Improving Success for Funding: Strategies to Maximize the Impact of Your Pilot Work

Stephenie C. Lemon
Prevention Research Center
Umass CCTS Community Engagement Section
Division of Preventive and Behavioral Medicine
UMass Worcester
Background

• Obtaining NIH and other large research grants is more challenging than ever
  o Compelling pilot data is essential

• Taking advantage of opportunities
  o In-kind projects
  o Small, local grants for program implementation
Purpose of this talk

• To describe important elements of a successful preliminary studies section

• To share a recent example of leveraging a small pilot study and in-kind on the fly activities to inform a successful NIH grant application
What type of pilot data are needed?

- Understanding specific experiences of the target population and setting
- Program development
  - Materials and protocols
- Measurement development and adaptation
- Feasibility
  - Integration of a program within an existing setting
  - Recruitment and retention methods
  - Program attendance and adherence
  - Fidelity of program delivery
- Preliminary effectiveness
- Sample size and power estimates
Research goal

To adapt an evidence-based weight loss program that could be successfully implemented for low-income postpartum mothers by the Women Infants and Children Program.
Collaboration

- **UMMS:**
  - Milagros C. Rosal
  - Stephenie Lemon
  - Barbara Estabrook
  - Karen Ronayne
  - Linda Olson
  - Amy Borg
  - Caroline Cranos

- **Trainees:**
  - Christine David
  - Lynn DiTaranto

- **Women, Infant and Children’s Program**
  - Nelly Driscoll
  - Oahn Nguyen
  - Other WIC staff

- **Nutritionists:**
  - Julie Demoracski
  - Julia Cassavant

- **Peers:**
  - Amy Robinson
  - Rosa Lima

- **Worcester Youth Center**

- **YWCA**
Phase I: Understanding Specific Experiences of the Target Population and Setting
Needs assessment

- **Goal**: To understand the socio-demographic profile and prevalence of obesity in the target population

Method/Source of Data:
- Existing WIC surveillance data
Target population

**Goal:** To understand weight-related attitudes, motivations and behaviors, challenges to weight control and potentially useful strategies to promote weight loss

**Methods:**
- Focus groups with participants (in-kind, institutional resources)
- Key informant interviews with WIC directors and senior nutritionists (in-kind)
Target setting

Goal: To understand how an intervention and a research protocol might be developed to fit within the flow of WIC daily business, including:

• Intervention design and format
• Roles and responsibilities
• “Flow”

Method: Key informant interviews with WIC directors and senior nutritionists (in-kind)
Phase II:
Program Development

...
Protocol development

**Goal:** To adapt an evidence-based intervention based on information learned in Phase I

**Methods:**
- Systematic intervention mapping process (in-kind)
- Focus groups with WIC clients (in-kind; institutional resources)
Phase III: Measurement Development and Adaptation
Evaluation

**Goal:** To ensure that measures of behaviors and theoretical constructs are appropriate for the target population

**Method:** Cognitive pre-testing with WIC clients (in-kind)
Phase IV: Feasibility, Preliminary Effectiveness, Sample Size Estimation ...
Pilot trial

Goal: To establish the feasibility and preliminary effective of the intervention and to generate sample size estimates for a fully powered trial

Method: Single group pre-post test design among 60 women; Systematic tracking system and process evaluation (UMMHC Community Benefits)
Final “product” and results

- **Recruitment and assessment procedures**
  - All women receive eligibility forms and give permission for contact during routine visits
  - Research staff then assume responsibility

- **Intervention**
  - Group-based
  - Delivered by WIC nutritionists and peer leaders in the evenings
  - Evidence-based content modified to reflect values of new Moms

- **Outcomes**
  - Demonstrated meaningful weight loss outcomes
  - Process was feasible and acceptable to WIC
  - Intervention was well-received by the women
The next step...

- Recently funded: Randomized controlled trial
  - Modifications based on lessons learned in the preliminary studies

- Funded by the National Institute of Minority Health and Health Disparity

- Part of the Center for Health Equity Intervention Research