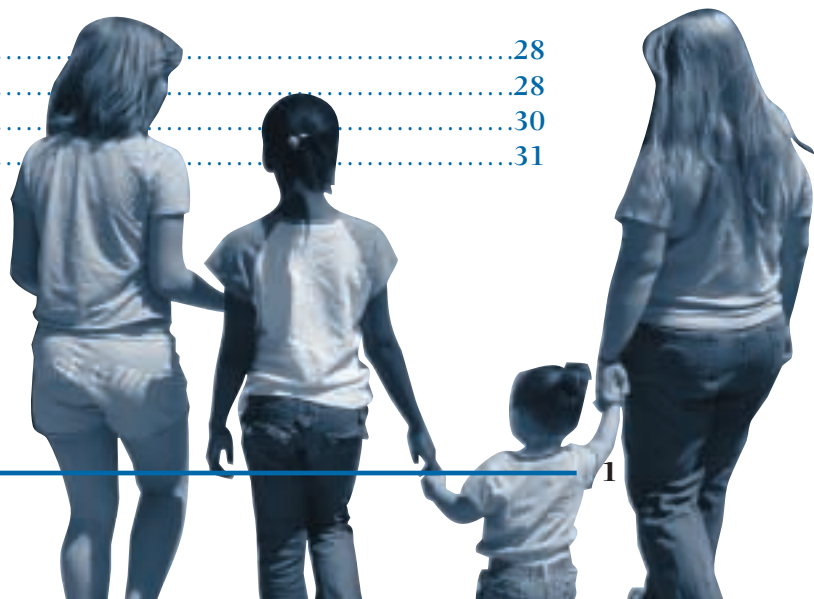


Memphis Town Meeting Participant Guide

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January 21, 2006

Welcome and thank you for being here today.

Joining you today are hundreds of people from across Memphis and the Mid-South region. A wide variety of ages, cultures, backgrounds, and experiences are represented in this room. The one thing that we all have in common is our interest in improving the health of our children. We have come together today to hear the viewpoints of our neighbors and fellow residents, to share individual perspectives and ideas, and to create the beginnings of a common, prioritized agenda for increasing physical activity and improving the nutrition of America's youth.

As you take part in the *Shaping America's Youth* Town Meeting, you'll have a chance to voice your thoughts on an important issue facing our community: the epidemic of childhood obesity. Together we'll look at the issues and priorities surrounding this problem. We'll also work to identify the steps our community and our nation need to take to reverse this trend.

Through your participation in the *Shaping America's Youth* Town Meeting, you are making a difference. You are giving our children a gift today with the time, energy, and ideas that you bring to this issue. On their behalf, we thank you.

Sincerely,

A handwritten signature in blue ink that reads "David A. McCarron, MD".

David A. McCarron, MD, FACP
Executive Director, Shaping America's Youth

A handwritten signature in blue ink that reads "MD Jensen, MD".

Michael D. Jensen, MD
Professor of Medicine, Mayo Clinic College of Medicine
President, Shaping America's Health

A handwritten signature in blue ink that reads "Christie Upshaw Travis".

Christie Upshaw Travis
CEO, Memphis Business Group on Health
Chair, Healthy Memphis Common Table

I. Town Meeting: Who, What, and Why

What is *Shaping America's Youth*?

Shaping America's Youth was created in 2003 as a public and private initiative. Its goal is to bring together the efforts of the many groups and programs working to combat physical inactivity and inadequate nutrition. *Shaping America's Youth* (SAY)

strives to identify the most effective approaches for reducing excess weight in childhood, and the best ways of putting those approaches into action. In August 2005, SAY became an initiative of a new voluntary health organization chartered by the American Diabetes Association, *Shaping America's Health: Association for Weight Management and Obesity Prevention* (www.obesityprevention.org).



Shaping America's Youth has developed an online survey to collect information from programs throughout the U.S. that are involved in efforts to reduce obesity in young people. Information from more than 1000 programs is available in the searchable registry at www.shapingamericasyouth.org. The *Shaping America's Youth* website also provides information on the latest news and publications, meetings and events, and funding opportunities related to childhood obesity.

SAY's next step is to engage communities in efforts to improve physical activity and nutrition in children through a series of SAY Town Meetings. These meetings, which are being held in cities across the country, are open to everyone with an interest in improving children's nutrition and physical activity in their community. Recognizing that this health crisis is going to be resolved primarily where we live – in our homes and communities – the town meetings offer local citizens the chance to share their ideas, views, and priorities and to participate directly in identifying ways in which we can solve this problem and shape healthier kids.

SAY'S long-range goal is the development of a National Action Plan, a carefully charted course for improving nutrition and physical activity in young people in America. The National Action Plan will be based on the information acquired through the SAY website and the feedback gathered at the town meetings. The Plan will incorporate input from interested parties all across society – children and corporate leaders, parents and politicians, families and physicians. The National Action Plan will provide the unified direction and common language that we need to improve our children's health and our nation's future.

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What is *Shaping America's Health*?

Shaping America's Health: Association for Weight Management and Obesity Prevention is a new organization designed to bring focus, clarity, and resources to the health care challenges posed by excess weight and obesity. The mission of *Shaping America's Health: Association for Weight Management and Obesity Prevention* is to prevent excess weight and obesity, and to facilitate a better scientific understanding of weight management. *Shaping America's Health* is a unique approach to the obesity issue. It will blend science with public policy, using both a scientific and a community-based approach.

Shaping America's Health will begin addressing the public health challenges of obesity immediately through its first initiative, *Shaping America's Youth (SAY)*. In the coming months, *SAY* will conduct regional town meetings in four cities across the U.S. Each of these meetings will engage a broad cross-section of more than 1,000 concerned citizens in the region. Currently, events have been scheduled for Memphis (September 2005) and Dallas (February 2006).

To fulfill its goals of developing clinical guidelines and best practices for health care professionals, *Shaping America's Health* will work in partnership with the North American Association for the Study of Obesity (NAASO), the leading scientific society dedicated to the study of obesity. Jointly, the two organizations will recruit scientists and clinical experts in the fields of obesity and metabolism. These experts will serve as volunteers on committees to review the scientific and medical literature, issue guidance for health care professionals who treat patients with excess weight or obesity, and publish research through NAASO's peer-reviewed journal *Obesity Research*.

"The new organization will provide leadership and authoritative information to help families and communities make improved nutrition and greater physical activity a priority, especially for children."

Michael Jensen, MD,
President of *Shaping America's Health:
Association for Weight Management and Obesity Prevention*

Healthy Memphis Common Table (www.healthymemphis.org)

The Healthy Memphis Common Table (HMCT) is a 501(c)(3) non-profit organization whose mission is to support and encourage people working together to improve the health of everyone in our community. HMCT serves as a regional health and healthcare improvement collaborative for the entire Mid-South, an area of about 150 miles surrounding Memphis, Tennessee.

Healthy Memphis Common Table consists of over 100 Community Partners representing businesses, government, schools, healthcare providers, media, fitness centers, food sources, faith-based groups, and other health promoting organizations. These Community Partners have come together around a "common table" to address community health problems that no one organization can overcome alone. The first initiative is focused on reversing the increase in obesity and diabetes by 2008. Nineteen projects involving Community Partners are currently underway addressing education and awareness, screening, disease management, and the business case for decreasing these trends.

HMCT is a dynamic organization and will develop work groups to address other community health issues as progress is made on obesity and diabetes and the need for community-wide collaboration for other issues is identified.



Shaping America's Youth

Tennessee Healthy Weight Network (tnhealthyweight.org)



The Tennessee Healthy Weight Network is the collaboration of over 30 health, education, and social services organizations across TN in an effort to promote healthy weight among children and youth in our state. The THWN developed a comprehensive state plan for local implementation by schools, child care facilities, families, communities, and health care providers. The plan consists of evidence-based recommendations for each stakeholder group to promote healthy weight in children and youth.

TENNESSEE HEALTHY WEIGHT NETWORK

“Eat Smart . . . Move More . . . Tune In” is the action-oriented message to unify the healthy weight initiative to be delivered by public and private agencies and organizations across the State. *Eat Smart* identifies food choices and environmental changes that will empower children to make appropriate food choices. *Move More* highlights energy expenditure and community-wide changes that will increase opportunities for physical activity. *Tune In* focuses on the ability to identify and act on appropriate internal cues for eating, respect for self and others, and the importance of adults modeling healthy eating and physical activity behaviors.

The Tennessee Healthy Weight Network also works at the State level to encourage adoption of State policies to aid local efforts, to ensure buy-in of critical private and public groups/organizations, to establish a statewide awareness/media program for the initiative, to secure funding, and to plan and implement a surveillance and research program to reduce overweight in Tennessee.

What is a 21st Century Town Meeting®?

Created by *AmericaSpeaks*, the 21st Century Town Meeting is a unique process that updates the traditional New England town meeting to address the needs of today's citizens, decision makers, and democracy. The 21st Century Town Meeting focuses on discussion and deliberation among citizens rather than speeches, question-and-answer sessions, or panel presentations.

Examples of 21st Century Town Meetings:

- In 2002, *AmericaSpeaks* convened more than 5,000 New Yorkers in face-to-face and online deliberations about the redevelopment of Ground Zero;
- In 2004, *AmericaSpeaks* convened more than 1,000 residents of Charlotte, NC to create a “United Agenda for Children;” and
- In 2005, *AmericaSpeaks* facilitated a “Global Town Hall” at the World Economic Forum in Davos, Switzerland in which 700 world leaders came to consensus on the six priority issues facing the world that most need our attention and resources.

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What is AmericaSpeaks?

AmericaSpeaks, a non-partisan, non-profit organization, was founded in 1995 to engage citizens in public decision-making. Recognizing the increasing disconnect between the American people and their government, the organization is dedicated to making sure citizens participate more directly, and with greater impact, in the policy-making that deeply affects them. AmericaSpeaks also actively works to strengthen the field of deliberative democracy, spearheading opportunities for collaboration between researchers and practitioners in the U.S. and internationally.

What is the National Action Plan?

Although it's widely recognized that excess weight, poor nutrition, and physical inactivity are undermining the health of America's children, there is a critical lack of agreement on the most effective way to address the problem. By developing a National Action Plan, we can harness the considerable energy that is being directed at the obesity crisis into a cohesive strategy that will draw on improving all aspects of our children's lives through the actions of the individuals, institutions and entities that influence our children's existence each day. The basis of the plan needs to be actionable steps that each of us can take and promote today and tomorrow.

Based on the information that SAY is gathering from its national survey of programs throughout the U.S., town meeting participants, and child obesity experts, a National Action Plan will be developed to reduce childhood obesity. The first objective of the Plan will be to establish common language, standards, and goals. Ultimately, the plan will provide the guidance needed by children and their families, communities, healthcare workers, corporations, and legislators to initiate efforts that will produce immediate as well as future improvements in the lives of America's young people. These efforts will:

- Encompass the multiple environments in which our children live, from infancy through their high school years.
- Emphasize health-promoting steps that can be taken immediately, as well as actions that can be started now for future benefit.
- Engage all sectors of our society that influence child health, directly and indirectly.

Families can make positive changes for the benefit of their own children, school districts can make changes that will benefit thousands of children, and changes by corporations can benefit hundreds of thousands of children. Using the National Action Plan as a map, individuals, stakeholder groups, and the nation as a whole can work toward the same goals: improving childhood nutrition, increasing physical activity, and assuring healthy futures for our children.

Shaping America's Youth

Memphis & Mid-South Follow-up Action Plan

After the close of the 21st Century Town Meeting, Healthy Memphis Common Table Community Partners and interested individuals and organizations will develop a Memphis & Mid-South Action Plan to address region-specific issues and priorities. This plan will result in definitive actions to be taken in the immediate future to improve the nutrition and physical fitness of Memphis and Mid-South youth.

Local follow-up will be led by HMCT. At the Town Meeting, new action teams will be determined by participants' areas of interest. Action teams will meet within four weeks after the Town Meeting, and work to develop concrete projects to address problems in their interest areas in 2006.

II. About Childhood Overweight and Obesity

The terms *overweight* and *obesity* carry a range of meanings and associations. The Centers for Disease Control (CDC) describes the terms *overweight* and *obesity* as:

... labels for ranges of weight that are greater than what is generally considered healthy for a given height. The terms also identify ranges of weight that have been shown to increase the likelihood of certain diseases and other health problems.¹

When applied to young people, *overweight* and *obesity* are sometimes replaced with the terms *at risk of overweight* and *overweight* respectively. For the purposes of this guide, however, we will use the terms *overweight* and *obesity* as outlined by the CDC.

Defining Overweight and Obesity

To properly identify overweight and obesity, the concept of body mass index (BMI) must first be explained. BMI is a mathematical calculation that's used to describe a person's weight in relation to her or his height. It is the formula by which underweight, overweight, and obesity are assessed. BMI is not the only tool that is used to determine weight status, but it is generally considered the most useful and therefore it is the most commonly used.

BMI is used differently with children and teens than with adults. Because children and teens are still growing, and because boys and girls grow at different rates, age and sex need to be taken into account in the determination. In young people, BMI is generally referred to as BMI-for-age. Calculating BMI for a child or teen involves the extra step of comparing his or her BMI number to other individuals of the same age and sex.

Category	BMI-for-Age
Underweight	Below 5th percentile
Normal	5th percentile to <85th percentile
Overweight	85th percentile to <95th percentile
Obese	95th percentile and above

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If, for example, a child's BMI is at the 70th percentile, then 70% of his peers have a lower BMI. Young people who are at or above the 85th percentile are considered to be overweight. Individuals above the 95th percentile are considered obese.

Prevalence of Obesity

The numbers of American children who are overweight or obese are alarming. Recent statistics from the Centers for Disease Control indicate that 30% – nearly 1 of every 3 children – between the ages of 6 and 19 are overweight. Of these, 16% are obese.^{2,3}

Perhaps more disturbing is the fact that these numbers are growing at an increasingly rapid rate. As Fig. 1 illustrates, weight levels among young people remained relatively stable during the 1960s and 1970s, and then increased rapidly in the following decades.

Over the last 20 years, the percentage of obese children 6 to 11 years old has more than *doubled*. And among adolescents, the percentage of those who are obese has *tripled*. Comparing just the two most recent CDC surveys (1988 to 1994 and 1999 to 2002), the number of young people (6 to 19 years old) who are overweight has increased by 45%.²

Obesity is affecting even the youngest children.³ Among preschoolers, 2 to 5 years old, more than 10% are obese. In the past 10 years, the percentage of obese preschool children has increased by more than 40%. In infants and toddlers under age 2, more than 1 in 10 is obese.

Obesity is more common among certain racial and ethnic groups in the U.S. population. Children in these groups are at higher risk of overweight and obesity, both in their youth and as adults. Hispanic and black children and adolescents experience markedly higher rates of overweight and obesity compared with whites.

Fig. 2 represents a cross section of the entire US population. However, studies in specific areas have revealed even more disturbing obesity rates among high-risk groups. In a study in Chicago, the percentage of children who were obese in the predominantly white neighborhoods was 23%, while in largely black and Hispanic neighborhoods the obesity rate ranged from 58 to 68%.⁴ Among public school children surveyed recently in Arkansas, 37% of white students were overweight or obese, compared with 41% of black and 46% of Hispanic students.⁵

Figure 1. Changes in the Prevalence of Obesity Among Children and Adolescents³

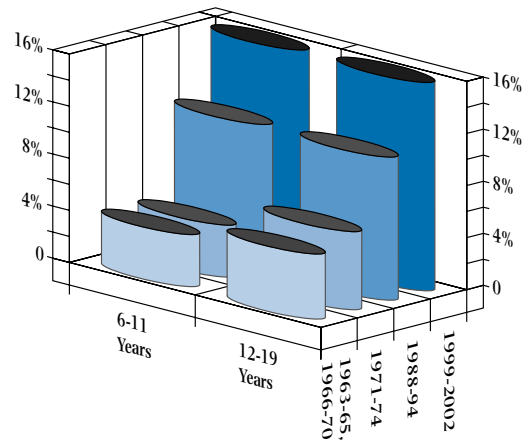
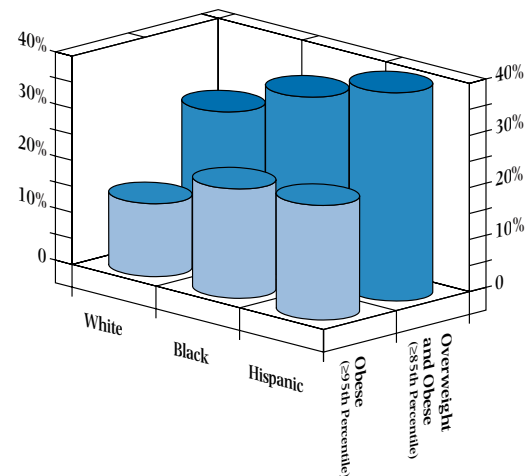
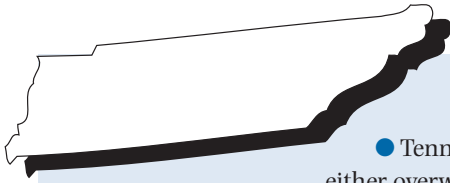


Figure 2. Prevalence of Childhood Overweight and Obesity by Racial/Ethnic Groups²



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Obesity in Tennessee

- Tennessee ranks 48th in the U.S. in obesity. More than 61% of Tennesseans are either overweight or obese.
- The risk of developing heart disease among Tennesseans is 21% above the national average.
- Annual obesity-related medical expenses in Tennessee are more than \$1.8 billion.
- Approximately 110,000 children in the Greater Memphis area are either overweight or obese.

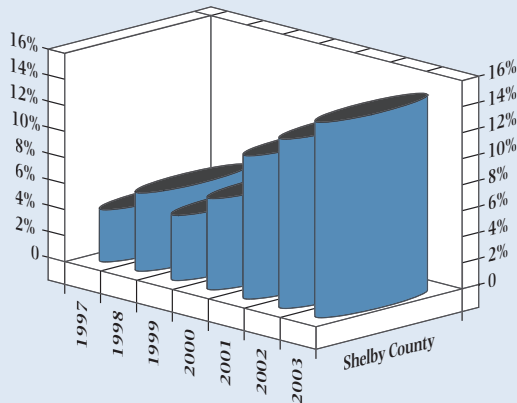
The picture is similarly bleak for Native American children. A large study of tribal communities in the Midwest found that 38% of young people 5 to 17 years old were overweight and about 20% were obese.⁶ In a study of younger children, 19% of kindergarten-to-2nd-grade Native American children were overweight, while 26% – 1 of every 4 children – were obese before entering the third grade.⁷

As the numbers of overweight young people climb, so does the incidence of medical conditions and diseases related to excess body weight. *If this trend continues, this will be the first generation of children in modern history to have a shorter life span than their parents.*

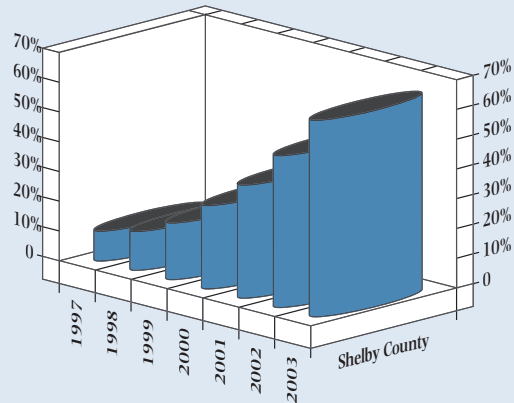
Consequences of Excess Weight

Overweight can cause serious physical, social, and emotional problems in children. The most serious of these is the danger of cardiovascular disease and early death in adulthood. Obesity is the main reason children develop high blood pressure. Obesity also increases the risk of developing several other diseases that used to be seen only in adults.

Diabetes in children 6-12 years old on TennCare has increased four-fold*



Diabetes in children 13-19 years old on TennCare has increased six-fold*



* Reference data provided by Bureau of TennCare in collaboration with the Healthy Memphis State Center

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Conditions Related to Overweight in Children⁸

<p>Physical Health</p> <ul style="list-style-type: none"> • Type 2 diabetes • Glucose intolerance and insulin resistance • High blood pressure • Abnormal blood cholesterol • Metabolic syndrome • Asthma • Fatty liver disease • Gallstones • Sleep apnea • Menstrual problems • Muscle and joint problems • Balance difficulties 	<p>Social Health</p> <ul style="list-style-type: none"> • Stigma • Negative stereotyping • Discrimination • Teasing and bullying • Social marginalization • Lower academic achievement 	<p>Emotional Health</p> <ul style="list-style-type: none"> • Poor body image • Depression • Low self-esteem
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Obesity in childhood is now recognized as a significant predictor of obesity in adulthood. Overweight adolescents have a 70% chance of being overweight or obese as adults. If one or both parents are obese, the odds of an overweight child becoming an obese adult rise to 80%.⁹ With the dramatic increase in adult obesity in the U.S. in the past two decades, which parallels the rising rate of childhood obesity, this relationship between obese children and parents underlines the need for America to move quickly to stem this epidemic.

Financial Consequences

Obesity-associated annual hospital costs specifically for children and adolescents more than tripled between 1979-1981 and 1997-1999.⁸

1979-1981



1997-1999



Implications of Inadequate Exercise and Poor Nutrition in Our Children

There is little debate that America has gotten bigger – much bigger – over the past few decades. There is no debate that this trend has put millions of American adults at much greater risk of numerous medical conditions, many which will impair their productivity, reduce their quality of life, and shorten their lifespan. And the future added health-care costs will be extraordinary.

Although there has been much media focus on this crisis, important aspects of it have received little attention. It is not always emphasized that the root causes of this social

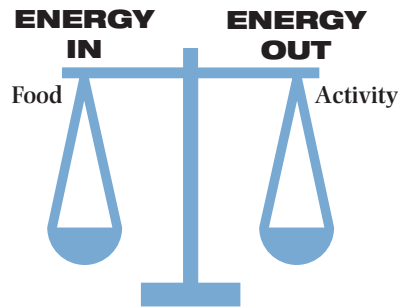
Shaping America's Youth

and health problem lie in childhood. Nor has the point been made often enough that if we fail to improve exercise and nutrition in childhood, we will **never** reverse the frightening rate of obesity in the adult population.

Prevention in childhood is the one viable approach that will ensure that a smaller percentage of American children will become overweight. To avoid the personal, societal, and medical costs of excess weight in the future, we must confront the adverse social norms and environments that our children face today.

III. Childhood Obesity: A Complex Problem

On an individual level, excess weight in childhood boils down to a matter of energy balance. There is no doubt that a child's nutrition and activity patterns are pivotal in this equation. But, these factors are only the starting point – the “what” of the problem. To fully understand the obesity crisis, it is important to delve into the “whys” – the behavioral, social, and cultural trends that underlie the energy balance mismatch.



The Energy Equation

Energy balance is like a scale, with intake (energy in) on one side and expenditure (energy out) on the other. A child uses up a certain amount of energy in basic bodily functions such as breathing, routine



Energy In: Food Factors

Portion size

- Home meals
- Prepared foods
- Eating out

Nutritional content

- Energy density
- Required nutrients
- Sweetened beverages

Availability of food

- Frequency of eating
- Eating away from home
- Snack foods and vending machines

Eating patterns and role models

- Breastfeeding
- Early exposure to foods
- Family meals
- Media messages

Energy Out: Activity Factors

Community environment

- Safe routes to school
- Parks and recreation areas
- Sidewalks
- Availability of services in walking distance

Home and leisure activity

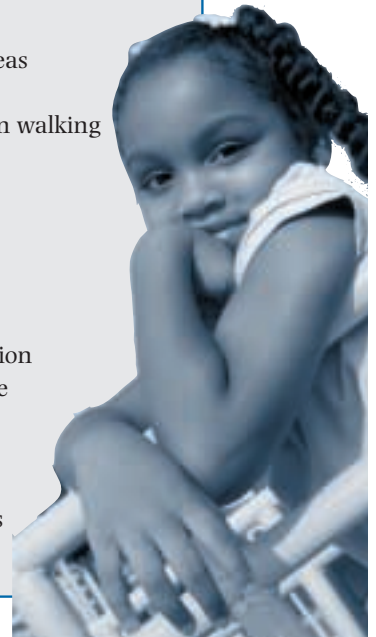
- Safe play areas
- Active recreation
- Activity with adults

School activities

- Regular physical education
- Unstructured active time
- After-school sports and activities

Inactive recreation

- TV and computer games
- Sedentary time



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movements, and growth. In addition, she or he burns calories (energy) during physical exertion. Activities such as transportation and recreation fall under this heading.

To become overweight, a child must take in more food energy than he or she expends. Any of a number of factors can shift the balance of this equation. Although emphasis has typically been on dietary intake, it has now become evident that physical activity is equally, if not more, important than food in maintaining energy balance in children.

Food Factors

What children eat, how they eat, the quality of their diets, and the eating patterns they learn early in life all affect the “energy in” side of the equation. Social, economic, and cultural trends over the last two or three decades have had a dramatic influence on the quality and quantity of food children eat.

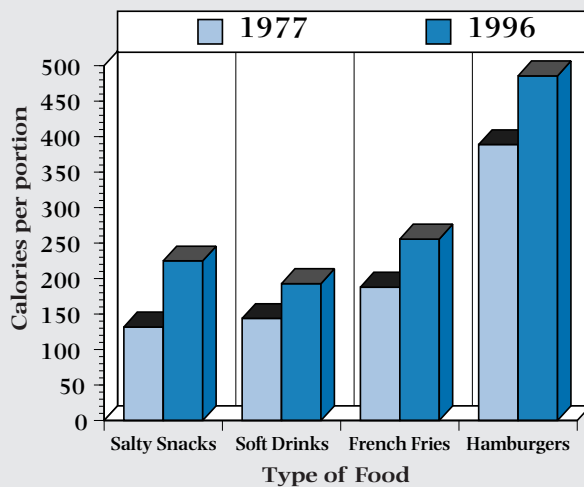
Portion size and food quantity

A major change is the amount of food that people are eating. Both children and adults average more daily calories today than 20 years ago. Part of this increase is due to overly large servings of food. Whether purchased in the grocery store, served in restaurants, or offered in home meals, portion inflation now plagues all settings where food is available.

Offering children too-large portions can disrupt their natural appetite regulation. Interestingly, preschoolers will eat only enough to satisfy their hunger. Older children and adults tend to respond to external cues such as the amount of food on the plate or the size of the package. These visual indicators override internal fullness signals. As a result, they consume the entire amount they’re served, continuing to eat even after they stop being hungry.

Offering children too-large portions can disrupt their natural appetite regulation.

Increase in Portion Sizes for Typical Food Items¹⁰



Shaping America's Youth

When children are allowed to serve themselves, they tend to select smaller portions and eat less total food. Therefore, the influence of family members and caregivers is critical in helping young children properly regulate calorie intake.

Nutritional content

As food consumption has escalated, the quality of nutrition has declined. Low-cost, easy-to-prepare packaged and take-out foods are major factors. For many children, these items have replaced nutrient-rich foods in their diets with “empty” calories from some forms of sweeteners, saturated fat, and refined carbohydrates. The biggest losers are fruits and vegetables. Less than 1 in 4 children eat the recommended number of fruit servings, and vegetable intake is even lower.¹¹

Compounding the decline in daily fruit and vegetable consumption are the limited types of these foods that Americans are eating. In the year 2000, five vegetables – iceberg lettuce, frozen potatoes, fresh potatoes, potato chips, and canned tomatoes – made up almost half of all vegetable consumption in this country. Fruits fared little better. Six fruits – orange juice, bananas, apple juice, apples, grapes, and watermelon – accounted for 50% of all fruit items eaten.¹²

Another nutritional shift our children face is the replacement of milk and water with carbonated soft drinks, juice-flavored drinks, and sports beverages. These beverages provide significant calories, but minimal nutrition. Over the last 25 years, soda intake has nearly doubled for teenage girls and nearly tripled for teenage boys.¹⁰



Ups and Downs

In the period between 1977 and 1996, the following foods saw the greatest changes in consumption by children and teens age 6 to 19.¹¹

Increases

1. Carbonated beverages
2. Fruit drinks
3. Low-fat milk
4. Grain mixtures (pizza, pasta)
5. Non-citrus juices

Decreases

1. Whole milk (and overall milk)
2. Beef
3. Corn, peas, green beans

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Not only do these beverages lack nutritional quality, they are being consumed in place of milk, a primary source of vitamins and minerals. In 1977-78, children drank four times more milk than any other beverage; by the mid-1990s, their intake of soft drinks alone was almost double their intake of milk.^{10,13}

Availability of Food

Convenient and affordable restaurant meals, take-out foods, and snack items are now available just about anywhere, anytime. In addition, families have an increasingly more hectic lifestyle which promotes snacking between meals, simplified meal preparation at home, and eating away from home more often. As a result, the portion of the family food budget devoted to eating away from home has more than doubled over the past three decades.

Older children and teens eat at fast food restaurants an average of twice a week. The downside of this trend is the bearing it has on the quality and quantity of food that our children are eating. Meals prepared at home generally include more fiber, calcium, iron, and other nutrients than food eaten out. Restaurant and fast food meals contain larger portions, higher levels of fat and sodium, fewer nutrients, and more total calories.

Children also have more foods available at school than in past years. In addition to the federally subsidized meal program, kids can choose from numerous “à la carte” and “competitive” foods. These items are sold in the cafeteria alongside standard school lunches as well as in school stores, vending machines, and school fundraisers. Competitive foods are typically more calorie-dense and nutrient-poor than traditional lunches. Not surprisingly, children tend to choose these less nutritional items even when fruits and vegetables are among the selections.

Another factor that determines a child’s food choices is the type of foods the family buys and stocks at home. Children in households that have fruits and vegetables on hand are more likely to eat these foods both at home and in other settings than children who don’t have fruits and vegetables at home. The converse is also true. Homes that stock more snacks and prepared foods and fewer fresh food items are less likely to promote optimal nutritional choices in children at or away from home.

In many neighborhoods, however, supermarkets that carry fresh foods aren’t easily reached by foot or public transportation. As a result, many families, particularly those who are low-income, rely on smaller local markets that carry primarily packaged and convenience foods. This limited selection doesn’t offer the diversity of food choices that is essential for a high quality diet. The cost of better quality food can also present a significant barrier to achieving the healthy, calorie-balanced diet a child needs.

Eating Patterns and Role Models

The seeds of obesity are planted early in life. Heredity contributes to a child’s risk to a degree, but, in most cases of excess weight, behavioral and cultural factors figure

Children in households that have fruits and vegetables on hand are more likely to eat these foods both at home and in other settings than children who don’t have fruits and vegetables at home.



Shaping America's Youth

However, simply offering healthier foods may not be sufficient if children, parents, and family members aren't eating these foods as well.

Studies have shown that as children get older, they will mimic the eating patterns they observed at a young age in their role models.

more prominently. Systems in the brain that govern lifelong food intake patterns and body fat development form while a baby is still in the womb. If a woman is obese when she conceives, smokes during pregnancy, or develops pregnancy-related diabetes, she and her child are at increased risk for later obesity. Taking steps during pregnancy to prevent these patterns from forming can positively influence a child's risk of gaining excess weight during his or her earliest years.

Whether or not a child is breast-fed also has an impact on the child's risk of becoming overweight. Infants who breast-feed exclusively during the first several months of life learn how to respond to natural hunger signals. As a result, their food intake is in line with their nutritional needs. Formula-fed babies, on the other hand, are frequently fed according to external factors. A set feeding schedule or the number of ounces in the bottle is likely to dictate when and how much the child is fed. Because the child's eating is triggered by the caretaker rather than internal hunger cues, formula-fed babies may be prone to overeating later in life.

The preschool years are a critical period in the formation of eating habits. The task of changing behaviors and reversing weight gain is considerably harder as children get older. Toddlers are notoriously picky eaters. Typically, they need to try a new food 5 to 10 times before liking it. Early breast-feeding fosters toddlers' acceptance of new foods. Food flavors transmitted in breast milk allow infants to become familiar with new tastes early in life.

Repeatedly offering young children a variety of fruits and vegetables at home and in day care settings can further guide the development of healthy choices. However, simply offering healthier foods may not be sufficient if parents and other family members aren't eating these foods as well. Studies have shown that as children get older, they will mimic the eating patterns they observed at a young age in their role models.

When a child reaches school age, additional influences on his or her eating patterns come into play. Between class time, after-school activities, and day care, school represents the bulk of the organized time children and teens spend away from home. This puts added emphasis on the school environment as a place where children learn to make healthy food choices

The food environment in school has undergone rapid changes in recent years. Traditionally, food served in school cafeterias fell under the USDA federally subsidized meal program which is regulated to meet certain nutritional requirements. However, there are no federal guidelines concerning "à la carte" and "competitive" foods. In many cases, these items have been added to increase the school's income rather than improve the quality of food choices children and teens have available to them.

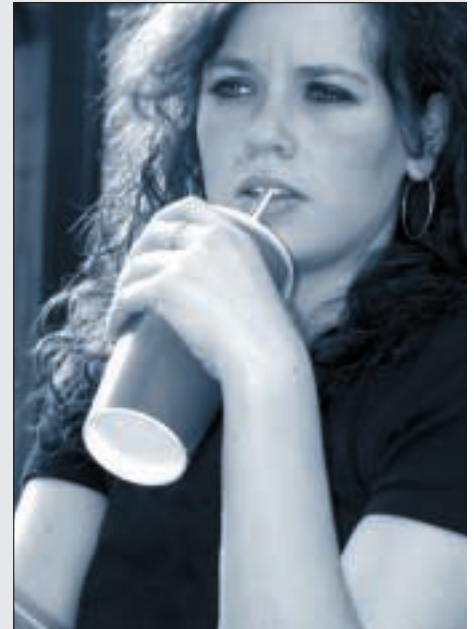


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Media messages also play a key role in shaping children's food decisions. Young children are especially vulnerable to the persuasive powers of TV marketing. More than half of the commercials directed at children promote food items such as candy, snack foods, sweetened cereal, fast food, and soft drinks.¹⁴ Research shows that children are having an increasingly strong influence on the products and brands a family buys. Before age 8, children generally can't make the distinction between straight information and an advertisement designed to sell a product.

Nutrition Fast Facts

- Total calorie intake jumped 9% in teenage boys and 7% in teenage girls between the years of 1977 and 1994.¹¹
- Kids are likely to consume almost twice as many calories from a restaurant meal than when eating at home (770 calories vs. 420 calories).¹⁵ They also average an extra 187 calories daily when they've had a fast food meal.¹⁶
- A third of all teenage girls and half of teenage boys drink 3 or more 8-ounce sodas a day.¹⁷
- Breads, cereals, pasta, and other foods made from whole grains contain more fiber, vitamins, and minerals than refined foods. Between 1994 and 1996, the average child ate one daily serving or less of these foods.¹¹
- Food and beverage items are sold from vending machines, snack bars, and school stores in 98% of high schools, 74% of middle schools, and 43% of elementary schools.¹⁸
- Tennessee is one of only six states in the nation to have implemented legislation to require healthy foods in school vending machines.



Activity Factors

No discussion about preventing excess weight gain in children is possible without addressing the "energy out" side of the equation. As with nutritional issues, the dynamics affecting children's activity levels are complex. On the bottom line, kids just aren't moving enough. Health guidelines recommend at least 30 minutes of moderate exercise a day, but 25% of children get no free-time physical activity at all.

As with food and calorie intake, young children's activity is heavily influenced by the adults around them. Many children are not seeing positive role models for building an active lifestyle – 40% of all adults are completely sedentary.¹⁹ The challenge of exercise is not to become a competitive athlete; it is simply to include more movement in everyday activities. The difference between the number of calories burned by normal weight and overweight adults can be attributed to the number of small movements an individual makes over the course of the day.

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Energy Balance in Action

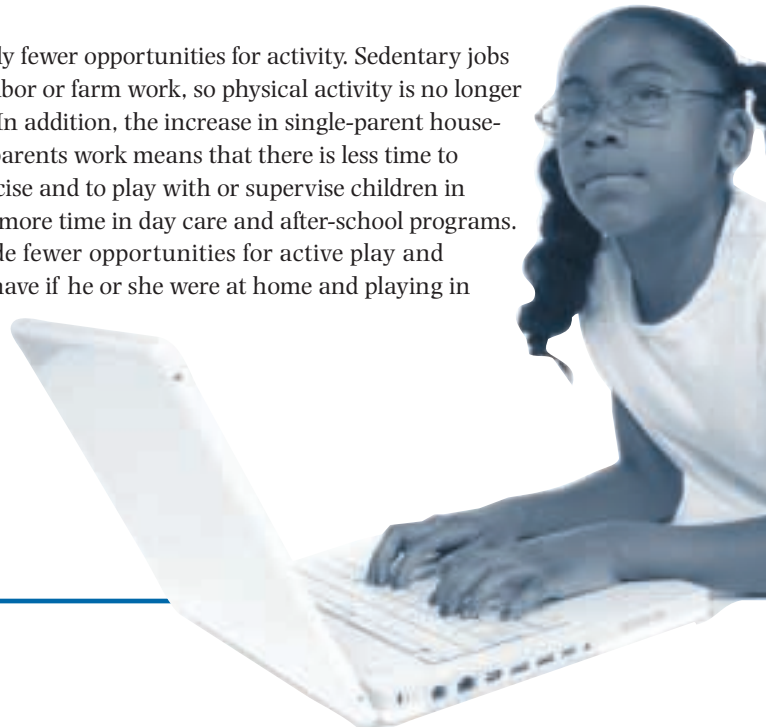
The following examples provide a real-life picture of the energy equation:²⁰

<i>Food</i>	<i>Calories</i>	<i>Activity Equivalent</i>
Small chocolate chip cookie	50 calories	Brisk walking (4 mph) 10 minutes
Large chocolate chip cookie	250 calories	Brisk walking (4 mph) 10 minutes plus Raking leaves 40 minutes
Jelly filled doughnut	300 calories	Moderate walking (3 mph) 60 minutes
Fast food meal: double-patty cheeseburger, extra-large fries, and a 24oz. soft drink	1500 calories	Running (6 mph) 2 1/2 hours

Home and Leisure Activity

The expansion of organized sports combined with the rise of computers and electronic forms of entertainment has created an ever-widening gap in children's activity levels.

Modern life provides increasingly fewer opportunities for activity. Sedentary jobs have largely replaced manual labor or farm work, so physical activity is no longer a natural part of the work day. In addition, the increase in single-parent households and families where both parents work means that there is less time to engage in routine physical exercise and to play with or supervise children in these activities. Children spend more time in day care and after-school programs. These settings generally provide fewer opportunities for active play and movement than a child would have if he or she were at home and playing in the neighborhood.



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The expansion of organized sports combined with the rise of computers and electronic forms of entertainment has created an ever-widening gap in children's activity levels. At one end of the spectrum is the minority of young people who are constantly on the move with sports practices and competitions. At the other end are the majority of children and teens who are virtually sedentary – spending the bulk of their time inside watching TV or on the computer. Falling through the cracks is free-time physical activity that children traditionally accumulated through spontaneous outdoor play.

Active parents and families that encourage activity influence how their children view exercise. Activity levels tend to decline as toddlers progress to teenagers, but family influence remains steady into adolescence even in the face of peer pressure. Parents who have the time and resources to be active themselves are not only more likely to encourage activity in their children, but can serve as valuable role models for commitment to routine movement and exercise.

Neighborhood and Community Environment

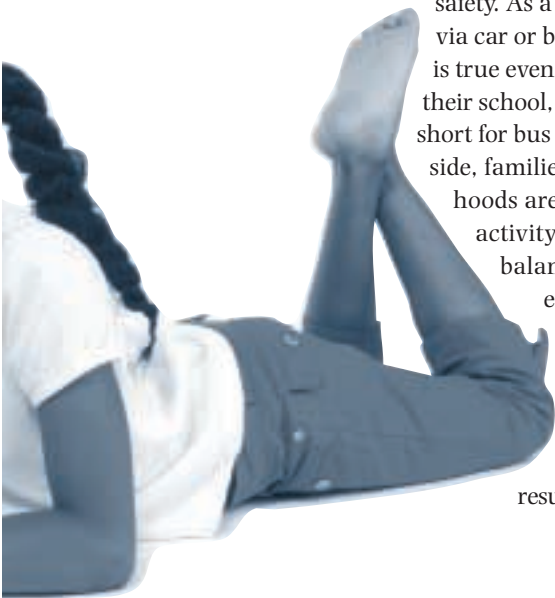
The migration of families from densely populated cities to sprawling suburbs has also affected activity levels. More time is spent riding in cars than 30 years ago. This shift has had two major effects on exercise and activity. First, adding this time onto an already long work day provides less opportunity for parents and children to participate in sports and other leisure time exercise. Second, many tasks that a child or an adult would have done by walking, bicycling, or public transit now take place by car, thus eliminating a traditional source of regular physical activity.

The built environment has an impact on activity levels as well. The absence of sidewalks, crosswalks, and bike paths in suburban developments impede pedestrian and bike travel as do individuals' concerns about their safety. As a result, most children travel to school via car or bus rather than by foot or bicycle. This is true even for children who live within a mile of their school, a distance that was considered too short for bus transport 30 years ago. On the flip side, families living in "walkable" neighborhoods are more likely to get enough physical activity as a part of their daily routine to balance their calorie intake and energy expenditure.

Proximity to attractive, pleasant places to play has also declined. As urban dwellers have become suburbanites, their tax dollars have followed. As a result, cities are finding it increasingly difficult to fund,

Proximity to attractive, pleasant places to play has also declined.

As urban dwellers have become suburbanites, their tax dollars have followed.



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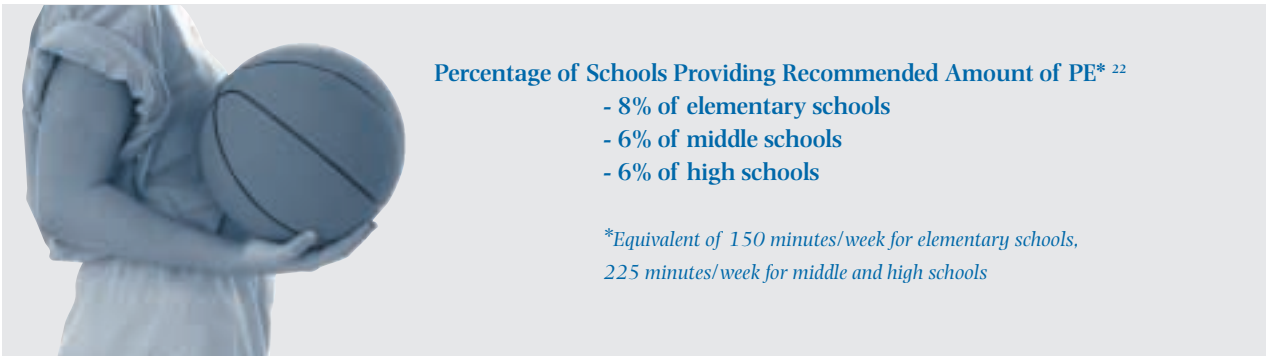
build, and maintain recreation areas. The car culture has also bred the assumption that neighborhood play areas are no longer necessary since children can be carpooled to more remote locations.

Children and teens with easy access to parks, trails, and recreation facilities are more likely to take advantage of opportunities for spontaneous activity. Also, the more time preschool children spend outdoors, the higher their activity levels. A Chicago study found that children in safer neighborhoods engaged in an additional 49 minutes of activity a week than did children in unsafe neighborhoods.²¹

Increasingly, traffic safety poses an obstacle to physical activity. Parents, teachers and caregivers recognize that pedestrian injuries are a leading cause of death for school age children. This valid concern has sharply reduced walking and biking by children.

School Activity and Physical Education

Even though physical activity is critical for children at all stages of development, opportunities for school-related activity have diminished. Regular physical education classes have been reduced or cut out altogether in many schools due to time and budget constraints. In addition, the majority of high school students are choosing to opt out of PE classes. The introduction of computers into the classroom has further eroded spontaneous regular movement. In the past, a child would need to walk to the library to research a project. Today, the classroom computer brings a world of information to within steps of the child's desk – but without the expenditure of any calories.



Another issue is the structure of traditional school-based physical education. The average child gets only 2 to 3 minutes of vigorous activity in the course of a typical 30-minute PE class. The remainder of the time is focused on motor skills development.²³ Although not mandated in most states, the majority of schools offer unstructured recess time throughout the day. Studies show that children are more likely to use this time for active play when schools make small changes such as providing balls and marking pavement on the playground for games.

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Inactive Recreation

Not only do lifestyle pressures cut into children's opportunities for exercise, the current culture offers little incentive to reduce inactivity. A staggering array of electronic diversions – TV, computer, video games to name a few – conspire to keep children rooted in place. The average child spends 6 1/2 hours a day using media – more time than in any other activity except sleeping.²⁴ This is more time than would be spent at a full time job. Even preschoolers spend as much time with electronic entertainment as they do playing outside.

As well as displacing active play, “screen time” reduces the number of small movements a child routinely makes, therefore lowering his or her calorie expenditure. The sedentary nature of TV watching combined with exposure to food advertising leads to more snack food consumption more often; while it's difficult to eat and exercise, it's very easy to eat and watch. Not surprisingly, families who have meals in front of the TV tend to consume more processed meats, fast food, and soda, and eat fewer fruits and vegetables.

Activity Fast Facts

- The use of walking as a mode of transportation decreased by 40% in the decades between 1977 and 1995. The number of car trips increased to 90% of all trips made over the same period.²⁵
- Less than 15 % of school children regularly walk or bike to school.²⁶
- Only 1 in 4 high school students get at least 30 minutes of moderate activity 5 or more days a week.²⁷
- Between 1991 and 2003, enrollment in high school PE classes dropped from 42% to just over 28%.²⁶
- More than 60% of children between the ages of 9 and 13 do not participate in any organized physical activity outside of school. Nearly one-fourth get no free-time physical activity at all.²⁷
- Children who watch more than 5 hours of TV a day have a 4.6 times greater risk of being overweight than children who watch 0 to 1 hour a day.²⁸



Electronics Profile of the Average American Household²⁴



TV: 99%

■ Three or more: 73%

■ Five or more: 14%



Cable or satellite TV:
82%



CD/tape player: 98%

■ Three or more: 66%



VCR/DVD player:
97%

■ Three or more: 53%



Computer: 86%

■ Three or more: 15%

Internet connection:
74%



Video game console:
83%

■ Three or more: 31%



Portable media
ownership by children
and teens:

■ 65% have a CD, tape, or
MP3 player

■ 55% have a handheld
game player

Shaping America's Youth

The Memphis Story

Of the Memphis high school students who participated in the 2003 Memphis City Schools' Youth Risk Behavior Survey:

- 15.8% reported that they were overweight, higher than both the rising state and national averages
- Only 14.5% reported eating the recommended 5 or more servings of fruit and vegetables a day
- Only 7.6% reported consuming the recommended 3 or more milk servings a day
- 41% of students did not reach the recommended levels of physical activity

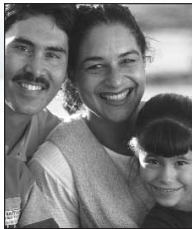
IV. Who's Involved

The causes and consequences of childhood obesity extend into every corner of the culture and economy. Therefore, efforts to reverse the trend must be similarly broad-based and inclusive. True progress will come when all constituencies – individual and community, local and national, public and private – can be fully engaged in the process.

Each of the groups of stakeholders involved in the problem of childhood obesity faces its own needs and challenges. In the course of our discussion today, we'll look at how the roles of the various stakeholders parallel and intersect. In addition, we'll identify the challenges confronting each group and our priorities for addressing them. We'll then explore how stakeholders may help each other implement these priorities. Finally, we'll look ahead to a comprehensive plan that addresses the agendas of individual stakeholders within a framework of universal priorities.

Stakeholder Groups

The key players involved can be divided into six groups. Each has a unique role in promoting change.



Children & Families



Community Programs & Leaders



Educators & Schools



Health Care Community



Legislators & Policymakers



Corporations & Private Sector

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Children & Families



Who they are...

- Infants and toddlers
- School-age children
- Adolescents
- Parents and extended family
- Other caretakers

What they can do...

A child's earliest contact with food choices and activity patterns takes place within the family at a very young age. Parents and caregivers promote values and attitudes that will set children on a healthy course throughout life. Healthy decisions and actions by families, mentors, and role models at the earliest stages of life will ultimately have greater benefits than actions taken once behaviors have become established later in childhood.

Community Programs & Leaders



Who they are...

- Urban planners
- Transportation planners
- Social and civic organizations
- Youth groups
- Faith-based groups

What they can do...

A child's physical and social environment is critical to his or her health and well-being. Sidewalks and bike paths, safe playgrounds and recreation centers offer outlets for physical activity. Neighborhood programs and activities that reinforce positive messages received at home and school can improve children's environments. Access to grocery stores and farmers' markets ensure the availability of fresh food. Community programs and civic leaders are in the position to involve the entire community in shaping the community setting.

Educators & Schools



Who they are...

- School boards
- Administrators
- Teachers
- Professional educator groups

What they can do...

Over 53 million students are enrolled in elementary or secondary schools across the country. This makes the school environment a prime venue for reaching America's chil-

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dren. The school day affords numerous opportunities to teach students about healthy food choices and engage them in physical activity.

Health Care Community



Who they are...

- Health care providers
- Hospitals
- Insurers
- Government health agencies
- Voluntary health organizations

What they can do...

Health care professionals can encourage children and their families to make healthy lifestyle choices. They also have the capacity to intervene if they spot unhealthy trends in exercise and nutrition. Insurers and public and private health agencies are in a position to promote prevention and advocate policy changes. They can offer support for the decisions families and communities make to improve nutrition and exercise in children.

Legislators & Policymakers



Who they are...

- Local government
- Regional government
- State government
- Federal government

What they can do...

Government leaders and policymakers can provide the leadership needed to craft overarching policy changes and prevention campaigns. They can also be instrumental in securing funding and coordinating resources that communities need to improve the environment at home, at school, and within neighborhoods. This could include matching food subsidies for fresh fruits and vegetables with the nutritional guidelines published by the USDA.

Corporations & Private Sector



Who they are...

- Employee benefit departments
- Corporate wellness programs
- Charitable foundations
- Restaurants and food industry
- Media companies
- Sports and fitness companies
- Transportation companies

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What they can do...

Young people are major consumers of food, beverages, media, and entertainment. The food industry can use its clout to advocate products and activities that encourage healthy lifestyles. Likewise, employers and advertisers can distribute media messages that continually reinforce the basic principles of movement, exercise, and good nutrition, and offer role models for children. Employers can provide flexible work schedules to accommodate physical activity before, during, and after work hours.

Interrelationships Among Stakeholders

Like ripples moving out from a pebble dropped in a pond, efforts to curb excess weight gain in children will necessarily revolve around the child. However, the sway each stakeholder group has on an individual child changes in relation to how directly the child interacts with that group. The groups closest to the child, such as family and schools, have the greatest ability to favorably influence personal behavior. On the other hand, groups that are further away, such as policymakers and corporations, have less influence on individuals, but tremendous influence on broad social and environmental trends.

Clearly, some steps can be taken within a single stakeholder group. Other initiatives will require other stakeholder groups to put aside individual interests in favor of more collaborative solutions. As a result, connections and partnerships among stakeholders will be in constant flux. Some of these will be brief, while others will remain in effect for years to come.



Challenges to Change

From the family table to the corporate boardroom, all six stakeholder groups confront similar challenges in the effort to improve children's energy balance. These common factors include:

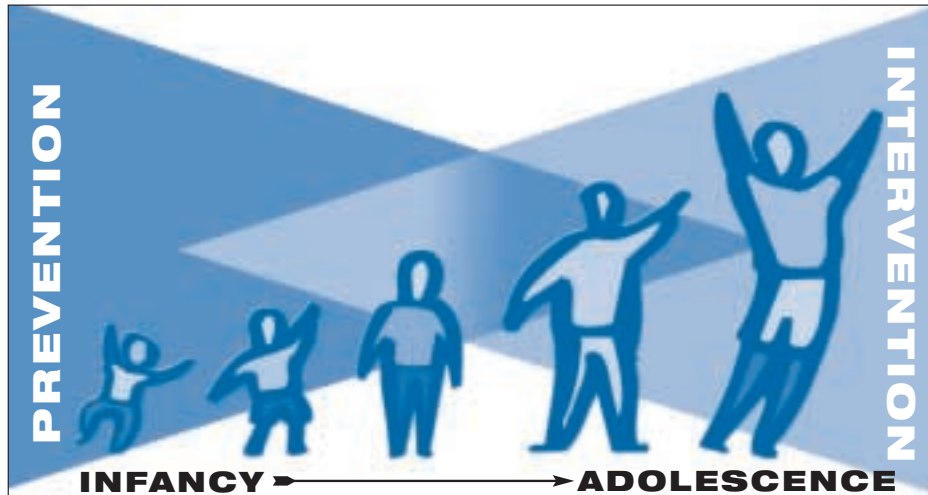
- **Time.** Time pressures can lead to unhealthy eating patterns and a decrease in activity levels. Making changes at any level puts an increased demand on time.
- **Money.** Availability of low-cost food of poor nutritional quality may interfere with efforts to improve the quality of food offerings at home or in schools, especially when home and community budgets are stressed.
- **Knowledge.** Information about the consequences of unhealthy choices and awareness of options for change are critical to all stakeholders. It is also important to understand that prevention is the number one priority. The earlier a healthy lifestyle

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is initiated the more likely it will be effective and endure throughout life.

- **Resources.** Limited resources and constraints imposed by existing programs, infrastructures, and community settings pose challenges to adopting new practices and supporting long-term environmental change.
- **Environment.** Cultural habits, values, and norms can impede adopting healthy nutrition and exercise practices.

From Prevention to Intervention



The approach to combating childhood obesity changes as a child grows. For very young children, the focus is on **prevention**, on enabling them to make healthy food choices and practice active lifestyles.

Once established, poor nutritional and activity habits are difficult to reverse, placing even normal-weight children at high risk of becoming overweight. Intervention, the act of stepping in to reverse habits and/or decrease excess weight, is a complex and long-term process that many adults struggle with their entire lives.

Providing our children, from their very beginnings, with health-promoting nutrition and activity habits and a society that fosters these behaviors – in other words **prevention** – is the optimal approach to slowing the epidemic of childhood obesity and, ultimately, reducing the incidence of obesity in adults. The resulting economic, health, and social benefits to the society will be profound.

V. References

¹Centers for Disease Control and Prevention. Obesity and overweight: defining obesity and overweight. www.cdc.gov/nccdphp/dnpa/obesity/defining.htm.

²Hedley AA, et al. Prevalence of overweight and obesity among U.S. children, adolescents, and adults, 1999-2002. *JAMA* 2004;291:2847-2850.

³Ogden CL, et al. Prevalence and trends in overweight among US children and adolescents, 1999-2000. *JAMA* 2002; 288:1728-1732.

⁴Sinai Urban Health Initiative. Improving Community Health Survey: Report I. January 2004.

www.sinai.org/urban/originalresearch/rwj/Improving_Community_Health_Survey_Report_1.pdf

⁵The Arkansas Assessment of Childhood and Adolescent Obesity. Arkansas Center for Health Improvement, September 2004.

⁶Zephier E, et al. Prevalence of overweight and obesity in American Indian school children and adolescents in the Aberdeen area: a population study. *International Journal of Obesity and Related Metabolic Disorders* 1999; 23:S28-S30.

⁷Adams AK, et al. Low recognition of childhood overweight and disease risk among Native-American caregivers. *Obesity Research* 2005; 13:146-152.

⁸Institute of Medicine. *Preventing Childhood Obesity: Health in the Balance*. National Academies Press, 2005. www.nap.edu/catalog/11015.htm.

⁹US Department of Health and Human Services. Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity, 2001. www.surgeongeneral.gov/topics/obesity/calltoaction/fact_adolescents.htm

¹⁰Nielsen SJ, Popkin BM. Patterns and trends in food portion sizes 1977-1998. *JAMA* 2003; 289:450-453.

¹¹Enns CW, et al. Trends in food and nutrient intakes by children in the United States. *Family Economics and Nutrition Review* 2002; 14:56-68.

¹²Clauson A. Share of food spending for eating out reaches 47 percent. *Food Review* 2003; 22:15-17.

¹³USDA Agricultural Research Service. What We Eat in America, NHANES 2001-02. www.ars.usda.gov/ba/bhnrc/fsrg.

¹⁴Kunkle D. Children and television advertising. In: Sinter DG, Singler JL, eds. *Handbook of Children and the Media*. Thousand Oaks CA: Sage Publications, 2001, pp. 375-394.

¹⁵Zoumas-Morse C, et al. Children's patterns of macronutrient intake and associations with restaurants and home eating. *Journal of the American Dietetic Association* 2001; 101:923-925.

¹⁶Boweman SA, et al. Effects of fast-food consumption on energy intake and diet quality among children in a national household survey. *Pediatrics* 2004; 113:112-118.

¹⁷Gleason P, Suitor C. Children's diets in the mid-1900s. Alexandria VA: Department of Agriculture, January 2001.

Shaping America's Youth

¹⁸French SA, et al. National trends in soft drink consumption among children and adolescents age 6 to 17 years: prevalence, amounts, and sources, 1977/1978 to 1994/1998. *Journal of the American Dietetic Association* 2003; 103:1326-1331.

¹⁹CDC National Center for Health Statistics, National Health Interview Survey, 1999-2001. www.cdc.gov/nchs/nhis.htm.

²⁰US Department of Health and Human Services. Overweight and obesity: what you can do. Being physically active can help you attain or maintain a healthy weight. www.surgeongeneral.gov/topics/obesity/calltoaction/fact_whatcanyoudo.htm

²¹Molnar BE, et al. Unsafe to play? Neighborhood disorder and lack of safety predict reduced physical activity among urban children and adolescents. *American Journal of Health Promotion* 2004;18:378-386.

²²Burgeson CR, et al. Physical education and activity: results from the School Health Policies and Programs Study 2000. *Journal of School Health* 2001; 71:279-293.

²³Simons-Morton BG, et al. The physical activity of fifth-grade students during physical education classes. *American Journal of Public Health* 1993; 83:22-265.

²⁴Roberts DE, et al. Generation M: Medial in the Lives of 8-18 Year-olds, The Henry J. Kaiser Family Foundation, March 2005. www.kff.org/entmedia/upload/Generation-M-Media-in-the-Lives-of-8-18-Year-olds-Report.pdf.

²⁵Active Living by Design. National Transportation Survey 1977, 1990, 1995. active-livingbydesign.org/fileadmin/template/documents/albd_primer_low.pdf.

²⁶Bureau of Transportation Statistics. 2003. National Household Travel Survey. www.bts.gov/programs/national_household_travel_survey.

²⁷Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance – United States, 2003. *Morbidity and Mortality Weekly Review* 2004; 53:21-24.

²⁸Centers for Disease Control and Prevention. Physical activity levels among children aged 9-13 years – United States, 2002. *Morbidity and Mortality Weekly Review* 2003; 52:785-788.

²⁹Anderson R, et al. Relationship of physical activity and television watching with body weight and level of fatness among children. *JAMA* 1998; 279:938-942.

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VI. Appendix

Additional Information

Resources on the Internet

- Shaping America's Youth
www.shapingamericasyouth.com
- Centers for Disease Control and Prevention – Overweight and Obesity
www.cdc.gov/nccdphp/dnpa/obesity/
- American Diabetes Association
www.diabetes.org
- American Heart Association
www.americanheart.org
- American Academy of Pediatrics
www.aap.org
- North American Association for the Study of Obesity
www.naaso.org
- Shaping America's Health
www.obesityprevention.org
- Healthier US Initiative
www.healthierUS.gov
- NIH -- We Can!
<http://www.nhlbi.nih.gov/health/public/heart/obesity/wecan/>

Local Resources on the Internet

- Healthy Memphis Common Table
www.healthymemphis.org
- TN Healthy Weight Network
www.TNhealthyweight.org
- UT Health Science Center
www.UTMem.edu/pediatrics/obesity
- Healthy Memphis Data Center
www.healthymemphis.org/Data_Center.hmhc.0.html
- University of Memphis Mid-South Social Survey
msss.memphis.edu
- University of Memphis Shared Urban Data System
suds.memphis.edu/SUDS.CFM
- Memphis City School Youth Risk Behavior Survey

www.memphis-schools.k12.tn.us/admin/research/YRBS-2003.html

Publications

- Preventing Childhood Obesity: Health in the Balance. Institute of Medicine Committee on Prevention of Obesity in Children and Youth. Washington DC: National Academies Press, 2005. [Available for viewing or purchase at: www.iom.edu/report.asp?id=22596]
- A Nation at Risk: Obesity in the United States. American Heart Association and Robert Wood Johnson Foundation, 2005 [Available online at: www.americanheart.org/presenter.jhtml?identifier=3030570]
- Prevention of Pediatric Overweight and Obesity. American Academy of Pediatrics Nutrition Committee. Pediatrics 2003; 112:424-430. [Available online at: aappolicy.aap-publications.org/cgi/content/full/pediatrics;112/2/424?fulltext=obesity&searchid=QID_NOT_SET]
- American Heart Association Scientific Statement – Overweight in Children and Adolescents. Circulation 2005; 111:1999-2012. [Available online at: circ.ahajournals.org/cgi/content/full/111/15/1999?ck=nc]
- F as in Fat: How Obesity Policies are Failing in America, 2005. Trust for America's Health. [Available online at: healthyamericans.org/reports/obesity2005]
- Shaping America's Youth Summary Report, September 2004. [Available online at: www.shapingamericasyouth.com/Page.aspx?nid=4]
- The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity. US Department of Health and Human Services, Public Health Service, Office of the Surgeon General, 2001. [Available online at: www.surgeongeneral.gov/library]
- Society for Nutrition Education Guidelines for Childhood Obesity Prevention Programs: Promoting Healthy Weight in Children. Journal of Nutrition Education and Behavior 2003; 35:1-4.

Shaping America's Youth

Glossary of Terms

Balanced Diet

The overall dietary pattern of foods consumed that provide all the essential nutrients in the appropriate amounts to support life processes, such as growth in children without promoting excess weight gain.

Body Mass Index (BMI)

An indirect measure of body fat calculated as the ratio of a person's body weight in kilograms to the square of a person's height in meters.

$$\text{BMI (kg/m}^2\text{)} = \text{weight (kilograms)} \div \text{height (meters)}^2$$

In children and youth, BMI is based on growth charts for age and gender and is referred to as BMI-for-age, which is used to assess underweight, overweight, and risk for overweight.

According to the Centers for Disease Control and Prevention (CDC), a child with a BMI-for-age that is equal to or greater than the 95th percentile is considered to be overweight. In this report, the definition of obesity is equivalent to the CDC definition of overweight.

Calorie

A unit of measure for energy obtained from food and beverages.

Energy Balance

A state where energy intake is equivalent to energy expenditure, resulting in no net weight gain or weight loss. In this report, energy balance in children is used to indicate equality between energy intake and energy expenditure that supports normal growth without promoting excess weight gain.

Energy Density

The amount of energy stored in a given food per unit volume or mass. Fat stores 9 kilocalories/gram (gm), alcohol stores 7 kilocalories/gm, carbohydrate and protein each store 4 kilocalories/gm, fiber stores 1.5 to 2.5 kilocalories/gm, and water has no energy.

Epidemic

A condition that is occurring more frequently and extensively among individuals in a community or population than is expected.

Healthy Weight

In children and youth, a level of body fat where comorbidities are not observed.

Nutrient Density

The amount of nutrients that a food contains per unit volume or mass.

Obesity

An excess amount of subcutaneous body fat in proportion to lean body mass. In this report, obesity in children and youth refers to the age and gender-specific BMI that are equal to or greater than the 95th percentile of the CDC BMI charts. In most children, these values are known to indicate elevated body fat and to reflect the co-morbidities associated with excessive body fatness.

Obesogenic

Environmental factors that may promote obesity and encourage the expression of a genetic predisposition to gain weight.

Physical Activity

Body movement produced by the contraction of skeletal muscles that result in energy expenditure above the basal level. Physical activity consists of athletic, recreational, housework, transport or occupational activities that require physical skills and utilize strength, power, endurance, speed, flexibility, range of motion, or agility.

Physical Inactivity

Not meeting the type, duration, and frequency of recommended leisure time and occupational physical activities.

Prevention

With regard to obesity, primary prevention represents avoiding the occurrence of obesity in a population; secondary prevention represents early detection of obesity through screening with the purpose of limiting its occurrence; and tertiary prevention involves preventing the sequelae of obesity in childhood and adulthood.

Sedentary

A way of living or lifestyle that requires minimal physical activity and that encourages inactivity through limited choices, disincentives, and/or structural or financial barriers.

Well-Being

A view of health that takes into account a child's physical, social, and emotional health.

** Drawn from Preventing Childhood Obesity: Health in the Balance, 2005 • Institute of Medicine • www.iom.edu*

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Memphis Town Meeting Contributing Organizations

National Organizers

Shaping America's Youth (SAY), an initiative of Shaping America's Health:
Association for Weight Management and Obesity Prevention
Academic Network, LLC
AmericaSpeaks

SAY Partners & Collaborators

Office of the US Surgeon General
American Academy of Pediatrics
Cadbury Schweppes
Cooper Institute
McNeil Nutritionals (a Johnson & Johnson company)†
American Diabetes Association
University of California at Davis Department of Nutrition
Campbell Soup Company†
FedEx Corporation
Nike Inc.†

† *Shaping America's Youth* extends special thanks to its founding corporate partners

Memphis & Mid-South Region Contributors

Meeting Host: Healthy Memphis Common Table

Tennessee Healthy Weight Network
Memphis Business Group on Health
YMCA of Memphis and the Mid-South
Healthy Memphis Data Center at UTHSC
Le Bonheur Children's Medical Center
Le Bonheur Children's Medical Center Foundation
Memphis City Schools PTAs
Children's Foundation Research Center
University of Tennessee Extension Service
University of Memphis
University of Memphis Community Information Project and
Mid-South Social Survey Program
University of Memphis Department of Health and Sport Sciences
University of Tennessee Health Science Center (UTHSC)
UT Medical Group Inc.
Memphis City Schools
Shelby County Schools
Memphis Healthy Churches
Healthy Memphis Campaign (WREG-TV/News Channel 3 and The Commercial Appeal)
QSource, The Center for Healthcare Quality
Memphis Grizzlies
TLC Family Care Healthplan
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