



**Testimony before the  
Committee on Energy and Commerce,  
Subcommittee on Health  
United States House of Representatives**

**Innovations in Addressing Childhood  
Obesity**

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Mr. Chairman and members of the Committee, I would like to thank you for the invitation to testify concerning the extremely important health issue of childhood obesity. My name is Dr. Terry Huang, and I am the Director of the new Obesity Research Strategic Core at the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD) at the National Institutes of Health (NIH), an agency of the Department of Health and Human Services. I am pleased to share with you and the Committee some recent research on childhood obesity and some of our plans for addressing this multi-faceted issue as we move forward.

Childhood obesity is a major and persistent public health burden. The percentage of children and teens in the United States that are overweight and obese has more than doubled in the past 30 years. Today, one-third of children in this country aged 2-19 years are overweight or obese and the prevalence is even higher among minority children. Childhood obesity is now a global problem. The World Health Organization estimates that, worldwide, 22 million of children under 5 years of age are overweight. Treatment for overweight children is difficult. Obesity in childhood often leads to obesity in adulthood, resulting in serious medical consequences, such as heart disease, type 2 diabetes, liver and kidney diseases, some forms of cancer, depression, and other debilitating conditions. In addition, the economic consequences of obesity are enormous for families, the American workforce, and the health care system. According to a recent analysis from the Research Triangle Institute, the total medical cost of obesity in the U.S. is \$147 billion per year and this figure is likely to grow unless we aggressively address the problem now.

The NIH recognizes that to really make a difference on childhood obesity, research should address the broader system in which children learn, play, live, and obtain health care. Such a systems-oriented framework will need to link biological factors of obesity with socio-environmental and policy issues that influence children's diet and physical activity. Over the last few years, research funded by the NICHD and other NIH Institutes and Centers has demonstrated the important impact of the physical, social, and economic environments on the obesity epidemic. For example, using data from the National Longitudinal Study on Adolescent Health ("Add Health"), neighborhood characteristics are shown to be associated with adolescents' health behavior and outcomes. Neighborhoods with lower socioeconomic status have less access to safe settings for physical activity, which is associated with decreased physical activity levels and higher prevalence of obesity among adolescents. Other community characteristics, such as the lack of public transportation and land use and zoning issues, can also contribute to decreased opportunities for physical activity. In addition, there is research showing that the availability of and access to healthy foods are important. Areas with a high density of fast-food relative to other restaurant choices are associated with a higher prevalence of overweight and obesity. Research also has shown that economic factors such as food marketing and pricing are critical as they can influence the purchase and consumption of low- vs. high-calorie foods.

To accelerate research progress and translate research findings into effective solutions at the societal level, the NICHD, in partnership with a number of other NIH

Institutes and Offices, the Centers for Disease Control and Prevention, and the Robert Wood Johnson Foundation, came together to launch the National Collaborative of Childhood Obesity Research (NCCOR) in February 2009. NCCOR is designed to coordinate and synergize the funding efforts from member organizations, to avoid duplication of efforts, and to pool resources for large, ambitious projects that bring us closer to effective and sustainable solutions for the childhood obesity problem. For example, NCCOR recently launched the Envision project (\$15 million), which aims to help us understand the complexity of the childhood obesity problem and virtually test environmental and policy interventions through sophisticated computational, systems models. During this fiscal year, NCCOR will also begin funding (\$30 million) a nationwide study to determine the effectiveness of existing community-based strategies and programs using a common evaluation approach. In addition, a consortium of prevention and treatment trials that simultaneously target multiple settings in which children learn, play, live, and/or seek health care will be funded this year by the National Heart, Lung, and Blood Institute and the NICHD (\$55 million), both founding members of NCCOR. These programs have all been facilitated or made possible because of the collaborative structure of NCCOR.

Other important NIH research programs of note include recent program announcements on encouraging community-based partnerships of obesity researchers and local or state-level policymakers, and research on school and community policies that impact obesity-related behaviors and outcomes. Because we now recognize that health is a product of so much more than individual behaviors alone, through the NCCOR

partnership, the NIH is now rapidly expanding its research portfolio to address solutions to complex public health problems such as childhood obesity that will have a large and long-lasting impact at the population level.

Finally, the NICHD has designed and is implementing an after-school program, known as *Media Smart Youth*, for young adolescents aged 11 – 13 to help teach them about the complex media and marketing they face every day, and how it can affect their health, especially by encouraging certain choices in the areas of nutrition and physical activity. It teaches young people to become critical thinkers, to analyze and evaluate the media messages with which they are bombarded, and to create their own messages that encourage smart and positive choices. This program is part of the larger Ways to Enhance Children's Activity and Nutrition (*We Can!*) program, a collaboration of 4 Institutes at the NIH that offers science-based educational and training tools to promote improved food choices, increased physical activity, and reduced "screen time" (television, videogames, etc.) for children and families at nearly 1,200 sites across the U.S. and 9 other countries.

Funding received by the NIH under the American Recovery and Reinvestment Act (ARRA) created many new opportunities to fund new, innovative research. NICHD and several other Institutes and Centers are using ARRA funds to support a number of studies of early interventions to enhance a child's efforts to achieve *and maintain* a healthy weight, critical to reducing lifetime risks of overweight and obesity. A few NICHD examples include a project that will test whether giving fish oil to overweight

and obese pregnant women will decrease excessive accrual of fat in the fetus; the aim of another is to develop an effective parenting intervention to teach parents how to improve their children's diets and lower their obesity risk; and still another is focused on determining clinically whether a specific behavior intervention can help children who achieved short-term weight loss to maintain their healthy weight.

To conclude, it is important to note that, just as recognized by the World Health Organization, the childhood obesity problem is linked not only to children's and parents' behavior, but also more importantly to social and economic development and a number of policy areas outside the traditional public health sphere. Thus, we need to deal with obesity as a systems issue, and not simply a health issue; invest resources into research that is multilevel and cross-disciplinary; and include as partners all sectors of our society to generate effective and sustainable solutions. The solution to the childhood obesity problem will require a coordinated, multi-sectoral strategy that includes strong actions from the government, industry, community, and family. Together, we need to create an environment that not only favors trade and economic productivity, but that also takes into account the long-term health of the population as well. Until both healthy eating and physical activity become naturally embedded in everyday life, there is little chance that the childhood obesity toll in the U.S. and around the world will diminish.

Thank you again for the opportunity to testify. I would be pleased to answer any questions you may have.