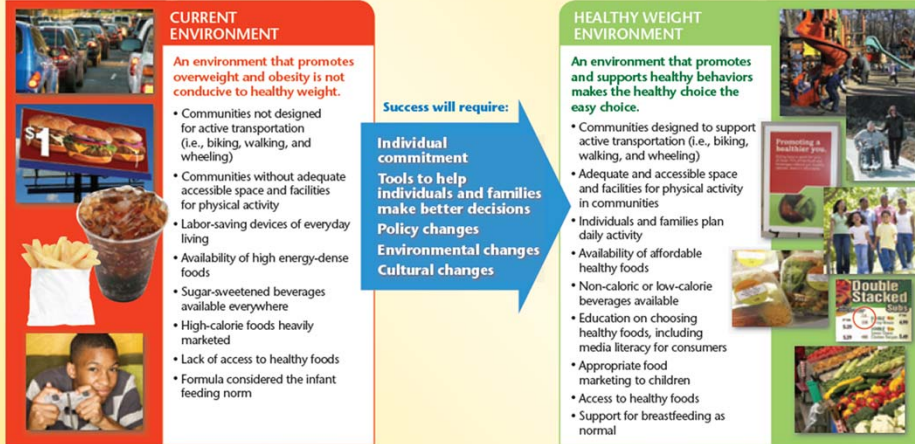
Your State and Community. Join the Eat Smart, Move More NC movement and help implement proven, recommended policies and practices where you live, learn, earn, play, and pray.

www.EatSmartMoveMoreNC.com

It explains the core behaviors for obesity prevention.

- increase physical activity
- increase consumption of fruits and vegetables
- decrease consumption of sugar sweetened beverages
- reduce consumption of energy dense foods
- Increase breastfeeding initiation, duration and exclusivity

Moving from promoting obesity to promoting healthy weight



6

The Plan uses a new graphic to summarize the change that is needed... a shift from our current environment to one that makes the healthy choice the easy choice.
 -previous plans emphasized the socio-ecological model.. We wanted a new way of showing it

Strategies to Encourage Adoption of the Six Core Behaviors, Categorized by Setting

Everyone who supports this plan has three levels of responsibility to meet North Carolina's healthy weight goals:

- Individual
- Family
- Community

On the *individual level*, every adult and child can adopt the six core behaviors (see the behavior icons below), and on the *family level*, they can support the efforts of family members to do the same. Each individual can strive to have a healthier weight. For some people this may mean not moving into a higher weight category; for others it may mean a move downward into a healthier weight category. At the *community level*, we can increase the likelihood of people staying at or reaching a healthy weight by making the healthy choice the easy choice. You can be a part of the movement to help more communities become places where it is easy to eat smart and move more. You can help implement proven, recommended policies and practices where you live, learn, earn, play, and pray.

Below is a list of recommended strategies that can be applied in eight community settings:

- Health care
- Child care
- Schools
- Colleges and universities
- Work sites
- Faith-based organizations and other community organizations
- Local government
- Food and beverage industry

If we work together within and across these sectors of our communities, we can have the collective impact that it will take to make adopting the six core behaviors the easy choice for everyone across our state. We can increase the likelihood that more North Carolinians will remain at or move toward a healthier weight.

Every strategy in the following list is intended to encourage adoption of one or more of the six core behaviors that have been proven to reduce body weight. After each strategy, its associated core behaviors are listed according to this key:

- | | |
|---|---|
| Increase breastfeeding | Increase physical activity |
| Reduce consumption of energy-dense foods | Decrease consumption of sugar-sweetened beverages |
| Increase consumption of fruits and vegetables | Reduce screen time |

Strategy Selection Method

The following section contains obesity prevention strategies based on the best available evidence published in the previous five years. The references for the strategies can be found on page 15. The following points should be considered when reading these strategies:

- The strategies are not prioritized. The first strategy listed in the section is not more important than the last.
- The icons are not prioritized. They are listed in alphabetical order from left to right.
- Each of the strategies contains a citation(s), and the corresponding reference(s) are on page 15.
- Strategies intended for implementation at the federal level were not included.

The Plan includes obesity prevention strategies, based on the best available evidence, for partners across the state to implement. Yeoman work by several members of the writing team to match the strategies to evidence/references and icons

Child Care Strategies

Children often spend more waking hours in child care and preschool than they do with their families. Families can choose a child care facility that provides healthy foods daily, offers a variety of physical activity, includes nutrition education in the curriculum, and supports the development of healthy eating and physical activity habits in all children. Child care providers and preschool teachers can adopt and implement policies and practices in their classrooms that promote healthy eating, allow for active play, and reduce sedentary time. Child care facility owners and operators can adopt and monitor facilitywide policies that support healthy environments and behaviors. Legislators can examine current state and local policies and pass and enforce legislation to make good nutrition and physical activity the norm in child care facilities.

- 👤👤 Implement policies that require child care providers and early childhood educators to practice responsive feeding.¹
- 👤👤 Accommodate the needs of breastfeeding mothers and infants.²
- 👤👤 Implement policies and practices to give infants, toddlers, and preschool children opportunities to be physically active throughout the day.³
- 👤👤 Implement policies that ensure that the amount of time toddlers and preschoolers spend sitting or standing still is minimized by limiting the use of equipment that restricts movement.⁴
- 👤👤 Implement the Move More North Carolina Recommended Standards for After-School Physical Activity in all after-school programs.⁵
- 👤👤 Implement policies that limit consumption of sugar-sweetened beverages and promote drinking water.⁶
- 👤👤 Implement policies that reduce screen time.⁷
- 👤👤 Implement 10 Steps to Breastfeeding-Friendly Child Care.⁸

State level policies

- 👤👤 Direct the North Carolina Division of Child Development to work with the Child Care Commission to enact the following child care rules: Sugar-sweetened beverages shall not be served at child care centers or homes regulated by the Division of Child Development; fat-free or low-fat milk shall be served to children older than two years of age at child care centers or homes regulated by the Division of Child Development; and juice shall be limited to a total of four to six ounces per day for children older than one year of age at child care centers or homes regulated by the Division of Child Development.⁹
- 👤👤 Direct the North Carolina Division of Child Development to examine the current levels of physical activity that children receive in child care facilities, and review model physical activity guidelines with the goal of promoting statewide model guidelines.¹⁰

School Strategies

Nearly 1.5 million students attend North Carolina schools. Schools have considerable influence on what children eat and how they move. Many people can help schools promote healthy weight for North Carolina's children and youth, including superintendents, school board members, administrators, child nutrition staff, school nurses, and families. Families are powerful advocates for making schools places that support healthy weight behaviors. School staff can model healthy weight behaviors for young people. School administrators can establish policies and procedures that support students in achieving and maintaining healthy weight. Teachers can educate students about healthy behaviors. Students can advocate for schools to support healthy eating and physical activity.

School building strategies

- 👤👤👤👤 Coordinate healthy eating and physical activity policies and practices through a school health council and school health coordinator.¹¹
- 👤👤👤👤 Use a systematic approach to assess, develop, implement, and monitor school healthy eating and physical activity policies.^{12,13}
- 👤👤👤👤 Establish policies and practices to create a school environment that encourages a healthy body image, shape, and size among all students and staff members, accepts diverse abilities, and does not tolerate weight-biased teasing or stigmatizing healthy eating and physical activity.¹⁴

- 👤👤👤👤 Discourage consumption of sugar-sweetened beverages, promote drinking water, and restrict availability of less healthy foods and beverages.¹⁵
- 👤👤👤👤 Teach educators and other school personnel how to increase children's physical activity, decrease their sedentary behavior, and advise parents or caregivers about their children's physical activity.¹⁶
- 👤👤👤👤 Enhance personal safety in areas where children or adults are or could be physically active.¹⁷
- 👤👤👤👤 Increase the amount of physical activity in physical education programs.¹⁸
- 👤👤👤👤 Fully implement and monitor the North Carolina State Board of Education Healthy Active Children Policy requiring thirty minutes of physical activity per day for all K-8 students.¹⁹

Settings

- Health care
- Child care
- Schools
- Colleges and universities
- Work sites
- Faith-based organizations and other community organizations
- Local government
- Food and beverage industry

The strategies are organized by setting to make it easy for a reader to quickly find those that are more relevant.

Colleges and Universities

- Provide opportunities to volunteer with community coalitions/ partnerships addressing obesity.
- Include BMI screening & counseling at student health.
- Provide healthy food & beverages at dining facilities/ events.
- Implement menu-labeling policies & practices.
- Improve the capacity to purchase locally grown food.

Colleges and Universities

- Limit advertisements for less healthy foods & beverages.
- Implement policies to discourage sugar-sweetened beverages; increase consumption of water.
- Institute policies to support breastfeeding mothers.
- Several recommendations on policies/ practices/ infrastructure physical activity.

Worksites

- Provide worksite wellness programs; promote healthy foods & physical activity.
- Assess health risks; offer support to employees.
- Offer BMI screening & counseling.
- Use point-of-decision prompts encouraging use of stairs, drinking water, eating healthy.

Worksites

- Implement healthier food and beverage choice policies and practices.
- Offer options for smaller portion sizes in food services and vending.
- Support exclusive breastfeeding (6 mos.); then breastfeeding as long as mothers desire; provide space for pumping.



Health Care

Health care professionals can:

- Work for the creation of healthy environments, including vending, in healthcare worksites.
- Advocate for breastfeeding.
- As community leaders, can be powerful advocates for healthy eating & physical activity environments across all sectors of their communities.

Health Care

- Provide effective prenatal counseling about weight gain.
- Promote exclusive breastfeeding (6 mos.); continuation of breastfeeding with complementary food (1+yr).
- Record infant/ child growth in every well-child visit. Counsel caregivers about risk factors for obesity; about their children's diet.
- Use terms that are appropriate when defining healthy weight/ BMI; ways to achieve it.
- Advise caregivers to limit screen time (<2 hr/d); discourage placement of TV, computers, or other devices in bedrooms.

Health Care

- Practice healthy lifestyle behaviors; be role models, participate in community coalitions.
- Establish policies/ practices to offer counseling and behavioral treatments for obese adults.
- Record patients' dietary patterns; physical activity levels; stress importance of daily PA.
- For people with severe mental illness, consider meds that are more weight-neutral; emphasize behaviors to minimize weight gain.

Health Care

- Limit ads of less healthy foods & beverages in clinical settings.
- Implement & maintain baby-friendly hospitals.
- Provide point-of-decision prompts encouraging use of stairs in clinical settings.

Eat Smart Move More
NORTH CAROLINA

www.EatSmartMoveMoreNC.com

Data Sources

The final year of data collection to measure progress on this Plan will be 2019 so that a final report can be compiled in 2020. Data from multiple sources will be used, some of which are available annually and some less often. Each key data source, along with its anticipated latest available year of data collection prior to 2020, is listed below:

- Behavioral Risk Factor Surveillance System: 2019
- Youth Risk Behavior Survey: 2019
- School Health Profiles Survey: 2018
- Child Health Assessment and Monitoring Program: 2019
- State Indicator Report for Fruits and Vegetables: 2019 (subject to change by CDC)
- CDC National Immunization Survey: 2016 Provisional Data (which will be incorporated into the 2019 Breastfeeding Report Card)

Measuring Progress on North Carolina's Plan


Selecting Objectives

The objectives in this Plan are based on existing data sources. In some cases, the measures may not seem ideal from a programmatic viewpoint. However, they reflect the best available data. These objectives are intended to strike the necessary balance between programmatic relevance and alignment with available data sources.

Setting Targets

Targets for 2020 in the following objectives align with Healthy North Carolina 2020 objectives (for physical activity, fruit and vegetable consumption, and weight status) and Healthy People 2020 objectives (for breastfeeding) wherever possible. Otherwise, a simple, straightforward method was used for setting targets. For most objectives, target percentages were determined by changing the baseline percentages by a half percentage point per year (in either a positive or negative direction, whichever indicates improvement) and rounding to the nearest whole number.

Target-setting has its place. However, North Carolina has the potential to exceed every one of the targets included in the following objectives if partners across the state continue to build on the excellent work they are already doing. North Carolina's success will depend on (1) the amount of energy that partners put into obesity prevention and (2) the extent to which partners "work smart" by learning from each other and basing their work on the best available evidence.

2020 

.5% per year

18

The Plan includes specific, measurable objectives on places and practices, healthy behaviors and weight status.

Use existing data sources

Lots of debate on how to set targets that would be achievable. Settled on moving the baseline percentages a half percentage point per year in either a positive or negative directions.. Which ever indicates improvement and rounding to the nearest whole numbe

Measurable objectives

46 listed in total

- Data not available for all recommendations made in the document
- By Jan 1, 2020, at least 29% of NC adults will consume >5 servings fruits and vegetables/d (baseline in 2011 is 13.7%)
- By Jan 1, 2020, no more than 20% of NC adults will be obese (baseline in 2011 is 29.1%)

East Carolina University's Response to the Plan

- Coordinated Leadership (p.23): Joined Team
- Chancellor appointed Task Force to review plan; assess current state at ECU; make recommendations
 - Challenges: no available data on obesity rates of students, staff, faculty
 - ECU participating in Work Healthy America. Team attending Prevention Institute in January
 - Snack vending survey completed. Policy being drafted.

ECU Family Medicine's Response to the Obesity Plan

Offering evidence based weight management services to all
patients

Establish policies and practices to offer counseling and behavioral interventions for adults identified as obese

Medical Nutrition Therapy (MNT)

- Covered by many private medical insurance companies
 - State BCBS covers 4 visits per year for weight management
 - Many private BCBS policies offer 6 visits per year
 - Medicare covers visits for diabetes and renal disease
 - Intensive Behavior Therapy for Obesity
 - Medicaid does not cover nutrition for adults



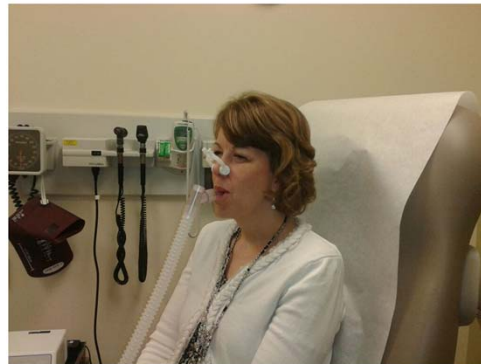
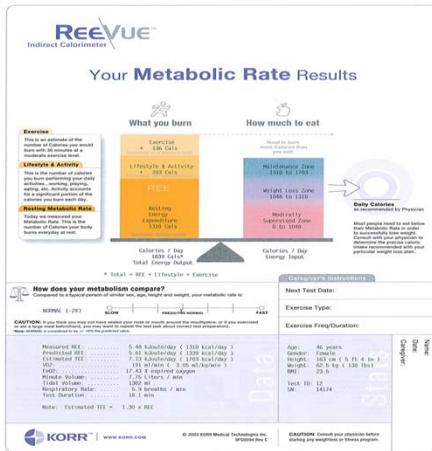
Managed Care, 2013

Conclusion: MNT is a valuable adjunct to health management programs that can be implemented for a relatively low cost. MNT warrants serious consideration as a standard inclusion in health benefit plans.

Academy of Nutrition and Dietetics

- Evidence Analysis Library-Adult Weight Management (AWM)
 - Determining Energy Needs:
Estimated energy needs should be based on RMR. If possible, RMR should be measured (e.g., indirect calorimetry).
 - If RMR cannot be measured, then the Mifflin-St. Jeor equation using actual weight is the most accurate for estimating RMR for overweight and obese individuals.
 - Rating: Strong





MNT for weight management at FMC includes measuring Resting Energy Expenditure and development individualized meal plans

Measured REE: 5.48 kJoule/day (1310 kcal/day)
 Predicted REE: 5.61 kJoule/day (1339 kcal/day)
 Estimated TEE: 7.13 kJoule/day (1703 kcal/day)
 V02: 191 ml/min (3.05 ml/kg/min)
 Fe02: 17.43 % expired oxygen
 Minute Volume: 7.75 Liters / min
 Tidal Volume: 1302 ml
 Respiratory Rate: 5.9 breaths / min
 Test Duration: 18.1 min

Note: Estimated TEE = 1.30 x REE

Age: 46 years
 Gender: Female
 Height: 163 cm (5 ft 4 in)
 Weight: 62.5 kg (138 lbs)
 BMI: 23.5

Test ID: 12
 SN: 14174

Name:
 Date:
 Caregiver:

Measured REE: 4.10 kJoule/day (979 kcal/day)
 Predicted REE: 5.69 kJoule/day (1359 kcal/day)
 Estimated TEE: 5.32 kJoule/day (1270 kcal/day)
 V02: 142 ml/min (2.20 ml/kg/min)
 Fe02: 15.41 % expired oxygen
 Minute Volume: 3.44 Liters / min
 Tidal Volume: 873 ml
 Respiratory Rate: 4.2 breaths / min
 Test Duration: 10.6 min

Note: Estimated TEE = 1.30 x REE

Age: 47 years
 Gender: Female
 Height: 166 cm (5 ft 5 in)
 Weight: 64.5 kg (142 lbs)
 BMI: 23.4

Test ID: 6
 SN: 14174

Name:
 Date:
 Caregiver:

REE varies significantly from patient to patient

Daly JM, Heymsfeld SB, Head A, Harvey LP, Nixon DW, Katzeff H, Grossman GD. Human energy requirements: Overestimation by widely used prediction equation. *Am J Clin Nutr* 1985;42:1170-1174.

Establish policies and practices to offer counseling and behavioral interventions for adults identified as obese

Weight Management Classes

- Are offered without charge to all patients upon referral by ECU Family Medicine Physicians and Extenders
- Meet weekly in the Family Medicine Center auditorium
- Measures weight at every visit
- Teach evidence based concepts for achieving and maintaining a healthy weight
- Includes monthly session provided by behavior medicine staff on resolving barriers and achieving lifestyle change
- Includes monthly session on adaptive exercise taught by exercise physiology students
- Assist patients in goal setting using SMART goals at each session
- Documented in patient chart for communication with physician
- Provide notification to providers via group email of week's activities and progress to enhance awareness of services
- Provide opportunity for third year medical students to have obesity training
- Provide opportunity for ECU Physician volunteers to interact with patients

Success to date

- 170 adults attended the class in the last 18 months
- 62 adults attended regularly and lost weight
- Average weight loss 6 lbs
- 368.6 lbs total lost for the group
- 37.2 lbs was largest weight loss for one individual who was regular attender
- About 20% of the group who lost weight, lost more than 10 pounds
- 82 adults attended only one time

Establish policies and practices to offer counseling and behavior interventions for adults identified as obese

- Intensive Behavior Therapy for Obesity-new Medicare benefit as of 2011
 - Patients who have BMI greater than 30 and are identified by self or MD may participate
 - Service is billed to Medicare with no co-pay for patient
 - Patient must commit to attending all visits
 - Visits are weekly for first month, every other week 6 weeks through 5th month
 - Patients must lose 6.6 pounds by 5th month to be eligible for 6 additional visits
 - Visits facilitated by Registered Dietitian, Behavioral Medicine Therapist, MD
 - Follow the 5A Framework per USPSTF
- Results in Family Medicine
 - Cohort 1 July 2012
 - Recruited 5; 3 exceeded the 5 month goal
 - One moved to Florida 18 lb loss over 9 visits; 2 still in program (Jan 2013) (14 lb and 12 lb loss over 13 visits; 2 were no shows
 - Weight at baseline: ave BMI 40 (236-258 lb)
 - 8,14,34 problems; 15, 14, 29 meds + supplements
 - Medication changes
 - Cohort 2. Jan 2013
 - Recruited 6; 1 no show
 - Weight at baseline: Ave BMI 38.8 (30.6 – 48.4)
 - Weight loss: in first 2 visits: 0-5 lbs
 - 13-21 problems; 13-21 meds + supplements

Cohort 1: 2 continuing have T2DM

Practice healthy lifestyle behaviors, be role models for patients, and participate in community coalitions

- 10 week weight management class to faculty and staff of the Family Medicine Department
 - Used State Health Plan weight management benefit
 - 15 participants
 - Weight change range +3 to -13.6 pounds
 - Average weight loss per participant 4.4 pounds
- Class included:
 - Resting Energy Expenditure (REE) measurement
 - Personalized meal plan developed by a Registered Dietitian
 - Included formal group exercise classes
 - Included formal group nutrition classes
 - Used point-of-decision prompts at stairs

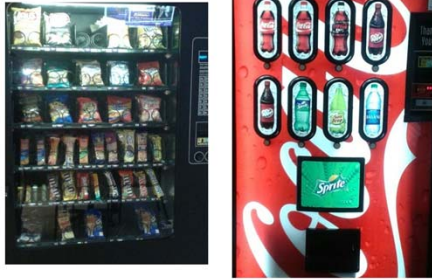
Diabetes Education and Management Program

- BRIDGE
 - Bringing Resources and Instruction in Diabetes into Group Encounters
- Target audience
 - Patients with poorly controlled diabetes and without resources for diabetes education
- Goal
 - Improve diabetes control with focus on minimizing weight gain

	Baseline Average	Current Average	Better or Worse
A1C (Sugar control)	10.7	9.1	Better

- **A1C** -76% of those participants with baseline and current A1C levels improved with an average reduction of 1.6 points and a range of reduction of 1.6 - 7.0 points.
- **Weight** -Of the participants who improved their diabetes control, 68 % lost or maintained weight with an average of 3.4 pounds lost. The largest weight loss for an individual participant was 94 pounds.

Vending in the new FMC



- Vidant: 75% meet calorie goals
- City of Greenville/GUC: 50% meet calorie goals
- ECU Business Services: strive for 25% snacks <200 calories
 - Health Sci at 14%; West campus at 16% (Jan 2013)
- ECU Fam Med guiding principles: 50% snacks meet calorie goals; at least 2 slots with diet drinks; stock water (not realized)

10 Steps to Baby Friendly Hospital

1. Breastfeeding Policy
2. Train all staff
3. Inform all pregnant women about the benefits of breastfeeding
4. Initiate breastfeeding within one hour of birth
5. How to maintain if separated
6. Supplementation
7. Rooming-in
8. Encourage breastfeeding on demand
9. No pacifiers or artificial nipples to breastfed infants
10. Breastfeeding support groups



VMC Baby
Friendly
Designation
2011



North Carolina Maternity Center
**Breastfeeding-Friendly
Designation**

NC MCBFD is based on BFHI. We use the same thresholds as BFHI but allow facilities to work across a continuum of improvement awarding a star for every two steps implemented. It is voluntary and has no fees attached. No site visit is required but they must submit validating material for each step. But not a proxy

Use the Plan

- ✓ Review the Plan.
- ✓ Determine what strategies your organization will focus on.
- ✓ Create a plan for how your organization will work on these strategies.
- ✓ Communicate this plan.
- ✓ Monitor and report progress on implementing these strategies.

As partners hear about the Plan, it is our hope that they will follow these simple steps. The first step is to determine what strategies from the Plan their organization or coalition will focus on. This might mean scheduling meetings with internal staff or leadership to discuss and make this decision. The next step is to create a plan for how the organization or coalition will work on these strategies. Then comes the important step of communicating this plan to make sure that everyone is on the same page. Finally, we encourage partners to monitor and share their progress on putting the Plan's strategies into action.

What more can we do?

- Consider recent JAMA viewpoint: “changing physical activity participation for the medical profession” Yancey et al. Jan 9, 2013, p. 141-142
 - Emerging data suggests physical activity bouts as short as 3-5 minutes may contribute to positive organizational and individual health outcomes
 - Have structured group exercise breaks or during meetings; encourage use of stairs; park further from the building

Use the 5-A's to help your patient change

- **Assess (42%):** Ask about/assess behavioral health risk(s) & factors affecting choice of behavior change goals/methods.
- **Advise (54%):** Give clear, specific, and personalized behavior change advice, including information about personal health harms & benefits.
- **Agree (34%):** Collaboratively select appropriate treatment goals & methods based on the patient's interest in & willingness to change
- **Assist (39%):** Using behavior change techniques (self-help &/or counseling), aid the patient in achieving agreed-upon goals by acquiring the skills, confidence, and social/environmental supports for behavior change, supplemented with adjunctive medical treatments when appropriate.
- **Arrange(22%):** Schedule follow-up contacts (in person or by telephone) to provide ongoing assistance/support & to adjust the treatment plan as needed, including referral to more intensive or specialized treatment.
 - USPSTF www.preventiveservice.ahrq.gov
 - Alexander et al Fam Med 2011;43:179
 - Schlair et al JCOM. 2012;19:5
 - Sciamanna et al Prev Med 2002;35:437

85% primary care docs do at least one step; only 5% complete all 5 steps routinely; percentages after each item are based on studies on how often the primary care provider does those steps

Help set patient set a **SMART** goal

- **Specific/significant/stretching** (where, when, how)
- **Measurable/meaningful/motivational** (how much? many?)
- **Attainable/Achievable/agreed upon/action oriented**
- **Realistic/relevant/reasonable/rewarding/result oriented**
- **Trackable/timely tangible**

- Seal **THE DEAL!**

What if we Don't/Do?

- Estimate adult obesity rate would rise from current 29.1% to 58% by 2030 with related health care costs increasing 17.6%
- If BMIs lowered by 5%, North Carolina could save 7.5 % in health care costs (~\$ 21,101,000,000 by 2030).
- The number of North Carolinians spared from developing new cases of major obesity-related diseases includes:
 - 261,785 people could be spared from type 2 diabetes
 - 213,310 from coronary heart disease and stroke
 - 195,735 from hypertension
 - 115,491 from arthritis
 - 17,382 from obesity-related cancer.
- From “F as in Fat: How Obesity Threatens America’s Future, 2012” prepared by Robert Wood Johnson Foundation.
<http://www.healthyamericans.org>

For more information visit:

www.EatSmartMoveMoreNC.com

WORK Well NC
Click here for worksite wellness information and resources.

For simple solutions on how you can eat smart and move more visit our consumer site. MyEatSmartMoveMore.com

Sign up to get our free monthly newsletter with tips and ideas to help you Eat Smart and Move More!
Newsletter Subscription
Privacy by ESR SafeSubscribe™

Need help finding something? Search our site using Google™ Custom Search.

Google™ Custom Search #1

- About Us: Our mission, vision, and partners
- News in Physical Activity and Nutrition
- Success Stories to celebrate change in Eating Smart and Moving More
- NC's Plan to prevent obesity and chronic disease
- Obesity Burden in NC: facts and statistics
- Key Behaviors of Eat Smart, Move More NC
- Programs and Tools for change for Eating Smart and Moving more
- Contact: listing of public health professionals by county
- Advertisements and press materials: tools and samples
- Funding opportunities for North Carolina communities
- Data: Links to data sources and reports
- The Evidence: What works in obesity prevention

You can learn more about the Eat Smart, Move More NC Movement and Leadership Team at www.EatSmartMoveMoreNC.com.