Childhood Obesity Prevention Research Through a Community Context

Paula Peters, PhD, Sandy Procter, RD, PhD
Carol Smathers, MS, MPH, Abby Gold, PhD, MPH, RD

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
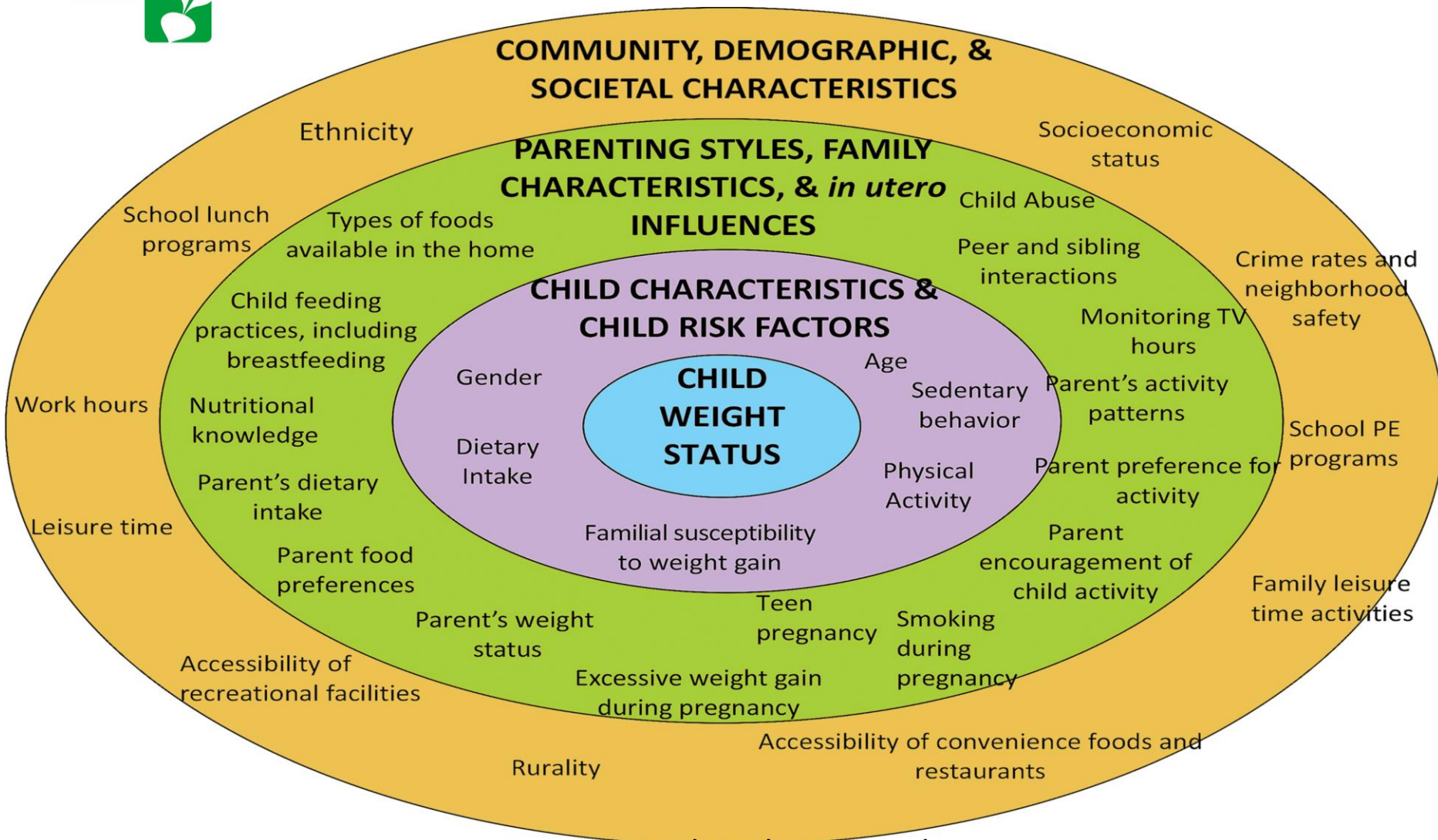
Innovative Aspects

7 states collaborating

Socio-Ecological Model of Childhood Overweight

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

Community capacity development approach

Foundation

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
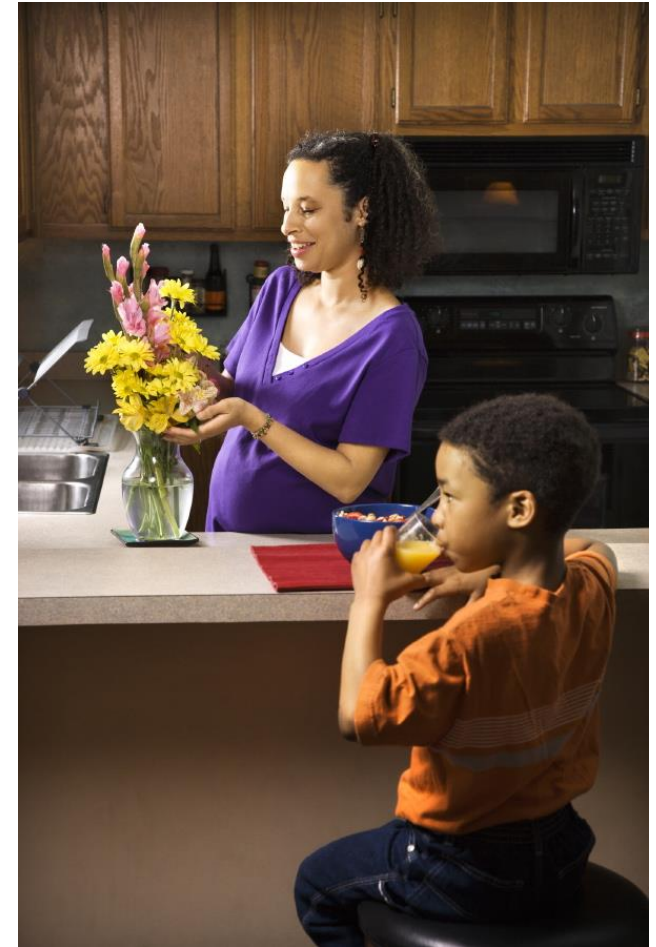

One community per state assigned a "Community Coach"

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

(Emery, Hubbell, & Miles-Polka, 2011)

Project Goals

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

Funding to each community annually, for 4 years

Required:

- one nutrition activity

- one physical activity-related project

Allowable Expenses for CPCO Coalitions

All communities that have been selected to participate in the Communities Preventing Childhood Obesity project will receive $5,000 annually for a total of 4 years to support program efforts. The following **(table)** lists authorized and prohibited uses of this funding.

	Funding CAN pay for:	Funding CANNOT pay for:
Recruitment	• Recruitment, involvement, and recognition of project partners	
Promotion	• Marketing, advertisements, media campaigns in support of the CPCO project • Program enhancement items for participants ○ Gift cards, games, toys	• Design of items

Organizational meeting costs	• Materials and supplies
	  ○ Pens
	  ○ Paper
	  ○ Photo copying
	  ○ Printing
	  ○ Binding
	  ○ Janitorial expenses
	  ○ Postage for meeting notices
		• Refreshments:
		  ○ Alcohol
		  ○ Food from caterer, restaurant, or store
		  ○ Food made in someone's home

Event costs	• Rental space • Event insurance • Temporary staff • Transportation	

Curriculum	• Evidence-based curriculum, must be selected from toolkit provided
	  ○ Purchase curriculum
	  ○ Training
	  ○ Implementation
		• Costs incurred for vendor programs, materials, and supplies that lack evidence effectiveness
		  ○ Even if supplies are evidence-based, if they were not selected from the toolkit provided, they can

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.

CHLI - Community Healthy Living Index

Three assessments:

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

➤ Conducted before and after

➤ Coalition members provided information

NEIGHBORHOOD ASSESSMENT

YMCA association/CHLI number: _____ Assessment date: __/__/__

Name of Community team: _____

CHLI point person: _____

COMMUNITY-AT-LARGE ASSESSMENT

YMCA association/CHLI number: _____ Assessment date: __/__/__

Name of Community team: _____

CHLI point person: _____

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

EARLY CHILDHOOD PROGRAM ASSESSMENT

YMCA association/CHLI number: _____

Name of Community team: _____

CHLI point person: _____

Names of CHLI coordinators assigned to early childhood progr____

Names and titles of individuals interviewed at early childhood

I. 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.

1. Name of community (provide best description): _____

2. Location of community:

   2.a. Zip code(s): _____

   2.b. County (or counties): _____

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

- completed annually

- queries aspects of being a coalition member and processes used

- hard copy and electronic versions

Coalition Self-Assessment Survey

COALITION NAME

_____

Date

_____

Instructions: Please answer questions as they pertain to your invo... coalition. If you are new to this coalition, please answer to the bes... perspective of the meetings you've attended.

Please place an X on the line for each answer as in the sample.

Sample Question:

1. No __X___   2. Yes_____

Developed by: Erin Kenney, Ph.D. and Shoshanna Sofaer, Dr.PH. School of Pu...
University of New York, 2000. Adapted by Communities Preventing Childhoo...

For use and/or adaptations of this document, please credit Erin Kenney, Ph.D. ...
School of Public Affairs, Baruch College, City University of New York, 2000.

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.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Don't Know
The coalition has **clear and explicit procedures** for making important decisions.					
The coalition **follows standard procedures** for making decision.					
The **decision making process** used by the coalition is fair.					
The **decision making process** used by the coalition is **timely**.					
The coalition makes **good decisions**.					

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.

	None	Some	A Lot	Don't Know
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				

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
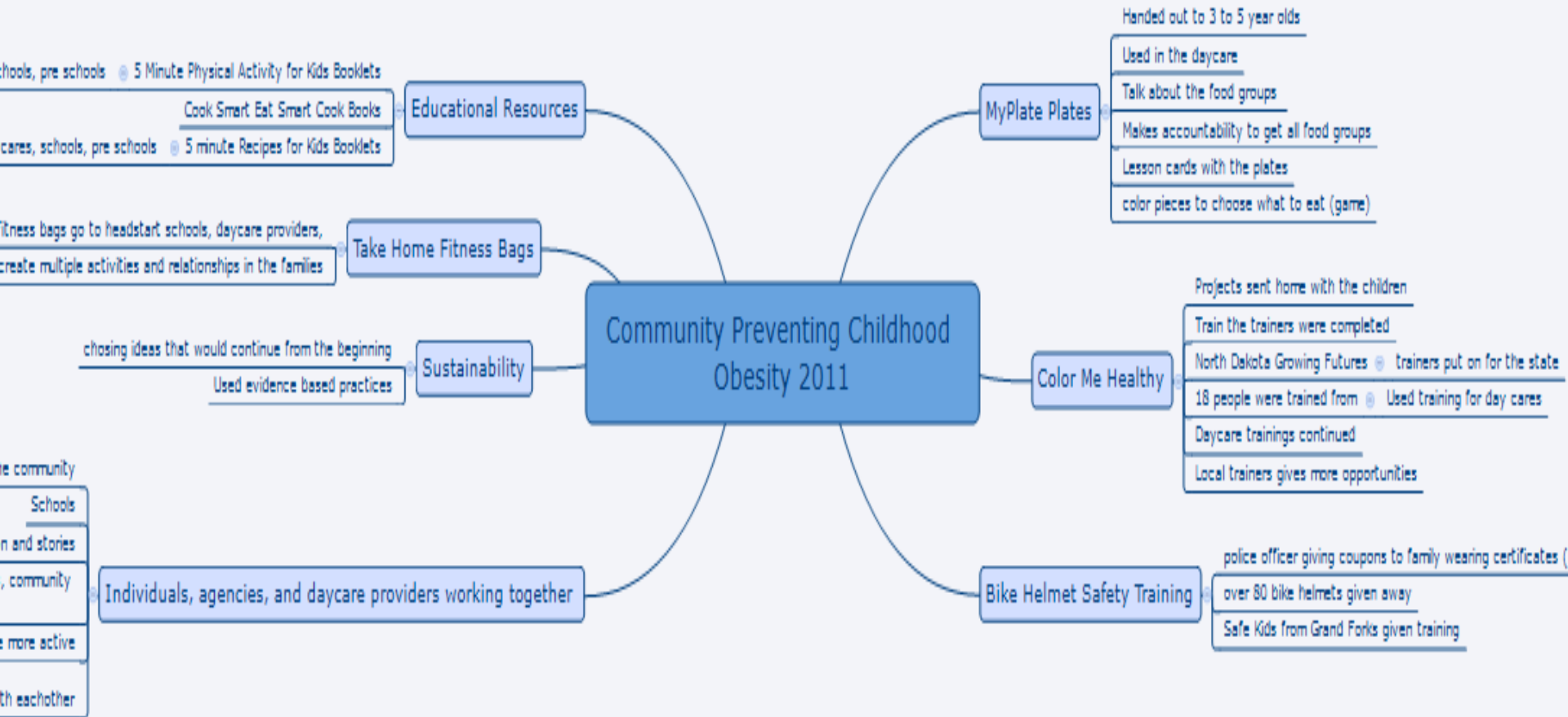
- Number of participants varied/state

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
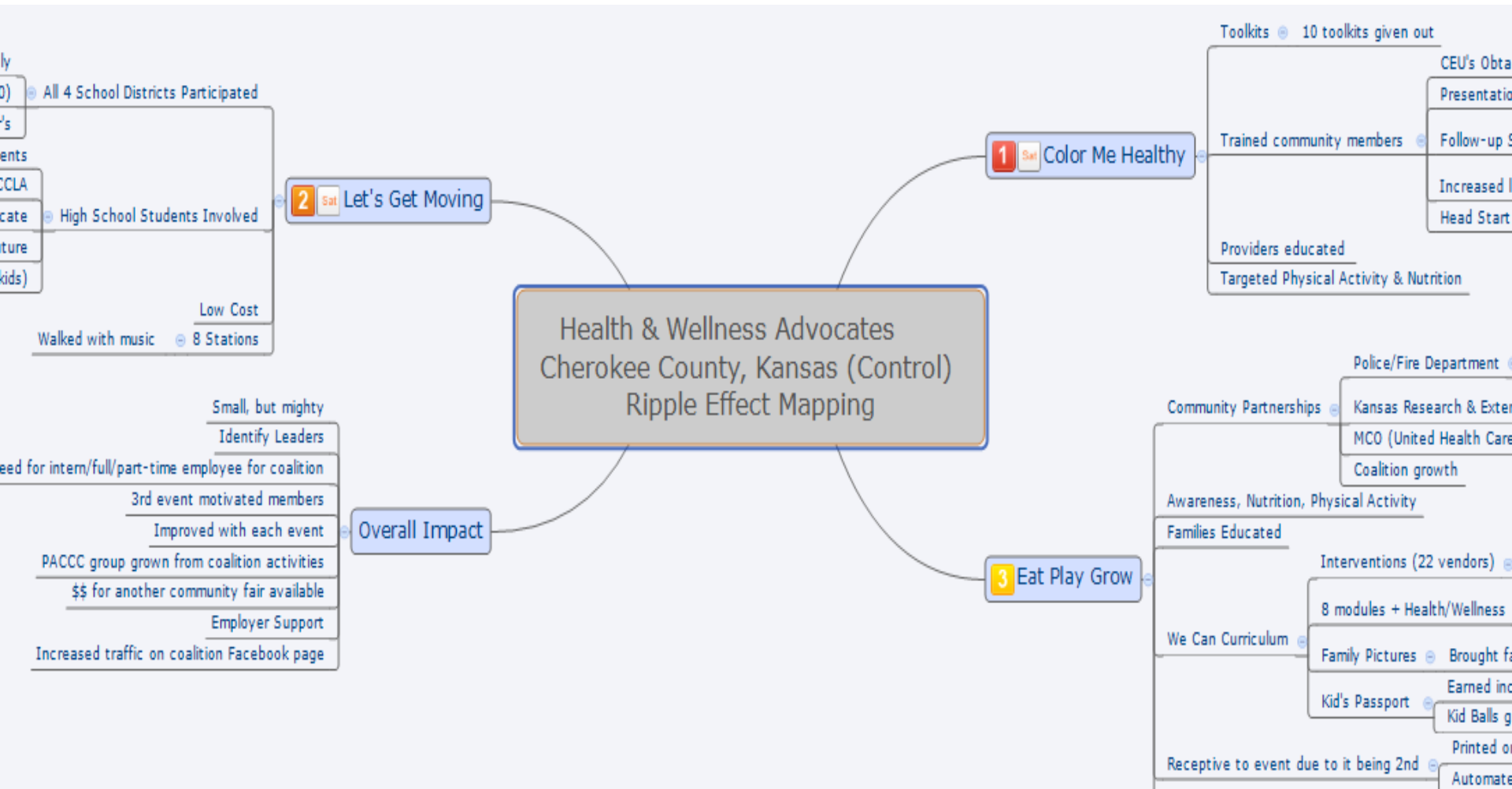
COMMUNITIES
Preventing Childhood Obesity

Educational Resources
- schools, pre schools — 5 Minute Physical Activity for Kids Booklets
- Cook Smart Eat Smart Cook Books
- cares, schools, pre schools — 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

Sustainability
- chosing ideas that would continue from the beginning
- Used evidence based practices

Individuals, agencies, and daycare providers working together
- e community
- Schools
- n and stories
- , community
- e more active
- th eachother

Community Preventing Childhood Obesity 2011

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 from — Used training for day cares
- 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

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 <u>a significant difference</u> 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.

Ripple Mapping

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 (http://go.osu.edu/CPCOtoolkit)

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:
 Paula Peters, PhD

Co-Directors:
 Amy R. Mobley, PhD, RD, formerly Purdue University, IN
 Sandy Procter, PhD, RD, Kansas State University, KS
 Dawn Contreras, PhD, Michigan State University, MI
 Abby L. Gold, PhD, RD, North Dakota State University, ND
 Carol Smathers, MS, MPH, The Ohio State University, OH
 Renee Oscarson, PhD, South Dakota State University, SD
 Ann Keim, PhD, University of Wisconsin, WI

Questions?

Contact info:

Paula Peters	**ppeters@ksu.edu**
Sandy Procter	**procter@ksu.edu**
Carol Smathers	**smathers.14@osu.edu**
Abby Gold	**abby. gold@ndsu.edu**