CHILDHOOD OBESITY IN NORTH CAROLINA

A Report of Fit Families NC: A Study Committee for Childhood Overweight/Obesity
# Table of Contents

A Message from Lieutenant Governor Beverly Perdue ................................................................. 2

From the Co-Chairs .......................................................................................................................... 3

NC Health and Wellness Trust Fund Commissioners ................................................................. 4

Preface .............................................................................................................................................. 5–6

Fit Families NC Public Hearings .................................................................................................. 7

Study Committee Members .......................................................................................................... 8

Legislative Policy Proposals Adopted by the Study Committee ................................................. 9–11

for Childhood Overweight/Obesity in NC

Recommendations for State and Local Agencies, Organizations, Trade Groups, and Industry Associations

- Early Childhood Intervention / Childcare / Before And After School Programs .................. 12
- Schools: Physical Education / Physical Activity / Recess ......................................................... 13
- Schools: Nutritional Standards ..................................................................................................... 14
- Schools: Nutrition Education ........................................................................................................ 15
- Schools: Other ............................................................................................................................. 15
- Community .................................................................................................................................. 15
- Health Care ................................................................................................................................. 16
- Marketing to Children .................................................................................................................. 17
- Faith-Based Organizations .......................................................................................................... 17
- Childhood Obesity Data Collection .......................................................................................... 18
- Other .......................................................................................................................................... 18

Acknowledgements .................................................................................................................... 19

Endnotes ........................................................................................................................................ 20

1500 copies of this document were printed at a cost of $3,954.50, or $2.64 per copy.
OBESITY, ESPECIALLY AMONG CHILDREN, HAS EMERGED AS A SERIOUS THREAT TO OUR STATE’S HEALTH:

- One in four youth ages 12 – 18 is overweight.
- One in five children ages 5 – 11 is overweight.
- One in eight pre-school children ages 2 – 4 is overweight.
- The prevalence of childhood obesity has nearly tripled for adolescents in the past two decades. ¹

As Lt. Governor and Chair of the North Carolina Health and Wellness Trust Fund (HWTF), I find these statistics alarming. These rates, which have risen rapidly among children of all racial and ethnic groups, have serious long-term health implications. Obesity has been linked to chronic diseases such as heart disease, diabetes and several forms of cancer. In addition, the health care costs associated with obesity are soaring. It is estimated that obesity-related medical expenses in North Carolina cost the taxpayers more than $2.1 billion a year. ²

Recent research suggests that if childhood obesity continues to increase, it could cut two to five years from the average lifespan, causing our current generation of children to become the first in American history to live shorter lives than their parents.³

Over the past 50 years, our society has evolved in ways that make it harder for children to eat healthy and be active. Their diets, once based on fresh fruits and vegetables, now consist of processed foods that are high in fat and low in nutritional value. In addition, daily PE and physical activity in many of our schools is becoming less of a priority because of budget cuts and academic pressures. Less than 14% of elementary schools in our state now offer daily PE. ⁴

Simply put, our children are at a greater risk for chronic disease, and we must find practical ways for them to eat healthier and to be more active.

**Fit Families NC.** A Study Committee for Childhood Overweight/Obesity in NC was commissioned by HWTF to help us better understand the causes of this epidemic and more importantly, develop realistic recommendations for addressing this growing health concern. At the Study Committee’s initial meeting in April 2004, I urged the Co-Chairs and committee members to consider the feedback not only from obesity experts but from all stakeholders across the state, both public and private.

This report outlines the Study Committee’s key recommendations that will not only have a significant health benefit, but which can realistically be adopted and implemented at the appropriate level by the General Assembly and state/local agencies and organizations.

As a result of this Study Committee, several of the recommendations listed within have been adopted—and two have recently been signed into law. But despite this progress, there is still much to do. We need to continue to work cooperatively far beyond the publication of this report so widespread support can be developed for all of these recommendations. Working together, North Carolinians can address the problem of childhood obesity and make our state a healthier place for all our children.
FEW PEOPLE IN OUR STATE OR NATION ARE UNAWARE OF THE OBESITY EPIDEMIC AND ITS GRAVE HEALTH CONSEQUENCES. LIKewise, THERE ARE FEW WHO ARE NOT COGNIZANT OF THE LIFE-Long NEGATIVE EFFECTS OF THIS DISEASE ON OUR CHILDREN AND YOUTH.

With as many as one in five children facing severe health problems in the future as a result of this disease and resulting lack of ability to fully participate and enjoy their adult lives, the need to stem the tide of obesity cannot be ignored any longer. Most of us have heard this call to action and acknowledge that something must be done. State and community leaders have to be proactive in changing our environment which has clearly given rise to this epidemic, and create an environment that supports and encourages healthy nutrition and physical activity choices.

The big question for North Carolina communities is, “What can we do to make this change?”

To respond to this growing need, the NC Health and Wellness Trust Fund (HWTF), under the leadership of Lt. Governor Beverly Perdue, created a study committee to address problems of overweight and obesity, and to encourage healthy eating and increased physical activity among our children. For over a year, the Study Committee has grappled with this multi-faceted problem and its many consequences. More importantly, we have been challenged to create solutions, which will begin to reduce the prevalence of this modern disease.

The inclusive approach of the Study Committee has been been key to its success in coming up with achievable recommendations, and this approach has been applauded by stakeholders across the state and the nation. Of special note has been the collaborative and open process that the Study Committee adopted, receiving substantive input from every sector that either effects or is affected by the obesity problem. The Study Committee has been open to hear from a wide array of stakeholders, and that is the basis on which we can take this significant step forward to address childhood obesity in NC...since we created this problem ourselves...we can only solve it by working together.

This report is the culmination of the task that we were assigned by HWTF. It contains the best policy ideas for addressing childhood obesity in NC gathered to date. The recommendations within and the actions which have already resulted will have long-lasting benefits, while preserving consensus necessary to ensure viability for implementation in the short term. Together, we will ensure that every child in our state has the opportunity for a bright and healthy future.
COMMISSIONERS

Mary Ann E. Black
Associate Vice President, Community Affairs, Duke University Health System, Durham

Carole W. Bruce
Partner, Smith Moore LLP, Greensboro

Donald E. Ensley, PhD, MPH
Associate Vice Chancellor and Chair, Department of Community Health, East Carolina University, Greenville

Daniel Gottovi, MD
Physician, Wilmington Health Associates, Wilmington

Beverly H. Hardee, RDH, BS, MEd
Instructor, Cape Fear Community College, Wrightsville Beach

Olson Huff, MD
Asheville

Anita L. Jackson-Kelley, MD, MPH, FACS
FAAOA, President, Greater Carolina Ear, Nose & Throat, PA Lumberton

Jugta Kahai, MD, FAAP
President, Oak Island Pediatrics, PA Oak Island

Ann Franklin Maxwell
Charlotte

Edwin W. Monroe, MD
Emeritus Executive Dean, Brody School of Medicine, East Carolina University, Greenville

Robert S. Parker
Vice President, Home & Community Health, North Carolina Baptist Hospital, Tobacco Related Health Care Issues, Winston-Salem

William L. Roper, MD, MPH
Dean, UNC School of Medicine, Vice Chancellor for Medical Affairs CEO, UNC Health Care System, Chapel Hill

Ralph Snyderman, MD
Chancellor Emeritus for Health Affairs, Duke University, Durham

Rebecca H. Wartman, OD
Optometrist, Doctor’s Vision Center, Asheville

Paul M. Wiles
President & CEO, Novant Health, Winston-Salem

Charles Willson, MD
Clinical Professor & Assistant Dean, Physician Affairs, School of Medicine, East Carolina University, Greenville

Robert E. Zaytoun
Partner, Zaytoun & Miller, PLLC, Raleigh
THE NC HEALTH AND WELLNESS TRUST FUND (HWTF) WAS CREATED IN 2000 BY THE GENERAL ASSEMBLY TO RECEIVE 25% OF NORTH CAROLINA’S SHARE OF THE MASTER SETTLEMENT AGREEMENT PAYMENTS. HWTF WAS CHARGED WITH ADDRESSING THE HEALTH NEEDS OF VULNERABLE AND UNDERSERVED POPULATIONS AND WITH DEVELOPING A COMPREHENSIVE, COMMUNITY-BASED PLAN WITH GOALS AND OBJECTIVES TO IMPROVE THE HEALTH AND WELLNESS OF THE PEOPLE OF NORTH CAROLINA.

Following extensive deliberations over two years, the core plan that the Commission has adopted under the leadership of chairperson Lt. Governor Beverly Perdue focuses on grant funding for state and local programs and campaigns to address five focus areas: teen tobacco, prescription drugs for seniors, medication assistance, health disparities, and obesity.

In late 2003, recognizing that the state was experiencing an obesity epidemic, HWTF partnered with Blue Cross and Blue Shield of North Carolina (BCBSNC) to launch Fit Together - a statewide campaign designed to raise awareness around the dangers of unhealthy weight and more importantly to equip individuals, families and communities with the tools they need to address this serious health concern. The partnership also included 21 community-based and statewide obesity prevention grants that are managed by Duke University’s Department of Community and Family Medicine. The outcomes of these grant programs are being evaluated by experts from East Carolina University’s Brody School of Medicine. These and many other model programs are being featured in the Fit Together television campaign and on the Fit Together website (www.HealthWellNC.com).

The design of the Fit Together Initiative follows guidance contained in the North Carolina Healthy Weight Initiative’s “Moving Our Children Toward a Healthy Weight – Finding the Will and the Way,” which includes as a core goal, policy changes relating to nutrition and physical activity at the state and local levels. Towards that end, Lt. Governor Perdue spearheaded the creation of a study committee on childhood obesity within HWTF, consisting of statewide experts on this subject. Members of Fit Families NC: A Study Committee for Childhood Overweight/Obesity were appointed in April 2004. The purpose of the Study Committee was to evaluate the causes and status of obesity among the state’s children and to recommend viable policy initiatives to the General Assembly and relevant agencies and organizations for addressing this very serious health concern.

“The Health and Wellness Trust Fund’s Study Committee on Childhood Obesity has impressed me with its enthusiasm and focus to gather all pertinent information possible regarding childhood overweight and obesity in North Carolina. The Committee members brought wonderful experience and expertise to the discussions and received and questioned presenters diligently and thoroughly in order to gain a truly comprehensive understanding of the issue. I am confident that the recommendations of this Committee are sound, prudent, appropriate and critically important to the health of children and families in North Carolina.”

— Dave Gardner, MA, DA (WakeMed Health and Hospitals)
Fit Families NC was specifically charged with investigating the causes of obesity among North Carolina’s children, as well as the socioeconomic issues associated with childhood obesity. Study Committee members were to explore methods the state should use in dealing with childhood obesity, including steps that should be taken to prevent childhood obesity, encouraging parental involvement and educating parents in developing healthy eating and effective physical activity habits for their children, and any other matter the Study Committee considered necessary to achieve its mission.

In recommending policy initiatives to the General Assembly and other organizations, Fit Families NC was tasked with addressing nutritional guidelines for foods served in public schools outside of the federal food programs; physical education, physical activity and recess activities in public schools; healthy and nutritional behavior by children and, when possible, their families; and any other relevant matters at the discretion of the Study Committee. 7

In January 2004, Lt. Governor Beverly Perdue appointed HWTF Commissioner Dr. Olson Huff, Senator William R. Purcell and Representative Verla Insko to chair the Study Committee. Nineteen other professionals were appointed to serve on the Study Committee representing diverse backgrounds such as health, education, medicine, academia, industry, faith-based organizations, and city/county government. The Study Committee was staffed by HWTF’s former Research Director Michael Arnold.

During 2004-2005, HWTF hosted seven Fit Families NC public hearings throughout the state that covered pertinent topics (see chart on page 7).8

During the first five sessions, the Study Committee heard testimony and received recommendations from experts on the topic covered at that session. Other stakeholders were invited to participate as well and comments from the general public were encouraged. On March 17th, 18th and April 19th, 2005, the Study Committee met to review, edit and formalize the most viable policy proposals for preventing childhood obesity in NC. The proposals were broken into two categories:

- **Legislative Policy Proposals:** Recommendations for legislative activity to prevent childhood obesity in NC.

- **Agency/Organization Policy Proposals:** Recommendations for state and local agencies, trade groups, and industry associations to prevent childhood obesity in NC.

The following report represents the policy recommendations adopted by Fit Families NC: A Study Committee for Childhood Overweight/Obesity in NC.

“Projects throughout North Carolina, funded by the Health and Wellness Trust Fund’s Fit Together obesity initiative have already demonstrated that with a small amount of money environments can be changed to support healthy eating and physical activity.”

— Kathy Kolasa, PhD, RD, LDN

(East Carolina University Brody School of Medicine)
**Fit Families NC Public Hearings**

**Introduction to Obesity**
- Thursday, April 7th, 2004, Raleigh, NC
  - Overview/causes of childhood obesity
  - State and national strategies to prevent childhood obesity
  - Childhood overweight/obesity in NC

**Presenters:**
- Lt. Governor Beverly Perdue
- Dr. Robert Schwartz (Wake Forest School of Medicine)
- Dr. Alice Ammerman (UNC Schools of Public Health and Medicine)

**Physical Activity**
- Friday, June 18th, 2004, Raleigh, NC
  - Review issues currently affecting physical activity for NC children in schools, after-school programs, childcare settings and at home
  - Policy and economic implications
  - Community-based responses

**Presenters:**
- Kymm Ballard (PE Consultant, NC Department of Public Instruction)
- Dr. Rodney Shotwell (Superintendent, Macon County Schools)
- Carmelita Gallo and Tom Looby (YMCA of the USA and YMCA of the Greater Northwest North Carolina)
- Cathy Thomas (Physical Activity and Nutrition Branch, DHHS)
- Phyllis Parish (Senior Producer, WRAL TV)
- Joy Grady (Bladen County Health Watch)
- Curt Rathburn (Commit to Be Fit, Forsyth County)

**Nutrition**
- Friday, August 20th, 2004, Greensboro, NC
  - Issues affecting food and beverage choices for NC children in schools, after-school programs and childcare settings
  - Policy and economic implications
  - Community based responses

**Presenters:**
- Dr. Carolyn Lackey (Food and Nutrition Extension, NC State University)
- Lynn Hoggard (Child Nutrition Services, NC Department of Public Instruction)
- Cynthia Sevier (Child Nutrition Director, Stokes County Schools)
- Dr. Don Martin (Superintendent, Winston-Salem/Forsyth County Schools)
- Brock Leach (New Growth Platforms and Chief Innovation Officer, Pepsico)
- Dr. Cathy Kapica (Global Nutrition, McDonald’s Corporation)

**Health Care**
- Thursday, December 9th, 2004, Charlotte, NC
  - Financing access (reimbursement) to health care professionals for the treatment of childhood obesity
  - Existing partnerships between the community and health care professionals that optimize treatment/prevention practices for children

**Presenters:**
- Walter Shepard (NC Academy of Family Physicians)
- Dr. Douglass Kamerow (Research Triangle Institute & Institute of Medicine)
- Diana Koenning (Shapedown, WakeMed Hospital)
- Cindy Brenneman (Blue Cross and Blue Shield of NC)

**Formalize Legislative Recommendations**
- Thursday, March 17th – Friday, March 18th, 2005, Raleigh, NC
  - Two-day workshop to review, edit and formalize the committee’s legislative recommendations for preventing childhood obesity

**Formalize Agency / Organization Recommendations**
- Tuesday, April 19th, 2005, Raleigh, NC
  - One day workshop to review, edit and formalize the committee’s recommendations for state and local agencies and organizations

**Designing Community Infrastructure**
- Monday, October 18th, 2004, Greenville, NC
  - Development or redevelopment of roadways, greenways, sidewalks, bike paths, etc. that enhances physical activity for children and their families
  - Best practices in NC related to “Active Living by Design”

**Presenters:**
- Phil Bors (Active Living by Design)
- Jimmy Newkirk (Physical Activity and Nutrition Branch, DHHS)
- Dan Mikkelson and Joe Morris (City Engineering and Planning, Salisbury, NC)
- Peggy Holland (Department of Transportation)
CO-CHAIRS

- Olson Huff, MD
  NC Health and Wellness Trust Fund Commissioner
- Rep. Verla Insko
  Representative, 56th District
  NC General Assembly (House)
- Sen. William (Bill) Purcell
  Senator, 25th District
  NC General Assembly (Senate)

COMMITTEE MEMBERS

- Alice Ammerman, DrPH, RD
  Director, Center for Health Promotion and Disease Prevention;
  Faculty, Department of Nutrition, Schools of Public Health and Medicine
  UNC at Chapel Hill
- Delilah Blanks, DrPH
  County Commissioner
  Bladen County
- Dave Gardner, MA, DA
  Director, Corporate and Community Health
  WakeMed Hospital
- Richard Greene
  Member, Buncombe County Board of Education
- Lynn B. Hoggard, MS, RD, LDN, FADA
  Section Chief, Child Nutrition Services
  Department of Public Instruction
- Oscar Kelley
  National Teacher Associates
- Phillip J. Kirk, Jr.
  President and Secretary, North Carolina Citizens for Business and Industry
  Publisher, NORTH CAROLINA Magazine
- Kathryn Kolasa, PhD, RD, LDN
  Professor, Patient Education and Nutrition Services
  East Carolina University, Brody School of Medicine
- Betsy LaForge, MPH, RD
  Manager, Prevention and Health Education
  Blue Cross Blue Shield of North Carolina
- Sue Lynn Ledford RN, BSN, NCSN
  School Health Coordinator
  Cherokee County Schools
- Gerard J. Musante, PhD
  CEO and Director
  Structure House
- Rev. Emily Odom
  Presbyterian Church (USA)
- Shellie Y. Pfohl, MS
  Executive Director
  Be Active North Carolina, Inc
- Charles W. Saunders, Jr.
  Senior Trust Advisor
  Wachovia Trust
- Donald Schumacher, MD
  Medical Director
  Center for Nutrition and Preventive Medicine, PLLC
- Robert Schwartz, MD
  Professor of Pediatrics and Chief,
  Section of Pediatric Endocrinology
  Wake Forest University School of Medicine
- Shirley Faison Sims
  Wayne County Public School Board
  WISH Centers - Wayne County
- Lisa Sutherland, PhD
  Department of Nutrition, Schools of Public Health and Medicine
  UNC at Chapel Hill
- Sandhya Thomas-Montilus, MD
  President
  Robeson Medical Clinic

“It is our hope that the legislative recommendations recently passed by this committee, all of which were studied and discussed in depth, will be welcomed by the General Assembly and that we will see many of them enacted into public policy.”
— Gerry Musante, PhD
(Structure House, DUKE)
In order to establish a statewide requirement for physical activity in schools, Kindergarten through 8th grade should be required to provide at least 30 minutes of physical activity per day for all students in attendance that day.

Fulfillment of this requirement can be met through activities conducted during a day, including the regularly scheduled physical education classes or activities such as recess, dance, classroom energizers in K-5, or other activity-based curricula; however, such use of time during the school day should complement, rather than substitute for the physical education program. This physical activity must involve physical exertion of at least a moderate to vigorous intensity level and for a duration sufficient to provide a health benefit for students.

NOTE: In April 2005 on a motion by Lieutenant Governor Beverly Perdue, the State Board of Education unanimously adopted this proposal, making North Carolina the first state to pass a 30-minute physical activity policy at the State Board level. The new policy will be implemented during the 2006-2007 school year.

In order to establish a statewide standard for vending products sold during the school day, Kindergarten through 12th grade should be required to:

Vending Beverages:
1) Sugared carbonated soft drinks should not be offered for sale in middle schools.
2) No more than 50% of the offerings for sale to students in high schools should be sugared carbonated soft drinks.
3) Diet carbonated soft drinks should not be considered in the same category as sugared carbonated soft drinks. Mid-calorie carbonated soft drinks should be in the same category as sugared soft drinks.
4) The legislative provision should not alter the current ability of local school districts to adopt a stricter policy. In other words, it should not prohibit a local school district from adopting tighter standards for beverage sales. Likewise, the provision should not alter the existing federal regulations that govern the treatment of food and beverages in schools.
5) Any existing contracts or service agreements should remain in effect until the stated expiration date, unless terminated earlier pursuant to the contract or agreement.
6) Water product should be available in every school vending location.
7) Juice drinks or sugar sweetened beverages should be no more than 12 oz.
8) Juice drinks should contain 50-100% juice.

Snack Vending:
1) By the end of the 2006 – 2007 academic year, all snack vending in Kindergarten through 12th grade should meet the Proficient Level, as outlined in the Eat Smart: NC’s Recommended Standards for All Foods Available in School. The Proficient Level would require:
   a) Elementary schools: No snack vending should be available.
   b) Middle and High School: 75% of snack vending products are items that should have no more than 200 calories per portion (Portion: any snack vending package).

NOTE: This proposal formed the basis for legislation establishing North Carolina’s statewide standard for limiting vending products in schools. SB 961, sponsored by Study Committee Co-Chair Sen. Bill Purcell, was passed into law in August 2005, making North Carolina’s vending standards among the nation’s strictest.
**PROPOSAL**

*In order to establish a statewide nutrition standard for after school programs, school events, school meals, and à la carte items, NC schools should meet the following nutrition goals:*

1. All Child Nutrition Programs should make modifications to menus and à la carte choices annually to increase fruits and vegetables, increase whole grain products and decrease foods high in total fat, trans fat, saturated fat and sugar and report their progress annually to the Child Nutrition Services Section of NC Department of Public Instruction (DPI).

2. Elementary Schools: Results from the 2005 NC Nutrition Standards Pilot Programs should be analyzed by Child Nutrition Services and guidance for school-based implementation should be developed and issued to local education agencies (LEAs) during the 2005 – 2006 school year (SY).

3. Elementary Schools: should achieve the Basic Level by the end of the 2006 – 2007 SY, should achieve the Proficient Level by 2007 – 2008 SY and should progress to the Superior Level by 2008 – 2009 SY.

4. Middle Schools: A pilot of the Nutrition Standards should be conducted in middle schools during the 2007 – 2008 SY. Results should be analyzed and guidance for school-based implementation should be developed and issued to LEAs in 2008 – 2009. Middle schools should achieve the Basic Level by the end of the 2009 – 2010 SY and progress to the Proficient and/or Superior level by the end of the 2010 – 2011 SY.

5. Secondary Schools: A pilot of the Nutrition Standards will be conducted in secondary schools during the 2009-2010 SY. Results of the pilot will be analyzed and guidance for school-based implementation should be developed and issued to LEAs in the 2011 – 2012 SY. Secondary schools should achieve the Basic Level by the end of the 2012 – 2013 SY and should progress to the Proficient and/or Superior level by 2013 – 2014.

6. NC DPI’s Child Nutrition Services Section should review the nutrition standards annually and should make modifications as needed to reflect current science and best practices. Child Nutrition Services should monitor LEA compliance with the above timeline and should report annually to the State Board of Education and to each local school board.

NOTE: This proposal formed the basis for legislation establishing a statewide nutrition standard for all meals and à la carte items sold in schools. HB 855, sponsored by Study Committee Co-Chair Rep. Verla Insko, was passed into law in October 2005, greatly improving North Carolina’s nutritional standards.

---

**PROPOSAL**

*The NC General Assembly should establish a study committee to analyze the impact of indirect costs associated with the integrity of the Child Nutrition Services program in NC Schools.*

NOTE: This proposal formed the basis for SB 960, which was under consideration by the General Assembly at the time this report was published.

---

**PROPOSAL**

*The State Health Plan, Medicaid, Health Choice and Special Health Services should include coverage in NC to include prevention and treatment services for children, youth and their families who are overweight or at risk for overweight, to allow Registered Dietitians (RD) and Licensed Dietitian Nutritionists (LDN), practicing in both public and private settings to be reimbursed for medical nutrition therapy.*
The NC General Assembly should allocate financial resources to support the NC Child Health Assessment and Monitoring Program (CHAMP) to further understand the prevalence of childhood obesity and other significant issues related to chronic disease in NC.

Nutrition and physical activity standards ranging from minimum-to-superior should be developed to guide all childcare centers and before / after school childcare programs (Similar to Eat Smart: NC’s Recommended Standards for All Foods Available in School and Move More: NC’s Recommended Standards for Physical Activity in School). The responsibility for development and implementation of these standards should be a collaborative effort among multiple agencies addressing similar issues.
Early Childhood Intervention / Childcare / Before And After School Programs

Parents and caregivers play a critical role in establishing children’s lifelong healthy habits. Recent studies have shown that food intake patterns introduced in early childhood have a lasting impact on a child’s eating habits into adulthood, and that foods consumed during infancy and childhood may have long-term and perhaps permanent effects on metabolism and overall health. The increasing prevalence of obesity among very young children indicates that prevention efforts need to begin in the early childhood years. Behavior patterns are established as early as the pre-school years, and it is especially important to encourage healthy nutrition and physical activity at that critical time.

Getting children started on the path to good health in their earliest stages sets the scene for the rest of their lives - as youth, as students, as workers and as future parents. As such, there is broad consensus among Study Committee members that NC must find ways to prevent childhood obesity before further damage occurs. To that end, the Study Committee makes the following recommendations:

Agency / Organization Policy Proposals:

- The NC Star rating system of licensed childcare centers, developed by the Frank Porter Graham Child Development Institute, should be examined as a possible point of intervention for childhood obesity by placing more emphasis on criteria related to physical activity and nutrition. As such, the Frank Porter Graham Child Development Institute should consider the benefits of more stringent physical activity and nutrition standards for the ECERS and ITERS Child Care evaluation scale.

- The NC State Commission on Childcare should examine the state’s Five-Star rating system of licensed childcare centers as a possible point of early intervention in the state’s fight against childhood obesity by placing greater emphasis on physical activity and nutrition standards.

- The North Carolina Association for the Education of Young Children and other statewide associations working to improve the education, health and care for young children in NC should consider the benefits of adopting policies and programs that promote the benefits of proper nutrition and increased physical activity.

- The Division of Public Health and appropriate partners should develop physical activity guidelines to promote the benefits of physical activity during the first two years of life and promote that program to licensed child care centers in NC.

- State and/or private grant funding organizations in NC providing grants for pre-schools and before/after school child care programs should give preference, when appropriate, to those applicants that demonstrate established high standards of physical activity and nutrition.

“One of our recommendations is a requirement for 30 minutes of physical activity each day for students in grades K-8. Normally, I would be against this kind of legislation since I prefer local board policies instead of state mandates. However, after considerable information and lots of committee discussion, I feel that we have no choice in the matter if we are to get serious about helping with the severe problem of overweight children.”

— Richard Greene
(Member, Buncombe County Board of Education)
Schools: Physical Education / Physical Activity / Recess

In recent decades, schools throughout NC have substantially reduced the practice of providing students with regular and adequate physical education and activity, often as a result of budget cuts or pressures to increase academic course offerings related to end of grade testing. According to the “PE Status Reports” posted in the “At School” module of the Fit Together Web site (http://www.HealthWellNC.com) less than 14% of elementary schools in NC have daily PE. Comparatively, the USDA and USDHHS recommend that children receive a minimum of 60 minutes of moderate to vigorous physical activity each day. Given that children spend half their day in school, the Study Committee did not find it unreasonable to expect that children receive at least 30 minutes of that activity during the school day.

Further, researchers are examining the extent and nature of the relationship between increased physical activity and enhanced academic performance. Early indications suggest that higher academic performance is positively associated with physical fitness and physical activity. As such, the Study Committee believes that NC should move towards requiring daily PE in elementary and middle schools as well as requiring additional credits of PE in high school. While there is not enough funding or resources available to mandate daily PE in NC schools at this time, the Study Committee believes that NC schools can immediately increase the levels of physical activity in schools without substituting for PE or jeopardizing the academic course offerings. To that end, the Study Committee makes the following recommendations:

Agency / Organization Policy Proposals:

* The NC State Board of Education should commission a task force to analyze the feasibility of requiring specified numbers of minutes of physical education in NC elementary and middle schools. This committee should have representation from various interests including the Department of Public Instruction, the NC Schools Boards Association, local principals and PE teachers, the Division of Public Health, the NC Health and Wellness Trust Fund, Action for Healthy Kids, Be Active NC, and others as appropriate. The committee should review national research, estimate costs, make policy recommendations and develop a timeline for full implementation.

NOTE: This recommendation was released by Lt. Governor Beverly Perdue and the Health and Wellness Trust Fund’s childhood obesity Study Committee on March 24th, 2005. On April 7th, 2005, the NC State Board of Education voted unanimously to commission a physical education task force to reflect this recommendation.

* The NC State Board of Education should amend their “Healthy Active Children Policy” to require all local education agencies (LEAs) K-8 to provide at least 30 minutes of physical activity per day for all students in attendance that day. The requirement of these physical activity minutes can be achieved during the regularly scheduled physical education classes, recess and other activity-based curriculum; however, such use of time during the school day should complement, rather than substitute for the physical activity and instruction children receive in physical education classes.

NOTE: This recommendation was released by Lt. Governor Beverly Perdue and the Health and Wellness Trust Fund’s childhood obesity Study Committee on March 24th, 2005. On April 7th, 2005, the NC State Board of Education voted unanimously to amend the state’s “Healthy Active Children” policy to reflect this recommendation.

* NC LEAs should encourage local elementary schools to observe, promote and participate in “Walk To School” and “Walk At School” initiatives.

* NC LEAs should encourage teachers to use educational tools that are age and developmentally appropriate within existing academic curriculums to increase physical activity.

“The unanimous support of the Study Committee to recommend that North Carolina schools require 30 minutes of physical activity in K-8th grade, including two school board members, shows North Carolina’s serious commitment to the development of the whole child.”

— Shirley Faison Sims (Member, Wayne County Board of Education)
Schools: Nutritional Standards

The school food and beverage environment has experienced dramatic changes in the past two to three decades. Once a fairly simple landscape where the only option was the US Department of Agriculture (USDA) federally subsidized school meal that adhered to defined nutritional standards, today’s school cafeteria offerings are numerous with variable standards. In more recent years, offerings of “competitive foods” in addition to the federal school meal program have increased substantially.11

The Study Committee supports the idea that ALL foods and beverages sold or served in NC schools should meet an accepted nutritional content standard. However, many of the “competitive foods” now sold in school cafeterias, school stores, school fundraisers and vending machines do not meet any nutrition standard and are usually high in calories and low in nutritional value.12

Interestingly, Child Nutrition Services in most NC schools has to operate as a financially self-supporting entity within each school. Cafeteria managers are expected to raise enough revenue from “competitive foods” and beverage sales to cover their operational costs and in most cases, overhead costs as well.13 Clearly, this system creates an environment that places pressure on Child Nutrition Services personnel to sell the most popular foods and beverages, rather than the most nutritious.

In 2004, NC developed Eat Smart: North Carolina’s Recommended Standards for All Foods Available in School, to encourage NC schools to meet nutrition guidelines regarding vending beverages and snacks, school events, school meals and à la carte items. Schools all across the state are also working to implement the “Winner’s Circle” program to provide healthier food and beverage options. To further improve nutrition standards in NC schools, the Study Committee makes the following recommendations:

Agency / Organization Policy Proposals:

* Whereas the consumption of foods and beverages of limited nutritional value contribute to childhood overweight, by the end of the 2006-2007 school year the NC State Board of Education should require NC LEAs to report annually the amount of revenue raised from the sale of vending products and all incentives and specifics related to vending contracts.

* The NC State Board of Education should co-sign a letter with the Lt. Governor, attached with a copy of the state’s Eat Smart School Recommended Nutrition Standards, encouraging all NC superintendents and school board members to comply with the nutrition standards and policies of the Child Nutrition Reauthorization Act.

* The NC State Board of Education should strengthen board policy 16 NCAC 6H-0004 regarding the sale of competitive foods in NC public schools to be consistent with the state’s Eat Smart School Standards and to reflect the requirements of the Federal School Breakfast program.

* In designing new schools in NC, LEAs should consider cafeteria designs that provide an environment which would help students obtain their food more efficiently allowing adequate time (20 minutes once seated) to eat their meal.

* The NC State Board of Education should recommend to the Government Operations Committee within the NC General Assembly to utilize existing federal funds for hiring additional school meal initiative consultants to support monitoring, evaluating, and promoting improved nutrition standards in schools.

* Regarding the amount of time to eat for lunch, the NC State Board of Education should adopt a policy requiring NC schools to provide students at least 20 minutes to eat their lunch, once they have received their food. Further, schools need to consider transport time to and from the cafeteria, time to go through the line, and time to bus trays at the end.
The State Board of Education should establish written standards to ensure a consistent procurement process among LEAs for establishing, operating, and reporting food and beverage contracts and agreements with vendors.

**Schools: Nutrition Education**

There is broad consensus among Study Committee members and key stakeholders that basic nutrition education is lacking in the current requirements of the NC Healthful Living Curriculum and that student health could benefit greatly if there was an increased commitment to teaching basic nutrition education in schools.

With the introduction of the new federal dietary guidelines in January 2005, and the USDA release of the new MyPyramid Food Guidance System in April 2005, there needs to be an avenue for educating NC’s children and youth regarding basic nutrition and the importance of healthful eating. To that end, the Study Committee makes the following recommendations:

**Agency / Organization Policy Proposals:**

* As part of the delivery of the Healthful Living curriculum, NC LEAs should provide nutrition and physical activity education for teachers as part of their annual professional development and renewal credit.

* The NC State Board of Education should require the Healthful Living Curriculum to be included in end of year testing.

**Schools: Other**

**Agency / Organization Policy Proposals:**

* NC LEAs should continue to work towards adopting a “Coordinated School Health Program” model, as outlined in the State Board of Education’s Healthy Active Children policy, designed to address physical activity and nutrition standards as well as all other health issues for students.

**Community**

In the last decade, an important relationship has emerged between overweight/obesity and community design and layout. While the complete strength of this relationship has not been scientifically established, community design does appear to influence health and healthy behaviors. As a result, the Study Committee supports the development of coalitions and partnerships among public health officials, the Department of Transportation, and local urban planners and city/county officials to identify ways to build infrastructure and support programs that encourage citizens to be more physically active and eat healthier.

Encouraging NC communities to be physically active or to eat healthier involves providing them with places where they can safely walk, bike, run, skate, play games or gain access to fresh fruits and vegetables, as well as encouraging policies that support such behavior. As demonstrated throughout the Study Committee process, often times NC policies that guide the development of roadways, streets and neighborhoods place a greater emphasis on motorized transportation and neglect the economic, health, and sociological benefit of bike and pedestrian facilities which encourage more physical activity.

The following recommendations encompass multiple areas of a community and are designed to encourage local city/county governments to find ways to increase opportunities for physical activity and healthful eating in their communities.
Agency / Organization Policy Proposals:

The NC Department of Agriculture and Consumer Services and the NC Cooperative Extension should work with produce growers, vendors, manufacturers and public health officials to assess the availability of fresh fruits and vegetables for all citizens, and to develop a statewide plan to enhance their availability in areas where these products are limited.

The NC Department of Transportation should:

• Appoint a task force with representation from the Physical Activity and Nutrition Branch at DPH and the NC Health and Wellness Trust Fund to study the correlation between the economic and health benefits of “Active Community Environments”, and to make recommendations for future DOT allocations in NC to support these built environments.
• Develop and promote comprehensive NC guidelines for cities, zoning authorities and urban planners on the ways to improve bike and pedestrian facilities.
• Allocate an increase in their Bike and Pedestrian grant program to encourage further development of local programs and facilities that support active communities.

Health Care
Health care professionals, including physicians, nurses and other providers, have a vital role to play in preventing childhood obesity in NC. As service providers to both children and parents, they have the access and influence to discuss a child’s weight status with the parent and make recommendations on dietary intake and physical activity. They also have the authority to suggest comprehensive preventive efforts for the family.

Furthermore, medical schools could play a more aggressive role in preventing childhood obesity by adopting prevention as a core component of their curriculum. Historically, health care efforts have largely focused on the treatment, as opposed to the prevention of obesity. “We need to rethink how we train physicians in NC, putting more emphasis on how we prevent the heart attack, not how we treat it.”

Public and private insurers are also in a position to influence healthy behavior and encourage prevention as a means of fighting childhood obesity. There is a growing trend among insurers to expand coverage of the treatment and prevention of overweight and obesity, creating greater access to health care and intervention options for families.

Actively engaging health care providers, professional organizations, insurers and accrediting organizations will be critical in the fight against childhood overweight/obesity in NC. To that end, the Study Committee makes the following recommendations:

Agency / Organization Policy Proposals:

NC health care providers and institutions should educate their members and other health care providers about the issues of preventing childhood obesity and the need for effective weight management for overweight and obese people.

As outlined by the Institute of Medicine’s report Preventing Childhood Obesity: Health in the Balance, pediatricians, family physicians, nurses, and other clinicians should engage in the prevention of childhood obesity. Health care professionals should routinely track body mass index (BMI), offer relevant evidence-based counseling and guidance, serve as role models, and provide leadership in their communities for obesity prevention efforts.
The Department of Insurance should commission a study committee to investigate the fiscal impact of programs and services for the prevention and treatment of childhood obesity by public and private third party payers. In addressing these issues, the committee will consider the fiscal impact of action versus inaction.

The State Health Plan, Medicaid, Health Choice and Special Health Services coverage in NC should increase financial support for prevention services designed to promote healthy lifestyles which lower risk for childhood obesity related co-morbidities.

In an effort to curb childhood obesity, NC based medical schools, nursing and other health care professional schools should teach the basic principles of prevention including the benefits of healthful eating and physical activity, the importance of breastfeeding, and how to effectively counsel people to change health behaviors as part of the core curriculum.

Public and private insurers should adopt policies that provide incentives for members to achieve a healthy lifestyle.

NC hospitals and medical centers should be good role models by offering healthy food and beverage choices and physical activity opportunities for employees, staff, patients, and their families.

Marketing to Children

Children’s health-related behaviors are greatly influenced by exposure to media messages involving foods, beverages, and physical activity. Research has shown that television advertising can especially affect children’s food knowledge, choices, and consumption of particular food products, as well as their food-purchase decisions. Because young children are often unable to distinguish between objective information and the persuasive intent of advertising, experts suggest that states consider guidelines for advertising and marketing of food, beverages, and sedentary entertainment to children. Therefore, the Study Committee makes the following recommendations:

Agency / Organization Policy Proposals:

The Lt. Governor and the Co-Chairs of the Study Committee should co-sign a letter to NC’s congressional delegation and federal regulatory authorities asking for consideration of limits on national youth-targeted advertising of unhealthy foods and beverages.

As a public service, appropriate communications / media associations should develop a strategic plan for promoting healthy eating and physical activity and encourage members to broadcast and promote the campaign on a local level.

The NC Health and Wellness Trust Fund and Blue Cross and Blue Shield of NC should consider an expansion of the Fit Together television and web site campaign beyond the three year budgeted plan.

Faith-Based Organizations

In NC, faith-based organizations serve a critical role in disseminating health information, especially in rural and urban areas with significant Latino and African-American populations where childhood obesity rates are higher. Realizing that faith-based organizations serve as primary institutions that regularly communicate messages of health and well-being to their members and others in the communities they serve, the Study Committee has made the following recommendation for faith-based consideration:
Agency / Organization Policy Proposals:

Churches and faith-based organizations in NC should:

• Consider the health benefits of serving healthy and nutritious snack options in all children’s activities.
• Serve as community locations for physical activity and nutrition promotion programs.
• Emphasize, through educational programming, preaching, printed resources and modeling, the significance of the “Family Meal” in order to reduce the number of meals eaten away from the home.
• Explore ways in which their proprietary recreational facilities (gyms, playgrounds, ball fields, etc.) might be opened to their member children/families (and, if feasible, non-members) in order to encourage and promote respect for the body through increased physical activity.

Childhood Obesity Data Collection

Body mass index (BMI) is a measure of body fat based on height and weight that applies to both adult men and women. In children and teens, BMI is used to assess underweight, overweight, and risk for overweight. Children’s body fatness changes over the years as they grow. Also, girls and boys differ in their body fat as they mature. This is why BMI for children, also referred to as BMI-for-age, is both gender and age specific.16

One approach to monitoring the status of childhood obesity in NC is measuring and reporting the BMI of school students. States all across the country are investigating the appropriate way of assessing, collecting and reporting child BMI. There is consensus among the Study Committee that this could be done in NC within the next 2-3 years, following the development of best practices from other states. To that end, the Study Committee recommends:

Agency / Organization Policy Proposals:

The NC Health and Wellness Trust Fund should allocate funding to assess the costs, resources and follow up required, and benefits for conducting and tracking BMI assessments of children in NC schools.

Other

Agency / Organization Policy Proposals:

The Lt. Governor and the Co-Chairs of the Study Committee should send letters to the representatives of the packaged food industry in NC commending those that have developed and distributed age-appropriate portion sizes for snack foods and beverages and encouraging other vendors to follow suit.

The Lt. Governor and the Co-Chairs should commend academic and research institutions in NC that have invested in research and outreach to address childhood obesity prevention and treatment. Further, whereas there remains an acute need for further research examining the relationship between physical activity and nutrition with academic performance, the Lt. Governor and the Co-Chairs should encourage these respective institutions to conduct this type of research.
It was a privilege to staff Fit Families NC: A Study Committee for Childhood Overweight/Obesity, commissioned by the NC Health and Wellness Trust Fund (HWTF). Under the leadership of Lt. Governor Beverly Perdue and fellow Commissioners, the HWTF has become one of the state’s leading organizations working to prevent childhood overweight/obesity. Without the support of the Commissioners, Executive Director Jim Davis and the HWTF staff, this Study Committee process and resulting recommendations would not have been possible.

Co-Chairs Dr. Olson Huff, Representative Verla Insko and Senator Bill Purcell provided invaluable guidance and leadership to the Study Committee process. Their facilitation of the committee work and meetings was based on a fair and balanced approach that was critical in arriving at these recommendations. Further, their ability to build bridges among varying and often conflicting interests was critical in developing support for these recommendations among the Committee members and the various stakeholders. They are now committed to moving many of these recommendations into implementation to ensure the future health of our children.

The Study Committee members, representing various perspectives including health, education, industry, city/county government, research and faith-based organizations brought forward a combined set of skills and expertise that enabled our state to move forward in the fight against childhood overweight/obesity. This report represents the very best recommendations and is the product of five regional meetings, two open work sessions, numerous reports, emails, phone conferences, extensive analysis and thoughtful input contributed by the committee, HWTF staff, and various stakeholders. I want to thank each of them for their support, dedication and perseverance in working through the multitude of issues that impact childhood overweight/obesity in NC.

The Study Committee greatly benefited from the testimony of experts who presented at the committee meetings and workshops, including: Kymm Ballard (PE Consultant, NC Department of Public Instruction), Dr. Rodney Shotwell (Superintendent, Macon County Schools), Carmelita Gallo (Department of Transportation, Greensboro, NC), Walter Shepard (NC Academy of Family Physicians), Dr. Douglass Kamerow (Research Triangle Institute and Institute of Medicine), Diana Koennin (Shapedown, WakeMed Hospital), Cindy Brenneman (Blue Cross and Blue Shield of NC), as well as the many individuals and organizations that participated during the open sessions of the meetings.

The committee wishes to acknowledge the helpful guidance and input provided by the NC Department of Public Instruction, the Physical Activity and Nutrition Branch of the NC Division of Public Health, NC Cooperative Extension, NC Department of Transportation, Active Living by Design, the NC Academy of Family Physicians, the Department of Community and Family Medicine at Duke University Medical Center, the NC Soft Drinks Association, the NC Vending Association, and the NC Dietetic Association.

Finally, I would like to thank the HWTF Chair Lt. Governor Beverly Perdue for her unwavering support and leadership in the face of a challenging and complex health issue. As a former teacher and health care professional, she has long been an advocate for children’s health issues and was the catalyst for creating Fit Families NC and the resulting recommendations. She continues to work to ensure that these recommendations are adopted and implemented. In a climate where other states were pointing fingers, Lt. Governor Perdue had the resolve to bring everyone to the table to work together. This vision will greatly improve the health of generations to come. Thank you.
Endnotes

1 NC Department of Health and Human Services, 2002

2 2004 Study - RTI International and Centers for Disease Control and Prevention – Eric Finkelstein, RTI International, and Guijing Wang, CDC

3 The Healthy Lifestyles and Prevention (HeLP) America Act of 2004, 2004 US Senate


6 “About Fit Together”, Fit Together Web site (www.FitTogethernc.org)

7 Originating Charter for Fit Families NC: A Study Committee for Childhood Overweight/Obesity in NC, (http://www.hwtfc.org/htmfiles/fundprty_obesity-FitFamilies.html)

8 Originating Charter for Fit Families NC: A Study Committee for Childhood Overweight/Obesity in NC, (http://www.hwtfc.org/htmfiles/fundprty_obesity-FitFamilies.html)

9 Center for Health Improvement, “Preschoolers Increasingly Overweight – Preventing Childhood Obesity: A Prop 10 Opportunity”, Policy Brief, January 2005

10 Institute of Medicine, “Preventing Childhood Obesity: Health in the Balance”, The National Academies of Press, 2005

11 Institute of Medicine, “Preventing Childhood Obesity: Health in the Balance”, The National Academies of Press, 2005

12 “Eat Smart: North Carolina’s Recommended Standards for All Foods Available in School”, NC Department of Public Instruction, NC Division of Public Health, and NC Cooperative Extension, 2004

13 “School Meals – The First Step to Learning” Lynn Hoggard, Section Chief, Child Nutrition Services, NC Department of Public Instruction - Presentation to Fit Families NC: A Study Committee for Childhood Overweight/Obesity, August 20, 2004

14 “Adolescent Obesity and Inactivity Initiatives”, Walter Shepard, Director of Professional Services, NC Academy of Family Physicians, Presentation to Fit Families NC: A Study Committee for Childhood Overweight/Obesity, December 9th, 2004

15 Remarks from Reverend Emily Odom, Chaplain, Margaret R. Pardee Memorial Hospital, Hendersonville, NC, at the April 7, 2004 meeting of Fit Families NC: A Study Committee for Childhood Overweight/Obesity


17 “Move More: North Carolina’s Recommended Standards for Physical Activity in School”, NC Department of Public Instruction, NC Division of Public Health, and NC Cooperative Extension, 2005
About the NC Health and Wellness Trust Fund:

The NC Health and Wellness Trust Fund (HWTF) makes North Carolina stronger physically and economically, by funding programs that promote preventive health. Created by the General Assembly in 2000 to allocate a portion of North Carolina’s share of the national tobacco settlement, HWTF invests in programs and partnerships related to teen tobacco, prescription drugs, childhood obesity, and health disparities. For more information, please visit www.hwtfc.org.