Engaging communities in physical activity: A continuum of participatory methods

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Agenda

- Definitions
- Continuum of community-based research
- Examples from our work
- Principles and practices of community-based participatory research [CBPR]
  - Advantages and challenges
  - Working with advisory boards
- How to conduct CBPR with a focus on your research agenda

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Learning objectives

- Understand the continuum of community based research
  - Application to physical activity promotion

- Identify the principles and practices of community-based participatory research

- Apply principles and practices to your own research agenda

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What do we mean by community?

- Sense of identity and belonging
- Common symbol systems, similar language, ritual & ceremonies
- Shared values & norms
- Mutual influence
- Shared needs & commitment to meeting them

SC1 one possibility would be to contrast political vs. anthro vs. social network perspectives
Sony Customer, 2/5/2010

What do we mean by community partners?

- **Schools**
- **Health organizations**
  - Community clinics
  - Health departments
  - Hospitals
- **City officials**
- **Local business owners**
- **Faith based organizations**
- **Community organizations**
  - Local only
  - Local with national ties (e.g., American Heart Assoc.)
- **Collaboratives**
  - Healthy Eating and Active Communities
  - Chula Vista Community Collaborative

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Continuum of community-based research

Traditional CPR

University control ——————————————— Community control
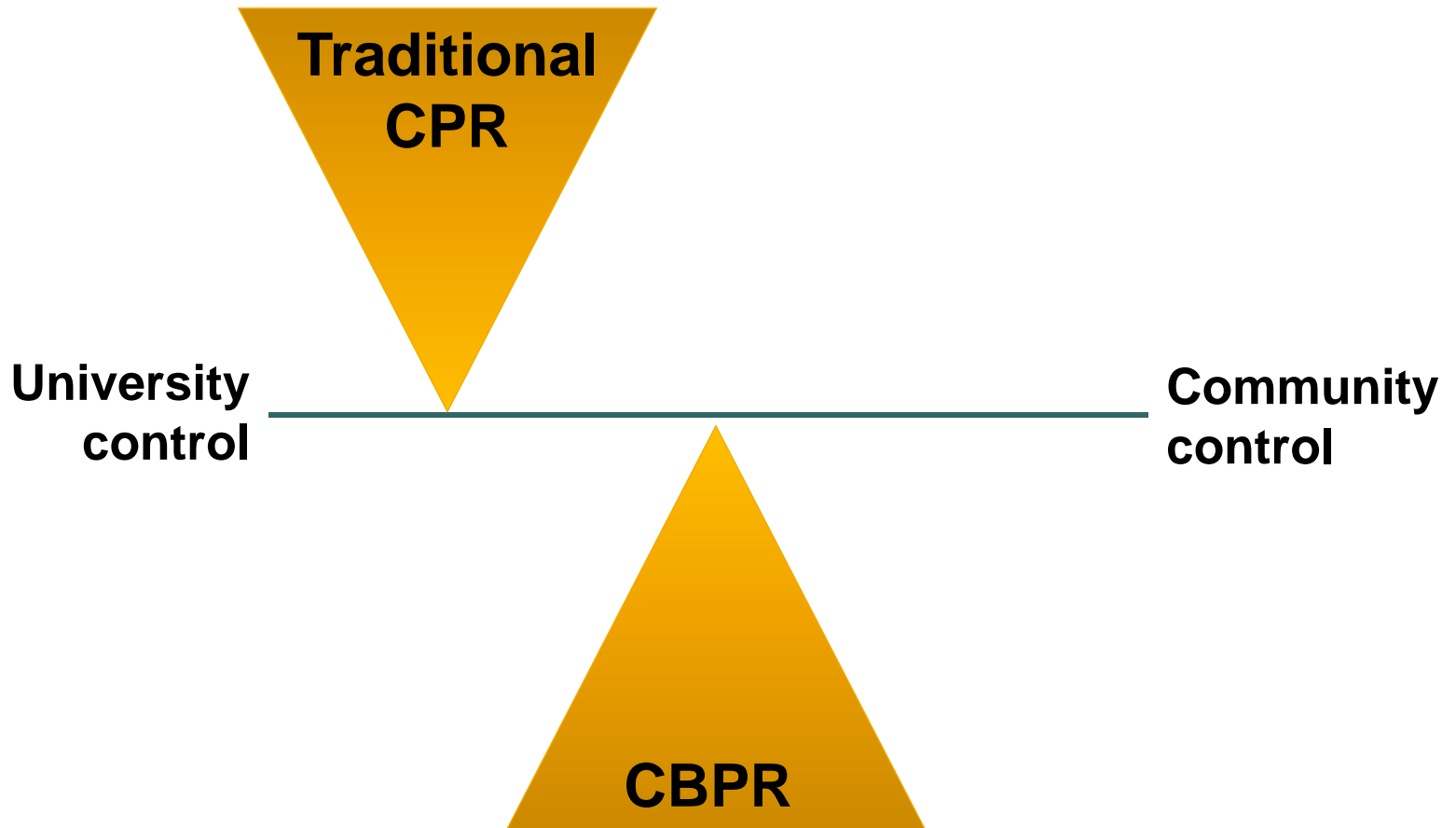
CBPR

CPR=Community placed research;
CBPR=Community based participatory research

Similarities between the two approaches (CPR and CBPR)

○ Community's input is sought

○ Community leaders and members are vehicles of change

○ Community organizations serve as partners

Differences between the two approaches (CPR and CBPR)

CPR

- Decisions made unilaterally, with input from community using traditional formative research methods

For example,

- Researcher identifies targets of change
- Researcher identifies study design

CBPR

- Decisions made collaboratively through shared power and other empowerment methods

For example,

- Community and researcher prioritize the targets of change
- Study design is agreed upon collaboratively

Promoting physical activity in the Latino community

CPR: Caminando con fe

Caminando con Fé
Walking with Faith

CBPR: Familias sanas y activas

Importantly, both studies used the promotora / lay health advisor model to promote physical activity.

Caminando con Fe (Walking with Faith): *Promotoras* and Youth Advocating for Built Environmental Changes to Promote Physical Activity

Elva M. Arredondo, Ph.D., Principal Investigator

Co-Investigators

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Other partners

- Healthy Eating and Active Communities (HEAC)

- Network for a Healthy California

- WalkSanDiego

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Study aims

- Driven by study aims
- Did not have a Community Advisory Board
- Provide preliminary evaluation of intervention influences on:
  - Physical activity
  - Psychosocial correlates of physical activity
  - The built environment

Study design

- Pre and post one group design, sample size, DV

- Individual level intervention and assessment

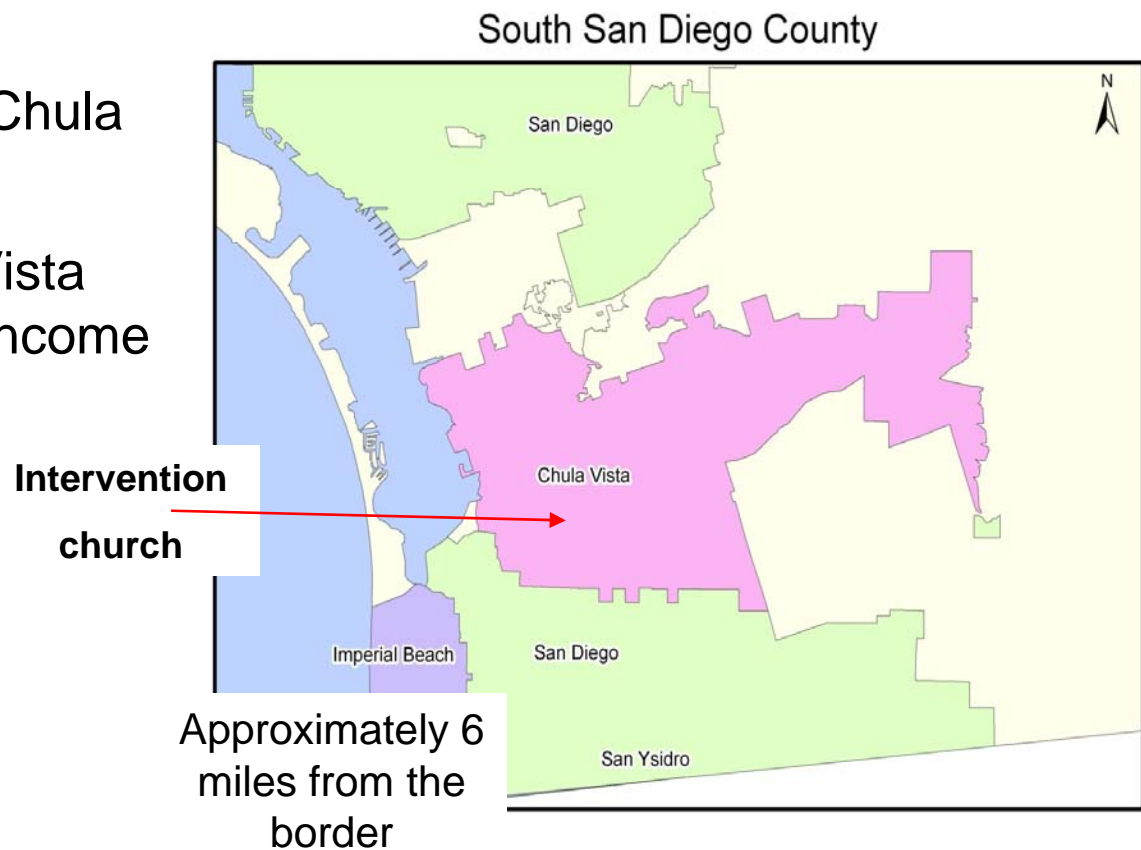- Environmental level intervention and assessment

Timeline

2006
Formative

Individual
(6 mos)

Environmental
(15 mos)

June

December

September
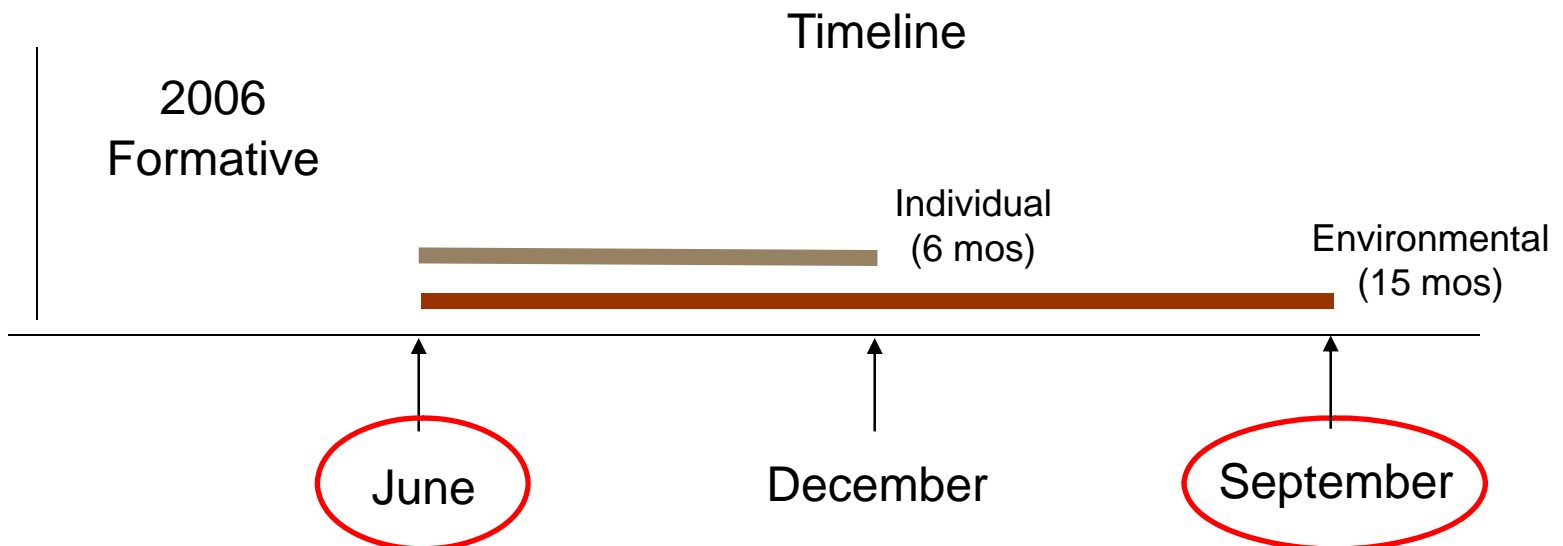
Border context

Population

53% Latinos in Chula Vista

West of Chula Vista with a medium income of $29,535

Intervention church

Approximately 6 miles from the border

Promotora training

- **Recruitment**: individual (3) and environmental (3)
- **Duration**: 2 mos; 2x/week; 2 hrs each
- **Training**: individual and environmental; CPR trained
- Met weekly (intially) then bimonthly (after 2 mos)
- WalkSanDiego training

Community engagement &Park audit

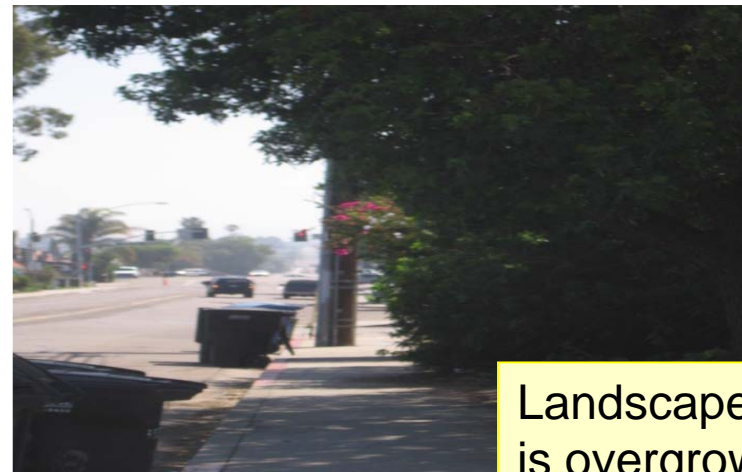ALR Presentation 2010

Environmental assessment

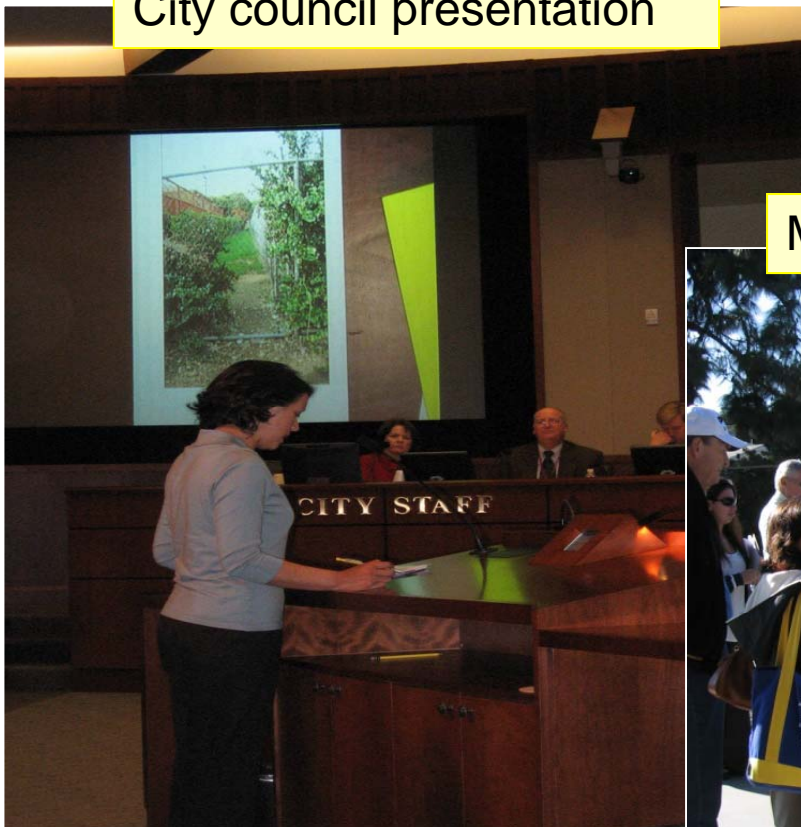Open drainage

Falling fence

Missing/broken sidewalks

Landscape is overgrown

Advocating for environmental changes

City council presentation

Meeting with city officials at the park

Environmental Successes

Tier 2 changes to date

- Increased park security
- Improved park safety
- Enhanced park amenities
- Improved pedestrian safety in park
- Improved children's play area
- Removed trash around the block
- Improved pedestrian safety

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Celebrating changes: Lauderbach park re-opening

Community organizations information booths

Physical activity demonstrations

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Challenges in making environmental changes

- Communication between elected officials
- Church community resisting the removal of the fence
- Homeless in the park
- Promotora and youth attrition

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Factors that contributed to environmental changes

- Credibility among community partners
- Regular meetings with community partners, promotoras, and youth
- Involvement of youth, promotoras, and "mentor" promotoras
- Collaboration between community organizations
- Support from elected officials
- Connect physical activity to an issue important to community (i.e., safety)

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Familias sanas y activas: Promoting health through capacity building

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Mission of the San Diego Prevention Research Center

The SDPRC is committed to…

- Conducting research and education to promote physical activity and improve the health of Latino populations; and

- Translating research into practices that are meaningful to Latino communities and that can be sustained through formal and informal community networks.

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Partners

Academic Partners

San Diego State University
- Graduate School of Public Health
- Department of Exercise and Nutritional Sciences
- Department of Psychology
- Department of Sociology

University of California at San Diego
- Moore's Cancer Center
- Department of Family & Preventive Medicine

San Ysidro Health Center

Community Engagement Committee

- San Ysidro Health Center
- County of San Diego Health & Human Services, South Region
- City of San Diego, Park & Recreation Department
- City of Chula Vista Recreation Department
- CASA Familiar & Villa Nueva Apartments
- MAAC Project
- Chula Vista Community Collaborative
- Beyer Elementary School
- San Ysidro School District

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Collaboratively decision-making to formulate plan

Exploration with advisory board members
over a four month period

Whom to target	Adults but with a family focus
How to intervene	Build capacity of **volunteer** promotoras; provide free programs and materials; connect with existing resources
What will change look like	More people outside being active; improvements in fitness

Familias Sanas y Activas Logic Model
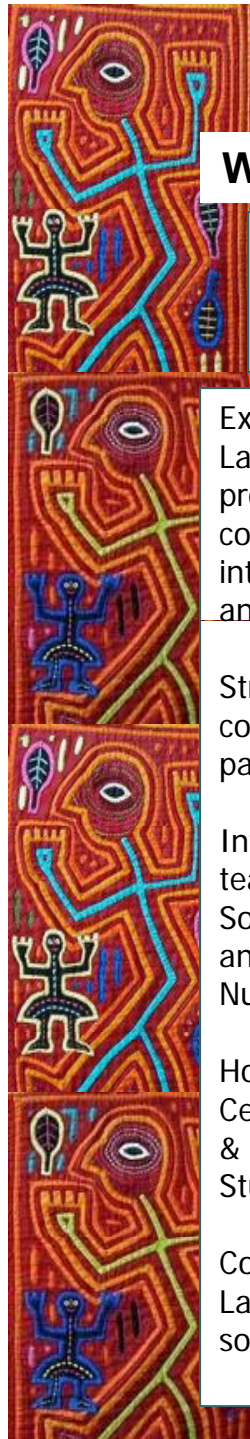
What we invest	What we do	Who we reach	What results	
Resources/ Inputs	Activities	Outputs	Outcomes	Impact
Expertise in Latino health promotion, community-based intervention research, and physical activity.

Strong and long-term community partnerships.

Interdisciplinary team: Public Health, Sociology, Psychology, and Exercise and Nutrition Sciences.

Housed within the Center for Behavioral & Community Health Studies.

Commitment to Latino health and social justice. | Develop Trainer and Promotor curriculum, and other intervention materials.

Partner with three community agencies.

Train Trainers and help Trainers train Promotores.

Support other capacity building efforts for Trainers, Promotores, and their respective agencies.

Help Trainers & Promotores to recruit and intervene with community. | Number of Trainers and Promotores recruited and retained.

Ratings of relevance and satisfaction with training and other intervention materials.

Number of other capacity building efforts of Trainers, Promotores, and their respective agencies.

Number and characteristics of community members reached and retained

Fidelity of Ix delivery including dose delivered and dose received. | Immediate
Improve intrapersonal mediators of PA (e.g., enjoyment, barriers, behavioral steps, self-efficacy, and benefits).

Improve interpersonal mediators of PA (e.g., social support, social norms, and neighborhood cohesion).

Long-term
Increase utilization of parks and other activity-promoting resources.

Increase self-reported PA | Reduce Latino health disparities related to physical inactivity.

Improve the quality of life of Latinos in target community.

Improve access to health promoting resources through structural and policy change.

Improve the capacity of existing organizations to promote Latino health. |

Study Design

- Non-experimental
  - No control group but a control community
  - Baseline, 6 month, and 12 month follow-up

- Intervention strategies:
  - Build capacity of volunteer promotoras to promote physical activity
  - Decrease barriers to physical activity opportunities through programming and partnerships

- Study outcomes:
  - Fitness (6 minute walk test; blood pressure; waist circumference; body mass index)
  - Self-reported physical activity
  - SOPARC

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Intervention approach

Step 1: Partnered with 4 agencies

Step 2: Trained 8 agency representatives as Trainers
- 24 hours of training
- From promotion of PA to adult education methodology

Step 3: Trainers trained 30 volunteer *Promotoras*
- Training: 16 hours plus weekly booster trainings
- From behavior change to community organizing
- Additional ongoing capacity building (*next slide*)

Step 4: Secured physical activity locations

Step 5: Trainers and *Promotoras* together
- Implement physical activity programs
- Serve as a role model of physical activity at events
- Learn how to identify and advocate for environmental change

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Volunteer promotoras incentives

- First aid/CPR training

- Monthly $25.00 gas cards

- $75.00 account for exercise equipment

- $500.00 for professional development activities

- Facilitated involvement in other events and trainings

- Provided job referrals and other professional support

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Recruited 8 Trainers and 30 Promotoras

Organization	Trainers	Trainer employed by organization?	Volunteer Promotoras
Social service agency	2 females	Yes	6 females, 1 male
Community clinic	2 females	Yes	11 females
Large apartment complex	2 females	No	7 females
Parks & recreation center	2 females	No	5 females

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Promotoras implemented PA programs

| Agency	PA program
Social service agency	Walking program
Community clinic	Walking program; Soccer; Basketball; Dance; Kick-boxing; Stretch band exercises; Zumba
Large apartment complex	Walking program; Gym use; Aerobics; Tae-bo; Zumba
Parks and Recreation Center	Multi-ritmicos, Dance; Basketball; Stretch band exercises; Zumba; Walking program

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Preliminary Results …….

Aerobic Endurance

Meters completed during 6-minute walk test
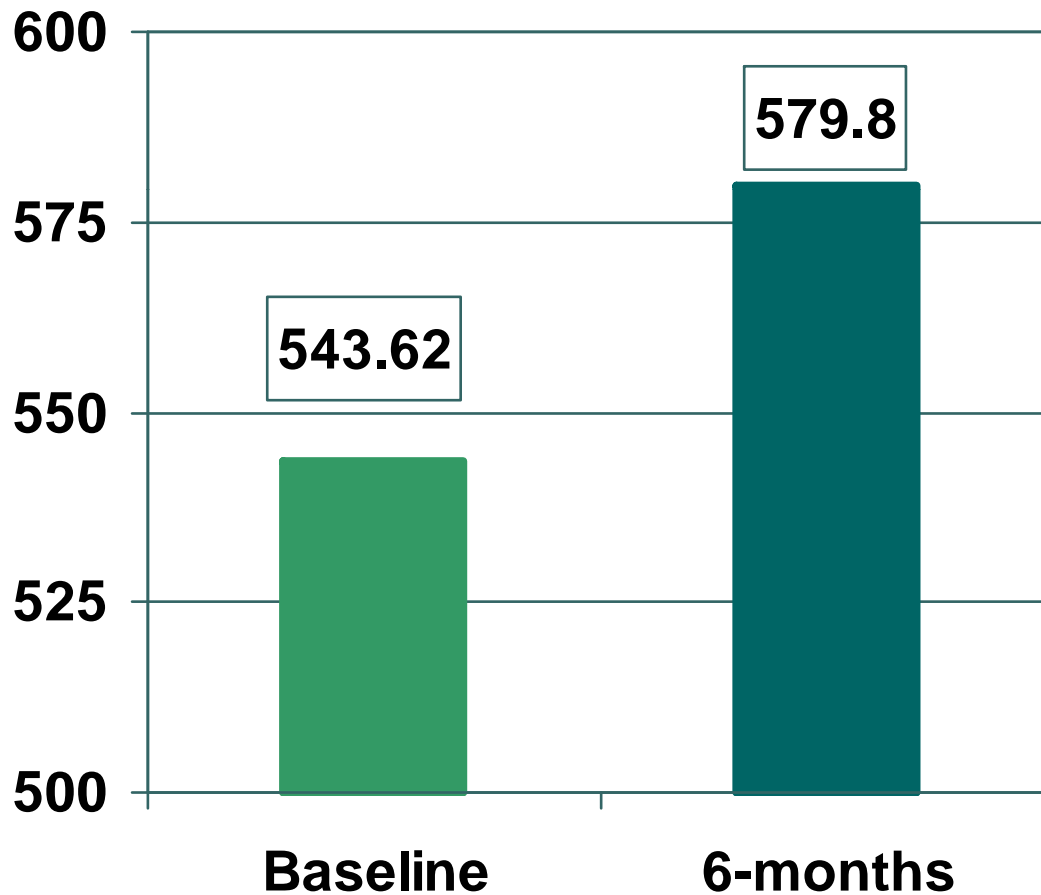
Increase of 36 meters…

Shooting for 50-75 meters

p≤.001

Preliminary Results ……

Change in BMI between baseline and 6-mos by intervention dose

Change in BMI

0.64	-0.97

< 1 week   >= 1 week

p=.06

Intervention activities per week
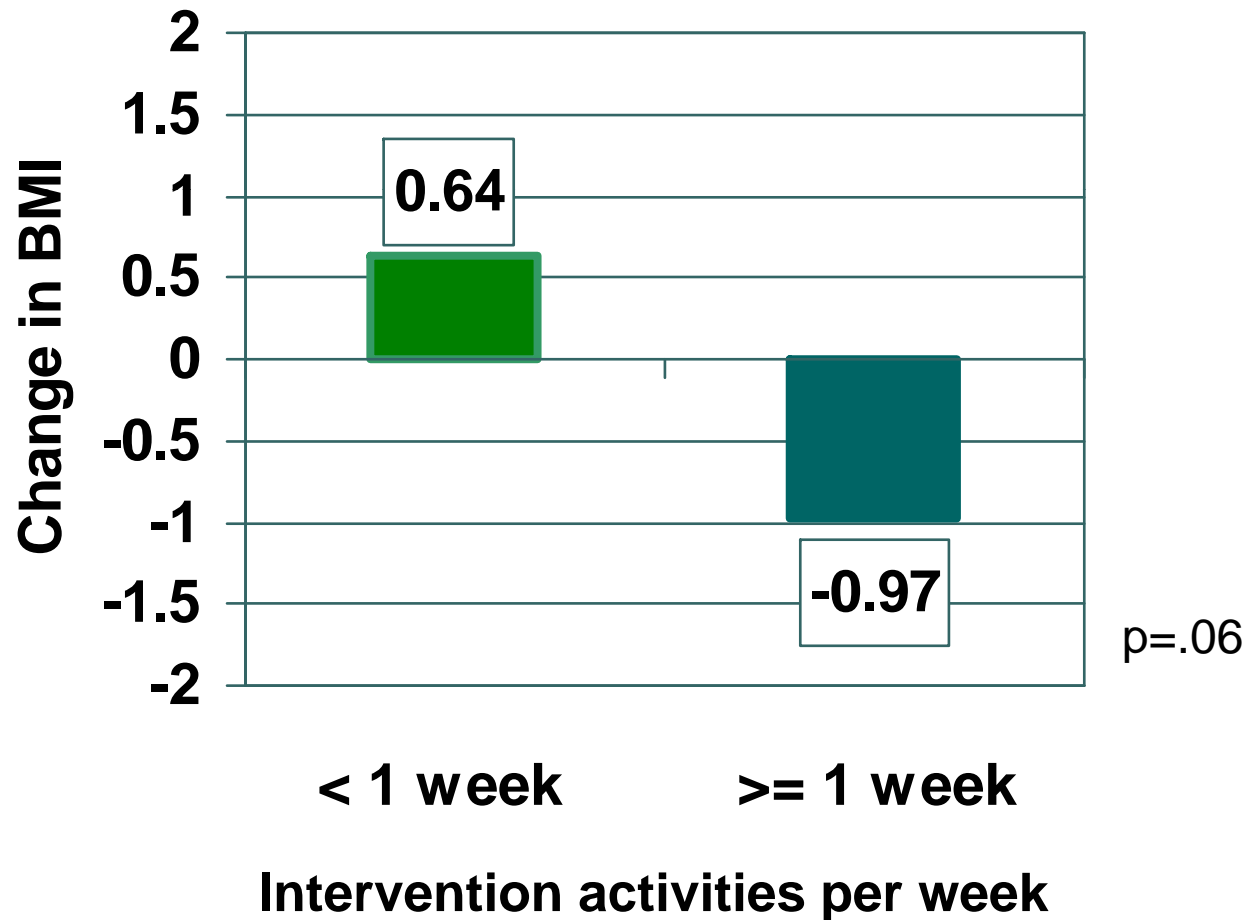
Retention of promotoras

|	Still active	Dropped out	Sig
Median number of events attended	3	0	$\leq$.001
Median number of certificates	1	0	$\leq$.001
Median $ spent on professional development	$288	$52	$\leq$.001
Most popular: Zumba and AFAA group exercise certifications *Most interesting: GED courses and materials*			
Median $ spent on equipment	$112	$0	$\leq$.001
Most popular: Scales, boom boxes, and DVDs *Most interesting: Wireless mic and agility ladders*			

Retention of promotoras

	Still active	Dropped out	Sig
How involved in program	3.77 (.59)	3.40 (.54)	n.s.
How effective was training	3.46 (1.1)	3.40 (.89)	n.s.
How confident in skills	**3.77 (.44)**	**3.00 (1.0)**	**$\leq$.05**
Program gave usable skills	3.33 (.99)	3.60 (.89)	n.s.
How supportive was program	3.62 (.87)	3.75 (.50)	n.s.
How successful is program	3.46 (.52)	3.00 (.71)	n.s.

Continuum of community-based research

Traditional CPR

University control   Community control
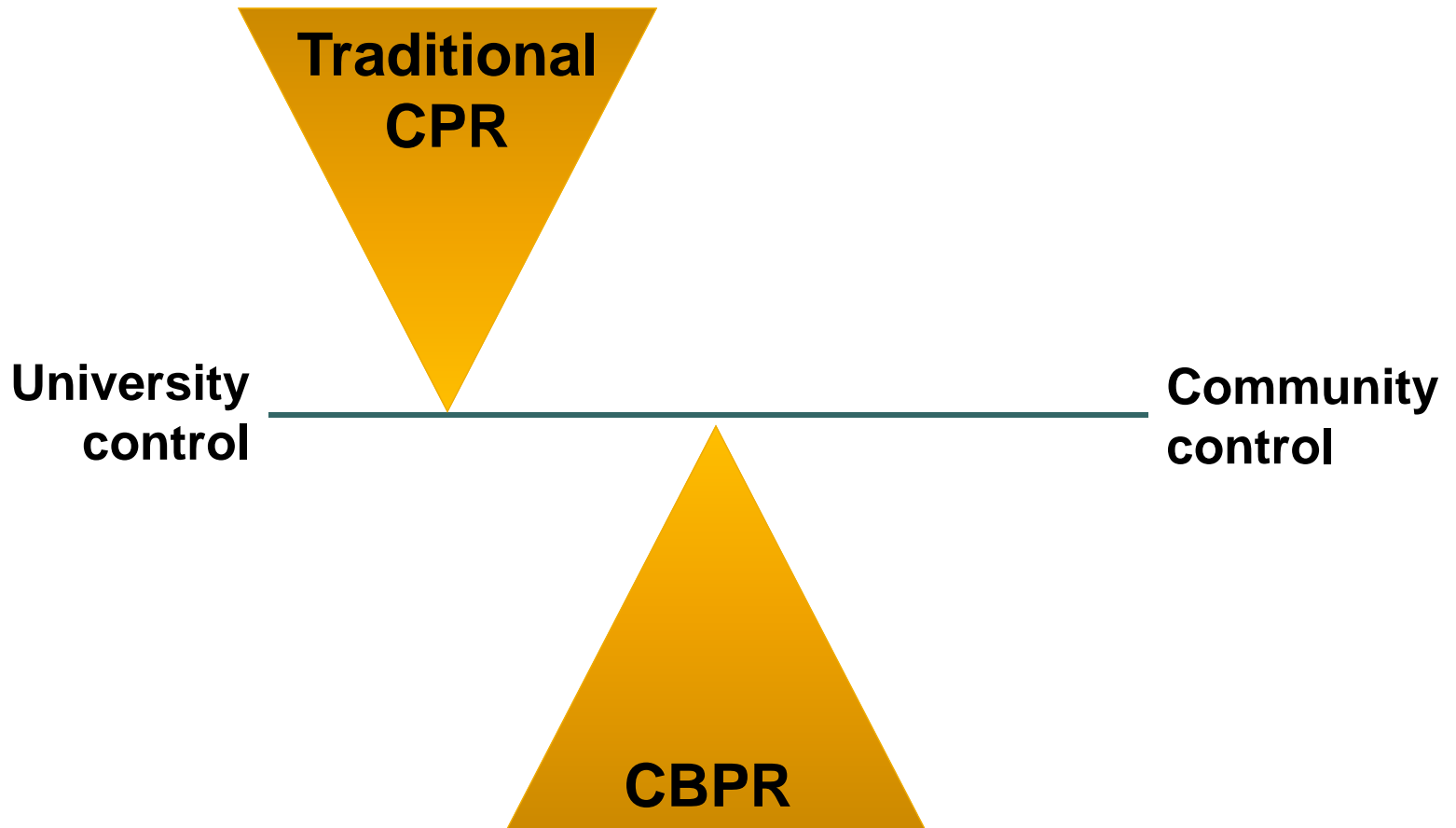
CBPR

CPR=Community placed research;
CBPR=Community based participatory research

Principles of community-based participatory research

- Begins with and builds on strengths and resources within the community;
  - Enhances understanding of the phenomena of interest and social and cultural community dynamics.

- Facilitates collaborative, equitable partnership in all phases of research;

- Empowers people and organizations through shared power;

Israel, B.A., Schulz, A.J., Parker E.A., Becker A.B. (1998). Review of community-based research: Assessing partnership approaches to improve public health. *Annual Review of Public Health*, 19:173-202.

Principles from community-based participatory research

- Integrates and creates balance between knowledge generation and action;

- Recognizes the mutual benefit of all partners;

- Emphasizes the local relevance of public health problems;

- Involves systems development, as well as a cyclical and iterative process; and

- Disseminates findings to all partners, involving all partners in the dissemination process.

Steps to doing CBPR

1. Identify a community you want to work with
2. Get to know the community
   ➤ Attend meetings to understand relationships
3. Determine if there is a shared health research agenda
   ➤ No shared agenda? Move on!
4. Collaboratively develop a research question
5. Identify a funding source
   ➤ CDC, American Cancer Society
6. Determine who will write sections of the grant and how this process will occur
   ➤ Budget decisions should be transparent
7. Submit grant proposal and wait…

In what ways is this different from CBR?

Steps to doing CBPR

8. Establish advisory board
9. Work through a logic model with partners
10. Write timeline collaboratively
11. Create working groups and reporting procedures
    - Administration
    - Intervention
    - Evaluation
    - Dissemination (including a publication committee)
12. Establish a protocol for conflict resolution
13. Enjoy the process!

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Advantages and challenges of doing CBPR

- Partners more invested in the project
  - ↑ Feasibility of implementation

- Perspectives more diverse
  - ↑ Effectiveness of interventions

- Constructs operationalized with greater specificity
  - ↑ Sensitivity of measures

- Project relevant to community needs
  - ↑ Potential for sustainability

- Trust is built between universities and communities
  - ↑ Potential for future collaborations

Advantages and <u>challenges</u> of doing CBPR

- Time
  - Takes longer to accomplish goals
  - Must invest time to attend community meetings
  - Must consider timing for promotion and tenure

- Money
  - Where and to whom do you allocate resources

- Less structure and control initially
  - May feel uncomfortable without a traditional roadmap
  - May feel comfortable sharing control and adjusting to changes

- Selection of study design
  - Less likely to advocate for a control condition
  - Least desirable is the no treatment control to most desirable delayed or wait-list control → cost implications

Advisory boards in CBPR

- Stakeholders
- Often are from (or live in) the community
- Invested in the community's well-being

- Membership – representatives from:
  - Community
  - Community organizations
  - Schools
  - Health care organizations including health departments
  - Park and recreation departments
  - Churches
  - Local businesses
  - Collaboratives
  - Policymakers

≠ scientific advisory boards, industry advisory boards, etc.

Advantages and challenges of involving advisory boards in CBPR

- Know and understand the community
  - ↑ Relevance of project to community

- Can serve as a bridge to other resources
- Can serve as champions of a project
  - ↑ Feasibility of implementation

- Can help to operationalize constructs and interpret findings in a culturally and contextually specific matter
  - ↑ Sensitivity of measures
  - ↑ Understanding of study findings

Advantages and <u>challenges</u> of involving advisory boards in CBPR

- Community politics

- Organizations may compete for resources

- Community priorities may change

- Membership turnover can make it difficult to:
  - Ensure community organization represented
  - Ensure commitment to project goals

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How-to do CBPR

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How to identify community partners

- Recall who we identified as community partners

- Involve schools even if a project is not child-focused; they have a connection with families

- *Other ways?*

How to approach community partners

- Do your homework on your partners and community relationships

- Meet people face-to-face and in the community

- Bring easy-to-read information about you and your ideas

- Employee community members on your research team to help serve as a bridge
  - However, they should NOT substitute for your presence

- *Other ways?*

How to approach community partners: Understand their perspective

Advantages of partnering with you

- Resources provided to the organization

- Expertise from a researcher can help them..
  - Identify other intervention strategies and points of influence
  - Design more effective evaluation plans for other projects

- Findings from your project may help inform future programming and attainment of other funds

Others?

Disadvantages of partnering with you

- Research agenda can dominate activities

- Your institution may impose administrative demands

Others?

How to involve community partners

o Help define the research question

o Help to identify the target population

o Serve on the advisory board

o Identify potential staff for project

o Assist with intervention development and implementation

o Assist with survey design and evaluation protocols

o Assist with recruitment

o Promote project activities

o Disseminate findings to a wider audience

o *Other ways?*

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How to establish an advisory board

- Request names and organizations from community partners

- Send letter and follow-up with a telephone call to request an in-person meeting
  - Who you are
  - Purpose of project
  - Why you are seeking their involvement
  - What their involvement entails

- Develop guidelines for membership
  - Role of members
  - Frequency of meetings
  - Minimum attendance at meetings
  - To pay or not to pay

- *What has been your experience with advisory boards?*

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Evaluating community partners' involvement

Sample constructs assessed from advisory board members:

○ General satisfaction with process
- I would like to have more input regarding the allocation of resources.

○ Impact of partnership
- My organization uses knowledge generated by the partnership.

○ Trust in relationships
- I can talk openly and honestly at meetings.

○ Board decision-making
- Decisions about resources are made in a fair manner.

○ Organization and structure of meetings
- The board meetings are held too frequently.

Resources

○ Israel BA, Eng E, Schultz AJ, Parker EA (Eds). (2005). *Methods in Community-Based Participatory Research for Health.* San Francisco: Jossey-Bass Publishers.

○ Ahmed SM, Beck B, Maurana CA, Newton G. (2004). Overcoming Barriers to Effective Community-Based Participatory Research in US Medical Schools. *Education for Health* 17(2): 141-151.

○ Eisinger A, Senturia K. (2001). Doing Community-Driven Research: A Description of Seattle Partners for Healthy Communities. *J Urban Health* 78(3): 519-534.

○ Freudenberg. N (2001). Case History of the Center for Urban Epidemiologic Studies in New York City. *J Urban Health* 78(3): 508-518.

○ Higgins DL, Metzler M. (2001). Implementing Community-Based Participatory Research Centers in Diverse Urban Settings. *J Urban Health* 78(3): 488-494.

○ Israel BA, Schulz AJ, Parker E, Becker AB. (2001). Community-Based Participatory Research: Policy Recommendations for Promoting a Partnership Approach in Health Research. *Education for Health* 14(2):182-197

Acknowledgements

- San Diego Prevention Research Center
  - Director: John P. Elder, Ph.D., M.P.H.
  - Co-Directors: Guadalupe X. Ayala, Ph.D., M.P.H. & Lisa Madlensky, Ph.D.

- Center for Behavioral & Community Health Studies
  - Director: John P. Elder, Ph.D., M.P.H.
  - Co-Directors: Greg Talavera, M.D., M.P.H. & Linda Gallo, Ph.D.

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