

Executive Summary

Childhood obesity is a major health issue facing the United States. According to national surveillance data collected by the Center for Disease Control, 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.

A number of factors have changed in recent years to account for this rise in childhood overweight. More families have two parents working and less time to prepare meals. As a result, more families rely on convenience foods and fast foods. Food trends have also shown that children are snacking more often and eating breakfast less often. Children's activity patterns have also changed. Children have fewer opportunities to be physically active during the school day. Communities are often unsafe or not designed to include sidewalks to accommodate biking and walking. There is wider availability and usage of electronic media such as television, video games, and computer games among children and adolescents.

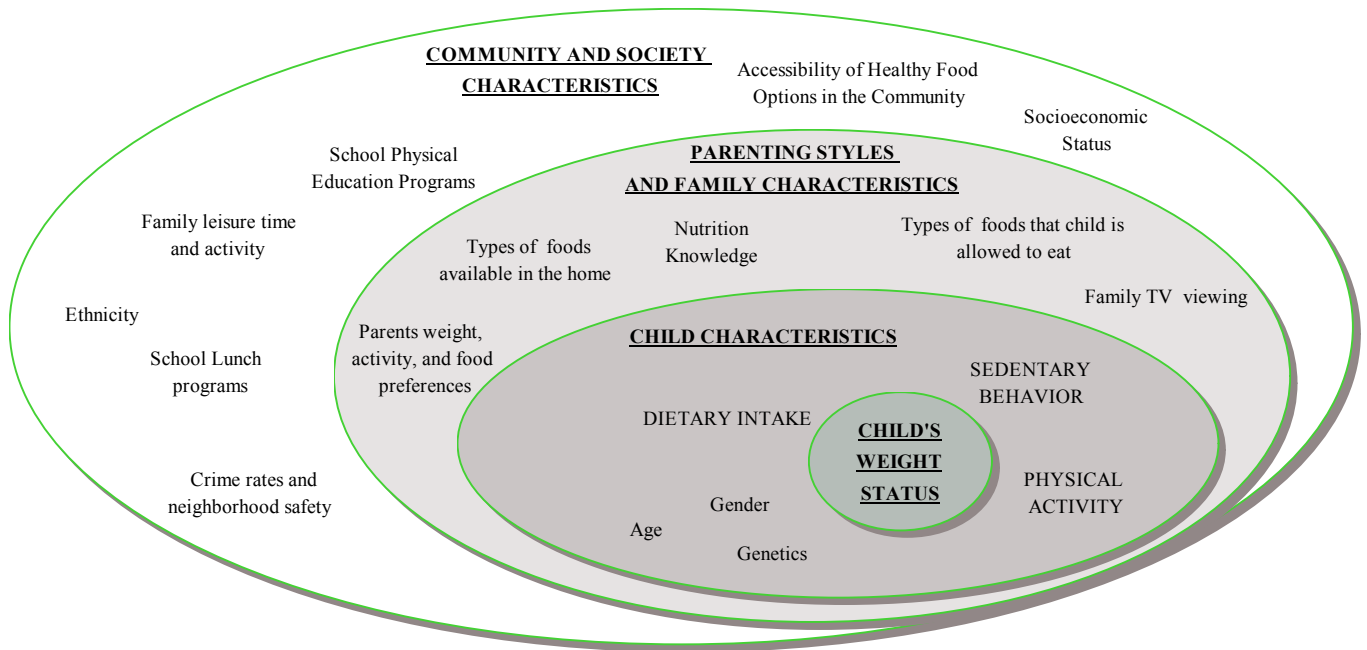
Healthcare costs have already risen as a result of adult obesity and obesity-related metabolic disorders. A recent study found that obese adults had longer hospital stays than normal weight adults. Overweight children are more likely to become overweight adults. In addition, metabolic disorders that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

Childhood overweight is influenced by a variety of factors on multiple levels (Figure 1). First, 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. The accessibility of nutritious foods in neighborhood grocery stores can determine whether or not a child is eating fruits and vegetables.

The family level has important influences including the nutritional knowledge of parents as well as their own food preferences and activity patterns. For children to eat healthier foods and be physically active, these choices must be encouraged within their family environments. Lastly, each individual child makes food and activity choices each day. With education and support from all of these areas, children can be encouraged to make

healthier choices. To make a difference in the childhood overweight, policies and programs must be directed at all of these levels.

Figure 1: The Multiple Levels of the Childhood Overweight Issue



Reference: Davison KK & Birch LL. (2001). Childhood overweight: a contextual model and recommendations for future research. *Obesity Reviews*, 2, 159 - 171.

There has been recent federal action, The Child Nutrition and WIC Reauthorization Act of 2004, that includes provisions which assists in this effort. Georgia as well as 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 is another area that is being addressed. Physical education classes in schools are another area for change. Arkansas is monitoring the Body Mass Index (BMI) of school children to keep tabs on the childhood overweight issue and to determine whether or not programs and policies are making a difference. Obesity task forces are being formed in Georgia as well as other states to encourage a coordinated effort among state agencies, universities, and health-related organizations. Some states are introducing legislation to set nutritional standards for the television 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.

Key Areas for Obesity Prevention Activities

Nutrition Education	Children must daily make food choices 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 will be 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 Center for Disease Control 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 a child'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 school districts 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 taskforces 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 or not children eat healthy food items. If

healthy foods are not easily available in community groceries, children will not be able to improve their eating habits.