



Addressing Childhood Obesity through Translational Research

Funded Projects

The Harvard Catalyst Community Health Innovation and Research Program (HC-CHIRP) sponsored this pilot grant opportunity in collaboration with the Harvard Catalyst Health Disparities Research Program and the Child Health Initiative. The aim of the pilot grant was to engage policy, public health, clinical, and other investigators from across the Harvard community in innovative interdisciplinary translational research to improve the prevention of childhood obesity in the context of national and state health systems reforms.

This 2012 request for applications (RFA) sought proposals that addressed one or more of five substantive categories:

- Strengthening the capacity of state systems to implement and evaluate policy
- Reducing the consumption of sugar-sweetened beverages
- Policies and interventions in families and early childhood settings
- Innovative collaborations with industry
- Socio-cultural aspects of the food and physical activity environment

This funding opportunity was open to investigators who held Harvard University appointments at the assistant professor, associate professor, or professor level; or had the approval of their department chair. At least one co-investigator was required on each application and proposals were required to be collaborative and interdisciplinary. Two pilot grants were awarded in amounts of up to \$50,000 for each one-year project.

Funding decisions for the Addressing Childhood Obesity through Translational Research pilot grants were announced in October of 2012.

Facilitating Joint Use of School Facilities to Prevent Childhood Obesity

Principal Investigator: Robert Greenwald, JD, Harvard Law School

Co-Investigators: Emily Broad Leib, JD, Harvard Law School
Angie Cradock, ScD, Harvard School of Public Health
Lea Susan Ojamaa, MPH, Massachusetts Department of Public Health

In response to rising rates of childhood obesity and substandard levels of physical activity among children, the Center for Health Law and Policy Innovation at Harvard Law School, the Harvard School of Public Health, and the Massachusetts Department of Public Health propose to provide legal guidance and training materials around best practices for creating joint use agreements that enable community use of school and other municipal facilities during non-school hours. The project team will meet with diverse stakeholders and work with 3 targeted communities on forming joint use agreements. The experience of working with stakeholders will inform the creation of a generalized legal toolkit that can be used for any community in Massachusetts. The partners will then conduct a training for Mass in Motion communities statewide around this legal toolkit and will work to identify and recommend any state or local policy or legal changes that could foster the creation of joint use agreements in the state.

Development and Validation of Novel Tools Assessing Physical Activity, Dietary Intake and Weight In Free Living Conditions

Principal Investigator: Steven Gortmaker, PhD, Harvard School of Public Health

Co-Investigators: Amna Afzal, MD, Boston Children's Hospital
Elsie Taveras, MD, MPH, Boston Children's Hospital

There is a need for more comprehensive, accurate, and inexpensive methods for calculating the energy intake and expenditure of children. New research on the dynamics of weight change in response to changes in energy balance reveals a much longer time course than previously appreciated; this has important implications for understanding the development, prevention, and treatment of pediatric obesity. At the same time, a major limitation in many clinical settings is the sparse and infrequently collected data available to track and predict the growth trajectory of young children as they become overweight. Long-term comprehensive measurements of energy balance in children do not exist, largely because they are intrusive and costly. With new inexpensive wireless technology, however, the cost and inconvenience of this data collection would be dramatically lower.

The proposed study aims to develop, validate, and pilot a novel wireless assessment tool integrating frequent serial measures of physical activity, weight, and dietary intake in free-living conditions. This type of data, never before collected in a pediatric population over a long time period, will provide important insights into the energy balance of a cohort of children. From a research perspective, this tool represents a low cost approach to collecting effective outcomes data and validating emerging insights on the relationship between energy balance and weight change in young children. From a clinical perspective, this tool will allow providers to precisely assess changes in energy balance and improve the care of overweight and obese children.