

Report to Congress  
on  
Head Start Efforts to Prevent and  
Reduce Obesity in Children



U.S. Department of Health and Human Services  
Administration for Children and Families  
Office of Head Start



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## I. Introduction

The rate of early childhood overweight and obesity in the United States has increased significantly over the last 30 years. Comparison of the National Health and Nutrition Examination Survey (NHANES) data collected during 1976–1980 and 2003–2006 shows that the prevalence of overweight increased from 5.0 percent to 12.4 percent among children ages 2 to 5 years old.<sup>1</sup>

The psychosocial risks of potential stigmatization and discrimination in an overweight child can cause low-esteem and/or reduced school performance. Overweight and obese children also face the increased health risks associated with cardiovascular disease, such as high cholesterol, high blood pressure; onset of Type 2 diabetes; and asthma.<sup>2</sup> Furthermore, studies have shown that overweight children and adolescents are more likely to become overweight or obese as adults.<sup>3</sup> Appendix A includes current research on childhood obesity and its related health risks.

Many of the communities served by the Administration for Children and Families (ACF) Office of Head Start (OHS) have been affected by the staggering rise in national childhood obesity rates. Head Start programs located in low-income neighborhoods faced with the environmental risk factors of obesity, such as lack of safe outdoor play spaces and inaccessibility of low-cost, high-quality healthful foods, have seen an increase in the number of overweight children.

Current Head Start Program Performance Standards reflect Head Start's commitment to supporting children in maintaining a healthy weight and active lifestyle. Appendix B lists the Head Start regulations related to nutrition and physical activity. These were found to be in concordance with recommendations by an expert committee initially convened in 2004 by the American Medical Association and the U.S. Department of Health and Human Services (HHS) Health Resources and Services Administration and the Centers for Disease Control and Prevention. The Recommendations were released in a Pediatrics Supplement in December 2007.

Recognizing the need to address the increasing rates of childhood obesity and the impact of the Head Start program on the national community, Congress mandated that within one year after the enactment of Public Law 110-134, "Improving Head Start for School Readiness Act of 2007," the Office of Head Start would submit to Congress a report on the Secretary's progress in assisting program efforts to prevent and reduce obesity in children who participate in Head Start programs. Refer to Appendix C for language from the "Improving Head Start for School Readiness Act of 2007."

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<sup>1</sup> Centers for Disease Control and Prevention (2009). Retrieved from: <http://www.cdc.gov/obesity/childhood/prevalence.html>

<sup>2</sup> Centers for Disease Control and Prevention (2009). Retrieved from: <http://www.cdc.gov/obesity/childhood/consequences.html>

<sup>3</sup>Centers for Disease Control and Prevention (2009). Retrieved from: <http://www.cdc.gov/obesity/childhood/index.html>

This report describes the activities and initiatives undertaken by the Office of Head Start to support Head Start grantees and delegate agencies in taking steps to reduce overweight and obesity among Head Start children and their families.

## II. Background

In September 2004, “in response to a request from Congress for a prevention-oriented action plan to tackle the alarming rise in childhood obesity, the Institute of Medicine (IOM) Committee on Prevention of Obesity in Children and Youth has developed a comprehensive national strategy that recommends specific actions for families, schools, industry, communities, and government. The committee's findings and recommendations are described in the report *Preventing Childhood Obesity: Health in the Balance*. The report provides a broad-based examination of the nature, extent, and consequences of obesity in U.S. children and youth, including the social, environmental, and dietary factors responsible for its increased prevalence. The report's action plan lays out explicit goals and recommendations for preventing obesity and promoting healthy weight in children and youth in various segments of society.”<sup>4</sup>

The Institute of Medicine report *Preventing Childhood Obesity: Health in the Balance* supported the Office of Head Start’s holistic approach to child health and nutrition, including attainment and maintenance of normal weight gain, which is a core element within the 1975 and 1998 Head Start Program Performance Standards (45 CFR 1304). The report also focused on Head Start as a critical component of a successful national strategy to address the prevention and reduction of childhood overweight and obesity. Appendix D includes excerpts from the Institute of Medicine report, *Preventing Childhood Obesity: Health in the Balance*.

Statistics are collected on Head Start children through the Program Information Report (P.I.R) and are shared as part of the Biennial Reports submitted by OHS to Congress as required by legislation. The P.I.R. is an important source of comprehensive data on Head Start programs at the national, regional, and program level. The P.I.R. devotes significant attention to child health and health services. Programs track and report annually the “number of children who received treatment for overweight”. Aggregated national data from 2004-2008 for the percentage of total actual enrollment of children who received treatment for overweight are as follows: 2004, 4.35 percent; 2005, 4.4 percent; 2006, 4.75 percent; 2007, 4.65 percent; and 2008, 5.04 percent. These numbers, which appear low based upon national data describing the prevalence of childhood overweight, may reflect in part the low frequency with which overweight children, especially those under 5 years of age, receive a formal diagnosis and treatment plan from a health care provider (please refer to references in Appendix A). Overweight continues to be tracked and reported by programs in the P.I.R. under “Medical Services – Children” as the “number of all children who received medical treatment for the following chronic health conditions, including those diagnosed prior to this reporting period – d. Overweight.” Medical treatment is defined as

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<sup>4</sup> Jeffrey P. Koplan, Catharyn T. Liverman, and Vivica A. Kraak, *Editors*, Committee on Prevention of Obesity in Children and Youth (2005). **Preventing Childhood Obesity: Health in the Balance**. Institute of Medicine.

“any service that is required to improve the physical condition of the child, including all forms of medical follow-up.” There is no database maintained by the Office of Head Start to identify and track all children who are overweight separately from their source of preventive and primary health care.

The Office of Head Start conducts triennial and first-year monitoring reviews of grantee and delegate agencies’ performance with respect to the Head Start Program Performance Standards. Program Performance Standards in the areas of physical activity and nutrition support Head Start’s promotion of attainment and maintenance of healthy weight for children (please refer to Appendix B). Results of aggregate monitoring data for FY 2007, 2008, and 2009 YTD demonstrate that for the standards for active play and movement, the rate of compliance among 1349 agencies evaluated through monitoring is 99.2 percent. During the same time period, the rate of compliance among the 1349 agencies for nutrition standards impacting upon attainment and maintenance of healthy weight was 92.1 percent.

### **III. Office of Head Start Initiatives to Promote Health and Prevent Obesity Among Children**

The Office of Head Start (OHS) has initiated efforts to prevent obesity by promoting healthy lifestyles and physical activity through a variety of innovative and constructive methods. *I Am Moving, I Am Learning*; the Early Childhood Learning and Knowledge Center; *Healthy Children, Healthy Families and Healthy Communities*; Office of Head Start Senior Medical Advisor; *Little Voices for Healthy Choices*; and OHS Innovation and Improvement Project (IIP) Grants: National Head Start Center for Physical Development and Outdoor Play are examples of steps taken by OHS in recent years to bolster obesity prevention for children, support good nutrition, and foster physical exercise. Each of these efforts is described in more detail below.

#### **A. Office of Head Start *I Am Moving, I Am Learning* Initiative**

In August 2004, the Office of Head Start, Region III launched a special initiative, *I Am Moving, I Am Learning (IM/IL)* to address childhood obesity in two states with significant need – Virginia and West Virginia. Statistics showed 58 percent of Virginia’s adults and 64 percent of West Virginia’s adults were overweight or at-risk of becoming overweight, compared to 56 percent nationally. In West Virginia, 28 percent of low-income children between 2 and 5 years of age were overweight or at-risk of becoming overweight (CDC PedNSS, 2003). Approximately 28 percent of Virginia’s children and 26 percent of West Virginia’s children were overweight in the fourth and fifth grades, nearly twice the national average.

The overarching goals of *I Am Moving, I Am Learning* are to:

- Increase time spent in moderate to vigorous physical activity (MVPA) during the daily routine to meet national guidelines for physical activity;
- Improve the quality of structured movement experiences facilitated by teachers and adults; and
- Improve healthy nutrition choices for children every day.

The resulting program enhancement was piloted with 17 Region III programs in fiscal year 2005. Based on the success of the pilot trainings, 53 more Head Start grantees in Region III were trained in the spring of 2006. Additional Head Start programs have received training since the spring of 2006, bringing the total number of grantees trained in Region III to 105.<sup>5</sup>

In 2006, *I Am Moving, I Am Learning* received the “Partnering for HHS Excellence Award” from the Administration for Children and Families, U.S. Department of Health and Human Services.

In FY 2007-2008, *I Am Moving, I Am Learning* was disseminated nationwide and Head Start allocated approximately \$2.5 million in training funds to allow 800 Head Start grantees to participate in a three day training event on this initiative and its message of the importance of physical activity and nutrition. At present, approximately 832 Head Start programs nationally have received IMIL training. Ongoing development of *I Am Moving I Am Learning* will be carried out by the Head Start National Center for Physical Development and Outdoor Play, under an Office of Head Start Innovation and Improvement Project grant awarded to the American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD) (see F. below). The Office of Head Start is committed to making IMIL training available to all remaining grantees over the next two years.

Appendix E includes a summary of results from the *I Am Moving, I Am Learning* Initiative implementation evaluation conducted in Region III.

#### B. Early Childhood Learning and Knowledge Center (ECLKC)

Parental and caregiver education, involvement, and support are core elements of Head Start. There was a recognized need for a robust and effective means to provide relevant information, including the promotion of physical activity and healthy nutrition, to staff and families. On July 11, 2006, the Office of Head Start announced the launch of the Early Childhood Learning and Knowledge Center (ECLKC), available online at <http://eclkc.ohs.acf.hhs.gov/hslc>.

The intent of the ECLKC is to offer an interactive, web-based resource providing relevant, timely information, knowledge and learning to Head Start programs and the early childhood community in an easy-to-use format. It is designed to be a comprehensive resource for individuals involved with or interested in early childhood education, with format and content geared to the needs of the intended user.

The site directly serves parents by providing information that supports parents' involvement in their children's lives. It also is designed to inform families about Head Start and Early Head Start, and shares with parents how they can support their child's experiences in the program.

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<sup>5</sup> *I am Moving, I am Learning: A Proactive Approach for Addressing Childhood Obesity in Head Start Children. A Summary Report: The First Two Years.* Region III Administration of Children and Families with Caliber an ICF International Company.

The ECLKC has a specific focus on supporting early childhood development and health. This includes offering a variety of resources and information related to services for young children ages birth to five and their families. There are relevant Head Start Program Performance Standards, articles, tip sheets, and training materials. These resources support the delivery of quality program services, with an emphasis on such topics as parent involvement, staff development, and collaboration.

Specific material is offered on the site regarding the prevention of childhood obesity, including links to relevant content from the National Institutes of Health, the U.S. Department of Agriculture, the Health Resources and Services Administration's Maternal and Child Health Bureau (MCHB), the American Academy of Pediatrics (AAP), the National Association for Sport and Physical Education, and others. "Bright Futures: Guidelines for Health Supervision of Infants, Children and Adolescents", (published by the AAP and funded by MCHB), is another resource. Resources may also be searched by topic.<sup>6</sup>

C. Indian Health Service Head Start Best Practices: *Healthy Children, Healthy Families and Healthy Communities* Initiative: Lessons Learned in the IHS Head Start Initiative – Primary Prevention of Obesity and Type 2 Diabetes - October 2006

The Indian Health Service Head Start Best Practices report highlights the Tribal activities and the lessons learned in the four-year *Healthy Children, Healthy Families, and Healthy Communities* Initiative (*HCHFHC* Initiative). The initiative's positive title was created by the five pilot sites' team members to focus on health promotion rather than disease. Interventions involve children ages 0-5 years, Early Head Start/Head Start staff, parents, and American Indian/Alaskan Native (AI/AN) communities.

The core component of the initiative develops and sustains local community partnerships in the implementation of program interventions. The Indian Health Service (IHS) Head Start project recognized the twin epidemics of obesity and type 2 diabetes and proposed a primary prevention initiative to address these growing problems. Tribal Head Start sites received funds for travel and technical assistance to implement their community action plan.

Using theoretical frameworks of Social Cognitive Theory (SCT) and Social Action Theory (SAT), the *HCHFHC* Initiative developed educational programming and direct interventions in five AI/AN communities based on each community's specific needs. Health workers and Head Start staff focused on four core areas:

- **Healthy Eating and Nutrition.** Increase access to healthy foods for Head Start families, children, parents, and staff in AI/AN communities.
- **Physical Fitness.** Increase opportunities for physical activities for Head Start families, children, parents, and staff in AI/AN communities.
- **Community Mobilization.** Mobilize the communities on health promotion through local and tribal partnerships and local capacity building.
- **Environmental Policy.** Advocate for policy change and dissemination of

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<sup>6</sup> Refer to [http://www.acf.hhs.gov/programs/ohs/policy/im2006/acfimhs\\_06\\_03.html](http://www.acf.hhs.gov/programs/ohs/policy/im2006/acfimhs_06_03.html).

promising practices for healthy communities.

The four target audiences were:

- **Children ages 0-5 in Head Start programs.** Education, activities and interventions that focus on healthy eating, physical activity and healthy behaviors to reverse the rising trend of obesity and type 2 diabetes among AI/AN children.
- **Head Start staff.** In-service training programs to provide wellness assessment, healthy eating, stress reduction, and walking and physical fitness programs for staff.
- **Parents and families of Head Start children.** Families of Head Start children are targeted for intervention to increase knowledge of diabetes and obesity prevention through education on healthy eating and exercise for themselves and their children.
- **Communities.** Rather than targeting obese children and their families, the initiative implemented comprehensive interventions that focus on healthful behaviors and practices for the entire community. The initiative sought tribal support through council resolutions supporting the initiative and the endorsement of local Head Start Policy Councils.<sup>7</sup>

#### D. Office of Head Start Senior Medical Advisor

In September 2007, the Office of Head Start recruited into the position of Senior Medical Advisor a pediatrician with expertise in the delivery of comprehensive primary health care services to low-income and refugee/immigrant communities. This physician was sub-specialty trained in pediatric endocrinology and diabetes, and had a particular interest in childhood overweight and obesity prevention and treatment.

The Senior Medical Advisor accepted membership on the *Surgeon General's Childhood Overweight and Obesity Prevention Council* in December 2007 and the *Healthy People 2010 Focus Area 19 Interagency Work Group - Nutrition and Overweight Focus Area* in January 2008.

#### E. Early Head Start and Migrant and Seasonal Head Start *Little Voices for Healthy Choices*

The evolving state of knowledge on childhood overweight and obesity suggested the need for targeted preventive measures to address healthy nutrition and physical activity for pregnant women and infants/toddlers. This led to the development of the *Little Voices for Healthy Choices*, a national initiative for Early Head Start (EHS) and Migrant and Seasonal Head Start (MSHS) program staff and parents to promote physical activity and healthy nutrition.

The *Little Voices for Healthy Choices* initiative addresses childhood obesity by focusing on preventative measures for staff and parents to provide healthy nutrition and movement

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<sup>7</sup> Internal Report to the Office of Head Start.

experiences for infants and toddlers. This initiative provides teams of EHS and MSHS programs with knowledge and strategies to positively influence the healthy development of children and families in their care, and subsequently, positively influence their own movement and nutritional practices. Specifically, the *Little Voices for Healthy Choices* initiative supports Head Start Program Performance Standards 1304.21(a), 1304.21(b), 1304.23, 1304.40, and 1304.41.

Through a competitive application process, 24 EHS and MSHS programs, representative of the 10 ACF Regions and two program branches, were selected to participate in an intensive training experience and one year of supportive follow-up activities. During this experience, participant program teams learn how healthy nutrition, movement, and music contribute to the overall healthy development of infants and toddlers.

The *Little Voices for Healthy Choices* initiative involves three components:

1. **Training.** An intensive three-day training seminar for team members was held in May 2008. During this experience, participant program teams learned how healthy nutrition, movement, and music contribute to the overall healthy development of infants and toddlers. Teams developed work plans based on this knowledge.
2. **Follow-up.** Teams began implementing strategies formulated during training seminars. Conference calls have been scheduled over a 12-month period to help teams report their work, share their results, and draw support from other teams' experiences. In addition, teams will have access to a listserv that supports communication and the sharing of pertinent resources and information. Implementation will involve not only the team, but may also involve other staff, parents, and community partners.
3. **Evaluation.** The evaluation will seek to understand how change unfolds in programs as they implement learning generated from the training seminar and follow-up activities. Program teams must be available for both qualitative and quantitative evaluation approaches during and immediately following the end of the initiative.<sup>8</sup>

#### F. Office of Head Start Innovation and Improvement Project (IIP) Grants: National Head Start Center for Physical Development and Outdoor Play

In 2008, the Administration for Children and Families, Office of Head Start (OHS), invited applications from organizations for financial support for a Head Start Innovation and Improvement Project that addressed the promotion of physical development and outdoor play in Head Start.

The Head Start Center for Physical Development and Outdoor Play was funded for three million dollars per year for four years. Approximately one million of each year's three

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<sup>8</sup> Refer to <http://www.ehsnrc.org/PDFfiles/LittleVoicesOverview.pdf>

million dollars is reserved for providing information and support to OHS for use in setting national priorities and developing policies. It also will support evidence-based training and technical assistance to Head Start and Early Head Start grantees through the development of resources, technical assistance specialists, and direct training at the local, State, regional and national levels. The material developed by the Center will be posted on the Early Childhood Knowledge and Learning Center website to facilitate the widest possible dissemination. Additionally, the Center will directly support the improvement and construction of Head Start playgrounds and outdoor play spaces through training and technical assistance and grants of up to \$5,000. (Up to \$2,000,000 per year of this funding must be distributed to Head Start grantees for playground and outdoor play space improvement and construction).

Ways in which the Center could provide support to Head Start grantees include:

- Consolidation of expert knowledge and opinion of the physiologic, cognitive, social and behavior benefits of outdoor play;
- Development of "best practices" to assess resources and needs of programs in a variety of communities, including urban and rural settings;
- A competitive process to award funds to Head Start programs and community partners to create outdoor play areas that are safe and appropriate for our children;
- Recognition and support of cultural characteristics and determinants of outdoor play;
- Strategies for extending the indoor learning environment to the outdoor environment to promote both physical and cognitive development;
- Development and dissemination of strategies to promote moderate-to-vigorous (MVPA) and vigorous physical activity (VPA) within programs and communities; and
- Development and implementation of training materials on creating opportunities to meet guidelines for structured and unstructured play.

Expected outcomes are:

- An increase in awareness of the recommendations regarding physical activity for children;
- Increased opportunities for outdoor play in programs and communities;
- Enhanced awareness of making healthy choices, i.e., exercise and healthy nutrition choices; and
- Improvement in health status of children.<sup>9</sup>

With the creation of the National Center for Physical Development and Outdoor Play, the Office of Head Start is positioned to consolidate and further develop its resources to address the prevention and reduction of childhood overweight and obesity. The conceptual design of the Center is the result of a succession of initiatives within the Head Start program to

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<sup>9</sup> Refer to <http://www.acf.hhs.gov/grants/open/HHS-2008-ACF-OHS-YD-0025.html>

develop evidence-based and replicable models to promote physical development and the adoption of healthy nutritional practices.

Most of these projects are ongoing. Through these and related efforts, the Office of Head Start seeks to reduce risks for children, encourage physical exercise, foster education about nutrition, and promote good health. Effective prevention of childhood overweight and obesity requires intervention during the prenatal and early childhood periods as well as ongoing support of healthy lifestyle choices throughout the remainder of childhood. Early Head Start and Head Start programs have the unique opportunity to address the disproportionate impact of childhood overweight among vulnerable populations.

#### **IV. Conclusion**

This report highlights the Secretary's progress in assisting program efforts to prevent and reduce overweight and obesity in children who participate in Head Start programs. The six Office of Head Start (OHS) projects and innovations highlighted in this report address the serious risks of overweight and obesity and initiate steps to support and sustain the societal and lifestyle changes that can reverse the trend among Head Start children.

Since its inception in 1965, the Head Start program has recognized the important role that physical health and nutrition play in the overall development of children. The Institute of Medicine's report highlighted Head Start's holistic approach to child health and nutrition, including attainment and maintenance of normal weight gain, noting that these had been core elements of the Head Start Program Performance Standards since 1975. Head Start remains committed to providing effective and responsive support, guidance, and best practices related to child health and well-being.

### Review of Literature on Child Health and Health Risks

The following resources and study summaries provide information on the health risks to children due to risk factors.

#### **“Obesity Prevalence Among Low-Income, Preschool-Aged Children --- United States, 1998—2008”**

**MMWR - July 24, 2009 / 58(28);769-773**

“Childhood obesity continues to be a leading public health concern that disproportionately affects low-income and minority children (1). Children who are obese in their preschool years are more likely to be obese in adolescence and adulthood (2) and to develop diabetes, hypertension, hyperlipidemia, asthma, and sleep apnea (3). One of the *Healthy People 2010* objectives (19-3) is to reduce to 5% the proportion of children and adolescents who are obese (4). CDC's Pediatric Nutrition Surveillance System (PedNSS) is the only source of nationally compiled obesity surveillance data obtained at the state and local level for low-income, preschool-aged children participating in federally funded health and nutrition programs. To describe progress in reducing childhood obesity, CDC examined trends and current prevalence in obesity using PedNSS data submitted by participating states, territories, and Indian tribal organizations during 1998--2008. The findings indicated that obesity prevalence among low-income, preschool-aged children increased steadily from 12.4% in 1998 to 14.5% in 2003, but subsequently remained essentially the same, with a 14.6% prevalence in 2008. Reducing childhood obesity will require effective prevention strategies that focus on environments and policies promoting physical activity and a healthy diet for families, child care centers, and communities.”

It should be noted that the PedNSS data set offers a different perspective on progress in reducing childhood obesity from that presented in the NHANES data. This is responsible for the difference between the prevalence of obesity among children ages 2-5 years of 12.4% cited for NHANES 2003-2006 and the figure of 14.6% for low-income children ages 2-4 years in PedNSS 2008.

#### **Early Onset of Overweight and Obesity among Low-Income 1- to 5-Year Olds in New York City”**

Matilde Irigoyen, Melissa E. Glassman, Shaofu Chen, and Sally E. Findley

**Journal of Urban Health:** Bulletin of the New York Academy of Medicine, 2008.

“In conclusion, our study suggests that the ages between 1 and 3 represent a critical age period for the development of obesity among inner-city, minority children. Our study does not permit assessment of the factors contributing to this

extraordinary risk of early-childhood obesity in this community, but we think that the limited opportunities for outdoor active play and access to healthy foods may contribute to this risk. Future research should include prospective studies looking at the development of overweight and obesity, along with associated neighborhood, physical, and dietary risk factors for children as they progress through early childhood. This could further define the concept of a critical age period for the development of overweight and obesity and help design culturally and developmentally appropriate population-based interventions to prevent childhood obesity.”

**“Diagnosis, Evaluation, and Treatment of Childhood Obesity in Pediatric Practice”**

Karen B. Dorsey, MD; Carolyn Wells, MPH; Harlan M. Krumholz, MD; John C. Concato, MD

Archives of Pediatric and Adolescent Medicine Vol. 159, July 2005

“Given the degree of under recognition of obesity in this study, it is not surprising that few children who were overweight and at risk of overweight had any documented treatment in the clinical encounter. We found a particularly low proportion treated among at-risk children, compared with overweight children, indicating that practitioners tended to document treatment plans for children at the highest BMI percentiles. By focusing on the most extremely overweight children, providers might be selecting those patients who have the most difficulty maintaining or losing weight. Failures in treatment efforts centered on these children might exaggerate the perception of futility in achieving weight management for overweight children in general.”

**“High Body Mass Index for Age Among US Children and Adolescents, 2003-2006”**

Cynthia L. Ogden, PhD; Margaret D. Carroll, MSPH; Katherine M. Flegal, PhD

JAMA, May 28, 2008, Vol. 299, No.20

Table 1: Prevalence of High BMI for Age Among US Children 2003-2006

Ages of both sexes 2-5 years – BMI  $\geq$ 85% 24.4%

**“Identifying Risk for Obesity in Early Childhood”**

Philip R. Nader, Marion O'Brien, Renate Houts, Robert Bradley, Jay Belsky, Robert Crosnoe, Sarah Friedman, Zuguo Mei, Elizabeth J. Susman and for the National Institute of Child Health and Human Development Early Child Care Research Network

Pediatrics 2006

“Children who were ever overweight ( $\geq$ 85<sup>th</sup> percentile), that is,  $\geq$ 1 time at ages 24, 36, or 54 months during the preschool period were  $\geq$ 5 times as likely to be overweight at age 12 years than those who were below the 85<sup>th</sup> percentile for BMI at all 3 of the preschool ages. Sixty percent of children who were overweight at any time during the preschool period and 80% of children who were overweight at any time during the elementary period were overweight at age 12 years. Follow-up calculations showed that 2 in 5 children whose BMIs were  $\geq$ 50<sup>th</sup> percentile by age 3 years were overweight at age 12 years. Children who have higher range BMIs earlier, but not at the 85<sup>th</sup> percentile, are also more likely to be

overweight at age 12 years. Even at time points before and including age 9 years, children whose BMIs are between the 75th and 85th percentile have an approximately 40% to 50% chance of being overweight at age 12 years. Children at 54 months old whose BMIs are between the 50th and 75th percentile are 4 times more likely to be overweight at age 12 years than their contemporaries who are <50th percentile, and those whose BMIs are between the 75th and 85th percentile are >6 times more likely to be overweight at age 12 years than those <50th percentile.”

This research validated Head Start’s ongoing allocation of resources to addressing the prevention of overweight/obesity among Head Start children. Given the level of correlation between overweight in the ages served by Head Start and adolescence, it was clear that specific higher-risk groups within the Head Start program would suffer disproportionately in later life if targeted and effective interventions were not found.

Indian Health Service Head Start Obesity Prevention Initiative 1997-2003  
**“Pediatric Height and Weight Study in American Indian and Alaska Native Population, 2001-2004”**  
**Final Report: Children Under Five Years of Age**  
March 2006

*(Note to the reader: The definitions used for “at-risk-for-overweight” and “overweight” are now defined as “overweight” and “obese” respectively.)*

“This report describes results from the data collection and analysis of the national “Pediatric Height and Weight Study in American Indian and Alaska Native Population 2001-2004.” Data from selected Special Supplemental Nutrition Programs for Women, Infants and Children (WIC) and Head Start programs were analyzed and are discussed in this report. Funds were provided to the Inter Tribal Council of Arizona, Inc., Epidemiology Center (ITCA Epi Center) to conduct this study. The purpose of this study was to determine the prevalence of underweight, at-risk-for overweight and overweight in American Indian and Alaska Native (AI/AN) children living on or near reservations in the United States (U.S.). Also, these numbers were compared to the national statistics collected by the Centers for Disease Control and Prevention (CDC) in order to determine how rates for AI/AN children compare to national rates for overweight.”

“Among children age 0-2 years, the prevalence of at-risk-for-overweight (weight-for-length  $\geq$  85<sup>th</sup> percentile) was 31.4% for males and 30.7% for females. The prevalence of at-risk-for-overweight increased among older children to 38.9% in male children and 38.3% in female children age 2-4 years. The prevalence of overweight (weight-for-length  $\geq$  95<sup>th</sup> percentile) for children under two years of age was 27% for males and 27.1% for females. Among children age 2-4 years, the prevalence of overweight decreased to 20.7% for males and 19.7% for females.”

Contrasting this with the NHANES data for a cross-section of U.S. children age 2-5 years in **“Prevalence of Overweight and Obesity in the United States, 1999-2004”** published in

**J.A.M.A.** in 2006 demonstrates the disparity in prevalence of overweight among young American Indian and Alaska Native children in Head Start programs.

*(Note to the reader: the definitions used for “at-risk-for-overweight” and “overweight” are now defined as “overweight” and “obese” respectively)*

At-risk-of-overweight (BMI  $\geq$  85%ile): 1999-2000 22.0; 2001-2002 23.5; 2003-2004 26.2

Overweight (BMI  $\geq$  95%ile): 1999-2000 10.3; 2001-2002 10.6; 2003-2004 13.9

### **“Motor Skill Performance and Physical Activity in Preschool Children”**

Harriet G. Williams, Karin A. Pfeiffer, Jennifer R. O’Neill, Marsha Dowda<sup>1</sup>, Kerry L. McIver, William H. Brown and Russell R. Pate

**Obesity** (2008) 16, 1421–1426.

“Our study provides strong support for the potential importance of motor skill performance in young children’s PA behaviors. Children with poorer motor skill performance tended to be less physically active than children with better-developed motor skills. Although considerable attention is given to motor skill performance in a small population of children with severe developmental delays, little, if any, attention is devoted to such development in most other children.”

### **“Physical Activity Among Children Attending Preschools”**

Russell R. Pate, PhD<sup>\*</sup>, Karin A. Pfeiffer, PhD<sup>\*</sup>, Stewart G. Trost, PhD<sup>†</sup>, Paula Ziegler, PhD, RD<sup>‡</sup> and Marsha Dowda, DrPH<sup>\*</sup>

**Pediatrics** Vol. 114 No. 5 November 2004

Thirty-point-eight percent of the children in study were recruited from Head Start programs. In their conclusions, the authors state that: “The preschool that each child attended accounted for a sizeable fraction of the variance in child physical activity, which suggests that policies and practices of preschools have an important influence on the overall activity levels of the children the schools serve. Future research should examine the impact of specific school policies and practices on physical activity levels of preschool students, and subsequent policy intervention studies should test the effectiveness of specific preschool policies on physical activity and weight status among young children.”

### **“Racial and Ethnic Differentials in Overweight and Obesity Among 3-Year-Old Children”**

Rachel Tolbert Kimbro, PhD, Jeanne Brooks-Gunn, PhD, and Sara McLanahan, PhD

**American Journal of Public Health** | February 2007, Vol. 97, No. 2

“Overall, there was a high prevalence of overweight and obesity among preschoolers in the Fragile Families study. Thirty-two percent of White children were overweight or obese, as compared with 32% of Black children and 44% of Hispanic children.”

“We found that Hispanic children aged 3 years were nearly twice as likely as White children to be overweight or obese. They also had twice the odds of overweight or obesity

than did Black children despite similar family socioeconomic profiles. These results are striking and suggest that childhood overweight problems begin earlier than previously thought. In addition, the racial and ethnic differences observed decreased only slightly when we included children's and mothers' characteristics, mothers' health status and health behaviors, and children's opportunities for exercise in the models, indicating that other, unmeasured factors must have accounted for these differences.”

**“The Importance of Play in Promoting Healthy Child Development and Maintaining Strong Parent-Child Bonds” – Clinical Report**

Kenneth R. Ginsburg, MD, MEd, and the Committee on Communications and the Committee on Psychosocial Aspects of Child and Family Health PEDIATRICS Volume 119, Number 1, January 2007

“Because there are at least several causes for the decreased amount of child-directed play, there is no single position that child advocates should take. For example, in the case of a child who is economically disadvantaged and does not reside in a safe neighborhood, it may be unwise to simply propose more child-centered play. Although parents can be encouraged to optimize conditions for this kind of play in the home, there must be broad societal responses that address poverty, social inequities, and violence before we can advise parents to allow unsupervised play.

In addition, for children in poverty, enhanced child care services, early community based education (e.g., Head Start), increased academic programming, more enrichment activities, and greater opportunities for community-based adult-supervised activities are warranted. Some of the needed solutions for this group of disadvantaged children remain beyond the scope of this article and are raised here to emphasize that the suggestions offered here need to be individualized; one size does not fit all.”

**“Underdiagnosis of Pediatric Obesity and Underscreening for Fatty Liver Disease and Metabolic Syndrome by Pediatricians and Pediatric Subspecialists”**

Matthew Ryan Riley, MD, Nathan Michael Bass, MB, CHB, PHD, MRCP, Philip Rosenthal, MD, Raphael B. Merriman, MB, BCH, BAO, MRCPI  
The Journal of Pediatrics December 2005

“The majority of overweight children were not diagnosed and did not receive relevant and recommended evaluations and interventions. Specific attention should be focused on providing diagnosis and interventions for overweight children especially those age <5 years and with BMI% of 85% to 94%.”

## Appendix B

### **Comprehensive Review of Head Start Program Performance Standards for Concordance with the Department of Health and Human Services Health Resources and Service Administration Expert Committee Recommendations**

In February of 2008, the Senior Medical Advisor to the Office of Head Start reviewed the Head Start Program Performance Standards to determine their degree of concordance with the recommendations presented in the “**Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child and Adolescent Overweight and Obesity**” published in **Pediatrics** Volume 120, Supplement 4, December 2007.

“In 1997, when the Department of Health and Human Services Health Resources and Service Administration convened the first expert committee to develop recommendations on the evaluation and treatment of child and youth obesity, few studies of this problem had been conducted to provide evidence for the recommendations. Since then, increasing scientific attention has resulted in an expanded body of literature on the causes, co-morbidities, and treatment of this problem. The condition remains frustrating and difficult to treat but, with more-current scientific information available, in 2005 the American Medical Association, in collaboration with the Health Resources and Service Administration and the Centers for Disease Control and Prevention (CDC), convened a new expert committee that was charged with providing revised recommendations. These new recommendations use current, evidence-based data, as well as clinical experience when evidence does not exist, to provide updated practical guidance to practitioners (see Appendix for the complete recommendations).”

#### “Target Behaviors

The expert committee recommends that clinicians advise patients and their families to adopt and to maintain the following specific eating, physical activity, and sedentary behaviors. These healthy habits may help prevent excessive weight gain and also are unlikely to cause harm, on the basis of current knowledge. The level of evidence is indicated, and the prevention report provides references.”

#### “Rating categories:

1. recommends with consistent evidence (CE), that is, multiple studies generally show a consistent association between the recommended behavior and either obesity risk or energy balance;
2. recommends with mixed evidence (ME), that is, some studies demonstrated evidence for weight or energy balance benefit but others did not show significant associations, or studies were few in number or small in sample size;
3. suggests, that is, studies have not examined the association of the recommendation with weight or energy balance, or studies are few, small in number, and/or without clear findings; however, the expert committee thinks that these recommendations could support the achievement of healthy weight and, if future studies disprove such

an effect, then these recommendations are likely to have other benefits and are unlikely to cause harm.”

The relevant sections of the Head Start Program Performance Standards appear in bold, below the recommendation of the Expert Committee.

1. limiting consumption of sugar-sweetened beverages (CE);

**1304.23 (b) (1) (vi) For 3- 5-year olds in center-based settings or other Head Start group experiences, foods served must be high in nutrients and low in fat, sugar, and salt.**

2. “encouraging consumption of diets with recommended quantities of fruits and vegetables; the current recommendations from the US Department of Agriculture (USDA) ([www.mypyramid.gov](http://www.mypyramid.gov)) are for 9 servings per day, with serving sizes varying with age (ME);”

**1304.23 (b) (1) (iv) Each infant and toddler in center-based settings must receive food appropriate to his or her nutritional needs, developmental readiness, and feeding skills, as recommended in the USDA meal pattern or nutrient standard menu planning requirements outlined in 7 CFR parts 210, 220, and 226.**

**1304.23 (b) (1) (v) For 3- 5-year-olds in center-based settings, the quantities and kinds of food served must conform to recommended serving sizes and minimum standards for meal patterns recommended in the USDA meal pattern or nutrient standard menu planning requirements outlined in 7 CFR parts 210, 220, and 226.**

3. “limiting television and other screen time (the American Academy of Pediatrics recommends no television viewing before 2 years of age and thereafter no more than 2 hours of television viewing per day), by allowing a maximum of 2 hours of screen time per day (CE) and removing televisions and other screens from children's primary sleeping area (CE) (although a relationship between obesity and screen time other than television viewing, such as computer games, has not been established, limitation of all screen time may promote more calorie expenditure);

4. “eating breakfast daily (CE);”

**1304.23 (b) (1) (iii) All children in morning center-based settings who have not received breakfast at the time they arrive at the Early Head Start or Head Start program must be fed a nourishing breakfast.**

5. “limiting eating out at restaurants, particularly fast food restaurants (CE) (frequent patronage of fast food restaurants may be a risk factor for obesity in children, and

families should also limit meals at other kinds of restaurants that serve large portions of energy-dense foods);”

**1304.40 (f) (3) Grantee and delegate agencies must ensure that the nutrition education program includes, at a minimum:**

- (i) Nutrition education in the selection and preparation of foods to meet family needs and in the management of food budgets; and**
- (ii) Parent discussions with program staff about the nutritional status of their child**

**1304.52 (d) (3) Nutrition services must be supported by staff or consultants who are registered dietitians or nutritionists**

- 6. “encouraging family meals in which parents and children eat together (CE) (family meals are associated with a higher-quality diet and with lower obesity prevalence, as well as with other psychosocial benefits); and”

**1304.23 (c) (4) All toddlers and preschool children and assigned classroom staff, including volunteers, eat together family style and share the same menu to the extent possible**

- 7. “limiting portion size (CE) (the USDA provides recommendations about portions, which may differ from serving sizes on nutrition labels, and a product package may contain >1 serving size).”

**1304.23 (b) (1) (iv) Each infant and toddler in center-based settings must receive food appropriate to his or her nutritional needs, developmental readiness, and feeding skills, as recommended in the USDA meal pattern or nutrient standard menu planning requirements outlined in 7 CFR parts 210, 220, and 226.**

**1304.23 (b) (1) (v) For 3- 5-year-olds in center-based settings, the quantities and kinds of food served must conform to recommended serving sizes and minimum standards for meal patterns recommended in the USDA meal pattern or nutrient standard menu planning requirements outlined in 7 CFR parts 210, 220, and 226.**

“The prevention writing group also suggests, on the basis of analysis of available data and expertise, the following behaviors:

- 1. eating a diet rich in calcium (the USDA provides recommendations about serving size and daily number of dairy product servings);
- 2. eating a diet high in fiber;
- 3. eating a diet with balanced macronutrients (energy from fat, carbohydrates, and protein in proportions for age, as recommended by Dietary Reference Intakes);”

**1304.23 (b) (1) (iv) Each infant and toddler in center-based settings must receive food appropriate to his or her nutritional needs, developmental readiness, and feeding skills, as recommended in the USDA meal pattern or nutrient standard menu planning requirements outlined in 7 CFR parts 210, 220, and 226.**

**1304.23 (b) (1) (v) For 3- 5-year-olds in center-based settings, the quantities and kinds of food served must conform to recommended serving sizes and minimum standards for meal patterns recommended in the USDA meal pattern or nutrient standard menu planning requirements outlined in 7 CFR parts 210, 220, and 226.**

4. “encouraging exclusive breastfeeding to 6 months of age and maintenance of breastfeeding after introduction of solid food to 12 months of age and beyond, consistent with American Academy of Pediatrics recommendations;”

**1304.23 (a) (3) For infants and toddlers, current feeding schedules and amounts and types of food provided, including whether breast milk or formula and baby food is used; meal patterns; new foods introduced; food intolerances and preferences; voiding patterns; and observations related to developmental changes in feeding and nutrition. This information must be shared with the parents and updated regularly...**

**1304.23 (e) (2) For programs serving infants and toddlers, facilities must be available for the proper storage and handling of breast milk and formula**

**1304.40 (c) (3) Grantee and delegate agencies must provide information on the benefits of breast feeding to all pregnant and nursing mothers. For those who choose to breast feed in center-based programs, arrangements must be provided as necessary**

5. “promoting moderate to vigorous physical activity for at least 60 minutes each day; and”

**1304.21 (a) (1) (iv) Provide a balanced daily program of child-initiated and adult-directed activities, including individual and small group activities;**

**1304.21 (a) (5) In center-based settings, grantee and delegate agencies must promote each child’s physical development by:**

**(i) Providing sufficient time, indoor and outdoor space, equipment, materials and adult guidance for active play and movement that support the development of gross motor skills;**

**(ii) Providing appropriate time, space equipment, materials and adult guidance for the development of fine motor skills according to each child’s developmental level; and** **(iii)**

**(iii) Providing an appropriate environment and adult guidance for the participation of children with special needs;**

**1304.21 (a) (6) In home-based settings, grantee and delegate agencies must encourage parents to appreciate the importance of physical development, provide opportunities for children’s outdoor and indoor active play, and guide children in the safe use of equipment and materials**

**1304.21 (b) (3) Grantee and delegate agencies must promote the physical development of infants and toddlers by:**

**(i) Supporting the development of the physical skills of infants and toddlers including gross motor skills, such as grasping, pulling, pushing, crawling, walking, and climbing; and**

**(ii) Creating opportunities for fine motor development that encourage the control and coordination of small, specialized motions, using the eyes, mouth, hands, and feet.**

6. “limiting consumption of energy-dense foods”

**1304.23 (b) (1) (vi) For 3- 5-year olds in center-based settings or other Head Start group experiences, foods served must be high in nutrients and low in fat, sugar, and salt.**

**1304.40 (c) Services to pregnant women who are enrolled in programs serving pregnant women, infants, and toddlers.**

**(1) Early Head Start grantee and delegate agencies must assist pregnant women to access comprehensive prenatal and postpartum care, through referrals, immediately after enrollment in the program. This care must include; (i) Early and continuing risk assessments, which include an assessment of nutritional status as well as nutrition counseling and food assistance, if necessary;**

The conclusion of this analysis, as seen above, was that Head Start programs have the requisite regulatory infrastructure to implement the recommendations of the Expert Committee based upon the most current knowledge and understanding of childhood overweight and obesity prevention.

**Excerpt from Public Law 110-134 "Improving Head Start for School Readiness Act of 2007"**

**Improving Head Start for School Readiness Act of 2007**

On December 12, 2007 Public Law 110-134 "Improving Head Start for School Readiness Act of 2007" was enacted. The statement of purpose contained the following:

“It is the purpose of this subchapter to promote the school readiness of low-income children by enhancing their cognitive, social, and emotional development—

(1) in a learning environment that supports children’s growth in language, literacy, mathematics, science, social and emotional functioning, creative arts, physical skills, and approaches to learning; and

(2) through the provision to low-income children and their families of health, educational, nutritional, social, and other services that are determined, based on family needs assessments, to be necessary.”

Within the provision of health, educational, nutritional, social, and other services is embodied a mandate to address existing and evolving health problems that impact upon the well-being of children and families. Childhood overweight and obesity is recognized as a national health crisis in the United States, impacting disproportionately upon the low-income and minority families served through Head Start. For the purpose of supporting Head Start’s attention to this health issue, the re-authorization of the Act included the following provision:

Sec. 650. [42 U.S.C. §9846]

“(e) Evaluation and Recommendations Regarding Obesity Prevention- Not later than 1 year after the date of enactment of the Improving Head Start for School Readiness Act of 2007 the Secretary shall submit to the Committee on Education and Labor of the House of Representatives and the Committee on Health, Education, Labor, and Pensions of the Senate a report on the Secretary's progress in assisting program efforts to prevent and reduce obesity in children who participate in Head Start programs, including progress on implementing initiatives within the Head Start program to prevent and reduce obesity in such children.”

### **Excerpts from the Institute of Medicine “Preventing Childhood Obesity: Health in the Balance” and “Progress in Preventing Childhood Obesity: How Do We Measure Up?”**

#### **Institute of Medicine Report “Preventing Childhood Obesity: Health in the Balance” Released September 30, 2004**

“The Institute of Medicine (IOM) of the National Academies of Sciences provides science-based advice on matters of biomedical science, medicine, and health. A nonprofit organization specifically created for this purpose as well as an honorific membership organization, the IOM was chartered in 1970 as a component of the National Academy of Sciences.”

“In response to a request from Congress for a prevention-oriented action plan to tackle the alarming rise in childhood obesity, the IOM Committee on Prevention of Obesity in Children and Youth has developed a comprehensive national strategy that recommends specific actions for families, schools, industry, communities, and government. The committee's findings and recommendations are described in the report *Preventing Childhood Obesity: Health in the Balance*. The report provides a broad-based examination of the nature, extent, and consequences of obesity in U.S. children and youth, including the social, environmental, and dietary factors responsible for its increased prevalence. The report's action plan lays out explicit goals and recommendations for preventing obesity and promoting healthy weight in children and youth in various segments of society. It also explores the actions needed to initiate, support, and sustain the societal and lifestyle changes that can reverse the trend among our children and youth.”

The goal of obesity prevention in children and youth is to create—through directed social change—an environmental-behavioral synergy that promotes:

For the *population* of children and youth:

- Reduction in the incidence of childhood and adolescent obesity
- Reduction in the prevalence of childhood and adolescent obesity
- Reduction of mean population BMI levels
- Improvement in the proportion of children meeting the Dietary Guidelines for Americans
- Improvement in the proportion of children meeting physical activity guidelines
- Achieving physical, psychological, and cognitive growth and developmental goals

For *individual* children and youth:

- A healthy weight trajectory, as defined by the CDC BMI charts
- A healthful diet (quality and quantity)
- Appropriate amounts and types of physical activity
- Achieving physical, psychosocial, and cognitive growth and developmental goals”

“Because it may take a number of years to achieve and sustain these goals, intermediate goals are needed to assess progress toward reduction of obesity through policy and system changes. Examples include:

- Increased number of children who safely walk and bike to school
- Improved access to and affordability of fruits and vegetables for low-income populations
- Increased availability and use of community recreational facilities
- Increased play and physical activity opportunities
- Increased number of new industry products and advertising messages that promote energy balance at a healthy weight
- Increased availability and affordability of healthful foods and beverages at supermarkets, grocery stores, and farmers markets located within walking distance of the communities they serve
- Changes in institutional and environmental policies that promote energy balance”

This set of recommendations set an agenda for addressing childhood overweight/obesity as a National public health priority.

### **Recommendation 1: *National Priority***

“Government at all levels should provide coordinated leadership for the prevention of obesity in children and youth. The President should request that the Secretary of the Department of Health and Human Services (DHHS) convene a high-level task force to ensure coordinated budgets, policies, and program requirements and to establish effective interdepartmental collaboration and priorities for action. An increased level and sustained commitment of federal and state funds and resources are needed.

To implement this recommendation, the federal government should:

- Strengthen research and program efforts addressing obesity prevention, with a focus on experimental behavioral research and community-based intervention research and on the rigorous evaluation of the effectiveness, cost-effectiveness, sustainability, and scaling up of effective prevention interventions
- Support extensive program and research efforts to prevent childhood obesity in high-risk populations with health disparities, with a focus both on behavioral and environmental approaches

- Support nutrition and physical activity grant programs, particularly in states with the highest prevalence of childhood obesity
- Strengthen support for relevant surveillance and monitoring efforts, particularly the National Health and Nutrition Examination Survey (NHANES)
- Undertake an independent assessment of federal nutrition assistance programs and agricultural policies to ensure that they promote healthful dietary intake and physical activity levels for all children and youth
- Develop and evaluate pilot projects within the nutrition assistance programs that would promote healthful dietary intake and physical activity and scale up those found to be successful”

The Institute of Medicine Report validated the holistic approach to child health and nutrition, including attainment and maintenance of normal weight gain, that was a core element of Head Start articulated within the Program Performance Standards (45 CFR 1304) of 1975 and 1998. Of specific relevance to Early Head Start and Head Start programs were a series of recommendations under “Physical Activity – Next Steps.”

### **Physical Activity – Next Steps**

“Schools should ensure that all children and youth participate in a minimum of 30 minutes of moderate to vigorous physical activity during the school day. This includes time spent being active during PE classes. This objective is equally important for young children in child development centers and other preschool and child-care settings, including Head Start programs—the benefits to young children include the nurturing and refinement of their gross motor development skills.

Schools and child development centers should support and encourage physical activity opportunities for teachers and staff for their own well-being and because they are important role models for their students.

Regulations for managing Head Start and other publicly funded or licensed early-childhood-education programs should ensure that children engage in appropriate physical activity as part of the programs.

Research specific to preschool and child-care settings should emphasize feasible and generalizable interventions designed to increase physical activity (e.g., manipulations of outdoor play time), decrease sedentary behaviors (e.g., parenting skills interventions to reduce children’s screen time), and improve dietary behaviors (e.g., systematic exposure to fruits and vegetables in a positive context to enhance taste preferences).”

The complete report can be found using the following reference: Jeffrey P. Koplan, Catharyn T. Liverman, and Vivica A. Kraak, *Editors*, Committee on Prevention of Obesity in Children and Youth (2005). **Preventing Childhood Obesity: Health in the Balance**. Institute of Medicine.

## **Institute of Medicine Report “Progress in Preventing Childhood Obesity: How Do We Measure Up?”**

**Released September 13, 2006**

“All childhood obesity prevention policies and interventions deserve some type of evaluation. Evaluations can range in scope and complexity from comparisons of pre- and post-intervention counts of the number of individuals participating in a program to methodologically sophisticated evaluations with comparison groups and research designs. All types of evaluation can make an important contribution to the evidence base upon which to design policies, programs, and interventions.

The translation of evaluation and research findings into promising practices constitutes the primary means for accelerating national efforts to reverse the childhood obesity epidemic. Since the need for effective evaluation is ongoing, both the capacity and quality of evaluation will be positively influenced by a steadfast national commitment to support obesity prevention efforts and the rapid translation and dissemination of evaluation and research findings—across the geographical landscape—to stakeholders involved in obesity prevention efforts in states and communities. Furthermore, the social and cultural diversity within the United States precludes assumptions about the transferability of interventions from one sub-population to another and should therefore be assessed.”

### **“Questions to Guide Childhood Obesity Prevention Policies and Interventions**

- How does the action contribute to preventing childhood obesity? What are the rationale and supporting evidence for this particular action as a viable obesity prevention strategy, particularly in a specific context? How well is the planned action or intervention matched to the specific setting or population being served?
- What are the quality and reach or power of the action *as designed*?
- How well is the action carried out? What are the quality and the reach or power of the action *as implemented*?
- What difference did the action make in terms of increasing the availability of foods and beverages that contribute to a healthful diet, opportunities for physical activity, other indicators of a healthful diet and physical activity, and improving health outcomes for children and youth?”

The complete report can be found using the following reference: Institute of Medicine Committee on Progress in Preventing Childhood Obesity. (2007). **Progress in Preventing Childhood Obesity: How Do We Measure Up?**

## Appendix E

### *I Am Moving, I Am Learning Initiative Stage I Survey*

Head Start Region III developed *IM/IL* in 2004 in response to a request from the Office of Head Start. *IM/IL* was designed to promote healthy behavior and prevent childhood obesity under the leadership of Nancy Elmore, Head Start Program Manager, Region III, Amy Requa, Pediatric Nurse Practitioner and Region III TA Health specialist and Dr. Linda Carson, Director of the West Virginia Motor Development Center, West Virginia University. The resulting program enhancement was piloted with 17 Region III programs in FY 2005. Based on the success of the pilot trainings, 53 more Head Start grantees in Region III were trained in the spring of 2006. Additional Head Start programs have received training since the spring of 2006, bringing the total number of grantees trained in Region III to 105. In early 2007, the Director of the Office of Head Start requested that all regions receive *IM/IL* training and, as of June 2007, 66 Region IX and 34 Region I programs have received the training.

The Office of Planning, Research, and Evaluation (OPRE) under the Administration for Children and Families (ACF) contracted with Mathematica Policy Research, Inc. (MPR) to conduct an implementation evaluation of the *IM/IL* enhancements in Region III. The purpose of this study is to examine the extent to which grantees who participated in the spring 2006 regional Training of Trainers (TOT) event are implementing *IM/IL* enhancements. In the first stage, MPR conducted a survey of the 53 Head Start programs that had participated in the TOT event. A questionnaire was sent to the individual staff member in each program who was designated to lead the implementation of *IM/IL* enhancement activities. This questionnaire assessed the staff members' perceptions of the spring 2006 TOT event and their experience implementing *IM/IL* in their programs during the year following that event. In the next two stages of this evaluation, MPR will conduct telephone interviews with 30 programs whose staff attended the spring 2006 training to learn how programs implemented *IM/IL* (stage 2), and the research team will conduct site visits to 14 programs that demonstrate varying models of implementation to learn about the sustainability of the *IM/IL* enhancement (stage 3). The data collected during these next two stages of the evaluation will complement the survey results and address some of the survey's limitations.

In spring 2007, MPR conducted a survey of the 53 Head Start programs that had participated in the TOT event.

The key findings from the survey include:

- One year after the TOT event, the participating programs gave the training a positive overall rating. Respondents rated the event highly on its organization and the information that was presented. However, 40 percent of directors wanted more time to plan their own implementation during the TOT event.
- Ninety-six percent of programs tried to implement *IM/IL* in the year following the training event. Over 60 percent of programs provided pre-service and in-service training on *IM/IL*. The total number of training hours in each program was a median of 6 hours per program (range 1 to 24 hours).

- Programs implemented more enhancements related to MVPA and structured movement than enhancements related to nutrition.
- As part of *IM/IL*, two-thirds of programs offered activities to alter the eating and physical activity behaviors of parents, and half did so with their staff. Half the programs reported having identified at least one community organization as a partner. Forty-four percent of programs were doing all three.
- Almost half of the programs perceived that they were successful in implementing *IM/IL*. Enthusiasm of staff and the quality of the TOT event were the two most commonly reported factors contributing to the success of implementation. Compared to programs that did not perceive themselves as implementers, high implementing programs were more likely to leave the TOT with a written plan for their *IM/IL* implementation. However, among all programs with a written plan following the TOT, roughly the same percentage of high implementing and other programs had a plan one year later. High implementing programs provided twice as many hours of training to staff relative to other programs.
- It is not clear that the current program-level implementation efforts can be sustained. One year after the training event, only half of the programs reported having a written plan for *IM/IL* implementation. Many programs have enthusiastic staff and a capable leader directing the *IM/IL* efforts, but many reported that program managers did not have enough time to devote to *IM/IL*.

The complete survey can be found using the following reference: Mathematica Policy Research (2007). Results from the *I Am Moving, I Am Learning* Stage 1 Survey, Final Interim Report.

*Early Assessment of Programs and Policies to Prevent Childhood Obesity*  
Evaluability Assessment Site Visit Summary Report  
I Am Moving, I Am Learning  
Washington, DC, and Stafford County, VA  
Submitted January, 2009

#### “Project Background

As the search for answers to address childhood obesity effectively continues, organizations and communities across the country are experimenting with various strategies aimed at changing children’s environments to prevent obesity. *Early Assessment of Programs and Policies to Prevent Childhood Obesity* is a 2-year project to identify and assess local-level programs and policies that have been implemented with apparent notable success to prevent obesity by improving the eating habits and physical activity levels of children. This is a collaborative effort led by a team from the Robert Wood Johnson Foundation (RWJF); the Centers for Disease Control and Prevention (CDC) Division of Adolescent and School Health, the Division of Nutrition, Physical Activity and Obesity, and the Prevention Research Centers Program Office; and the CDC Foundation. Macro International Inc. serves as the Coordinating Center for the project.

In each year of the project, nominee programs and policies will be identified through a systematic search process. An emphasis has been placed on policy or environmental programs being implemented in community settings intended to address obesity in children aged 3–17. The project also has given priority to programs addressing low-income populations and ethnic groups that experience disproportionate childhood obesity. In each year of the project, a Funder’s Advisory Committee will identify three themed areas within which to identify programs and policies.

Additionally, an Expert Panel will select programs and policies for an evaluability assessment (guided by selection criteria noted in the section below). For 2008 the four identified themes and the number of selected programs or policies are:

1. After school programs and daycare centers (12 initiatives)
2. Comprehensive school physical activity programs (2 initiatives)
3. Access to healthier foods in supermarkets/convenience stores/restaurants (7 initiatives)
4. Land use/built environment initiatives for recreation/walk-ability/bike-ability (2 initiatives)”

## “VII. Conclusion

I Am Moving, I Am Learning is a clearly conceptualized, theoretically sound, well-designed, and well-received intervention with the potential to reach millions of the nation’s most vulnerable children and their families. IMIL is a program enhancement to the Head Start program intended to increase the time children spend being physically active and to improve the quality of their structured movement and food choices. Given the reach of the Head Start program—close to 1 million low-income children participate—if IMIL is fully implemented, it has the potential to impact a significant portion of young children across the country. IMIL is funded through the Office of Head Start with strong commitment from Head Start staff at the Federal level to continue and expand the initiative. The expertise and commitment of core trainers, coupled with the continued enhancements to IMIL through train the trainer and facilitator trainings, has led to a strong, research-based program.

Factors to consider as Head Start staff move forward with continued implementation and enhancement of IMIL include developing mechanisms to capture the positive changes that are occurring in Head Start centers, both in terms of physical activity and movement, as well as nutrition improvements. There appear to be a number of data collection mechanisms already in place as part of standard Head Start operations that should be considered for use in evaluating outcomes.

Given the growing body of evidence linking early childhood development to long term health outcomes, and the large target population of low income, often at risk young children served by Head Start, IMIL does have significant potential to impact close to 1 million vulnerable children. IMIL should be strongly considered for further rigorous evaluation.”