



NCCOR Accomplishments & Activities in the Past 10 Years

The National Collaborative on Childhood Obesity Research (NCCOR) is accelerating progress in reducing childhood obesity in America through joint initiatives by the Centers for Disease Control and Prevention (CDC), National Institutes of Health (NIH), Robert Wood Johnson Foundation (RWJF), and U.S. Department of Agriculture (USDA). NCCOR has transformed the field of childhood obesity research and evaluation through identifying, designing, and evaluating interventions; increasing and improving surveillance; improving capacity to conduct research and program evaluation; providing national leadership to accelerate implementation through communication and outreach; and working with non-health partners to integrate childhood obesity priorities.

NCCOR helps maximize the effective and efficient use of agency funds by ensuring work across partners is complementary, not duplicative, and improves quality by facilitating cross-agency collaboration and external input. NCCOR makes advances more quickly by jointly investigating new areas and filling research gaps than one organization could undertake.

Our innovative approach to partnership-building has won several awards, including the inaugural *HHS Innovates Award*, personally chosen by former U.S. Department of Health and Human Services Secretary Kathleen Sebelius, as well as an NIH Director's Award. In addition, authors of the Youth Compendium received a National Cancer Institute Director's Award in November 2018.

The following are ***select accomplishments*** from the last 10 years. A detailed list of projects, activities, and milestones of the past decade is on the NCCOR website: www.nccor.org/about/accomplishments.

NCCOR Has Developed Tools and Resources for Researchers and Practitioners

NCCOR's tools and resources have helped researchers, practitioners, and investigators conduct research and evaluation activities.

Measures Registry and Measures Registry User Guides

The Measures Registry is an online, searchable database of 1,388 diet and physical activity articles with over 100 discrete measures relevant to childhood obesity research. Its purpose is to standardize use of common measures and research methods across childhood obesity research at the individual, community, and population levels. Since its launch in 2011, the Measures Registry has been visited more than 47,500 times from 86 countries outside of the U.S. In 2015, through a strategic partnership with The JPB Foundation, NCCOR developed four Measures Registry User Guides—Individual Diet, Food Environment, Individual Physical Activity, and Physical Activity Environment—which provide an overview of measurement and measure selection and provide “how-to” case studies. Launched in January 2017, the Measures Registry User Guides have been visited nearly 27,000 times from 112 countries outside of the U.S.



Catalogue of Surveillance Systems

The Catalogue of Surveillance Systems (CSS) is an online resource that allows users to review, sort, and compare more than 100 surveillance systems relevant to childhood obesity research and evaluation of policy and environmental interventions. Since its launch in 2011, the CSS has been visited more than 84,000 times from 134 countries outside of the U.S.

Youth Compendium of Physical Activities

The Youth Compendium of Physical Activities, released in October 2017, provides measures of energy expenditure for 196 common youth activities including sedentary and standing activities, playing and participating in games, and walking and running. This new compendium represents a great advancement in the field of youth energy expenditure (YEE), as it is the first compendium to be based entirely on youth data, and it includes youth metabolic equivalents (MET_y) values separated into four different age groups. The NCCOR YEE workgroup also published five journal articles on YEE metrics and a journal supplement compiling previously unpublished energy expenditure values. Since its launch, the Compendium has been visited more than 26,500 times by 111 countries outside of the U.S.

SNAP-Ed Toolkit and Evaluation Framework

NCCOR worked closely with USDA to develop, refine, and update the SNAP-Ed Toolkit—a portfolio of actionable tools consistent with the context and policies of SNAP and incorporating evidence-based obesity strategies, and the SNAP-Ed Evaluation Framework—a menu of outcome indicators that align with the SNAP-Ed guiding principles. In 2017, the Evaluation Framework was integrated into the yearly plans of SNAP Implementing Agencies.

NCCOR Has Built Knowledge Through a Variety of Research Projects

The NCCOR membership represents a wide range of expertise across many disciplines relevant to childhood obesity research. NCCOR has used this collective scientific leadership to advance the field and build knowledge through strategic collaboration on key research topics.

Projects to Increase Physical Activity in Youth

In 2017, NCCOR formed a Physical Activity workgroup to foster cross-NCCOR planning and engagement among all partners related to physical activity. The workgroup has since launched three projects: the Additional Benefits of Walkability project, which aims to identify and quantify additional benefits of walkability beyond physical activity and health; the Youth Active School Transportation (AST) Surveillance Initiative, which aims to improve public health surveillance of youth AST; and the Increasing Opportunities for Trail Use to Promote Physical Activity and Health among Underserved Youth project, which aims to understand how to increase trail use among underserved youth. All three projects are currently conducting literature reviews to help inform the field of physical activity.

Childhood Obesity Declines

This research study was designed to identify the possible drivers and contributors that may be influencing reported declines in childhood obesity rates in four diverse communities—Anchorage, AK; Granville County, NC; New York City, NY; and Philadelphia, PA—and to explore how they may be related to and be part of



other health promotion efforts. NCCOR convened a panel of experts with diverse and complementary backgrounds to solicit outside guidance on the project plan, methodology, and selection of sites that were examined. RWJF funded the project, and in March 2016, NCCOR released community summary reports from four sites across the country. In 2018, NCCOR published six papers in *Childhood Obesity* highlighting the project's findings.

Childhood Obesity Evidence Base (COEB) – A pilot test of a novel meta-analytic method for evidence aggregation

The COEB project, launched in 2018, pilot tests a novel approach to evidence aggregation: a taxonomic approach that categorizes intervention approach and components, recipients and context, and weights the rigor of the methods, evaluation strategy, and evidence. This approach allows comparison of the evidence from reports with varying levels of rigor and specificity and examination of the success of intervention components in targeted populations and circumstances; ultimately, this will provide a comparison to evidence generated by well accepted meta-analytic methods. The purpose is to better use available evidence to inform future research, program development, and policy implementation to prevent or reduce prevalence of childhood obesity. The project team consists of an internal NCCOR workgroup, an external expert panel, project personnel from Mission Measurement, and Dr. Larry Hedges, Chair of the Department of Statistics, Northwestern University. In 2018, the project team held an in-person meeting to discuss the design and evidence hierarchy, project goals, the taxonomic structure, and more. They also agreed on a topic focus for the scoping of the literature: the prevention of overweight and obesity in children birth to five years.

Envision

NCCOR's Envision project coordinated and supported statistical modeling efforts of RWJF and NIH grantees to forecast the impact of public health policies and interventions on childhood obesity on a population-wide level and among specific subpopulations. The project was part of NCCOR's effort to build capacity for multi-level, integrated research. Members examined the effects of individual, socio-cultural, economic, environmental, and policy forces on children's diet, physical activity, energy balance, and body weight. NCCOR partnering agencies funded approximately \$15 million for the Envision Project.

Food Patterns Equivalents Database

NCCOR members worked together in 2011 to fund updates and enhancements to the Food Patterns Equivalents Database (FPED) to improve food and nutrition surveillance, including the addition of new food components of interest. In September 2013, with the help of NCCOR, USDA released FPED updates for the 2007-2008 and 2009-2010 NHANES survey cycles. These updates supported nutrition research at individual and community levels.



NCCOR Convened Workshops on Leading and Emerging Topics

NCCOR convened national experts from diverse fields and disciplines in a range of workshops that generated synergistic ideas, facilitated research agendas, and often provided a springboard for NCCOR activities. NCCOR has held more than such 10 workshops. Overviews of two workshops are provided below.

Engaging Health Care Providers and Systems

The Engaging Health Care Providers and Systems workgroup was formed to consider ways for NCCOR to foster engagement between clinical settings and communities and support interventions in primary and secondary obesity prevention. A workshop convened by NCCOR in 2015 brought together representatives from a diverse array of disciplines to consider these issues and resulted in a white paper that provides a logic model and metrics. In response to the workshop findings, the workgroup convened focus groups to determine the utility of a project to evaluate community-based childhood healthy weight programs (HWP) and identify the needs that such a project can address. The input garnered from the focus groups led to the development and launch of the Collaborative Learning Project on the Evaluation of Healthy Weight Programs (CLP) in 2018. This virtual learning project engages with community-based HWP practitioners and subject matter experts to inform the development of an evaluation framework for community-based HWP. This framework intends to serve as a guide for community-based childhood HWP to evaluate their programs.

Lessons Learned from Global Efforts

This project aimed to provide national leadership to accelerate implementation of evidence-informed practice and policy. A 2014 meeting focused on emerging international environmental policies that are applicable to the United States, approaches to reduce health disparities and address inequities, strategies to build demand around policies that improve health, and public health and business partnerships that foster health. A 2016 Connect & Explore special event livestreamed three symposia from the Society for Behavioral Medicine Meeting on promising U.S. and international strategies for reducing childhood obesity. In 2018, NCCOR hosted a Connect & Explore webinar on the NIH Fogarty supplement published in *Obesity Reviews*, Preventing Childhood Obesity in Latin America: An Agenda for Regional Research and Strategic Partnerships. The webinar shared key areas for research and critical lessons learned in Latin America that can inform future obesity prevention efforts.

NCCOR Disseminated Research Findings Through Published Papers

NCCOR members collaborated to publish more than 50 papers and articles to inform and enhance the field. An overview of selected papers is highlighted below.

Theme Issue in *American Journal of Preventive Medicine*

In 2018, NCCOR published two papers in the *American Journal of Preventive Medicine* (AJPM) to provide insights into NCCOR's formation, operations, and accomplishments. The papers were accompanied by a commentary by senior leaders of NCCOR's member organizations and an editorial by Dr. Jim Sallis, a member of NCCOR's External Scientific Panel. The first paper, *Developing A Partnership for Change: The National Collaborative on Childhood Obesity Research* highlights the formation, structure, and operations of NCCOR and discusses benefits of using a collaborative model to address health problems. The companion



paper, *A National Collaborative for Building the Field of Childhood Obesity Research*, outlines several principles for successful partnerships and how NCCOR has used these principles to make significant contributions to build the field of research, evaluation, and surveillance for childhood obesity prevention and management. In concert with the release of the papers, NCCOR developed a new webpage highlighting NCCOR's accomplishments over the last decade. The webpage has been visited more than 3,000 times since its launch on February 15, 2018.

Companion Paper in *Medicine & Science in Sports & Exercise*

In 2018, NCCOR published a companion paper in *Medicine & Science in Sports & Exercise* titled *A Youth Compendium of Physical Activities: Activity Codes and Metabolic Intensities*. The paper provides a complete description of methods and data sources in the Compendium. The paper was selected as a nominee for the Charles C. Shepard Science Awards from The National Center for Chronic Disease Prevention and Health Promotion. The Charles C. Shepard Science Awards recognize excellence in science at CDC and the Agency for Toxic Substances and Disease Registry.

Supplement in *Childhood Obesity*

In 2018, NCCOR published six papers highlighting findings from NCCOR's Childhood Obesity Declines project in *Childhood Obesity*. The supplement details the rationale, aims, and overall study design of a 2-year project that systematically studied and documented the community-based obesity strategies applied in four distinct communities across the nation that experienced declines in childhood obesity prevalence from 2003 to 2011.

Book Chapter in *Food and Public Health*

In 2017, NCCOR published a white paper on the use of behavioral design strategies and approaches to foster healthy eating and active living among children, teenagers, and their families. The white paper encourages childhood obesity researchers and practitioners to consider the role of behavioral design in their work and use it for research and practice. In 2018, NCCOR published a chapter in *Food and Public Health* (Oxford University Press) on behavioral design as an emerging theory for dietary behavior change.

Special Issue in *Journal of Physical Activity and Health*

In 2016, NCCOR published a special issue in the *Journal of Physical Activity and Health*. The special issue consisted of 17 papers from four countries that provided previously unavailable energy expenditure values on youth from preschoolers to older teens. The papers also included values for nearly 100 separate physical activities, substantially enriching knowledge about activities in which children and youth engage.

Article in *American Journal of Preventive Medicine*

In 2016, NCCOR published an article in AJPM—co-authored by NCCOR members from the Economic and Obesity workgroup—titled *Obesity-Related Policy/Environmental Interventions: A Systematic Review of Economic Analysis*. The review found that a relatively low number of cost-benefit and cost-effectiveness economic assessments appear in the literature on health and behavioral outcomes of policy and environmental interventions, indicating an opportunity for the research community to address this gap.



Article in *American Journal of Preventive Medicine*

In 2012, NCCOR published an article in APJM—co-authored by NCCOR members from the Catalogue of Surveillance Systems and Measures Registry workgroups—titled *The National Collaborative on Childhood Obesity Research Catalogue of Surveillance Systems and Measures Registry: New Tools to Spur Innovation and Increase Productivity in Childhood Obesity Research*. The article discusses the development of the Catalogue and Registry.

NCCOR Formed a Strategic Funding Alliance

NCCOR built a strategic funding alliance with The JPB Foundation to strengthen and magnify efforts aligned with NCCOR's mission and goals.

The JPB Foundation

In 2015, NCCOR formed its first strategic funding alliance with The JPB Foundation. NCCOR strategic alliances allow the Collaborative to engage with other funders in targeted efforts to advance the field of childhood obesity research. The JPB Foundation strives to enhance the quality of life in the United States through transformational initiatives that promote the health of our communities by creating opportunities for those living in poverty, enabling pioneering medical research, and enriching and sustaining our environment. The first of two grants aimed to strengthen NCCOR's Measures Registry by creating four user guides that correspond with the four domains of the Measures Registry and provide an overview of measurement for researchers. In 2017, The JPB Foundation provided NCCOR with an additional three-year grant to promote the Measures Registry, support training in measures selection, examine adaptation of measures for distinct populations and communities, and define next steps in measurement science to accelerate progress in reducing childhood obesity. As part of the grant deliverables, NCCOR has created Learning Modules for the four domains of the Measures Registry. The modules are rooted in adult learning theory, and highlight, in ten minutes or less, key considerations and tools for measuring nutrition, physical activity, and their environments. Furthermore, NCCOR has commissioned a literature review of measurement needs in childhood obesity for high-risk populations and is currently creating a new user guide on assessing childhood obesity. The JPB Foundation has funded more than \$2 million in NCCOR projects.

NCCOR Has Engaged Leading National Experts

NCCOR engaged with leading experts on new science and ideas for the collaborative. In addition to NCCOR's External Scientific Panel described below, NCCOR has engaged more than 350 experts through workgroups and workshops.

NCCOR External Scientific Panel (NESP)

Established in 2012, NESP serves as a valuable liaison between NCCOR and the extramural research community, informing the Collaborative on new science and ideas and providing guidance on specific NCCOR projects and emerging work. NESP activities over the last 10 years include in-person workshops to discuss NESP recommendations and potential strategic alliances as well as webinars on topics such as childhood obesity research priorities and opportunities, emerging areas, and current research gaps. Current NESP members include Dr. Linda (Lynn) Barbour, Dr. Ross C. Brownson, Dr. John Cawley, Dr. Terry Huang, Dr.



Shiriki Kumanyika, Dr. Lisa M. Powell, Dr. Amelie G. Ramirez, Dr. Thomas N. Robinson, Dr. James F. Sallis, Dr. Mary Story and Dr. Elsie M. Taveras.

NCCOR Has Conducted Extensive Promotion and Outreach

NCCOR undertook several communication activities to promote and share NCCOR's tools, research, and publications with the field as well as encourage dialogue and resource sharing.

Social Media Platforms (Twitter, Facebook, LinkedIn)

In 2012, NCCOR launched its Twitter handle @NCCOR and has since gained more than 2,100 followers. In 2014, NCCOR's #TeenNutrition Twitter chat received more than 25 million impressions. NCCOR's #childobesitychat Twitter chat received more than 3 million impressions and 1.2 million impressions in 2016 and 2017, respectively. NCCOR hosts Twitter chats with organizations such as NCI's Division of Cancer Control and Population Sciences; the NIH Office of Behavioral and Social Sciences Research; and the CDC Division of Nutrition, Physical Activity, and Obesity. In 2016, NCCOR launched its LinkedIn page and has since gained more than 580 followers. In 2017, NCCOR launched a Facebook and has since gained more than 430 followers.

E-newsletter

Since 2009, NCCOR has shared a monthly e-newsletter with subscribers highlighting new NCCOR products and tools, as well as grant opportunities, events, publications, and news related to childhood obesity. Since 2009, NCCOR has gained more than 4,700 subscribers to the e-newsletter.

Connect & Explore Webinars

In 2014, NCCOR launched the Connect & Explore webinar series to engage, inform, and communicate with researchers and other external audiences. Since 2014, NCCOR has held more than 25 webinars featuring the nation's leading childhood obesity experts. Past webinar topics include healthy food financing, behavioral design, policy evaluation, and how to measure physical activity. The series garners high satisfaction ratings and regularly sells out, registering attendees from academia, the government, nonprofits, and the private sector.

Participation at National Meetings

In 2012, NCCOR attended the Weight of the Nation Conference to share and promote the Collaborative's successful efforts to improve the effectiveness and efficiency of childhood obesity research. Since 2012, NCCOR has attended more than 30 conferences to share resources, key findings, and information highlighting NCCOR's mission, projects, and successes via the NCCOR exhibit booth and scientific sessions. NCCOR has exhibited and presented at premier conferences in public health and childhood obesity research, such as the American Public Health Association, American College of Sports Medicine, and the Society of Behavioral Medicine.

