

BUILDING COMMUNITY CAPACITY FOR RESEARCH FOR CARDIOMETABOLIC HEALTH IN DETROIT

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INTRODUCTION

- Cardiovascular disease is the leading cause of death in the United States with persistent inequities among African Americans (AA)¹
- The mission of the ACHIEVE Greater Center (NIH P50MD017351) center is to understand whether addressing social determinants of health, in addition to traditional therapeutic approaches, enhances treatment outcomes, improves cardiovascular health equity, and reduces lifespan risks for cardiovascular disease. Research and center activities are being conducted in Detroit, MI and Cleveland, OH, two cities with disproportionately high rates of hypertension and social/economic inequities.²
- Community engagement is a critical part of the ACHIEVE Greater Center and is occurring by adapting our established Healthlink model for a new population. The Healthlink model focuses on building community member research capacity and infrastructure to support community-academic partnerships that engage community members across the research continuum.^{3,4}

AIMS

- Build infrastructure to support community engagement across the continuum of research being conducted within the Achieve Greater Center
- Describe processes and emergent outcomes of adapting the research capacity-building component of the Healthlink model

ADVISORY AND OVERSIGHT COMMITTEE

- Advisory and Oversight Committee (AOC) was established to adapt the 10-module Building Your Capacity for Community Engaged Research curriculum specifically to cardiovascular health equity research
- Comprised of community members, academic researchers, physicians, and project staff (N=10)
- Met virtually for 1 hour monthly for 10 months.
- Community members compensated for attending meetings (\$50 each meeting)
- Adaptations based upon AOC feedback included:
 - Adding more images of older AA adults to slides
 - Reorganizing content to improve comprehension (tables instead of bullet points)
 - Simplifying language
 - Feedback on relevance of research examples

Figure 1. Example curriculum slide before AOC feedback

- Focus groups
- Advantages**
 - Efficient way to gather personal/meaningful data from the community
 - Data is often rich because of interaction among participants
 - More likely to accurately capture community than individual interviews
 - Less resource intensive than individual interviews
 - Capture non-verbal AND verbal data
 - Disadvantages**
 - Challenges of coordinating day/time for group discussion
 - Some participants may talk too much and others not at all
 - Time and resource intensive

Figure 2. Example curriculum after AOC feedback

Focus groups

Advantages

- Efficient way to gather personal/meaningful data from the community
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Disadvantages

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THE CARDIOVASCULAR HEALTH EQUITY COUNCIL (CHEAC)

- Members were recruited through advertisement to community organizations, community health worker-affiliated organizations, and health care institutions
- The CHEAC includes community members from Cleveland (n=11) and Detroit (n=13)
- Training and education to build community capacity for research to address cardiovascular health equity
 - 75% of members completed formal Implicit Bias training
 - 100% completed Race-Based Trauma Informed Care training
 - Formal research capacity building curriculum (see below)
- Partnership evaluation surveys were conducted for the Detroit CHEAC to understand community member satisfaction
 - 63.6% always feel able to communicate their feelings and thoughts with the group
 - 81.6% feel strong sense of belonging with the group
- Partnership with the Investigator Development Core in the P50 Pilot Research program
 - Subcommittees established to review letters of intent and pilot projects to give feedback on community relevancy
 - Consultations to provide education on opportunities for community engagement in research
- Engagement in service at the National level
 - Members sit on the Health Equity Action Network, a cross-center community engagement work group of community members and researchers from all P50 centers
 - Network Community Advisory Board, a community member council that meets more directly with National Institutes of Health

Table 1. Examples of Letters of Intent/Application Review Feedback from CHEAC members

Qualitative Feedback-Constructive	Qualitative Feedback-Supportive
"Barbershops are for young men-older men are bald, we aren't going there"	"I think this method will get a higher rate of screenings, it will reach more people who have no idea they have high blood pressure. It will save lives"
"I want to see how being in a car would affect your blood pressure compared to the doctors, would you be less comfortable or more comfortable?"	"Feels like drive-thru testing is the future of medicine" "This just feels convenient and easy for people"
"I feel like this population (<i>native-born Africans</i>) would be hard to find all the people you are looking for" "Africa is big, are they accepting just everyone?"	"Very relevant because I think genetics can play a large role in blood pressure"
	"This can show us how important the food culture is, like cookouts and church bake sales"

BUILD COMMUNITY CAPACITY CARDIOVASCULAR HEALTH EQUITY RESEARCH CURRICULUM

- Currently, 10/12 curriculum modules have been completed
- CHEAC meeting attendance averages 83% (range 67-100%); compensated \$50 per meeting
- Satisfaction surveys completed by Detroit CHEAC members after each curriculum module show
 - All module rated as "very good" to "excellent"
 - Content perceived as informative, understandable, and relevant
 - Suggestions for improving engagement and learning
 - More breakout room activities
 - Starting each module with recap of previous content and review of answers to knowledge questions
 - Adding color to each slide
- Changes in responses from Detroit CHEAC members to questions administered before and after each module suggest the curriculum is achieving the goal of increasing research knowledge and skills.
 - Increases in correct responses were observed for 15/21 questions

Table 2. Modules of the Research Capacity Building Curriculum

Module	Topic	Module	Topic
1	What is Cardiovascular Health	7	Literature Reviews
2	Cardiovascular Health in your Neighborhood	8	Research Design
3	Communication & Group Dynamics	9	Quantitative & Qualitative Methods
4	Introduction to Research & Evaluation	10	Research, Power, & Politics
5	Ethics & the IRB	11	Grant Writing
6	Developing Research Questions	12	Policy & Advocacy

Table 3. Examples of Module Feedback

Most important thing learned
"There are plenty of resources out there if we are willing to take advantage to seek them out" <i>How this Module information will align with our ongoing work around Hypertension & Cardiovascular issues"</i>
"Identifying issues that are causing health problems." <i>I plan to continue sharing what I have learned with others as time progresses"</i>
"How important research is to capture vital information"
"To be an advocate when needed"
"communities have voices"
"uses for qualitative and quantitative forms of research"

CHEAC RESEARCH PRIORITIES AND QUESTIONS

- Top research priorities identified with the Community Profile Index are: Social Determinants of Health, Education, Environment, and Nutrition⁵
- CHEAC members are completing concept mapping to depict the community perspective on three areas (healthcare, diet, and hypertension education) as they relate to their top research priority of the social determinants of cardiovascular health equity
- Concept maps will guide CHEAC members in developing research questions to address their research priorities *see fig. 5/6/7*
- CHEAC research priorities and questions are being integrated into pilot funding announcements as part of the P50 Pilot Award program

Fig. 5 – Concept Map 1: Food and Nutrition

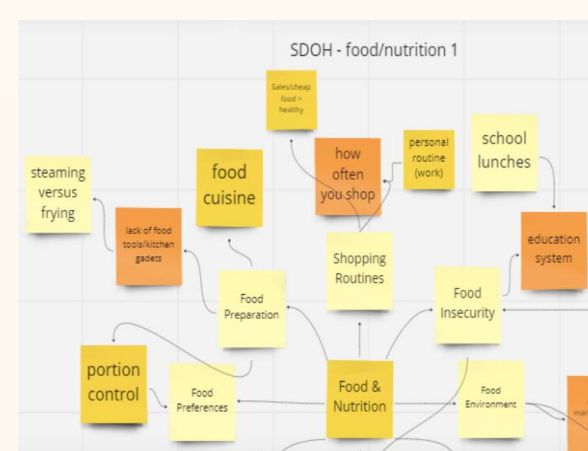


Fig. 6 – Concept Map 2: Hypertension Education/Management

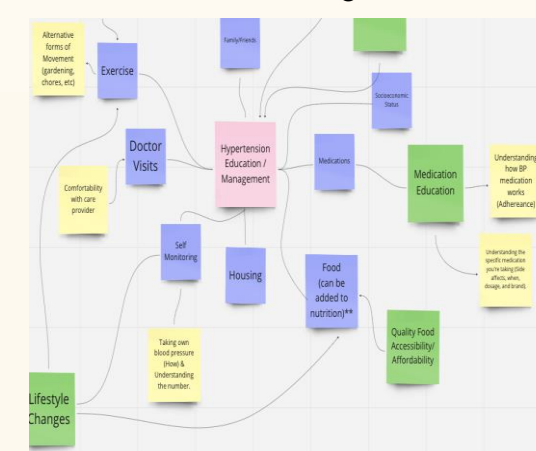
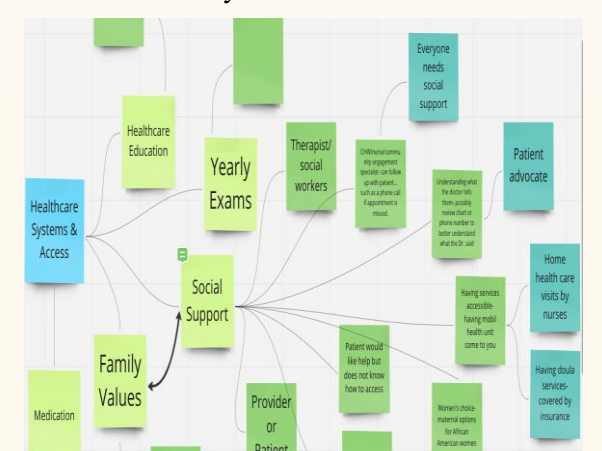


Fig. 7 – Concept Map 3: Healthcare Systems/Access



CONCLUSIONS

- The Healthlink model is effective in increasing community research knowledge and building research skills and being adaptable to different populations
 - Critical step for community members to voice needs and concerns
- Including community members in the curriculum adaptation process is a valuable way to gain insight into making material meaningful for the community and promote positive group dynamics
- CHEAC feedback allows quick tailoring to meet the group's learning needs and members find the curriculum valuable to their understanding in a virtual setting

PUBLIC HEALTH IMPLICATIONS

- Community engaged research demonstrates the willingness of community members to engage in the research process
- Engaging communities in partnerships across the research continuum is necessary to improve cardiovascular health equity
- Community members found that Social Determinants of Health was a main area in which research needs to focus on in order to improve health disparities
- The Building Your Capacity curriculum can achieve the goal of improving understanding of cardiovascular health equity

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