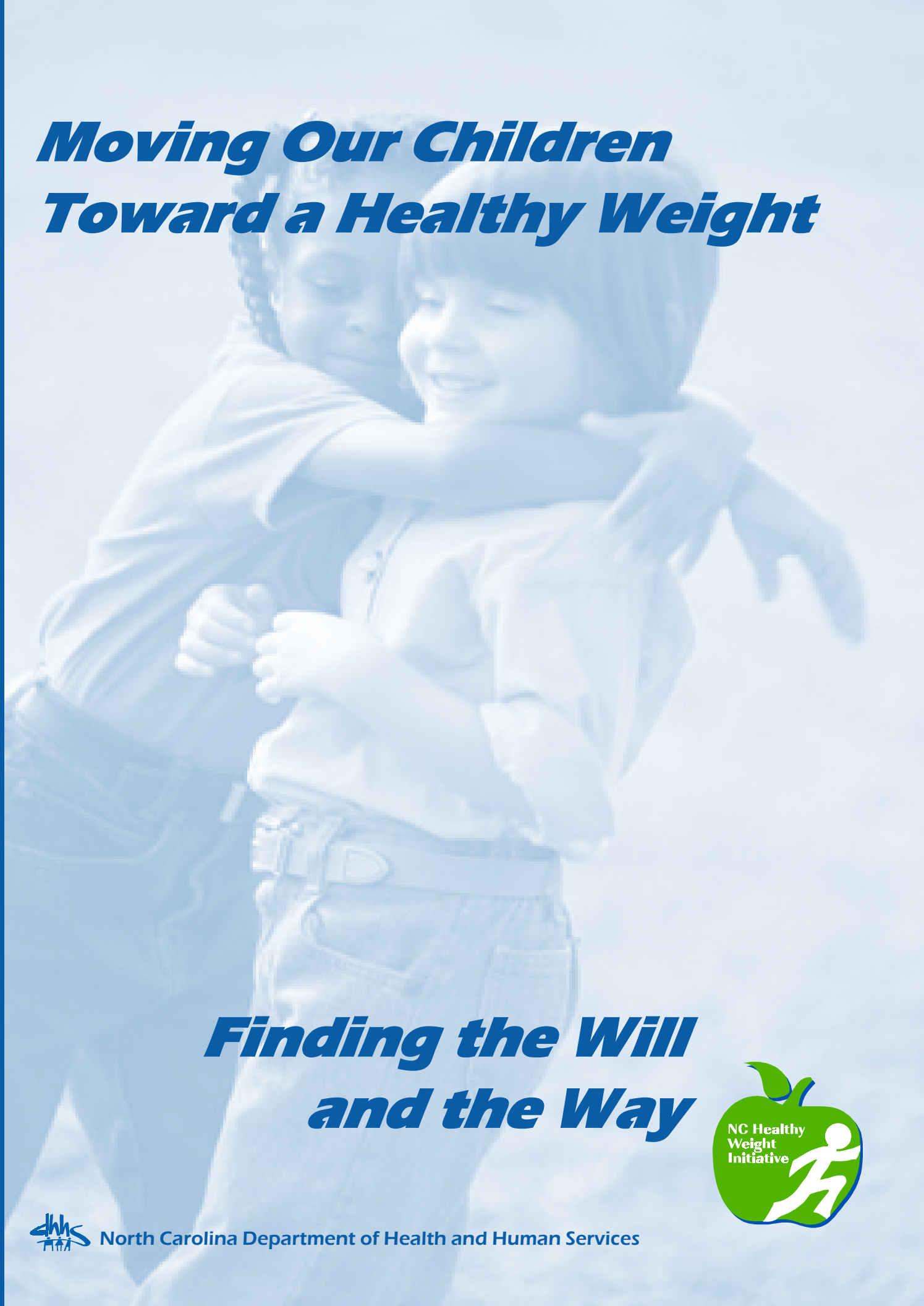
Moving Our Children Toward a Healthy Weight



Finding the Will and the Way

NC Healthy Weight Initiative

North Carolina Department of Health and Human Services

Message From the Secretary
North Carolina Department of Health and Human Services

Secretary Hooker Odom

The dramatic increase in obesity in North Carolina and across the United States brings with it enormous health challenges. Obesity increases the risk of heart disease, diabetes, several forms of cancer and other chronic health problems. It can reverse the progress we have made fighting these diseases, increase human suffering, and add extraordinary costs to our health care system.

We must reverse this alarming trend, and the best place to start is with our children and youth. Teens who are overweight have a 70 percent chance of becoming overweight or obese adults; this increases to 80 percent if one or more parent is overweight or obese. Many children are becoming overweight at very early ages. Twelve percent of 2 to 4 year old children seen in North Carolina public health settings are overweight. This rises to 20 percent among 5 to 11 year olds and to 26 percent among 12 to 18 year olds. Type 2 diabetes, once called adult-onset diabetes, is now being diagnosed in children and teens.

I am pleased that North Carolina has begun to address these issues through the Healthy Weight Initiative. I encourage all of us to become involved in working toward the recommendations outlined in this plan. These recommendations are the result of months of work by a task force of 100 North Carolinians from many walks of life. Some encourage individuals and families to eat healthier and be more active. Others are broader in scope, providing direction for policy and environmental change in schools, communities, and health care that will help children and youth learn to enjoy healthy eating and physical activity. Other recommendations call on the media to promote healthy lifestyles and educate the public on the costs of not making changes. And finally there is a recommendation to expand research and surveillance so that we can improve our interventions in the future.

Most importantly, I urge all of us to recognize that there is no quick fix or magic bullet that will solve this problem. Obesity is preventable, but it requires an approach that begins with our children and is consistent throughout our society. We must use this approach, involving individuals and families, business and industry, government and non-governmental organizations, and policy makers at all levels. And we must all work together with patience and persistence.

Carmen Hooker Odom

Moving Our Children Toward a Healthy Weight

Finding the Will and the Way

A Comprehensive Plan to Prevent and Reduce Childhood Overweight in North Carolina

North Carolina Department of Health and Human Services
Division of Public Health
Women's and Children's Health Section
Children and Youth Branch

Second Printing with Addendum
June 2003

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Acknowledgements

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- members of the Task Force and the organizations they represented,
- staff from the Division of Public Health and Department of Public Instruction who provided technical expertise to the Task Force,
- external reviewers who provided clear insight and critical input, and
- participants in the *Moving Our Children Toward a Healthy Weight Summit*, whose ideas laid the groundwork for the plan's development.

We also want to acknowledge Dr. Leah Devlin, Acting State Health Director, and the leadership of the Health Promotion and Disease Prevention and Women's and Children's Health Sections of the Division of Public Health for encouraging us to apply for federal funds, and for supporting us through the plan's development. We are especially appreciative of the day-to-day support of Kevin Ryan, Carol Tant, Kaye Holder, and Alice Lenihan.

Special recognition is due Shelby Sanders for administrative assistance to the Task Force, to Sara Benjamin and Karen Erickson for support of the Executive Committee, to Angie Murray for subcommittee support, and to Jane Gauntz for bringing life to the plan through design.

And finally, we owe a debt of gratitude for *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity* and to the authors of numerous research documents and federal and state reports that informed the Task Force discussion and development of this plan. We believe we have appropriately cited all references throughout the text and in the expanded plan that is available at www.nchealthyweight.com.

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Addendum May 2003

Moving Our Children Toward a Healthy Weight
Finding the Will and the Way

Since the September 25, 2002 release of the first printing of this comprehensive State plan to reduce and prevent overweight and obesity, 3500 copies have been distributed. Numerous individuals and groups have used the plan to begin work on one or more of its recommendations through interventions designed to change nutrition and physical activity patterns in North Carolina's children and youth and reduce disparities in the prevalence of childhood overweight.

The following actions are representative of many that indicate purposeful change has begun around the State to address the overweight and obesity epidemic.

- The NC Health and Wellness Trust Fund Commission allocated $3 million for obesity prevention for each of the next three years and has developed an RFP for interventions based on Healthy Weight Initiative (HWI) recommendations. The HWI and Eat Smart, Move More...NC (ESMM) will partner with the Commission to provide technical assistance to grantees.
- Community grants have been added as a fourth HWI component through a $200,000 supplemental grant from the Centers for Disease Control and Prevention. The $10,000 to $20,000 grants will enable local health departments and community partners to address HWI recommendations.
- Fifty-one teams composed of school and community partners participated in Team Nutrition training for Creating Healthy School Nutrition and Physical Activity Environments in North Carolina and are eligible to apply for $10,000 Team Nutrition grants.
- The State Board of Education adopted the Healthy Active Children Policy that supports increased physical education and physical activity in schools and the development of a coordinated school health plan by school health advisory councils in each local education agency. Bills to establish minimum requirements for minutes of physical activity during the school day have been introduced in the North Carolina General Assembly.
- Action for Healthy Kids NC (AFHK NC) adopted two of the HWI recommendations as its top priorities. The recommendations are State standards for all foods and beverages available in schools and State policies to ensure adequate time for physical activity in schools, including daily physical education, recess, and after-school activities. A subcommittee is developing draft standards to recommend.
- "Promoting Healthy Weight" was one of four issues for Adolescent Health Advocacy Day, sponsored by the Adolescent Pregnancy Prevention Coalition. Two HWI recommendations were selected: third-party reimbursement for prevention and treatment of overweight and obesity, and State standards for all foods and beverages available in schools.
- The November/December 2002 issue of the NC Medical Journal, published by the NC Institute of Medicine, was devoted to "The Epidemic of Childhood Overweight and Obesity" and spotlighted the recommendations of the HWI Task Force.
- The Mid-Atlantic Affiliate of the American Heart Association (AHA) convened a school policy coalition to draft issue papers for actions needed to improve physical activity and nutrition in schools. NC Prevention Partners used the AHA issue papers on school nutrition to develop policy briefs that are available at http://www.ncpreventionpartners.org/policy.

Addendum May 2003

- The NC PTA approved a resolution at its State convention calling on schools/school districts to reduce consumption of soft drinks by prohibiting soft drink vending machines in student areas of preschools and elementary schools and providing healthier options for choices of beverages in secondary schools.
- The Charlotte-Mecklenburg Task Force for Healthy Weight in Children and Youth, established by the Mecklenburg County Health Department at the direction of the County Commissioners, is using the HWI State plan in the development of its recommendations and actions. The intervention centerpiece will be *Fit City Challenge,* a community-wide call to action designed to get individuals eating smart and moving more. The campaign will be rolled out in late summer or early fall, 2003.
- East Carolina University chose childhood obesity in Eastern North Carolina as a focus of the Community/Schools Task Force that will help chart directions for the University.
- The UNC Institute of Nutrition focused on research opportunities to support the Healthy Weight Initiative in its Annual Symposium for nutrition faculty and graduate students from UNC campuses.
- A regional *Moving Our Children Toward a Healthy Weight* Conference in Winston-Salem attracted participants from sixteen counties. "Moving Orange County Children Toward a Healthy Weight — Finding the Will and the Way" was co-sponsored by Orange on the Move and the NC Cooperative Extension Orange County Center.
- **CHANGE for Children**, a multilevel intervention—**C**ommitted to **H**ealthy **A**ttitudes in **N**utrition, **G**rowth and **E**xercise—was developed by a collaborative composed of the Goldsboro Family YMCA, Goldsboro Pediatrics, and Wayne County Health Department. It started as a 12-week intervention with 12 overweight children and youth. The class expanded to a 16-week intervention for 25 participants. Some "graduates" of each class who complete all aspects of the intervention are invited to become mentors to the next class.
- The Fayetteville Junior League awarded Cumberland County Child Nutrition Services a grant for an intervention in John Griffin Middle School. The intervention involves 10 students in sessions three times a week that focus on healthy eating, physical activity and mentoring.

A Great Beginning....
While this is remarkable progress over a very short period of time, it is only the beginning of a very long journey.

New data from the 1999-2000 National Health and Nutrition Examination Survey (NHANES) show that the obesity epidemic has not leveled off or decreased, and is increasing to even higher levels.

- **An estimated 64 percent of U.S. adults are now overweight or obese.**
- **The prevalence of overweight among U.S. children and adolescents ages 6 to 19 years has risen to 15 percent. This is of special concern because overweight teens have a 70 to 80 percent likelihood of becoming overweight or obese adults with increased risk for chronic disease.**
- **For additional data, visit www.cdc.gov/nccdphp/dnpa/obesity/trend.**

For updates on activities to support HWI recommendations visit www.nchealthyweight.com.

To share information on the HWI web site about activities that will help move our children toward a healthy weight, send a short description and contact information to nchealthyweight@ncmail.net.

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Foreword

North Carolina's commitment to giving our children a healthy start and excellent public education is recognized throughout the country. Even in these times of serious fiscal constraints, the health and education of our most important resource have remained a strong focus. There is a clear understanding that this is an investment that will produce strong dividends in a productive work force and increased quality of life for decades to come.

Overweight and obesity have become a serious health issue that has the potential to undermine these goals, as well as place enormous financial stress on the health care system and taxpayers. Only 11 states have a higher prevalence of adult obesity than North Carolina (CDC, BFRSS, 2000). Children and youth seen in our state's public health settings are almost twice as likely to be overweight as the national average (NC-NPASS). Between 1995 and 2000, there was a 40 percent increase in the prevalence of overweight in children 5 to 11 years of age and a 14 percent increase in youth 12 to 18 years of age. In very young children 2 to 4 years of age, there was a 36 percent increase (NCIOM/Child Advocacy Institute Report Card). Overweight teens have a 70 percent chance of becoming overweight or obese adults. Clearly this alarming rise in childhood overweight makes it imperative that we find solutions. It is equally imperative that we find the will to implement solutions.

North Carolina is not facing this epidemic alone. Overweight and obesity have reached epidemic proportions throughout the United States and around the world and many efforts are beginning to address the issue. North Carolina is one of 12 states receiving obesity prevention grants from the Centers for Disease Control and Prevention. The grant established the Healthy Weight Initiative that focuses on the prevention and treatment of overweight in children 2 to 18 years of age. A major part of the grant proposal was to develop a comprehensive state plan to address childhood overweight. This report provides that plan.

The plan is not for state and local governments only. It is a plan for children, parents, community leaders, state and local policy makers, educators, health care providers, industry, researchers and others. The plan's recommendations will not be implemented easily or quickly. They will be implemented successfully when enough North Carolinians recognize childhood overweight as a serious health issue and work together to improve it.

This plan deserves the commitment of each of us to find in it ways to be involved personally, and as part of groups, in moving the recommendations from the bookshelf into action.

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Chair, Healthy Weight Task Force and
Director, UNC Institute of Nutrition

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Director, NC Healthy Weight Initiative

Preface

The North Carolina Healthy Weight Initiative was established in October 2000 with obesity prevention grant funding from the Centers for Disease Control and Prevention (CDC). Partners, both internal and external to the Division of Public Health (DPH), collaborated on the original response to CDC's request for proposal. They remain actively involved in guiding the Initiative to provide leadership in the prevention of childhood overweight and the subsequent reduction in adult overweight and obesity.

This initiative has three major components:

1. **planning for comprehensive nutrition and physical activity programs to prevent overweight and related chronic diseases in children and youth;**

2. **implementation of a multi-level pilot intervention that targets preschool children and their families; and**

3. **enhancement of a statewide nutrition and physical activity surveillance system.**

This plan addresses the first component. It is the work of hundreds of people, including those who participated in work groups during the two-day Summit, *Moving Our Children Toward a Healthy Weight,* in August 2001. The results of these work groups provided a jumpstart for the NC Task Force for Healthy Weight in Children and Youth. The Task Force was comprised of 100 members, representing key groups and geographic areas of the state.

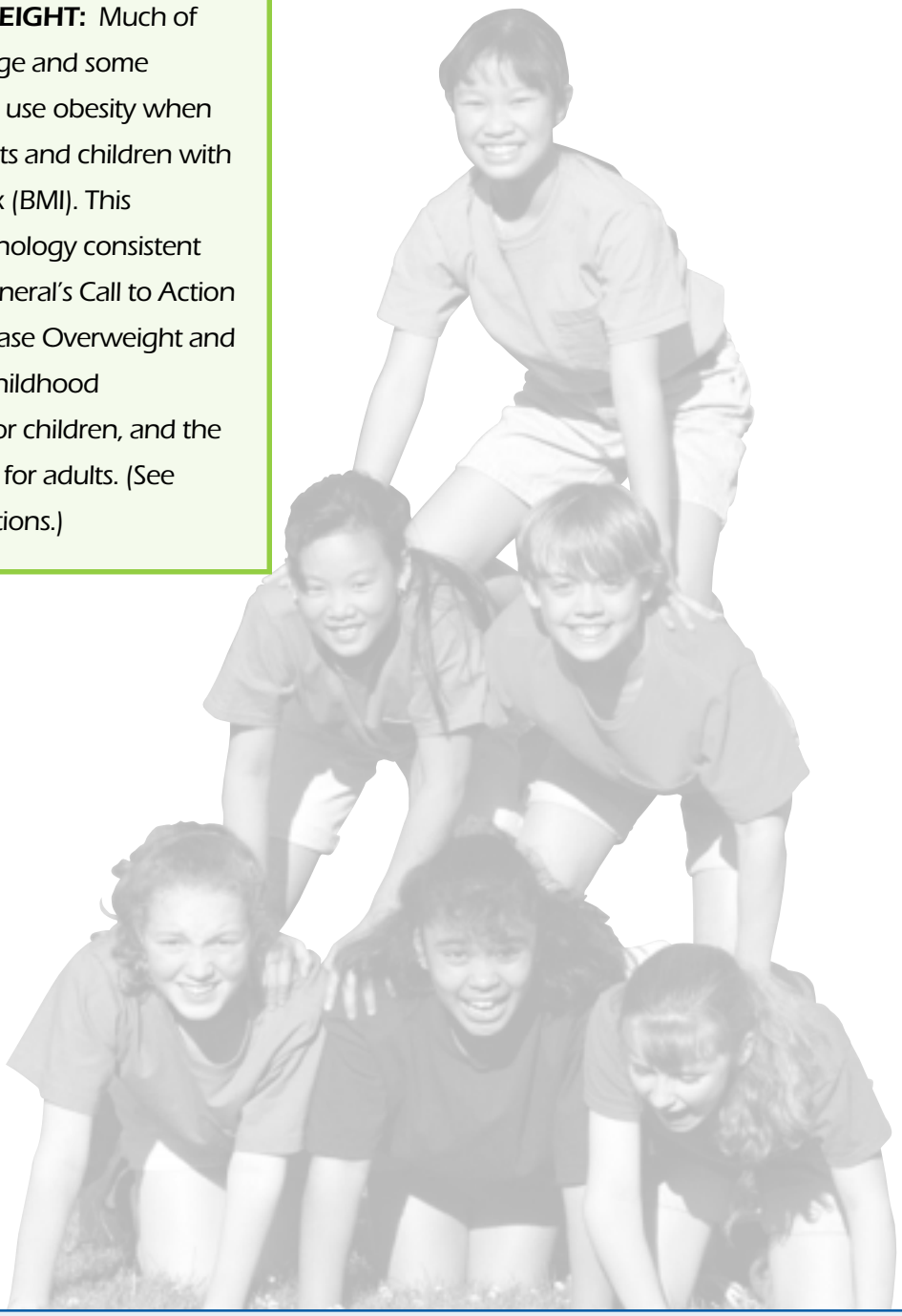
The Task Force did much of its work in four subcommittees. Their recommendations were submitted to the Task Force Executive Committee. The Executive Committee refined the recommendations into a draft that was returned to the Task Force for review and comment. After comments were incorporated, the plan was reviewed by the Executive Committee, by staff from DPH and the Department of Public Instruction (DPI), and by a panel of external reviewers, who had not been involved in the plan's development.

The Plan is titled *Moving Our Children Toward a Healthy Weight: Finding the Will and the Way.* It uses a multi-level approach, focusing not only on behavioral and interpersonal change, but also on the organizational, community and societal change necessary to support healthy eating and increased physical activity by children, youth and their families. The recommendations target increasing physical activity, improving eating patterns, and reducing disparities in the prevalence of childhood overweight.

This plan is a leadership plan, designed to raise awareness of childhood overweight in North Carolina, stimulate discussion of the issues, and provide recommendations for steps that can be taken by a variety of individuals and entities throughout the state. The plan and additional implementation resources are available at www.nchealthyweight.com.

More specific information on how to influence healthy eating and physical activity in all age groups through policy and environmental change is available in two documents developed by the DPH Physical Activity and Nutrition Unit (PAN). The companion documents, *The North Carolina Blueprint for Changing Policies and Environments in Support of Healthy Eating* and *The North Carolina Blueprint for Changing Policies and Environments in Support of Physical Activity*, are available at www.eatsmartmovemorenc.com

OBESITY vs OVERWEIGHT: Much of today's media coverage and some professional literature use obesity when referring to both adults and children with high body mass index (BMI). This document uses terminology consistent with The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity[1]. The term "childhood overweight" is used for children, and the term "obesity" is used for adults. (See Appendix E for definitions.)



"The leading causes of death for North Carolinians are heart disease, cancer, stroke and diabetes — and obesity and overweight are clearly risk factors that have their foundation in unhealthy nutritional habits and inadequate physical activity that begin in childhood. Too many of our children are overweight and their health today and in the future is at risk. Whether we call it 'obesity' or 'childhood overweight' is much less important than what we do about it. We must find the will and the way to reverse the trend."

—Leah Devlin,
Acting State Health Director

Introduction

Moving Our Children Toward a Healthy Weight
Finding the Will and the Way

Mission of the NC Healthy Weight Initiative:

To shape the eating and physical activity patterns of North Carolina children and youth in ways that lead to healthy weight and reduce the risk for chronic disease.

Overweight and obesity have reached epidemic proportions and have become one of the most pressing health issues for our Nation and our state.[1] These conditions are increasing in all age groups of all races and ethnicities. Sixty-one percent of adults in the U.S. are overweight or obese. There are almost twice as many overweight children and three times as many overweight teens today as there were two decades ago. If this trend is not slowed or reversed, it could eliminate the progress we have made in reducing the burden of weight-related chronic diseases such as heart disease, stroke, diabetes and several forms of cancer. Action by a broad array of individuals and public and private partners is essential to reverse this trend.

The solution is not simple. For the vast majority of individuals, overweight and obesity result from expending fewer calories than are consumed, thus improvements in eating and physical activity patterns are key to prevention and treatment. However, there are enormous societal barriers to individual behavior change. The NC Healthy Weight Initiative and its 100-member Task Force have developed this plan to unite individuals and groups across the state in actions that will enhance the individual and collective will to find solutions.

The Task Force developed recommendations and strategies for action by groups and individuals in a variety of settings. Underlying these recommendations and strategies is the understanding that significant progress will occur only when there

Introduction

is a groundswell of support for policy and environmental change that removes barriers and strengthens individual will to eat healthy and be physically active. To be successful, we must:

- Engage decision makers in creating opportunities for healthy eating and physical activity,
- Enhance state and local policies that promote community-based strategies to support healthy eating and increased physical activity,
- Ensure access to healthful food choices and opportunities for physical activity by modifying community and school environments,
- Promote healthy eating and physical activity in children and their families through culturally relevant social marketing interventions, and
- Provide early assessment and appropriate prevention and treatment interventions for children and youth.

"In a culture that supersizes food, but offers few public sidewalks and little school physical education, it may take more than willpower to slim people down."

—Colleen Doyle, American Cancer Society

Key Recommendations

There is a significant body of knowledge about the incidence and potential causes of childhood overweight. Knowledge is less clear on what are the most effective prevention and treatment interventions, but research addressing best practices for prevention and treatment of childhood overweight is beginning to point to effective strategies.[2] The Task Force used the best available information and their collective understanding of North Carolina issues to establish guiding principles and set criteria for recommendations (Appendix A).

The Task Force selected twelve key recommendations that address individual and interpersonal behavior change, policy and environmental change, and surveillance and research needs.

Individual/Interpersonal Behavior Change

- Ensure that all children and youth participate in at least 60 minutes of physical activity every day.
- Limit consumption of sugar-sweetened beverages.
- Limit TV/video time to no more than 1 to 2 hours a day.
- Provide appropriate portion sizes of foods and beverages.
- Prepare and eat more meals at home.

Policy and Environmental Change

- Set state standards for all foods and beverages available in schools, after-school programs, and child care.
- Establish state policies to ensure adequate time for physical activity in schools, including quality daily physical education, recess, and after-school activities.
- Provide more community-based opportunities for leisure-time/recreational physical activity for all children and youth.
- Create an environment that makes healthy eating and active lifestyles the norm rather than the exception.

Key Recommendations

- Define obesity as a disease and ensure third-party coverage for prevention and treatment services for children who are overweight or at-risk for overweight.
- Ensure equitable access to childhood overweight prevention and treatment services to reduce health disparities.

Surveillance and Research

- Ensure a comprehensive, continuous and reliable system for monitoring body mass index (BMI), weight-related chronic diseases, and nutrition and physical activity behaviors in children and youth.

These key recommendations provide the foundation for an action plan to move North Carolina children toward a healthy weight. Most key recommendations require strategies for action in multiple settings. Examples are provided in the plan, along with additional setting-specific recommendations and strategies.

As individuals and groups select their priorities for action, it is important to keep the focus on "Moving Toward a Healthy Weight". Raising awareness of the problems of childhood overweight without providing clear direction and adequate support can be detrimental to a child's mental health.[3] It is important to reduce the increased health risk placed on children by excessive weight, without jeopardizing their physical and emotional well-being.[4] This will require that all strategies to prevent or reduce overweight are based on an understanding of and sensitivity to weight discrimination, social pressure for excessive slenderness, and unsafe weight loss practices.

> "My experience of prejudice for being fat started at a very young age. The sadness and teasing I went through then was not from individuals outside my family; it was from within my family, by the people who are supposed to most love you."
>
> —Pat, 34, quoted in Children and Teens Afraid to Eat by Frances M. Berg

Key Recommendations

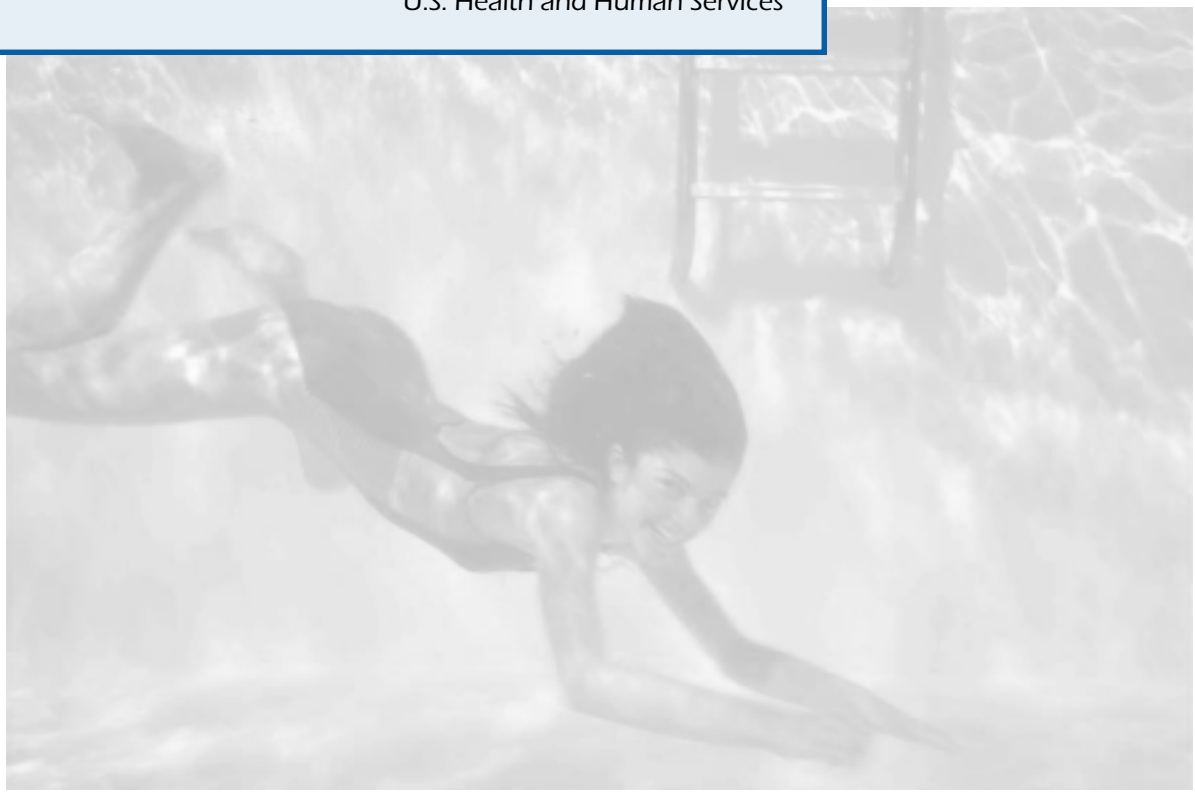
The recommendations and strategies put forth in this plan represent a multi-dimensional approach to reversing the upward trend of childhood overweight in North Carolina.[5,6] This approach requires individuals and groups to work together in many different settings. It will not be successful without focused and sustained collaboration. The Task Force selected the following settings for its framework for action:

- Families
- Schools/Child Care
- Communities
- Health Care
- Media/Communication/Social Marketing
- Surveillance/Research

> "Overweight and obesity must be approached as preventable and treatable problems with realistic and exciting opportunities to improve health and save lives."
>
> —David Satcher,
> Former U.S. Surgeon General

"We need to stop the guilt-ridden lectures and show kids the enjoyable things they can do to improve their health. That way they'll want to spend more time on the playgrounds and less time on the Play Stations."

–Tommy Thompson, Secretary
U.S. Health and Human Services



From Recommendations to Action

Selecting and implementing strategies that will help individuals and groups meet recommendations of the plan is critical to success. Leadership in government, industry, communities, and organizations is needed to match strategies to each group's priorities. The Task Force suggested the following strategies for action in each setting. As best practices are identified, they will be added to the strategies on the web-based plan at www.nchealthyweight.com.

Families

Families are the foundation of the solution to overweight and obesity. They provide children's first learning environment and have the potential to make that environment supportive of healthy eating and physical activity patterns that prevent childhood overweight. Families can also be powerful advocates for environmental and policy change to support healthy eating and physical activity outside the home.

Recommendations

1. Ensure that all children and youth participate in at least 60 minutes of physical activity every day.

- Establish physical activity as a routine part of everyday life for all family members.
- Avoid using or restricting physical activity as a punishment.
- Plan special weekend activities that include enjoyable physical activity for all family members.
- Learn about public facilities for physical activity and use them.
- Become involved in promoting policies that support safe non-motorized transportation for children and youth (walkable, bikable neighborhoods) and increased opportunities for physical education and recess in schools.

> "If you are worried about your child's weight, look for easy, simple ways to improve your whole family's eating habits and activity patterns. Trying to control intake may actually backfire."
>
> —Katie Bark, Montana Team Nutrition Program

- Support participation of children and youth in non-competitive and competitive recreational activities such as league sports, water sports, gymnastics, dance, martial arts classes.

"A good rule is 'when it's light out, you're out' — outside playing. Whenever possible, participate in activities with your children — cycling, hiking, swimming, playing ball, skating — to establish movement as a family norm."

— Jane Brody,
The New York Times

2. Limit consumption of sugar-sweetened beverages.

- Offer water as the standard beverage and thirst quencher.
- Limit availability of sugar-sweetened beverages to occasional servings of moderate portion size.
- Provide low fat milk (1 percent or less) for family members above the age of 2.
- Limit 100 percent juice to 4-6 oz a day for 2 to 6 year olds and 8-12 oz a day for 7 to 18 year olds.
- Become involved in promoting policies at school and other public places that ensure water, 100 percent juice, and low fat milk are available in vending machines.

3. Limit TV/video time to no more than 1 to 2 hours a day.

- Limit television sets to common areas of the home; avoid having them in children's rooms.
- Help children and youth prioritize what they watch.
- Encourage active play as an alternative to TV watching and video games.
- Teach children and youth to critique TV advertising and resist pressure to buy foods and beverages high in calories and low in nutrients.

4. Provide appropriate portion sizes of foods and beverages.

- Serve portions appropriate to a family member's age and activity level.
- Help children learn to eat when hungry and stop when full.
- When eating out, avoid all-you-can-eat buffets, super-sized meals, and other "deals" that promote overeating.
- Share restaurant meals or ask for a take-home container.

5. Prepare and eat more meals at home.

- Limit eating out and choose restaurants with healthy options.
- Offer a variety of fruits and vegetables at home to help children and youth establish a habit of eating at least 5 servings a day.

"We can speak up. Say 'small,' say 'half' and share. Keeping those extra cents in your wallet means keeping extra pounds off your body."

—Melanie Polk, American Institute for Cancer Research

From Recommendations to Action

"It's up to parents to decide 'what, when and where' a child eats. The child decides 'how much and whether' to eat."

—Ellyn Satter, in "How to Get Your Kids to Eat —But not Too Much."

- Involve family members in growing and preparing foods.
- Be a role model for healthy eating.
- Avoid pressuring children and youth about what or how much to eat.
- Provide easy and routine access to healthy foods and provide less healthy foods infrequently.
- Avoid using food as a punishment or reward.
- Plan meals and snacks that follow the Dietary Guidelines for Americans.
- Provide a good start to the day with a healthy breakfast at home or at school.

Recommendations to Support Action by Families

Families need support to meet recommendations that lead to increased physical activity and healthier eating patterns. These supports include easier access to opportunities to be physically active and eat healthy, educational opportunities to learn skills for healthy lifestyles, and social support for healthy behaviors. The following recommendations can be addressed in a variety of settings and by many different public and private entities.

1. **Provide educational opportunities that will improve caregivers' abilities to meet recommendations for healthy eating and physical activity.**

2. **Ensure safe and accessible places for physical activity for all children and youth.**

3. **Increase access to a variety of affordable healthy foods in grocery stores and restaurants in all neighborhoods.**

4. **Conduct social marketing interventions such as "5 a Day" or "1% or Less" milk, to increase consumption of fruits, vegetables and low fat milk.**

5. *Increase access to community gardens and farmers' markets where fresh fruits and vegetables can be grown or purchased.*

Schools / Child Care

> "Education that does not address health misses the heart of the matter."
>
> —C. Everett Koop, Former U.S. Surgeon General

Next to families, schools and child care are the settings where children and youth spend the largest amount of time. They also are places of extraordinary influence on behavior and the development of lifelong behavior patterns. This influence stems not only from educational offerings, but also from environmental cues, role modeling, and peer influence. Schools and child care cannot be expected to solve all the problems of childhood overweight, but they do have a significant role to play. They can and must be places where the urgency of childhood overweight prevention is understood and where healthy eating and physical activity opportunities, consistent messages, and supportive environments are priorities.

Recommendations

1. Ensure that all children and youth participate in at least 60 minutes of physical activity every day.

- Increase the availability of quality daily physical education in schools for all children.
- Provide daily recess periods for elementary and pre-school students, with time for unstructured, supervised play.
- Provide extracurricular physical activity programs, targeted to all ability levels, especially intramural programs and physical activity clubs.
- Incorporate physical activity into core subjects.
- Ensure universal access to physical education and physical activity opportunities for children and youth with disabilities and special health care needs.

> "I think gym is one of the most fun things. You get a break from all the working."
>
> —EJ, South Elementary School student, Person County

- Provide fun physical activities in after-school programs.
- Partner with communities to make school facilities available for physical activity beyond school hours and promote their use by families.
- Participate in safe walk-to-school promotions.

2. Limit consumption of sugar-sweetened beverages.

- Set standards for nutritional content, portion size, and hours of service of beverages sold in vending machines, snack bars, and as school cafeteria a la carte menu items.
- Ensure that water, 100 percent juice and low fat milk are available in vending machines.
- Prohibit advertising of sugar-sweetened beverages in schools or child care.
- Set price for water in vending machines no higher than other beverages and increase accessibility of water fountains.
- Provide education about water as a healthy beverage and thirst quencher.
- Provide education about how to resist advertising pressures to buy foods and beverages high in calories and low in nutrients.
- Avoid using sugar-sweetened beverages as a reward.

3. Provide appropriate portion sizes of foods and beverages.

- Set standards for maximum portion sizes of foods and beverages sold in vending machines, snack bars and as school cafeteria a la carte menu items.
- Follow age-group recommendations for portion sizes of foods and beverages served in the National School Lunch, School Breakfast, and Child and Adult Care Food Programs.
- Provide education to students as well as school and child care staff about calorie needs, portion size and satiety/appetite awareness.

4. Create an environment that establishes and promotes healthy eating and active lifestyles as the norm rather than the exception.

- Provide healthy lifestyle skills education that includes nutrition, food purchasing and preparation, physical activity and media literacy.
- Encourage teachers and staff to serve as role models for healthy eating and physical activity.
- Avoid pressuring children and youth about what and how much to eat.
- Do not restrict or use physical activity or food as a punishment or reward.
- Participate in community-wide social marketing interventions that promote healthy eating and physical activity, such as "5 a Day" or "1% or Less" milk (Appendix E).
- Promote safe routes to walk or bike to school and provide bike racks.
- Adopt and follow local policy that exceeds the state's minimum requirement for quality physical education.
- Ensure that National School Lunch and School Breakfast Program meals meet or exceed national standards.
- Develop and meet local nutrition standards for all foods and beverages available in school.

- Provide a pleasant environment and an adequate amount of time near the middle of the school day for students to enjoy the school lunch.
- Ensure access to physical activity, meals and snacks that meet the requirements of children with special health care needs.
- Prohibit access to vending machines, snack bars and other venues in which snacks compete with healthy meals in child care and elementary schools, and limit access in middle and high schools.
- Make healthy eating and physical activity initiatives part of the coordinated school health program to ensure collaboration among all school health professionals.
- Involve parent-teacher organizations in designing interventions, developing incentives, and promoting commitment.

Recommendations to Support Action in Schools/Child Care

> "Find alternative funding to adequately support student activities in order to break the financial dependence on selling unhealthy beverages on campus."
>
> —Public Health Institute (California)

Schools are often the first place many people look for solutions to societal problems. This was the case in early Task Force deliberations of childhood overweight. However, as work progressed, understanding grew of the pressures and constraints that produce competing priorities in schools and make change complicated. Many of the recommendations first identified for schools also became recommendations for families and communities. In addition, there was a strong consensus that leadership at the state level is required and that this leadership must provide collaboratively developed policies and incentives for phased-in implementation.[7] Two broad recommendations for state action are critical.

1. Establish state policies to ensure adequate time in the school day for physical activity including physical education, recess, and after-school programs.

- Recognize the positive role of physical activity in academic achievement and avoid displacement of these benefits by pressures to extend classroom time.
- Adopt policy change that provides for the development and phased-in implementation of this recommendation.
- Fund pilot programs to evaluate the new policies.

2. Set state standards for all food and beverages available in schools, after-school programs, and child care.

- Adopt policy change that provides for the development and implementation of state standards.
- Fund pilot programs to implement and evaluate the new policies.
- Ensure adequate resources for schools to prevent profit-making from interfering with nutrition goals.

> "The nation cannot afford stalling, diversion and policies with no teeth in the nutrition arena; the human toll is too great... Otherwise profit prevails over public health and the nation loses."
>
> —Kelly D. Brownell, Yale University and David S. Ludwig, Harvard Medical School

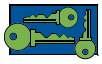
Communities

Communities reflect the priorities of their residents. The nature and adequacy of community support for healthy eating and physical activity varies greatly in communities around the state. While many communities are focusing on these issues, in most there remains much room for improvement. Neighborhoods that are inadequately designed or unsafe for outdoor play and environments that inhibit healthy eating are too often the norm. Community members can come together as groups of individuals, organizations, government, industry, and faith communities to raise issues of concern, discover common ground, and take action.

Recommendations

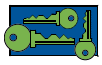
1. Ensure that all children and youth participate in at least 60 minutes of physical activity every day.

- Compile and publicize a listing of existing facilities that provide safe, inclusive, and affordable opportunities for physical activity in the community.
- Partner with schools to make facilities for physical activity available to the community beyond school hours.
- Build new bike paths, sidewalks, accessible walking trails and parks where the need exists.
- Encourage the promotion of physical activity in faith communities and the expanded use of their physical activity facilities.
- Engage organizations for children and youth in promoting physical activity among their members.
- Review transportation policies and traffic patterns and revise to facilitate safe walking and biking.



2. Limit consumption of sugar-sweetened beverages.

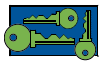
- Promote availability of water, low fat milk and 100 percent juice in vending machines in parks, recreation facilities, hospitals and other public buildings.
- Promote use of water fountains in parks and recreation facilities.
- Engage organizations for children and youth in increasing water consumption and reducing consumption of sugar-sweetened beverages among their members.
- Avoid using sugar-sweetened beverages as a reward.
- Work with industry on availability, pricing and marketing of water, 100 percent juice, low fat milk and small sizes of sugar-sweetened beverages.
- Engage faith communities in making available and promoting alternatives to sugar-sweetened beverages at all functions where beverages are served.



3. Provide appropriate portion sizes of foods and beverages.

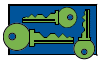
- Work with industry to produce and market smaller portions of foods popular with children and youth.
- Promote appropriate portion sizes of foods and beverages in community operated facilities.

> "Before tucking into your next double cheeseburger with bacon (70 percent of bacon sold in America is on fast food), calculate your BMI - Body Mass Index."
>
> — George Will in The News and Observer

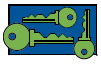


4. Provide more community-based opportunities for leisure-time/recreational physical activity for all children and youth.

- Expand offerings of affordable physical activity such as league sports, gymnastics, dance, swimming, martial arts classes.
- Ensure universal accessibility for physical activity resources and opportunities.
- Engage civic organizations in providing transportation or scholarships to increase access to physical activity opportunities for at-risk children and youth.
- Include youth representation in planning and promoting physical activity opportunities.

 **5. Create an environment that establishes and promotes healthy eating and active lifestyles as the norm rather than the exception.**

- Sponsor community celebrations/fairs/festivals that highlight healthy foods, beverages, and physical activity.
- Involve community leaders as role models in events that promote healthy eating and physical activity.
- Engage community leaders to work with restaurants and other food outlets to promote availability of affordable options that support healthy eating.
- Support events, such as Special Olympics, that focus on physical activity among children and youth of all ability levels.
- Implement safe routes to school and walk to school programs.
- Adopt local policy that sets standards for green space and sidewalks in new developments.

 **6. Ensure equitable access to prevention and treatment services for children who are overweight or at-risk for overweight in order to reduce health disparities.**

- Provide support for a network of accessible, family-based and culturally relevant interdisciplinary weight management services for children and youth who are overweight or at-risk for overweight.
- Provide psychological support for overweight children, youth and their families, when needed.
- Increase awareness of prevention and treatment programs among children and youth, parents/caregivers, school personnel, primary care providers, and community leaders.

Recommendations to Support Action by Communities

Institutions of higher learning, foundations, civic groups, business and industry, and state governments have a role in supporting action by communities. Consistent action by many different groups will enhance the quality and speed of change necessary to reduce childhood overweight.

1. Engage trade groups from the food and fitness industry in identifying ways they can be involved in increasing physical activity and healthy eating.

2. Implement an educational campaign on portion size awareness that includes consistent message and educational materials for use with a variety of target audiences.

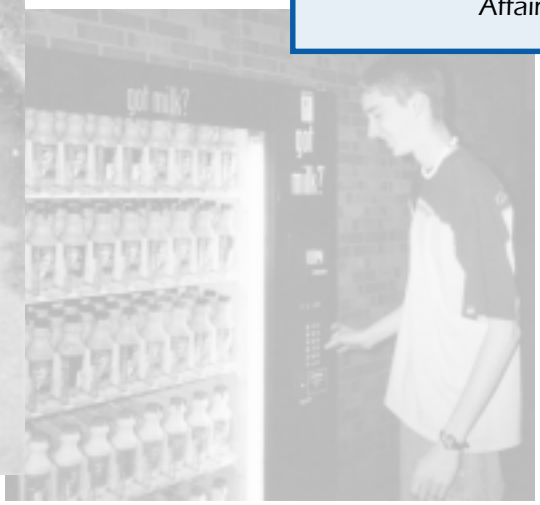
3. Develop guidance for community leaders on fostering partnerships to increase opportunities for healthy eating and physical activity.

4. Provide tax incentives for businesses that increase access to affordable healthy eating and physical activity options in low-income areas.

5. Provide funding to pilot community projects that support increased physical activity (such as a volunteer mentoring program in physical activity).

"It is in our best interest for people to use our products in a healthful way,"

—Michael Mudd, Kraft Corporate Affairs



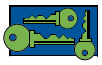
Health Care

The health care system is a critical setting for interventions aimed at reducing the prevalence and consequences of childhood overweight. Health care professionals can influence the physical activity and eating choices of patients and their families. Moreover, they can serve as effective public policy advocates and can further catalyze intervention efforts in schools and communities, as well as enhance media/communications/social marketing interventions. In the health care setting, the key issues include implementing early assessment and prevention interventions, recognizing obesity and childhood overweight as chronic conditions, advocating for reimbursement for services, and identifying and using effective treatments for overweight. It is important to recognize that the prevention and treatment of overweight can happen in a multitude of settings. Hospitals, offices of health care professionals, public health departments, schools, and communities are all appropriate settings; however it is important that they work together to achieve an integrated, comprehensive system of care. Creative, multi-disciplinary, and culturally sensitive approaches to the prevention and treatment of childhood overweight are essential.

"Overweight arises from multiple causes, some as intimate as the family dinner table, others as seductive as television or the latest children's video game. Given the profound consequences of childhood inactivity, poor nutrition, and overweight throughout the lifespan, urgency is warranted in responding to this epidemic."

—Richard Strauss, Robert Wood Johnson School of Medicine, and Harold Pollack, University of Michigan Department of Health Management and Policy

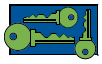
Recommendations



1. Ensure equitable access to prevention and treatment services to reduce health disparities.

- Establish and support a network of accessible, family-based and culturally relevant interdisciplinary weight management services for overweight children and youth.
- Maintain a list of health care professionals who are trained to provide treatment to overweight children, youth and their families.

- Increase awareness of prevention and treatment programs among children and youth, parents/caregivers, school personnel, primary care providers, and community leaders.



2. Define obesity as a disease and ensure third-party coverage for prevention and treatment services for children and youth who are overweight or at-risk for overweight.

- Convene key leaders from public and private health plans, businesses and policy staff to explore mechanisms that will fully or partially cover reimbursement for prevention and treatment services.
- Encourage the North Carolina Department of Insurance (DOI) and other state agencies to define overweight in children as a chronic condition and obesity in adults as a disease.
- Modify language for the State Health Plan's $150 Wellness Benefit to allow for overweight prevention or treatment.
- Explore the possibility of giving tax credits or risk reduction in underwriting to North Carolina employers who purchase overweight prevention and treatment benefits.

3. Expand Medicaid, Health Choice, and Children's Special Health Services coverage in North Carolina to include comprehensive prevention and treatment services for children and youth who are overweight or at-risk for overweight.

- Define overweight as a chronic condition for all publicly funded insurance programs for children.
- Allow registered dietitians, psychologists and clinical social workers practicing in both private and public settings to be reimbursed for treatment services provided to children who are overweight or at-risk for overweight.
- Expand approved Medicaid reimbursement to include family-based group programs with components shown to be effective in the treatment of childhood overweight.

4. **Screen all children and youth during routine physical assessment for overweight and related chronic disease risk factors using nationally established guidelines for screening and referral.**
   - Provide training to health care professionals on current pediatric screening recommendations and anthropometric measurement protocols.
   - Develop brief overweight assessment tools for pediatric health care professionals.
   - Support research efforts to identify barriers to screening and referral by health care professionals, and perceptions of parents/caregivers regarding the label of "overweight" assigned to children and youth.

5. **Ensure that medical care providers, nutritionists/dietitians, mental health care providers and physical activity specialists have the skills needed to effectively communicate with, evaluate, and provide care for children and youth who are overweight or at-risk for overweight.**
   - Collaborate with leadership of North Carolina medical schools and other health professional programs to include assessment of weight status/inappropriate weight change, and treatment approaches for childhood overweight in the education of health care professionals.
   - Provide training in motivational interviewing, cultural sensitivity and other health communication strategies for health care professionals.
   - Develop a tool kit to educate health care professionals about issues related to screening, prevention, assessment, referral, and management of childhood overweight.

Media / Communication / Social Marketing

Effective communication interventions and media partnerships can raise public awareness and elevate discussion of the health and economic issues related to childhood overweight. Effective communication interventions also work to increase the willingness and capacity of individuals to come together to achieve the social and behavioral change necessary to move North Carolina children toward a healthy weight. Using the principles of social marketing, effective communication interventions can be developed to influence voluntary behavior change of individuals that will improve their health and the health of the community as a whole. Media advocacy can help shape public policy solutions to childhood overweight through dramatizing the risks to children of inaction at policy and environmental levels.

Recommendations

1. **Raise public awareness of the obesity and childhood overweight epidemic as a health issue, its economic costs to North Carolinians, and its negative impact on quality of life.**
   - Develop resources such as fact sheets, press releases, and spokesperson contacts to assist journalists in writing about the impact of the obesity epidemic and childhood overweight in North Carolina.
   - Develop information for use by organizations, faith communities, work sites, and state and local agencies in newsletters, inserts, and web sites.
   - Develop public-private partnerships at the local and state levels to promote the use of media advocacy and communication tools to stimulate public discussion of childhood overweight.
   - Include the importance of recognizing childhood overweight as a health issue, not an appearance issue, in all communication interventions.

> "Money is a big barrier, and so is the lack of perceived importance of nutrition. School administrators want kids to eat healthy, but it is not one of the things people spend time to develop and make policy on."
>
> —Simone French, University of Minnesota

- Cultivate grassroots involvement in environmental and policy change initiatives to support healthy weight in children and youth.

2. **Raise awareness and promote action among elected and appointed officials, foundations and potential private sector partners regarding the need for policy change, environmental change, and resources to adequately address childhood overweight in North Carolina.**

> "Behind virtually every public health and safety measure enacted in this half century has been a media advocacy campaign to dramatize both the risks and the public policy solutions."
>
> —Michael Pertschuk
> Advocacy Institute

- Provide information and stimulate discussion among elected and appointed officials about the health, social, and economic costs of childhood overweight and the benefits of reversing current trends.
- Provide information targeted to specific audiences to strengthen local and state public policy in support of childhood overweight interventions.
- Communicate to boards of education, educators, other school staff, and volunteers the contribution of increased physical activity and healthy eating patterns to academic success.
- Raise awareness of the limited amount of physical activity many students get in school, including quality daily physical education, recess, extracurricular physical activity programs, physical activity integrated into core subjects, and after-school programs.
- Communicate minimum requirements for physical education and physical activity in schools and recognize schools that exceed the minimums.
- Communicate the extent of student purchases of foods and beverages that are high in calories from fat, added sugar, and/or large portion size, as well as the amount of revenue generated and the use of that revenue.
- Communicate the financial pressures on schools that often cause decisions regarding food and beverage options to be driven by profit-making instead of nutrition goals.

3. Create an environment that makes healthy eating and active lifestyles the norm rather than the exception.

- Implement ongoing media campaigns to promote healthy eating and physical activity.
- Develop and disseminate pre-tested messages and information about the health benefits of healthy eating and physical activity developed for specific target audiences and show children and youth of all sizes and shapes being active and eating healthy.
- Increase awareness of the importance of healthy weight and physical activity for children with disabling conditions.
- Advocate for accessible and affordable physical activity opportunities and healthy eating options for all children and youth.
- Raise awareness of gaps in access to walking trails, parks, sidewalks, and bike paths, and advocate for new ones to be built where needed.
- Raise awareness of ways that civic clubs, child and youth organizations and faith communities are successfully promoting physical activity and healthy eating.
- Recognize successful efforts by communities to support walkable, bikable neighborhoods, to promote the use of existing public facilities for physical activity, or to build new facilities when needed.
- Showcase family success with healthy eating and physical activity (e.g. making physical activity a part of everyday life for all family members, limiting consumption of sugar-sweetened beverages, limiting TV/video, increasing the proportion of meals and snacks prepared and eaten at home, and reducing portion sizes of foods and beverages).
- Advocate for strong parental and community involvement in support of policies that promote recommended eating and physical activity behaviors.

"Our general view is that guilting people doesn't work. There are two strategies. One is working at the level of individuals, to give them the best information so that they can make informed choices. Step two often requires removing some of the heavy handed marketing that may block them making those choices in an informed way, particularly at a young age."

—Derek Yach,
World Health Organization

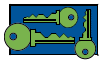
4. **Promote healthy eating and physical activity behavior change through social marketing interventions.**

- Develop public-private partnerships and community coalitions to secure funding for targeted behavior change interventions.
- Cultivate grassroots involvement in social marketing initiatives to support healthy weight in children and youth.
- Design each intervention with measurable objectives formulated for explicitly segmented target audiences.
- Base message development and channel selection on formative research with representative members of the target audience(s).
- To address external barriers to behavior change, include media advocacy and media literacy techniques to help rectify aspects of the public policy and institutional environment that promote unhealthy eating patterns and inactivity.

Surveillance and Research

In order to address the issue of childhood overweight, it is necessary to clearly understand the extent of the problem and behavioral and environmental contributors, as well as how things change over time. A surveillance system, which is a continuous, systematic collection of data, can provide unique and essential information about North Carolina children and the environments that influence their behavior. The data collected must be accurate and representative of the state and its children. This information is essential for good program planning and evaluation, and can also be useful in determining the long-term impact of interventions.

Recommendations



1. Ensure a comprehensive, continuous and reliable method for monitoring body mass index (BMI), weight-related chronic diseases, and nutrition and physical activity behaviors in children and youth.

- Use the NC Nutrition and Physical Activity Surveillance System (NC-NPASS) to monitor BMI and nutrition and physical activity behaviors in children and youth.
- Enhance the quantity and quality of data submitted to NC-NPASS through technical assistance and ongoing training in health departments, schools, and other community agencies supplying data.
- Develop a system for collecting and entering weight-related surveillance data on a more representative sample of children and youth for inclusion in the NC-NPASS database.
- Ensure routine state participation in the Youth Risk Behavior Surveillance System (YRBSS) and Behavioral Risk Factor Surveillance System (BRFSS).
- Develop state-specific questions to monitor key nutrition and physical activity behaviors in children and youth and collect data biennially through the BRFSS and YRBSS.
- Revise the school health nurse report to include separate categories for Type 1 and Type 2 diabetes in children and youth.
- Collaborate with university researchers on NC-based studies relevant to nutrition, physical activity, and weight that can expand surveillance data.

2. **Routinely analyze existing data on body mass index (BMI), nutrition and physical activity behaviors, and weight-related chronic diseases in children and youth and make these aggregate data available to state and local governments, public health agencies, the media and other interested citizens.**
   - Monitor progress toward Objectives of the North Carolina Healthy Weight Initiative on an annual basis.
   - Develop and disseminate a biennial report on the prevalence of overweight and related chronic diseases and the nutrition and physical activity behaviors of children and youth to health professionals and stakeholders.
   - Develop and disseminate a "user friendly" annual "state of the state" report and press release on the status of healthy weight in children and youth in North Carolina, including both print and web access.
   - Provide weight related surveillance data to public and private groups such as Healthy Carolinians, the NC Institute of Medicine, NC Child Advocavy Institute, and NC Prevention Partners for inclusion in their publications.
   - Provide current county-specific data on the prevalence of overweight and at-risk for overweight among children and youth through the Division of Public Health web site at www.dhhs.state.nc.us/dph/.

3. **Establish surveillance and mapping systems to monitor community-level physical activity and nutrition environments, with a focus on family/child access to healthy food choices and opportunities for physical activity.**

   - Collaborate with the NC Cardiovascular Health Program, the Physical Activity and Nutrition Unit, the Statewide Health Promotion Program, NC Prevention Partners, and other interested groups on community-level nutrition and physical activity environmental assessment.
   - Work with city planners/managers, community and business leaders, and nutrition and physical activity experts to monitor community walkability, bikability, access to safe play space, and access to quality food stores, restaurants, community gardens and farmers' markets.

- Increase the use of Geographic Information System (GIS) tools to view and analyze the NC-NPASS data geographically and determine potential environmental influences.

4. **Monitor school policies and practices on nutrition and physical activity including competitive food sales, food advertisement, physical education requirements, and recess opportunities.**
   - Conduct a statewide survey of schools to determine current policies and practices that influence healthy eating options and opportunities for physical activity.
   - Encourage schools to use the School Health Index for self-assessment and planning.
   - Encourage school-based response to the School Health Education Profile (SHEP) and its NC supplement.

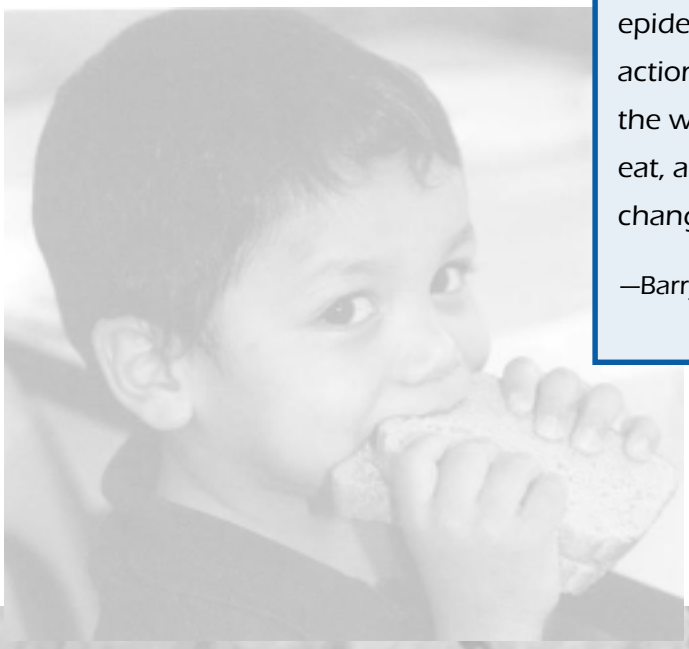
Recommendations for Research to Support the Healthy Weight Initiative

There are many gaps in knowledge related to childhood overweight and effectiveness of prevention and treatment interventions. The Task Force selected these five priorities:

1. **Investigate determinants of and environmental influences on overweight, physical activity and dietary intake in children and youth.**
2. **Study the cost-effectiveness of prevention and treatment services for childhood overweight.**
3. **Evaluate best practices in prevention and treatment of childhood overweight, especially those targeting high-risk populations.**
4. **Investigate cultural/ethnic differences in physical activity and dietary intake in children and youth.**
5. **Assess the impact of diet and physical activity on students' academic performance and achievement in schools.**

"Instead of concentrating research efforts on developing drug treatments for adult obesity, perhaps we should use what we know already to design and evaluate social, behavioural, or policy interventions aimed at children."

—Catherine Law, editorial in British Medical Journal, December 2001.



"We need to see this as a major epidemic worthy of serious public action...It is clear that major changes in the way we live and work, as well as eat, are being caused by significant changes in our environment."

—Barry Popkin, University of North Carolina School of Public Health

Call to Action

The alarming rise in childhood overweight and its unintended consequences are a wake-up call to all of us. Our modern environment that has allowed these problems to become among the most pressing health issues facing the Nation, the Tribes, and our state also provides opportunities for change that will reverse the trend. As we move to recognize and understand the enormity and complexity of the issues, it is important to be mindful of the individual, cultural, and political sensitivities embodied in them.

This epidemic did not occur overnight and it will not be eliminated overnight. But the trend can be reversed. It will require each of us to accept the problem as our own. It will require parents, doctors, nurses, public health practitioners, food and fitness manufacturers and retailers, restauranteurs, county commissioners, legislators, school administrators, dietitians and others to find ourselves in the problem and in the solution. It will require some of us to take the lead, to be catalysts in neighborhoods, organizations and communities. It will require some of us to follow. It will require all of us to find ways to work together with vigor, optimism, patience, and persistence.

The benefits for our children and future generations will far exceed the minor disruption of our lifestyles, our public policy, or our business plans. The results will be:

A North Carolina where....

- communities and schools create and expand opportunities for healthy eating and increased physical activity,
- the healthcare system is actively engaged in the prevention and treatment of childhood overweight,
- media images reflect a social and cultural norm of healthy eating and physical activity,
- children and families have the knowledge, attitudes, skills, behaviors, confidence and support needed to eat well and be physically active for life, and
- chronic disease and health care costs have been reduced, freeing up personal resources and tax dollars to invest in other enhancements of quality of life.

Healthy Weight Initiative 2010 Outcomes

Healthy People 2010 Objective:
Reduce overweight in children and adolescents 6 to 18 years (and all subgroups) to 5 percent

Healthy Carolinians 2010 Objective:
Reduce overweight in children and adolescents 2 to 18 years (and all subgroups) to 10 percent

Outcome objectives established by the Task Force were adapted from objectives in Healthy People 2010 and Healthy Carolinians 2010. The outcome objectives take into account the increase in the prevalence of childhood overweight that has occurred since baselines and objectives were established for Healthy People 2010 and Healthy Carolinians 2010. They represent a commitment to achieving a significant downward shift from upward trends in the past two decades.

The HWI 2010 outcomes are more than numbers; they represent real North Carolina children like yours and mine and the ones around the corner and across town. The outcomes will not be easy to achieve. But if North Carolina residents work together to *find the will and the way to move our children toward a healthy weight*, we will be successful in achieving these outcomes and enriching the lives of the thousands of children the numbers represent.

1. **Overweight in Children 2 to 4 years of age:**
   Reduce to 9 percent the overweight prevalence, BMI Percentile of 95 or above, among children aged 2 to 4 years old. (Baseline NC-NPASS 2000: 12.2 percent).

2. **Overweight in Children 5 to 11 years of age:**
   Reduce to 15 percent the overweight prevalence, BMI Percentile of 95 or above, among children aged 5 to 11 years old. (Baseline NC-NPASS 2000: 20.6 percent).

3. **Overweight in Children 12 to 18 years of age:**
   Reduce to 20 percent the overweight prevalence, BMI Percentile of 95 or above, among children aged 12 to 18 years old. (Baseline NC-NPASS 2000: 26.0 percent).

4. **At-Risk for Overweight in Children 2 to 18 years of age:**
   Reduce to 11 percent the at-risk for overweight prevalence, BMI Percentile of 85 or above and less than 95, among children aged 2 to 18 years old. (Baseline NC-NPASS 2000: 14.4 percent).

Evidence to Support Recommendations

A strong science base is a critical factor in ensuring the success of recommendations to improve health behaviors as well as the environmental and policy change that helps individuals adopt healthy behaviors. This section provides a synopsis of the scientific evidence that supports recommendations made by the Task Force. Key references are cited to assist those who want to know more. Additional references are available at www.nchealthyweight.com.

How bad is the problem?

Overweight/Obesity is the first chronic disease whose spread looks like an infectious disease epidemic.[8] If the present rate of increase continues, it will soon move from being the second most costly disease to being number one.[1] Increasingly, the problem is becoming a concern for children and youth as well as adults. The percentage of children who are overweight in the United States doubled during the past two decades and the percentage among adolescents almost tripled.

North Carolina data from children seen in public health settings show an even greater increase (Appendix B). The most striking increase is in the 5 to 11 year age group, where there was a 40 percent increase in the prevalence of overweight between 1995 and 2000.[9,10] More than one-fourth (26.0 percent) of youth 12 to 18 years of age, one-fifth (20.6 percent) of children 5 to 11 years, and one eighth (12.0 percent) of children 2 to 4 years of age are overweight.

Racial, ethnic and socioeconomic disparities in the prevalence of overweight and obesity are known to exist among adults in the U.S., and may occur in children and adolescents.[11] For all racial and ethnic groups combined, women of lower socioeconomic status are approximately 50 percent more likely to be obese than those of higher socioeconomic status. Among children, the relationship is weaker. Girls from lower income families have not consistently been found to be overweight compared to girls from higher income families. NC-NPASS data show an increased prevalence of overweight among children and youth of both genders and across all races and ethnicities. The data is not yet robust enough to provide reliable answers

to all questions regarding racial, ethnic and socio-economic disparities in the prevalence of childhood overweight (Appendix B, C, D). More data is needed.

It is clear from NC-NPASS data that substantial proportions of children and youth of all races, ethnicities, and gender are overweight and at-risk for overweight, but there are some differences among groups (Appendix D). Among 2 to 4 year-olds, Asian/Pacific Islanders have the highest prevalence of overweight; however, among 5 to 11 year-olds, American Indians have the highest prevalence. Young Hispanic children have a higher prevalence of overweight than non-Hispanic children of the same age; however, by adolescence, the rates are higher among non-Hispanic than Hispanic teens. In American Indians and African Americans, more adolescent girls are overweight than boys; however in Whites and Asian/Pacific Islanders, adolescent boys are more likely to be overweight than girls.

What's the cause?

The causes of this epidemic are multi-layered. For the vast majority of individuals, overweight and obesity result from taking in more calories than are used. On the surface this appears to be a simple cause, with a simple solution. It is not.

Overweight and obesity are caused by many factors. For each individual, body weight is determined by a combination of genetic, metabolic, behavioral, environmental, cultural, and socioeconomic influences.[12] Behavioral and environmental factors that foster the consumption of large portions of high calorie foods and physical activity patterns that do not burn those calories are major contributors to overweight and obesity.[8] They also provide the greatest opportunity for actions designed for prevention and treatment.[12]

Why is it happening now?

Researchers, health care professionals, governments, the media, educators, and parents are all asking why this dramatic increase in childhood overweight is occurring now. All the answers are not known. But there are many societal trends that help expand our understanding.[13,14]

- Longer workdays
- Reduced leisure time
- More households with multiple wage earners
- Less time available for preparation of meals
- Increased consumption of food outside the home
- Increased advertising of high calorie, low nutrient dense foods and beverages
- Increased reliance on automobiles for transportation
- Increased time spent watching television
- Increase in the number of neighborhoods where it is unsafe to walk or play outside
- Reduced time spent in physical education in schools
- Increased availability of low-cost, high calorie foods and beverages in schools, at home, and in the community.

In addition, there are a number of social and cultural dichotomies that have major impacts on the weight status of children and youth.

- As a society we are obsessed with thinness, but overweight is becoming the norm.
- Individuals spend millions of dollars seeking effective weight loss programs, but funding to develop environments to strengthen social, cultural and individual practices that have major roles in the prevention of overweight is limited.
- Advertising and other lifestyle influencers promote eating and physical activity patterns that do not balance energy intake and expenditures.
- Health care costs of diseases associated with overweight and obesity are skyrocketing, but education, early assessment, and treatment of overweight are infrequently covered services.

Clearly, societal norms are not in sync with health recommendations.

SO WHAT? Why does it matter?

The health consequence of overweight and obesity is among the most burdensome public health issue faced by the Nation.[12] It manifests itself in premature death and disability, in health care costs, in lost productivity, and in social stigmatization. The burden is far from trivial and has the potential to skyrocket as increasing numbers of overweight youth become overweight or obese adults at earlier ages. Studies show that the risk of death rises with increasing weight. Even moderate weight excess (10 to 20 pounds for a person of average height) increases the risk of death.[15] Overweight and obesity are associated with an increased risk for coronary heart disease; stroke; type 2 diabetes; endometrial, colon, postmenopausal breast, and other cancers; and certain musculoskeletal disorders, such as knee osteoarthritis. Unhealthy dietary habits and sedentary behavior together account for more than 300,000 deaths each year in the U.S.[16,17]

Not for adults only

Obesity is not an issue for adults only. Sixty percent of overweight children, 5 to 10 years of age, have at least one cardiovascular risk factor such as hyperlipidemia, elevated blood pressure, or increased insulin level.[18] Type 2 diabetes, formerly called adult-onset diabetes and seen primarily in middle age, is increasingly being diagnosed in children and young adults. Many overweight children and adolescents have impaired glucose tolerance, a condition that often appears before the development of type 2 diabetes.[19] High blood lipids and hypertension, as well as early maturation, orthopedic problems, and sleep apnea also occur with increased frequency in overweight youth.

Another common consequence of childhood overweight is psychosocial — specifically, discrimination.[20] Children and youth that are overweight or at-risk for overweight increasingly suffer from depression, anxiety and social angst.[21] In addition to being an increasing health problem during childhood, overweight perpetuates the upward spiral of adult overweight and obesity and earlier onset of associated chronic disease risks. Overweight adolescents have a 70 percent chance

of becoming overweight or obese adults.[18] This chance increases to 80 percent if one or more parent is overweight or obese.

Economic consequences

The economic consequences of overweight and obesity are enormous. In 2000 the total cost was estimated to be $117 billion ($61 billion direct and $56 billion indirect).[22] Most of the cost associated with obesity is due to type 2 diabetes, coronary heart disease and hypertension.[23] Obesity may have more negative health consequences than smoking or heavy drinking, and it affects many more people.[24] While 61 percent of adults in the US are overweight or obese, only 6 percent are heavy drinkers and 19 percent are daily smokers. Despite these facts, Americans haven't given obesity the same attention as other health risks. Prevention and treatment of overweight in children and youth have received even less attention.

Limited information is available on the economic burden of childhood overweight. The lifetime cost of one child with type 2 diabetes has been estimated to be as high as $7 million.[25] A recent study shows a disturbing increase in hospital diagnosis of obesity-associated diseases and in health care costs for children and youth aged 6 to17 years.[26] Using data from a nationally representative population sample of hospital discharges, the study explored the trends from 1979-1999 and found increased diagnoses of obesity, diabetes, gallbladder disease, and sleep apnea, as well as increased length of hospital stay. Adjusted for inflation, there was a threefold increase in hospital costs. As overweight children become overweight or obese adults, the health care costs for diseases associated with obesity are likely to increase even more.

So what should we do?

Current knowledge is clear that healthy eating patterns and adequate physical activity aid in maintaining healthy weight and can promote weight loss among overweight or obese persons.[27] It is also clear that behaviors adopted in childhood have lasting effects, yet a very small proportion of children and youth have

adopted healthy eating and physical activity patterns that would be protective lifelong habits.[28] Only 2 percent of children meet the recommendations of the Food Guide Pyramid.[29] Less than 15 percent of school age children eat the recommended servings of fruit, less than 20 percent eat the recommended servings of vegetables, and only 30 percent consume the recommended milk servings.[30] Teenagers today drink twice as much carbonated soda as milk.[31]

Children and youth also fail to meet physical activity recommendations. Only 64 percent of NC high school students report participating in vigorous physical activity for at least 20 minutes on three or more days of the week.[32] Girls are less likely than boys to be physically active, and physical activity among both boys and girls declines steadily during adolescence. Children and youth are becoming more sedentary. They spend more time watching television and video-tapes and playing video games than doing anything else except sleeping.[33] Overall, nearly half of U.S. children aged 8 to 16 years watch more than two hours of television a day.[34] On the average, 17 percent of non-Hispanic black children, 9 percent of Mexican American and 6 percent of non-Hispanic white children watch television for five or more hours a day.

While it is well recognized that making small, lasting improvements in eating patterns and increased physical activity will lead toward a healthy weight, the societal barriers to an individual's making those improvements are enormous. The social, environmental, and behavioral factors responsible for the epidemic of overweight and obesity are firmly entrenched in our society.[35] Identifying and dislodging these factors will require deliberate and persistent action on multiple levels.

To advance this action, increasing emphasis is being placed on environmental and policy change that supports individual behavior change. *The Surgeon General's Call to Action to Prevent Overweight and Obesity* cites behavioral and environmental interventions as providing the greatest opportunity for successful change. A recent publication of the Association of State and Territorial Directors of Health Promotion and Public Health Education and the Centers for Disease Control and Prevention described policy and environmental change as new directions for public health.[36]

Evidence to Support Recommendations

The Task Force used an ecological perspective as the foundation for its recommendations and strategies. This perspective is translated in a multi-level framework that describes five complex levels of influence on behavior.[5] These levels of influence and examples of strategies for reducing childhood overweight are:

- **Individual —** targeting behavior change through media campaigns, social marketing interventions, education, and individual counseling for children and youth who are overweight or at-risk of overweight;
- **Interpersonal —** providing education to help families provide healthy meals and get family members moving; promoting peer influences for healthy eating and physical activity through clubs and other groups that involve children and youth;
- **Institutional/organizational —** offering healthier food and beverage options in schools, restaurants and faith communities; offering more physical education electives; changing policies to prevent use of food and physical activity as reward or punishment; including healthy weight messages in newsletters, inserts and websites.
- **Community —** expanding community gardens and farmers' markets, bike trails, playgrounds, safe routes to walk or bike to school; promoting water as a beverage; making 100 percent juice and low fat milk available in park and recreation facilities, hospitals, faith community facilities and functions; placing emphasis on strategies that address health disparities in minority populations, such as Hispanics, American Indians, and African Americans.
- **Society —** establishing state, Federal and Tribal policies, such as ensuring daily physical education and setting standards for all food and beverages available in schools; developing and implementing statewide media campaigns to educate policymakers on severity and consequences of childhood overweight and opportunities for change.

Adapted with permission from The North Carolina Blueprints for Changing Policies and Environments in Support of Increased Physical Activity/Healthy Eating.[37]

Help the public good prevail

The United States has a history of setbacks and success in improving the health of our people. It is important to learn how research, advocacy, public discussion and policy have contributed to victories and to apply these lessons to childhood overweight.

The decline in smoking provides a striking example of the power of social context in improving health behaviors.[38] While work remains to be done, community-wide social and political change has led to major public policy changes regulating cigarette advertising, restricting minors' access to tobacco products, increasing taxation of tobacco products, and addressing concerns about rights of nonsmokers and exposure to second-hand smoke.

Getting the lead out of the blood of children in America is an example of the pay-off of persistence.[39] It took almost a century to move from the discovery that lead paint caused neurological damage in children, to understanding the consequences to air quality from lead levels in gasoline, and finally, to legislation and regulation that resulted in a 78 percent drop in the average blood lead level in the U.S. between 1976 and 1994.

Getting fluoride in drinking water is a model of how to change public perception and promote local decisions that achieve significant public health benefits through low-cost public health measures.[39] Today, some 62 percent of Americans live in communities with fluoridated water supplies.

Another major public health victory is the dramatic decline in traffic fatalities.[39] A combination of research, advocacy, media coverage, public education, politics and government has led to safer cars, improved highways, better emergency medical service, as well as individual behavior change in drunk driving and seat belt use.

Changing one's eating and physical activity behaviors is a very different challenge from the behaviors that resulted in these public health successes. It is more complex than stopping or not starting smoking, drinking fluoridated water, or buckling a seat belt. However, the environmental and policy support that has been key to changing and sustaining behaviors in these success stories is equally important to solutions for childhood overweight and can be approached similarly.

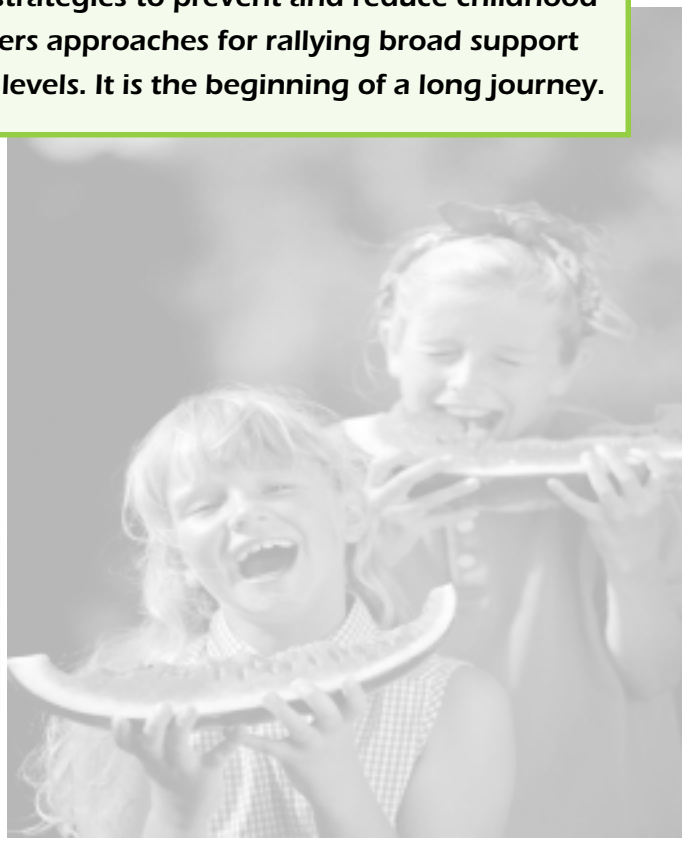
Isaacs and Schroeder, writing in The American Prospect[39], identified four elements of success in these public health victories that offer lessons for our work in childhood overweight.

1. Highly credible scientific evidence can persuade policy makers and withstand attack from those whose interests are threatened.
   - Evidence linking smoking with cancer
   - Well-structured comparative trials showing moderate amounts of fluoride added to the water supply reduced tooth decay
2. Public health campaigns need advocates who are passionately committed to their cause and who have the inner resources to withstand the pressure applied by the industries whose practices they are criticizing.
   - American Medical Association backing of seat belts
   - American Cancer Society stance on tobacco
   - American Dental Association advocacy for fluoridated water
3. Public awareness and discussion depend on a partnership with the media. Advocates need the media to reach the public, and the media, looking for good stories, also need the advocates. As a result of media, few now doubt
   - that smoking is bad for health,
   - that drinking and driving is a lethal combination, or
   - that seat belts save lives.

4. Law and regulation have been critical elements in focusing Americans' attention on health concerns, providing policy direction, and setting standards that have led to improvement in the public's health.
   - Clean Air Act, Lead-Based Paint Act
   - Warning labels on cigarette packs, bans on cigarette advertising
   - Highway safety laws, regulations mandating use of seatbelts

Removing the substantial barriers that make it difficult for individuals to develop healthy eating and physical activity patterns will require similar purposeful changes.[38]

Moving our Children Toward a Healthy Weight: Finding the Will and the Way is a leadership plan that provides direction for purposeful change. It makes recommendations based on evidence, suggests strategies to prevent and reduce childhood overweight, and offers approaches for rallying broad support for change at many levels. It is the beginning of a long journey.



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Appendix A

Guiding Principles

The executive committee of the HWI Task Force agreed on the following principles to guide its work:

- All activities conducted in connection with the Healthy Weight Initiative will be consistent with Healthy People 2010 and Healthy Carolinian objectives, and will reflect sound science and, whenever possible, "best practices".
- Strategic cooperation and coordination of a variety of partners (public and private) and the avoidance, whenever possible, of duplication of effort will be ensured.
- Resource allocation will reflect the real and significant differences that exist among North Carolina's communities in terms of learning opportunities, health education resources, social capital, and access to health information.
- Primary and/or secondary prevention interventions will be tailored (based on formative research) to the unique characteristics of each target audience.
- Public awareness and communication goals will be supportively linked to the broader objectives of the Healthy Weight Initiative.
- Monitoring and evaluation recommendations will provide support for the development and evaluation of interventions.

Criteria for Recommendations

With these principles in mind, the draft recommendations provided by the subcommittees were evaluated according to the following criteria:

1. Does the recommendation have a basis in science and/or best practice? That is, has the direction of the recommendation been shown to have a positive effect or association with healthy weight in children and youth?

2. Can the recommendation be appropriately located within the existing logic model that outlines the initiative's path to healthy weight in children and youth?

3. Does the recommendation provide the degree of specificity necessary to guide the development of effective strategies, tactics and evaluation?

4. Does the recommendation complement and not duplicate existing initiatives by other organizations or partners?

5. When considered in their entirety, do the recommendations address the most relevant variables that are associated with healthy weight in children and youth?

6. When considered in their entirety, do the recommendations support (directly or indirectly) North Carolina's commitment to eliminate health disparities?

Appendix A References

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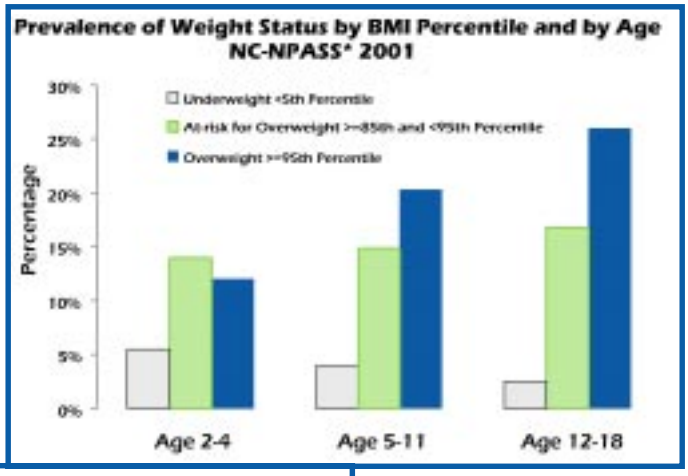
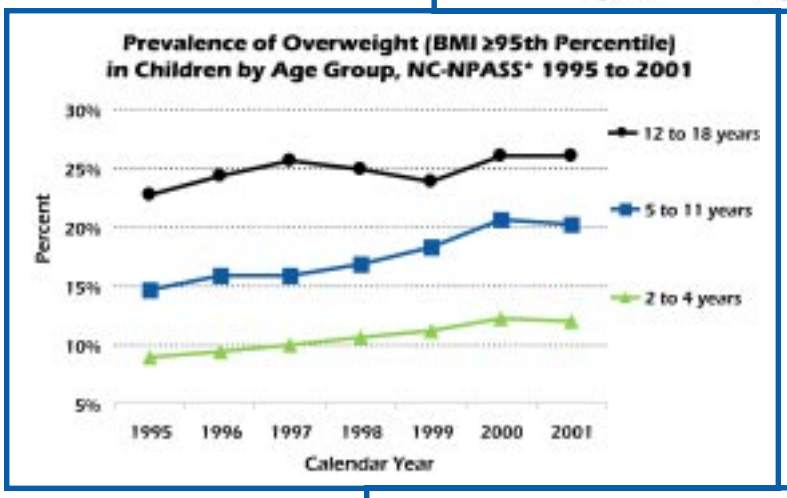
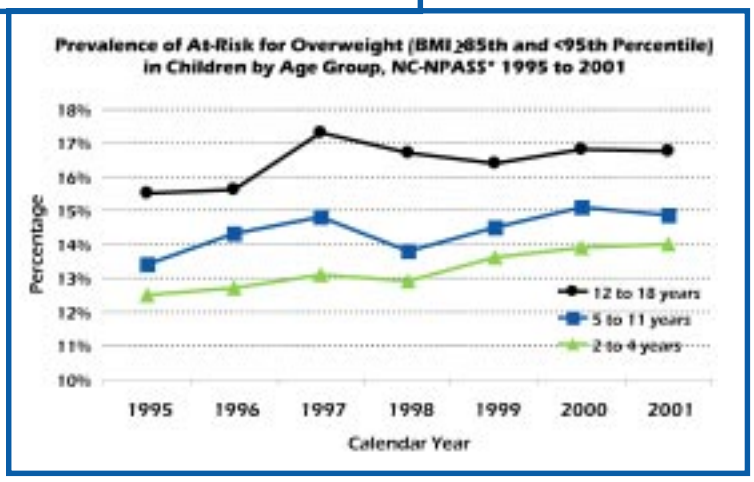
Appendix B

Prevalence of Weight Status: 2001 and 1995 - 2001 Trends







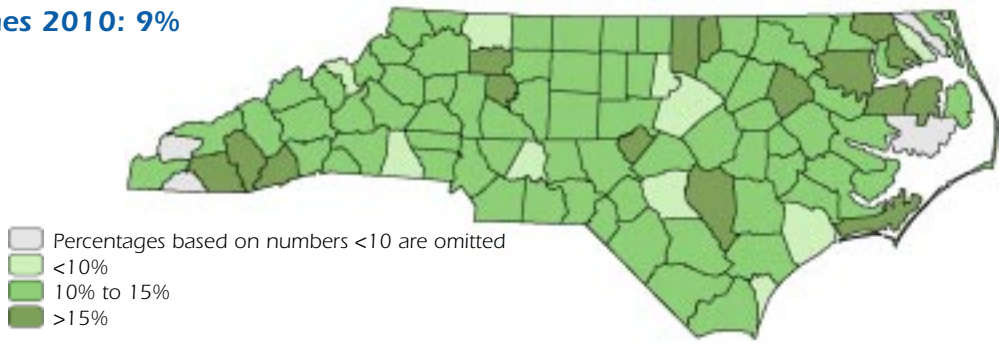
* North Carolina-Nutrition and Physical Activity Surveillance system (NC-NPASS) includes data on children seen in North Carolina Public Health Sponsored WIC and Child Health Clinics and some School-Based Health Centers. Percentiles were based on the CDC/ NCHS Year 2000 Body Mass Index (BMI) Reference.

Appendix C

Maps of Overweight Prevalence in NC Counties

Prevalence of Overweight (BMI ≥95th Percentile)
in Children 2 to 4 Years of Age
NC-NPASS* 2001

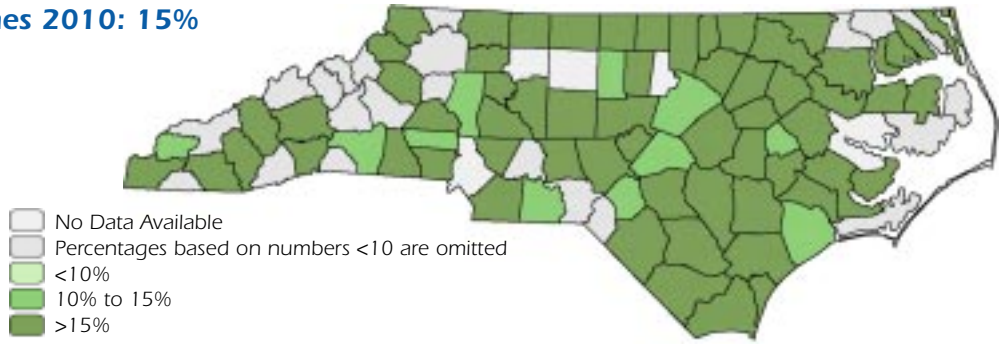
HWI Outcomes 2010: 9%



Percentages based on numbers <10 are omitted
<10%
10% to 15%
>15%

Prevalence of Overweight (BMI ≥95th Percentile)
in Children 5 to11 Years of Age
NC-NPASS* 2001

HWI Outcomes 2010: 15%



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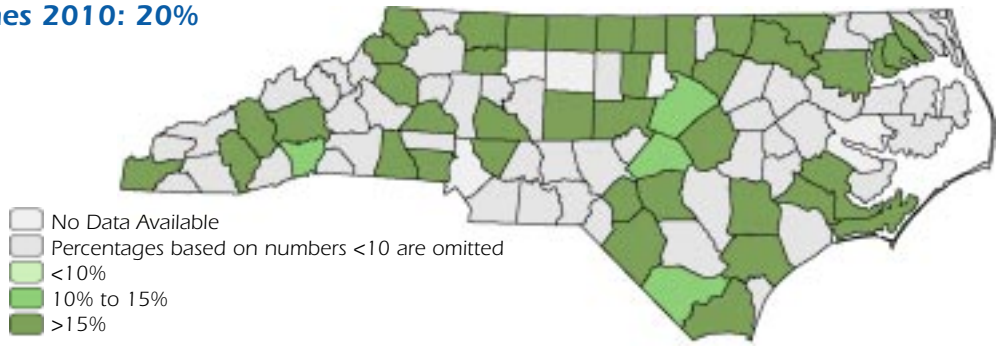
Prevalence of Overweight (BMI ≥95th Percentile)
in Children 12 to18 Years of Age
NC-NPASS* 2001

HWI Outcomes 2010: 20%



No Data Available
Percentages based on numbers <10 are omitted
<10%
10% to 15%
>15%

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

Appendix D

Overweight (BMI >=95th Percentile)
Children by Age, Race, and Gender, NC-NPASS* 2001

RACE	AGE	GENDER						ALL		
		MALE			FEMALE			TOTAL		
		Number Over-weight	Number Total	Percent Over-weight	Number Over-weight	Number Total	Percent Over-weight	Number Over-weight	Number Total	Percent Over-weight
WHITE	2-4	2,585	20,091	12.9	2,309	19,330	11.9	4,894	39,421	12.4
	5-11	865	4,219	20.5	820	4,194	19.6	1,685	8,413	20.0
	12-18	476	1,851	25.7	471	2,192	21.5	947	4,043	23.4
	2-18	3,926	26,161	15.0	3,600	25,716	14.0	7,526	51,877	14.5
BLACK	2-4	1,705	15,176	11.2	1,634	15,006	10.9	3,339	30,182	11.1
	5-11	593	3,035	19.5	669	3,013	22.2	1,262	6,048	20.9
	12-18	400	1,579	25.3	555	1,675	33.1	955	3,254	29.3
	2-18	2,698	19,790	13.6	2,858	19,694	14.5	5,556	39,484	14.1
AMERICAN INDIAN	2-4	86	872	9.9	111	881	12.6	197	1,753	11.2
	5-11	35	130	26.9	26	120	21.7	61	250	24.4
	12-18	27	74	36.5	22	92	23.9	49	166	29.5
	2-18	148	1,076	13.8	159	1,093	14.5	307	2,169	14.2
ASIAN/ PACIFIC ISLANDER	2-4	348	2,187	15.9	306	2,051	14.9	654	4,238	15.4
	5-11	102	545	18.7	109	624	17.5	211	1,169	18.0
	12-18	37	158	23.4	27	121	22.3	64	279	22.9
	2-18	487	2,890	16.9	442	2,796	15.8	929	5,686	16.3
TOTAL	2-4	4,724	38,326	12.3	4,360	37,268	11.7	9,084	75,594	12.0
	5-11	1,595	7,929	20.1	1,624	7,951	20.4	3,219	15,880	20.3
	12-18	940	3,662	25.7	1,075	4,080	26.3	2,015	7,742	26.0
	2-18	7,259	49,917	14.5	7,059	49,299	14.3	14,318	99,216	14.4

Overweight (BMI >=95th Percentile)
Children by Age, Hispanicity, and Gender, NC-NPASS* 2001

RACE	AGE	GENDER						ALL		
		MALE			FEMALE			TOTAL		
		Number Over-weight	Number Total	Percent Over-weight	Number Over-weight	Number Total	Percent Over-weight	Number Over-weight	Number Total	Percent Over-weight
HISPANIC	2-4	1,163	7,188	16.2	1,045	6,791	15.4	2,208	13,979	15.8
	5-11	369	1,652	22.3	348	1,778	19.6	717	3,430	20.9
	12-18	91	341	26.7	57	297	19.2	148	638	23.2
	2-18	1,623	9,181	17.7	1,450	8,866	16.4	3,073	18,047	17.0
NON-HISPANIC	2-4	3,561	31,135	11.4	3,315	30,474	10.9	6,876	61,609	11.2
	5-11	1,224	6,260	19.6	1,274	6,162	20.7	2,498	12,422	20.1
	12-18	846	3,300	25.6	1,014	3,757	27.0	1,860	7,057	26.4
	2-18	5,631	40,695	13.8	5,603	40,393	13.9	11,234	81,088	13.9
UNKNOWN	2-4	0	3	0.0	0	3	0.0	0	6	0.0
	5-11	2	17	11.8	2	11	18.2	4	28	14.3
	12-18	3	21	14.3	4	26	15.4	7	47	14.9
	2-18	5	41	12.2	6	40	15.0	11	81	13.6
TOTAL	2-4	4,724	38,326	12.3	4,360	37,268	11.7	9,084	75,594	12.0
	5-11	1,595	7,929	20.1	1,624	7,951	20.4	3,219	15,880	20.3
	12-18	940	3,662	25.7	1,075	4,080	26.3	2,015	7,742	26.0
	2-18	7,259	49,917	14.5	7,059	49,299	14.3	14,318	99,216	14.4

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

Appendix E

Glossary of Terms

"**1% or Less" Campaign:** A social marketing campaign that has been used in communities and schools to promote the use of milk with 1 percent or less fat.

"**5 a Day" Campaign:** A nationwide campaign to encourage the consumption of five servings of fruits and vegetables each day to improve the nation's health.

Appropriate portion sizes: Portion sizes of foods and beverages that contribute to total diet quality and do not result in an energy imbalance relative to the individual's age and activity level.

At-risk for overweight: Gender- and age-specific body mass index (BMI) at or above the 85th and below the 95th percentile for children and youth aged 2 to 20 years, based on 2000 Centers for Disease Control and Prevention (CDC) growth charts.

Behavioral Risk Factor Surveillance System (BRFSS): An ongoing data collection system that examines health behaviors of adults through a telephone survey.

Body Mass Index (BMI) is an anthropometric index of weight and height that is defined as body weight in kilograms divided by height in meters squared. BMI is the commonly accepted index for classifying adiposity in adults. It is also recommended to identify children and adolescents who are overweight or at-risk for overweight.

Campaign: A planned, organized, and integrated set of activities with a clearly defined purpose that uses multiple strategies and channels. Campaigns are waged during a defined time and are usually long (e.g., six weeks to a year or more) and sustained. In addition to mass communication activities, a campaign may consist of grassroots programming, community organization, and legislative advocacy.

Child and Adult Care Food Program (CACFP): A federally funded program that provides reimbursement to qualifying non-residential care facilities for meals and supplements (snacks) served to eligible children and adults. In NC, CACFP is administered by the Nutrition Services Branch in the Division of Public Health.

Childhood Overweight: A gender- and age-specific BMI at or above the 95th percentile for children and youth aged 2 to 20 years, based on 2000 Centers for Disease Control and Prevention (CDC) growth charts. Neither a separate definition for obesity nor a definition for overweight based on health outcomes or risk factors is defined for children and youth.

Chronic Disease: Illnesses that are prolonged, do not resolve spontaneously, and are rarely cured completely.

Coalition: A temporary alliance of distinct parties, persons, or states for joint action.

Eat Smart, More More...North Carolina: A statewide initiative focused on enhancing our ability to live healthier lives by reshaping policies and creating environments supportive of physical activity and healthy eating. The initiative is supported by the Physical Activity and Nutrition Unit of the Division of Public Health.

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

Epidemic: Widely prevalent, characterized by rapid spread.

Geographic Information System (GIS): A computerized system for analyzing and displaying data related to the specific placement or location of that data on earth. This data is usually viewed by map and frequently examines issues related to city planning, government, business, engineering, and environmental health.

Healthy Carolinians: An effort of the North Carolina Division of Public Health to increase the life span and quality of life, eliminate health disparities among populations, and promote access to preventive health services by providing resources for counties in North Carolina to start Healthy Carolinian coalitions.

Healthy Eating: An eating pattern that is consistent with the Dietary Guidelines for Americans. There are many healthy eating patterns that can accommodate cultural and individual preferences.

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

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

NC-NPASS: An ongoing data collection system that accepts data on nutritional indicators in children (e.g. overweight, underweight, anemia) that are seen in North Carolina Public Health sponsored WIC and Child Health Clinics and some School Based Health Centers.

Obesity: A BMI of 30 kg/m^2 or greater in adults. There is no definition for obesity in children and youth. Refer to childhood overweight for a definition that applies to children and youth aged 2 to 20 years.

Overweight: A BMI between 25 kg/m^2 and 29.9 kg/m^2 in adults. Refer to childhood overweight for definition that applies to children and youth aged 2 to 20 years.

Partnership: A group of individuals or organizations that work together on a common task or goal.

Appendix E

Physical Activity: Any bodily movement produced by skeletal muscles that results in an energy expenditure and is positively correlated with physical fitness.

School Health Education Profile (SHEP): A CDC survey administered every even year by the Department of Public Instruction (DPI) to health education teachers and middle and high school principals. The survey examines health education and physical activity policies and practices of the school. North Carolina added a supplement to the 2002 survey to collect additional environmental and policy data.

School Health Index: A tool developed by CDC for use by schools to assess their nutrition and physical activity environments, plan and implement improvements, and monitor change.

Sedentary Lifestyle: A lifestyle characterized by little or no physical activity.

Settings: The context in which efforts to prevent and reduce childhood overweight will occur. (i.e. families, schools/child care, communities, media and communication, surveillance and research).

Social marketing: Applying advertising and marketing principles and techniques to health or social issues with the intent of bringing about behavior change. The social marketing approach is used to increase the acceptability of a new idea or practice within a target population.

Special Supplemental Nutrition Program for Women, Infants and Children (WIC): A federally funded program designed to provide food to low-income pregnant, postpartum and breastfeeding women, infants and children until the age of five. The program provides a combination of food, nutrition education, breastfeeding support and referrals for health care. In NC, WIC is administered by the Nutrition Services Branch in the Division of Public Health.

Stakeholders: An individual or organization that has something to gain or lose as a result of health promotion program efforts or ideas. This person or group has a stake in the outcome of the program and a unique appreciation of the issues or problems involved.

Sugar-sweetened beverages: Beverages that have a high proportion of calories from added sugar or other caloric sweeteners. Examples are carbonated beverages, sweet tea, juice drinks.

Target audience: A group of individuals or an organization, community, sub-population or society that is the focus of a specific health promotion effort.

Youth Risk Behavior Surveillance System (YRBSS): A system developed by CDC to monitor priority health-risk behaviors that contribute to the leading causes of mortality, morbidity, and social problems among youth in the United States. The survey is administered to middle and high school students every odd year.

Appendix F

Resources

North Carolina Healthy Weight Initiative: www.nchealthyweight.com
Online copy of *Moving Our Children Toward a Healthy Weight: Finding the Will and the Way*, as well as additional references, data, and links to other sites for information to support local and state efforts to reduce childhood overweight in North Carolina.

North Carolina Division of Public Health: www.dhhs.state.nc.us/dph/
- **Nutrition Services Branch:** www.nutritionnc.com
- **North Carolina Coordinated School Health Program:** www.nchealthyschools.org
- **Physical Activity and Nutrition Unit:** www.eatsmartmovemorenc.com
- **Cardiovascular Health Unit:** www.startwithyourheart.com
- **Diabetes Branch:** www.ncdiabetes.org
- **Healthy Carolinians:** www.healthycarolinians.org

Centers for Disease Control and Prevention (CDC): www.cdc.gov
- **Division of Nutrition and Physical Activity (DNPA):** www.cdc.gov/nccdphp/dnpa
- **Division of Adolescent School Health (DASH):** www.cdc.gov/nccdphp/dash

On line information and links to other CDC sites, to get rresources such as maps of obesity prevalence, surveillance data, research and new activities.

www.cdc.gov/nccdphp/dnpa/physicalactivity.htm
www.cdc.gov/nccdphp/dnpa/kidswalk/index.htm
www.cdc.gov/nccdphp/dnpa/5aday
www.cdc.gov/nccdphp/dash/shi/
www.bam.gov
www.cdc.gov/powerfulbones/
www.cdc.gov/cdcynergy/
www.cdc.gov/verb

U. S. Department of Health and Human Services: www.dhhs.gov
www.surgeongeneral.gov/topics/obesity/
Online copy of The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity, as well as Fact Sheets and other resources related to childhood overweight and overweight and obesity in adults.

www.health.gov/healthypeople
History of Healthy People 2010 and the Healthy People initiative, 10 Leading Health Indicators, Objectives for Improving Health, baseline data and progress reports on Healthy People 2010.

www.ihs.gov
Information on the Indian Health Service and the increased prevalence of diagnosed diabetes among American Indian children and young people. American Indians and Alaska Natives have the highest prevalence of type 2 diabetes in the world.

U. S. Department of Agriculture: www.usda.gov
www.usda.gov/cnpp
Online access to Dietary Guidelines for Americans 2000 and related educational materials, Food Guide Pyramid and Food Guide Pyramid for Young Children.

www.fns.usda.gov/tn/Healthy/index.htm
Free materials, including online ordering of *Changing the Scene* kit to guide local action on improving school nutrition environments, and information on other Team Nutrition success stories.

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The NC Healthy Weight Initiative is a partnership between the

NC Division of Public Health

- Child and Adult Care Food Program
- Eat Smart, Move More...North Carolina
- Nutrition Education and Training Program
- Special Supplemental Nutrition Program for Women, Infants, and Children
- Start With Your Heart

And

NC Prevention Partners

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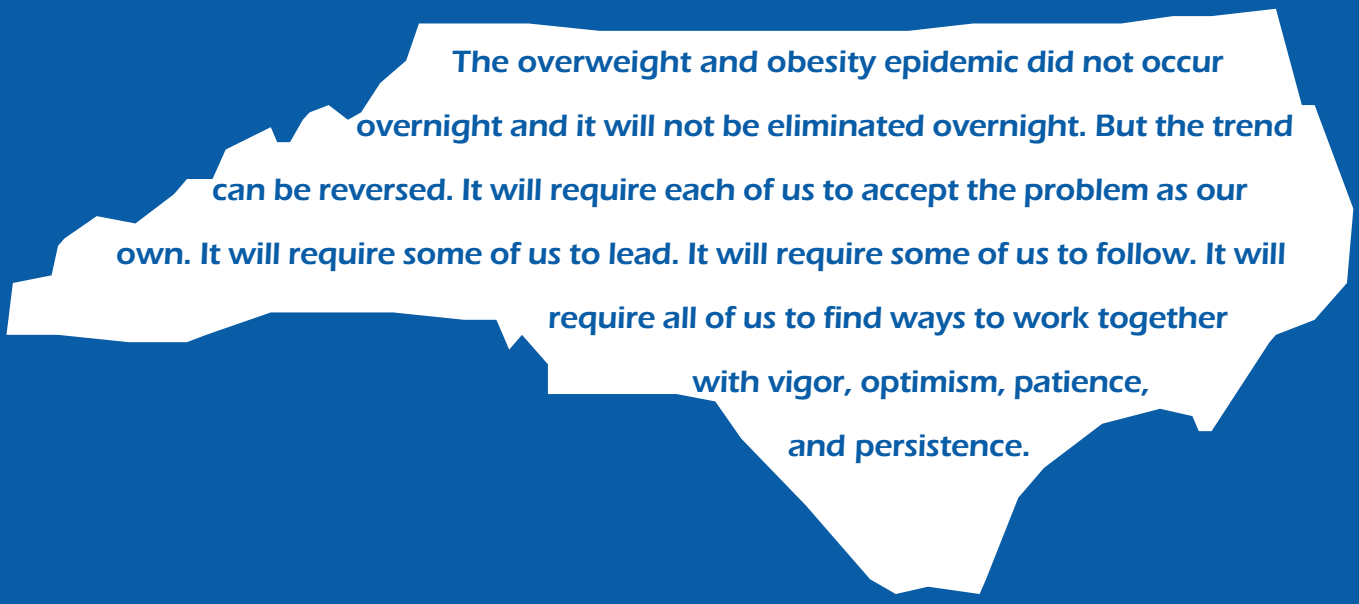

Success will be a North Carolina where....

- communities and schools create and expand opportunities for healthy eating and increased physical activity;
- the healthcare system is actively engaged in the prevention and treatment of childhood overweight;
- media images reflect a social and cultural norm of healthy eating and physical activity;
- children and families have the knowledge, attitudes, skills, behaviors, confidence and support needed to eat well and be physically active for life; and
- chronic disease and health care costs have been reduced, freeing up personal resources and tax dollars to invest in other enhancements of quality of life.