

CBPR Workshop

Agenda

1. CBPR—What is it?
Zachary and Carina
2. Partnership Formation and Maintenance
Zachary and Carina
3. Lessons Learned from Current CBPR Projects / Challenges
Tam and Team
4. Activities and Experiences of the CHHH Partnership
Zachary and Carina
5. Publishing / Dissemination with Community Partners
Tam and Team
6. Questions from Audience—Throughout!
7. Breakout Exercise: Forming Partnerships

CBPR—What is It?

Zachary Rowe, BA
Executive Director, Friends of Parkside

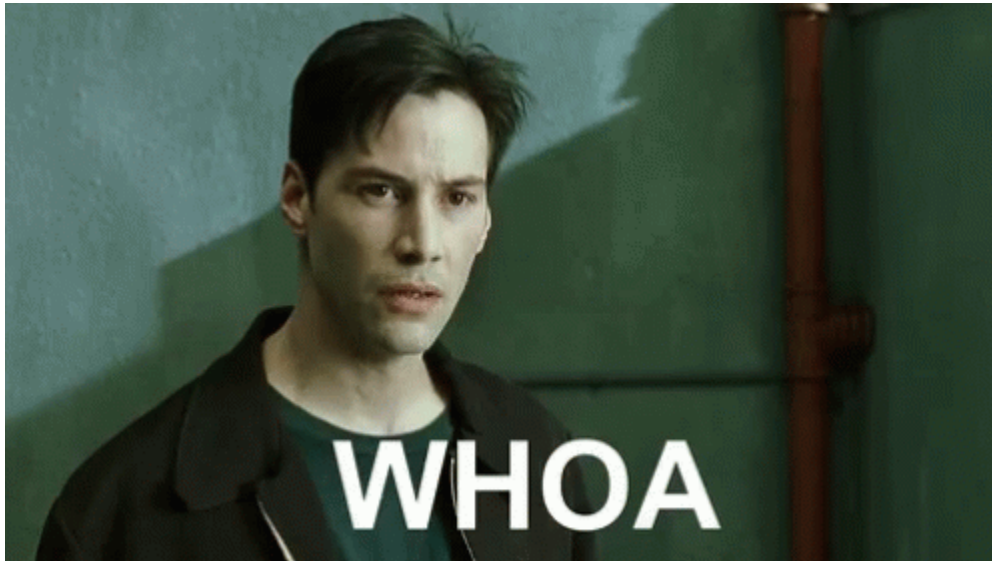
Carina Gronlund, PhD, MPH
Research Assistant Professor, Institute for Social Research

Presented at the NIMLAS Workshop on CBPR
University of Michigan
April 24, 2023

*With acknowledgement to the National Institute on Minority Health, the National Institute of Environmental Health Sciences, Barbara Israel, Lisa Szymecko, and our other colleagues in the Detroit Community-Academic Urban Research Center



Taking the red pill—entering the world of CBPR.



Rationale for a CBPR Approach

- Evidence that stressors in the social & physical environment are associated with risk factors and poor physical and mental health outcomes.
- Disproportionate burden of disease associated with these stressors borne by low income communities and communities of color
- Extensive set of skills, strengths and resources exist among community members to address stressors and promote health and well-being

Rationale (continued)

- Historically, research has rarely directly benefited and sometimes actually harmed the communities involved
- Those communities most impacted by health inequities are least likely to be involved in the research process
- Resulted in understandable distrust of, and reluctance to participate in, research

Rationale (continued)

- Public health interventions have often not been as effective as could be because:
 - Often not tailored to the concerns & cultures of participants;
 - Rarely include participants in all aspects of intervention design, implementation & evaluation;
 - Often focused only on individual behavior change with less attention to broader social & structural determinants of health and well-being.

Rationale (continued)

- Increasing calls for more comprehensive & participatory approaches to research and practice to understand and address health inequities
- Increasing interest in and support for such partnership approaches (e.g., funding and publication opportunities)
- Community-based participatory research is one such partnership approach

Definition of Community-Based Participatory Research

- Community-based participatory research is a partnership approach to research that:
 - equitably involves diverse partners in all aspects of the research process;
 - enables all partners to contribute;
 - enhances a common understanding; and
 - integrates knowledge gained with interventions and policy change.

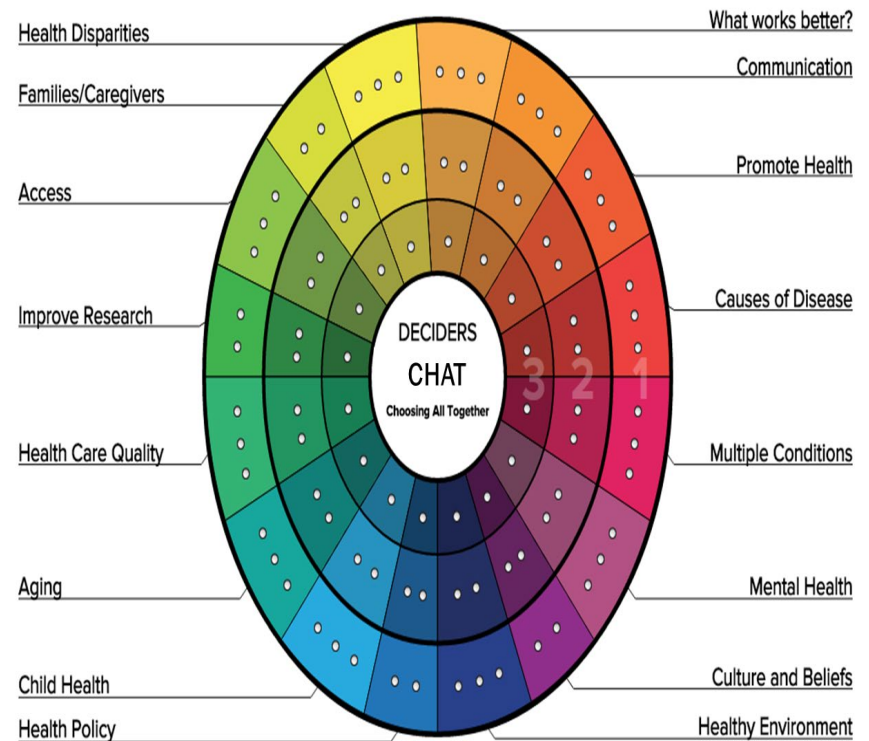
Another Way To Look At CBPR

CBPR is a partnership approach to research that focuses on gaining voice and representation in community settings



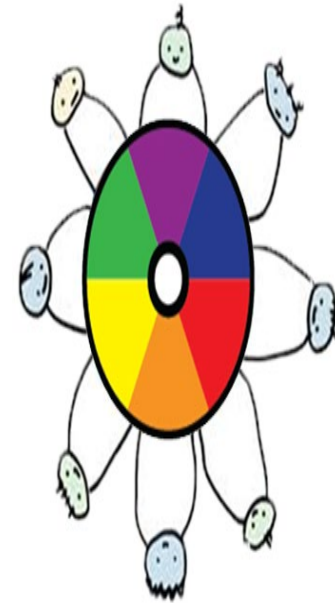
Select Key Principles of CBPR

1. Builds on community strengths and resources
2. Promotes collaborative and equitable partnerships
3. Facilitates co-learning and capacity building

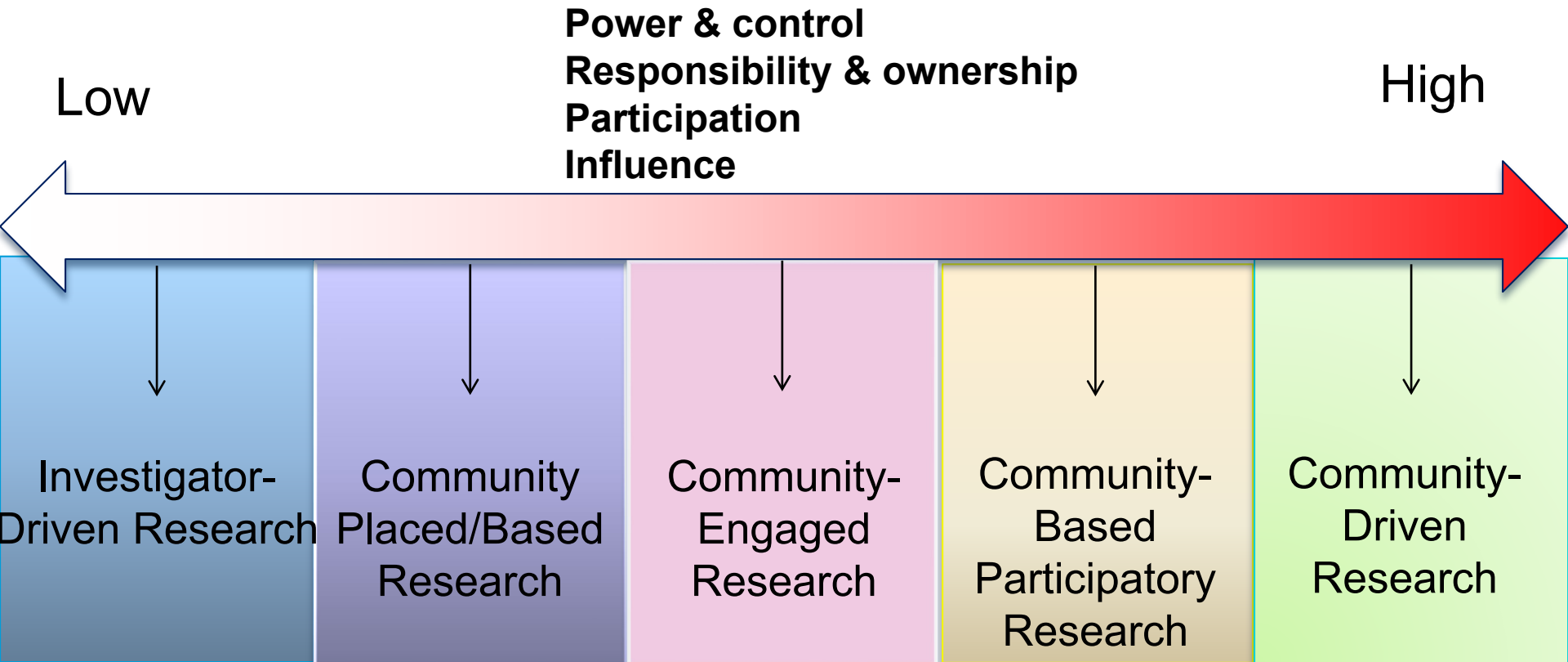


Select Key Principles of CBPR (continued)

4. Balances research and action for mutual benefit of all partners
5. Disseminates findings to all partners and involves them in the process
6. Promotes long-term process and commitment



Community Involvement in Research



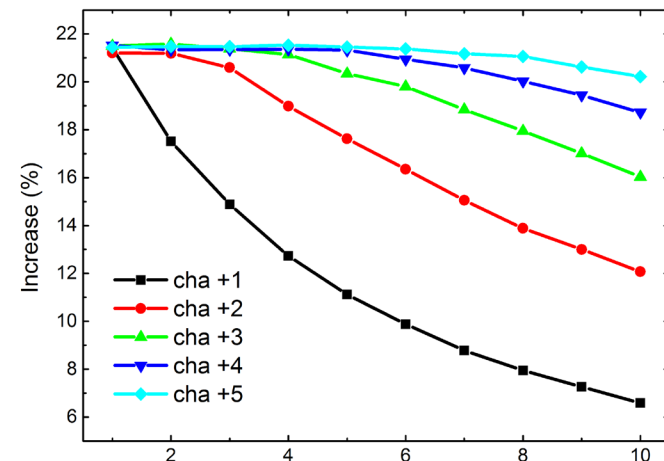
Adapted from: Hacker, K (2012) Harvard Clinical and Translational Science Center
Accessed July 2, 2012 website:
http://www.usc.edu/admin/oprs/private/docs/oprs/CER_HarvardCat.pdf

Before There Were Benefits: A Community Partner's View of Traditional Research



Benefits of Using a CBPR Approach: Partnership Perspective

- Enhances relevance and use of data
- Enhances quality and validity of research



Benefits of Using a CBPR Approach: Partnership Perspective (continued)

- Strengthens intervention design and implementation
 - Recruitment
 - Retention
- Knowledge gained and interventions benefit the community



Benefits of Using a CBPR Approach: Partnership Perspective (continued)

- Provides resources for communities involved
- Joins partners with diverse expertise to address complex public health problems
- Increases trust and bridges cultural gaps between partners
- Has potential to translate research findings to guide development of further interventions and policy change



Benefits of Using a CBPR Approach: Partnership Perspective (continued)

- For all of these reasons, funders also increasingly prefer a high level of community engagement.





Questions from Audience?

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Forming and Maintaining Partnerships

Developing a Partnership

- Decide how community is defined and who represents the community
 - Start small, involving a few highly regarded CBOs and community leaders within communities of identity
 - Obtain support and involve top leadership from partner organizations
 - Build on prior history of positive working relationships



Detroit URC: 25 Years of CBPR Partnership

M | SOCIAL WORK

 **DETROITERS WORKING FOR ENVIRONMENTAL JUSTICE**



IPH
Institute for Population Health



DETROIT
HISPANIC
DEVELOPMENT
CORPORATION




LATINO
FAMILY SERVICES

M | NURSING

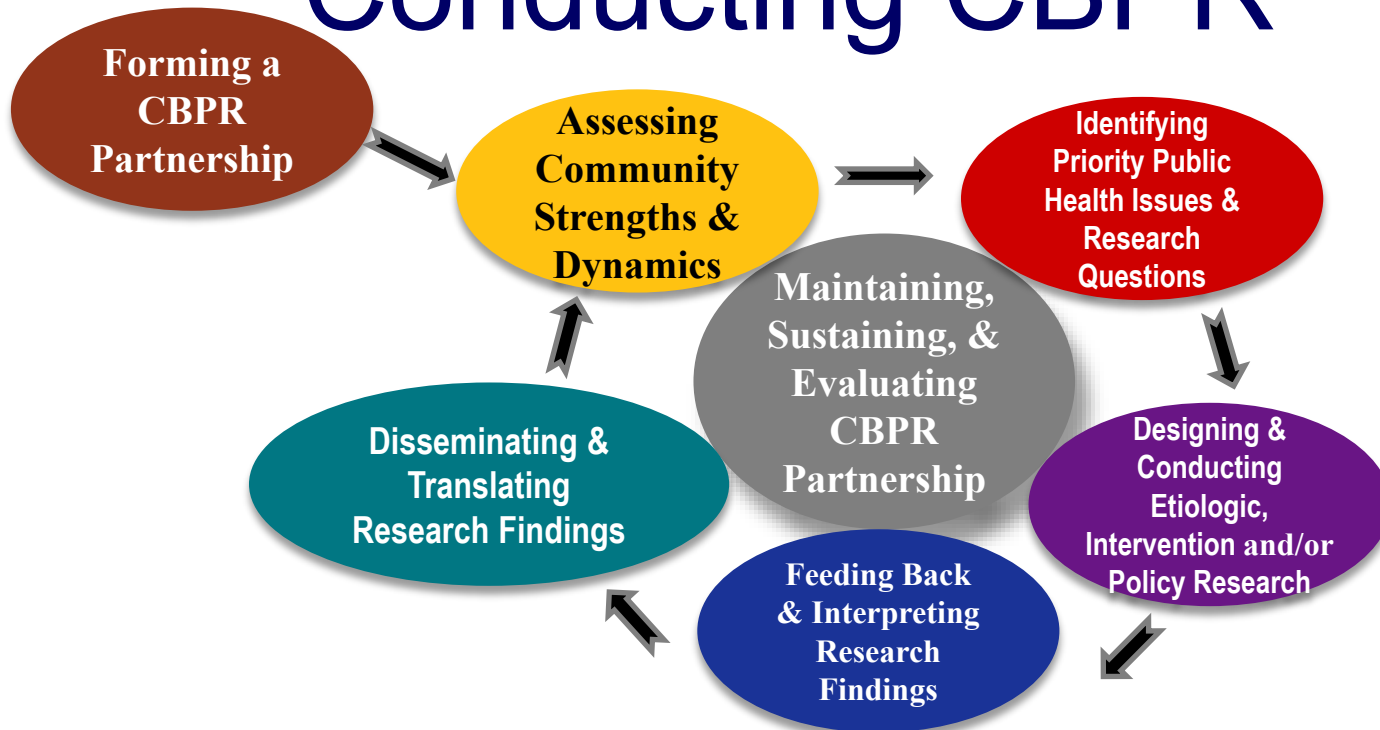


 **EASTSIDE
COMMUNITY
NETWORK**

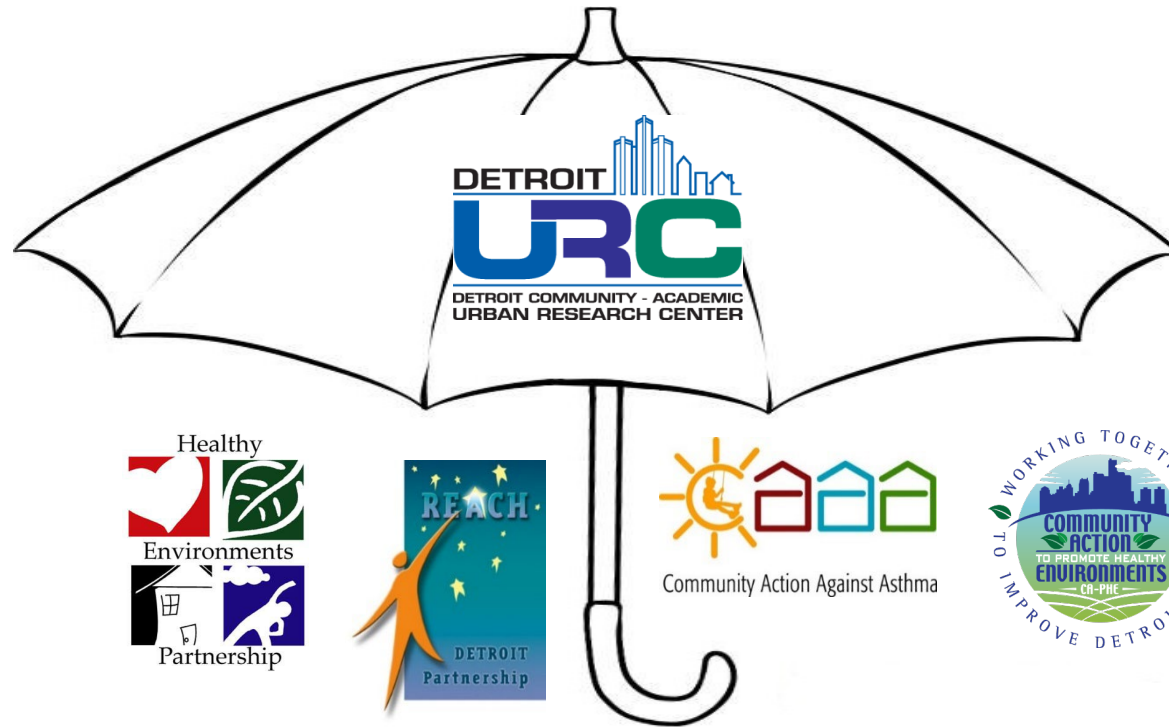
M | PUBLIC HEALTH

 **CHASS**
Community Health And Social Services Center

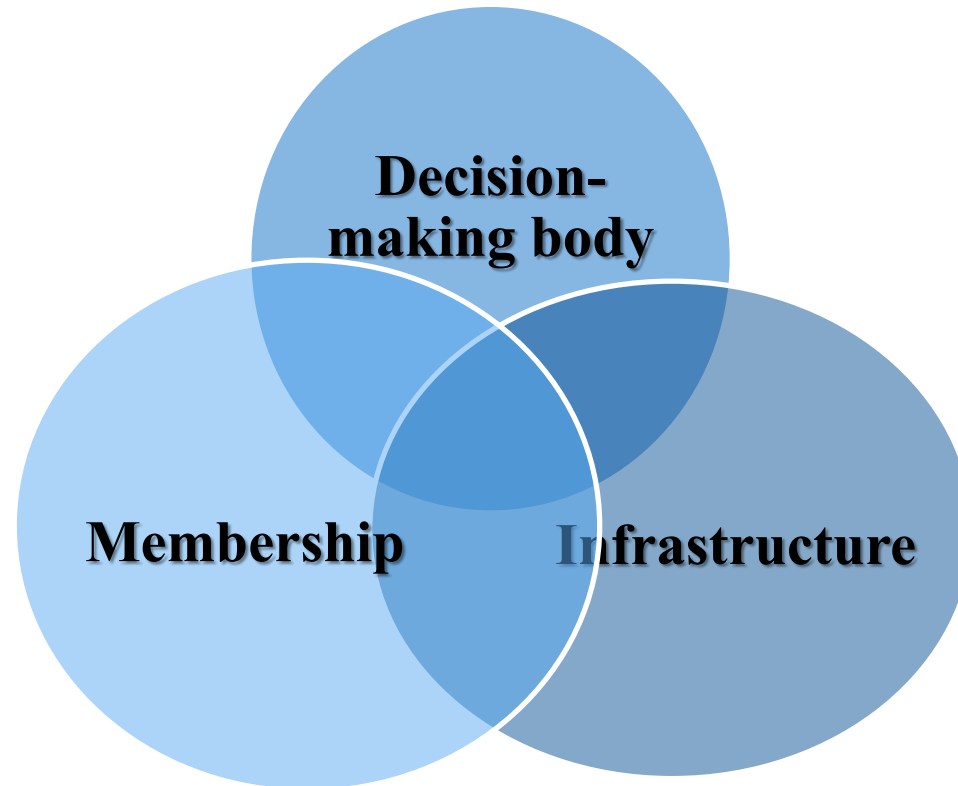
Core Components/Phases in Conducting CBPR



Detroit URC Organizational Structure: Selected Affiliated CBPR Partnerships



Innovative Strategies: Partnership Development, Maintenance and Sustainability



Innovative Strategies: Partnership Development, Maintenance and Sustainability

- Board or Steering Committee guides, oversees and carries out the work of the partnership
- Issues to consider:
 - Size – relatively small number of organizations and/or individuals
 - CBPR principles
 - Operating norms (e.g., communications, how decisions are made, participation, conflict)
 - Meeting frequency
 - Group facilitation
 - Dissemination guidelines
 - Partnership evaluation



Decision-making body

Innovative Strategies: Partnership Development, Maintenance and Sustainability

- Organizational representation
- Membership selection
- Roles and responsibilities
 - Informal structure
- Level and types of compensation provided to members



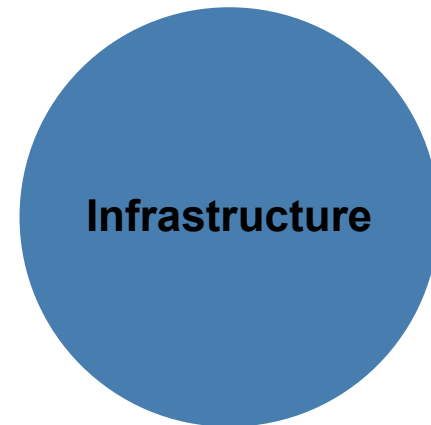
Innovative Strategies: Partnership Development, Maintenance and Sustainability

Program staff support partners

- Coordinate multiple schedules
- Ensure that meetings are productive and well-organized
- Carry out tasks related to CBPR project/activities

Funding

- Multiple funding streams
- University funding
- Contributed time flexibility





Programs to Promote Partnership Development, Maintenance and Sustainability

- Grant Funding
- Capacity Building/Training
- Mentoring
- Technical Assistance

Key Lessons Learned

- Critical importance of infrastructure to sustain and expand community-academic partnerships
- Energy, time, care and financial resources needed to establish and sustain new partnerships to address health inequities
- Multiple strategies needed to facilitate and support community and academic partners engaged in collaborative efforts



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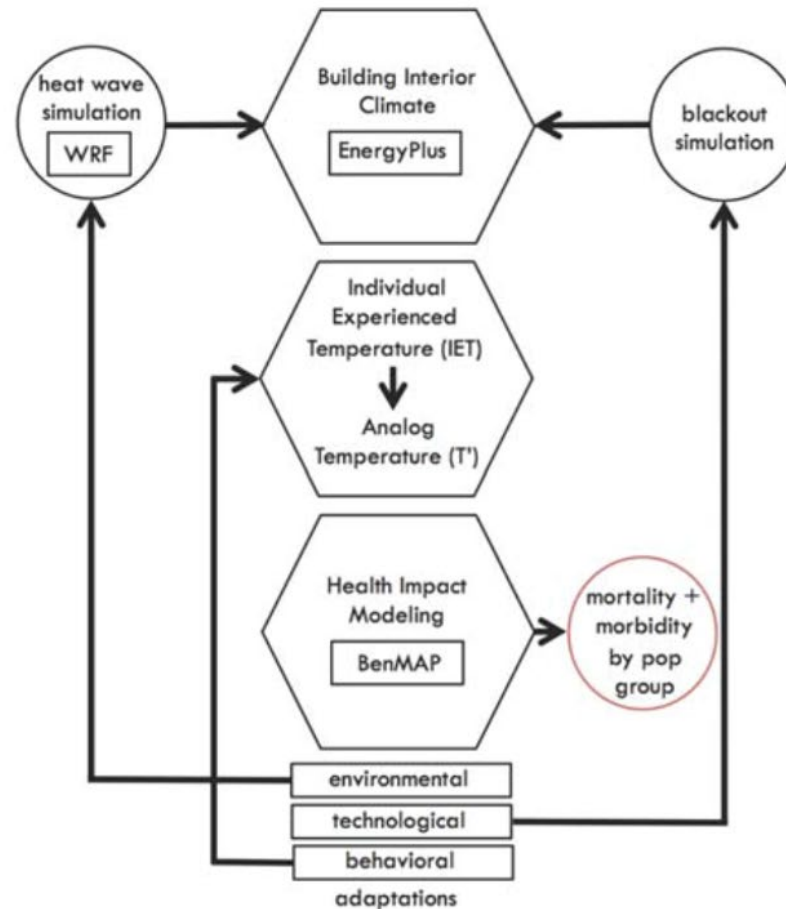
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**Activities and experiences of the
Climate Hazards, Housing, and Health
(CHHH) community-academic
partnership**

NSF Hazard SEES Project: Enhancing Emergency Preparedness for Critical Infrastructure Failure during Extreme Heat Events



Needed an academic-community partnership



FRIENDS OF PARKSIDE



Detroiters Working for
Environmental Justice
Fostering Clean, Healthy and Safe Communities



Villages at Parkside



How We Transitioned from Community-Placed to Community- Based (Ziegler et al, 2019)

- Developed partnership protocols and operating norms, which included
 - a consensus-based decision-making process (70% rule)
 - clearly defined roles of CBOs and academic partners
 - building the capacity of community and academic partners
 - data sharing agreement
 - scopes of services
 - instituting communication and dissemination of results as standing meeting agenda items.
- Evaluated the extent to which there is shared power in communication to improve partnership
- co-analyzed data (Cardoza et al 2020)

What Didn't Work: Time activity diaries

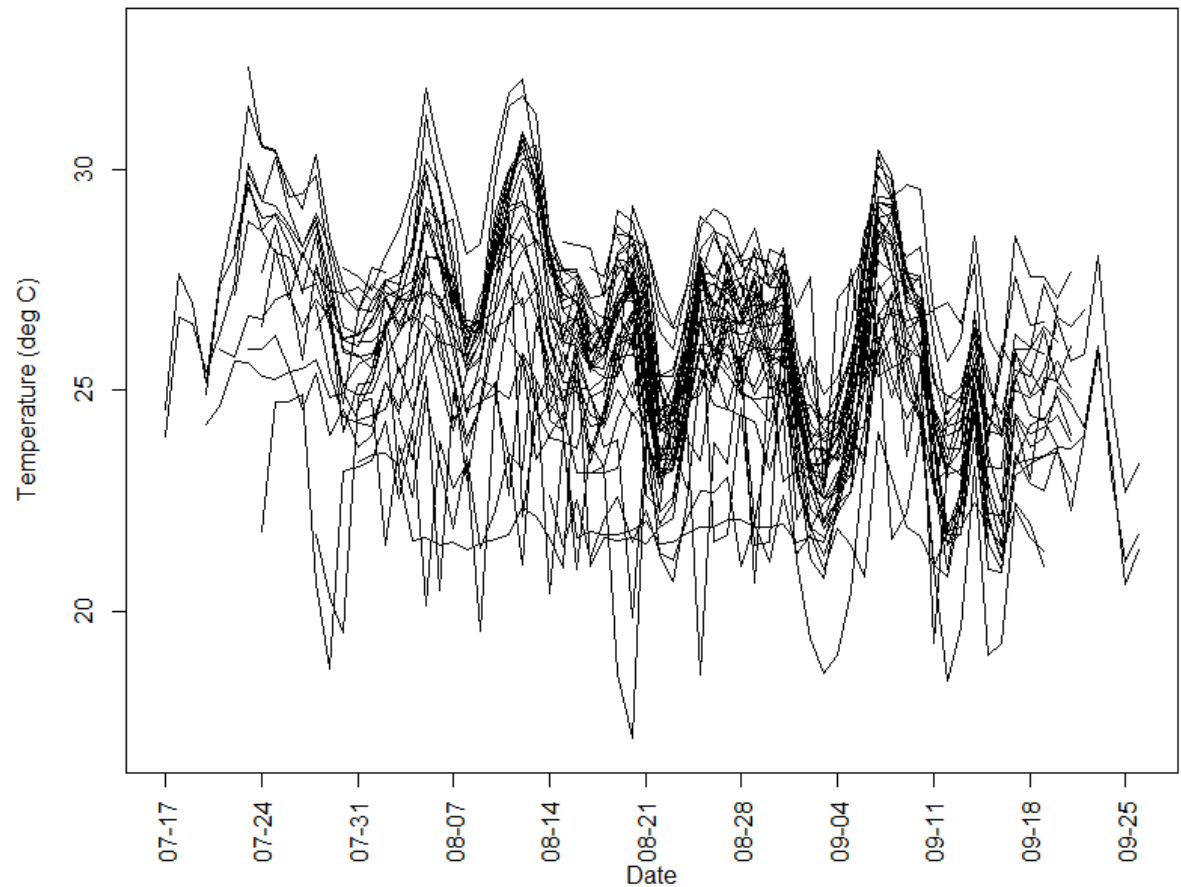
Time of Day	Location	Activity Level(s)	Cooling Method(s)	Thermal Sensation(s)	Had i-Button
	Indoor 1 = home 2 = friend's or relative's home 3 = indoor workplace 4 = store 5 = bar/restaurant 6 = office (e.g., doctor, etc.) 7 = library 8 = school/college 9 = senior or rec center 10 = gym 11 = museum 12 = movie theater 13 = casino 14 = cooling center 15 = church/house of worship Outdoor 16 = car 17 = bus/train 18 = bike 19 = motorcycle/scooter 20 = outdoor workplace 21 = yard 22 = sidewalk 23 = parking lot 24 = park 25 = pool/beach/splash pad 30 = traveled outside the city 31 = traveled outside the metro area	1 = sitting or lying down 2 = light exertion (breathing easy) 3 = moderate exertion (breathing harder) 4 = heavy exertion (can't have conversation)	0 = none Indoor 1 = air conditioning 2 = evaporative (swamp) cooler 3 = window/ceiling fan 4 = open windows 5 = go to basement 6 = cool shower/bath Outdoor 7 = go in the shade 8 = mister/sprinkler 9 = swimming or boating Any Location 10 = remove/change clothes 11 = drink cool beverage 12 = cool skin with water or compress	-4 = very cold -3 = cold -2 = cool -1 = slightly cool 0 = neutral 1 = slightly warm 2 = warm 3 = hot 4 = very hot	Y/N
5-6:29 am	1	1 2 3 4	3, 4	-4 -3 -2 -1 0 1 2 3 4	Y
6:30-7:07	22	1 2 3 4	0	-4 -3 -2 -1 0 1 2 3 4	Y
7:08-8:20	1	1 2 3 4	3, 4, 6	-4 -3 -2 -1 0 1 2 3 4	Y
8:21-9:17	16	1 2 3 4	1, 3, 4	-4 -3 -2 -1 0 1 2 3 4	Y
9:18-9:25	17	1 2 3 4	1	-4 -3 -2 -1 0 1 2 3 4	Y
9:26-9:32	22	1 2 3 4	0	-4 -3 -2 -1 0 1 2 3 4	Y
9:33-12 pm	3	1 2 3 4	1	-4 -3 -2 -1 0 1 2 3 4	Y
12:01-12:08	22	1 2 3 4	0	-4 -3 -2 -1 0 1 2 3 4	Y
12:09-1	6	1 2 3 4	1	-4 -3 -2 -1 0 1 2 3 4	Y
1:01-1:09	22	1 2 3 4	0	-4 -3 -2 -1 0 1 2 3 4	Y
1:10-5:30	3	1 2 3 4	1	-4 -3 -2 -1 0 1 2 3 4	Y
5:31-5:40	22	1 2 3 4	7	-4 -3 -2 -1 0 1 2 3 4	Y
5:41-6:02	17	1 2 3 4	1	-4 -3 -2 -1 0 1 2 3 4	Y
6:03-6:34	16	1 2 3 4	1	-4 -3 -2 -1 0 1 2 3 4	Y
6:35-5 am	1	1 2 3 4	3, 4, 6, 8	-4 -3 -2 -1 0 1 2 3 4	Y

What Did Work: we reached vulnerable groups

	Detroit Sample	US Census 2014-2018 Detroit	Atlanta Sample	US Census 2014-2018 Atlanta	Phoenix Sample	U.S. Census 2014-2018 Phoenix
Number of Households Participating	48		46		46	
% Black or African-American	60.4%	78.6%	39.1%	51.8%	6.5%	6.90%
% Hispanic, Latino, Mexican, Mexican-American, or Spanish	25.0%	7.6%	8.7%	4.3%	26.1%	42.6
Income						
% Less than \$20,000	41.7%		23.9%		8.7%	
% \$20,001-\$40,000	29.2%		17.4%		17.4%	
% \$40,001-\$60,000	8.3%		4.3%		15.2%	
% \$60,001 and Above	20.8%		54.4%		58.7%	

What Did
Work:
indoor
temperature
data from
45
households

Indoor 5 am Temperatures, 45 Households



What Did Work: Individual Climate Report

Heatwaves, Housing, & Health: Increasing Climate Resiliency in Detroit

Individual Climate Report – Participant XXXXX

Community partner: Southwest Detroit Environmental Vision

Type of house: single family; two stories; masonry

Dates: July 18th - September 1st, 2016



Temperature Averages:

Daily Average Temperature (deg. F)	Your Temperatures		Study Participants' Temperatures	
	Average	Range of Averages	Average	Range of Averages
Personal*	82	75-88	82	73-88
Inside Home	83	77-86	79	74-84
Outside Home	78	69-88	72	60-85

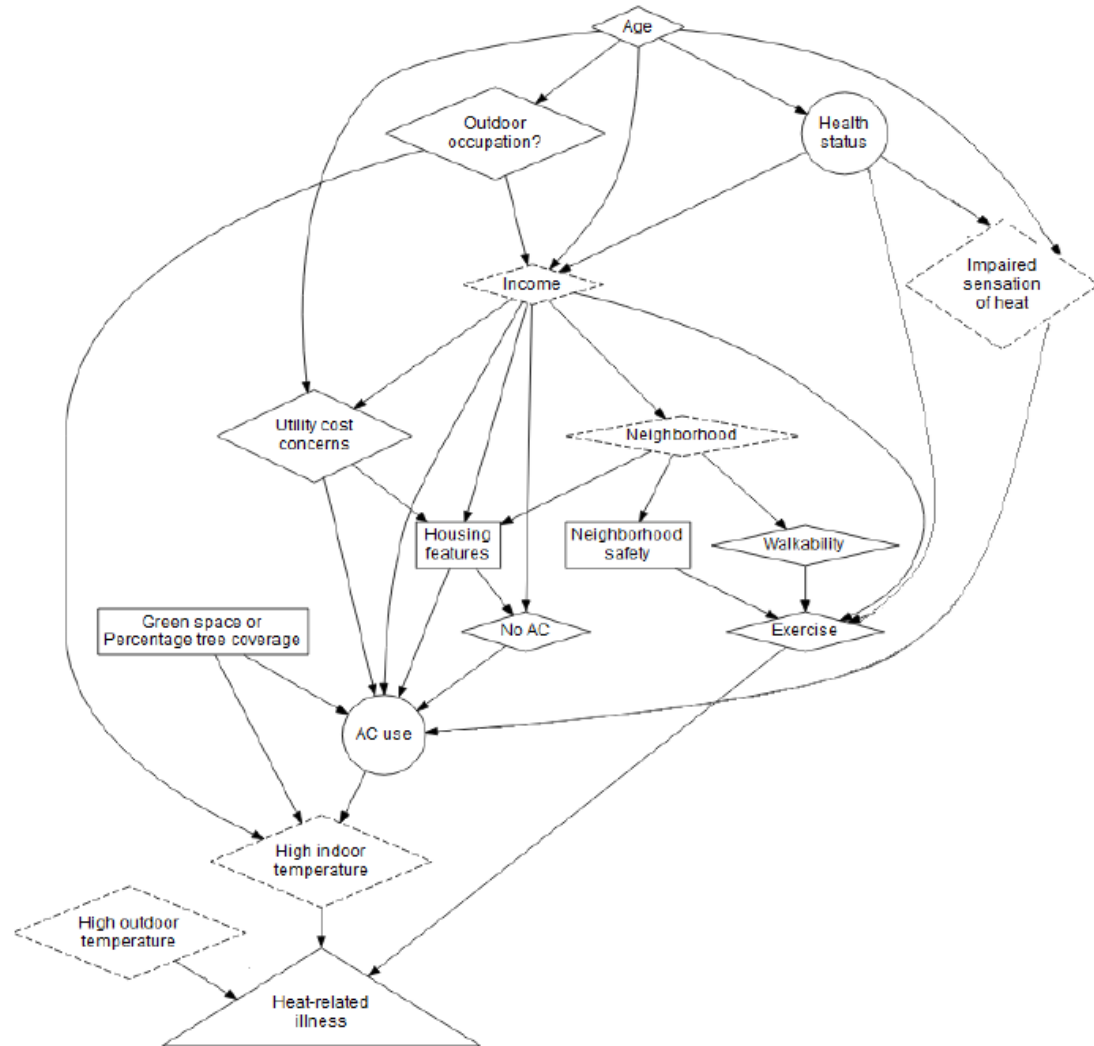
Daily Average Temperature (deg. F)	Detroit City Airport	
	Average	Range of Averages
	77	67-84

* Participants did not all wear the iButtons during the same set of days—some sets of days were hotter than others.

- Compared to the *study average*, your average daily:
 - **Personal** temperature was THE SAME
 - **Inside Home** temperature was 4 DEGREES HOTTER
 - **Outside Home** temperature was 6 DEGREES HOTTER
- Compared to the *recommended summer indoor temperature range*¹ of 75°F to 80.5°F.
 - Your average inside home temperature was 2.5 DEGREES HOTTER
- Compared to the *Detroit City Airport*
 - Your average outside home temperature was 1 DEGREE HOTTER

Including Community Partners In Analysis Phase

(Cardoza et al 2020)



Detroit Communities Reducing Energy and Water (DCREW)

- Focus on reducing barriers to assistance programs among low-income Detroit residents
- Individual case-management
- support accessing energy & water assistance programs
- Efficiency and conservation education and tools
- Assessing if high or low indoor temperatures in the summer and fall influence cognitive function and sleep quality
- Understanding the health benefits of energy efficiency upgrades

DCREW Project

Group meeting

Individual meeting

Individual meeting

Group meeting

Follow up

We develop a personalized energy intervention plan

Follow up

Enrollment and referral support

Follow up

In home energy efficiency check

Follow up

Findings and additional recommendations shared

July 2019

October 2019

January 2020

April 2020

April 2021

Baseline Health and Housing Conditions (N = 37)

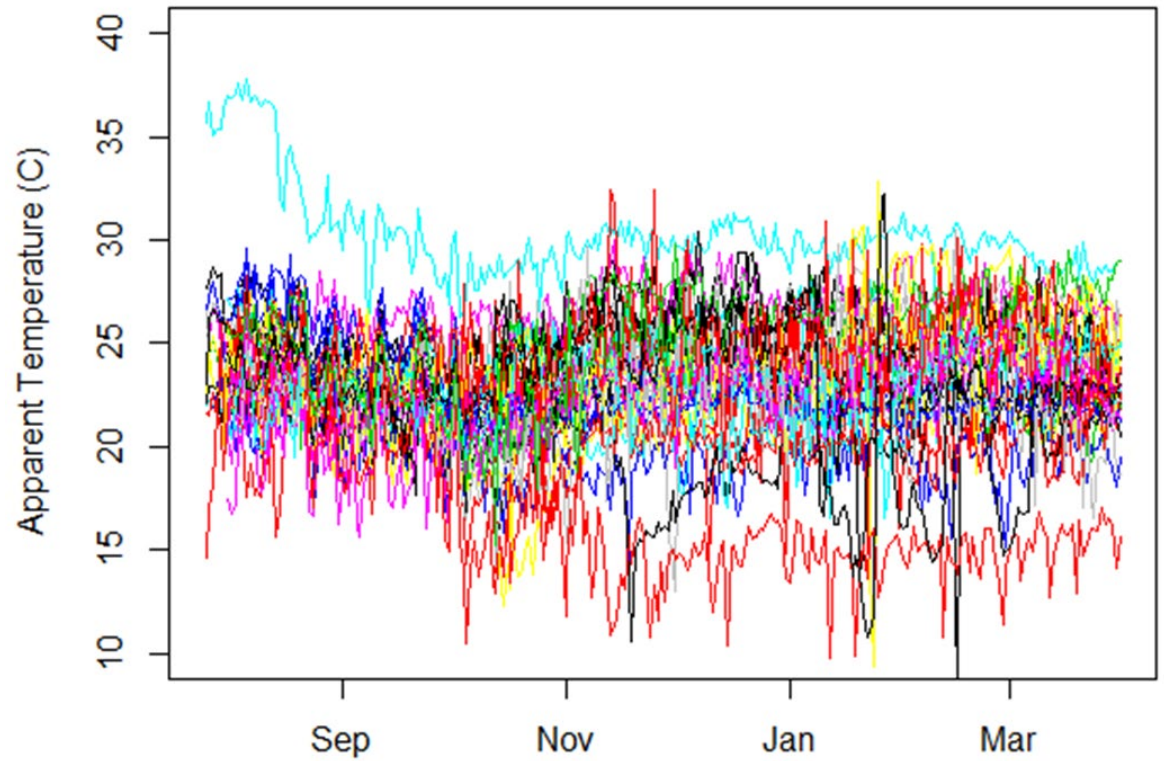
Water leaked inside the home in the past 12 months.	54%
Inside water leaks happened within the past 12 months.	48%
Signs of mice or rats in past 12 months.	30%
Mold covering an area greater than an 8 ½ x 11” piece of paper.	14%
Gas or electric company threatened shut-off for non-payment in past 12 months.	27%
Used cooking stove to heat apartment in past 12 months.	27%
Household reduced expenses for basic household necessities, such as medicine or food, in order to pay an energy bill in past year.	22%
Kept home at temperature that you felt was unsafe or unhealthy.	24%
Doctor has ever told you you have asthma.	28%

Lessons Learned

Needed to address problems other than utilities in homes with additional non-utility needs



Indoor
Temperatures:
Uncomfortable
in summer and
winter

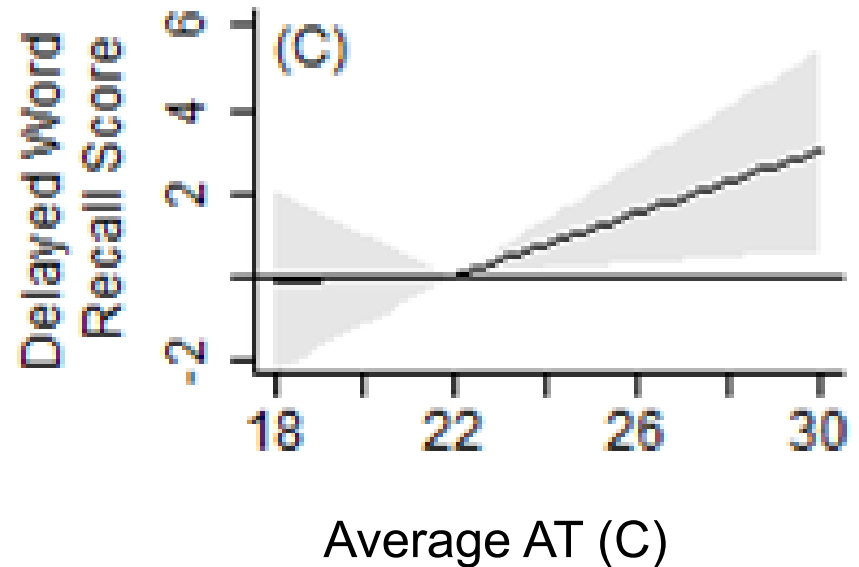


DCREW Participant Experiences

Made energy efficiency upgrades after you attended the workshop in October at which Gibran presented ideas for energy efficiency improvements and gave you a bag of supplies.	44%
Enrolled in any programs that you learned about after receiving the presentation and the packet of materials at the October workshop.	31%
Your experience with attending the October workshop and receiving supplies and guidance, and then Gibran's assistance during the visit to your home, was beneficial in helping you make energy use changes.	63%
The energy efficiency October workshop with Gibran, that you participated in, would benefit others.	94%
Made energy efficiency upgrades after the home visit with Michelle (energy case manager) and Gibran.	70%
Your experience with the case manager (Michelle), both her visit to your home and any follow-up she provided (phone calls, other assistance), was beneficial in terms of helping you enroll in programs and/or make any energy use changes.	100%

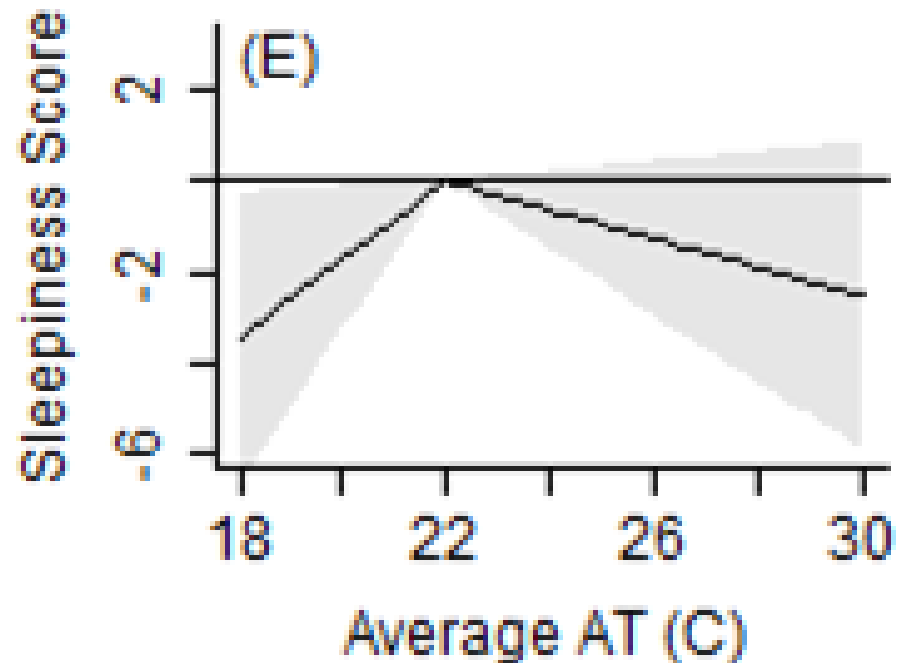
Word Recall and Indoor Temperature

Difference between delayed word recall score and score at 22 C for the average apparent temperature (AT) in the previous night (22:00-06:00)



Sleepiness and Indoor Temperature

Difference between Epworth sleepiness score and score at 22 C for the average apparent temperature (AT) in the previous night (22:00-06:00)



COVID Modifications

decided not to repeat stress questions

follow up survey on phone

participants mailed back devices

Thanks to the Many Others Involved—A big team!

Michelle Alford—sustainability case manager

Gibran Washington—energy efficiency expert/educator/technician

Justin Schott and Bryan Lewis—EcoWorks leadership

Michelle Lee—Jefferson East, Inc. housing and neighborhood services director

Raquel Garcia, Sarah Clarke, Dolores Perales, Paricia Perales—Southwest Detroit Environmental Vision leadership and staff

Guy Williams—Detroiters Working for Environmental Justice leadership

students/trainees: Kaan Cem Ketenci, Emma Gjisbers, Don'aa Williams, Quinton Jenkins, Mario Sanka, Troy Tournat, Pete Larson

Todd Ziegler and Chris Coombe—NSF Hazards SEES project coordination and partnership evaluation

Ketlyne Sol—clinical psychologist and cognitive health measures expert

Larissa Larsen—urban planning professor

Tony Reames—energy justice scholar/SEAS professor

Veronica Berrocal—biostatistics professor

Villages at Parkside, Jefferson Chalmers, and Southwest Detroit participants



Funders

Michigan Poverty Solutions

M-Cubed

National Science Foundation (Hazard SEES 1520803 and SCC 1952038)

National Institute of Environmental Health Sciences (R00 ES026198, P30 ES017885, R01 ES032157)

T42 OH008455–09 from the National Institute for Occupational Safety and Health



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TTY: 711



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Ziegler, T. B., C. M. Coombe, Z. E. Rowe, S. J. Clark, C. J. Gronlund, M. Lee, A. Palacios, L. S. Larsen, T. G. Reames, J. Schott, G. O. Williams and M. S. O'Neill (2019). "Shifting from "Community-Placed" to "Community-Based" Research to Advance Health Equity: A Case Study of the Heatwaves, Housing, and Health: Increasing Climate Resiliency in Detroit (HHH) Partnership." *Int J Environ Res Public Health* 16(18).

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Breakout Groups

- In your institution/organization, what challenges do you face to doing CBPR?
- What are ways in which your respective institution can help?

