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
• Community development
• Family and youth 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
Davison and Birch, 2001- Obesity Reviews 2, 159-171.
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
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 identified as part of application
• 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
- 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 assessments
- *Coalition Self-Assessments*: annually
- *Ripple Mapping*: End
- Reflections: Regularly
- Post-intervention interviews: Coalitions and coaches
- Insights leading to “Best Practices”
Active Where? Survey

Parents of 4-year-olds completed a community assessment

- At start and end of project
- Team adjusted wording for rural, age application
- Asks about physical surroundings, access to services, safety, physical activity
- Gathered brief demographic data, etc.

We need your help to make our study a success. Your honest answers to the items in this survey are very important to us.

Remember:
- we want to know what you think,
- there are no right or wrong answers,
- everything you tell us will be kept strictly confidential (secret).

Many of the questions are about your child’s activities. Please answer these questions for your child with the most recent birthday who is between the ages of 3 and 5 years (closest to 4 years old) and who lives in this house most of the time.

Please tell us your:
1. Child’s Age: ______ 2. Child’s Gender: Male Female

1. How many days a week does your child live at this address?
0 1 2 3 4 5 6 7

2. Do you consider the neighborhood you live in a town, small village, or rural?
- Town
- Small Village
- Rural

Author:
Jacqueline Kerr, Ph.D., James Sallis, Ph.D., Don E. Rosenberg, M.P.H., Gregory Norman, Ph.D., Brant Sakles, Ph.D., & Natalie Duran, Ph.D.
### CHLI - Community Healthy Living Index

**Three assessments:**

- Neighborhood
- Early Childhood Program Assessment
- Community-At-Large

- Conducted before and after
- Coalition members provided information

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**NEIGHBORHOOD ASSESSMENT**

<table>
<thead>
<tr>
<th>YMCA association/CHLI number:</th>
<th>_______</th>
<th>Assessment date: _______</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Community team:</td>
<td>_______</td>
<td></td>
</tr>
<tr>
<td>CHLI point person:</td>
<td>_______</td>
<td></td>
</tr>
</tbody>
</table>

**COMMUNITY-AT-LARGE ASSESSMENT**

<table>
<thead>
<tr>
<th>YMCA association/CHLI number:</th>
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<th>Assessment date: _______</th>
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<td>CHLI point person:</td>
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<td></td>
</tr>
</tbody>
</table>

**EARLY CHILDHOOD PROGRAM ASSESSMENT**

<table>
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<th>YMCA association/CHLI number:</th>
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<th>Assessment date: _______</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Community team:</td>
<td>_______</td>
<td></td>
</tr>
<tr>
<td>CHLI point person:</td>
<td>_______</td>
<td></td>
</tr>
</tbody>
</table>

Names and titles of individuals conducting Community-At-Large Assessment:

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1. **GENERAL INFORMATION**

   Note: Community is roughly defined as the area within a 10-mile radius or a 20-minute drive from a central location. Generally speaking, communities are typically made up of many neighborhoods, schools, libraries, shopping destinations, parks, recreational facilities, and other community destinations.

   Names and titles of individuals interviewed at early childhood:

   1. Name of community (provide best description):
   
   2. Location of community:
   
   3. Community setting (check the best description):
      - [ ] Urban
      - [ ] Suburban
      - [ ] Rural

   Rough definitions of urban, suburban, and rural settings are below. Recognize that these are only general guidelines and each situation may be unique.

   - Urban: an area that has an assortment of shopping destinations, a school, a place of worship, parks or recreational facilities, or other community destinations less than or equal to a half mile or a 10-minute walk from most homes
   - Suburban: an area that has an assortment of shopping destinations, a school, a place of worship, parks or recreational facilities, or other community destinations approximately one mile or a 20-minute walk from most homes
Coalition Self-Assessment Surveys

Coalition Self-Assessment Survey

- completed annually
- queries aspects of being a coalition member and processes used
- hard copy and electronic versions

Q12. How are decisions usually made regarding coalition priorities, policies and actions? Check the main way(s) you think decisions are usually made. CHECK NO MORE THAN TWO.

1. Coalition members vote with majority rule
2. Coalition members discuss the issue and come to consensus
3. The coalition chair makes final decisions
4. The coalition executive or steering committee makes final decisions
5. The lead agency for the project makes final decisions
6. Don’t know

Q13. Please check a number to show how comfortable you are overall with the coalition decision-making process.

   1. Not at all comfortable   2. Somewhat Comfortable   3. Very Comfortable

Q14. Please check a box to show how much you agree or disagree with the following statements.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Disagree</th>
<th>Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>The coalition has clear and explicit procedures for making important decisions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The coalition follows standard procedures for making decisions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The decision-making process used by the coalition is fair</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The decision-making process used by the coalition is timely</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The coalition makes good decisions</td>
<td></td>
<td></td>
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</tbody>
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Q14a. Check the number that represents the amount of conflict in your coalition.

   1. More conflict than I expected   2. Less conflict than I expected   3. About as much conflict as I expected.

Q14b. Check the box that best represents your opinion of how much conflict within the coalition was caused by each of the following factors.

<table>
<thead>
<tr>
<th>None</th>
<th>Some</th>
<th>A Lot</th>
<th>Don’t Know</th>
</tr>
</thead>
</table>
| Differences in opinion about coalition mission, goals and objectives | Differences in opinion about specific objectives | Differences in opinion about the best strategies to achieve goals | Personality clashes | Fighting for power, prestige and/or influence | Fighting for resources | Differences in opinion about who gets public exposure and recognition | Differences in opinion about coalition member and processes used

Developed by: Erin Kansky, Ph.D. and Shekonoma Sukiya, Dr.PH. School of Public Health, University of New York, 2002 Adapted by Communities Preventing Childhood Obesity.

For use and/or adaptations of this document, please credit Erin Kansky, Ph.D. School of Public Health, Baruch College, City University of New York, 2002.
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

MyPlate Plates

Take Home Fitness Bags

Sustainability

Color Me Healthy

Bike Helmet Safety Training

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 day cares
- Daycare trainings continued
- Local trainers gives more opportunitites
- Police officer giving coupons to family...wearing certificates
- Safe kids from Grand Forks given training

Schools, pre schools
- 5 minute recipes for kids booklets
- Cook Smart Eat Smart Cook Books

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

Individuals, agencies, and daycare providers working together
Mapping Results – KS Control

Health & Wellness Advocates
Cherokee County, Kansas (Control)
Ripple Effect Mapping

1. Color Me Healthy
2. Let's Get Moving
3. Eat Play Grow

Overall Impact

Toolkits: 10 toolkits given out
CEU's Obtained 8
Presentation

Trained community members: 8
Follow-up
Increased kids
Head Start

Providers educated
targeted physical activity & nutrition

Police/Fire Department: 8
Community Partnerships: 8
Kansas Research & Extension: 8
MCO (United Health Care): 8
Coalition growth

Awareness, Nutrition, Physical Activity

Families Educated

Interventions (22 vendors)
8 modules + Health/Wellness
Family Pictures: Brought for
Kid's Passport: Earned in
Kid's Ball: 20
Printed out
Automated

We Can Curriculum

Receptive to event due to it being 2nd
Results

Which capitals from the Community Capital Framework increase from community coaching?

Human, Social, Political, and Built capitals were higher in coached communities:

- human capitals (89 vs 82 comparison commun)
- social capitals (108 vs 81 comparison commun)
- political capitals (27 vs 11 comparison commun)
- built capitals (29 vs 27 comparison commun)
Results

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
Screenshot of online toolkit Module 1
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
Research Team

Program Director:
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Questions?

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