

Childhood Obesity Prevention

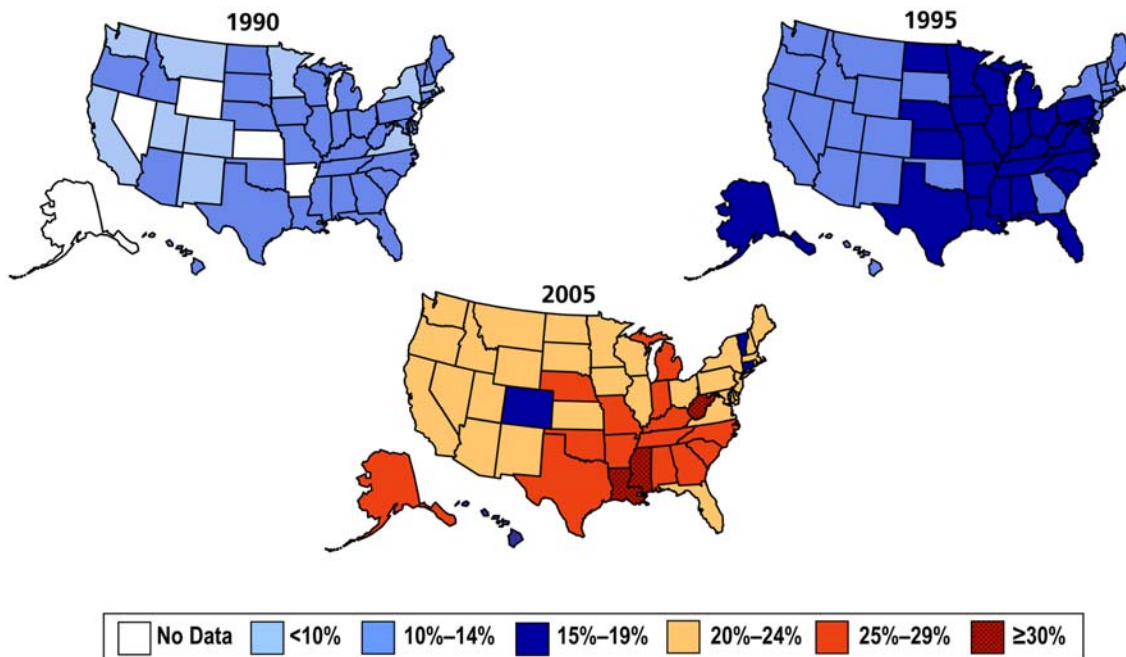
Across the United States today—in our homes, child care centers, doctors’ offices, schools, playgrounds, and shopping centers—we see dramatic and growing evidence of the childhood obesity epidemic. The number of overweight and obese American children has escalated since the 1970s. For preschool children (ages 2 to 5), the rate of obesity and overweight has more than doubled (Center for Health and Health Care in Schools, 2005), with one in four preschoolers being overweight or at-risk for obesity (Story, Kaphingst, & French, 2006).

According to the Centers for Disease Control and Prevention (2007), overweight and obesity describe weight ranges that are higher than what is generally considered healthy (for a given height) and correspond to an increased risk of certain diseases and other negative health outcomes. Overweight and obesity ranges generally are determined using weight and height to calculate body mass index (BMI). BMI ranges for children take into account normal differences in body fat between boys and girls and differences in body fat at various ages.

Obesity Trends* Among U.S. Adults

1990, 1995, 2005

(*BMI ≥30, or about 30 lbs overweight for 5’4” person)



Source: Behavioral Risk Factor Surveillance System. CDC

Young children who are overweight or obese significantly increase their risks for myriad chronic diseases and other adverse health consequences in adulthood. However, recent studies (National Institute for Health Care Management Foundation, 2004) show that overweight preschool children already are suffering the precursors of negative health consequences formerly seen only in adults, including:

- Depression and social isolation
- Type 2 diabetes
- Cardiovascular disease
- High blood pressure
- High cholesterol
- Orthopedic problems and destruction of weight-bearing joints

Even before birth, rising obesity rates in the United States are having serious implications for babies. According to the March of Dimes (March of Dimes Birth Defects Foundation, 2004), obesity among women ages 20 to 29 increased from 7 percent in 1960–62 to 17 percent in 1988–94. The prevalence of overweight among this age group almost doubled during the same time period, from 11 percent to 19 percent. Obese pregnant women are at increased risk for a variety of complications and adverse health outcomes, including preeclampsia, gestational diabetes, Caesarean section, and postpartum infection. Maternal obesity also places a fetus at increased risk for neural tube defects, birth trauma, and late fetal death.

Policymakers and researchers recognize the critical need for new, systemic approaches to address childhood obesity in our country. Responding to this need, ICF International has developed and implemented a variety of innovative strategies and methods for promoting obesity prevention in children and identifying best practices. As a result, ICF has the experience and expertise to help advance childhood obesity prevention initiatives in which all Americans have a stake.

From Intervention to Prevention

Efforts to address childhood obesity typically have focused on reducing the incidence of overweight and obesity in children by modifying negative behaviors and attitudes about nutrition and physical activity. Certainly, interventions designed to slow (and ideally reverse) the worsening of obesity are critical to mediating the long-term effects. However, because an established negative habit or pattern is difficult to unlearn, prevention efforts that promote good nutrition, physical activity, and healthy lifestyle choices are equally important so children learn early how to become and stay healthy.

Federal agencies that promote good health and work to reduce disease and disability are devoting increased resources to identifying the causes of childhood obesity and exploring strategies for reversing its disturbing trend. In addition to the Surgeon General’s “Call to Action,” the Centers for Disease Control and Prevention, the Maternal and Child Health Bureau, the U.S. Department of Agriculture Food and Nutrition Service, the Administration for Children and Families, the U.S. Food and Drug Administration, the U.S. Government Accountability Office, and other agencies are examining childhood obesity through their respective, mission-focused lenses.

Across Federal, academic, and private sectors, a consensus is emerging on a number of key issues related to childhood obesity:

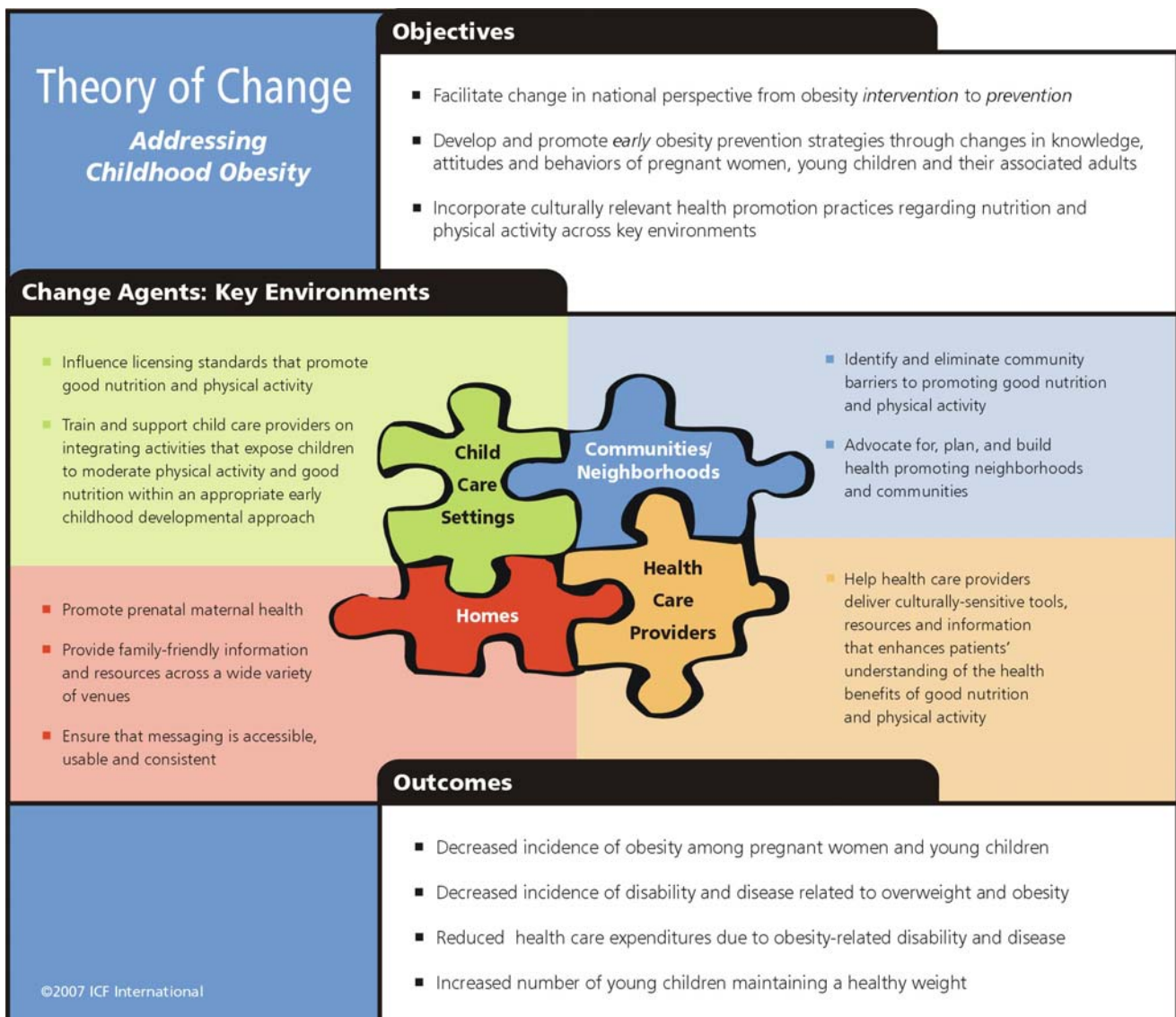
- Modifying or influencing knowledge, attitudes, and behaviors associated with both **physical activity** and **nutrition** is central to any childhood obesity prevention effort.
- Intervention and prevention efforts must target **children** and the **adults** in their lives, from their parents and extended families to health care providers, teachers, and child care providers.
- Intervention will be only partially effective; prevention is key to sustainable behavior change. Health promotion initiatives must reach out to target populations early and often, focusing on **very young children** and **pregnant women**. It is never too early to start children on a path to good health.
- Being obese or overweight disproportionately affects **low-income** and **minority** children and, in particular, Hispanic and African-American children. Obesity prevention must address the **cultural and socioeconomic factors** that have a heightened influence on the nutrition and physical activity patterns of these children.
- High rates of childhood obesity foretell a **public health crisis** for future generations. In addition, rising rates of childhood obesity will lead to significant **fiscal crises** in terms of increased health care costs, as well as decreased productivity and earning capacity for adults struggling with its long-term health consequences.
- Obesity prevention requires a systemic, community approach. Efforts that focus on the individual are not adequate to overcome **community barriers**, including **market forces** and limitations of **the built environment** (living space structures such as grocery stores, playgrounds, housing, and open space) that contribute to poor nutrition and insufficient physical activity.

Where Change Is Possible

For sustainable, systemic change, a holistic approach must incorporate health promotion innovations and best practices across all key settings where pregnant women and young children spend time and where change agents can inform and influence decision-making and behavior development. Such environments include:

- Child care settings
- Health care provider offices and settings
- Neighborhoods and communities
- Homes

While schools and workplaces also are key locations for intervention, these four environments are the primary settings for health promotion and prevention of **early** childhood obesity. Because pregnant women and young children live and learn in all these environments, they present interconnected opportunities for intervention and the greatest potential for change. Across these four settings, ICF has demonstrated commitment to and strong leadership in promoting positive health practices for these populations at risk for obesity.



Child Care Settings – Early Learning for Healthful Living

While childhood obesity has surged across all ages, the greatest increases in the prevalence of overweight and obesity have occurred in children ages 6 through 12. Consequently, intervention and prevention efforts to date have focused on this age group, often through school-based initiatives. However, rising obesity rates within this population suggest that **preventing** obesity requires reaching children before age 6. At the same time, changing demographics have led to significantly greater reliance on child care. Thirteen million of the nation's 21 million preschool age children spend a significant portion of their day in child care (Story et al., 2006). Whether in center-based facilities, family child care, or kith and kin arrangements, prevention initiatives can greatly influence young children's learning about nutrition and physical activity.

Obesity prevention strategies in child care settings should address:

- **Licensing standards:** working with states to encourage adoption of standards of care that promote good nutrition and physical activity within licensed facilities.
- **Professional development:** training child care providers on establishing culturally sensitive, positive nutrition practices and integrating activities that increase children's exposure to moderate to vigorous physical activity during their time in care.
- **Family support and education:** equipping child care providers with family-centered information and resources to extend health promotion, learning, and behavior change beyond the child care facility and staff.
- **Program management:** offering technical assistance to help programs access resources and establish policies and procedures to institutionalize positive nutrition and physical activity standards.

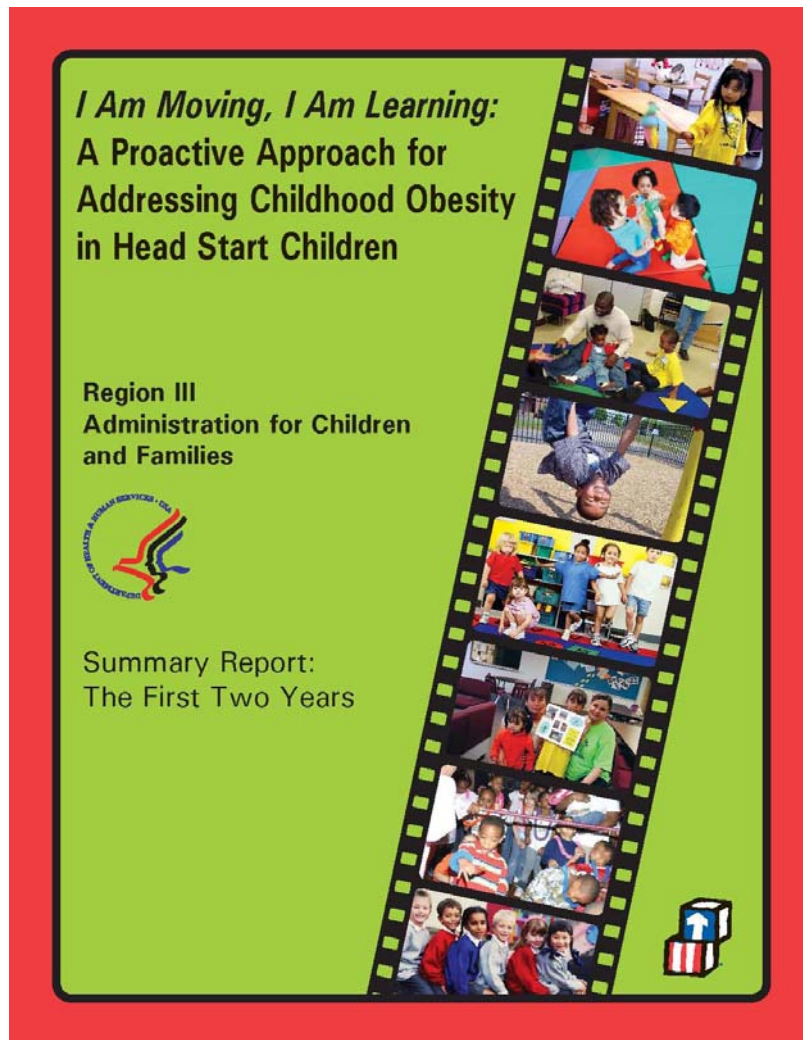
ICF has extensive experience supporting early childhood education and child care settings both domestically and internationally. Through its work with military child care, child care licensing, child welfare, and Head Start, ICF staff has long promoted standards of care, including appropriate nutrition and physical activity standards, and provided training and technical assistance to Federal child care officials, national early education organizations and their members, state licensing officials, and local child care providers to improve the health and well-being of young children and their families.

In 2005, under contract with the Administration for Children and Families (ACF) and in collaboration with West Virginia University, ICF's Training and Technical Assistance System for ACF Region III initiated a pilot project—I Am Moving, I Am Learning (IM/IL)—to prevent and reverse the negative consequences of obesity in children in 17 Head Start programs in Virginia and West Virginia. IM/IL goals are to increase the quantity of time spent in moderate to vigorous physical activities during the daily routine to meet national guidelines for physical activity, improve the quality of structured movement activities intentionally facilitated by teachers and adults, and improve healthy food choices for children every day.

The project was designed to reflect and fit within Head Start regulations by enhancing current teaching practices with more focused guidance on quality movement, gross and fine motor development, and child nutrition. Additionally, IM/IL recognizes the importance of not only supporting the classroom environment, but also reaching out to Head Start staff and families with information and strategies related to movement and nutrition. Following the overwhelming success of the pilot project, IM/IL was expanded throughout the mid-Atlantic region, and the project developers received the "Partnering for Health and Human Services Excellence Award" for their groundbreaking work in designing and launching IM/IL. IM/IL currently is being embraced and promoted not only by Head Start programs, but also among child care centers, state licensing agencies, and other national organizations involved in the fight against childhood obesity. The Office of Head Start now is expanding IM/IL throughout the United States.

ICF also manages the National Child Care Information Center (NCCIC), a service of the Child Care Bureau within ACF. NCCIC's Fit Source is an interactive website where child care and after-school care providers can find a variety of physical activity and nutrition resources for the children they serve, including games and activities, lesson plans, healthy and fun recipes, parent information, and funding strategies. ICF has long recognized that the availability of best practice information on-line greatly enhances provider ability and willingness to adopt innovations and new strategies.

I Am Moving, I Am Learning (IM/IL)



Health Care Providers – Prevention through Primary Care

Adults are 20 percent more likely to be overweight if they were overweight at age 4, and between 40 and 80 percent more likely if they were overweight teens (The Center for Health and Health Care in Schools, 2005). Other health conditions can arise, including cardiovascular disease, type 2 diabetes, stroke, and certain types of cancer. Type 2 diabetes, for example, is being diagnosed increasingly in younger children. Before 1990, approximately 4 percent of new cases were diagnosed in children and adolescents; during the 1990s, this rate rose to more than 8 percent (National Institute for Health Care Management Foundation, 2006). Often, however, health care providers fail to give adequate guidance to families with overweight, obese, or at-risk children. Time constraints and reimbursement issues can limit the amount or quality of anticipatory guidance health professionals offer. Providers often lack information about available resources and local initiatives to which they can direct patients. They may defer to the parents' cultural or familial expectations about weight, nutrition, and physical activity or feel uncomfortable actively addressing obesity issues with families. Some prenatal care providers may not be aware of the risks to infants associated with maternal obesity (not to mention the health risks to the woman during the pregnancy). Health care providers must become an integral part of a comprehensive obesity prevention approach.

Obesity prevention strategies should engage primary care providers, including pediatricians, general practitioners, and OB/GYNs, through:

- **Anticipatory guidance support:** providing tools, resources, and information to help adult and child patients understand the health benefits of good nutrition and specific strategies for encouraging behavior change.
- **Cultural sensitivity training:** educating providers about the specific challenges facing different minority populations and the cultural norms that influence their decision-making about nutrition, physical activity, and lifestyle.
- **Resources for low-income patients:** linking providers with local resources and programs to support vulnerable patients and help them overcome the challenges that often contribute to poor nutrition and limited physical activity.

ICF is committed to supporting individual health care providers and professional organizations in identifying best practices and ensuring providers have the most current information available in order to deliver quality care to young children and their families. From promoting anticipatory guidance standards to evaluating program practices, ICF staff has substantial expertise in working with the health care community to address a variety of health concerns.

ICF developed and managed the Maine Obesity Primary Prevention Project (MOPPP), a pilot intervention to develop and assess a clinical counseling guide created to support healthy dietary and physical activity patterns for children from birth to age 5, their families, and pregnant women. The MOPPP intervention focused on how clinicians used the Health Enhancement for Lifestyles Practices manual, developed by the Yale Prevention Research Center. The manual was designed to:

- Be a tool for preventing obesity by promoting healthy lifestyle behaviors among patients.
- Guide primary care physicians and allied health professionals to quickly and effectively promote healthy dietary and physical activity patterns for pregnant women, parents, and their children.
- Instruct providers to counsel patients within a time-limited, non-acute office visit using streamlined protocols.
- Provide community and national resources focusing on nutrition and physical activity.

Neighborhoods and Communities – Revamping the Built Environment

The built environment refers to all the structures that make up living spaces, such as housing developments, parks, transportation systems, and food establishments. Researchers have identified a number of relationships between the built environment and childhood obesity, such as decreased walking access to schools and playgrounds and the proximity of food shopping venues, such as quick marts, that sell more processed foods and fewer fresh fruits and vegetables. Structural and planning issues associated with the built environment pose challenges for promoting positive health and preventing obesity, and community factors often aggravate the problem. Not only may low-income communities have fewer playgrounds and recreational facilities, but also the facilities that exist may pose serious safety concerns, making them unusable. In addition, families without access to a large grocery store may frequent local stores, spending more of their income on processed and less nutritious foods.

ICF has established strong relationships with agencies and organizations concerned with strategic community planning and educating the public and policymakers about innovations and improvements in the built environment that can support childhood obesity prevention.

Obesity prevention and health promotion strategies that focus on the built environment include:

- **Needs assessment and cost analysis:** analyzing community barriers that hinder efforts to promote good nutrition and physical activity and identifying opportunities to increase health promotion cost-effectiveness.
- **Collaborations with community markets:** helping local vendors increase the availability and affordability of nutritious foods for consumers and supporting partners who take leadership roles in community health promotion.
- **Strategic health promotion and public relations:** providing community members with current, best practice information and resources to help them make better choices and adopt healthy lifestyles.
- **Public space advocacy and planning:** working with grassroots organizations to communicate the need for and benefits of public green space and recreational facilities, and helping community planners incorporate cost-effective designs for walkability and improved access to shopping, schools, and other community services.

As part of a project on environmental health disparities for the U. S. Environmental Protection Agency's Children and Aging Health Protection Division, ICF is developing a series of fact sheets that highlight environmental health topics, including obesity, as they apply to children of disadvantaged demographic groups. The fact sheets will discuss the relationship between childhood obesity and the built environment, statistics on the prevalence of childhood obesity among various demographic groups, what individuals can do to address the issue, and what government agencies are doing.

Homes – Reaching Out to Children and Families

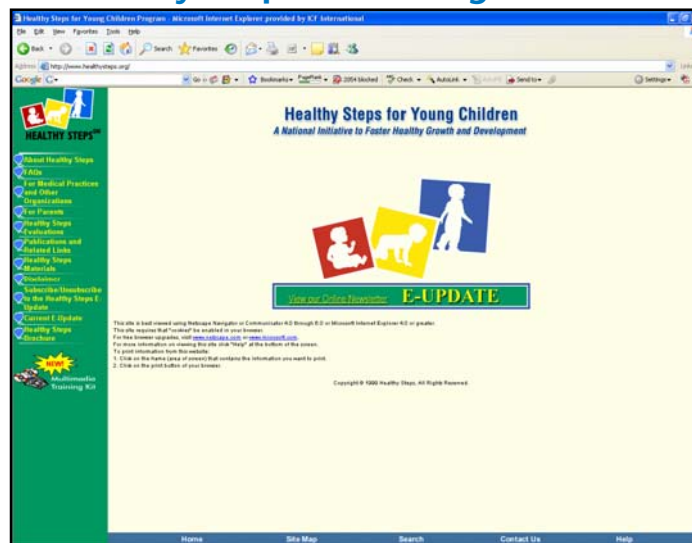
Establishing lifelong patterns of good nutrition and physical activity depends upon teaching children and their families about positive behavior choices. Families need information and resources that support appropriate, constructive decision making and reinforce messages about good health that they receive from the other important influences in their lives. Messages, strategies and resources need to focus not only on personal behavior change but also on “household” behavior change. Knowing what healthy foods are and the importance of physical activity is not enough. Families also need support around healthy shopping and cooking that addresses the persistent hurdles that prevent them from making healthy choices, including food insecurity, access (location and transportation availability) to healthy foods, time and money perceptions about healthy eating, household food storage and meal preparation resources, recipe knowledge and culturally-appropriate nutrition choices.

Creating home environments that are conducive to the development of good nutritional habits and a lifelong dedication to physical activity is best achieved through the following types of strategies:

- **Promoting prenatal maternal health:** providing pregnant women with access to quality prenatal care that includes anticipatory guidance about appropriate weight gain and physical activity guidelines to help ensure a healthy pregnancy and delivery and a healthy start for their infants.
- **Obesity prevention education and resources:** tailoring nutrition and physical activity messages to meet the needs of families, including information that is culturally sensitive, nonjudgmental, and respects the financial and community challenges facing many families living in poverty.
- **Ongoing support and validation:** offering community resources that reflect consistent messages across environments so efforts parents make to institute lifestyle changes are reinforced and validated by valued community members.

ICF has managed the Healthy Steps for Young Children Program since its inception. Funded by The Commonwealth Fund, The Robert Wood Johnson Foundation, The W.K. Kellogg Foundation, and scores of other national and local foundations, Healthy Steps is a national initiative that focuses on the importance of the first 3 years of life. Healthy Steps emphasizes a close relationship between health care professionals and parents in addressing the physical, emotional, and intellectual growth and development of children from birth to age 3. Each Healthy Steps team includes a Healthy Steps specialist, who, during well-child check-ups and home visits, enhances the information and services available to parents. These specialists receive thorough training in child development and address major behavioral and developmental issues, focusing on a whole baby, whole family brand of primary care. The Healthy Steps approach supports families in pediatric and family practices across the country and meets an array of community needs while preserving unique linkages to teams of health care professionals.

Healthy Steps for Young Children



Summary

The rising incidence of obesity among children is a national concern and stemming the tide has become a national priority. However, just as the signs of this epidemic are visible throughout our communities, so are the resources and opportunities for change. Significant strides have been made in identifying the complex factors that contribute to childhood obesity and in developing effective strategies to address them. At local, state, regional, and national levels, efforts are underway to implement solutions to this critical health problem. Much important work remains, from identifying and promoting best practices to coordinating efforts and fostering collaboration across environments to address obesity comprehensively and systemically.

ICF is committed to working with government and industry leaders to reduce childhood obesity and help prevent its negative consequences. Through partnerships with federal, state, and local governments, as well as not-for-profit and other organizations, ICF leverages its nationwide reach and substantive technical expertise to promote better nutrition, physical activity practices, and healthy lifestyles. ICF has the blend of experience and resources to help create integrated health promotion and education systems on a national scope or a local scale. Working with federal clients to shape policy and programs, or helping to bring information and resources to homes, neighborhoods, communities, child care programs, schools, health care providers, and other settings that afford direct access to target populations, ICF continually pursues opportunities to develop and deliver obesity prevention strategies that have a positive impact on the lives of our nation's children and families.

About ICF International

ICF International (NASDAQ: ICFI) partners with government and commercial clients to deliver consulting services and technology solutions in the energy, climate change, environment, transportation, social programs, health, defense, and emergency management markets. The firm combines passion for its work with industry expertise and innovative analytics to produce compelling results throughout the entire program life cycle, from analysis and design through implementation and improvement. Since 1969, ICF has been serving government at all levels, major corporations, and multilateral institutions. More than 2,500 employees serve these clients worldwide. ICF's Web site is www.icfi.com.

References

- Center for Health and Health Care in Schools. (2005). *Childhood overweight: What the research tells us*. Retrieved June 14, 2007, from <http://www.healthinschools.org/sh/obesityfacts.asp>
- Centers for Disease Control and Prevention. (2007). *Online obesity and overweight resources, research and statistics*. Retrieved June 14, 2007, from www.cdc.gov/nccdphp/dnpa/obesity/childhood/index.htm
- March of Dimes Birth Defects Foundation. (2004). *Obesity During Pregnancy Threatens Health of Both Mother and Fetus, March of Dimes Says*. Retrieved June 12, 2007, from http://www.marchofdimes.com/printableArticles/10651_12183.asp
- National Institute for Health Care Management Foundation. (2006). *Tackling childhood obesity through public-private collaboration*. Retrieved June 10 2007, from www.nihcm.org/~nihcmor/pdf/NIHCMObesityBrief.pdf
- National Institute for Health Care Management Foundation. (2004). *Obesity in Young Children: Impact and intervention*. Retrieved June 12, 2007, from <http://www.nihcm.org/~nihcmor/pdf/OYCbrie.pdf>
- Story, M., Kaphingst, K., & French, S. (2006). The role of child care settings in obesity prevention. *The future of children* (pp. 143-167). Woodrow Wilson School of Public and International Affairs at Princeton University and the Brookings Institution.

Additional Resources

- Administration for Children and Families, Region III, & Caliber, an ICF International Company. (2006). *I am moving, I am learning: A proactive approach for addressing childhood obesity in Head Start children*. Retrieved June 2007 from www.acf.hhs.gov/programs/region3/docs/Fatherhood/i_am_moving_summary_report.pdf
- Healthy Steps for Young Children (2007), Retrieved June 2007, from www.healthysteps.org
- Kaufman, L., & Karpati, A. (2007). Understanding the sociocultural roots of childhood obesity: Food practices among Latino families in Bushwick, Brooklyn. *Social Science & Medicine*, 64, 2177–2188.
- National Institutes of Health, National Heart, Lung, and Blood Institute. *We can! Ways to enhance children's activity and nutrition program*. Retrieved June 2007 from www.nhlbi.nih.gov/health/public/heart/obesity/wecan/
- U.S. Department of Health and Human Services. (2001). *The surgeon general's call to action to prevent and decrease overweight and obesity*. Retrieved June 2007 from www.surgeongeneral.gov/topics/obesity/
- Woodrow Wilson School of Public and International Affairs at Princeton University and the Brookings Institution. (2006). Childhood obesity. *The future of children*, 16(1).