CHILDHOOD OBESITY: THE EPIDEMIC’S IMPACTS AND POLICY OPTIONS

A FAMILY IMPACT SEMINAR FOR GEORGIA LEGISLATORS

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# TABLE OF CONTENTS

2 ----Executive Summary

4 ----The Epidemic’s Impact and Policy Options
   How Does Georgia Compare?
   Childhood Overweight and the Economic Impact

5 ----Why Are We Seeing More Overweight Children These Days?

6 ----What Are States Doing to Address The Issue?

6 ----Nutrition Education
   Nutrition Education Initiatives and Programs in Georgia

7 ----Recent Nutrition Education Legislation in Other States

7 ----School Vending and Competitive Foods
   Recent Vending Machine Legislation in Other States

8 ----Physical Education in Schools
   Physical Activity Initiatives and Programs in Georgia

9 ----Recent Physical Activity Legislation in Other States

10----Body Mass Index Surveillance of School Children
   Recent BMI Measurement Research in Georgia
   Recent BMI Surveillance Legislation in Other States

10----Obesity Prevention Task Forces
   Current Task Force Efforts in Georgia

11----Recent Task Force Activities and Legislation in Other States

11----Nutritional Standards for Television Advertising
   Recent Advertising Legislation in Other States

11----Community Design and Grocery Availability
   Recent Community Design Legislation in Other States

11----Conclusion

12----References

14----Appendix
   Summary of Obesity Prevention Efforts in Georgia as of November 2004
EXECUTIVE SUMMARY

Childhood obesity is a major health issue facing the United States. According to national surveillance data collected by the CDC, childhood overweight rates have tripled in recent years. In 1970, only 4% of children were overweight; it is now estimated that 16% of children are overweight. This increase in childhood overweight has led to the issue being labeled as a public health threat of the 21st century.

Children in Georgia are facing similar overweight problems. The Georgia Department of Human Resources conducted the Youth Risk Behavioral Surveillance System survey that included self-reported data from middle-school and high-school adolescents. This study found that 13% of middle-school students and that 11% of high-school students were overweight. Another survey conducted in Georgia measured the heights and weights of children and adolescents in the 4th, 8th, and 11th grades. In this sample of children, 20% of the students were overweight.

Healthcare costs have already risen as a result of adult obesity and obesity-related metabolic disorders. A recent study found that obese adults had longer hospital stays than normal weight adults. Overweight children are more likely to become overweight adults. In addition, metabolic disorders that were once adult syndromes are now being seen in children. As a result, children’s healthcare costs have also increased dramatically in recent years.

A number of factors have changed in recent years to account for the rise in childhood overweight. The model in Figure 1 shows the different levels that impact childhood obesity. On the community level, schools and neighborhoods play important roles. The physical activity programs in the children’s schools and the safety and structure of children’s neighborhoods can influence their physical activity behaviors. Communities are sometimes perceived as unsafe or not designed with sidewalks to accommodate biking and walking. The accessibility of nutritious foods in neighborhood grocery stores can influence whether a child is eating fruits and vegetables.

Next, the family level has important influences including the nutritional knowledge of parents as well as their own food preferences and activity patterns. More families have all adults working and less time to prepare meals. As a result, more families rely on convenience foods and fast foods. For children to eat healthier foods and be physically active, these choices must be encouraged within their families.

Lastly, each individual child makes food and activity choices each day. Food trends have also shown that children are snacking more often and eating breakfast less often. Children’s individual activity patterns have also changed. For example, there is wider availability and usage of electronic media such as television, video games, and computer games among children and adolescents.

With education and support from all of these areas, children can be encouraged to make healthier choices. To make a difference in childhood overweight, policies and programs that are directed at all of these levels will have the greatest impact.

Georgia and other states have been targeting the childhood overweight issue in multiple areas that address these different levels. Nutrition education is one area that can help children and their parents make responsible choices. School vending machine choices and physical education classes in schools are other areas for change. Arkansas is monitoring the Body Mass Index (BMI) of school children to track the childhood overweight issue and to determine whether programs and policies are making a difference. Obesity task forces are being formed in Georgia and other states to promote a coordinated effort among state agencies, universities, and health-related organizations. Some states are introducing legislation to set nutritional standards for the television

FIGURE 1: THE MULTIPLE LEVELS OF THE CHILDHOOD OVERWEIGHT ISSUE

COMMUNITY AND SOCIETY CHARACTERISTICS
- Accessibility of Health Food Options in the Community
- Socioeconomic Status
- Crime rates and neighborhood safety
- School Lunch
- Family leisure time and activity
- Ethnicity

PARENTING STYLES AND FAMILY CHARACTERISTICS
- Types of foods available in the home
- Nutrition Knowledge
- Types of foods that child is allowed to eat
- Family TV viewing
- Parents weight, activity, and food preferences
- Parents’ weight, activity, and food preferences

CHILD CHARACTERISTICS
- Dietary Intake
- Gender
- Age
- Genetics
- Sedentary Behavior
- Physical Activity
- Child’s Weight Status

CHILDREN’S WEIGHT STATUS

- Child’s Weight Status
- Child’s Height and Weight Status
advertising that targets children. Other states are exploring how communities are designed and the availability of grocery stores to children in low-income neighborhoods.

In summary, change must occur on multiple levels and in a variety of areas. The childhood overweight epidemic has occurred along with changes that promoted unhealthy eating choices and sedentary lifestyles in our communities, schools, and homes. To reverse this trend, it is reasonable that the childhood overweight epidemic will be most influenced by policies and educational programs that impact a variety of areas on multiple levels.

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### KEY AREAS FOR OBESITY PREVENTION ACTIVITIES

#### Nutrition Education
Children make food choices daily that influence their body weight and health. By educating children, youth, and parents about healthy eating habits, portion sizes, and the importance of eating breakfast, the childhood overweight epidemic may be curbed. As caregivers of young children, parents can benefit from educational efforts to encourage healthy food purchases and preparation methods. Older children and youth typically make their own food choices and need nutrition education that helps them make choices that benefit their long-term health.

#### School Vending and Competitive Foods
Vending machines in schools often contain foods that are less nutritious than foods offered in the school nutrition program. With the passing of the Child Nutrition and WIC Reauthorization Act, all school districts are required to develop local wellness policies that include nutritional standards for all foods in schools, including vending machines and other foods that compete with the school nutrition program. This option allows children to make healthier choices by improving the nutritional content of the choices in the vending machines.

#### Physical Education in Schools
Data from the CDC 2003 Youth Risk Behavior Surveillance System found that only 29% of students in Georgia attended daily physical education classes. Research has shown that physical education not only improves children's physical health, but also their mental health and academic performance. A study by the RAND Corporation found that providing every kindergarten and first grade student with five hours per week of physical education instruction could cut the number of overweight girls in those grades by 43%, and the number of girls in those grades at-risk for being overweight by 60%.

#### Body Mass Index Surveillance
One opportunity for impacting the childhood obesity prevalence is by annually monitoring the BMI-for-age trend among school-aged children. To monitor the BMI-for-age trend, children's heights and weights are measured and then used to calculate the child's BMI on growth charts. By measuring heights and weights annually, school health officials can identify areas in which childhood obesity rates are highest. As school policies and community programs to prevent childhood obesity are put in place, BMI surveillance can help track changes in BMI in response to these programs and policies.

#### Obesity Prevention Task Forces
Some states have established partnerships and task forces responsible for helping states reduce the prevalence of obesity. Through partnerships, these task forces can provide valuable leadership, expertise, and data regarding the impact of proposed legislation.

#### Nutritional Standards for Television Advertising
Recent reports have examined the role of television watching in the development of childhood obesity. It is estimated that children watch about 40,000 television ads each year. Many of these advertisements are for foods and beverages marketed for children. Intervention studies that have included reducing children’s television watching have shown reductions in body mass index, particularly with female children.

#### Community Design
Research that has looked at the barriers to children eating healthfully has found that food availability often influences whether children eat healthy food items. If healthy foods are not easily available in community groceries, children will find it more difficult to improve their eating habits.
CHILDHOOD OBESITY:
The Epidemic's Impacts and Policy Options
A Family Impact Seminar for Georgia Legislators

Overweight among children and adolescents has reached epidemic proportions in the United States. According to a report by the National Institute of Medicine, childhood obesity has been ranked as a critical public health threat by policymakers for the 21st century.1

Data from the National Center for Health Statistics at the Centers for Disease Control has shown a disturbing trend over the last 30 years. According to the National Health and Nutrition Examination Survey (NHANES), the overweight rate has doubled among preschool children and adolescents 12 through 19 years and tripled among children 6 to 11 years of age. It is estimated that 16% of children in the US are overweight.2 The problem is particularly apparent in minority populations. The same study found that 17% of non-Hispanic black males and 23% of non-Hispanic black females 6 to 11 years old were overweight.

How Does Georgia Compare?

Georgia's children are facing similar overweight problems. Using the self-reported height and weight data from the Youth Risk Tobacco Survey (YRTS), the Georgia Department of Human Resources found that 13% of middle school students were overweight and 30% were at-risk-for-overweight or overweight.3 This same survey also found that 11% of high school students were overweight and 27% were at-risk-for-overweight or overweight.3

Another survey conducted in Georgia, the Georgia Childhood Overweight Prevalence Study (GCOPS) assessed overweight prevalence of 4th, 8th, and 11th grade students and found that approximately 20% of the sample was overweight and 36% were at-risk-for-overweight or overweight.4 The discrepancy between the two studies is likely due to differences in how height and weight were measured. In YRTS, the heights and weights were reported by the adolescents, while in GCOPS the heights and weights were measured. Compared to the national data, the sample of Georgia's children from GCOPS has a higher prevalence of overweight (Figure 2). In the national trend, 16% of 6- to 11-year-olds were overweight.2 In the GCOPS study, 21% of the 4th grade students were overweight.4

Childhood Overweight and the Economic Impact

The prevalence of chronic disease associated with adult obesity is rapidly increasing. As a result, adult obesity is impacting healthcare costs. The CDC has reported a study that provides healthcare expenditure estimates based on the 1998 Medical Expenditure Panel Survey (MEPS) and the 1996 and 1997 National Health Interview Surveys (NHIS).5 This study estimated that the total cost of overweight and obesity in the United States was $78 billion.5 This represents 9% of total healthcare expenditures. Approximately half of these expenditures were paid for by the Medicare and Medicaid systems.6

To predict annual state-level estimates of medical expenditures attributable to obesity, these data were then combined with three years of data (1998-2000) from the Behavioral Risk Factor Surveillance System (BRFSS).6 In Georgia, it was estimated that $2.1 billion was spent on obesity-related healthcare expenditures.7 Of this amount, $405 million was paid for by the Medicare system and $385 million from the Medicaid system.7 This amount represented approximately 10% of the Medicaid budget. Another recent study found that obese adults had longer hospital stays than normal weight adults.8

This economic impact of adult obesity is particularly worrisome since overweight children and adolescents are more likely to become obese adults and have obesity-related diseases.8 In fact, with the increased prevalence of childhood overweight, chronic diseases typically associated with overweight in adulthood are already becoming more common during childhood. In one study, it was found that approximately 60% of overweight children 5 to 10 years of age already had one associated cardiovascular risk factor and 25% had two or more risk factors.9

NATIONAL TRENDS IN CHILDHOOD OVERWEIGHT

FIGURE 2: Prevalence of overweight among children and adolescents ages 6-19 years

<table>
<thead>
<tr>
<th>Percent</th>
<th>20</th>
<th>15</th>
<th>10</th>
<th>5</th>
<th>0</th>
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</thead>
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<td>5</td>
<td>6</td>
<td>7</td>
<td>11</td>
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<td>1963-70</td>
<td>6</td>
<td>7</td>
<td>5</td>
<td>11</td>
<td>16</td>
</tr>
</tbody>
</table>

Note: Excluding pregnant women starting with 1971-74. Pregnancy status not available for 1963-65 and 1966-70. Data for 1963-65 are for children 6-11 years of age; data for 1966-70 are for adolescents 12-17 years of age, not 12-19 years. Source: CDC/NCHS and NHANES

FIGURE 3: A Comparison of Georgia's Overweight Trend with National Data (NHANES)

<table>
<thead>
<tr>
<th>GCOPS</th>
<th>NHANES</th>
</tr>
</thead>
<tbody>
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<td>21</td>
<td>18</td>
</tr>
<tr>
<td>22</td>
<td>16</td>
</tr>
<tr>
<td>16</td>
<td>16</td>
</tr>
</tbody>
</table>

4th grade | 8th grade | 11th grade | 6-11 years | 12-19 years

This content is adapted from a family impact seminar for Georgia legislators. It is not intended to be a complete source of information on the subject.
Healthcare costs among children are also rising. By reviewing hospital discharge data, one study found that among youths (ages 6 to 17), diabetes-related discharges nearly doubled and sleep-apnea discharges increased fivefold in a twenty-year period. This trend represented a threefold increase in obesity-associated annual hospital costs: from $35 million during 1979-1981 to $127 million during 1997-1999. With four million overweight children receiving Medicaid benefits, the epidemic must be addressed.

Type 2 diabetes is an example of a related metabolic disorder that accompanies obesity or overweight. Type 2 diabetes used to be termed as “adult-onset” diabetes. Due to the increased prevalence among children, the term “adult-onset” is no longer appropriate. The rates of Type 2 diabetes in children have increased dramatically, particularly among children and adolescents of non-Hispanic Black, Native American, and Hispanic descent. A recent Institute of Medicine report titled Preventing Childhood Obesity suggested that for children born in the year 2000, the lifetime risk of being diagnosed with Type 2 diabetes is 30% for boys and 40% for girls.

The state of Georgia is already seeing the impact of diabetes on the healthcare system. In fact, in the year 2000, diabetes was the number one cause of more than 13,300 adult hospitalizations in Georgia. According to this report, the costs of these hospitalizations were estimated to be more than $138 million.

Increased healthcare costs may not be the only price that Americans pay for the increased prevalence of childhood obesity. This trend could result in decreased workforce productivity when these children become adults. Our military security could also be affected. A study by the Institute of Medicine found that nearly 80% of recruits who exceed the military accession weight-for-height standards at entry leave the military before they complete their first term of enlistment.

**WHY ARE WE SEEING MORE OVERWEIGHT CHILDREN THESE DAYS?**

Several factors could be contributing to the childhood overweight epidemic. These factors are represented in a multiple level model (Page 2/Figure-1).

There have been changes in the eating and physical activity patterns of children as individuals:
- Increased opportunities for sedentary behaviors such as television viewing and playing computer and video games.
- Increased portion sizes and availability of food items and beverages.
- Food trends have shown that children are snacking more often and eating breakfast less often.

There have been changes in physical activity and eating patterns at the family level:
- Families eat out more often.
- More families have all adults working, less time to prepare meals, and rely more on prepared meals and convenience foods.
- The eating and exercise habits of parents influence their children. If a parent is less active or prefers unhealthy foods, their children may mimic their behaviors.
- The nutrition knowledge of parents is very important. If parents have the nutrition knowledge they need to purchase healthy foods and have them available within homes, children will have more opportunities to make healthier choices.

There have also been changes at the community level, particularly in schools and neighborhoods:
- Fewer opportunities for structured physical education and nutrition education in family and consumer sciences courses in schools.
- Many children can no longer walk or bike to school due to perceptions of unsafe neighborhoods.
- Families live in communities designed for driving rather than walking.
- Some communities may not have grocery stores where fresh healthy foods are easily available.

The most effective interventions in factors contributing to the childhood overweight issue must address the different influences of each level.

**DEFINING OBESITY IN CHILDREN**

Obesity in children and adults has some differences in how the terms are used. In both children and adults, Body Mass Index (BMI) is calculated from height and weight and is used to determine weight status.

However, for children and adolescents, other factors must be considered, such as maturation, gender, and age. To account for these factors, children's BMI values are plotted on age-specific and gender-specific CDC growth charts.

If a child is to the 85th percentile on the BMI-for-age growth chart, the child is considered “at-risk-for-overweight.” If the child is to the 95th percentile, the child is considered “overweight.”

To avoid stigma, the terms “at-risk-for-overweight” and “overweight” are used when referring to children and adults and correspond to the BMI values for “overweight” and “obese” for adults.

Despite this technical language, the use of obesity when referring to children is widely accepted. For the purposes of this report, we will use the terms “at-risk-for-overweight” and “overweight.”
WHAT ARE STATES DOING TO ADDRESS THE CHILDHOOD OVERWEIGHT ISSUE?

There are specific legislative actions that state governments are taking to curb the childhood overweight epidemic. This report summarizes some of those action steps.

This report also highlights some of the key activities within the state of Georgia that are addressing the childhood overweight issue.

There are seven areas in which childhood overweight prevention activities are generally conducted: nutrition education, school vending and competitive food recommendations, physical education in schools, body mass index surveillance, obesity prevention task forces, nutritional standards for television advertising, and community design and grocery availability. The following discussion summarizes these key areas for activities:

For each of these areas, Georgia’s current activities will be reviewed. It should be noted that many of the initiatives and coalitions in Georgia are targeting multiple areas to effectively address the obesity epidemic. For example, the Obesity and Chronic Disease Prevention Initiative (“Take Charge of Your Health, Georgia!”) is a major CDC-funded effort of the Georgia Division of Public Health.17 Within this task force initiative, there are work groups targeting breast feeding promotion, healthy eating, physical activity and television viewing. As a result, the Take Charge of Your Health Georgia! Initiative spans multiple areas that will be discussed. The primary activities of this initiative are discussed in the Nutrition Education section. Another example is the Georgia Physical Activity and Nutrition Coalition (G-PAN).18 While this coalition is discussed in the Physical Activity section, it is also considered a task force and has efforts that include nutrition education. To avoid repetition, most of the initiatives and organizations are discussed only in one section. To gain a broader understanding of these initiatives and organizations, the website links provided within the document and in the References section will be helpful.

Legislation that has recently passed in other states is discussed below. The National Conference of State Legislatures provides summaries of state legislative actions.25-27 The National Academy for State Health Policy, a non-profit, non-partisan organization dedicated to helping states achieve excellence in health policy and practice, recently reviewed the actions of 11 states to implement legislation related to childhood obesity.16 These sources were reviewed and referenced throughout this report.

NUTRITION EDUCATION

Nutrition Education Initiatives and Programs in Georgia:
The Georgia Division of Public Health has a variety of current Public Health Nutrition Education Initiatives to address the nutrition education issues surrounding the childhood overweight epidemic. These initiatives include:

Centers for Disease Control and Prevention (CDC)-funded Obesity and Chronic Disease Prevention Initiative (“Take Charge of Your Health, Georgia!”): Georgia’s Division of Public Health was awarded a five-year grant (2003-2008) from CDC to provide leadership to the state for the prevention of obesity and other chronic diseases by promoting good nutrition and physical activity. This grant is one of the major efforts in Georgia to curb the obesity epidemic.

The goal of the initiative is to develop a statewide plan to be followed by specific, evaluated program activities that will improve nutrition and physical activity, emphasizing community partnerships, to reduce overweight, obesity and other chronic diseases across all age groups.

The initiative is currently in the initial phase to develop a comprehensive Nutrition and Physical Activity Statewide Plan for Georgia, in collaboration with the partners across various sectors. The plan will address educational as well as policy and environmental strategies.

The specific programmatic/project implementation phase is anticipated to begin in July 2005 and to be followed by evaluation. Current plans are to award mini-grants to communities to implement projects that will be rigorously evaluated, with the potential to implement additional successful model programs in other parts of the state.

Healthy Georgia Campaign - Education and Awareness:
This public health campaign has focused on the following key health messages: Be Active, Eat Right, Stop Smoking, Get Checked (for cancer). Focus groups around the state are testing the messages and launch is anticipated in early 2005. This campaign would be appropriate to
implement across all state agencies because of its general health and wellness messages. This could become a state-agency initiative with “healthy competition.”

**DeKalb Board of Health – Steps to A Healthier U.S.:**
The DeKalb County Board of Health was awarded a five-year cooperative agreement from the CDC to implement chronic disease prevention efforts focused on reducing the burden of diabetes, overweight, obesity, and asthma and addressing three related risk factors - physical inactivity, poor nutrition, and tobacco use.

**Chronic Disease Prevention Initiative (CDPI):**
Under this initiative, CDPI Coordinators work in each of the nineteen public health districts. These coordinators provide physical activity and nutrition interventions, promote policy and environmental changes and provide education, awareness and training on chronic disease prevention and health promotion. Intervention sites include businesses and other worksites, schools, and other community and healthcare settings.

**University of Georgia (UGA) Cooperative Extension** also has nutrition education programs and initiatives to address the childhood obesity issue.

Cooperative Extension collaborates with state and local public health agencies and community-based organizations to implement nutrition education services targeting diverse audiences, including low-income, racial minorities, and others at high risk for obesity. Cooperative Extension is also an active partner in “Take Charge of Your Health, Georgial” (CDC-funded Obesity and Chronic Disease Prevention Initiative).

Through the Healthy Lifestyles for Youth Initiative, Cooperative Extension agents educate youth on the benefits of healthy eating and being physically active. The nutrition education that Cooperative Extension provides for families, including both youth and their caregivers, plays an important role in the primary prevention of childhood obesity.

**Walk-a-Weigh** is the Cooperative Extension wellness program focusing on the importance of increasing physical activity and healthy eating. Family and Consumer Sciences foods and nutrition education programs, including the Expanded Foods and Nutrition Education Program (EFNEP) and the Family Nutrition Program (FNP), reach limited-income adults with children in the home and youth. Extension nutrition education programs provide practical strategies for putting the Dietary Guidelines for Americans into action. In 2004, EFNEP and FNP alone reached a total of 31,600 adults and 69,000 youth in Georgia counties with nutrition education about portion control, fat reduction, calorie control, increasing whole grains, and fruits and vegetables. These are all strategies that can help clients manage their weight and reduce the risk of obesity.

**Recent Nutrition Education Legislation in Other States**
Other states have recently addressed the issue of providing nutrition education to parents and children through public health departments and public schools. California enacted legislation in 2003 (CA SB 875) that requires state health departments to provide expectant and new parents with an educational brochure about maintaining healthy lifestyles and preventing chronic disease. California had previously enacted legislation in 2001 (AB 1634 and AB 2024) that included nutrition education in the public school health curriculum and in the school education program known as the Before and After School Learning and Safe Neighborhoods Partnership Program. Texas also enacted legislation in 2003 (SB 474) that will form a committee for the purpose of establishing a nutrition and physical activity education program in schools.

**SCHOOL VENDING AND COMPETITIVE FOODS**
With the implementation of The Child Nutrition and WIC Reauthorization Act in 2004, all schools receiving federal funding are now required to establish school wellness policies by the 2006-2007 school year. These wellness policies must establish nutrition guidelines for all foods on school campuses, including foods sold in vending machines and foods that compete with the school nutrition program.

**Recent Vending Machine Legislation in Other States**
Some states have already introduced and enacted legislation to replace existing food and drinks of minimal nutritional value with healthier food items. This option allows children to make healthier choices by improving the nutritional content of the choices in the vending machines. Other states have chosen to restrict student access or remove vending machines.
Arkansas (Act 1220) is the only state that has passed legislation banning vending machines in elementary schools. However, this is not just a state issue. Some cities and local school districts have taken the lead and enacted policies to ban or replace certain foods and beverages in vending machines or restrict student access to the machines.

Two states (Arkansas and California) enacted legislation related to school vending choices in the 2003 legislative session. In the 2004 legislative session, four more states (Colorado, Louisiana, Tennessee, and Washington) enacted legislation to improve nutritional standards of school vending and competitive foods. In the 2005 legislative session, Kentucky also implemented legislation regarding school vending choices.

California Senate Bill 677 (Chapter 415) bans vending machine sales of carbonated beverages to elementary, middle and junior high school students and replaces them with milk, water, and juice. It also limits access in middle and junior high schools from one-half hour before the start of the school day to one-half hour after the end of the school day. It exempts sales of certain beverages at specified school events.

Colorado Senate Bill 103 (Chapter No. 166) encourages each school district board of education to adopt a policy on or before July 1, 2004 providing that, by the 2006-07 school year, at least 50% of all items offered in vending machines in each school district be healthful foods or healthful beverages. The foods and beverages must meet acceptable nutritional standards.

Tennessee House Bill 2783 (Chapter No. 708) requires the state board of education, in consultation and cooperation with the department of education and the department of health, to establish minimum nutritional standards for individual food items sold or offered for sale to pupils in grades K-8 through vending machines or other sources, including school nutrition programs. A school may permit the sale of food items that do not comply with the above as part of a school fund-raising event if students sell food items off of school premises and at least one-half hour after the end of the school day.

Legislation passed during a March 2005 legislative session in Kentucky has banned sales of sugary soft drinks in elementary schools from vending machines and school stores during class hours. This legislation will also permit schools to sell commercial fast-food lunches only once per week. The legislation also orders food service directors to issue public reports assessing schools’ nutrition and exercise progress. The state Education Department will set regulations on sugary and fatty foods sold in school lunch lines and vending machines. Soft drinks sold at middle and high schools also will be regulated.

Other states are collecting more data to determine the best legislative options. For example, the Arizona Department of Education conducted a study to determine the financial impact of having schools offer healthier vending choices. The study looked at the financial impact to schools of substituting healthier snacks for less healthy snacks and sodas. The results of the study were recently reported by The Arizona Republic. They showed that schools made as much money selling healthier choices as they had with the higher-fat and sugar choices. This study was done before legislative action (House Bill 2544) to ban soft drinks and require healthier choices in vending machines was introduced.

**PHYSICAL EDUCATION IN SCHOOLS**

**Physical Activity Initiatives and Programs in Georgia:**

Policy Leadership for Active Youth (PLAY) is a three-year policy research initiative of the Georgia State University Institute of Public Health in partnership with the Georgia Center for Obesity and Related Disorders (GCORD) of the University of Georgia and the Medical College of Georgia. PLAY collaborates with other stakeholders to identify promising strategies to increase physical activity, decrease sedentary behaviors, and prevent childhood overweight. The PLAY initiative recently wrote a policy brief in collaboration with the Healthcare Georgia Foundation to provide recommendations for physical activity in schools, identify elements of successful school-based physical activity, and summarize the science behind these recommendations.

Website: [http://www.healthcaregeorgia.org/HealthVoices_Overweight.pdf](http://www.healthcaregeorgia.org/HealthVoices_Overweight.pdf)

Georgia Coalition for Physical Activity and Nutrition (G-PAN): The major statewide coalition for nutrition and physical activity in Georgia, with over 200 partners. G-PAN is also partnering with PLAY to identify and implement strategies to address the prevention of overweight in children.

Website: [http://www.g-pan.org/](http://www.g-pan.org/)

Go Girl Go: An Atlanta Campaign by the Women’s Sports Foundation is a community-based program designed to help girls aged 8-18 be physically active. The program is helping prevent
100,000 girls currently active from dropping out of physical activity and another 100,000 girls to begin engaging in physical activity.
Website: http://www.gogiriro.com/

**Kids on the Move:** This program was developed by Children's Healthcare of Atlanta for children to reduce cardiovascular risk factors such as obesity and decreased opportunities for physical activity in high-risk children ages 8 to 12 in Atlanta. It incorporates physical activity (non-competitive), healthy snacks, interactive healthy eating sessions and positive self-esteem.
Website: http://www.gse.harvard.edu/hfrp/projects/afterschool/mott/kotm.html

**KidsWalk to School (Safe Routes to School):** This campaign is supported by PEDS, a member-based advocacy organization dedicated to making metro Atlanta safe and accessible for all pedestrians. This initiative is aimed at increasing the number of children and adolescents walking to school. The **KidsWalk to School Action Plan** includes evaluating walking conditions around schools, educating parents, children, and educators about the benefits of walking, and organizing safe walking routes with parental supervision to schools.
Website: http://www.peds.org/prog_kidswalk.htm

**Steps to a Healthier US in DeKalb County:** DeKalb County has been awarded a grant from the Department of Health and Human Services. The **Steps to a Healthier US** 5-year cooperative agreement program funds states, cities, and tribal entities to implement chronic disease prevention efforts focused on reducing the burden of diabetes, overweight, obesity, and asthma and addressing three related risk factors: physical inactivity, poor nutrition, and tobacco use. This grant will include school-based physical activity initiatives for children and adolescents.
Website: http://www.healthierus.gov/steps/grantees/2004/dekalb.html

**Take 10!**: A school-based physical activity program developed for students in kindergarten through fifth grade. The program activities link academic curriculum requirements in math, science, language arts, and social studies with 10-minute periods of physical activity. **Take 10!** was developed by the International Life Science Institute Center for Health Promotion. The center was founded to address nutrition and physical activity issues in Atlanta.
Websites: http://www.take10.net/ and http://www.ilsi.org/

**Tiger Tracks:** Tiger Tracks is a 14-week school-based program in which students in primary, elementary, middle, and high schools log their physical activity on a weekly basis. Students receive small incentives for each five miles of walking or equivalent activity. The Tiger Tracks program is a component of the Washington-Wilkes Community Health Promotion Project, a community-based program to reduce overweight and related diseases in Wilkes County.

**RECENT PHYSICAL ACTIVITY LEGISLATION IN OTHER STATES**

According to the National Conference of State Legislatures, forty-eight states have some type of physical education requirement, but only Illinois currently requires daily physical education for school children. Waivers may be granted. Recent proposed legislation has focused on refining or increasing physical education requirements or encouraging positive physical activity programs for students at recess or other opportunities for physical activity at school.

Legislation enacted in Connecticut (CT HB 5344) in 2004 requires schools to offer a daily recess period for physical activity for all students attending full-day classes. Louisiana (SB 871) also enacted legislation that requires 30 minutes of daily activity in the elementary schools. The legislation also establishes and provides awards for schools with outstanding physical activity and nutrition programs. A three-year pilot program in seventh through tenth grades will also be funded to measure health-related fitness and changes in weight status.

Under new legislation (SB 2372) passed in 2004, schools in Florida are encouraged to help students obtain 60 minutes of physical activity each day during and after school. Schools in which children improve their physical activity will be recognized as excellent by a program that is under development. Florida also mandated that studies be done to determine the current status of physical education programs in the schools. Kentucky passed legislation in March 2005 that encourages schools to implement 30 minutes of daily exercise in elementary schools.
BODY MASS INDEX (BMI) SURVEILLANCE OF SCHOOL CHILDREN

Recent BMI Measurement Research in Georgia:
One of the recommendations from the GCOPS study was that monitoring of height and weight be conducted as an on-going school-based effort. In the GCOPS study, school nurses were trained to conduct height and weight measurements.

Recent BMI Surveillance Legislation in Other States
Arkansas recently passed legislation (Act 1220) to combat obesity and related illnesses in school-age children. The legislation includes a requirement for annual BMI measurement of school children. The BMI will also be reported to parents. The University of Arkansas for Medical Sciences and the Arkansas Center for Health Improvement will work together to establish and maintain a database that contains the BMI of every school-aged child in Arkansas from kindergarten through 12th grade.31

OBESITY PREVENTION TASK FORCES

Current Task Force Efforts in Georgia:

Action for Healthy Kids (AFHK): AFHK is a nationwide initiative dedicated to improving the health and educational performance of children through better nutrition and physical activity in schools.32 AFHK originated with the 2002 Healthy Schools Summit and is composed of 51 State Teams and a national coordinating and resource group.

Georgia Center for Obesity and Related Disorders (GCORD): GCORD is a joint program between the Medical College of Georgia and the University of Georgia composed of externally-funded investigators interested in the prevalence, impact, prevention and treatment of obesity and related disorders in Georgia. The center hopes to build strategic partnerships with health, education, and business professionals throughout Georgia.33

Georgia Coalition for Physical Activity and Nutrition (G-PAN): GPAN is a collaboration of public, private, and non-profit organizations and businesses whose mission is to improve the health of all Georgians by promoting healthy eating and physical activity.18

Georgia Obesity Action Network: The Obesity Action Network, a group of experts assembled by the Nutrition Section in cooperation with the Georgia Chapter of the American Academy of Pediatrics, helps Public Health plan efforts to reduce obesity.34 Activities of Network members include efforts to (1) improve assessment and monitoring and increase awareness of child obesity in Georgia, (2) stimulate preventive efforts through community-based programs and (3) improve treatment practices through development of treatment guidelines for use by health professionals.35

Georgia Strategic Industries Task Force: Governor Sonny Perdue has formed a team of business leader volunteers for the Commission for a New Georgia. The Commission then recruited senior business leaders and pro bono consultants to form the Georgia Strategic Industries Task Force.36 The Georgia Strategic Task Force was charged with the task of bringing a more business-like approach to state government. According to the Commission for a New Georgia's website, the Commission's assignment is to bring breakthrough thinking from a fresh perspective to ways state government can better manage its assets and services and map its strategic future.36 One of the focuses for the Georgia Strategic Industries Task Force is the healthcare industry in Georgia.

Philanthropic Collaborative for a Healthy Georgia: The Collaborative launched its childhood obesity initiative in 2003, having previously worked on other health initiatives including teen pregnancy prevention. The purpose of the Collaborative is to inform, engage, and energize Georgia’s foundations and other grant makers to support community projects to reduce the incidence of childhood obesity in Georgia. Currently, they hope to support a statewide school-based child fitness survey. This survey can serve as baseline information for our other prevention activities. The Healthcare Georgia Foundation, an Atlanta-based independent private foundation created in 1999, is part of the Philanthropic Collaborative, and is particularly active in their efforts to promote prevention of childhood obesity. Their major childhood obesity funding activities include the Policy Leadership for Active Youth (PLAY) described above, and expansion of the 2004/2005 Georgia student health surveys to be conducted jointly by the Georgia Division of Public Health and the Department of Education.
"Take Charge of Your Health, Georgia!": The CDC-funded Obesity and Chronic Disease Prevention Initiative (see Nutrition Education section for a detailed description of activities) is an over-arching collaborative effort led by the Georgia Division of Public Health that targets obesity in all age groups. This initiative includes community partnerships and regional networks to comprehensively address the obesity issue throughout the state of Georgia.

RECENT TASK FORCE ACTIVITIES AND LEGISLATION IN OTHER STATES
Some states have established partnerships and task forces responsible for helping states reduce the prevalence of obesity. For example, the state of Michigan has the Governor’s Council on Physical Fitness, Health & Sports. The purpose of the council is to promote physical activity through health behavior changing programs designed to help get Michigan citizens moving.

In North Carolina, a partnership called the North Carolina Healthy Weight Initiative has started. This partnership involves state agencies, academic, and non-profit groups. By working together, the Healthy Weight Initiative has formed a state plan for dealing with the childhood obesity epidemic and has begun implementing their recommendations and strategies in the plan.

These task forces and partnerships can partner to provide valuable data regarding the impact of proposed legislation. For example, Illinois has enacted legislation that requires the Department of Education and Department of Health to partner in a study to measure the impact of sugar consumption on the overall health of school children. Similarly, West Virginia enacted legislation that would require the joint committee on government and finance to conduct a study on the childhood obesity epidemic in West Virginia and its relationship to chronic disease, poor nutrition, and inadequate exercise.

According to NCSL, states with established task forces as of 2002 included Arkansas, Maine, New York, Texas, and Rhode Island. States with legislative proposals to create childhood obesity task forces, commissions or studies in 2003-2004 included Illinois, a proposed Maine study focusing specifically on childhood obesity and methods to decrease healthcare costs, and Nebraska, New Mexico, Rhode Island, and West Virginia.

NUTRITIONAL STANDARDS FOR TELEVISION ADVERTISING
Recent Advertising Legislation in Other States
California has recently passed legislation that calls upon the Federal Trade Commission to develop and implement nutrition standards for foods and beverages advertised to children. This legislation will also ensure that equal time is given during television programs with significant youth audiences to encourage fruit and vegetable consumption and physical activity. In addition, the food industry and food marketers in California will be asked to adhere to voluntary guidelines, developed by experts, for responsible food and beverage advertising to children.

COMMUNITY DESIGN AND GROCERY AVAILABILITY
Recent Community Design Legislation in Other States
Pennsylvania has passed legislation (PA HR 13) in 2003 to examine the problem of lack of supermarkets in urban and underserved communities in Pennsylvania. During the 2004 legislative session, additional legislation (PA SB 1026) provided economic development financing that may be used, among other purposes, to encourage the development of supermarkets in underserved areas throughout the state, including urban and rural communities.

CONCLUSION
Increasing rates of childhood overweight and obesity are not unique to Georgia, but our state is experiencing trends that are higher than most other states. Without effective intervention, the resulting private and public costs will become enormous. Research has identified many of the reasons for increasing obesity, but many of the public policies enacted in other states to reverse these trends have not been in effect long enough to be thoroughly assessed.

At least two strategies are important as a foundation for whatever policies are implemented: creating a process for systematically tracking rates of overweight among children, and promoting continued collaboration among individuals, families, and community agencies to ensure consistent, effective interventions.
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33. Georgia Center on Obesity and Related Disorders. Online: http://www.biomed.uga.edu/gcord.html


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I. Overarching collaborative efforts led by Public Health across all age groups

- Centers for Disease Control and Prevention (CDC)-funded Obesity and Chronic Disease Prevention Initiative (“Take Charge of Your Health, Georgia!”): Georgia’s Division of Public Health was awarded a five-year grant (2003-2008) from CDC to provide leadership to the state for the prevention of obesity and other chronic diseases by promoting good nutrition and physical activity.
- The goal of the initiative is to develop a statewide plan to be followed by specific, evaluated program activities that will improve nutrition and physical activity, emphasizing community partnerships, to reduce overweight, obesity and other chronic diseases across all age groups.
- Funding of approximately $3.5 million over 5 years.
- The initiative is currently in the initial phase to develop a comprehensive Nutrition and Physical Activity Statewide Plan for Georgia, in collaboration with the partners across various sectors. The plan will address educational as well as policy and environmental strategies.
- Specific programmatic/project implementation phase is anticipated to begin in July 2005, to be followed by evaluation. Current plans are to award mini-grants to communities to implement projects that will be rigorously evaluated, with the potential to implement additional successful model programs in other parts of the state.

- Healthy Georgia Campaign - Education and Awareness:
  - Key messages: Be Active, Eat Right, Stop Smoking, Get Checked (for cancer).
  - Focus groups around the state in progress to test messages.
  - This campaign would be appropriate to implement across all state agencies because of its general health and wellness messages. This could become a state-agency initiative with “healthy competition.”

- DeKalb Board of Health – Steps to A Healthier U.S.: Five-year cooperative agreement for DeKalb County Board of Health from CDC to implement chronic disease prevention efforts focused on reducing the burden of diabetes, overweight, obesity, and asthma and addressing three related risk factors - physical inactivity, poor nutrition, and tobacco use.

- Chronic Disease Prevention Initiative (CDPI)
  - CDPI Coordinators are in each of the nineteen public health districts
  - Coordinators provide physical activity and nutrition interventions, promote policy and environmental changes and provide education, awareness and training on chronic disease prevention and health promotion.
  - Intervention sites include businesses and other worksites, schools, and other community and healthcare settings

II. Georgia Initiatives Focusing on Children and Youth

- Policy Leadership for Active Youth (PLAY): a three-year policy research initiative of the Georgia State University Institute of Public Health, in partnership with the Georgia Center for Obesity and Related Disorders (GCORD), the University of Georgia, and the Medical College of Georgia.
- PLAY collaborates with the Georgia Coalition for Physical Activity and Nutrition (G-PAN) and other stakeholders such as Public Health to identify and assimilate emerging and promising strategies to increase physical activity, decrease sedentary behaviors and prevent childhood overweight with emphasis on providing the scientific expertise to direct innovative health policy to address these health problems in Georgia.
Georgia Coalition for Physical Activity and Nutrition (G-PAN): The major statewide coalition for nutrition and physical activity in Georgia, with over 200 partners. Recently became an America on the Move affiliate – Georgia on the Move to be launched Fall 2004. Partnering with PLAY to identify and implement strategies to address the prevention of overweight in children.

Philanthropic Collaborative for a Healthy Georgia: The Collaborative launched its childhood obesity initiative in 2003, having previously worked on other health initiatives including teen pregnancy prevention. The purpose of the Collaborative is to inform, engage, and energize Georgia’s foundations and other grantmakers to support community projects to reduce the incidence of childhood obesity in Georgia. Currently, they hope to support a statewide school-based child fitness survey. This survey can serve as baseline information for other prevention activities. The Healthcare Georgia Foundation, an Atlanta-based independent private foundation created in 1999, is part of the Philanthropic Collaborative, and is particularly active in efforts to promote prevention of childhood obesity. Their major childhood obesity funding activities include the Policy Leadership for Active Youth (PLAY), and expansion of the 2004/2005 Georgia student health surveys to be conducted jointly by the Georgia Division of Public Health and the Department of Education.

III. Nutrition and Physical Activity Strategies

Public Health-based assets to promote Healthy Eating/Nutrition
- The WIC program is offered in each of the 19 public health districts; provides nutrition education (group and individual) to Georgia families with children aged birth-5 years – during the important formative years. Strategies to address overweight in children are mandated by the WIC State Office. Special programs have been launched to address nutrition and physical activity in this population including LaGrange’s Families Understanding Nutrition (FUN) Club for parents/caregivers and toddlers.
- WIC Farmer’s Market Nutrition Program is offered in certain counties to increase access to fresh fruits and vegetables and support local Georgia farmers.
- 5-A-Day Committee (subcommittee of the Georgia Coalition for Physical Activity and Nutrition) promotes vegetable and fruit consumption in communities, schools and worksites.
- Public Health’s Dietetic Internship Program coordinates an accredited dietetic internship program (approved by the American Dietetic Association) to enhance the capacity of public health’s nutrition workforce to become Registered and Licensed Dietitians.

Promotion of Physical Activity
- Golden Olympics held annually since 1983 for older adults, includes statewide events.
- Georgia Striders walking program for older adults to improve physical activity levels.
- Various local walking clubs and physical activity programs in conjunction with park and trail enhancement.
- Boost Pedometer programs at the state and local levels — a gradual, realistic program to meet and exceed the recommended health goal of taking “10,000 steps a day.”

Breastfeeding
- Breastfeeding support groups and education offered through the WIC program and breastfeeding coordinators in every health district
- Loving Support Campaign Georgia will be launching this social marketing campaign to support breastfeeding throughout the state in the late Fall 2004.
- Peer Counselors Program will be implemented through the WIC program to support breastfeeding mothers.

Policy and Environmental Interventions
- DeKalb Board of Health facilitated the adoption of the nutrition and physical education policy in the DeKalb county school system. Policy to include mandatory fitness testing K-5, implementing the School Health Index and daily physical education from K-12.
- Fit to Eat restaurant program launched in 2002 in Floyd County promotes smoke-free dining environments and healthy meal alternatives in local participating restaurants. Participating restaurants have their names posted on the Fit to Eat website (www.fittoeat.org) and included in community resources.
- Local public health districts in partnership with schools are implementing the School Health Index to assess the nutrition and physical activity school environment. Schools have used this information to develop action plans to improve the nutrition and physical activity environment.
Childhood Obesity: What Are the States Doing?

Georgia Family Impact Seminars

District Parks and Trails Project to improve access to places for physical activity in various health districts such as Macon, Waycross, LaGrange and Rome.

Worksite Wellness Initiatives

- **Healthy Solutions** workshops for businesses across the state help identify high risk employees and promote risk reduction programs within the worksite.
- **Health Matters** program for State Public Health employees. Launched in 2002, employee wellness program to promote physical activity and improved eating behaviors through educational and skill-building programs, periodic health screenings and improving the work environment.
- Throughout the state there are **Worksite Wellness initiatives** aimed at improving employee health by encouraging healthy behaviors (e.g., healthy diet, physical activity) and providing screening for asymptomatic disease. Sites include Augusta, Columbus, Rome, Brunswick, Macon, and Gainesville. An Athens **worksite vending project** launched in October 2003, offers healthier choices to employees.

IV. Public Health Data and Surveillance for planning and evaluation:

Public Health has implemented the following surveillance and data collection activities to improve our tracking of child and adult obesity in Georgia:

- **Established systems**
  - **Behavioral Risk Factor Surveillance System** – self-reported height and weight, adults (18+ years), annual since 1984. Also includes other behavioral risk factors including diet, reported physical activity, tobacco use, influenza shots, etc.
  - **WIC** – measures height and weight for enrolled children 2-4 years, annual since 1993.

- **Other surveys and systems in development**
  - **Oral health survey** – to measure height and weight, grade 3, scheduled for 2005;
  - **Philanthropic Collaborative-supported child fitness survey** – will measure weight, height, and fitness in grades 5 and 8, tentatively scheduled for 2006. Public health is providing financial support and scientific and technical expertise to these activities.