

Advancing Measurement of Individual Behaviors Related to Childhood Obesity: Implications and Recommendations for the Field

EXECUTIVE SUMMARY

Background

The National Collaborative on Childhood Obesity Research (NCCOR) is a public-private partnership of four leading research funders—the Centers for Disease Control and Prevention (CDC), National Institutes of Health (NIH), Robert Wood Johnson Foundation (RWJF), and the U.S. Department of Agriculture (USDA)—that addresses childhood obesity through research and evaluation and dissemination of research findings.

NCCOR aims to make an impact on childhood obesity research by creating tools for researchers and practitioners, building knowledge on key research topics, engaging with leading experts on new science, and ensuring robust communications and information dissemination. From its inception, a key priority for NCCOR has been to promote the more common use of high-quality and standardized measures and methods across childhood obesity prevention and research, surveillance, and interventions. Use of such measures enhances the potential for comparison of results across different studies and the rapid advancement of progress against childhood obesity. This progress includes the identification of individual, family, policy, and environmental factors that influence obesity risk and the development of effective interventions to address childhood obesity.

On May 20–21, 2019, NCCOR convened a workshop entitled “Advancing Measurement of Individual Behaviors Related to Childhood Obesity.” This workshop was the first in a series of three workshops and focused on measurement needs to capture individual behaviors related to childhood obesity. The other two workshops planned in the series are focused on measurement needs for high-risk populations and measurement needs to capture policy and environmental influences. The workshop series is funded by The JPB Foundation.

Workshop Aims

The workshop aimed to gather together leading experts to (1) explore next steps for measurement science relevant to emerging areas for diet and physical activity in children, particularly from birth to age 12 years, and (2) examine measurement science issues in two other topics of new relevance to childhood obesity—sedentary behavior and sleep.

Workshop Proceedings

The workshop consisted of two parts. First was a series of panel presentations examining measurement needs to assess priority areas in diet (i.e., feeding practices, identifying patterns for infants and children from birth to age 12 years, responsive feeding), physical activity (i.e., physical activities of infants and young children, device-based measurement in children, physical activity in diverse settings and as studied in various types of epidemiological research), sedentary behavior, and sleep across developmental stages and settings. Moderated discussions followed each group of related presentations.

Second, after the presentations were completed, participants broke into small groups for each domain (nutrition, physical activity/sedentary behavior, sleep) to identify and prioritize actionable steps to address short-term (1–3 years) and medium-term (3–5 years) measurement needs in these areas. Several priorities areas emerged that are applicable across all the domains: (1) Develop measurement methods for children younger than age 6 years. (2) Combine measures and methods in the same study to achieve new insights through triangulation. (3) Develop recommendations for constructs for each developmental age to include in questionnaires. (4) Define terms and core indicators or domains that can be measured. (5) Examine the importance of family, social, and environmental contexts and how they evolve with age. (6) Support efforts to assess the validity and reliability of measures.

Next Steps

This white paper can be accessed on the NCCOR website at <https://www.nccor.org/measurement-workshop-series/>. White papers for the other two workshops also will be posted on the NCCOR website. In addition, NCCOR plans to publish a synthesis of findings and recommendations from the three workshops in the scientific literature.

It is anticipated that recommendations from these workshops will advance the development of improved measures that can be used across a range of research, surveillance, and intervention activities related to childhood obesity. By addressing the many levels of factors that influence childhood obesity and with focused work within high-risk groups, NCCOR hopes these efforts will ultimately help reduce childhood obesity.