Cross-Site Process Evaluation Plan: *Childhood Obesity Research Demonstration Project* (CORD)

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Rationale, Design, and Methods for Process Evaluation in the Childhood Obesity Research Demonstration Project

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Learning Objectives

After this webinar, attendees will be able to:

• Discuss the importance of process evaluation and its contribution to science.

• Define key process evaluation terms (reach, dose delivered, fidelity).

• Describe the cross-site process evaluation plan developed by the CORD evaluation center.
What is CORD?

• *Childhood Obesity Research Demonstration* project

• Funded by the Center’s for Disease Control and Prevention to prevent childhood obesity

• Target audience
  - 2-12 year old children eligible for Title XXI (CHIP) or Title XIX (Medicaid)
Overall Project Goals

• Improve/enhance:
  - Health care services delivery
  - Health outcomes
  - Quality of life
  - Provider satisfaction
Structure

• 3 demonstration sites
  - California (San Diego State University)
  - Massachusetts (Massachusetts Dept of Public Health)
  - Texas (University of Texas School of Public Health)

• Evaluation Center
  - Texas (University of Houston)

• CDC
  - Project oversight
CORD Interventions

• Based on obesity chronic care model
  - Multi-level
  - Multi-setting

• Interventions evidence-based
  - Differ by site

• All emphasize
  - Child and family activities
  - System-level changes
Behavioral Targets

- Diet
- Physical Activity
- Screen Time
- Sleep
Intervention Settings

• Primary care clinics
• Early child care and education centers
• Public schools
• Community institutions
Overall Evaluation Plan

• Site-specific evaluations
  - Each site evaluates its own program

• Cross-site evaluation
  - Will analyze pooled data to provide evaluation of overall project
  - Common measures collected
Cross-Site Evaluation Plan

• Impact

• Sustainability

• Process

• Cost analysis
Cross-Site Evaluation Plan

- Impact
- Sustainability
- Process
- Cost analysis
Process Evaluation Is…

• Systematic approach
  - Examines intervention delivery and implementation

• Methods
  - Qualitative and/or quantitative

• Can be used to identify
  - Effective/ineffective program components
  - Barriers and facilitators to intervention delivery
  - Settings and circumstances under which an intervention is most likely to be successful
Examples

• CATCH (McGraw et al)
• GIMME 5 (Davis et al)
• TAAG (Young et al)
• ACT (Wilson et al)
• HEALTHY (Schneider et al)
• Ensemble Prevenons l’Obesite des Enfants (Pettigrew, et al)
• Pathways (Helitzer et al)
Process Evaluation vs Outcome Evaluation...What's the Difference?

• Outcome evaluation
  - Assesses whether the program was effective at achieving change in outcome variable(s) (e.g., reduction in BMI, increased fruit-vegetable consumption)

• Process evaluation
  - Assesses implementation and delivery
  - Helps explain why an intervention was/was not effective
  - Provides insight and direction for future research
Process Evaluation Focus

• Formative
  - Purpose - fine tune intervention during delivery and/or keep it on track

• Summative
  - Purpose - explain and/or understand outcomes

• Both
Process Evaluation Focus

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• Both
Primary Challenge

• Projects differed
  - Interventions
  - Populations
  - Schedules

• Process evaluation plan needed to accommodate differences
Cross-site Process Evaluation: Stages

• Stage 1:
  - Identify work-group goals

• Stage 2:
  - Identify CORD process evaluation goals

• Stage 3:
  - Operationalize the plan
Stage 1: Identify Work-Group Goals

• Identify a standardized set of objective measures collected consistently across all sites

• Identify goals of overall CORD process evaluation

• Limit site-related resources spent on process evaluation
Initial Focus

• Reach
  - Proportion of target audience who received intervention

• Dose delivered
  - What was delivered to participants

• Dose received
  - What was received by participants

• Fidelity
  - Whether the intervention was delivered as intended

Stage 2: Identify CORD Process Evaluation Goals

• Discussions with Demonstration Site Investigators
  - What’s feasible?

• Decision
  - Dose received dropped

• Reason
  - Resource constraints limited likelihood of consistent data across all sites
Final Focus

• Reach

• Dose delivered

• Fidelity
Structure

• Assess at two levels
  - Researcher to Provider
  - Provider to Family

• Rationale
  - Will contribute to a more thorough process evaluation and interpretation of outcome(s)
Cross-Site Process Evaluation Plan

<table>
<thead>
<tr>
<th>Construct</th>
<th>Definition</th>
<th>Researcher to Provider</th>
<th>Provider to Family</th>
<th>Data Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reach</td>
<td>To what extent did CORD attract the intended participants?</td>
<td>Total number of eligible elementary schools who participate in CORD project compared with the number of eligible schools in area</td>
<td>Total number of patients recruited in the clinic setting who were enrolled in CORD compared with the number of children at risk</td>
<td>National Center for Education Statistics (NCES) Investigator’s administrative data</td>
</tr>
<tr>
<td>Dose delivered</td>
<td>What activities were delivered to the intended providers and families?</td>
<td>Activities delivered to providers by CORD researchers and staff (e.g., number of trainings provided, number of staff trained, training objectives delivered, and materials given to providers)</td>
<td>Activities attended by participating families (e.g., community events, clinic CORD activity, and materials given to families)</td>
<td>Copies of training materials Curriculum training sign in logs Handouts, posters, visual aids Investigator’s administrative data</td>
</tr>
<tr>
<td>Fidelity</td>
<td>What proportion of CORD activities were delivered as planned?</td>
<td>Compared to the demonstration project’s initial proposal, how many provider trainings were delivered in each setting?</td>
<td>Compared to the goal of a 100% of the time, how often was the CORD template used in the electronic medical record when a child was seen for a well-child exam whose BMI was ≥ 85th percentile?</td>
<td>Program Component Checklist Observational audits</td>
</tr>
</tbody>
</table>

BMI indicates body mass index; CORD, Childhood Obesity Research Demonstration.

Additional Focus - Standard Elements

• Evaluated based on goal of activity
  - Training
  - Education
  - Policy, Systems, Environment

• Applicable to Dose Delivered and Fidelity only

• Rationale
  - Provides objective measures
  - Facilitates cross-site comparison/evaluation
Stage 3: Operationalize the Plan

- Standardized definitions
- Standardized reporting procedures
- Data collection forms
- Evaluation Center assistance
**Sample Form**

**Texas Clinic Process Evaluation Response Form**

*ONLY use for data collected Years 1 and 2 (September 30, 2011 - September 30, 2013)*

**PLEASE NOTE:** The examples on the form are *italicized in blue*

<table>
<thead>
<tr>
<th>Name of Clinic (please add additional clinics if this list is not complete)</th>
<th>Number of children cared for annually (patients not encounters or visits)</th>
<th>Number of children cared for annually enrolled in Medicaid or CHIP</th>
<th>Number of children cared for annually enrolled in Medicaid or CHIP between the ages of 2-12**</th>
<th>Check Box if Clinic Formally withdrew from CORD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex.</td>
<td>675</td>
<td>380</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>Clinic 1 [Houston]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinic 2 [Houston]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinic 3 [Houston]</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Figure.** Example process evaluation form. Process evaluation response form has been abbreviated for publishing purposes.
Sites Asked To

• Use standard definitions

• Complete forms for each data collection year
  - October 2011-September 2013 (yr 1)
  - October 2013-September 2014 (yr 2)

• Reporting dates were flexible due to variable start/end dates

• Yr 1 longer to capture start up activities
Process Evaluation Analysis Plan

• Analytic focus
  - Constructs, standard elements

• Descriptive statistics calculated
  - Frequencies
  - Percentages
  - Averages (means)
  - Proportions

• Calculated by site and overall
Current Status

• Obtaining final data from sites and clarifying responses

• Complete data obtained for schools

• Nearly complete data obtained for
  - Early childcare centers
  - Clinics

• May be problematic to obtain complete community data
Ultimate Process Evaluation Goals

• Identify
  - Interventions most likely to be effective in a particular setting

• Provide
  - Insight into project outcomes
  - Guidance to future investigators
Lessons Learned

• Expect challenges
• Flexibility is essential
• Compromise is often necessary
• Communication is key
• Availability and assistance are important
• Bottomline - Teamwork
Thank you!!

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Additional Information


Questions?

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