Childhood Obesity Prevention Research Through a Community Context

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Project Overview

Multi-state
• IN, KS, MI, ND, OH, SD, WI

Multi-disciplinary team
• Nutrition
• Physical activity
• Family and child development
• Community development

Funding
• USDA Agriculture and Food Initiative (AFRI) Grant #2011-68001-30100
Innovative Aspects

7 states collaborating

Socio-Ecological Model of Childhood Overweight

- Rural communities
- Low-income families
- Preschool aged children

Community capacity development approach
Situation

Childhood obesity
- Greater risk in rural areas
- Greater risk in low income

Obese by age 4
- Increased risk of being overweight or obese as an adult
Foundation

COMMUNITY, DEMOGRAPHIC, & SOCIETAL CHARACTERISTICS

PARENTING STYLES, FAMILY CHARACTERISTICS, & in utero INFLUENCES

CHILD CHARACTERISTICS & CHILD RISK FACTORS

CHILD WEIGHT STATUS

Gender
Dietary Intake
Age
Sedentary behavior
Physical Activity
Familial susceptibility to weight gain
Teen pregnancy
Smoking during pregnancy
Excessive weight gain during pregnancy
Parent’s weight status
Parent food preferences
Parent’s dietary intake
Types of foods available in the home
Child feeding practices, including breastfeeding
Nutritional knowledge
School lunch programs
Work hours
Leisure time
Accessibility of recreational facilities
Rurality
Accessibility of convenience foods and restaurants
Child Abuse
Peer and sibling interactions
Monitoring TV hours
Parent’s activity patterns
Parent’s activity for activity
Parent encouragement of child activity
Crime rates and neighborhood safety
School PE programs
Family leisure time activities
Socioeconomic status
Child Abuse
Peer and sibling interactions
Monitoring TV hours
Parent’s activity patterns
Parent’s activity for activity
Parent encouragement of child activity
School PE programs
Family leisure time activities
Davison and Birch, 2001- Obesity Reviews 2, 159-171.
Why Focus on Environment?

• Growing evidence shows that environment is related to the incidence of obesity

• Healthy choices need to be easy choices

• Environmental changes can improve the health of the whole community, not just individuals
Choosing the Community

- Two communities per state
- Rural
- Low Income
- Population of 4 year old children
- An active health-related coalition
Community Coaching

One community per state assigned a “Community Coach”

“A Community Coach: a guide who supports communities and organizations in identifying and achieving their goals.”

(Emery, Hubbell, & Miles-Polka, 2011)
1. To empower rural communities to create and sustain environments that support healthy lifestyles for young children, with emphasis on good nutrition and physical activity.

2. Test community coaching model.
Approach – Methods

14 Communities

• Selected community coalitions from applications
• 1 intervention, 1 comparison community per state
• Community coach hired and placed with intervention coalition
Funding to each community annually, for 4 years

Required:

• one nutrition activity-related project

• one physical activity-related project
Assessment Tools

- Socio-ecological Model of Childhood Overweight Assessment Toolkit
  - *Active Where?* Parents survey (initial + end)
  - *CHLI* tools (Initial + end)
  - *Coalition Self-Assessments*: annually

- *Ripple Mapping*: End
- Reflections: Regularly
- Post-intervention interviews: Coalitions and coaches
- Insights leading to “Best Practices”
Ripple Effect Mapping

Method used to better understand the “ripple effects” and relationships of this project on individuals, groups, communities, and regions.
Mapping Community Progress

Ripple Mapping

• Coalition Members

• At the end of the project

• Discussion was invited, recorded observed

• Number of participants varied/state
Mapping process

1. Post a large piece of white paper on the wall and write “the project name” or purpose of the session in the middle of the map. (Some used Xmind to electronically record map)

2. Draw out several branches from the list identified

3. Ask and probe participants about the activities, programs, services, collaborations/connections, funding that resulted from the coalition’s work with our project - CPCO
Mapping Results – ND

Community Preventing Childhood Obesity 2011

Educational Resources
- Cook Smart Eat Smart Cook Booklets
- 5 minute Recipes for Kids Booklets

Take Home Fitness Bags
- Fitness bags go to Headstart schools, daycare providers, create multiple activities and relationships in the families
- Choosing ideas that would continue from the beginning
- Used evidence based practices

Sustainability

MyPlate Plates
- Handed out to 3 to 5 year olds
- Used in the daycare
- Talk about the food groups
- Makes accountability to get all food groups
- Lesson cards with the plates
- Color pieces to choose what to eat (game)

Color Me Healthy
- Projects sent home with the children
  - Train the trainers were completed
  - North Dakota Growing Futures trainers put on for the state
  - 18 people were trained
  - Used training for daycare
  - Daycare trainings continued
  - Local trainers gives more opportunities

Bike Helmet Safety Training
- Police officer giving coupons to family wearing certificates
  - Over 80 bike helmets given away
  - Safe kids from Grand Forks given training

Individuals, agencies, and daycare providers working together
What is the difference between coached and non-coached communities terms of the Socio-Ecological Model levels or rings?

Coached communities employed more programs, services, and activities under the organizational, community, and public policy rings than the non-coached communities.
Results

Is there a significant difference in the number of “ripples” between coached and non-coached communities?

Yes, a difference was observed between the intervention and comparison communities.

Total ripple score among intervention communities was 37 and among the control communities was 33.
We all came together, all the coalition members and our coach and the project director, and we went over all the different projects that we’ve actually done and realized that we did a lot more than we actually thought we did. So we just kind of looked at the big picture and thought “Oh, that was a good idea, that really worked out well” or “we really didn’t get much turn out for this type of thing”

– Coalition Member
Best Practices

Online modules for community coalitions

1. Readiness
2. Socio-Ecological Model
3. Using Evidence-Based Strategies
4. Evaluation
5. Community Coaching
Module 1

**Objective:**

- Is Your Coalition “Ready” to Make a Change in Childhood Obesity?

In this tutorial you will learn:

- How to define coalition readiness
- What are the key attributes related to coalition readiness
- Specific strategies to increase the readiness of your coalition
Best Practices Toolkit

go.osu.edu/CPCOtoolkit
Insights

Community Coaching is being “refined”
  • No “right” way
Relationships and partnerships are essential
  • Coalition members
  • Coaches, staff, students
Reflection is critical
Sustaining community involvement over an extended time is challenging
Working in 7 states is challenging, yet rewarding
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Questions?

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