Connecting you with experts. Exploring the latest childhood obesity news and research.

We will begin at 1:05 to allow participants time to join the webinar.
1. Spotlight: The Childhood Obesity Declines Project Supplement
   - Rationale
   - Methods and Findings
   - Strategies: Patterns & Commonalities
   - Implications for Research and Evaluation Approaches
2. One on One
3. NCCOR Announcements
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#ConnectExplore

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Today’s Speakers

Elaine Arkin
National Collaborative on Childhood Obesity Research

Nicola Dawkins-Lyn
ICF

Laura Kettel Khan
Centers for Disease Control and Prevention

Tina Kauh
Robert Wood Johnson Foundation

Deborah Young-Hyman
National Institutes of Health
INTERACTIVE POLL
The Childhood Obesity Declines Project

Rationale

Tina Kauh, PhD
Senior Program Officer
Robert Wood Johnson Foundation
• Childhood Obesity Declines Project Supplement

• Available at: https://www.nccor.org/projects/obesity-declines/
Rationale for the Childhood Obesity Declines Project (COBD)

- Recent National Trends
- Patchy Signs of Progress
Objectives

1. To identify four communities with verified declines in childhood obesity rates

2. To understand what strategies were implemented, how they were implemented, and factors that may have influenced implementation

3. To understand how communities targeted their efforts toward high-risk populations
Method

• Initiated by NCCOR
• Led by NCCOR advisors and ICF
• Guided by external advisors
• Used an adapted version of the Systematic Screening and Assessment method
• Assessed childhood obesity rates
• Collected retrospective implementation data
QUESTIONS?
Please type your question(s) in the chat box located on the right.
The Childhood Obesity Declines Project
Methods and Findings

Nicola Dawkins-Lyn, PhD, MPH
Vice President for Public Health
ICF
Methods Overview

- Scanned popular media reports and peer-reviewed literature to identify sites reporting declines
- Selected sites for case studies based on established criteria
- Reviewed documents to identify relevant initiatives at each site
- Administered an inventory of strategies (survey) for site representatives to note strategies that occurred
- Examined policy and contextual data for each site to identify relevant policies and contexts
- Conducted site visits to interview respondents across settings
Site Selection Criteria

- Reported declines in childhood obesity
- Objectively measured height and weight by trained staff
- Reported a statistically significant decrease (obtained site data and conducted significance testing when necessary)
- Established a baseline during or after 2004
- Conducted a follow-up during or after 2009
- Reported a minimum of 2 data collections
## Reported Statistically Significant Declines in Study Sites

<table>
<thead>
<tr>
<th>Site</th>
<th>Age or Grade</th>
<th>Reported Decline</th>
<th>Period of Decline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchorage, AK</td>
<td>Students in grades K, 1, and 3</td>
<td>Obesity declined from 18.0% to 17.6%, representing a relative decrease of 2.2% (p&lt;.001)</td>
<td>2003–2004 to 2010–2011 school years</td>
</tr>
<tr>
<td>Granville County, NC</td>
<td>Children 2–4 years of age</td>
<td>Overweight/obesity declined from 36% to 29.7%, representing a relative decline of 17.5% (p&lt;.01)</td>
<td>2005 to 2010</td>
</tr>
<tr>
<td>New York City, NY</td>
<td>Students in grades K-8</td>
<td>Obesity declined from 21.9% to 20.7%, representing a relative decline of 5.5% (p &lt; .001)</td>
<td>2006–2007 to 2010–2011 school years</td>
</tr>
<tr>
<td>Philadelphia, PA</td>
<td>Students in grades K-8</td>
<td>Obesity declined from 21.5% to 20.5%, representing a 4.7% relative decrease (7.7% for severe obesity) (p&lt;.001)</td>
<td>2006–2007 to 2009–2010 school years</td>
</tr>
</tbody>
</table>
Timeline of Strategies Identified for Focus Across Sites, 2003–2011

**Pre-Study Period**
Interventions implemented up to 5 years prior to baseline

- **Anchorage:**
  - 2001 – Anchorage 2020: Anchorage Bowl
  - 2002 – Alaska Obesity Prevention and Control Program established

- **Philadelphia:**
  - 1999 – Early Childhood Education Linkage System begins (ECELS)
  - 1991 – Universal feeding pilot started, enabling “universal service” (i.e., free breakfast and lunch for all students) in schools where a high percentage of children qualify for free or reduced-priced meals
  - 1999 – Nutrition education (Eat Right Now Program) starts to be provided to all public school students whose families are eligible for SNAP

**Study Period**

2003
- Anchorage: Municipal Childcare Licensing Code Revised (Increase Vigorous PA)
- Philadelphia: Reauthorization of the Federal Child Nutrition and WIC Act
- Federal: Reauthorization of the Federal Child Nutrition and WIC Act

2005
- Anchorage: ASD School Nutrition Changes
- Philadelphia: Comprehensive, district-wide school wellness policy, including guidelines for school meals, snacks, drinks, physical activity, and nutrition education
- Federal: Reauthorization of the Federal Child Nutrition and WIC Act
- Philadelphia: Ban on sugary drinks in schools

2007
- Anchorage: ASD Health and Wellness Policy: PA Time in Elementary Schools (ASD) increases by 50% (increase to 3 PE periods/week)
- New York City: NYC Food Standards, requiring vending machine restriction, two servings of fruit and vegetables in lunches and dinners by city agencies, etc.
- Federal: Food, Conservation and Energy Act of 2008 (Farm Bill)

2009
- Anchorage: ASD Health and Wellness Policy: PA Time in Elementary Schools (ASD) increases by 50% (increase to 3 PE periods/week)
- New York City: Move to improve
- New York City: Child Care Commission to develop improved nutrition standards
- Granville: Child Care Commission to develop improved nutrition standards
- Federal: Healthy, Hunger-Free Kids Act
- Federal: SNAP Ed

2011
- Granville: Child Care Commission to develop improved nutrition standards
- Federal: Healthy, Hunger-Free Kids Act
- Federal: SNAP Ed

**Post-Study Period**
Interventions implemented up to 5 years after follow-up data collection

- **Anchorage:**
  - 2011 – Farmer Market EBT Quest Card System
  - 2011 – “Nutritional Alaska Foods for Schools” – Farm to School permanently instilled in State Budget

- **Philadelphia:**
  - 2011 – School District of Philadelphia Student and Staff Wellness Policy is revised
  - 2011 – SSB tax introduced again
  - 2014 – Sodium reduction media campaign (through 2015)
  - 2015 – Physical activity media campaign (planned through 2016)

- **New York City:**
  - 2011 – Active Design Guidelines for new city construction
  - 2011 – Sugary Drink Campaign

- **Granville:**
  - 2011 – Resolution on Heart Disease and Dietary Sodium Intake
  - 2013 – General Nutrition Requirements for child care centers
  - 2013 – Student Wellness Requirements (Granville County School Board)

**Study Period Legend**

- **Anchorage**
- **Philadelphia**
- **New York City**
- **Granville**

**Settings:**
- Schools
- Community
- Health Care
- Early Care and Education
## Strategies that Targeted Populations that Experienced Obesity Declines

<table>
<thead>
<tr>
<th>Site</th>
<th>Name of Strategy</th>
<th>Setting</th>
<th>Focus Area</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Early Care &amp; Education (ECE)</td>
<td>Nutrition</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Schools</td>
<td>Physical Activity</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Community</td>
<td>Program</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Health Care</td>
<td>Policy</td>
<td></td>
</tr>
<tr>
<td>1 Anchorage</td>
<td>Anchorage Municipal Childcare Licensing Revisions</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>2 Anchorage</td>
<td>Anchorage School District: Nutrition Changes (soda ban, followed Healthy Hunger Free Kids Act (HHFKA)</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>3 Anchorage</td>
<td>Anchorage School District: Health, Wellness, and Physical Education</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
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## Strategies that Targeted Populations that Experienced Obesity Declines

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<tr>
<td>Granville County 1</td>
<td>Child Care Nutrition (prohibiting sweetened beverages, whole milk, added sugars; increasing whole grains)</td>
<td>ECE</td>
<td>Nutrition</td>
<td>X</td>
</tr>
<tr>
<td>Granville County 2</td>
<td>Health Care Referral Program (county clinics assuring screenings and yearly check-ups)</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Granville County 3</td>
<td>Childcare Physical Activity</td>
<td></td>
<td></td>
<td>X</td>
</tr>
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<td>Site</td>
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<td>Setting</td>
<td>Focus Area</td>
<td>Type</td>
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<tr>
<td></td>
<td></td>
<td>ECE</td>
<td>Schools</td>
<td>Community</td>
</tr>
<tr>
<td>1 New York</td>
<td>New York City Food Standards (comprehensive nutrition standards for all foods purchased and served by city agencies and their programs)</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>City</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 New York</td>
<td>School nutrition policies (including whole milk removed from public schools; introduced lower-fat, fat-free items, salad bars, healthy vending)</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>City</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 New York</td>
<td>Move to Improve (classroom-based physical activity program)</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>City</td>
<td></td>
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<td></td>
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### Strategies that Targeted Populations that Experienced Obesity Declines

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<td></td>
<td></td>
<td>ECE</td>
<td>Schools</td>
<td>Community</td>
</tr>
<tr>
<td>1 Philadelphia</td>
<td>Universal Feeding Program pilot (broadly increasing access to free and reduced-price lunch)</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>2 Philadelphia</td>
<td>EAT.RIGHT.NOW. Nutrition Education Program (using Supplemental Nutrition Assistance Program Education [SNAP Ed] funds)</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>3 Philadelphia</td>
<td>Ban on sugary drinks in schools</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>4 Philadelphia</td>
<td>Comprehensive districtwide school wellness policy (switch from 2% to 1% and fat-free milk, deep fryer ban)</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Types of Strategies

• Targeted Nutrition-Related Strategies
  – Changes in nutrition standards in public schools
  – Changes in nutrition standards in ECE settings
  – Comprehensive school wellness policies—nutrition
  – Nutrition education

• Targeted Physical Activity-Related Strategies
  – Comprehensive school wellness policies—physical activity
  – Classroom-based physical activity
  – ECE physical activity licensing requirements
  – Physical activity health education
Noted Similarities

- Significant number of efforts, primarily addressing nutrition in community and school settings
- Early adopters of nutrition policies later mandated by federal policies such as Healthy, Hunger-Free Kids Act
- Reports of support for nutrition and physical activity initiatives from elected officials
- Community-wide efforts, regardless of ultimate success, raised awareness of issues related to improved diet and physical activity
- Strategies implemented across various sectors, settings, and levels were described by some respondents as a “layering effect” that, according to those respondents, improved chances for reducing obesity rates
• Site-specific reports
  – Shares observed declines, methods, and key findings
QUESTIONS?
Please type your question(s) in the chat box located on the right.
The Childhood Obesity Declines Project

Strategies: Patterns & Commonalities

Laura Kettel Khan, PhD
Senior Scientist and Advisor
Division of Nutrition, Physical Activity, and Obesity
Centers for Disease Control and Prevention
Patterns
QUESTIONS?

Please type your question(s) in the chat box located on the right.
The Childhood Obesity Declines Project

Implications for Research and Evaluation Approaches

Deborah Young-Hyman, PhD
Health Scientist Administrator
Office of Behavioral and Social Sciences Research
National Institutes of Health
Overview

• Why use an adaptation of the Systematic Screening and Assessment (SSA) method?
• Need for mixed methods approaches to evaluate natural experiments
• Compare SSA methods with other evaluation schemas
• Integration of SSA-based evidence with other evaluation evidence
• Implications for future research, program and policy evaluation
• Importance of stakeholder collaboratives: the NCCOR model
What does the Adaptation of the Systematic Screening and Assessment (SSA) method capture?

• In the absence of an a priori evaluation schema “.....evidence that is currently available can be identified, evaluated and compiled to inform decisions regarding obesity prevention and treatment.”¹

• Social determinants of health of target population

• Contextual characteristics of setting

• Community based resources

¹Medicine L.E.A.D. Framework, Chronic Disease, 2012
Using Mixed Method Approaches for Natural Experiments

• Analyzed natural experiment = non-randomized multilevel community strategies/interventions/programs that were examined post hoc. Mechanisms were not manipulated by researchers.¹

• Statistically verified significant declines in rate of childhood obesity in target populations with (customary clinical trial outcome) was temporally associated with synergistic community based programs and policies.

• “Evaluation is grounded in the context in which initiatives occur; it is descriptive, process-focused and temporally anchored; primary data collection occurs through narrative; identification of key components is informed by multiple stakeholders including implementers; convergent validity is utilized to establish a timeline of implementation; implementation stories from multiple stakeholders identify leaders, champions, implementers, settings, and funders.”

¹Medical Research Council, 2012
<table>
<thead>
<tr>
<th>Adapted SSA vs. Clinical Trials Evaluation Schemas</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Retrospective SSA</strong></td>
<td><strong>Clinical Trials</strong></td>
</tr>
<tr>
<td>• Public health and stakeholder driven and implemented</td>
<td>• Controlled experiment designed to answer a specific research question</td>
</tr>
<tr>
<td>• Efficacy based on pre-post population statistic – no randomization</td>
<td>• Efficacy/effectiveness based on difference between control and experimental groups or pre-post cohort analysis</td>
</tr>
<tr>
<td>• Characteristics intended recipients not restricted</td>
<td>• Highly specified cohort and implementation conditions</td>
</tr>
<tr>
<td>• Implementation components and setting characterized</td>
<td>• External threats to validity not controlled</td>
</tr>
<tr>
<td>• Simultaneous contextual factors described</td>
<td>• Ability to attribute causality but limited generalizability</td>
</tr>
<tr>
<td>• Findings facilitate generalizability of methods but attribution of causality is not possible</td>
<td></td>
</tr>
</tbody>
</table>
Integration of SSA Evidence with Evidence from other Evaluation Strategies

<table>
<thead>
<tr>
<th>What</th>
<th>Programs, policies, initiatives; resources (funding, human capital)</th>
</tr>
</thead>
<tbody>
<tr>
<td>To Who</td>
<td>Targeted population</td>
</tr>
<tr>
<td>By Whom</td>
<td>Implementers</td>
</tr>
<tr>
<td>Social Context</td>
<td>Schools, parks, rec facilities, groceries or farmers markets</td>
</tr>
</tbody>
</table>

- Identifies *elements* of implementation *that appear to be central to success* – resources, champions, funders, access, and feasible settings
- *Combined with statistical change in prevalence of obesity in target population.*
- *Facilitates case comparisons to identify likely strategies and resources that appear to be successful across venues and populations.*
Implications for future research, program implementation and policy evaluation

• Although an a priori evaluation may not be in place for community based natural experiments, valuable information can be learned from “unpacking” natural experiments.

• Although adapted SSA can not make attributions of causality to specific programmatic components or policy implementation for declines in childhood obesity, it provides insight into potential targets for future community based childhood obesity prevention efforts.

• When formulating public health approaches to reduce rates of childhood obesity contextual understanding increases the potential for generalizability across multiple settings and populations.
This project happened through collaborative efforts of the NCCOR stakeholders. Working group members represent a unique partnership between the major funders of childhood obesity research in the United States: CDC, NIH, RWJF, USDA.

Each organization views the issue of childhood obesity through an agency-specific lens and all differ in their research and evaluation agenda.

NCCOR recognizes that traditional research and evaluation methods needs to be augmented to address the complexities of the impact of community-based initiatives and policy implementation.
QUESTIONS?

Please type your question(s) in the chat box located on the right.
HIGHLIGHTS FROM THE FIELD
NCCOR has transformed the field of childhood obesity prevention through its structure, design, and accomplishments. To mark its contributions to the field of childhood obesity research, NCCOR recently published two papers in the *American Journal of Preventive Medicine*.

- **Developing A Partnership for Change: The National Collaborative on Childhood Obesity Research**
  
  Rachel M. Ballard, MD, MPH; Anne B. Rodgers, MA; Laura Kettel Khan, PhD; C. Tracy Orleans, PhD; Elaine Arkin, MS; Todd M. Phillips, MS

- **A National Collaborative for Building the Field of Childhood Obesity Research**

  Rachel M. Ballard, MD, MPH; Anne B. Rodgers, MA; Laura Kettel Khan, PhD; C. Tracy Orleans, PhD; Elaine Arkin, MS; Todd M. Phillips, MS

To learn more visit [www.nccor.org/accomplishments](http://www.nccor.org/accomplishments)
NCCOR’s Annual Report 2017

• Highlights tools, resources, and communication efforts in 2017 related to physical activity

TOOLS YOU CAN USE
Catalogue of Surveillance Systems

• 2018 update complete
• Call for new system submissions
  – Inclusion criteria
    • Relevance to childhood obesity
    • Relevance to at least one level within the social-ecological model
    • Conducted in the U.S.
    • Publicly available data
    • Generally, data within last 10 years
  – Exclusion criteria
    • One-time survey
  – Suggest systems for inclusion here: https://www.nccor.org/nccor-tools/catalogue/feedback/
FURTHER QUESTIONS?

Other questions about NCCOR or upcoming activities?

Email the NCCOR Coordinating Center

nccor@fhi360.org
NCCOR is now on Facebook!

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@NCCCOR.org

Follow @NCCOR
Connect & Explore

NCCOR News

NCCOR, The JPB Foundation strengthen alliance to support Measures Registry

NCCOR hosts National Childhood Obesity Awareness Month social media activities

NCCOR helps communities evaluate their progress in reducing childhood obesity

Healthy Communities Study findings on relationship between community policies and programs and childhood obesity

U.S. Preventive Services Task Force update on obesity screening recommendation

Upcoming Webinars

Mark your calendar for these upcoming Connect & Explore webinars!

OCT 11 Built Environment Interventions to Increase Physical Activity: Community Preventive Services Task Force Recommendations
THANK YOU!