



CHECK-UP

The Center for Health Equity and Community Knowledge in Urban Populations
A proposal for CVS Health (Resubmission)
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Center Overview

The new Wayne State University Center for Health Equity and Community Knowledge in Urban Populations (CHECK-UP) was established in 2021 to accelerate community-academic research partnerships to improve health outcomes and advance health equity in metropolitan Detroit. CHECK-UP works to facilitate collaboration across metropolitan Detroit communities and Wayne State University (WSU) to identify and investigate the barriers and bridges to health equity in our area. CHECK-UP includes three health equity priority areas: 1) cancer control, focused on prevention, detection, access to high-quality treatment, and post-treatment quality of life; 2) heart health, focused on reduction of cardiometabolic risk factors associated with cardiovascular disease, such as hypertension and abdominal obesity, and (3) mental health, addressing access to mental health care and the elimination of stigma associated with accessing this care, with an emphasis on trauma and grief. CHECK-UP is distinct from other university and local health disparities initiatives in its (1) commitment to community-based participatory research (CBPR) approaches; (2) foundation in behavioral and social science that addresses the complex interplay between biological, behavioral, social, and environmental processes that determine health outcomes; and (3) emphasis on public health critical race praxis (PHCR) which acknowledges racial dynamics within the research context as well as the outer world, and the role of structural racism in health inequity.

CHECK-UP is committed to facilitating balanced community partnerships between WSU faculty and community stakeholders; strengthening those partnerships over time; and leveraging those partnerships to support interventions that address the causes of health inequities. WSU is uniquely positioned to do this work as there are currently 29 WSU faculty that have committed to membership in CHECK-UP, representing the School of Medicine, College of Education, College of Liberal Arts and Sciences, College of Nursing, Institute of Gerontology, School of Law, and the School of Social Work. This number is expected to grow as CHECK-UP expands.

CHECK-UP has four broad goals related to long-term vision and infrastructure.

- **Goal 1:** Increase WSU's internal capacity for identification, investigation, and intervention related to barriers and bridges to health equity through inclusion and training of WSU faculty and staff with relevant expertise.
- **Goal 2:** Create formal pathways that increase WSU's access to community knowledge and accelerate community-academic research partnerships for health equity.
- **Goal 3:** Build capacity to advance health equity through research investments in metropolitan Detroit by increasing access to resources such as training, scientific literature, research methodologies, data, and evidence-based interventions.
- **Goal 4:** Advance health equity in the metropolitan Detroit area and beyond through research, interventions, and thought leadership that address the social determinants of health and outcomes.

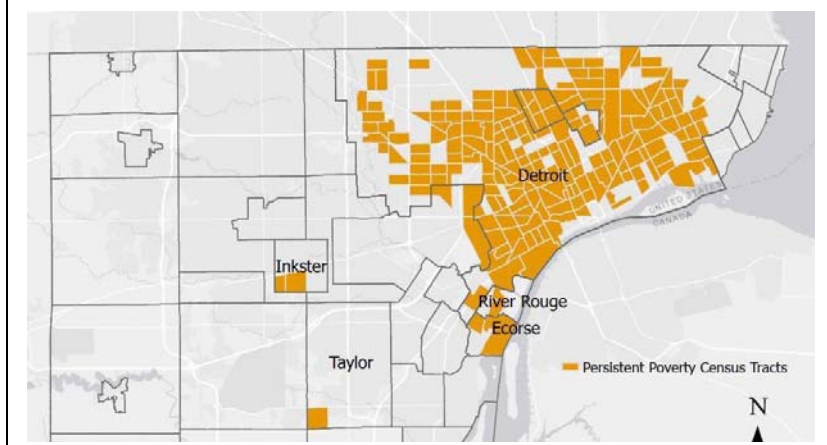
These goals are well-aligned with CVS Health's goals of promoting value-based care, improving access to care, and cultivating diverse clinical talent. Here, we propose activities that will lay the foundation for a long-term partnership between CHECK-UP and CVS Health (CVSH) and advance their shared goal of health equity for all populations.

Focus and Specific Aims of the Proposed Work

Focus: In the proposed work, CHECK-UP will focus on persistent poverty census tracts (PPCTs) wherein, according to the US Department of Agriculture Economic Research Service and the National Cancer Institute, 20% or more of the population in a census tract is below the federal poverty line base since 1990; in other words, areas in which at least one-fifth of the population has been impoverished over a 30-year period. Data show that nationwide, persistent poverty areas tend to have a higher proportion of Black residents compared to non-persistent poverty areas, a key issue for metro Detroit.¹

We propose to focus on PPCTs in Detroit. Detroit is the largest city in the state with approximately 639,000 residents, 77% of whom identify as Black and 33% of whom live in poverty, according to the 2020 U.S. Census. Of Detroit's 297 census tracts, 169 (56%) are considered persistent poverty areas (Figure 1). Structural racism is a contributor to these statistics. Today, Detroit is the most segregated city in the U.S.,² the result of Jim Crow-era

Figure 1. Persistent poverty census tracts (PPCTs), Wayne County.



Housing discrimination and racial covenants that prevented Black home ownership in white suburbs and decades of disinvestment in the city's Black neighborhoods that accompanied "white flight" in the 1970s; redlining practices that categorized Black neighborhoods as "hazardous"; the 2007-2010 mortgage foreclosure crisis between that disproportionately impacted Black residents; and Detroit's own bankruptcy in 2013.

Specific aims: CHECK-UP has four specific aims to be achieved over a 12-month period that are aligned the broad goals outlined above and a partnership with CVSH.

- **Aim 1:** Create a multi-sector community coalition representing or serving persistent poverty areas in Detroit whose members can offer insight and local expertise regarding health equity strategies.
- **Aim 2:** Conduct key informant interviews with coalition members to gain community perspectives on the most urgent structural inequities that drive poor cardiovascular and mental health outcomes in PPCTs and ongoing local efforts to address those inequities.
- **Aim 3:** Provide training opportunities that support greater engagement and employment of community stakeholders in research and healthcare.
- **Aim 4:** Offer trainings for WSU faculty, staff, and students to develop skills and strategies necessary for effective community-academic research partnerships.

12-Month Work Plan

- ***Aim 1: Create a multi-sector community coalition representing or serving persistent poverty areas in Detroit whose members can offer insight and local expertise regarding health equity strategies.***

Creation of Community Coalitions: Community coalitions can leverage and pool individual and organizational resources to develop and implement action plans and strategies to change social conditions through policy and practice, ultimately leading to not only improved health outcomes but greater community capacity to address a range of health problems. CHECK-UP has already had experience building and maintaining coalitions through its Faith Community Research Network (FCRN). Established in 2020 as a partnership between WSU, KCI, and the Faith-Based Genetics Research Institute (a community-based organization or CBO), FCRN is a collaborative of 11 churches (core members) and 19 associate churches in metro Detroit that are implementing a disparities/equity research agenda with a focus on precision medicine.

Over the proposed project period, CHECK-UP will begin to establish the Detroit Health Equity Community Coalition (D-HECC). D-HECC will be comprised of representatives of public and private organizations that serve PPCTs, PPCT residents, and WSU faculty/staff who will collaborate to bring about community-level change that fosters health-promoting opportunities and behaviors.³ D-HECC will meet monthly to highlight and increase the visibility of resources within each Coalition organization and in the broader community related to healthcare access and health outcomes. The Coalitions will also ensure that the proposed work addresses cardiovascular and mental health through a social-ecological lens and the multiple levels of influence (e.g., societal, policy, community/neighborhood, interpersonal, and individual) on population health and individual health outcomes. D-HECC will be directly involved in the planning and implementation of all project activities.

The creation of these coalitions is imminently feasible as there are 37 community partners in metro Detroit who are affiliated with CHECK-UP through either (1) letters of support and commitment provided at CHECK-UP's inception, (2) CHECK-UP's cancer-related initiatives and the Karmanos Cancer Institute (KCI) Office of Cancer Health Equity and Community Engagement (OCHECE), and (3) CHECK-UP's Faith Community Research Network (FCRN). Although all of the partners support health initiatives to some degree, Table 1 below highlights 11 partners (including one more recent partner not included in the original 37, bringing the total to 38) who have a primary community health focus, as well as those that are currently active in CHECK-UP's planning groups. Further, CHECK-UP includes an arm for Practice-Based Health Equity Research within healthcare practices, including the following:

- **Corktown Health Center:** Corktown Health is Michigan's first clinic dedicated to providing high-quality, affirming LGBTQ patient care.
- **Karmanos Cancer Institute (KCI):** KCI is an NCI-Designated Comprehensive Cancer Center (one of 53 such centers in the entire nation) and the largest cancer care and research network in Michigan.
- **MetroNet:** MetroNet is a metropolitan Detroit primary care practice-based research network, sponsored by WSU's Department of Family Medicine and Public Health Sciences (and includes its affiliated family medicine residency programs as well as community-based primary care physicians).
- **Wayne Health:** Formerly the Wayne State University Physician Group, Wayne Health is a non-profit, multi-specialty academic group practice with nearly 400 physicians and advanced practice providers offering a full spectrum of care in 50 medical specialties. Wayne Health also houses Wayne Health's Center for Population Health Accountability (CPHA).

CHECK-UP will identify and engage additional community health-focused partners through WSU's Division of Government and Community Affairs, led by Patrick Lindsey, vice president of Government and Community Affairs and Stacie Clayton, director, Community Affairs, both of whom have tremendous insight into the metro Detroit community health landscape.

As mentioned above, collaboration with community partners will be guided by CBPR principles ⁴, including:

- Promotion of collaborative and equitable partnerships in all research phases and involves an empowering and power-sharing process.
- Focus on building upon strengths and resources within the community.
- Facilitation of co-learning and capacity building among all partners.
- Focus on problems of relevance to the local community using an ecological approach that attends to multiple determinants of health and disease.
- Balancing of research and action for the mutual benefit of all partners.
- Promotion of a long-term process and commitment to sustainability.

Aim 2: Conduct key informant interviews with coalition members to gain community perspectives on the most urgent structural inequities that drive poor cardiovascular and mental health outcomes in PPCTs and ongoing local efforts to address those inequities.

Coalition key informant interviews: Coalition members and other community stakeholders and leaders will be asked to participate in individual key informant interviews. Consistent with coalition membership, interview participants will represent diverse sectors including social service agencies, public health agencies, federally qualified and free health clinics, and faith-based organizations. Participants will be asked their views about the ways in which the pandemic has changed their organization's capacity to develop and implement health equity initiatives; the most urgent structural inequities that drive poor health outcomes in PPCTs and their organization's efforts to address those inequities; ways to disrupt cycles of persistent and intergenerational poverty and mitigate their impact on health; and the approaches they have used to collaborate with other organizations to advance health equity and improve community health. These interviews will represent an early step in the development of locally tailored community-based interventions as tools to be used by community health workers (CHWs): trained public health workers who serve as a bridge between communities, academic health initiatives, and healthcare systems.

Aim 3: Provide training opportunities that support greater engagement and employment of community stakeholders in research and healthcare.

Training as capacity building: CHECK-UP offers several training experiences that are consistent with community capacity building, which has been described in terms of three dimensions: (1) the role of assets and empowerment (versus disease and deficiency), (2) the role of bottom-up, community-determined processes and agendas (versus top-down/externally determined ones); and (3) the processes for developing community competence to protect community well-being.⁵ CHECK-UP will support community capacity to engage in health equity research by offering the WSU adaptation of the “Building Your Capacity (BYC)” curriculum, based on prior work by Tufts Clinical and Translational Science Institute. The BYC curriculum was originally developed in response to concerns voiced by community partners who desired the knowledge, skills, and networks necessary to become equal partners with academic researchers. CHECK-UP leadership has already adapted this interactive approach to building the capacity of metro Detroit CBOs and community members to partner in research. CHECK-UP adaptations include revisions to directly address cancer concerns, childhood obesity, and COVID-19. The BYC program provides participants with a basic understanding of the academic research process, familiarizes them with research terminology and concepts, and increases their overall level of confidence engaging with academic researchers. The curriculum includes nine modules and topics include Introduction to Research and Evaluation; Literature Review & Evaluating Information Sources; Research Design; Research Ethics & Institutional Review Boards; Proposal Writing & Grantsmanship; and Advocacy and Policy.

In 2022, the curriculum was “repackaged” in a hybrid format with live and online elements, making dissemination more efficient. As part of the proposed work, this course will be offered to coalition members and community residents to support CHECK-UP goals and aims. The curriculum will also be offered to external academic and healthcare institutions, locally and nationally, for a fee. “Train the trainer” programs will also be available.

Developing diverse, local clinical talent: CHECK-UP is prepared to diversify representation in health equity research leading to effective evidence-based interventions. CHECK-UP strategies in this area include the Community Health Scholars Program (CHSP). CHSP provides in-depth research training for community lay learners, with the goal of preparing laypeople to serve as partners and leaders in research through a range of roles, including formal, paid research staff roles supporting participant recruitment, data collection, and intervention delivery. The current and first CHSP cohort was selected in 2022 from over 50 applicants and includes 11 metro Detroit residents, the majority of whom are African American and range in age from 29 – 75 years. This cohort of Scholars is now completing a course titled, “Building and Applying Research Skills,” an 8-session course covering a range of topics including research ethics, quantitative and qualitative research methods, intervention science. As part of the course, Scholars obtained certification in Human Subjects Research for Social & Behavioral Researchers via WSU’s Institutional Review Board (IRB) and the Collaborative Institutional Training Initiative (CITI), developed focus group moderation skills, and are obtaining practical hands-on experience with a community-based health promotion project.

As part of the proposed work, CHECK-UP will offer CHSP research skills course for free to at least 6 community laypeople and staff of coalition organizations and will offer these Scholars a modest stipend. We will make special efforts to include certified community health workers and expand CHWs’ skill set by promoting CHSP through the Michigan Community Health Worker Alliance (MiCHWA) and WSU’s Community Health Worker Academy. It will also be offered to external academic and healthcare institutions that are similarly focused on community capacity building for a fee.

Aim 4: Offer training opportunities for WSU faculty, staff, and students to develop skills and strategies necessary for effective community-academic research partnerships.

CHECK-UP Workshop Series: This series of workshops will focus on trends, evidence, and best practices in community-engaged research and community-academic partnerships. Featured speakers will include community stakeholders and university faculty and staff, as well as external speakers in Michigan and nationally, with relevant expertise. CHECK-UP held one such workshop in March 2022, led by CHECK-UP leadership: “An Overview of PCORI Engagement Awards” (<https://www.youtube.com/watch?v=uZpk1tLafjw>). This workshop series will also support diversity in academic research. We will draw upon diversity, equity, and inclusion (DEI) expertise within WSU to leverage existing connections to academic pipelines that link the university to diverse racial/ethnic, gender, sexual

orientation, language, and disability populations. This includes the office of the WSU's Office of Diversity and Inclusion, which oversees 16 programs (e.g., ReBUILDetroit - Building Infrastructure Leading to Diversity, King-Chávez-Parks Future Faculty Fellowship Program) that promote diversity and support undergraduate and graduate students from underrepresented groups in academia. The Office of Diversity and Inclusion also supports faculty and staff engagement groups, including the Black Faculty and Staff Association, the Queer Faculty and Staff Organization, and the WSU Middle Eastern North African+ Employee Association. Through these offices and programs, CHECK-UP will focus on inclusion of faculty, staff, and students from underrepresented groups.

Another important area that the Workshop Series will address is identification of career pathways and financial incentives for CHWs to fill critical workforce shortages. These series will include at least one session on CHW careers to increase awareness among community-based organizations and clinical sites about CHW career paths. For example, MPH Salud, a national nonprofit organization, has developed a CHW Career Web with five categories to advance workforce development: 1) clinical work, focusing on care coordination, 2) social work, 3) education in healthcare, school, and corporate contexts; 4) CHW management, and 5) advocacy, including lobbying. MPH Salud also details trajectories from CHW to other roles and as well as appropriate compensation. We will draw upon CHW advocacy resources like MPH Salud to plan sessions that will help organizations articulate CHW career pathways within their organizations and expand their perception of CHWs as part of an internal talent pool that can eventually serve in a range of roles. We will also draw upon WSU schools and departments to support CHW career paths. For example, Dr. Jason Carbone, a leader of the proposed work, serves as the Director of WSU's MSW/MPH Joint Degree Program and is positioned to coordinate information sessions, employment/volunteer fairs, and panel discussions to support CHW-to-BSW-to-MSW trajectories.

The Workshop Series will also build competencies among academic researchers related to partnership. Workshop topics will be partially informed by a survey of WSU faculty and staff that will assess gaps in knowledge and skills important to partnerships for health equity and community-engaged research. Potential workshop topics include grant writing basics, overviews of specific federal and philanthropic grant mechanisms/opportunities, negotiation of financial agreements in community-academic partnerships, and evaluation strategies.

12-Month Metrics and Outcomes

- Creation of D-HECC and recruitment of at least 16 CBOs and grassroots community leaders who will meet on a monthly basis to guide the proposed work.
- Completion of key informant interviews of all D-HECC members (16 interviews in total).
- Coalition member completion of a partnership assessment at the end of proposed project period.
- Completion of the Building Your Capacity curriculum by at least 20 Coalition representatives and/or individuals who reside or work in PPCTs community, including assessments to determine learner proficiency.
- Training of at least 6 Community Health Scholars with emphasis on CHW inclusion.
- Coordination of at least 4 CHECK-UP Workshops, including evaluations.

Communication between CHECK-UP and CVSH

CHECK-UP will share procedures and findings with CVSH using the ECHO Model. ECHO (Extension for Community Healthcare Outcomes) was developed in 2003 at the University of New Mexico to increase capacity and address scarce healthcare resources in rural and underserved areas. In the context of clinical care, ECHO is a learning model in which multipoint videoconferencing is used to connect specialists at regional centers (hubs) to primary care clinics working in rural and urban underserved sites (spokes). The integrated team of specialists provide didactics and case-based learning. Also described as telementoring, the ECHO Model is increasingly used beyond clinical settings, including education and civic participation. CHECK-UP will apply the ECHO Model and serve as a hub that will connect to CVSH staff and partners (spokes) across the nation using core components of the ECHO Model: (1) use of technology, specifically multipoint videoconferencing to each to CVSH stakeholders; (2) focus on local application of best practices; (3) case-based learning in which members of the CHECK-UP team, along with community partners, will present challenges in project implementation and describe specific strategies used to address challenges; and (4) presentation of local outcomes and recommendations for monitoring outcomes. CHECK-UP will host one ECHO sessions with CVSH

stakeholders during the proposed project period. Further, CHECK-UP will share strategies for improving local health disparities through Issue Briefs that will summarize specific local health disparity challenges, CHECK-UP's approach to developing solutions, and the impact of those solutions. CHECK-UP will further share outcome data with CVSH through Data Briefs.

Future Direction for CHECK-UP/CVSH Partnership

The proposed work will lay a necessary foundation for partnership between CHECK-UP and CVSH and future health equity work, specifically interventions. Our ultimate goal is implementation of multilevel interventions focused on cardiovascular and mental health risk/protective factors that influence more than one contextual level (individual, group, organization, and community).⁶ In accordance with CHECK-UP's commitment to CBPR, all future work will be planned, adapted, delivered, and evaluated in partnership with community stakeholders. A vision for this work after Year 1 is outlined here:

- Year 2
 - Expansion of the Health Equity Community Coalition in Detroit and other nearby cities confronting significant poverty and health inequities, along with key informant interviews of coalition members.
 - Development of community-embedded research hubs in PPCTs, managed with coalition member input and staffed by a mobile teams of WSU research staff, Community Health Scholars, and CHWs.
 - Community listening sessions: Public forums in which PPCT residents will be invited to share their healthcare experiences, perspectives on community needs and assets, and perspectives on institutional factors that support or undermine physical and mental health and wellbeing.
- Years 2-3
 - Rollout of the Health Equity Community Survey: A survey of PPCT residents to obtain community member perspectives on facilitators of and barriers to optimal cardiovascular and mental health; developed in collaboration with the coalitions and administered through community-embedded research hubs.
 - Use of secondary data sources and integration of archival PPCT metrics obtained through WSU's Population Health Outcomes and Information Exchange (PHOENIX).
 - Coordination of focus groups of survey participants to share key survey findings and solicit feedback to contextualize survey results.
- Year 3
 - Mapping and development of multilevel interventions targeting multiple levels of social-ecological influence on cardiovascular and mental health outcomes with input from coalitions and WSU academic expertise.
- Years 3-5
 - Delivery and testing/evaluation of multilevel interventions that address risk and/or protective factors associated with cardiovascular and mental health among PPCT residents and Medicaid enrollees; WSU research staff, Community Health Scholars, and CHWs involved in intervention delivery and data collection.

Current CHECK-UP Staff

Current CHECK-UP leadership and staff include CHECK-UP Director Hayley S. Thompson, Ph.D.; Carrie Leach, PhD, WSU Assistant Professor and CHECK-UP's Associate Center Director (ACD) for Community Inclusion; M. Safwan Badr, MD, MBA, Chair of Internal Medicine, WSU School of Medicine and CHECK-UP's ACD for Practice-Based Health Equity Research; and Lisa Braddix, MPH, chair of CHECK-UP's Steering Committee. CHECK-UP also employs a Research and Operations Manager (.5 FTE) and program assistants at 1.5 FTE.

Proposed Project Staff

The proposed work will be led by CHECK-UP Director **Hayley S. Thompson, Ph.D.** is a Professor of Oncology at WSU School of Medicine and the Associate Center Director for Community Outreach and Engagement at the Karmanos Cancer Institute (KCI). She is also the inaugural associate cancer center director for Community Outreach and Engagement (COE) and established KCI's Office of Cancer Health Equity and Community Engagement (OCHECE) and she currently serves as its faculty supervisor. She is a clinical psychologist whose research addresses racial and ethnic disparities in cancer care and outcomes. Over her career, Dr. Thompson has received over \$13M in extramural funding as a principal investigator or project lead from the National Cancer Institute (NCI), National Heart, Lung, and Blood Institute (NHLBI), the American Cancer Society (ACS), the Department of Defense (DoD), Patient-Centered Outcomes Institute (PCORI), and other agencies and foundations, with additional funding as a co-investigator or co-lead. Dr. Thompson will develop a critical shared resource for future CHECK-UP work: an Administrative Core.

Community coalition creation will be supervised by **Lisa Braddix, MPH**, is the chair of CHECK-UP's Steering Committee. Ms. Braddix the Health Equity Director for the Southeastern Michigan Health Association (SEMHA) where she works to foster organizational collaboration to improve community health using practical approaches that will eliminate health disparities in marginalized populations throughout southeast Michigan. She also is the chair of the Michigan Cancer Consortium Health Equity Committee and a co-chair of the Healthy Pontiac We Can! Coalition.

Community coalition activities will be co-led by **Elizabeth Towner, PhD**, and **Rodlescia Sneed, PhD, MPH**. Dr. Towner is an Assistant Professor of Family Medicine and Public Health Sciences in WSU School of Medicine. Her research broadly focuses on health equity, child and family health, and community-driven approaches to health promotion, prevention, and intervention. Dr. Towner has over a decade of experience conducting community-engaged research in these areas and building community research capacity specific to obesity in early childhood. She has recently expanded her work to addressing health equity in COVID-19 and cardiovascular disease. Dr. Towner will lead the development of two shared resources within CHECK-UP for future work: a Capacity Building and Communication (CBC) Core and Intervention Core.

Dr. Sneed is a new WSU faculty member starting September 2022 as an Assistant Professor within the Institute of Gerontology. She is a social/health psychologist. Since 2017, she has conducted community-based research focused on advancing health equity among mid and late-life adults in Flint, Michigan. She has also taught a graduate course focused on Community Engagement in Public Health Practice for the past 3 years, and she currently leads a public health workforce development workshop series focused on professional development for public health service providers and community residents. Her recent and current community-partnered research projects include: a study focused on training formerly incarcerated adults to serve as group fitness instructors who can lead fitness classes among their peers and a multi-year project that trained community residents to go door-to-door to assess the behavioral health impacts of the Flint Water Crisis. Dr. Sneed will co-lead the development of the Capacity Building and Communication (CBC) Core for future work.

Data collection and management strategies will be supported by **Jason Carbone, PhD, MSW**, an Assistant Professor of Social Work at WSU. He currently serves as the Director of the joint MSW/MPH program and co-chair of the Innovation in Community, Policy, and Leadership concentration in the MSW program. His research focuses on social and behavioral determinants of health through the lens of perceived community experiences and environmental stressors. Specifically, he orients his work to consider how social location factors impact mental health outcomes from both an individual stress process model perspective as well as within the context of population-level health. Dr. Carbone has nearly a decade of full-time, community practice experience at the neighborhood-level that includes housing and economic development with residents from diverse communities experiencing financial disinvestment. Dr. Carbone will lead the development of a Research, Methods, and Data (RMD) Core for future work.

Primary administrative and coordination support will be provided by **Asha Freeman, MPH**, who currently works with CHECK-UP as Capacity Building and Training Manager and supervised the Community Health Scholars Program. We also request funding for a research assistant to further support this work.