PARTICIPATORY COMMUNITY-ACADEMIC RESEARCH PARTNERSHIPS FOR HEALTH EQUITY

by

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APPROVAL PAGE

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Place Acknowledgment

This research was conducted at Georgia State University in Atlanta, Georgia. It was conducted on land that was the home for many millennia of the people of the Muscogee Creek Nation and their ancestors, who shaped many of the geographical, cultural, and agricultural features that are now integral parts of the region, and who were forcibly and fraudulently removed from Georgia. In addition, this research is built upon knowledge, culture, community, and infrastructure from African American peoples who were brought here against their will and exploited throughout most of their days here. This institution, the research topic, and this research itself would not exist without all of those foundations. Hopefully this is a small step in ensuring they are included in benefitting from it.

Positionality/Reflexivity Statement

Atlanta has been identified as having high levels of socioeconomic inequality, and many issues and opportunities in Atlanta split across stark racial lines. I identify as a white, half Jewish woman raised in the northern United States. It was relocating to Atlanta that first taught me that racial segregation was still actively oppressing communities and damaging lives. I have spent over 20 years building relationships and shared understanding in Atlanta's excluded and gentrifying communities, and some of those relationships are reflected in the interviews, and my analysis of them. However, I still inherited incredible privilege as the daughter of a white Southern woman, and a Jewish man whose grandparents fled oppression in Europe, but who has experienced white privilege in most of her life, most acutely in Atlanta. That privilege allowed me to be in the position to interpret and represent the words of interviewees, including many individuals who face racial, ethnic, or other barriers to research leadership, for my own gain.I acknowledge my privileges in terms of passing as entirely white, cisgender, straight, and fully abled, whether or not I am any of those things, as well as my educational and economic opportunities, that enabled me to conduct this research, and have certainly influenced my methods and conclusions in complex ways. I have made my best efforts to listen to community participants and advisors to compensate as much as possible. Although the institution as a whole has many concerns, I wholeheartedly appreciate the faculty and staff of the GSU SPH for encouraging my journey to honor and amplify community voices.

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Author's Statement Page

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ABSTRACT

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Purpose: Community based participatory action research (CBPAR) is a key strategy to address persistent health inequities, which are rooted in complex social dynamics. CBPAR utilizes collaborative partnerships between professional researchers and affected communities to address these issues. Across metropolitan Atlanta, numerous CBPAR initiatives have engaged community members and/or community-based organizations (CBOs), but few of these partnerships were sustained. Literature suggests that sustained, equitable community-academic partnerships based in CBPAR principles are critical to achieving health equity. However, there are many factors that can influence the success of a community-academic partnership.

Methods: The Greater Atlanta Citizen Science Collaboratory ("Collaboratory") was founded between community and academic collaborators in order to establish a formal partnership structure for multiple CBOs and academic institutions. In collaboration with the Collaboratory, this research engaged community and CBO representatives who had been involved in CBPAR initiatives in metropolitan Atlanta in order to better understand the factors that enable or impede a successful partnership. This research identified potential participants through network sampling with the Collaboratory members and the available literature, resulting in semi-structured interviews with fifteen community partners. The interviews were analyzed through thematic coding and development of vignettes.

Results: The data affirmed the value of community-academic partnerships and CBPAR approaches to addressing community priorities. It emphasized the mutual benefits sought and achieved by such partnerships, as well as the ways that partnerships supported the capacity of both academic and community partners to work more effectively together. The interviews highlighted the importance of individual relationships between community and academic partners, and key factors to strengthen and sustain them. This research also revealed additional gaps that need to be addressed in order to achieve greater power-sharing and more significant outcomes for communities, and to reduce burdens on their time and resources.

Conclusion: This research supports efforts to strengthen and sustain the capacity and infrastructure for partnerships between community representatives and academic researchers. Based on the data, recommendations have been developed that will support community and academic partnering capacity, increase partnership opportunities, and contribute to more successful collaboration. The results will be disseminated to inform the Collaboratory members and other researchers.

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Chapter 1. Introduction and Purpose

The purpose of this research is to describe the fundamental aspects of community based participatory action research (CBPAR) from key literature sources, and use participatory approaches to explore their application in an academic-community research partnerships. As applied research, a major objective is to translate the findings into guidance for an existing partnership.

Collaborative Research Approaches for Health Equity

Health inequities result in a significant amount of excess illness, injury, disability, and premature mortality, globally and in the US. In the US, sociodemographic and developmental factors such as race, ethnicity, sexual and gender orientation, physical or cognitive disability, and immigration status, as well as measures of opportunity such as educational attainment, income, and wealth, are associated with differences in overarching measures of health such as life expectancy and infant mortality, as well as myriad differences in disease and injury rates (Braveman & Gottlieb, 2014; Plamondon et al., 2020). Health inequities are described as differences in health of populations that are preventable and unjust, and are a major factor in preventing local, national, and global attainment of overall population health goals (Arcaya et al., 2015; Braveman & Gruskin, 2003; National Academies of Sciences, 2017). In the US, health inequities have been estimated to cost the economy over $300 billion annually in direct health care costs, and over a trillion dollars annually in indirect or social costs, and these figures are expected to rise (Bhatt et al., 2022). According to the Centers for Disease Control and Prevention (CDC):

> *"**Health equity** is the state in which everyone has a fair and just opportunity to attain their highest level of health. Achieving this requires ongoing societal efforts to:*
>
> - *Address historical and contemporary injustices;*
> - *Overcome economic, social, and other obstacles to health and health care; and*
> - *Eliminate preventable health disparities.*

> *To achieve health equity, we must change the systems and policies that have resulted in the generational injustices that give rise to racial and ethnic health disparities."*
>
> *(Centers for Disease Control and Prevention, 2022)*

The public health field has been seeking to contend with the awareness that disparities in health outcomes are not random or naturally occurring, but rather the cumulative effect of centuries of social, economic, and political inequities, intentionally created and maintained through systems of oppression (Bailey et al., 2017; Ford & Airhihenbuwa, 2010; Gostin & Powers, 2006; Heiman & Artiga, 2015; Liburd et al., 2020). Historically, public health research and interventions have not been able to reduce health inequities (Rodriguez Espinosa & Verney, 2021; Suarez-Balcazar et al., 2020). While many interventions have understandably tried to address the resulting health inequities through programs that target the resulting distribution of healthy food, coping mechanisms, healthcare, etc., these are not intended to change the overall system, and in fact may reinforce it (Bailey et al., 2017; Castrucci & Auerbach, 2019; Gostin & Powers, 2006; Wispelwey, 2021). For instance, these efforts may divert funding to established organizations that have gained success through a history of privilege rather than supporting community based organizations using culturally appropriate approaches. Or it can reinforce a narrative to the effect that communities experiencing inequities are not taking advantage of services and therefore are to blame for their health issues, without considering the barriers to access and cultural or etiological relevance of the service (Ford & Airhihenbuwa, 2010; Liburd et al., 2020; Wispelwey, 2021).

One approach to resolving these structural inequities is based in the belief that they are grounded in a system of oppression in which some people are denied their full rights to determine their own living conditions equitably within their society. It is this loss of agency which enables others to make decisions for the oppressed peoples, inevitably to the benefit of others regardless of the harm to the oppressed (Freire, 1970). The 1986 WHO Ottawa Charter on Health Promotion described health as the ability of an individual or group “to identify and to realize aspirations, to satisfy needs, and to change or cope with

the environment." (World Health Organization, 1986). Therefore, in order to make meaningful, equitable, ethical, sustained transformative changes in health inequities, an approach to public health research and practice is required that restores self-determination and power to the people or communities to which it has been denied under the current socio-political economic systems − not simply reversing the roles of who experiences oppression and who benefits from it, but working to restore just and equitable relationships between these roles (Freire, 1970; Wallerstein et al., 2017).

Community-based participatory action research, or CBPAR, encompasses a cluster of approaches that incorporate collaboration between community members and professional or academic researchers, shared learning and decision-making between collaborators; and both research (generalizable knowledge generation) and action (intervention to promote health and reduce health inequities). The core principles of CBPAR include acknowledging community as a unit of identity; building on community strengths and assets; facilitating collaborative, equitable partnership with power-sharing in all phases of research; fostering co-learning and capacity building; balancing knowledge generation and intervention; focusing on relevant issues using an ecological, structural, etiological lens; using a systems approach; incorporating collaborative dissemination; and building long term partnerships (Fleming et al., 2023; Israel et al., 2012; Minkler & Wallerstein, 2008).

Theoretical Framework

It is the argument of some scholars, as well as this researcher, that every individual who engages in the system of oppression, intentionally or not, even from a position of privilege, is inevitably harmed (Fanon & Markmann, 1967; Freire, 1970; hooks, 1994; Jones, 2002; Paton et al., 2020). The sense of alienation and dehumanization needed to participate in working and living situations that keep others in need, even indirectly, harms social emotional health (Freire, 1970). Practitioners note that CBPAR has its roots in the emancipatory global civil rights movements, and can be antiracist when the core principles are

followed (Fleming et al., 2023; Wallerstein et al., 2017). Fleming et al. (2023) states that, “Synergies between a CBPR approach to research and antiracist approaches provide an opportunity for addressing racial inequities in institutions of higher education and traditional research practices.” By using CBPAR approaches to research, institutional research partners can more closely examine the ways that systems of oppression influence work and participants, and collaboratively explore strategies to transform them. It can allocate resources to strengthen capacity for community change, and ensure that resources find a balance between research for the sake of knowledge generation, and action for community improvement (Fleming et al., 2023).

From this perspective, a key rationale for CBPAR is that optimal health outcomes cannot be achieved without mitigating health inequities, and health inequities cannot be mitigated without changing the classic approach to health promotion and disease prevention to center the communities experiencing inequities (Bailey et al., 2017; Gostin & Powers, 2006; Jones, 2002; Liburd et al., 2020; Rodriguez Espinosa & Verney, 2021; Suarez-Balcazar et al., 2020). Further, some leading scholars argue that research approaches must change not only how research is conducted and applied, but even how the field approaches the idea of what constitutes research and how knowledge is generated (Hall & Tandon, 2017; Wispelwey, 2021). To the extent that professional researchers seek to fully understand, collaborate with, and share power with their community partners, they must fully share the process of defining and creating knowledge as well, because people use knowledge to determine how they behave toward others (Hall & Tandon, 2017; Park et al., 1993). If the majority of the information and conclusions about some groups of people are being formed by others who do not value their opinions, norms, values, and experiences, it will be nearly impossible to develop policies or plans that align with the values and interests of those groups – yet many public health programs and initiatives are developed based on such research.

Thus CBPAR practice necessitates a commitment to social justice and systemic transformation (Rodriguez Espinosa & Verney, 2021). Minkler and Wallerstein (2011) note that CBPAR promotes both procedural justice in the applied research process, and distributive justice through action for more equitable access to the essential living necessities for health. In this sense, CBPAR is not exclusively a tool for health promotion and heath equity, but always acts on underlying structural factors. It can be, and has been, applied to many social, environmental, economic, and other issues (Park et al., 1993; Salimi et al., 2012a). However, health is affected by every aspect of living conditions and opportunities, so CBPAR focused on any of these factors is still likely to influence health outcomes (Bailey et al., 2017; Braveman & Gruskin, 2003; Liburd et al., 2020). CBPAR can be distinguished from research that engages community in certain phases but does not share leadership or decision-making power (Israel, Eng, et al., 2013; Wallerstein & Duran, 2003). Other terms include community based participatory research, participatory action research, action learning, participatory rural appraisal, youth participatory action research, just to name a few. This manuscript will use CBPAR to reference this type of work.

There are generally two major foundations recognized within participatory approaches to research. One is more grounded in action research and organizational development, often referred to as the "Northern" approach, which is more driven by the goals of the institutional researcher or outsider to cause changes within a community. The other is more grounded in emancipatory pedagogical approaches, driven more strongly by the goals of transformation within a community or among those experiencing oppression, and often referred to as the "Southern" approach (Minkler & Wallerstein, 2008). Some scholars have argued that CBPAR practitioners need to reemphasize the role of the Southern approach in their work in order to recenter community knowledge (Hall & Tandon, 2017).

This manuscript uses a systemic ecological model of health equity. From this perspective, health promotion is only meaningful if it addresses health inequities. Thus, references to promoting and protecting health throughout the manuscript should be assumed to describe equitable health

promotion. Health inequities drive much of the poor health outcomes across the world and in the US. By extension, mitigating health inequities should be an important strategy for health promotion, and public health practitioners would be expected to be deeply concerned with overcoming the structural injustices that lead to inequitable health outcomes. In practice, however, much of public health practice has used an 'individual responsibility' model which seeks to educate or provide services to specific groups, without addressing the lack of economic opportunity and political influence experience by communities, which limits their access to the vital conditions for health (Kieffer & Reischmann, 2004; Suarez-Balcazar et al., 2020).

Practice of CBPAR

Researchers have asserted that using CBPAR approaches promotes health and wellbeing in multiple ways, including increasing awareness about structural socioeconomic factors that affect health, increasing community engagement in policy, strengthening community organizing, building community capacity, and more, especially with communities experiencing severe socioeconomic exclusion (Cacari-Stone et al., 2014). Additionally, CBPAR initiatives can generate more sustainable health promoting outcomes, such as adoption of evidence-based policies and increased political influence of communities (Cacari-Stone et al., 2014). Engaging communities helps ensure relevance of research efforts while training future researchers on a new approach to their work (Allahwala et al., 2013).

Reviews of CBPAR projects indicates that they achieve intermediary outcomes, such as changes in systemic factors, power dynamics, and capacity, as well as longer term results in health determinants and outcomes (Oetzel et al., 2018). Jagosh and colleagues (2015) found that "that CBPR supports (a) the production of culturally and logistically appropriate research; (b) the capacity to recruit participants to projects and interventions; (c) the capacity building of academic and community partners; (d) productive conflict resolution and negotiation processes; (e) the accumulation of partnership synergy, which

increases the quality of outputs and outcomes over time; (f) the capacity to sustain project goals beyond funded time frames and during gaps in external funding; and (g) the generation of systemic changes and new unanticipated projects and activity."

The Center for Participatory Research (CPR) at the University of New Mexico has led extensive field building research on CBPAR since 2006, in partnership with the University of Washington (UW)'s Indigenous Wellness Research Institute. This research has led to the development of a conceptual model, shown in Figure 1, consisting of four domains: context, partnership dynamics, research/intervention, and outcomes, as well as a capacity building framework (Ortiz et al., 2020; Wallerstein et al., 2020). It was built upon extensive expert consultation, followed by a survey of 200 partnerships and 450 partners, and further research based on seven case studies. This research has identified over 20 elements of the context, partnering process, and collaborative action research activities that influence impact and long term outcomes of a partnership. Context includes factors such as identity/ dimensions of oppression, local governance, resources, history of collaboration, trust, and more. Partnership processes includes such things as distribution of project funds, formal agreements between institution and community, personal motivation, conflict management procedures, efficacy of self-reflection, and much more. Finally, action and research factors relate to the way that each research phase is conducted and the extent to which it invokes participatory approaches. (Wallerstein 2020). Comprehensive review of the available literature has supported this framework (Ortiz et al., 2020).

Finally, the latest stage of this research engaged additional research centers, conducted another round of partnership surveys, and developed a pilot intervention capacity building program which provided 'collective-reflection' tools to strengthen aspects of partnership capacity associated with successful outcomes. This body of research regarding the implementation of collaborative partnership processes suggested that collective reflection and action cycles focused on co-learning and power sharing could

support stronger partnership development, and result in more robust outcomes across a range of project types (Parker et al., 2020; Wallerstein et al., 2020). .

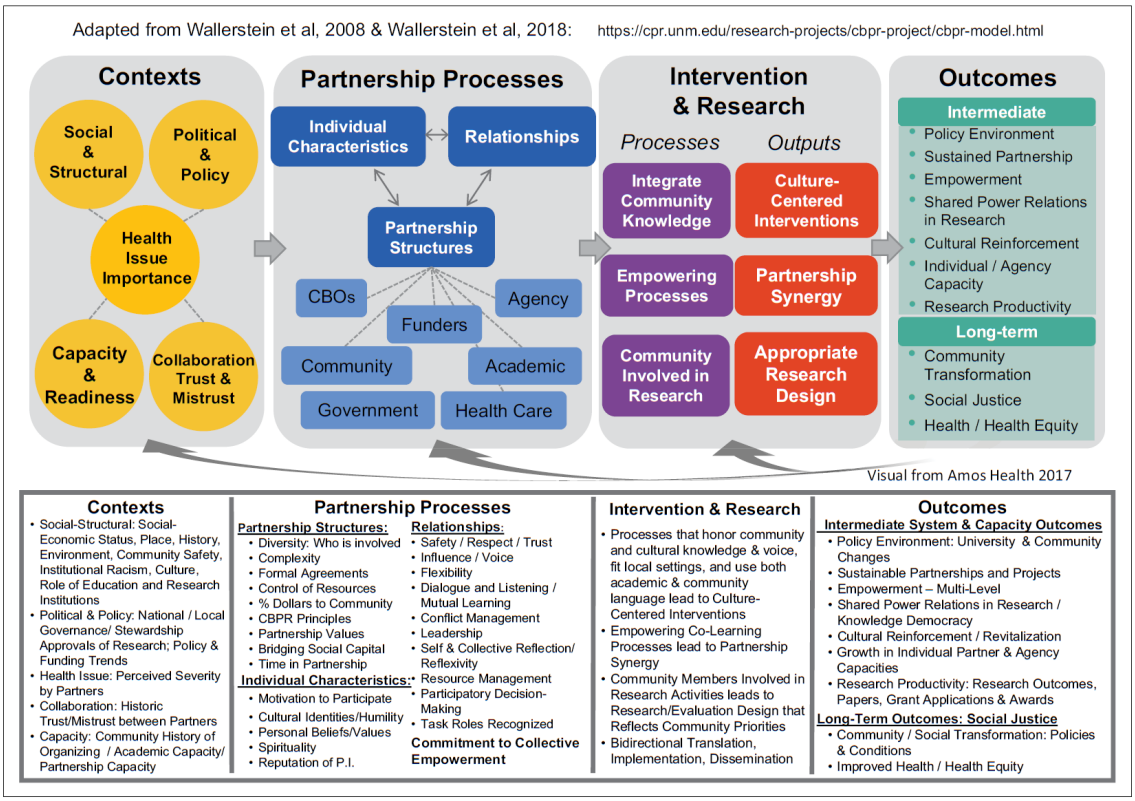

Figure 1. Community-based participatory research conceptual model.
Note. CBOs = community-based organizations; CBPR = community-based participatory research; P.I. = principal investigator.

Figure 1: CBPAR Component Model

Researchers propose that CBPAR is particularly suited for achieving sustainable health equity improvements through policy, systems, and environmental change, including changes in social justice and power for communities experiencing sociopolitical and economic exclusion (Corburn, 2021; Freudenberg & Tsui, 2014). These components are incorporated into the framework as both intermediate outcomes in terms of policy, increased capacity, and power sharing, and long-term outcomes such as community transformation and social justice/ equity (Wallerstein et al., 2020). Policy change is typically a complex process involving many types of stakeholders who disagree on both the

problem and the solution (Heifetz et al., 2009; Meadows, 2008). The CBPAR framework as shown in Figure 1 provides some essential tools for adaptively leading policy change – facilitating constructive conversations between decisionmakers and people with lived experience, and supporting community organizational capacity and evidence to advocate for change (Freudenberg et al., 2011; Freudenberg & Tsui, 2014; Grêaux et al., 2021). Increased community capacity and power is associated with beneficial policy change, and communities may gain policy change capacity through their involvement with a CBPAR initiative (Cheezum et al., 2013; Coombe et al., 2017).

Community-Academic Partnerships in Atlanta

Metropolitan Atlanta communities experience a high degree of socioeconomic and racial inequities. Data presented by the CDC shows more than a 20-year gap in life expectancy between certain Census tracts in the region, which correspond with racial and economic variation (Tejada-Vera et al., 2020). The region also experiences high rates of segregation, and inequities in environmental health hazards, intentional and unintentional injuries, maternal and child health outcomes, chronic diseases, and many social determinants of health (Jelks et al., 2018; Kreuter et al., 2012; Marcus, 2018; Redwood et al., 2010). Across the metropolitan Atlanta area, there are several communities that have been the subject of community-engaged research projects over many years (for instance, Jelks et al. (2018); Kreuter et al. (2012); Rollins et al. (2021)). Some of these have resulted in persisting relationships between community members or community based organizations (CBOs), and individual researchers or research institutions. However, the researcher for this dissertation is aware of multiple community based research initiatives using CBPAR approaches conducted in metro Atlanta for which peer-reviewed publications could not be located.

Based on information from published literature, media, and personal communications, it appears that there have been few sustained community-academic partnerships. Notable sustained collaboration

includes the Morehouse School of Medicine Prevention Research Center's (MSM-PRC) Community Coalition Board (CCB), established in 1999. The CCB comprises members from stakeholder neighborhoods, agencies, and academic institutions, and serves as a policy-making and planning body for the MSM-PRC (Morehouse School of Medicine, 2023). Another ongoing collaboration is the HERCULES Exposome Research Center, housed at Emory University. HERCULES maintains a Stakeholder Advisory Board comprising local residents, nonprofit organizations, and public agencies, which advises on center activities and fields community concerns (HERCULES Exposome Research Center, 2023).

The Greater Atlanta Community Science Collaboratory ("Collaboratory"), was convened by three higher education institutions and three CBOs through the Atlanta Global Research and Education Collaborative (AGREC) in 2021 for the purpose of supporting community-academic research partnerships and mitigate inequities between CBOs and higher education institutions (HEIs). Its mission is to "invest in relationships, build trust, share power and resources, ensure transparency, and foster ongoing communication and collaboration among community-based organizations and academic institutions". As of 2023, the Collaboratory had participation from seven Atlanta-area HEIs, two international HEIs, and six CBOs. It had established guiding principles, and was in the process of developing bylaws, membership criteria, funding proposal development criteria, a website, and more. All information about the Collaboratory appearing in this manuscript has been obtained by the dissertation researcher through personal communications from Collaboratory members or leadership, and/or document review of materials available to Collaboratory members.

Georgia State University, where this dissertation research is being conducted, is a founding member of the Collaboratory. The dissertation researcher was invited to join the Collaboratory as a contributing member. They entered into a memorandum of understanding with the Collaboratory in support of this research, and engaged an advisory group comprising four Collaboratory members (two academic partners and two CBO members), as well as the coalition's CBO Coordinator. This has allowed document

review of the Collaboratory's governance structure and activities, and ongoing alignment around their activities for greater validity and relevance. Additional description of the engagement and collaboration process is included in the Methods section.

Guiding Successful Community-Academic Partnerships

Many community and academic representatives have observed that there are considerable challenges in research partnerships with each other (Israel et al., 2006; Israel et al., 2017; Minkler, 2005; Wilson et al., 2018). One of the founding members of the Collaboratory stated, "We recognized, however, that inadequate coordination and inequities in power in academic and research project development, funding provision, and other projects of interest to CBOs often undermine the success and sustainability of community-academic partnerships. If we are to have any success in reaching the SDG [UN Sustainable Development Goals] goals, we have to create a better model for collaborating" (Collaboratory press release, 2022). While there are examples of sustained community-academic research partnerships (see for instance Brush and colleagues (2020)), collaboratives may still face numerous questions and challenges operationalizing CBPAR principles and evidence-informed practices.

Therefore, this research seeks to clarify core concepts of CBPAR, with a focus on partnership practices for sustained community-academic research partnership. Drawing on the sizable body of existing research, it will summarize core CBPAR principles and practices that are associated with successful participatory community-academic research partnerships. Following a focused literature review, the study intends to interview key selected community collaborators, including current and previously participating residents, CBOs, and community leaders, to elicit priorities for academic-community research partnership practices. The findings from this research are expected to benefit the Collaboratory as well as provide generalizable guidance for similar partnerships. Based on review of the literature and consultation with Collaboratory stakeholders, the following research questions have been selected:

- **What are the primary measures of a successful community-academic research partnership from the perspective of community collaborators?**
- **What factors contribute to a successful community academic research partnership from the perspective of community collaborators?**
    - **What aspects of a partnership's operational structures and procedures contribute to success?**
    - **What aspects of academic partner capacity contribute to success, and how can the partnership support them?**
    - **What aspects of community partner capacity contribute to success, and how can the partnership support them?**
- **What can be learned from past community-academic research partnership in metropolitan Atlanta related to these factors from the perspective of community collaborators?**

Chapter 2. Literature Review

Principles of CBPAR

As noted above, CBPAR refers to an approach to research which shares many other labels. Terms such as community-engaged research, mutual inquiry, community-based participatory research, participatory action research, and citizen science, and others, encompass the same general principles, although they can emphasize slightly different aspects of research design or application (English et al., 2018). Israel, Eng, and colleagues (2013) endorse the following core principles of the CBPAR approach:

- It acknowledges community as a unit of identity. Traditional research often classifies participants as discrete elements of populations and subpopulations based on criteria selected by the professional researchers, such as age, risk factor status, or geographic boundary. CBPAR seeks to identify participants based on their social connections and identities, and assumes that they interact with each other in significant ways.
- It builds on community strengths and assets. Similar to 'asset based community development' (see for instance Harrison and colleagues (2019)), which highlights the existing culture, capacity, and organization, rather than focusing on 'needs' or describing the community as deficient in certain ways, CBPR seeks to recognize and build on existing resources.
- It facilitates collaborative, equitable partnerships with power-sharing in all phases of research. One of the most important, and potentially most challenging, aspects of the CBPAR approach is that community members engaged in the project should be treated as co-investigators, with as much decision-making power as the professional or academic partners. This should not be limited to one part of the research, but should rather include selection of the research topic, the study design, interpretation of the results, and communication of the findings.

- It fosters co-learning and capacity building. Both the community and the academic/ professional research partners should gain knowledge and skills as a result of working together, such as new research methods, etiological explanations and working theories, and knowledge about the community.
- It balances knowledge generation and intervention. Another one of the important elements of CBPAR is finding a balance between action (improving community conditions) and research (generating generalizable knowledge). This precludes research projects which only extract information from the community (i.e. through data collection) without dedicating a similar amount of effort to applying the results to community transformation in ways determined by the participants.
- It focuses on relevant issues using an ecological, structural, etiological lens. Research topics should be selected based on a deep understanding of the factors that impact the community's wellbeing, safety, and quality of life, and driven by the community participants' understanding of underlying causal factors. This means that academic/ professional researchers should not select an intervention or research question without community participation.
- It uses a systems approach. In addition to incorporating community priorities and causal maps, CBPAR initiatives should apply a complex analysis of the policy, systemic, social, behavioral, and environmental factors that contribute to prioritized community issues, and their various intervention points.
- It incorporates collaborative dissemination. As noted previously, it is important for community participants to share decision-making power over how the research is interpreted and communicated. This principle helps ensure that the community has control over how they are represented, and how issues and solutions are selected.

- It builds long term partnerships. Unlike many traditional research projects, CBPAR initiatives are intended to cultivate strong personal relationships and deep understanding. These relationships persist even after a defined research project ends. Relationships may be leveraged for further collaboration.

Other researchers have described key elements in slightly differing ways. Greenwood and colleagues (1993) proposed several key features of participatory action research, namely collaboration, incorporation of local knowledge, eclecticism and diversity, case orientation, emergent process, and a link between scientific understanding and social action. This description echoes many of the principles above, but emphasizes certain elements. Emergent practice refers to the collaborative, iterative nature of CBPAR collaborations, and the continuous aspect of cultivating participation and trust. Local knowledge, as well as eclecticism and diversity, emphasizes the necessity of centering the lived knowledge of community partners, and the importance of carefully navigating differences in power, practice, culture, and socioeconomic inequities between community and professional collaborators.

Defining 'Community Based'

Many research and intervention approaches have some degree of involvement with people with lived experience, as described further below. However, this is often limited to the role of data collection subject or engaging a few individuals on an advisory body (Chávez et al., 2008; Israel et al., 2017). This approach still designates the professional researchers as the ones who decide who the research applies to, and who represents that population or speaks for them. It also gives the professional researchers the power to define the population's health status, risk factors, and living conditions in the academics' terms, often as deficits, with limited ways to understand the resources, capacity, and relationships that communities use to manage health issues (Chávez et al., 2008; Pratt, 2019).

In order to embrace the concept of 'community based' work in a CBPAR initiative, academic research partners must recognize the existing community identity, networks, and systems. While the outside researcher may be able to use data to learn about existing communities, they do not have the power to define the community or its membership. Community identity is ultimately not based on a geography, experience, or characteristic of its members, but rather shared conceptualizations of group traits or indicators, as well as collectively held criteria of belonging (Anderson, 2020). Community members are often defined by their interactions with each other, and this can result in conflicting opinions about who is a member and who can represent interests of the community (Eng et al., 2013; Israel et al., 2017). Variation in duration of time in the community, race and ethnicity, income, educational background, occupation, and many other factors may affect how some potential members are viewed by others in relation to community membership, and may also affect how effectively they can be engaged in the CBPAR initiative (Chávez et al., 2008; Eng et al., 2013; Pratt, 2019; Schensul et al., 2013).

Community based research initiatives collaborate with community members and representatives. In many cases, CBOs may participate in addition to, or as a representative of, individual community members. Only members of the community can assess the legitimacy of a particular CBO to appropriately represent the community's perspectives and best interests, and whether their role in the CBPAR initiative is appropriate. However, there have been numerous CBPAR initiatives in which CBOs played a key role in the community based aspect of the work by playing an intermediary role – using their established relationships with the community to synthesize information about community priorities and strategies, and using their additional capacity and influence to maximize the community role in decision making (Duran et al., 2013).

Defining ‘Participatory’

The level of participation that community partners have in the research is significant. It may be helpful to consider their role using the International Association of Public Participation’s Spectrum of Public Participation [used with permission] (IAP2, 2018). As shown in Figure 2, the Spectrum describes how activities labeled as community participation or engagement may actually vary widely in the role that participants play. In some cases in both research and public process, community members may simply receive information about the research (“inform”), or serve as a source of data (“consult”). These levels of engagement do not provide any say over how the research is conducted or used, and can even be exploitive or extractive of the community’s social resources. The “involve” level provides more direct information exchange, but maintains all of the decision-making power in the hands of the researcher or planner. At the “collaborate” level, decision-making power begins to be shared, although past CBPAR initiatives have shown that there may still be wide variation in the power dynamics within collaboration (Wallerstein et al., 2019). Some researchers also point out that ‘negative’ forms of engagement are also possible, such as providing misleading information in order to silence or manipulate people (Head, 2007).

Finally, there is the level of participation called “empower” by the IAP2, or “power shift” by this researcher, in which decision-making power is largely transferred from the academic researcher or planner to the community researchers. The Merriam-Webster Dictionary describes empowerment as “the granting of the power, right, or authority…”, while the National Library of Medicine terms it as “increasing the power of a low power group so that it is equal to the high power group” and “providing the proper tools, resources, and environment to build, develop, and increase the ability and effectiveness of others to set and reach individual goals” (Haddad & Toney-Butler, 2023; Merriam-Webster, 2023). Both of these definitions imply that power or authority is naturally, correctly held and granted by one group to other groups who are deficient in some way; neither definition suggests that

power-holding group might need to question the reason that they hold power over others and relinquish some of it to correct the power imbalance. The term “power shift” may more accurately convey that power needs to be rebalanced, and that at this level of participation, the researcher or planner is not simply granting a degree of authority, but rather stepping back from having and exercising that authority while also assuring that resources, knowledge, and project structure support the community partners’ use of power.

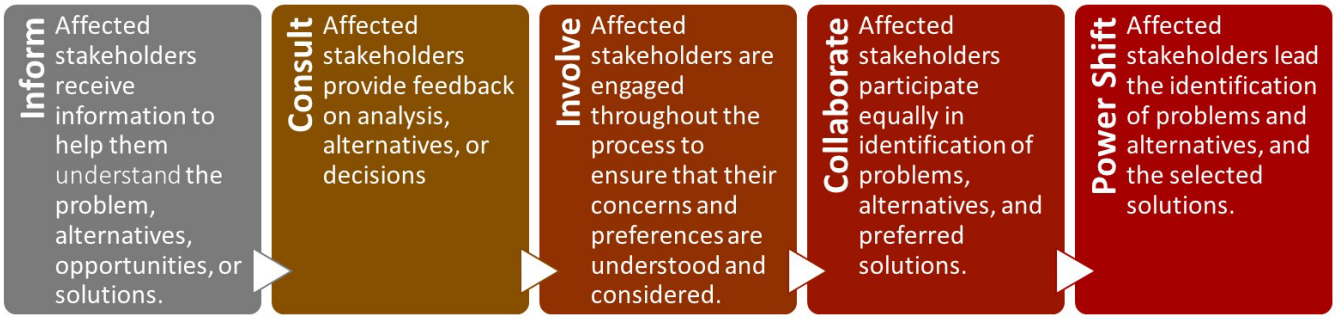

Figure 2: Adapted Spectrum of Participation

The degree of participation achieved in a project can result from the character of the problems and environmental conditions under study, the aims and capacities of the research team, and the skills of the professional researcher. Research that leans toward the more ‘Northern’ collaborative action approach to CBPAR may target the collaboration level of participation, while influence from the more emancipatory, anti-racist ‘Southern’ approach may aim more for power shift (Wallerstein & Duran, 2017). For instance, through a survey of CBPAR partnership participants, including community collaborators, Lindquist-Grantz and Vaughn (2016) found that “genuine and equitable collaboration” was considered to be the strongest factor in successful partnership outcomes. Participatory practices are discussed further below.

Defining 'Action Research'

Balance is at the heart of CBPAR. Balancing the level of participation – ensuring the research direction is driven by community experience, values, and interests, without placing the entire burden of research and intervention development on the very communities that are being negatively impacted by health risk factors. Balancing action with knowledge generation. Balancing accountability – the 'personal responsibility' or lifestyle framework has long placed the burden good health entirely on the individual, in spite of the inequitable distribution of adequate resources or healthy neighborhoods, and of the opportunity to acquire these necessities. In a balanced model, individuals have choices over their daily and long term actions, but policymakers, commercial and nongovernmental entities, and institutions uphold the responsibility of sharing opportunity, resources, and power (Green & Kreuter, 2005).

A fundamental principle of CBPAR is to balance action – intervention, health promotion and protection – with research – production of knowledge (Israel, Eng, et al., 2013; Israel et al., 2017). One result of this is that the way in which the research is carried out is also recognized as having outcomes as well, whether intentionally as part of CBPAR or unintentionally in other research approaches. CBPAR has been proposed as "a social research method and process and as a goal that social research should always strive to achieve" (Greenwood et al., 1993). Additionally, the ethical model of CBPAR which emphasizes a reciprocal research partnership in which community and professional partners benefit equitably justifies an expectation that the participating community will gain capacity for managing and mitigating inequitable living conditions (Cacari-Stone et al., 2014; Cheezum et al., 2013; Freudenberg et al., 2011; Freudenberg & Tsui, 2014). As a result, it is essential for CBPAR initiatives to dedicate an equitable portion of their efforts (including time, resources, and collaborative decision-making) to applying the research findings to changes in policies,, programs, organizations, systems, and environments, as guided by the collaborative process (Cacari-Stone et al., 2014; Cheezum et al., 2013; Freudenberg & Tsui, 2014; Suarez-Balcazar et al., 2020).

The CBPAR for Health Research Cycle

There are many different versions of traditional research cycle, but it generally suggests identifying research topics based on the researcher's interests or area of expertise, or by finding gaps in the published literature. This is followed by developing research questions and a study design, collecting and analyzing data, interpreting the findings, and communicating the findings to other researchers and stakeholders. After contributing to the body of knowledge, the cycle begins again. This model can be found in numerous student research guides and funding proposal guidance (see for instance https://www.colorado.edu/crdds/what-we-do/research-lifecycle).

Community members could be engaged in any and all of these phases, but to add a participatory level of engagement mid-cycle would require additional time to ensure that adequate outreach and communication had occurred with the community, and knowledge exchange to ensure that academic and community partners understood each other. Additionally, the knowledge exchange process might well reveal that the planned research was not appropriate to the interests, research questions, and knowledge gaps of the community partners. It is also important to note that the traditional research cycle does not emphasize intervention, implementation, or applied research. It is assumed that the research results will contribute to implementation, but that component is often excluded from the description of primary research activities (Bradbury & Reason, 2008; Israel, Eng, et al., 2013; Wallerstein & Duran, 2003).

While the CBPAR process will have many similarities to the typical policy, intervention, or research cycle, it should begin with a partnership-building phase at the outset, even before a project plan has been developed – or as the initial phase of project planning. Additionally, it incorporates the selection and implementation of a health promotion strategy or intervention into the research cycle. Israel, Eng, and colleagues(2013) have provided the research cycle model shown in Figure 3 to explain this process.

Maintaining, strengthening, and evaluating the collaborative partnership is ongoing throughout the cycle.

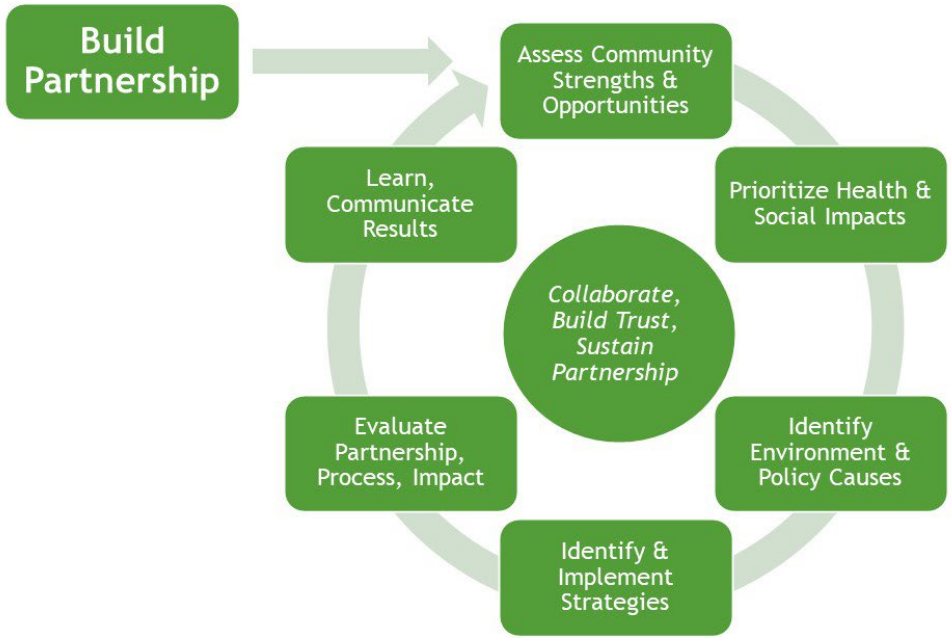

Figure 3: The CBPAR Research Cycle

Adapted from Israel BA, Eng E, Schulz AJ, Parker EA (eds.). (2012). *Methods in Community-Based Participatory Research for Health*, Second Edition. San Francisco, CA: Jossey-Bass and Green, L.W., Gielen, A.C., Ottoson, J.M., Peterson, D. V., & Kreuter, M. W. (2002). *Health Program Planning, Implementation, and Evaluation: Creating Behavioral, Environmental and Policy Change*. Baltimore: Johns Hopkins University Press

Build Partnership. Building and sustaining partnerships is a critical first step of a successful community-academic research collaboration, as noted in Figure X. These partnerships need to be developed before any other research activity begins so that community members can have influence over the research process from start to finish and throughout the research cycle (Israel, Eng, et al., 2013). Since the traditional research cycle does not include the community partnership building phase, it is uncommon to time and effort allotted to this stage in funded research. Research funding may provide a constrained timeline and expects the researcher to have a fully developed research plan before they receive funding. As a result, professional researchers may have to start building partnerships on unfunded time, develop

a separate funding proposal which characterizes the partnering phase as a standalone project, or develop their full funding request using a CBPAR approach (Israel et al., 2006; Minkler, 2005). The partnership formation process can also be complex.

Once partnerships are initiated, every aspect of the CBPAR initiative should be planned and implemented in ways that will sustain those relationships (Wallerstein et al., 2020; Yonas et al., 2013). Key factors in maintaining partnerships include developing the right membership; ensuring that participation and decision-making is equitable through facilitation rules and information; establishing and formalizing group norms; building trust and respect both ways with reciprocity and honesty; setting goals mutually; identifying community concerns and assets; adopt intentional leadership approaches; balancing various types of power and influence within the group; preparing for and embracing conflict; using fair and just decision making processes; and continually evaluating the process (Becker et al., 2013). This phase represents the initial opportunity to adopt strategies and structures for equitable decision making, including antiracism training; transparency around values and principles; appropriate research ethics training for community partners; and establishing bylaws. conflict management procedures, and publishing guidelines for the partnership (Becker et al., 2013; Yonas et al., 2013). Many initiatives use an advisory group of community members and representatives to guide their work. More detailed research on partnership formation and maintenance follows later in this manuscript.

Assess Community Strengths and Opportunities. The assessment phase incorporates various options for identifying community strengths and assets, as well as opportunities and structural barriers. This stage may include further exploration of the community as a unit of identity, as well as variation within the community and perspectives on community belonging and representation (Sullivan et al., 2003). Research partners may use community organizing approaches in order to engage community members in the assessment process. Researchers may interview both community leaders and individuals without a leadership role in the community. They may use a variety of collaborative methods to gain a

comprehensive picture of the community, such as walking or driving tours, discussion sessions, surveys, observations, mapping sessions, and even art projects. These methods focus on community capacity and assets, as well as threats and opportunities. They can use a variety of group decision-making tools to synthesize information, such as prioritization and theming exercises. In these processes, community members are functioning as inside experts on their community, while the professional outside researchers offer perspectives and tools from prior research and external sources of data; assessment activities should provide a way to integrate these two sources of evidence (Corburn et al., 2013; Eng et al., 2013; Minkler & Hancock, 2003). Examples of assessment practices include action-oriented community diagnosis (AOCD) and participatory community assessment (PCA). AOCD uses a constructivist concept of reality, that people create their reality by how they perceive it, which may be well suited to support input from communities with cultural, developmental, or experiential differences (Eng et al., 2013). PCA focuses on how the community is defined, who belongs to it, and leading issues, assets, and opportunities, and utilizes a theoretical ecological and etiological model of community issues (Schensul et al., 2013). Both AOCD and PCA use ethnographic approaches to assessment (Eng et al., 2013; Schensul et al., 2013).

Prioritize Health and Social Impacts. This phase and the following phase identify community priorities, explore their underlying systemic causes, and develop the findings into a research agenda. This process will likely include engagement with a broader segment of the community in order to identify widespread concerns and shared visions. Research partners may conduct surveys, or hold focus groups or town hall sessions to elicit issues and build agreement. Facilitated group or qualitative processes are well suited for generating topic areas, and can involve additional community participants in session design and facilitation. For surveys, a CBPAR initiative may establish committees and subcommittees to develop the survey, as well as pre-testing and community review. Community partners may also be involved in administering surveys (Christopher et al., 2013; Minkler & Hancock, 2003). Regardless of the methods

and instruments used, it is good practice to involve some sort of community oversight structure (e.g. a steering committee) to have oversight over the design and implementation. Community partners may need to attain human subjects research training and certification, and be approved by the applicable Institutional Review Board (IRB) (Baker et al., 2013; Schulz et al., 2013). There are IRB certification programs that are more appropriate for community researchers than ones commonly used by academics (personal communication from advisory group). Many CBPAR initiatives develop some type of training process for community members who are collaborating on the data collection process, which also builds community capacity (Hoffman et al., 2017; Jelks et al., 2018; Rollins et al., 2021; Schulz et al., 2013)

Other factors to consider in this phase are how to provide multiple ways to participate, and address potential barriers such as language transportation and literacy. It may be necessary to balance goals between community and academic researchers, and IRB. Principles of mutuality and reciprocity will be valuable in guiding this process to the extent that they have been made explicit, reconciled, and operationalized (Becker et al., 2013). Professional researchers should be prepared to reconsider the aspects of data collection that they consider elements of validity, and understand that the community must value what you are doing in order to provide valid results. Distrust of the researchers or skepticism of the research objectives can lead to less accurate or incomplete participant responses.

Professional researchers should reflect on their mindsets and beliefs engaging the community in priority setting and data collection. They will need to acknowledge that concepts such as neutrality and objectivity are culturally constructed, and may not supersede other goals in many settings. Professional research partners also need to acknowledge the interpersonal or social aspects of conducting a survey and the cultural implications. They can incorporate language flexibility and respect alternate responses or interpretations by participants, even in surveys. It is also essential to share data back with

participants and the community, and collaborate with them in its interpretation and translation into action. (Bradbury & Reason, 2008; Fadem et al., 2008; Israel et al., 2012).

Identify and Act on Environment, System, and Policy Causes. The research partners also need to address appropriate types and value of incentives, and include the community in determining what constitutes those things. In addition to identifying health and quality of life issues, it is valuable for this phase to explore the underlying social and economic causes of these issues, as well as structural factors, living conditions, and policies (Baker et al., 2013; Bradbury & Reason, 2008).

One approach to the assessment, etiology, and prioritization phases was defined by Green and Kreuter (2005) in their PRECEDE-PROCEED model. This framework specifies five phases which can be conducted with a community in order to arrive at a proposed intervention: 1) social diagnosis (impact on quality of life); 2) epidemiological diagnosis (impact on health); 3) behavioral and environmental diagnosis; 4) educational and organizational diagnosis; and 5) administrative and policy diagnosis. This approach corresponds with community participants' perceptions of the health factors that are having the largest impact on their lives, and uses a collaborative etiological diagnostic process to trace them through levels of individual and organizational factors to identify root causes where potential interventions may have the greatest leverage, and put the least amount of burden on the community. These phases 'precede' intervention and evaluation phases. After the diagnostic phases, practitioners 'proceed' with implementation, and then process, impact, and outcome evaluation. PRECEDE stands for "predisposing, reinforcing and enabling constructs in educational/economic diagnosis and evaluation". PROCEED refers to "policy, regulatory, and organizational constructs in educational and environmental development". The model is depicted in Figure 4. After identifying issues and their etiology as a form of assessment, phases 4-8 correspond with the subsequent phases of the CBPAR research cycle (Green, 2023; Green & Kreuter, 2005).

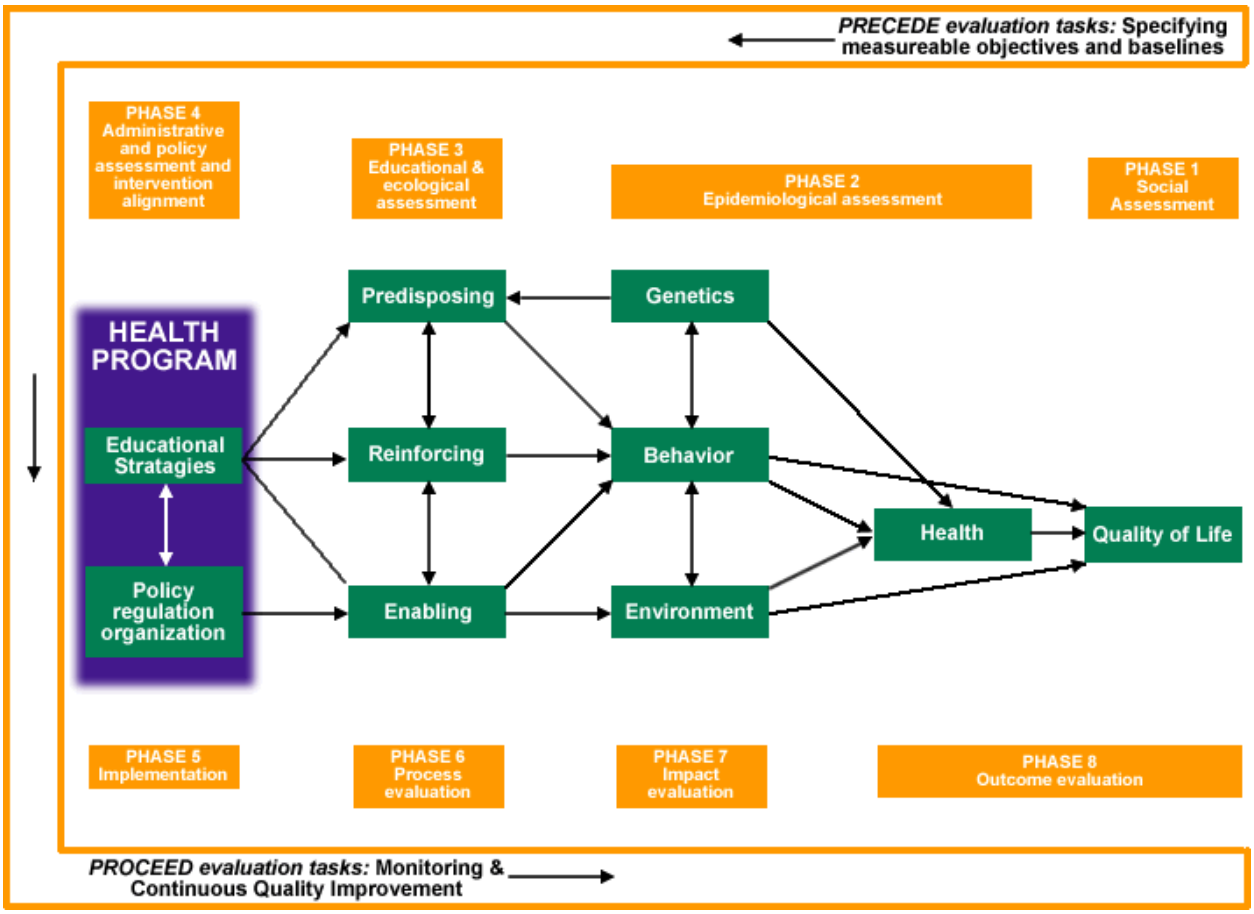

Figure 4: PRECEDE-PROCEED

Source: https://ctb.ku.edu/en/table-contents/overview/other-models-promoting-community-health-and-development/preceder-proceder/main

Identify, Select, and Implement Strategies. In this phase, the partners select and design evidence based action to address the prioritized issue(s), often using an etiological systems approach to target root causes, power dynamics, and policies, and to take advantage of political or social capital and policy change opportunities (Themba & Minkler, 2003). The actual intervention may be any combination of research, program development or implementation, environmental intervention, and policy change or advocacy. As in other phases, an appropriate strategy and implementation approach should prioritize the perspectives, experiences, and preferences of community members and participants. While

professional researchers may be able to bring expertise in terms of evidence-based strategy options, the community collaborators should make decisions regarding the strategy selected, any adaptations, and its implementation approach (Baker et al., 2013; Green & Kreuter, 2005; Israel et al., 2010; Minkler & Hancock, 2003). This phase also encompasses collaborative research design and planning (Israel, Eng, et al., 2013).

Evaluate Partnership, Process, & Impact. A meaningful part of the 'research' aspect of action research is systematically extracting learnings from the work of the CBPAR initiative. In this phase, research partners collect data and interpret results in order to evaluate their work together. A comprehensive evaluation would include process and impact measures to assess the partnership itself, plus process, impact, and outcomes measures as appropriate for any programmatic, educational, or policy interventions conducted as a result of the partnership (Israel, Eng, et al., 2013; Israel, Lantz, et al., 2013). As with every phase, planning and development of the evaluation phase should be made jointly with community partners, incorporating their perspectives on the importance and validity of various types of data collection and measures (Baker et al., 2013; Parker et al., 2020; Schulz et al., 2013). Participatory evaluation, which is typically ongoing and conducted by the people participating in the intervention, is one strategy to ensure that community perspectives are prioritized in the evaluation process (Israel, Lantz, et al., 2013; Springett & Wallerstein, 2003). As data is collected, the partners engage in further collaborative and facilitated decision-making processes to make sense of the results and draw conclusions (Israel, Lantz, et al., 2013).

Share Findings. As highlighted in CBPAR principles, this research approach includes community partners in communicating about work that was conducted with their community. This ensures that they have determination in how their community is portrayed to others, how their roles in the research appear, and how the process and results are described. Community and academic partners may have different views on the challenges and successes of an initiative, even after working closely together, but these

differences can get lost if presentations and publications are created entirely from the academic partners' perspectives. The partners should collaboratively translate findings, develop guidance and recommendations, and share results with stakeholders and other researchers (Parker et al., 2013). However, past partnerships have found that the dissemination phase is perceived by community members to have less direct benefit to the community, and thus they are less likely to participate significantly in this phase (Parker et al., 2013; Yonas et al., 2013). This can reduce the availability of peer-reviewed publications with direct community participation. The results from this phase can feed back into the Community Assessment phase in order to inform future efforts. However, if the partnership was operating on funding for a single research project or cycle, it may be challenging to sustain continuity.

Lessons for Partnerships

Given that each stage of community-based, participatory, action research calls for a collaborative relationship between professional and community research partners, the strength of the partnership, formed in the initial phase of the research cycle, is critical to the success of the overall initiative. A substantial amount of research has been conducted on the factors that contribute to successful partnerships, including the metrics of success according to community and academic partners respectively, and tools for measuring them. These factors have been translated into relatively consistent sense of partnership guidelines, structure, and practices by various leading researchers in the field. These guidelines, factors, and tools are summarized in this section of the literature review.

Duran et al. (2013) set forth a methodology to guide professional researchers engaging in the 'building partnerships' phase of CBPAR, consisting of five strategies. The first strategy is for the institutional researcher to assess their own individual and organizational capacity to engage with the community. They will need to explore their own mindset, expectations, and ability to navigate relationships with complex social and power dynamics. In order to address inequities that contribute to health and social

issues, the professional researcher will need the capacity to practice cultural humility and facilitate emotional safety (Becker et al., 2013). Professional researchers need to develop good emotional intelligence and conversational capacity in order to do this so they can communicate effectively with community partners. Another essential step in individual capacity is assessing one's positionality, a self-reflection on personal identity, experiences and opportunities, internalized beliefs, and power and privilege (Chávez et al., 2008; Ford & Airhihenbuwa, 2010; Hall & Tandon, 2017; Jones, 2002). The institutional researcher should also ensure that they are personally prepared for a collaborative relationship by making an effort to learn about past and present issues in the community which may include racism and other injustices, political or environmental conflicts, economic impacts, and other factors (Becker et al., 2013; Duran et al., 2013). Once a researcher has identified areas where they may have limited experience or internalized oppression, they could address these limitations through personal capacity development such as taking workshops in anti racism, emotional intelligence, reflective listening, and other factors. Additionally, in considering institutional capacity researchers may need to address barriers to holding meetings at community locations, scheduling meetings on weekends or in the evenings, providing food for partners, or engaging and paying community based partners (Becker et al., 2013; Duran et al., 2013).

The second element that Duran and colleagues (2013) suggest is to identify interested partners. Academic researchers who are interested in initiating community partnerships might begin by seeking out the connections that are currently available, but they may find that there is a lack of existing relationships with members of the community with which they wish to work. If a researcher seeking to partner with a community has not previously shared any overlapping interests or activities with that community, they may need to seek out formal and informal opportunities to explore potential partnership interest. These opportunities may present themselves through other research partners or students, through CBOs, or through community based advocates who may be seeking support for their

issue through events or media. However, some community representatives may not be interested in collaborating. Additionally, institutional researchers may find that there have been past harms or mistrust between the institution (or other academic institutions) and the community that discourage partnering. Eng and colleagues (2013) also point out that determining community membership, community representation, and the roles between professional and community research collaborators can be complex, and must be approached with careful attention and collective input.

Strategy three according to Duran and colleages (2013) is to work with the community to identify a common research agenda (see the assessment phase, below), and see where there is overlap with the available academic expertise and capacity. A mutual agenda also needs to account for management of the relationship, including ways to mitigate the imbalanced power that funding may influence over the collaboration. Additionally, the research agenda should consider ways that partners will resolve differences in beliefs regarding the validity of evidence, data, lived experience, and other research inputs (Wallerstein et al., 2019). Strategy four is engagement and co learning amongst all of the partners, including capacity building as identified for both community and academic partners. Strategy five is developing meaningful partnerships. This can include developing a shared infrastructure such as bylaws and values. It may also involve community organizing activities, as well as more personal relationship-building, such as participating in community activities and events. Infrastructure, budgets, and agreements should follow CBPAR principles in their creation and implementation (Duran et al., 2013).

Once partnerships are formed, sustaining them is also important. A multi-site analysis of the three CDC-funded urban research centers (URCs) found commonalities in their implementation, and identified performance factors that supported their sustainability after federal funding ended. Three components – relationships and partners; knowledge, capacity, and mindsets; and funding, staff, programs, and policies – were all deemed necessary to sustaining an effective CBPAR center. Each URC formed an

advisory board including community representatives; served as a backbone for various projects and policy efforts; and engaged in strategic planning. While the URCs faced typical challenges such as resource limitations and challenges in adapting traditional project funding to CBPAR, they found many strengths through their approach based in core CBPAR principles and practices (Israel et al., 2006). Despite the importance of partnership to the success of the collaborative research overall, this appears to be one of the less well studied or understood aspects of CBPAR (Wallerstein et al., 2020).

Oetzel and colleagues (2018) have helped define a model in which the context of the CBPAR effort, partnership dynamics and practices, and engagement around the intervention and research process all have important contributing roles in achieving outcomes. The authors state, “Conceptually, this model embeds health outcomes in local conditions and histories and in broader sociopolitical systems, which shape relationships between partners, and place [CBPAR] strategies within social justice goals” (Oetzel et al., 2018, p. 2). In their model, they defined three aspects of partnership dynamics – partnership structures, relationships, and community engagement in research. Partnership structures was defined by three constructs - partner values, principles of CPBR/partner focus, and bridging social capital. Relationships were defined by the constructs of leadership, resource management, participatory decision-making, trust and respect, participation, and alignment. Finally, community engagement in research comprised background research, data collection, and analysis and dissemination. This research also defined key elements of context, including capacity, governance/approval, percentage of resources shared with the community, and shared control of resources. They also measured process, impact, and outcome effectiveness. Each category or construct had detailed measures associated with it. Increased share of resources to the community increased community involvement in the research. Greater capacity of institutional researchers to engage community collaborators, and greater adherence to CBPAR principles, had large impacts on increasing trust, participatory practices, and aligned goals and strategies. These elements and others were associated with more positive perceived outcomes.

As of 2020, Brush and colleagues concluded that there was not broad agreement on the success factors in an academic-community partnership. Through their systemic scoping review of relevant literature, they identified key factors in sustained community-academic partnerships. They found that sustaining partnerships may require as much effort as initiating them, based on the investment required to maintain relationships, adapt to changes in funding and context, and continue engagement over the long term. Interim successes appear to be important to sustaining engagement while working to change complex and persistent issues. There may be an iterative relationship between partnerships and outcomes, with success in each area driving success in the other. Partnerships often relied more on informal and qualitative indicators to determine whether their partnership was successful, rather than formal evaluation. This suggests that partnership members may be informally evaluating the partnership in an ongoing manner, and using their experiences and conclusions to determine whether to continue participating. The partners within successful long term partnerships represented diverse perspectives, mission-aligned objectives, and independence or leadership roles within their own organization (if any).

Community members tended to have previous partnering experience. They engaged willingly in power-sharing and responsibility. Successful partnerships had cultivated trust, respect, and openness among partners, and had effective conflict resolution procedures in place. They had established partnering infrastructure that sustained strong shared leadership, clear guidelines for communication and other activities, fair resource allocation, capacity building, and adaptability. Finally, they demonstrated beneficial impacts and outcomes, ranging from knowledge exchange and clear community gains, to longer term policy and system change (Brush et al., 2020). Effective methods for two-way communication was essential for supporting relationships and keeping the partnership attuned to current issues. Staff and funding were also important over the long term. These findings also suggest that long term engagement requires partnerships to maintain an ongoing and relevant portfolio of collaborative work.

Jagosh and colleagues (2015) found that long term partnership was important for achieving greater impacts on community health issues, including collaborative effort, generation of additional projects, and systemic change. They found that power sharing, trust, and shared governance were essential to achieving project goals and addressing challenging health barriers. They explored the theory that CBPAR partnerships base their success on contextual factors, and used realist evaluation to test this theory, an evaluation approach that distinguishes contexts and mechanisms in assessing the effect on outcomes. They proposed that trust can be treated like a resource or asset which may be available to the partnership (context) or may need to be developed (mechanism), as well as an outcome of the work, and which is necessary to the success of the partnership. Their analysis suggested that each activity of a partnership should be considered in terms of its likelihood to generate, sustain, or reduce trust.

Moore de Peralta and colleagues (2020) helped refine the definition of trust and the factors that affect its strength. They describe three dimensions of trust as a belief, decision, or action. Similar to Jagosh and colleagues (2015), this emphasizes the various points where trust can be measured and influenced: trust as a belief may be present to a greater or lesser degree at the beginning of a partnership, and can fluctuate over the course of partnership. Additionally, both academic and community partners may choose to extend a certain amount of trust, or vulnerability, to the other members of the partnership in order to see how it will be used and whether they feel safe to invest further levels of trust. The subsequent actions of the other partners then determines whether trust as a belief, decision, and action increases or decreases. Trust constructs frequently emphasize fragility of trust; for academic partners seeking to earn the trust of community partners, that calls for careful consideration of how each action they take may influence trust (Moore de Peralta et al., 2020).

Moore de Peralta and colleagues (2020) further developed a framework that highlights those influential actions. Among factors that are less under the control of the partners, they list individual propensity to trust, historic relations between the partners, and societal context. However, they also identify many

factors that may be influenced by the actions of the partners and the design of the partnership. Individual behaviors within the context of the partnership may demonstrate that person's tendency to share power, listen, cooperate, and be accountable to others. Additionally, the partnership can be structured to build trust by sharing decision-making, ceding or sharing power where it is imbalanced, aligning values, adhering to principles of cooperation and mutual benefit, and maintaining relationships over the long term. These interpersonal and organizational behaviors can further be operationalized (or impeded) through partnering practices that support community capacity to participate, sustain collaboration, uphold CBPAR principles, and establish effective formal infrastructure and appropriate membership. Lastly, alignment around an issue with significance to all partners increases the inclination to trust. They discussed key strategies, such as considering positionality on the project in determining which behaviors should be limited or expanded, including racial and ethnic backgrounds of academic and community researchers, and level of compensation for their role (Moore de Peralta et al., 2020).

Lucero and colleagues (2020) expanded on the concept of trust in CBPAR partnerships, creating a scale with six levels of trust between community and institutional partners. Derived from survey of 138 CBPAR initiatives and input from community participants, this scale extends from negative levels of trust through partial trusting to a robust and holistic level. This analysis defined six ordinal trust typologies:

1. Trust deficit or suspicion – there is initial mistrust, or has been loss or damage to trust among partnership members
2. Neutral – there is neither trust nor mistrust, and level of trust may develop in either direction
3. Role-based – trust is transactional and only given to the minimum extent needed to carry out their role in the partnership
4. Functional – trust is extended to the shared purpose of the partnership but still with reserve
5. Proxy – a greater level of trust is provided to partners due to support from another trusted partner

6. Reflective – trust is relatively unconditional; it could still be lost, but damage may be corrected through communication and resolution

This research identified five factors that partners use to determine their level of trust. Synergy is the perception that participation in the partnership will contribute to community benefits to a greater degree than could be achieved alone. Commitment to CBPAR principles reflects the extent to which these principles are operationalized and practiced. Participation reflects the extent to which partners feel included and engaged in collaborative, equitable processes. Influence is the extent to which they feel like their participation affects the activities and processes of the partnership. Finally, the perception of trust itself (Lucero et al., 2020).

Sandoval and colleagues (2012) conducted a literature review and media scan to determine key characteristics of the partnership process, ultimately identifying 46 instruments with 224 partnership process measures. This process elicited measures for many, although not all, of the elements shown in Figure 1. These measures have been incorporated into the Engage for Equity framework.

Given the potential of CBPAR to mitigate structural inequities within intervention and research efforts, within the larger societal systems of oppression, partnership structure and practices must intentionally identify and manage power dynamics within the partnership. Institutional or professional researchers typically come in to a community-academic partership with power advantages relative to the community partners (Chávez et al., 2008). This often includes more extensive educational attainment, a prestitious occupation and organizational affiliation, higher income with greater flexibility and benefits, and control over the funding which supports their involvment in the initiative; they are more likely to come from socio-economic backgrounds that provided them greater opportunity to achieve an advanced education. Additionally there may be power imbalances within various institutional partners (for instance, tenured faculty or principal investigator, versus junior researchers and students), and

within community partners (for instance, CBO representatives and individuals in community leadership positions, individuals with higher education or income, and individuals from more included racial and ethnic backgrounds, versus individuals who lack resources and influence, or have identities that experience oppression based on race or color, gender, ethnicity, language, religion, physical or cognitive ability, sexual orientation, country of origin, educational attainment, and many other factors) (Braveman & Gruskin, 2003; Ford & Airhihenbuwa, 2010; Hall & Tandon, 2017; Kendi, 2016). As a result, the institutional researchers' personal and professional idenities are significant to their research partnerships. Additionally, they must develop certain skills to select an appropriate research team and to manage the power dynamics within the partnership (Muhammad et al., 2015).

Muhammad and colleagues (2015) draw from previous scholarship to hypothesize four areas in which power dynamics play a role: the positionality among insitutional researchers and community partners; the decision-making within the research process and structure; the communication of the initiative and its findings to others; and the creation of generalizable knowledge from the intiative. This study highlighted the importance of reflective inquiry to mitigate the effect of power dynamics in these spheres. It used auto-ethnograpy as a tool to identify the effects of power dynamics and the strategies for working with them, while also demonstrating the practice of critical self-reflection as a form of research. However, it also highlights the importance of systematically seeking and incorporating feedback from others within the power dynamic. It found several key elements which can change the power dynamic for better equity and collaboration: accountability (whether through intersectional identity or creation through relationship-building); centering the social norms of the community in the research partnership; prioritization of integrity; codeswitching; flexibility to accommodate community preferences and expectations; observation and self-reflection during partnership activities (and communication of these observations); and intentional production of research team dynamics which foster the open sharing and honoring of reflective discoveries even when they potentially induce conflict

or discomfort. Researchers should reflect deeply on whether their highest priority in the initiative is progress toward social justice, or whether they place greater value on outcomes such as publication, funding, and career growth. They should also note the extent to which they incorporate democratic practices within their insitutional research team such as shared leadership. Finally, it is particularly important to express positionality in disseminating research results, rather than simply presenting community voices or perspectives, especially for academic publications in which community members have little incentive to participate. These practices can be incubated within the institution and sustained in relationship with community partners (Muhammad et al., 2015).

Challenges to Practice and Adoption

Despite the arguments for CBPAR approaches to address persistent health inequities, there is still a considerable amount of research activity that does not use this approach, and professional researchers have expressed concerns or barriers. There is a growing body of knowledge about outcomes from CBPR projects, including changes in policy, environment, health outcomes, power exchange and networks. However, the field is still developing clear evidence of the key components and mechanisms that contribute to desired outcomes as a result of a CBPAR project. There are ongoing efforts to translate research on these methods into tools and practices (Wallerstein et al., 2020).

From the institutional side, researchers may be reluctant to utilize CBPAR methodologies due to concerns about impacts on their research funding and results. Academic researchers have expressed fears that research influenced by individuals without similar formal training and experience may be less scientifically rigorous (Wallerstein & Duran, 2010). Academic researchers also express concerns that partnering with communities will affect their research timeline. CBPAR practitioners have argued that these concerns are unfounded or able to be mitigated. One goal of CBPAR is to ensure research rigor and validity while seeking to “broaden the bandwidth of validity” with respect to research relevance

(Fleming et al., 2023). Some professional researchers raise skepticism about the validity of the approaches, and are hesitant to deviate from their traditional scientific methods that lack the scrutiny and perspective of those on whom their research focuses (English et al., 2018). According to Wallerstein and Duran (2010), CBPAR can help overcome drawbacks of traditional, non-engaged research approaches in significant ways. It can increase external validity by incorporating community experiences, culture, and knowledge, thereby enhancing benefits to the public and addressing potential harms. CBPAR can address common intervention issues such as participation, adherence, and sustainability. Additionally, it is associated with improved health outcomes, especially for communities of color and other marginalized populations (Rodriguez Espinosa & Verney, 2021).

Public health professionals are provided with ethics training in which autonomy, equity, justice, benefit to society, and avoiding harm are upheld as their highest duties in research. However, for the reasons noted above, standard interventions and research approaches do not achieve these goals. It restores procedural justice and equity to the research process, and enhances mutual understanding between professional researchers and communities, allowing populations to engage with research from a more informed position. It also helps to bridge gaps between the community and institutional researchers, increasing the likelihood that research will produce results that communities want to and are able to sustain (Wallerstein & Duran, 2010). Universities are increasingly valuing community engaged research for good relations and service learning, but skepticism of universities as major landholders, spatially, culturally, and politically disconnected or even averse to community interests can prevent partnership formation. improperly conducted partnerships or community based research may reinforce faculty and student biases and endorsement of systems of oppression. Engaging students in CBPAR work presents an additional challenge, as they typically have much less time to build personal relationships (ranging from a single class to the duration of their degree) (Allahwala et al., 2013).

Academic researchers may need to broaden their skills to increase capacity for active listening and conversational capacity, empathy, group facilitation, organizing, and more (Stoecker, 2003). Cultural humility is another critical skill (Ford & Airhihenbuwa, 2010; Sullivan et al., 2003). Research funding cycles may impair the development of meaningful community-academic research partnerships. Many funding opportunities want partnerships to be established prior to applying for the funding, but the effort of building relationships with the community can involve considerable time and effort which is difficult to maintain without funding. Additionally, relationships do not end when the funding does. Studies have found that community partners are least likely to be involved in the proposal development and fiscal management phases of research (Salimi et al., 2012b). Given the apparent importance of shared resources and decisionmaking, initiatives that seek to increase collaboration and community involvement in research might explore ways to engage community partners in these phases of research as well.

Atlanta Research

A number of research projects have been conducted in the greater Atlanta metropolitan area that utilized CBPAR approaches. Some of these have been identified through published literature searches, while others are known to the dissertation researcher through personal communication, media, and other informal channels but do not have any peer-reviewed publications that share their process or results. To the extent that information is available about Atlanta-area CBPAR efforts, it is summarized below.

Accountable Communities: Healthy Together (ACHT) was led by the Institute of Public Health (now the School of Public Health (SPH)) at Georgia State University (GSU), with funding from the National Institute of Minority Health and Health Disparities (NIMHD). ACHT used a CBPAR approach to address health factors prioritized by residents of NPU-V in Atlanta. It used an advisory board that included

representatives from CBOs and HEIs with extensive history in the area. ACHT also engaged community health workers (CHWs), and a larger group of CBOs to identify health priorities and potential strategies. It included a focus on social capital, including bonding capital (within the community) and bridging capital (between CBOs, other organizations, and external parties). In the course of the project, participating non-profit organizations indicated that they did not have strong relationships with each other or the community. By restructuring project meetings to bring residents and local organizations together, ACHT sought to increase bridging social capital. The initiative also combined meeting facilitation and technology to elicit priority health issues for hundreds of participants. A PhotoVoice process, led by CHWs, helped identify environmental and policy causes for these concerns. Overall, the community identified mental distress as being their most significant health issue, which led to many other health problems. Through further collaborative sessions, several interventions were selected to address these underlying causes and their health impacts, ranging from education and advocacy about environmental hazards such as vacant housing, to collaboration with a local health center to improve access to services. Interviews were conducted with the CHWs and participating CBOs more than a year after the ACHT funding ended, to assess its long term impact. They found that several initiatives had been sustained after the funding ended. Increased awareness of mental health needs had led to some changes in local health service providers. The city had made policy changes in vacant property management and redevelopment planning, and some nonprofits were working more closely with the city and neighborhoods. Additionally, CHW training had built capacity and social capital, leading to new employment opportunities for several individuals. However, they also noted that their added capacity seemed to add burdens to their responsibilities as well, as community members continued to see them as health resources; they stated that academic partners should ensure that resources continue to be available to support these efforts rather than leaving the burden on communities experiencing inequities (Kreuter et al., 2012).

Jelks and colleagues (2018) conducted a community participatory mapping research project to increase understanding of the health impacts of environmental hazards and their correlation with socioeconomic inequities, as well as generate research, communication, and advocacy tools for community collaborators. The research was part of a larger study collaboratively planned and led by residents of the Proctor Creek Watershed in west Atlanta. Community research partners were recruited and engaged in an extended collaborative decision-making process to select data sources and indicators that were not available in existing datasets, but significant to community wellbeing. The community researchers further participated in planning of a mobile application (app) for capturing environmental hazard data, which was then developed by student researchers from Georgia State University's geosciences department. Teams of community and student researchers piloted the app by collecting geocoded data, and contributed to its analysis. The project resulted in maps communicating the areas where infrastructure and environmental quality issues were most prevalent, along with photographs of hazards, providing a valuable tool for addressing community hazards with policy-makers. The app continued to be available to community members to continue tracking and reporting hazards. Community researchers were compensated for their time and expertise.

Emory University researchers partnered with ECO-Action and the US Environmental Protection Agency to conduct citizen-science research in west Atlanta neighborhoods in the Proctor Creek basin that experienced frequent flooding and socioeconomic inequities. The research was initiated as a result of community member concerns about flooding-related health hazards, which were raised to academic researchers and public agencies. Data collection teams consisting of a graduate student and a community member were established and trained, including human subjects research certification. They conducted surveys and home inspections of a randomly selected sample of homes in the study area. Mold, water leaks, and pest issues were detected in at least a third of homes sampled; 12% had

experienced flooding. The study did not find a correlation between asthma cases and environmental hazards, but did document the elevated rates of both in these communities (Eiffert et al., 2016).

The Morehouse School of Medicine (MSM), in southwest Atlanta, utilizes a Community Coalition Board (CCB) to provide leadership to its Prevention Research Center (PRC) activities, including a community health needs assessment (CHNA) for its health service areas. The majority of the seats on the CCB are held by community residents and leaders (16 positions), with an additional 3 seats for academic partners and 4 seats for health or social service providers. It is structured to hold a decision-making role in the PRC's research agenda, activities, and communications. Akintobi and colleagues (2018) reported on the involvement of the CCB in planning and conducting their 2012-2013 CHNA, which would help them understand community health needs and priorities, and develop intervention strategies, evaluation plans, and a research agenda. CCB members collaborated on survey development and administration, and received compensation for their time. As a result of the CHNA, applied research initiatives were developed that addressed the priority health concerns of the communities in the service area.

The MSM PRC collaborated with the GSU SPH to develop a study and intervention to increase the availability of healthy food options at retail locations in Atlanta communities with limited healthy food access. With funding from the CDC, they developed the Healthy Corner Store Initiative (HCSI), which leveraged the CCB (described above) and engaged community leaders in the project design and implementation, as well as hiring community health workers (CHWs) from the included neighborhoods. Community participants contributed to a spatial analysis of local food retailers, and the CHWs conducted a healthy food assessment of each store. Eleven stores were enrolled in the project, and agreed to increase healthy food selections, add promotional materials, and make other evidence-informed changes to store operations. The research team provided training, technical assistance, and marketing, and conducted customer surveys with Black shoppers. The project provided data that showed that community residents were interested in purchasing healthier foods at those retail locations, and also

identified factors such as quality, cost, and customer relations that influenced purchasing practices (Rollins et al., 2021).

The Minority Men's Oral Health Dental Access Program (MOHDAP) was a CBPAR pilot initiative focusing on dental health education with African American men in southwest Atlanta. The initiative was led by a CBO, with the academic institution functioning as the secondary partner. It utilized an advisory board consisting of residents, social service agencies, and academic researchers, with residents composing the majority of the seats. The advisory group collaborated on decisions in the planning, implementation, and evaluation phases of the initiative. MOHDAP used an ambassador model, in which community participants received training in outreach, dental health education, and advocacy. Participants received modest compensation and free dental care. They demonstrated changes in knowledge and beliefs associated with better oral health behaviors (Hoffman et al., 2017).

MSM partnered with the Center for Black Women's Wellness (CBWW) and Atlanta's Healthy Start Initiative Community Action Network (CAN) to study maternal mental health for Black women. The CAN partners collaborated on survey development for pregnant or perinatal women, and an interview guide for Black perinatal women. The study helped identify mental health needs as well as experiences with mental health screening and services, although it did not have a defined intervention or action component (Hernandez et al., 2022).

Academic and community researchers with the HERCULES Exposome Research Center in Atlanta sought a better approach for incorporating social determinants of health and lived experience into the exposome environmental exposure model. This project was developed with collaboration from a Stakeholder Advisory Board. The research team engaged community members from four different communities within the Atlanta metropolitan area in 2-day workshops to conduct concept mapping on community perceptions of environmental health factors. Workshop participants engaged in a six step

issue identification and prioritization process, which included brainstorming, theming, mapping and clustering, and action planning (Lebow-Skelley et al., 2022).

Research led by the GSU SPH, in coordination with the DeKalb County Board of Health and the Atlanta Lesbian Health Initiative, sought to address elevated smoking rates in the LGBT community. They assembled a racially diverse team of LGBT-identified professional researchers and convened a community advisory board with members recruited from LGBT-focused community organizations. The project conducted four focus groups with LGBT-identified smokers, non-smokers, and former smokers on tobacco cessation strategies (Bryant et al., 2014)

Other studies of note include a participatory invasive plan mapping project conducted by the GSU Geosciences department with Trees Atlanta and the West Atlanta Watershed Alliance (Hawthorne et al., 2015), and an initiative by the Rollins School of Public Health at Emory University which established a two-year Atlanta Youth Research Coalition with a youth advisory board in order to investigate adolescent health care and health disparities (Sales et al., 2019).

Chapter 3. Methods

Collaboration with Greater Atlanta Community Science Collaboratory

This research was conceived and developed through coordination with the Collaboratory, described above. Initially, the dissertation researcher contacted a member of the Collaboratory leadership team, Dr. Rebecca Watts Hull, to explore the possibility of collaboration. After consulting with the rest of the leadership team, Dr. Watts Hull agreed to participate on the DrPH Dissertation Committee (DDC) and invited the dissertation researcher to present the proposed research at an upcoming Collaboratory member meeting. The dissertation researcher drew up a draft memorandum of understanding (MOU) between themselves and the Collaboratory. At the first Collaboratory meeting in 2023, held in January, the dissertation researcher was given some time on the agenda to present their proposed research, address questions and concerns, and solicit interest in a Dissertation Advisory Group (DAG). They described their background, DrPH program of study, dissertation committee, and advisor. They then gave a brief overview of their approach and research objectives, and intention to align their research goals in order to inform the Collaboratory. Finally, they gave an overview of the anticipated timeline and process, shared a link to the draft MOU, and stated the request for a few members to participate in an advisory group. The dissertation researcher received some feedback regarding the process, and heard from members who wanted to be involved in the advisory group. Feedback was positive, and primarily revolved around the type of results that members thought would benefit the Collaboratory. Four members ultimately began participating in the DAG, including two CBO representatives and two HEI representatives.

The first DAG meeting was held in February 2023, at which they reviewed the MOU and workplan, and established a meeting schedule. They continued to meet monthly throughout 2023, although attendance varied based on availability of the participants. During this time, they reviewed the research

plan, draft interview questions, and proposed methods, and discussed some of the key literature findings. Participants made recommendations regarding more targeted approaches to identify community participants, and requested that the dissertation researcher include a greater focus on defining the concept of success in a community-academic research partnerships. They were interested to learn more about past CBPAR efforts in metropolitan Atlanta. Additionally, the DAG provided more insight into the types of research questions that could best be applied to the Collaboratory's development. The DAG participants provided feedback on academic rigor, including the theoretical framework, sampling and recruitment approach, and more.

In reviewing the CBPAR framework (as shown in Figure 1), a DAG participant pointed out the significance of policy as a short or long term impact. They noted that policy is very important in the partnership process, because it can play a large role to enable or prevent them from reaching their goals. Policies at HEIs, cities, and community level or local level policy can all play a role in whether their work and the partnership is successful. They stated that to address this, it is important to identify the root problem or cause which is contributing to the visible symptoms, which matches the etiological approaches in CBPAR, where environmental and policy causes are identified. They felt that community partners understand how these root causes affect them, and wanted to know how all the partners can improve their understanding of the role of policy. CBO partners on the DAG, and the CBO Coordinator, were interested in participating in the proposed dissertation research interviews, and the group discussed challenges and strategies for including these partners on the IRB protocol. The MOU was formally executed on August 22, 2023. The dissertation researcher provided the DAG with drafts of the literature review and research methods as they were developed, and coordinated around utilizing student researchers.

During the spring of 2023, the Collaboratory hired a part-time CBO Coordinator. This position was staffed by a former executive director of one of the founding CBOs. The CBO Coordinator also joined the

DAG and coordinated with the dissertation researcher to align their efforts. A primary task of the CBO Coordinator was to meet with all of the participating CBOs in order to assess their capacity, needs and assets, engagement level, goals, and barriers and facilitators to participation. The dissertation researcher provided samples of relevant survey instruments, shared resources to build CBO understanding of the research cycle, and gave evidence-informed feedback on the questions the CBO Coordinator used to interview the CBO members. This process identified some existing issues regarding trust, research capacity, and operational capacity.

The dissertation researcher participated in monthly Collaboratory meetings, excluding occasional scheduling conflicts. Certain discussion items had bearing on the dissertation research. In one meeting, participants discussed their goals and guiding principles, which prioritize inclusion of CBOs to represent community voices, but did not specifically reference engaging communities directly. The goals also did not explicitly prioritize co-learning or capacity building, but did generally address most of the other CBPAR principles. There were not any goals around the distribution of benefits to the communities and CBOs relative to the HEIs. Questions also arose around how to explain the Collaboratory to the community, how to include social justice as a goal, and how to evaluate co-learning. The partnership began exploring capacity development opportunities for the CBOs, and assessing academic partner capacity for participatory, anti-racist work. This information was being used to inform planning efforts in 2024.

Study Design

As detailed above, this research proposed to summarize core CBPAR principles, with an emphasis on guiding principles and promising practices that support effective and participatory community-academic research partnerships. The findings from this research were expected to benefit the Collaboratory as well as provide generalizable guidance for similar partnerships.

Approach

The study design consisted of semi-structured interviews to be conducted with the Collaboratory CBO representatives, as well as other CBOs and community members who have previously participated in CBPAR projects in metropolitan Atlanta. Potential participants were identified through Collaboratory members and the available literature. A semi-structured interview guide was used for all of the interviews. As a semi-structured interview format, the researcher was able to probe for additional information based on responses to the base set of questions (Kallio et al., 2016). Interview questions pertained to key CBPAR factors including community perspectives on research, trust experiences and factors, engagement capacity, perspectives on representation and identity, priorities, and communications preferences. The final version of the interview questions was selected in consultation with the DAG. The interview script is provided in Appendix B.

The researcher submitted a proposal to GSU's 2024 Dissertation Grant call for proposals. The grant allowed each interviewee to receive $90 for participating, to compensate them for their time and expertise. This level of compensation was selected based on the specialized knowledge held by participants, as well as CBPAR principles which assign equal value to professional and community expertise. Participant compensation around this level has been intentionally selected in other CBPAR projects (for instance Black and colleagues (2013)), and supported by the dissertation researcher's prior engagement with similar stakeholders (for instance, Keitra Bates, personal communication, 12/04/2020). The grant was awarded on December 14, 2023.

Human Subjects Protections and Protocol

All materials and procedures were submitted to GSU's Institutional Review Board (IRB) prior to initiating data collection, including recruitment language and strategies, the interview guide, informed consent forms and procedures, compensation, and confidentiality protections. Any member of the study team

who would attend the interviews or have access to data was required to obtain an accepted form of human subjects research certification, and to be added to the IRB protocol. The researcher sought an Expedited IRB review, but was granted Exempt due to the minimal risk posed by the procedures.

The IRB application specified sampling and recruitment methods. The target sample size was a minimum of 12 and a maximum of 22 interviews. This developmental qualitative research used variation sampling to prioritize breadth of opinions, experiences, and perspectives over frequency and repetition (Miles et al., 2014). The number of interviews was expected to be sufficient relative to the number of CBPAR style projects and partnerships conducted in the Atlanta region, as well as the unique nature of communities and CBPAR relationships (Israel, Eng, et al., 2013). A network sampling approach was designed to identify potential participants. The researcher planned to identify potential participants directly through participation in the Collaboratory or one of the Atlanta-based projects reviewed in this manuscript. Those participants were invited to recommend other potential interviewees, providing a snowball approach. Additionally, the academic researchers involved in the Collaboratory or the cited research projects may refer the dissertation researcher to their community or CBO partners, or to other academic partners who may have eligible referrals (Heckathorn & Cameron, 2017). Given the emphasis on variation sampling, the dissertation researcher prioritized recruitment from many different research projects and communities, without need to manage statistical interference from this sampling approach.

The application also described interview procedures. Since, the GSU IRB determined this research to be Exempt, participants were not required to sign consent forms. Nonetheless, the consent form was used to adequately provide participants with information about the study, the use of recording for note-taking purposes, and described confidentiality practices. Each interview was designed to begin with a brief overview of the research purpose, including a brief description of the Collaboratory to provide context. The researcher affirmed informed consent, verified the participant's identity and role in the organization or community, and then used a prepared set of questions to guide the interview.

Protections were specified regarding storage of all raw or identifiable data to be secured in an electronic folder with secure password protection. Appendix C provides a copy of the consent form, and Appendix D contains a copy of the IRB outcome letter with the approval information. IRB approval was granted on January 3, 2024. Inclusion of the community research team members required multiple additional forms of documentation and approval steps, and was finally granted on February 1, 2024. A volunteer graduate student assistant was added to the research team to support data collection, analysis, and dissemination.

Sampling and recruitment

The dissertation researcher notified collaborating academics that they were recruiting community representatives from community academic partnerships, and provided an online referral form, as well as accepting referrals by email or personal communication. Five referral forms were completed, including two referrals submitted by academic researchers for one of their community collaborators, and three self-referrals by community partners. The dissertation researcher sent recruitment emails to each referral. Other potential participants were identified through personal communications from fellow researchers, community members, other participants, and prior or current working or community relationships with the dissertation researcher. In total, 25 individuals were invited to participate. Six were identified through participation in the Collaboratory, ten were existing contacts, five were through the referral form, and four were recommended by other participants. The researcher contacted 23 people by email, and two through social media messages. One invitee scheduled an interview but was unable to complete it, and several expressed interest but did not schedule an interview. Upon receiving the participant's confirmation of willingness to participate, the researcher planned to coordinate with them to arrange a date, time, format, and location or link. Participants primarily used a booking page to select their interview time, although several were negotiated directly between the researcher and

participant. Interviews were scheduled in January-March 2024. Ultimately, 15 interviews were conducted, for a participation rate of 60%.

Interviews

Interviews were planned to take place in person or virtually (i.e. Zoom) depending on the participant's preference and availability. If a potential participant agreed to be interviewed, informed consent was sought prior to conducting the interview as described above. The researcher was prepared to record the interview, using an audio recording device for in person interviews, or the record feature for virtual interviews. Recordings were only used to ensure accuracy of notes. Selected members of the study team – specifically, the student assistant and the community research reviewers – were able to attend the interviews, virtually or in person, for the purposes of observation and note-taking. See the study team description for more detail on these roles. The student assistant attended the majority of the interviews. IRB approval of the community research reviewers was granted after many interviews had already been conducted, and they did not synchronously attend any of the interviews, but were provided access to the transcripts after cleaning.

Only one interview was conducted in person; the rest were on the Zoom Video Communications, Inc. (Zoom) virtual meeting platform. An audio recording application was used to record the in-person interview, while Zoom recording tools were used to capture the virtual interviews. Automated transcriptions were produced by the recording tool, which were then reviewed and edited by the MPH student with assistance and guidance from the dissertation researcher. Upon completion of the research, all copies of the recordings have been deleted. Recordings were occasionally paused, either due to unexpected interruptions, or in a few cases to convey information with additional confidentiality. Information excluded from the recordings was not utilized in the research. Upon completing the interview, participants were offered the $90 incentive and had the option of receiving it in several ways.

Nine selected CashApp, three selected digital prepaid credit card, two selected Zelle, and one opted to have a prepaid credit card physically mailed to them. The transcripts were imported into QSR International NVivo 14. During coding, some additional discrepancies in the transcripts were noted and corrected by the researcher, using the recordings for accuracy.

Analytical Approach

The dissertation researcher proposed using a case study approach to analysis, in which the goal is not saturation of thematic content, but rather an exposition of multiple experiences and perspectives, with overlap from the most common partnership issues (Berry et al., 2013; Miles et al., 2014). Analysis was designed to employ a two-cycle qualitative analysis, with a first cycle of grounded theory thematic coding, and a second cycle of pattern coding (Miles et al., 2014). The thematic coding was guided by the literature review of CBPAR principles and practices, and partnership approaches between academic and community partners. While qualitative analytical approaches must be partially guided by the incoming data, the researcher anticipated utilizing a Content Analytic Summary Table to explore manifestations of themes detected across multiple interviews or prioritized in the literature. This guided the development of vignettes to describe partnership enabling or inhibiting factors. Vignettes are narrative-style descriptions of emblematic events, which can help to translate theory into clear examples for more effective application (Miles et al., 2014). They are generalized in order to protect the identity of the individual(s) providing the example.

The purpose of the data collection and analysis was to guide the adaptation of general CBPAR partnership practices to the specific communities and CBOs served by the Collaboratory initiative, and to provide guidance for partnership practices among the academic and community-based partners of the Collaboratory initiative. The dissertation researcher anticipated that interviewees would provide data about specific research approaches, project designs, activities, behaviors, and occurrences which have

increased or decreased partnership capacity and trust among community and academic research collaborators. The findings were to be disseminated to the Collaboratory, as well as to other academic and community researchers. It is anticipated that the Collaboratory will be able to utilize the findings to inform their structure, operations, and community engagement practices. The researcher also intended to disseminate the findings to a broad audience of community and academic research partners. In addition to the dissertation report, the researcher intends to create brief summary documents aimed at community members and at academic researchers who are new to the CBPAR approach.

While the research plan sought to adhere to CBPAR principles, the dissertation process limited the full achievement of this objective, such as limited funding and timeframe. Additionally, the researcher anticipated that some prior community members with CBPAR involvement may not be able to be identified due to lack of published literature or researcher transitions; former participants might not be able to be contacted if they have changed contact information, or they might refuse to participate if they had a negative experience with research partnerships, potentially biasing the data.

The research was conducted by Michelle J. Marcus, with oversight from DrPH dissertation committee chair Dr. Jacque-Corey Cormier (GSU School of Public Health), and dissertation committee members Dr. Harry Heiman (GSU School of Public Health) and Dr. Rebecca Watts Hull (Georgia Institute of Technology). The Collaboratory advisory group consisted of two academic members, (Dr. Carolyn Keough, Emory University, Collaboratory leadership team, and Dr. Pegah Zamani, Kennesaw State University), two CBO members (Carla Lewis, Environmental Community Action Inc. (ECO-Action) and Gwen Smith, CHARRS), and the Collaboratory CBO Coordinator, Carol Hunter, formerly with the Truly Living Well Center for Natural Urban Agriculture. Michelle J. Marcus was the principal investigator on this research. A GSU Master of Public Health (MPH) student, Alexis Ehimen, collaborated on the data collection and analysis in fulfillment of their Applied Practical Experience degree requirement. Collaboratory advisory group members Gwen Smith and Carol Hunter were officially added to the

research team and IRB protocol as community research reviewers. The research did not have funding from outside the university.

Chapter 4. Results

Coding

The researcher developed an initial *a priori* protocol-based descriptive coding structure derived from the interview script. Descriptive coding serves to capture the topic of a phrase or passage (Saldaña, 2021, p. 87). Once the data have been coded, the researcher may explore a single code at a time for content themes within that topic (Miles et al., 2014, p. 48). The initial set of codes derived from the script defined concepts of *Engagement* (of community members); *Inclusion*; *Trust*; *Spectrum of Participation*; *Allocation* (of resources or responsibilities); *Capacity* (of the university or academic partner); *Academic Partner Role* (the project); *Community Partner Role* (CBO or community health worker (CHW)); *Success* (definitions of); *Benefits*; *Challenges*; *Purpose*; and *Sustaining* (factors or practices).

Subsequently, the researcher familiarized herself with the data by reviewing the transcriptions and her notes from the interviews, and added additional descriptive codes to identify recurring topics that were not reflected in the initial set of codes. The full set of codes was organized into a hierarchical structure under domains of *Spectrum of Participation*, *Relationships*, *Structure*, *Success*, *Sustaining*, and a sentiment-based *Impact* domain (Miles et al., 2014). Table 1 shows the final set of codes and their hierarchy, as well as the number of interviews that were coded with that topic, and the number of times the code appeared in total.

Table 1. Final codebook

Name	Description	Transcripts	References
Impact		-	-
Change	Overlay with other codes to denote when things changed or were learned	7	20
Negative	Overlay to capture negative aspects of other codes	11	29
Positive	Overlay to capture positive aspects of other codes	9	18
Recommendations	Overlay highlighting specific, maybe untested, ways to improve partnerships	11	42
Relationships		-	-

Name	Description	Transcripts	References
Communication	Describing communication among partners and with community	12	35
Engagement	Describing how partners engage community members	14	63
Inclusion	Describes the more subjective sense of inclusion in research team	14	67
Initiation	Describing how partnerships start, or how they start new phases	14	43
Intermediary	Describing the community role as connecting or brokering relationship between university and community	12	37
Respect	Describes the mindset of respect, recognizing equality or humanity or value, treating partner and community members with dignity and equal worth	10	36
Trust	Describes development, loss, or sense of trust between partners	12	29
SpectrumParticipation	Describes the distribution of decisionmaking or leadership between partners at various stages of partnership	15	79
Structure	Describing the policies, formalization, funds, agreements, etc.	-	-
Agreements	Describing terms, contracts, and negotiation	9	19
Allocation	Describes the distribution of resources and of responsibilities among partners	12	31
Capacity	Describes academic partners capacity to be a good collaborator or community partners capacity to collaborate including skills, mindset, resources, influence	12	48
Leadership	Describing role of leadership or authority to influence partnership	8	15
Partner	Description of academic partner role or type	-	-
AnchorInst	Describes the role of the university in community as an anchor institution	12	36
Education	Describes partnering to lecture, receive training, or other type of knowledge exchange	6	17
Project	Describes partnership as part of a research project	13	23
Students	Describes working with university students	8	43
Policies	Describes policies or standard practices of universities or funders	11	34
Role	Describes community role, ie CHW, CBO, resident	-	-
CBO	Describes role as CBO	12	64
CHW	Describes role as CHW	4	13
Representative	Describes the community member or leader representing community interests	8	44
Success		-	-
AcademicImpact	Describe a change in awareness or practices of the university partner	10	14
Access	Describes access to resources from partner - to data and evidence, or to community	9	30

Name	Description	Transcripts	References
Benefits	Describe gains or benefits from partnering (for either partner)	13	46
Challenges	Describes concerns, problems, issues, barriers	12	39
CommunityCapacity	Describing community members (not partners) learning or organizing	14	45
CommunityImpact	Describe changes in awareness, policies, or living conditions that affect community issues	11	42
KnowledgeExchange	Describes partners learning from each other	13	26
Purpose	Describes what they hope to gain from partnering	15	69
Sustaining	Describes aspects specific to sustaining partnerships beyond or between specific research or educational transactions or projects	11	36
Collaboration	Describes development or operation of networks or coalitions, building networks	11	41

With certain exceptions, passages were primarily coded to the lowest-level, or child, codes in the structure. *Spectrum of Participation* did not have parent or child codes, so passages were coded directly to that domain, but may have overlapping *Impact* codes indicating positive or negative levels of participation. *Sustaining* had passages coded to it directly, and also had a child code *Collaboration* with separate references. The researcher utilized overlapping (or simultaneous) coding extensively, resulting in a relatively high coding density (Saldaña, 2021, p. 80). This was due in part to clarify dimensions of complex, overlapping concepts expressed in many of the passages. As a hypothetical example, a participant might describe how nursing students increased their awareness of community issues while providing much needed health services. A passage such as this contains important data regarding the role of CBOs, the roles of students, benefits that the community partner obtained through the partnership, and increased respect. The researcher may glean different conclusions from this passage when viewing this passage in the context of all passages about the roles of students, rather than in the context of all of passages about cultivating respect. Additionally, some overlapping codes were used to explore a subset of data, such as passages coded as both academic capacity and change, which were defined in order to describe specific circumstances that had surrounded a change in capacity.

In order to capture the key content themes identified in the data, the researcher presents several illustrative vignettes that depict common or notable circumstances, experiences, practices, and other factors that interviewees described as significant to their partnerships. According to Miles and colleagues (2014), "A vignette is a focused description of a series of events taken to be representative, typical, or emblematic in the case you are studying. It has a narrative, story-like structure that preserves chronological flow and that normally is limited to a brief time span, to one or a few key actors, to a bounded space, or to all three." Due to the close connections between members of community-academic partnerships across the Atlanta region, vignettes allow the researcher to generalize from multiple interviews so that essential elements could be portrayed without compromising the confidentiality of participants. Vignettes can combine the accessible, evocative nature of a case study or ethnography, with the generalizability of aggregated data (Akinyode & Khan, 2018; Mackenzie et al., 2013; Miles et al., 2014; Miller et al., 2013).

Findings

The data collected through the interviews contributed valuable answers to the research questions, which asked about community partner perspectives on the definition of a successful partnership, structure and capacity factors that appeared to contribute to success, and lessons learned from their partnerships. These findings are summarized below, with four vignettes depicting the findings in action. Descriptive numbering has been applied in-line to description of the findings prior to the vignettes, which can be matched to reference numbers within the vignettes. The numbering is not necessarily sequential, and some numbered findings may be referenced in more than one place. Table 2 on page 80 provides a complete list of the finding references.

Defining Successful Partnerships

The interview participants provided a range of perspectives on the primary measures of a successful community-academic research partnership from the perspective of community collaborators, and the factors that contribute to successful or unsuccessful partnership. ***1A. PRIMARY SUCCESS MEASURES:*** Factors that community members described as evidence of success, or the objectives they hoped to achieve from partnership included increased awareness of and sensitivity to issues of greatest priority to the community; access to data and evidence sources; meaningful changes in the environments, systems, and policies that affected their community's wellbeing; increased understanding within the community of issues and strategies; better alignment between research activity and community interests; and increased community efficacy to address issues.

Participants described a number of partnership activities that directly benefitted the community. ***2A. STUDENT RESOURCES***: In some cases, students contributed skills or received training so they could help CBOs with various needs, from physical construction of facilities to providing health services. In other cases, partnerships led to professional reports that directly influenced public policy, or raised awareness that resulted in new initiatives to improve community health. Participants described the significant amount of effort and resources that students could contribute to a CBO, but acknowledged that they could require a lot of time for CBO staff to train and manage, and that the quality of student efforts was inconsistent. Due to the nature of classes and student projects, new groups of students had to be trained and oriented for each collaboration.

2B. ALIGNING APPROACH: Some highly-regarded initiatives were described as having impacts on policy as well as direct community action - for example initiatives which educated the community, prompted a sponsored community cleanup, and also led to legislation that prevented further contamination. However, policy and structural change can be slower to impact outcomes, even though the impact may

be far greater over the long term. Several participants pointed out that since inequities have developed over a long period of time, community impacts can happen relatively slowly compared the average grant cycle. As a result, some initiatives that participants considered worthwhile did not get continued funding because they could not show direct impact in the community.

Participants felt that funders prioritized results that showed rapid change over those showing meaningful, long term change that would have a significant and lasting impact to health and quality of life. They also felt that funder priorities changed frequently and didn't respond to community or researcher objectives. There were multiple cases described in which data were collected and the community was made aware of a problem, but there was no additional funding or services in order to treat the problem.

2C. ACCESSING DATA AND EVIDENCE: Many participants discussed the value of access to data and evidence, and the research process in order to measure and demonstrate their impact. They had various goals in terms of trying to understand the effect of their facilities and their programs. They also wanted access to evidence about what types of activities might best achieve their missions and they wanted to bring best practices or evidence-based practices into their community work. Additionally, they realized that collective evidence of their impact could also support increased funding for their communities or organizations. However, multiple participants reported that data were not always being reported back to their communities even when a partnership or CBPAR collaboration was in place. They hoped that their growing involvement would potentially gain consistent access to this information.

3A. INCREASING ACADEMIC CAPACITY THROUGH PARTNERSHIP: Overall, community participants did value the addition of knowledge and capacity to the academic partners as well as to the community partners, as long as the distribution seemed equitable. One participant labeled this as "co-benefits." In particular, they valued having students increase familiarity and become more empathetic and respectful of

different cultures and environments, although they had mixed results in terms of working with students long enough to create a transformative experience. Many of the participants also valued the realization or mindset change in academics, that community interests and perspectives are important to their work. Several interviewees expressed that when researchers begin to share perspective with the community, it can help to decolonize their research. A challenge that several participants had experienced in terms of academic impacts, was the turnover in students, which meant that students had a limited amount of time to learn about the community and the organization and to build the relationship.

A number of participants talked about community capacity as being a key element of community impact. ***2D. COMMUNITY CAPACITY:*** They described how community members became more educated about the research cycle, learned about health issues and health determinants, and even became part of the community development or research workforce as a result. Another aspect of community capacity included self-efficacy and community organizing, also sometimes referred to as social capital. Community capacity benefits were described in terms of individuals coming to believe that they can advocate for themselves and for their community effectively, endorsing their right to live in a healthy community, and creating the connections with other community members as well as decision makers in order to do such advocacy. Additionally, some CBOs talked about their increased capacity for engaging with community partners, for example, by developing training resources for faculty and for students, holding orientation sessions, and defining questions that they would ask at the beginning of the relationship.

Over time, many community partners gained capacity in academic research as well, which they found helped them in their partnership. However, they worried that they could become concerned with issues that were not priorities for the community in that process, or start using different language. Some participants also expressed that they felt that they continued to increase their capacity in community engagement and community benefits, and they wanted a system in place that continued to support that

capacity not only for themselves, but for others they worked with in the community and in the interface between the community and the academic institution. Their increased knowledge about CBPAR approaches in particular gave them the capacity to judge the quality of community-engaged research and to advocate for it. Importantly, community partners typically wanted to continue to be the intermediary between the institution and the community, rather than transitioning to the academic research role. Community partners brought a range of experience that gave them different levels of capacity to advocate for and negotiate within partnerships.

In general, participants indicated that they felt they contributed deep knowledge of the community, and experiential evidence of what works within their community. They felt there was value in collaborating with the academic partners in order to exchange their knowledge and in-depth relationships with the community with the academics' knowledge of external evidence-based practices. They also valued access to information about community needs and issues not only to inform their work, but also to inform the community about important issues (for instance, environmental contamination or disease risk factors). Some participants described how partnerships had enabled them to learn and implement certain research techniques into their own work, such as conducting Photovoice sessions with clients to evaluate and plan their work, or deploying air quality monitors. On the other hand, access to data and evidence did not always lead to community impact. For example, a research partnership might show that there was an issue with contaminated soil or with high rates of certain diseases. However, there often was no follow-up to intervene in those issues.

Success Factors

Partnership Capacity

Participants described a wider range of partnership approaches, practices, and operationalization than had been anticipated based on the literature. ***3C. STRUCTURAL CAPACITY:*** In addition to CBOs and CHWs,

there were a number of ways that community representatives engaged in community-academic partnerships, with varying degrees of formality. Some leading examples include sitting on community boards, representing neighborhood organizations in community-engaged research, speaking on panels, and other activities. Community boards ranged from being purely advisory with no decision-making power, to having formalized authority to set policies and initiate projects. As shown in Table 1, only nine of the fifteen interviewees referenced any sort of formal agreement, which included subcontracts, partnership terms, bylaws, and MOUs. They discussed certain challenges in operationalizing partnerships, including limitations and conditions that academic institutions placed on funding, the burden of additional paperwork, and lack of support for CBPAR approaches in the institutional leadership and administrative roles.

Participants identified aspects of academic partner capacity that contribute to success. ***3D. EDUCATIONAL CAPACITY:*** They noted that many academic partners had not learned about community collaboration in their classes, and that students did not appear to learn this until they participated in a class or project which engaged the community partner. Multiple community partners had contributed to the development of community collaboration capacity for students, ranging from guest lecturing in classes, to hosting student projects, to serving as preceptors for student research projects or papers, to serving as adjunct faculty. As noted previously, several CBOs had developed orientation procedures for initiating relationships or projects with university partners. CBO representatives particularly valued having students learn about their mission and community, but wanted to balance their educational contributions with getting organizational or operational or programmatic support from the students, or student research support. They felt that they could have a large effect on future professionals, if students really learned to understand and listen to the community.

3B. PERSONAL CAPACITY: One notable finding that was not necessarily revealed in the literature, was that the relationships that grounded community-academic partnerships were often between individuals – a

faculty member or student, and a CBO staff member or community representative – rather than with the institution. As a result, academic partnering capacity may be developing more in individual academics rather than at the institutional level. This was borne out by several descriptions of partnership challenges when university leadership (for instance, department heads or contracting departments) were oppositional to participatory terms of the proposed partnerships. In the case of community boards, however, academic capacity was more likely to include whole departments and formal policies. Some CBO interviewees felt that that they had more capacity than academics realized; they had been doing their work with very few resources for a long time, but this also meant that they were likely to receive insufficient funding in grant proposals. They wished for academic partners to more accurately estimate the effort they could contribute, and also the financial allocation they could absorb. Some participants felt that the academic partner in some of their partnerships had fundamentally undervalued community wisdom and research capacity. This reflected the considerable variation they had experienced with different individual academic researchers, who had differing capacity to recognize and engage community partners as equals.

Relationships

The significance of strong relationships to building and sustaining successful partnerships arose across all of the interviews. Relationships referred to the personal connections between the individual community partner and the institutional faculty, students, staff, and leadership with whom they collaborated. ***4B. INITIAL CONTACT:*** CBO participants consistently described partnerships that initiated from an individual connection, for instance, when a faculty member contacted their organization looking for a guest speaker or student research opportunity, a student reached out to them on social media, or they met an academic researcher at a conference or related community event. ***4A. PERSONAL RELATIONSHIPS:*** A significant amount of the trust and agreements were between the individual community and academic researchers, especially for the CBO representatives. Since the relationships

were often with individual researchers the community partners don't always have capacity for reaching out to the institution as a whole. CHWs and community representatives or board members, on the other hand, had stronger ties to the institution as a whole. They were more likely to describe their interactions with more of the administrative functions of the HEI, work with multiple researchers from the same department, and engage with institutional policies (including policy change in some cases). However, they still often had influential relationships with a particular faculty member which catalyzed and facilitated their collaboration. Although institutional policy and leadership could present significant challenges to the partnership, the strength of the personal relationships were often described as being the most critical factor in strengthening and sustaining the collaboration.

4C. RECOGNIZING HUMANITY: One element described by multiple participants was the sense that some academic partners fully recognized the shared humanity and worthiness of community partners and members. This was also described as respect, as recognizing the dignity of the community partners, and seeing community partners as equals. Interviewees noted that this element was apparent in the way that academic partners behaved towards them and their communities. Other valued aspects of relationships, such as sustained trust, transparent communication, and power sharing seemed to arise as effects of recognizing humanity, rather than being tangential to it.

A corollary to this was the community partners' recognition of self-worth. Depending on their life experience, some CBO and CHW collaborators described their awareness of their own human worthiness, and incorporated it into their interactions and negotiations with academic partners. On the other hand, some described challenges with feeling that their contributions were less valuable relative to academia, and feeling hesitant to express their opinions in the partnership as a result. Several interviewees described how partnerships which valued and centered their contributions also supported their increased sense of capacity and self-efficacy. Several participants indicated factors that contributed to the development of academic researchers' capacity to recognizing humanity in community partners.

This included lived experience in similar communities or experiencing similar challenges in their life, but could also be cultivated through community-academic partnership – particularly by spending time with the community members, organizations, and representatives beyond the minimum amount required to conduct the research.

4D. INTERMEDIARY ROLE: Many participants described how their role as a community resource is sustained even when the project or funding is not. CBOs, CHWs, and community board representatives (CBRs) continually maintain personal relationships with community members and issues as part of their personal and professional mission. Community partners and CBO representatives face some challenges representing the voice of the community; many have mixed experiences speaking up about concerns with academics. Sometimes they choose not speak up for fear of losing funding or services. As they became more experienced in community-academic collaboration, some interviewees described how they came to better understand research itself, to feel more skilled in negotiating with universities about their participatory role, and to more assertively represent community interests in collaboration. This increased capacity strengthened their ability to effectively serve in the intermediary role.

Sharing Power

5A. SPECTRUM OF PARTICIPATION: Interviewees referenced aspects of the spectrum of participation from many different facets, which highlighted its importance, as well as its integration into other factors and indicators of successful partnership. The community engaged partnerships described by participants varied widely on the spectrum of participation, even those intended to be CBPAR. In some cases, community partners were given a chance to weigh in on research activities, but the academic researcher chose not to use their input. In other cases, the community role simply involved attending an informational event, or the HEI provided students to do health screenings without asking what types of services are needed. These examples fall on the lowest levels of participation (Inform and Consult). On the other hand, some interviewees described their role in partnerships as one of leading funding

decisions and setting priorities. Some of those partnerships were structured to establish the community partner as the lead organization on a project, or to designate certain decision-making responsibilities to a community board. In other cases, community capacity to hold power was more often described not in terms of formal management roles or capacity, but in having experience negotiating with academic partners, valuing their own knowledge and role, and working with an academic partner who respected the community knowledge.

In addition to involvement in decision-making during a partnership, many participants described the challenge of having community priorities and interests considered in designing the community-academic collaboration in the first place. ***5B. SETTING THE RESEARCH AGENDA:*** Many of the participants described partnerships in which the academic partner had already determined their research questions, proposed interventions, and research methods. CBOs described challenges in getting academics to act on the CBO's research questions; HEIs seemed more likely to respond to a resource request from a CBO, while the CBOs were somewhat more often responding to research-oriented partnership requests from the HEI.

Working with students provided one alternative to this dynamic, as CBOs were often able to define research topics or questions for student projects, in collaboration with the instructor. Community board participation also supported increased opportunities for community representatives to gather information on community priorities and recommend projects to address them. CBOs sometimes expressed that it did not feel like their place to propose research, or that academics have may less capacity to attend to research proposals originating from the community. This changed when a CBO or community consulting partners lead the funding proposal with the HEI as the subcontractor. However, CBOs needed to reach a certain research capacity themselves (and possibly operating capacity) in order to do this.

5C. RESEARCH FLEXIBILITY: When community partners weren't involved in developing the research questions and methods post-proposal, then they expressed a desire for more flexibility in the project design itself. Additionally, if academics don't maintain a flexible perspective in those areas, they may not be open to hypotheses or results other than those they were already expecting. Additionally, many of the impacts were described as a drop in the bucket compared to the extent of community challenges. A major barrier to significant impacts was described by several participants as being the lack of flexibility in funding which prohibited projects from reorienting to better fit community needs wishes, and contextual factors. These issues were primarily attributed to standard research funding and administration practices, which did not support much flexibility.

Metro Atlanta Community-Academic Partnerships: Four Vignettes

Much can be learned from past community-academic research partnerships in metropolitan Atlanta related to the factors discussed above from the perspective of community collaborators. Four vignettes are provided to depict experiences that local community partners often have in working with academic partners. The vignettes provided include contextual guidance to orient the reader to the key elements being depicted by the narratives. Further discussion of the implications of these factors are found in the Discussion section.

Table 2: Findings References

Reference Numbers & Descriptions
1A. Primary Success Measures
2. Community Impact 2A. Student Resource 2B. Aligning Approach 2C. Accessing Data and Evidence 2D. Community Capacity
3. Academic Capacity 3A. Increasing Academic Capacity through Partnership 3B. Personal Capacity 3C. Structural Capacity 3D. Educational Capacity

Reference Numbers & Descriptions
4. Relationships 4A. Personal Relationships 4B. Initial Contact 4C. Recognizing Humanity 4D. Intermediary Role
5. Sharing Power 5A. Spectrum of Participation 5B. Setting the Research Agenda 5C. Research Flexibility

Scenario 1: The Emerging Community-Based Organization

Finding	Vignette
4A. Personal Relationships ***4B. Initial Contact*** ***4A. Personal Relationships 3D*** ***3D. Educational Capacity*** ***2A. Student Resource*** ***4C. Recognizing Humanity*** ***4D. Intermediary Role***	A local jurisdiction has received funding to address Brownfield contamination in some neighborhoods facing multiple environmental justice issues. The local elected official for those communities hosts a kickoff event with community information and input sessions. The event is attended by Gina, an advocate who has started a small nonprofit focused on environmental justice issues, and also by Rachel, an academic researcher who studies environmental sciences and has a student who lives in one of the neighborhoods. At the event, they start talking about their work, and realize they could find mutual benefit by collaborating ***(4A, 4B)***. Rachel starts attending some of the community partner's organization's meetings, and participates in some volunteer events. Through this involvement, she becomes increasingly aware of and invested in the complex inequities faced by this community ***(4A)***. She wants to provide this insight to her students, and invites Gina to present to one of her classes ***(3D)***. The following semester, this CBO and community serve as a recommended student research topic for her class, and several students meet with the community partner to learn more about the community, gather data and evidence, and provide a research report ***(2A)***. The next year, the student who lives in the community conducts a student research project on an issue of importance to the community partner. He meets several times with Gina, impressed by her efforts to inform residents and policy-makers (***4C, 4D)***. His project produces a valuable summary of evidence regarding the health hazards posed by a proposed industrial site in the area. However, the research only addresses a small portion of the CBO's research question, and the student graduates

2A. Student Resource ***4A. Personal Relationships*** ***2C. Accessing Data and Evidence*** ***1A. Primary Success Measures*** ***5B. Setting the Research Agenda*** ***2B. Aligning approach*** ***3C. Structural Capacity*** ***3A. Inc. Academic Capacity through Partnership***	before further research can be conducted ***(2A)***. Rachel continues to personally get involved in the CBO's activities, and the two collaborators meet occasionally for coffee and conversation, sometimes joined by other community members ***(4A)***. When the CBO applies for some grant funding, the academic partner provides some data and evidence to support the grant, and advises on the project approach, without any formal agreement or compensation ***(2C)***. Gina is still hoping to get some very specific questions answered about exposures and policy solutions, and to involve students and citizen science approaches to increase awareness ***(1A, 5B)***. The faculty researcher has been working on their own research projects, which are primarily led by more senior faculty in their department. They discuss their community-based collaboration with their department, but it doesn't really align with the research interests of the other faculty members. Eventually, the academic hears about a modestly-sized funding opportunity that fits the alignment between the CBO mission and their own expertise, and seeks the approval from their department head to pursue it ***(2B)***. Although the two partners have a relatively clear idea of what they want to do together – training residents to record and report contaminant sources in their community - developing it into a grant application has a number of challenges. The total amount of funding is not large, and the required university overhead along with the cost of the academic's time leaves less funding for the CBO than the partners feel is needed. Additionally, the university requires a considerable amount of documentation for the CBO to become a subcontractor, some of which the CBO has never prepared before. The partners end up spending many hours together to complete the documentation satisfactorily, and have to have the department head provide additional approval, which is given somewhat grudgingly ***(3C)***. The faculty researcher hopes that the department will become more supportive if this project goes well ***(3A)***.

5A. SPECTRUM OF PARTICIPATION ***3D. EDUCATIONAL CAPACITY***	In spite of the considerable time commitment – which takes the Gina away from her direct work for days – and the fewer resources than originally expected, she feels like they need to go along with the terms because the potential benefits are still so compelling and there are no substitutes for this partnership ***(5A)***. She continues to host student research projects, but after the first two years, realizes the considerable amount of effort to educate and build relationships with new groups of students every time. She develops an introductory module with the academic partner, which is delivered in class before the students meet with the CBO. Together, Gina and Rachel develop some activities to do with the students to accelerate their awareness, empathy, and understanding, and refine it over time ***(3D)***.

Scenario 2: The Community Board Representative

Finding	**Vignette**
	John moved to his neighborhood about 10 years ago, began getting to know the community, and started attending local meetings. Although he also grew up in a low income neighborhood, it was working class and neighbors were very engaged. In his new neighborhood, he is surprised to see how much of a sense of hopelessness there is. People don't really have the time or the willingness to engage in activism or community organizing, and there are many unhealthy coping skills being used. It doesn't take too long before he's in a leadership position in the neighborhood association, and advocating to city and county officials about the issues he sees. He is invited to join a task force convened by a local health system and the county government to work on solutions. While they come up with some promising strategies, the task force is purely advisory, and the strategies that

5A. SPECTRUM OF PARTICIPATION ***4B. INITIAL CONTACT*** ***1A. PRIMARY SUCCESS MEASURES*** ***2D. COMMUNITY CAPACITY*** ***5A. SPECTRUM OF PARTICIPATION*** ***2B. ALIGNING APPROACH***	the health system decides to implement aren't ones that he thinks will have a big impact ***(5A)***. However, at a public event to promote their work, one of the other task force members introduces him to a friend who is on the community steering committee at a local university. The friend knows about John's active role in his community, and invites him to apply to be on the committee ***(4B)***. It sounds intriguing – this board doesn't just provide recommendations, but actually has joint authority to apply for and allocate funds, propose studies, and direct initiatives ***(1A)***. He joins the committee and initially he's very hesitant to participate. He sits quietly in many of the meetings, not sure what his expertise is or what he has to contribute. After a few months, he gets to participate in one of the board's routine training sessions in which he learns more about the research process and the role of the community voice ***(2D)***. Close to a year in, an issue comes up – a funding opportunity related to community engaged cancer prevention – in which he feels experienced after his father died of colon cancer. He starts to express his opinions about this issue, and when he does, he's surprised to find how much his voice is respected; that the academics that support the board ask him relevant questions that he can answer authoritatively, and heed his suggestions ***(5A)***. One thing he appreciates about the board is that they have the power to engage community members before deciding which projects to fund. They conduct surveys with a number of communities and their populations of interest, ask people to help prioritize issues and then align projects with those priorities ***(2B)***. However John feels they could go further. Some people he contacts to complete the survey express to him that they are more concerned with living conditions, ones that he knows affect their health, than they are with specific diseases, and they don't feel like the survey captures that ***(4D)***. He proposes a

4D. Intermediary Role ***5B. Setting the Research Agenda*** ***2D. Community Capacity*** ***2D. Community Capacity*** ***3C. Structural Capacity*** ***2C. Accessing Data and Evidence*** ***5A. Spectrum of Participation*** ***5C. Research Flexibility***	small project to obtain more qualitative data from community members in order to revise the survey, and after several years gets approval ***(5B)***. One of the faculty members who works closely with the board gets a modest internal grant, and uses John's input to design their interviews and focus groups. One benefit of serving on the board is that members can take classes or even pursue a degree for free. After a few years, John completes an MS in environmental sciences, which also gains him a promotion at work (the board only requires about ten hours a month, and just provides a small stipend) ***(2D)***. He starts thinking about ways to leverage his new degree. After his time on the board, he also becomes very well versed in CBPAR and the research process, and has heard many issues raised by the community, more than the institution can possibly address. He wants to take on more of the research role himself, and decides to start a small consulting firm on the side ***(2D)***. He's excited to begin work that involves additional outreach to the community. Initially, he gets a few small jobs doing community engagement for development projects and environmental studies, but soon an opportunity comes up to subcontract on a research project. The project, led by the environmental science department, is not governed by the community board so there is no concern about conflict of interest, but his contacts at the university are invaluable for making the partnership happen ***(3C)***. John is proud of the work he does, but it is an overall frustrating experience. Even with a data sharing agreement in place (at considerable effort and expense for certifications), he has to make multiple requests for data from the academic partner, and go through negotiations to have it provided in the format that he needs ***(2C)***. Furthermore, he is only engaged for his small portion of the work, and most of the critical decisions about the project are made without consulting him ***(5A)***. Although his

5A. Spectrum of Participation ***5B. Setting the Research Agenda*** ***3B. Personal Capacity*** ***4C. Recognizing Humanity*** ***3A. Inc. Academic Capacity through Partnership*** ***4C. Recognizing Humanity*** ***2D. Community Capacity*** ***2B. Aligning approach*** ***2D. Community Capacity***	outreach deliverables show strongly-held community opinions, the study design was already written into the funding proposal, and there is no time or budget to incorporate additional data sources ***(5C)***. When he gets feedback from community members, he does not necessarily have the power to make sure that those words are heeded ***(5A)***. In fact one community member that he knows well tells him point blank that the research project is focusing on the wrong question and failing to measure important factors in their community ***(5B)***. However, there's not much he can do. Part of the challenge is the faculty member he's initially working with. Although she does a lot of community work, she is resistant to community led research ideas or solutions. He realizes that in spite of some shared identities, this professor personally had a lot of opportunities in her life, and seems to have a blind spot to way that entire communities lack the same opportunities that she had ***(3B, 4C)***. During one of his research presentations, he connects with another professor in that department who has had the lived experience and community exposure to be more open to community-led research. In fact, much of her openness comes from a recent project focused on toxic exposures among unhoused pregnant women, in which she encountered several women with similar backgrounds to hers who simply seemed to have had a few instances of bad luck where her luck had happened to be good ***(3A, 4C)***. In spite of his disappointment with the lack of influence he has over the project from the subcontractor side, he continues to grow his work. In fact, he soon quits his former job and does his consulting work full time ***(2D)***. Over time he learns to write contracts that give his firm more flexibility. The schedule flexibility and community engaged focus give him more time to attend community meetings and events, which help him stay aware of emerging concerns ***(2B)***. As his firm grows, he sees an

3C. STRUCTURAL CAPACITY ***5A. SPECTRUM OF PARTICIPATION*** ***1A. PRIMARY SUCCESS MEASURES***	opportunity to be the lead organization on a particular grant. With considerable advocacy from some of his academic collaborators, he is awarded the grant, and brings on the university as a research subcontractor for data management and analysis ***(2D)***. Executing that first subcontract with the university is a wild ride – the legal team keeps trying to send him contracts with the university as the lead – but it eventually gets completed with some follow-up by the faculty partner and the Dean ***(3C)***. In spite of the challenges, John is thrilled with the extra share of funding this gives him, as well as the power to let community engagement drive the research process ***(1A, 5A)***.

Scenario 3: The Established Community-Based Organization

Finding	**Vignette**
2C. ACCESSING DATA AND EVIDENCE ***1A. PRIMARY SUCCESS MEASURES*** ***4B. INITIAL CONTACT***	MoveUp, a 501(c)3 organization, has been around for almost 20 years working on several interrelated community causes, including food security, active living, and civic engagement, particularly for immigrant communities. While they have a robust set of core staff to operate the organization and run programs, they are constantly seeking volunteers and any other resources that might support their mission. Valerie, the active living program director, has been trying to find data and evidence on different types of initiatives that might work in her focus communities ***(2C)***. It would be even better if she could get some rigorous evaluation of her own initiatives as well, but that is low on the priority list of funding and volunteer allocation ***(1A)***. One day, she gets a call from Alvin, or "Dr. A", a research professor looking for student projects for his urban health elective ***(4B)***. Valerie enthusiastically suggests multiple ideas – searching for examples of effective environmental interventions (Alvin

2A. Student Resource ***3D. Educational Capacity*** ***4C. Recognizing Humanity*** ***4B. Initial Contact*** ***2A. Student Resource*** ***2D. Community Capacity*** ***3C. Structural Capacity*** ***4A. Personal Relationships***	refers to this as a 'literature review'), observing the number and types of users at certain parks and trails, interviewing an immigrant walking group about their experiences and preferences, and more. Dr. A starts with a literature review on the topic for one of the class assignments, and recommends the observations and the interviews as a final project option for the class ***(2A)***. One student opts to interview the immigrant group, with a translator, and comes back filled with criticisms, ideas, and recommendations for better walking infrastructure in neighborhoods with high numbers of immigrant families – as well as new-found appreciation for the conditions many families are trying to thrive in ***(3D, 4C)***. The next year, the organization has a temporary staffing need to develop informational materials and host an event about their cause, and Valerie reaches out to Dr. A to ask for support. He refers them to a health communications professor, Dr. Hills, who incorporates the assignment in into her summer student communications laboratory ***(4B)***. Many of the products are great, but a couple of the student groups turn in poor quality work that the organization can't use ***(2A)***. While the higher quality student projects contribute value to the organization, it also took a significant time commitment for the program director to meet with each of the student groups, view the student presentations, and provide feedback to the professor. Valerie thinks she should have received some compensation for her time – her budget is thin, her time is limited, and the value to Dr. Hill's job and the students' careers seems to outweigh the four flyers that she will polish up and use ***(2D, 3C)***. However, she does not feel comfortable saying anything to the professor at this time. At MoveUp's big annual fundraiser, Dr. Hills, as well as her adult child and several students, help staff the event as volunteers. As they are cleaning up, exhausted but feeling successful, Valerie finally feels comfortable enough to raise her concerns about the student communications products ***(4A)***. Dr. Hills feels regretful, and

3A. Inc. Academic Capacity through Partnership ***4B. Initial Contact*** ***2B. Aligning approach*** ***4B. Initial Contact*** ***3C. Structural Capacity*** ***4D. Intermediary Role*** ***5C. Research Flexibility*** ***2C. Accessing Data and Evidence***	promises to engage a graduate student to assist with supervising and critiquing student work in the future ***(3A)***. She also invites Valerie to some topical lectures and research presentations, at which she gets to meet faculty from other local universities ***(4B)***. One invites her to present to a class; another asks for input regarding interpretation of their research findings. Valerie still sees a real gap in understanding how her work is impacting the community. One of the new faculty she has met, Dr. Cardona, has expertise in active living research and immigrant communities. Valerie approaches her with this research request, and the search for funding begins ***(2B, 4B)***. Dr. Cardona writes several proposals which are not awarded. It takes several years before a really promising opportunity comes along, and their project proposal can become a reality. Then the next hurdle begins. Their project involves hiring members of the immigrant community to collect data, but the university refuses to hire some of the candidates due to their undocumented status ***(3C)***. It takes a complicated arrangement with the university, MoveUp, and an immigrant services organization they occasionally partner with, to be able to pay the community researchers, and they are not able to offer benefits as a result (at least the partner organization does provide a wide range of free health and financial services) ***(4D)***. The project is now delayed by several months, so they work quickly to train and deploy the community researchers, since the project timeline was determined before the grant was even awarded. Overall, Valerie feels the project is a huge success ***(1A)***. Not only do they collect data about active living supports for this population, the community researchers provide more valuable insight about the research design and data interpretation than she could have imagined ***(2C)***. However, she has learned in the process that local transportation and parks budgets are drastically misaligned with community needs. Perhaps Dr. Hills and Dr. Cardona can help her communicate these findings to the relevant agencies and elected officials.

Scenario 4: The Community Health Worker

Finding	**Vignette**
1A. Primary Success Measures ***4B. Initial Contact*** ***3B. Personal Capacity*** ***4C. Recognizing Humanity*** ***2B. Aligning approach*** ***5C. Research Flexibility***	Cindy has lived in her neighborhood for over 35 years. She has always been the kind of person who helps out in the community and serves on local boards. She grew up in a very similar community, but feel like things are getting worse and worse. She's deeply concerned about certain issues, especially among youth. When a local professor, Dr. Larson, attends a community meeting and says they are looking for community health workers for a youth mental health initiative, it sounds like a great opportunity to align her work with her passion, and make a real difference in her community ***(1A, 4B)***. Once she gets hired and the project starts, she feels fulfilled by the work. She feels like she has a good collaborative relationship with the professor in charge and most of the other investigators. While Dr. Larson is White, and Cindy is Black, she finds that he is a great listener who whole-heartedly validates her fears and opinions. He attributes it to his upbringing, in a poor family surrounded by a community with few resources but a tendency to help each other out ***(3B, 4C)***. The project has some ups and downs. The intervention design was developed ahead of time based on evidence from other communities, and as a result some elements of the project aren't ideal for kids in Cindy's neighborhood, who continue to be exposed to sources of trauma on a regular basis ***(2B)***. Thus, overall impacts aren't what they hoped to see. The professor had actually anticipated this, and initially envisioned it as the first phase in a ten-year initiative. He even collected some data from participants regarding changes to the program ***(5C)***. But the funder, who hoped to see evidence of immediate impacts and scale

3C. STRUCTURAL CAPACITY ***5A. SPECTRUM OF PARTICIPATION*** ***4D. INTERMEDIARY ROLE*** ***5C. RESEARCH FLEXIBILITY*** ***4B. INITIAL CONTACT*** ***4C. RECOGNIZING HUMANITY***	an 'evidence-based' program, not have kids tell them how to change the program, simply doesn't renew the grant after the first two years ***(3C, 5A)***. The CHW hears from community members – even years later – that they wanted the services, just in a different format. With what she has learned from being on the project, Cindy locates other services and resources for her neighbors, helps them navigate the system, and even assists them with barriers such as documentation requirements and transportation ***(4D)***. If the project had been able to listen, and adapt, she thinks, it could have had revised intervention for much more significant results ***(5C)***. Although that project ends, Cindy wants to continue to serve in the CHW role. After a stint of temporary work, Cindy hears about a new CHW opportunity, and gets the job ***(4B)***. This is a university that she hasn't worked with before, and a professor she's never met before, Dr. Marx. Dr. Marx has set ideas about what the community wants and needs, and what it's capable of. She feels that some assumptions by some of the lead academic investigators made them more resistant to making even relatively minor changes, such as unstated beliefs about that community's health literacy and self-efficacy ***(4C)***. In this position though, she's able to work on an issue that is near and dear to her heart: young children's development. She considers herself pretty knowledgeable on this topic since she used to be a preschool teacher, and disagrees with the way that the lead professor is implementing the project. She has seen the struggles that parents and grandparents have connecting children to the environments and resources that they need. While she thinks that the intervention that the professor is studying is worthwhile, she also knows how hard it is for families to come to a program every week, and to find time to apply the techniques that they're being taught at home. She sees the clients who are coming in to participate and realizes that it's a small

2B. Aligning approach ***5B. Setting the Research Agenda*** ***5A. Spectrum of Participation*** ***3A. Inc. Academic Capacity through Partnership*** ***3B. Personal Capacity*** ***5B. Setting the Research Agenda*** ***2B. Aligning approach*** ***2B. Aligning approach***	slice of the population, and that many of the families who need help the most don't seem to be able to participate ***(2B)***. Since she knows so many people in the neighborhood, she asks a few folks about it, and they describe barriers to her like lack of transportation, and simply lack of time to participate in a program in addition to their busy lives. Additionally, they tell her about some of the things they think would help them, and she passes those ideas on to the professor ***(5B)***. At first, the professor dismisses Cindy's ideas – after all, she's just the CHW, she doesn't even have a college degree ***(5A)***. But Cindy is determined to make her point, and invites Dr. Marx to a 'family fun day' at the local recreation center. Dr. Marx sees it as a good recruitment opportunity (an aspect of the project she doesn't usually do). However, after talking to a dozen moms at the event and hearing a dozen extremely valid reasons why they can't or won't participate – as well as all of the ways they try so hard to support and protect their kids - she starts to reconsider what she thought she knew about this community ***(3A, 3B)***. When the next funding opportunity arises the professor writes Cindy's recommendations into a proposal ***(5B)***. It has to get a bit modified in the process, in order to fit what the funder is looking for, but they are able to significantly modify the intervention, adapting to a more common local worldview and addressing some deep social determinants of health faced by the community ***(2B)***. The initial impacts are relatively small since so much of the effort focuses on determinants and not on health outcomes themselves. However participants say that it's making a real difference and they expect to see long-term permanent changes ***(2B)***. Thankfully, they received five years of funding, which will allow them to track the longer-term changes expected by the time that participating kids enter school ***(5C)***.

Chapter 5. Discussion

This section seeks to clarify what this research validates relative to the existing literature, what new information it contributes, the limitations of the research, and the recommendations for both academic and community collaborators seeking to work together and advance the practice of CBPAR.

Supported evidence and new evidence

How much are CBPAR principles reflected in community-academic partnerships?

Many partnerships are not directly espousing CBPAR, although they invoke many principles. On the other hand, once community representatives learn about CBPAR, it becomes a point of negotiation from which they can define what they (and the community or organization they represent) need in order to participate. The Wallerstein et al. (2020) model was generally upheld, with individual capacity, relationships, and partnership structures upheld as important to partnership processes. However, many partnerships are informal and we need to expand the model to reflect their operational approaches, which are heavily built on personal capacity and relationships. Given the personal nature of many of these relationships, institutions and funders often are not engaged, leaving a gap in support for these practices. The practice also needs to expand this model to incorporate students, which appear to be playing a sizable role in both community and academic impact, but have different dynamics and needs in terms of relationship formation, personal capacity, and ability to structure partnerships. Further, the Wallerstein model does not adequately capture the effect of the intermediary role played by many community partners.

Even formal, funded projects appeared to achieve varying results in terms of the principles of CBPAR. They did engage community partners in a range of ways beyond data subjects, including as research team staff, partner organizations, and board members. However, even in these cases, the community representatives often had limited power to determine major aspects of the research cycle. CHWs were

typically hired on to projects after the research agenda and methods had been determined. CBRs often had more opportunities to identify community priorities and guide research agendas, but still felt that their contributions were limited by funder priorities, academic capacity to engage in collaborative partnerships, and administrative policies, often leading them to seek entrepreneurial opportunities in CBPAR. CBOs were often given constrained roles on projects that did not necessarily align with the goals and mission they sought to provide to the community. Overall, project objectives and approach seemed skewed toward goals of academic research and institutional growth rather than community priorities and benefits.The role of CBOs, CHWS, and CBRs as intermediaries for communities at large was apparent, and seemed to be essential in meaningful community engagement. The value of the intermediary role was the existing relationships and capacity to speak readily on pressing community issues of concern, and to connect academic partners with community events, organizations, and people efficiently within the project timeframe. However, challenges of the intermediary role included the risk of being seen by community members as too allied with academic interests, the possibility of becoming too far removed from community matters as partnership leads to personal advancements in education or income, and being overextended through continuing to serve community and project goals after project funding ends. Several participants, especially CHWs and CBRs, described intentional activities they maintained in order to stay grounded in evolving community issues and priorities, often on their own time and expense.

Published literature that provides guidance on community-academic collaboration included discussions of capacity development and practices by the academic partner in order to effectively manage power and social differences. The literature discusses strategies around building leadership and facilitation skills, cultivating trustworthiness, and adopting formal structural approaches (policies, bylaws, committee structures, etc.) to balance power. Some resources recommend training that involves self-

reflection, emotional intelligence, positionality, conversational capacity, and cultural humility (Chávez et al., 2008; Lucero et al., 2020).

Muhammad and colleagues (2015) argued that researcher identity (e.g. race, ethnicity, gender and sexual orientation, economic and educational status) is of considerable importance to effective CBPAR practice, and that study of cultural humility, intersectionality and positionality, and self-reflexivity are required to understand and manage the effects of researcher identity. As noted previously, they acknowledged research partnership decisionmaking structures and dissemination as factors that influence the balancing of power, in addition to positionality; however, these dimensions may not be substantially present in informal partnerships. They also described a fourth dimension, regarding the ways that power influences the creation of knowledge, or the interpretation. Their recommendation was the systematic use of reflexive auto-ethnography among research partners, as well as long term diversification of the research team and the university.

For the purposes of strengthening the capacity of academic partners to engage communities with respect and humility, it may be necessary to turn to research on the cultivation of empathy in professional and social interactions, which has grown out of the social work and psychology fields (Moudatsou et al., 2020). Relevant studies identified empathy as an extremely complex construct, with many dimensions, including emotional, cognitive, and behavioral elements, and grounded in a wide range of skills and attitudes such as emotional intelligence and belief in shared humanity (Gibbons, 2011; King Jr, 2011; Moudatsou et al., 2020). This body of research may be a good source of further capacity building resources for developing empathy.

What role are community-academic partnerships playing in health equity in Atlanta?

Eliminating health inequities is a particularly challenging goal given their basis in structural power imbalances that are replicated in research institutions and public agencies (Bailey et al., 2017; Ford &

Airhihenbuwa, 2010; Hall & Tandon, 2017). As a result, using CBPAR approaches to mitigate power dynamics in research has been suggested as a necessary strategy for meaningful progress towards health equity (Duran et al., 2019; Ward et al., 2018). All of the interviewees who had interacted with the MSM CCB described it as a successful model of community collaboration which shifted power to determine research agendas and approaches to community representatives, strengthened community capacity, built trust, and was able to correct and learn from issues raised by community representatives. This finding was unexpected, since the dissertation researcher had encountered skepticism of the MSM CCB model from academics in other institutions in multiple personal communications. However, the MSM CCB appeared to rely heavily on the intermediary role of the community board members, and there were concerns regarding limited or delayed direct communication between the board and the community at large.

The type and role of CBO partners was overwhelmingly described positively by the interviewees. Concerns about those in the community representative role were minimal, and primarily addressed two issues – community leaders who refused to engage around research efforts and tried to restrict access to the community; and larger and more privileged non-profit organizations that outcompeted CBOs for funding or partnerships but lacked a community base. Participants generally described a history of mutually beneficial collaboration with other local CBOs. Interviewees described some community-academic partnerships as a catalyst for community organizing, which helped communities formalize their concerns, connect with policymakers, and gain tools and information to support advocacy efforts. This experience was supported in the literature, for instance, Cheezum and colleagues (2013) and Freudenberg and Tsui (2014).

Participants communicated their belief that community-academic partnerships and CBPAR approaches were essential for equitable community transformation. However, they simultaneously asserted that

both this type of partnership, and progress on health equity overall, had barely begun to make a difference in the enormous challenges facing metropolitan Atlanta communities.

What can we learn about supporting community-academic partnerships?

Prior research by Duran and colleagues (2013) Ortiz and colleagues (2020), and Oetzel and colleagues (2018) emphasized the processes and factors in initiating community-academic partnering relationships, while Brush and colleagues (2020) discussed the factors in sustaining these relationships. However, these resources often portray partnership engagement and maintenance as formal, almost transactional procedures taken to initiate or sustain defined research activities. Participants in this research tended to describe partnership initiation and maintenance in much less formal terms, and as much more personal in approach. Connections were often initially made unexpectedly at events, through social networks, or on social media. There typically was not an immediate funded research project on which to collaborate, but rather, interest in discussing each other's work, sharing data and evidence, and making small exchanges such as student projects and speaking opportunities. This is supported by prior research which showed that 68% of community research partners had collaborated with academics before participating in a funded research project (Elwood et al., 2019).

According to participants in this study, community and academic partners often developed a degree of mutual respect and trust before funded collaboration was proposed, which frequently involved the academic partner demonstrating commitment through volunteer efforts and attendance at community events. A number of articles on partnership addressed the role of trust (Christopher et al., 2008; Jagosh et al., 2015; Lucero et al., 2020), but participants in this research referenced the importance of respect, dignity, humanity, and worthiness nearly as much as they discussed trust, and often seemed to give it more significance. Moore de Peralta and colleagues (2020) addressed the importance of historical relations and trust among partners, and how partnership structure and power-sharing could influence it,

but appeared to focus more on formally structured agreements between organizations to promote this, rather than the personal approach and capacity of the academic researcher, while interviewees in this research prioritized the practices of the individual researcher.

Across the existing CBPAR literature, the role of students as academic partners was rarely addressed; two recent articles did not cite any prior publications (Reinschmidt et al., 2019; Tang Yan et al., 2022). However, interviewees in this research revealed numerous essential ways that students played a role in building community-academic partnerships that were viewed positively by the community partners. Students were able to contribute limited research effort focused on community research priorities, as well as service of various sorts to CBOs. The community partners felt that the students gained valuable knowledge and empathy about communities and the issues they faced, which students could not get within the classroom, and that this would contribute to future changes in academic and systemic practices as these students progressed in their careers. This research process also highlighted the role that community-academic partnerships can play in influencing educational opportunities, such as campus lectures and syllabi, and the anchor institution role that HEIs can play in providing benefits back to the community, such as access to data, services, and more. The Serve-Learn-Sustain program at Georgia Institute of Technology's Center for Sustainable Communities Research and Education provides an example, in which students can engage in a variety of learning and service opportunities from the classroom to the community, using an evidence-informed service learning model (DeHaven et al., 2011; Georgia Institute of Technology, 2024; Gimpel et al., 2018).

CBPAR principles highlight the value of shared learning in this type of collaboration. This research expanded on that value by identifying multiple ways that community-academic partnerships could contribute to capacity building for both the academic institution and the community representative. Community partners not only gained information and resources to mobilize community advocates, they also described the value from gaining expertise on the research process, developing skills to value their

own knowledge and negotiate effectively with academic researchers, and even lead CBPAR projects. Additionally, some of the CBPAR literature discussed the value of engaging community representatives early in the research cycle in order to integrate community priorities into the entire research agenda and methods. This research reiterated that goal, but also emphasized the goal of introducing more flexibility into funded research projects. Some funders are starting to explore 'trust-based grantmaking' to support this approach (see, for instance, McGrath and Wong (2020)).

Interviewees described some specific practices of funding organizations that supported successful community-academic partnerships. These supportive practices were wide ranging. A couple of interviewees were engaged with community partner learning collectives which had been initiated by a funding organization, and included some sort of financial incentive or support. Some participants also referenced funding opportunities which require a community involvement component, but noted that these requirements don't always specify funding to go to the community members or partners. Similarly, some funding opportunities, especially from local philanthropic sources, incentivized several CBOs to work together for the first time. They also noted that while funding opportunities are often temporary and sporadic, community boards and research centers can provide continuity and better engagement in developing proposals.

Interviewees also described many issues with funding practices, and offered a number of recommendations. One common concern was the way that the purpose and parameters of available funding tended to be driven by the funding entity’s mission and strategic goals, often focused on a specific disease, health behavior, or environmental factor. While these goals might be well-supported by national or regional priorities, they often did not align with hyperlocal priorities. As noted previously, funding proposals were often developed by the academic institution, guided by their research interests and the goals of the funding opportunity. Funding proposals were rarely developed collaboratively with community partners, except in the case of a community board. Relevant literature affirmed that it was

uncommon to have significant community participation in the proposal development stage, and that shared decisionmaking, effective communication and conflict management, and policy adaptation were just as important in this phase as in the research implementation phases (Akintobi et al., 2018; Yonas et al., 2006). Another potential strategy is braided funding, which is becoming more common in collaborative, community-focused initiatives, which typically makes use of an intermediary organization to combine difference sources of funding with related purposes (Funk et al., 2019; Minkler et al., 2003; Tompkins et al., 2022).

Sustainability was raised as another major funding challenge – how does the project support long-term improvements for the community? Interviewees recommended that community and academic partners engage in long-term planning for sustainability starting from when funding is received, including consideration of how data would lead to interventions and policy changes (including collaborative pursuit of further funding opportunities) and how the community partners would be supported to continue their intermediary function when the project funding ended (potentially including grantwriting support). As noted by Elwood and colleagues (2019), community partners often felt that they carried the majority of the burden of sustaining project impacts after funding ended.

Some interviewees raised concerns that their academic partners didn't do enough to advocate for CBPAR projects with funding entities, including recommendations to leverage public comment periods for public funding sources, and to build better rapport and engagement with program officers. Some funding approaches identified in the literature had an academic institution or umbrella organization functioning as a research coordinating center, which awards grants directly to community coalitions or CBOs to support their research proposals (Plumb et al., 2004; Tendulkar et al., 2011).

In summary, academic institutions may be able to improve their funding flexibility by establishing long term partnerships to identify community priorities before funding proposals are developed, and

including community partners in proposal development. They can also work to educate their funding partners, and to advocate for community-led research. They may be able to learn better approaches to writing funding proposals which specify community participation and shared decisionmaking in their methodology. They may also be able to engage in collective or coordinated research initiatives which can better sustain community representation and consistent funding. Funding entities can explore ways to be less proscriptive about research topics, incentivize meaningful community participation in their grants, and include partnership and participation measures as evidence of impact. They should engage in learning from experienced academic and community research partners as they plan and implement funding opportunity changes.

Limitations

The network recruitment approach may have missed some perspectives, as some entire research communities may have been missed if they did not intersect with the network recruitment avenues. Due to eligibility criteria, the data only captured perspectives of community partners who successfully initiated a partnership, and thus may not capture some barriers to partnering. Additionally, the recruitment and scheduling process may have led to a limited set of perspectives if it was not compatible with potential participants' approaches to connecting, vetting, or engaging with individuals they don't know. It is also possible that some participants may have chosen to change what they said, or to withhold certain experiences or opinions, due to the relatively small community-based research community in Atlanta, which may have resulted in concerns that the dissertation researcher would not be objective, or might be closely connected to situations they were discussing. Only one community representative who did not hold a formal partnership role but had collaborated with academic researchers could be identified as a potential participant, however, they did not have availability for an interview. In conducting the interviews, the researcher found that the interview script was not entirely adapted to some of the different variations in community partner role and experience, and had to use

additional probing questions to follow up on key topics, and to skip other questions when they were not appropriate to the information being shared by the interviewee. Overall, though, the range of participant qualifications and responses seemed more than adequate to support valid research and conclusions.

Overall, the interviews produced an enormous quantity of information - nearly 15 solid hours of transcriptions - producing much more valuable data than could be summarized in this dissertation report. The researcher intends to address this concern by continuing to analyze and disseminate research findings of value to the community. The transcriptions themselves were of challenging quality due to the necessity of using automated transcription services due to cost factors. This resulted in transcriptions that contained inaccuracies, which seemed to be more prevalent for Black, Hispanic, and foreign-born interviewees, a perception which has also been identified in studies of automated speech recognition systems (Ngueajio & Washington, 2022). Although the student assistant reviewed and cleaned the transcriptions, they still required additional review for accuracy, and some certain parts of the recordings were very difficult to transcribe accurately.

The analysis utilized a single data coder, the dissertation researcher. It is not required to have multiple coders, but it is often a preferred practice to have at least two coders to improve validity and reduce bias (Campbell et al., 2013; Hoyt, 2018). In order to substantiate the coding and analysis in accordance with recommended practices, the dissertation researcher sought to clarify their interpretation of statements with interviewees during the interviews, developed coding themes as the interviews progressed, and reflected on meanings individually and with the student assistant (Saldaña, 2021). The student assistant provided a minor amount of supplementary coding due to their available hours and skillset. Additionally, the data did not lend itself to mixed method analysis, which would have allowed some quantification of the frequency of certain terms or sentiments. However the nature of the complex subject discussed, even factors such as positive or negative levels of participation, or

community challenges versus benefits, were too nuanced to accurately quantify beyond the coding reference frequencies. However, the dissertation researcher used a thorough coding approach which supports the development of valid conclusions. It is also worth considering the self-reported nature of the data. Participants described their experiences based on their own perspectives, and the dissertation researcher did not employ any techniques to verify information or obtain other perspectives on the same situations.

Although this research attempted to follow CBPAR principles, there was still a limited amount of time to engage the advisory group and the community research reviewers. Some of these concerns should be addressed as the results are prepared for dissemination to the Collaboratory, which will accommodate a longer review time without the exigencies of the academic schedule. The dissertation researcher intends to develop a presentation and brief for general audiences, as well as a manuscript for submission to a peer-reviewed journal.

Recommendations

1. Scale up and out. Interviewees consistently spoke to the power of community-academic partnerships and CBPAR to align community priorities with research and investment, but noted that many initiatives did not use these approaches, and that there were barriers to fully realizing them when they were implemented. As portrayed in the vignettes, instances of successful partnerships occurred, but were often limited to a single academic researcher or a single grant; community representatives had only modest options for sustaining or building academic capacity from one initiative to the next. Several participants spoke to the potential benefits if more HEIs used community boards with decisionmaking power to steer their research, if research grantmakers promoted CBPAR approaches in their funding opportunities, or if multiple universities came together with community partners to tackle significant social determinants of health, such as homelessness. HEIs should adopt wider use of community boards

that can help determine research agendas before proposals are written, based on community input, and entrust them with the power to collaboratively determine research activities (***2B, 5B***). Existing coalitions, such as the Collaboratory, can engage community representatives, funders, and HEIs to undertake a comprehensive, strategic, and aligned effort to expand and strengthen community partnerships, community boards, and transorganizational, community-led impact initiatives.

2. Support shared learning and resources among community partners. Several community representatives interviewed had developed tools and practices that helped them optimize community-academic partnerships, such as criteria for which they assessed academic partners before engaging in certain activities together, training and orientation modules for faculty and students, and list of non-negotiable elements they required in contracts or MOUs. While some CBOs reported sharing their expertise with each other through existing networks and coalitions, there is an opportunity to expand and strengthen this community of practice. By engaging more community representatives in such a network, and adding some administrative and planning resources, members could significantly strengthen CBO research capacity, support the growth of community-academic partnerships, better prepare community members to serve as CBRs and CHWs, improve the community benefits while reducing burdens, and better realize CBPAR principles in their partnerships (***2B, 2D***). Existing coalitions, such as the Collaboratory, already serves as a backbone for such collaboration, and can expand this role and gain additional support for such a network from HEIs and funders.

3. Foster new and strengthened academic-community connections. HEIs and CBOs can support the development of relationships between academic researchers and community representatives by intentionally holding events that focus on community issues, and to which community members are invited as presenters and guests (***4A, 4B***). Such events can help make the institution more accessible to the community and create alignment around shared interests. Such events should take place both on campus and in the community, and should engage local community representatives to ensure that they

are inclusive and mitigate logistical barriers (for instance, streamlining building access, or providing food and activities for children). The Collaboratory provides examples of these events through its various 'lunch and learn' sessions and outreach activities. HEIs can support the development and maintenance of relationships by supporting time for community partnerships and considering them in performance reviews, and they can formalize and normalize community research requests to the university (***2C, 3C***). Finally, they can provide guidance and support for courses, studios, and student projects with community partners. Existing coalitions, such as the Collaboratory, can collaborate with HEIs to design events and policies in service of this goal; HEIs should support the Collaboratory's growth.

4. Formalize a conduit for faculty, research staff, and students to increase their community competency and impact. Participants noted several important aspects of academic capacity to partner, particularly their ability to see community members and collaborators as equals, and to recognize and respect partners' humanity (***3B***, ***4C***). They described several ways that academic researchers seemed to develop this view, including lived experience, exposure through personal experience, connection to one's own humanity, and a capacity for self-reflection and flexible thinking. HEIs may be able to support academic capacity for respectful community collaboration through professional development of self reflection skills in faculty and staff (Muhammad et al., 2015). This practice may also be integrated into curricula. Increased opportunities for formal and informal community connections, as described in #3, can also support this goal (***3A***). Hiring, retention, and promotion practices, and student advisement and success programs can help increase the percentage of student and faculty researchers with the interest and capacity for community partnership (Casad et al., 2021; Dupree & Boykin, 2021; Martinez et al., 2017). The Serve-Learn-Sustain program provides a student-centered example which also benefits the communities with which they partner (***3D, 2A***). Interviewees called out the importance of support from departmental and university leadership and administration, which indicates a need for similar professional development in these positions. Some of the changes described in #3 would support

increased opportunity to spend more non-transactional time in communities and engaging partners, furthering this goal as well (***3A***). Existing coalitions, such as the Collaboratory, can work with their members to inform and evaluate these changes.

5. Set policies or programs for sustained community partnerships. Interviewees highlighted the important intermediary role played by CBOs, CBRs, and CHWs as conduits between communities at large and partnering institutions (***4D***). However, partnering with HEIs frequently obligated the community representatives to sustain their role as research and intervention experts, facilitators, and navigators. While this capacity was seen as beneficial to the community, it was also seen as exacting a considerable cost in terms of time and effort. In order to maximize the community capacity development equitably, and to increase future partnership opportunities, HEIs and funders need to allocate some type of sustaining support for partners for the pre-project and inter-project periods (***3C***). Existing coalitions, such as the Collaboratory, can serve as a repository and hub for such funding, as well as advising academic partners on partnership and project terms.

6. Increase funding and research flexibility. Interviewees described multiple circumstances under which CBPAR principles could not be achieved due to constraints of the research funding cycle, which were captured at several points in the vignettes (***3C***, ***5C***). Funders should accommodate more community led research by supporting and encouraging CBPAR methods, making this option more explicit in funding announcements, and allowing more flexibility in study design adaptation and project implementation. This process may take considerable time and encouragement to have widespread effect. Research funding primarily comes from governmental organizations, foundations, and corporations, all of which may have vested interests in maintaining current structures and systems, and thus may avoid funding projects which seek to change the balance of power (***5A***) (Ahn, 2007; Huang & Huang, 2018; McCarthy, 2004; Suárez, 2012). Studies have found inequities in funding for research with a focus on racial disparities, on community or population level data and interventions, on projects with a social or racial

justice lens, and with a person of color as the lead researcher (principal investigator) (Buchanan et al., 2021; Ginther et al., 2011; Hoppe et al., 2019; Suárez, 2012; Taffe & Gilpin, 2021). Even in the absence of bias or resistance to change, policies and systems often create organizational inertia, especially for public agencies or mission-driven foundations (Hussain et al., 2018; Scherer, 2017). HEIs should be more proactive about proposing community led research that still satisfies funding requirements. Existing coalitions, such as the Collaboratory, can recommend policies and funding opportunity language to funders, including trust-based philanthropy, and provide training and resources to assist researchers in writing successful CBPAR-based proposals. Additionally, current collaborators and coalitions can promote their successes, scrutinize funding practices, and develop strategic approaches to highlight and address funding practices at governmental organizations, foundations, and other grantmaking entities to increase the level of funding for meaningful community-academic partnerships.

Conclusion

Health equity remains an elusive and complex goal for public health professionals, and certainly for communities experiencing inequities in their living conditions and life opportunities. Given the compelling evidence that progress towards full social justice and equitable outcomes requires a collaborative or leading role by those who are most affected by inequities, this research should be used to increase and strengthen community-academic partnerships so they can support such collaboration or shifting of decision-making power. The findings drawn from research show that community-academic partnerships have taken on many forms in metropolitan Atlanta, and are contributing to valuable learnings, capacity growth, and efforts to promote health equity. It showed that community representatives are engaging in partnerships for multiple compelling reasons, and often finding a degree of success that motivated then to continue strengthening this work. The research highlighted many of those reasons, and key factors that support or impede success. The research highlighted the importance of relationships, academic capacity, community impacts, and meaningful participation collaboration. In

particular, it elevated the importance of individual relationships, and the conditions to support such relationships. Further, it provided detailed examples of the trajectories of common types of partnerships in metropolitan Atlanta, including frequently shared successes, challenges, and transformations that result. The researcher concludes that further efforts to expand community-academic partnerships and CBPAR approaches into community improvement efforts and research agendas are strongly justified. Finally, the researcher provides the data, results, and recommendations in order to support this goal. Given the significance afforded to successful community-academic approaches by both the literature and the participants in this study as necessary to make advances towards social justice and health equity, it is important to act on these findings and recommendations.

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Appendix A: Memorandum of Understanding

Proposed Dissertation Scope

Michelle Jeanine Marcus, DrPH candidate

Estimated duration January-May, 2024

Community Based Participatory Action Research (CBPAR) is considered an essential strategy to address intractable health issues and inequities, which are often deeply rooted in complex social problems and require partnership with affected communities to solve them. While health research projects often engage community members, it is still rare for community priorities to drive the research scope. One rationale for CBPAR is that excellent health outcomes cannot be achieved without mitigating health inequities, and health inequities cannot be mitigated without changing the classic approach to health promotion and disease prevention to center the communities experiencing inequities .(Rodriguez Espinosa & Verney, 2021; Suarez-Balcazar et al., 2020)

Across the metro-Atlanta area, there are several communities that have been the subject of community-engaged research projects over many years (Eiffert et al., 2016; Hawthorne et al., 2015; Jelks et al., 2018; Kreuter et al., 2012; Rollins et al., 2021). Some of these have resulted in persisting relationships between community members or community based organizations (CBOs), and individual researchers or research institutions. However, the dissertation researcher is aware of multiple community based research initiatives using CBPAR approaches conducted in metro Atlanta for which peer-reviewed publications could not be located. It may not be possible to identify all of the relevant projects. It appears that community participants have not been engaged in consistent ways. The Greater Atlanta Community Science Collaboratory ("Collaboratory"), convened by several higher education institutions through the Atlanta Global Research and Education Collaborative (AGREC), has been operationalizing community engaged research, including a mission statement and guiding principles, membership definition, and leadership structure. Georgia State University (GSU) is a member of the Collaboratory and has an interdisciplinary network, the Partnership for Urban Health Research (PUHR) which can provide guidance for collaborative research.

The proposed scope for this dissertation adheres to the GSU School of Public Health DrPH dissertation process. This process begins with background on the topic and a literature review regarding successful academic-community partnerships; ways to define and measure dimensions of success for different types of partners; and promising CBPAR tools and strategies for academics partnering with communities. Subsequently, research methods will be developed, described in more detail below, to enhance understanding of these strategies, particularly as they apply to Atlanta area community research. The dissertation research design must be successfully proposed and defended to the Doctoral Dissertation Committee. Following approval of the research design, the research will be conducted, analyzed, and reported. IRB approval will be obtained prior to conducting research with community participants.

CBPAR approaches can be applied in many areas of research. While this work will be focused on public health, it will embrace a broad concept of health which incorporates a wide range of policy, social, organizational, and environmental factors that affect equitable opportunities to be healthy. Additionally, the findings should be relevant to participatory approaches in other disciplines.

Preliminary Methods & Approach.

The dissertation researcher will use semi-structured interviews following an interview guide developed with involvement from Collaboratory members. Up to 22 interviews will be conducted with key community research partners in metro Atlanta – including community leaders, CBOs, and previously-participating residents to elicit knowledge and guidance about academic-community research partnership practices and research strategies. The participants will be identified with input from Collaboratory members, review of published CBPAR research, and follow up as needed with researchers. Participants will be selected to represent a broad variety of experiences and perspectives. This developmental qualitative research will use variation sampling to prioritize breadth of opinions, experiences, and perspectives over frequency and repetition (Miles et al., 2014).

This work will endorse and adhere to core CBPAR principles: 1) particularly recognizing community strengths and knowledge, 2) structuring partnerships to share power equitably, 3) iteratively reflecting and co-learning with community partners, 4) collaborating at every stage from development through dissemination, and 5) committing to long-term partnerships (Minkler & Wallerstein, 2011). On the International Association for Public Participation (IAP2) spectrum of participation, this work will adopt a "Collaboration level of engagement"; community participants are partners in each stage of the decision-making process. To that end, several practices will be followed to ensure knowledge exchange, ongoing collaboration, and mutual benefit.

Collaboratory members, especially those representing lived experiences or participating on behalf of the community, will have an opportunity to inform each stage of the dissertation process, to the extent that they wish to be involved and is feasible to the complete of the dissertation. Ideally, a smaller group of interested Collaboratory members will be identified who can receive more frequent updates, review research materials in progress, and discuss the progress, next steps, approach, and deliverables on a regular basis. This advisory subgroup may include community members or representatives who are not Collaboratory members, as appropriate. It is expected that a more detailed collaboration plan would be developed jointly by this subgroup. Other Collaboratory members would be able to join this advisory subgroup at any time and would be able to view ongoing work plans, progress, and draft materials online or by request. Progress will also be shared in Collaboratory meetings to the extent requested by its leadership team, along with opportunities for questions and input.

Due to the participatory and dynamic nature of this work, detailed research questions, data collection instruments and methods, and qualitative analytical tools will be defined as the project progresses, which allows these parts of the research to be informed by community collaborators (Israel et al., 2012; Israel et al., 2017). These details will follow evidence-informed public health research and CBPAR practices. For instance, data collection may utilize interviews, focus groups, Photovoice, or other qualitative data collection methods. These details will be proposed by the researcher, and finalized based on collaboration with the advisory subgroup, Collaboratory members, and the doctoral dissertation committee.

Timeline.

The timeline is ultimately flexible due to potential unknown factors; projected dates may occur later than estimated but not earlier. A best estimate entails conducting a review of the literature, selecting methods, and developing detailed research questions from January through August

2023. It is anticipated that Collaboratory members and other community partners will provide regular input into this process. Completion of the dissertation proposal and proposal defense is targeted for Fall 2023, as well as submission of the IRB application for the formal data collection phase. Data would be collected through February 2024, and analysis and writing of the final deliverable(s) completed in March 2024. The final dissertation defense is targeted for April 2024.

Deliverables.

The traditional dissertation consists of a detailed five-chapter report which describes the purpose of the research, literature review, methods, data analysis, and results, and finally the discussion, conclusions, and recommendations. The products can be modified when appropriate to meet the requirements of a more applied research project, as long as the specific dissertation requirements are also met. In this case, CBPAR guiding principles would suggest that some variation on this format would better meet the research interests of community participants. An iterative approach is suggested, in which community participants could have the opportunity to collaborate with the researcher to determine the preferred final product(s). While these preferences cannot yet be known, it is likely that this approach will result in a somewhat shorter research report, but include some less technical products, such as briefs, infographics, online resources, or multimedia, that can be utilized by Collaboratory members and affiliated communities.

Roles and Responsibilities.

GSU SPH Doctoral Dissertation Committee (DDC): The DDC is responsible for reviewing progress, providing feedback on the dissertation proposal, advising on dissertation progress, and providing overall guidance to support the student in producing a satisfactory dissertation.

DDC Chair: The DDC chair, who is also the student's faculty advisor, is experienced in CBPAR and supportive of a dissertation approach that prioritizes community control. His approach tends to be more in terms of support and guidance than control or instruction. However, it would likely be beneficial for him to have some engagement with Collaboratory meetings and members to support effective knowledge exchange. The ability of the DDC chair to provide constructive and relevant guidance will depend on the timeliness of updates, responses, and access to research-related information.

Collaboratory leadership team: It is expected that the leadership team will make determinations regarding the interaction of the dissertation process with other Collaboratory activities, such as meetings and outreach, and advise on ways that the dissertation research, methods, and deliverables can best align with Collaboratory's processes and objectives.

Collaboratory members & community partners. In accordance with CBPAR guiding principles, including a truly collaborative and equitable relationship between institutional and community researchers, shared research and publication activities would be suitable, although certain accommodations might need to be made to the dissertation timeline. That is, a more limited description of the research might be submitted as the dissertation, while the researcher continues to collaborate with Collaboratory members, including CBOs, to develop a manuscript for peer-reviewed publication.

Collaboratory advisory group: As noted previously, it is expected that an advisory subgroup will be convened which has more touchpoints and collaboration opportunities. These collaborators will be invited to additional meetings specific to the dissertation progress and planning, and will have opportunities to review working drafts and research in progress.

DrPH Dissertation Researcher. The dissertation researcher will be responsible for maintaining communication with the DDC, the Collaboratory leadership team, the advisory subgroup, and the community. The dissertation researcher will develop work planning steps, proposed deliverables, and interim work materials to allow collaborators to understand the proposed work and provide informed feedback, as well as facilitate collaborative processes to receive that feedback and incorporate it into the research. In addition, the dissertation researcher will be responsible for conducting the research in accordance with ethical standards, completing the analysis, and developing the deliverable(s) such as the written dissertation report.

This agreement is made between Michelle Marcus, dissertation researcher, and the Greater Atlanta Community Science Collaboratory to collaborate in order to support the completion of the above scope.

Michelle Marcus, MPH, dissertation researcher	Aug 22, 2023 Date
Carol J Hunter Carol J Hunter (Aug 25, 2023 13:10 EDT) Carol Hunter, Collaboratory advisory group	Aug 22, 2023 Date
Gwen Smith, Collaboratory advisory group	Aug 22, 2023 Date
Pegah Zamani, Collaboratory advisory group	Aug 22, 2023 Date
Carla Lewis Carla Lewis (Sep 21, 2023 19:00 EDT) Carla Lewis, Collaboratory advisory group	Aug 22, 2023 Date
Carolyn Keogh, Collaboratory advisory group	Aug 22, 2023 Date

Bios

Michelle Marcus, DrPH candidate & dissertation researcher. Michelle Marcus is a specialist in Health Equity in All Policies (HiAP/HEiAP), health impact assessment (HIA), health promotion, community-based participatory research, and environmental health. In her capacity as Senior Policy Impact Specialist at the Georgia Health Policy Center, she conducts policy analysis, training and technical assistance, and evaluation in order to support and track evidence-based health interventions using a policy, system, and environment approach. Ms. Marcus also prepares research on links between the built environment and human health. Since joining the GHPC in 2012, she has served on several projects intended to increase healthy design and access of low income housing development, using evidence review, data collection, and stakeholder engagement. Another project is aimed at integrating health needs into equitable transit-oriented development plans. Other recent work includes a rapid HIA of a trail project in Miami, FL looking at physical activity and social connections, and a community of practice session for public health and transportation professionals. She previously conducted two major HIAs, one focusing on the Aerotropolis Atlanta Brownfield Redevelopment Project and the other focusing on the Atlanta Regional Plan 2040. Additionally, she has led HIA training sessions for the Georgia Department of Public Health, city and regional planners, and local public health districts. Ms. Marcus received her Master of Public Health from the School of Public Health at Georgia State University in 2008, and holds a bachelor's degree in Anthropology from Cornell University. She is a DrPH candidate at Georgia State University.

Dr. Jacque-Corey Cormier, Clinical Assistant Professor – DDC Chair. Dr. Jacque-Corey Cormier is a Clinical Assistant Professor in the School of Public Health's Department of Health Policy & Behavioral Sciences at Georgia State University. His specific interests include community-based participatory action research (CBPAR), high-impact educational practices, and program development and evaluation. Dr. Cormier has utilized his skillset and connections with community-based organizations and public servicing agencies to provide applied research training and program management consulting services. He is a member of the GSU Southern Urban Research for Growth & Equity (SURGE) initiative where he primarily serves as the co-lead for student researcher engagement. Dr. Cormier has partnered with the Jesse Parker Williams grant foundation to facilitate grantee trainings on how these organizations can incorporate photovoice, a qualitative, CBPAR approach, into their program evaluations, organization marketing, and future funding initiatives. With the Friends of the Urban Food Forest at Browns Mill, he has crafted an ongoing community impact study survey and data management system, facilitated photovoice training series for members, and participated in media coverage of the food forest.

Dr. Harry J. Heiman, Clinical Professor, Director of the DrPH Program –GSU SPH DDC Member. Dr. Heiman is Clinical Professor in the Department of Health Policy and Behavioral Sciences at the School of Public Health at Georgia State University. Prior to joining Georgia State, he served as Director of the Division of Health Policy at the Satcher Health Leadership Institute at Morehouse School of Medicine, where he was also Associate Professor in the Department of Family Medicine. He is a Fellow of the American Academy of Family Physicians, with more than 20 years of clinical practice experience. Leveraging his experience as a primary care physician and expertise and experience in health policy, Dr. Heiman's work focuses at the intersection of health policy and health equity. Dr. Heiman received his medical degree from the University of Cincinnati College of Medicine and his master's in public health from the Rollins

School of Public Health at Emory University. Dr. Heiman's areas of interest and expertise include health policy, health equity, health-in-all-policies, and health system transformation. In July 2014, he was appointed to the Southeastern Health Equity Council, one of ten regional health equity councils in the U.S. formed as part of the National Partnership for Action to End Health Disparities. He is also a board member and former board chair of Georgians for a Healthy Future, a statewide consumer health advocacy organization.

Dr. Rebecca Watts Hull, Academic Professional - Service Learning and Partnerships Specialist – External DDC Member. Dr. Watts Hull is an environmental sociologist with professional experience in environmental education and advocacy. She is a Service Learning and Partnerships Specialist for the Center for Serve-Learn-Sustain and an Adjunct Academic Professional in the School of History and Sociology at the Georgia Institute of Technology in Atlanta, Georgia. Serve-Learn-Sustain (SLS) is the Institute's Quality Enhancement Plan - a campus-wide academic initiative preparing students to use their disciplinary expertise to "create sustainable communities" in partnership with community, nonprofit, business, and academic stakeholders. Dr. Watts Hull's research and teaching interests include environmental history and governance, sustainability, campus-based leadership and advocacy, and social movements. Dr. Watts Hull received a Bachelor's degree in Psychology from Bucknell University, a Master of Science degree from University of Michigan in Natural Resources and Environment, and a Master of Science and Ph.D. from Georgia Tech in History and Sociology of Technology and Science.

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Appendix B: Interview Script

**Researcher's note: Top-level bulleted text is all read to the interviewee. Prompts are reminders or sample text for the interviewer to use in order to clarify responses or encourage the participant to provide a more lengthy response. Probes are follow up questions that are only read by the interviewer when justified by the primary response.

- Thank you for meeting with me today. The purpose of this interview is to better understand how community representatives, including community members and community based organizations (CBOs), experience research partnerships with academic partners. I plan to share the results with academic and CBO members of the Greater Atlanta Community Science Collaboratory, and other researchers. Today's interview should take up to an hour.
    - *Prompt: [Review the informed consent process and ensure form is signed]*
- Is it okay with you if I record the interview? No one outside of the research team will have access to the recording; it is just to ensure that our notes are accurate.
    - *Prompt: [Confirm correct name and organizational or community affiliation]*
- First of all, would you please provide an overview of your past and present involvement with research projects or partnerships conducted in your community.
    - Prompts: clarify the project name, the PI/HEI, and brief methods/topics
- How did you come to be involved in these projects or partnerships, and what was your role?
    - Prompts: if multiple projects, they can choose one to focus on
- Please describe your motivation for participating in the project or partnership.
    - Prompts: What did you hope to gain from being involved? What concerns did you have?
    - Probes: To what extent were these benefits and concerns realized? Why or why not?
- In your opinion, what does an academic-community research partnership need to do or accomplish, in order for you to consider it successful?
    - Probes: By those criteria, how would you rate the success of the project(s) you were involved with?
- Now, thinking about your role on the project, how satisfied were you with your level of involvement? Please explain.
    - Probes: Would you have liked to be involved earlier or later, have more or less responsibility, or have different roles?
- Given your experience collaborating with academic research projects or partnerships, I would like to hear specific experiences, resources, policies, or processes that were important to your involvement...
- What contributed to a sense of being included or excluded as a member of the project team?
    - Probes: Did you experience any sense of inclusion or exclusion related to racial or ethnic identity, education or income level, or similar factors?
- What contributed to development or loss of trust between community and academic partners?

- How did you feel that resources, responsibilities, and influence over important decisions were distributed between academic and community partners? Please explain.
    - Probes: Did it differ across different phases of the project?
- How did you feel that project benefits and outcomes were distributed between academic and community partner goals? Please explain.
- Based on your relevant experience, how can a long-term community-academic partnership best engage communities in participatory research or community science?
    - Prompts: This could include meeting and communication logistics, decisionmaking structure, training, and more.
- How do you recommend that academic researchers engage Atlanta communities where they conduct research?
    - Prompts: For instance, how can they inform community members about their work, make their research more accessible, or invite participation?
- What overarching goals would you set for a long-term, Atlanta-area academic community partnership?
- Anything else you would like to share?
- Referrals?
- Provide incentive

Appendix C: Consent Form

Note that consent form is not stamped because study was Exempt

Georgia State University
Informed Consent

Title: Participatory Community-Academic Research Partnerships for Health Equity
Principal Investigator: Dr. Jacque-Corey Cormier, PhD
Student Investigator: Michelle Marcus, MPH

Introduction and Key Information

You are invited to take part in a research study. It is up to you to decide if you would like to take part. The purpose of this study is to learn more about successful community-academic partnerships. Your role in the study will take approximately 1 hour of your time in a single interview.

You will be asked to participate in a 1 hour interview. Participating in this study will not expose you to any more risks than you would experience in a typical day. This study may not benefit you directly. Overall, we hope to gain information about partnership processes in community-academic research collaboration from the perspective of community collaborators.

Purpose

The purpose of the study is to understand practices that are associated with successful participatory community-academic research partnerships in metropolitan Atlanta. We will interview community members and community based organizations (CBOs) who have partnered with academic researchers. The findings from this research will inform the Greater Atlanta Community Science Collaboratory ("Collaboratory") and other community-academic research partnerships.

You are invited to take part in this research study because you have been identified as a community member or CBO representative who currently or previously partnered on community-academic research. Around 22 people will be invited to take part in this study.

Procedures

If you decide to take part, you will participate in a 1 hour interview with a member of the research team and a note-taker. Study participation will last for a single interview.

- A member of the study team will interview you, either in person or virtually.
- You can choose where you want to complete the interview.
- You can choose to end the interview at any time. You can also choose not to answer any questions at any time. This will not cause you to lose any benefits to which you are otherwise entitled.
- If you agree to be recorded, the interview will be recorded and transcribed. If you do not agree to be recorded, a member of the research team will take detailed notes.

Future Research

Researchers will remove information that may link data from your interview to you and may use your de-identified data for future research. If we do this, we will not ask for any additional consent from you.

Risks

In this study, you will not have any more risks than you would in a normal day of life. No injury is expected from this study, but if you believe you have been harmed, you can contact the research team as soon as possible. Georgia State University and the research team have not set aside funds to compensate for any injury.

Alternatives

The alternative to taking part in this study is to not take part in the study.

Compensation

You will receive $90 for participating in this study.

Confidentiality

We will keep your records private to the extent allowed by law. The following people and entities will have access to the information you provide:

- Michelle Marcus and the rest of the research team
- GSU Institutional Review Board
- Office for Human Research Protection (OHRP)

We will use a code to identify you in our study records. We will remove information that could identify you from your interview recording or transcript. The de-identified files will be stored on a password- and firewall-protected computer. When we present or publish the results of this study, we will not use your name or other information that may identify you. However, you may choose to make quotes from your interview identifiable if you want them to be attributed to you.

- If you agree to have your interview recorded, audio or video recordings will be made of the interview. The recordings will be used to ensure accurate transcription of your interview. Then they will be deleted.
- Recordings and project files will be password protected. Data on the internet faces inherent security risks. We will follow standard security procedures to secure access to these files.

Contact Information

Contact Michelle Marcus at [redacted] if you have questions about the study or your part in it, or if you have questions, concerns, or complaints about the study. You can also contact the principal investigator, Dr. Jacque-Corey Cormier, at [redacted].

The Institutional Review Board (IRB) at Georgia State University reviews all research that involves human participants. You can contact the IRB if you would like to speak to someone who is not involved directly

with the study. You can contact the IRB with concerns, problems, information, input, or questions about your rights as a research participant. Contact the IRB at 404-413-3500 or irb@gsu.edu.

Consent

We will give you a copy of this consent form to keep.

If you are willing to volunteer for this research, proceed to participate in the interview.

Virtual Interview:
If you are willing to volunteer for this research, proceed to participate in the interview.

In-person Interview:
If you are willing to be in this research study, please sign below.

_____
Printed Name of Participant

_____ _____
Signature of Participant Date

_____ _____
Principal Investigator or Researcher Obtaining Consent Date

Appendix D: Outcome Letter

IEW BOARD

Georgia State University

Mail: P.O. Box 3999 In Person: 3rd Floor
Atlanta, Georgia 30302-3999 58 Edgewood
Phone: 404/413-3500 FWA: 00000129

January 03, 2024

Principal Investigator: Jacque-Corey Cormier

Key Personnel: Cormier, Jacque-Corey; Ehimen, Omonigho A; Marcus, Michelle

Study Department: School of Public Health

Study Title: Participatory Community-Academic Research Partnerships for Health Equity
Funding: Internal

Review Type: Exempt Amendment

IRB Number: H24310

Reference Number: 377877

Approval Date: 12/14/2023

Status Check Due By: 12/13/2026

Amendment Effective Date: 01/02/2024

The Georgia State University Institutional Review Board reviewed and **approved** the amendment to your above referenced Study.

This amendment is approved for the following modification(s):

- Increasing participant compensation from $10 to $90

The amendment does not alter the approval period which is listed above and a status update must be submitted at least 30 days before the due date if research is to continue beyond that time frame. Any unanticipated problems resulting from participation in this study must be reported to the IRB through the Unanticipated Problem form.

For more information, visit our website at www.gsu.edu/irb.
Sincerely,

Kiki Sindad, IRB Member

Appendix E: Referral Form

Default Question Block

This brief form is intended to collect contact information for community members and/or community-based organizations (CBOs) who have collaborated on community-academic research partnerships in metropolitan Atlanta. Thank you for taking the time to make your referral. Please review the provided information as a reference for your entries. You may submit more than one form.

About the research:

This project is being conducted by Michelle Marcus, a student in the Doctor of Public Health program at Georgia State University conducting dissertation research on community-academic research partnerships. I am looking to identify community or CBO representatives who have collaborated on a community-academic research partnership in metropolitan Atlanta.

They will be invited to paticipate in an interview about your experiences collaborating with academic researchers. The interview will take about one hour of their time, virtually or in person. They will receive an incentive payment for their time. This research has been approved by Georgia State University's Institutional Review Board.

For further information or any questions, email Michelle at [redacted]

Please provide the name of the community or CBO contact.

Please provide their CBO or community affiliation, if any.

Does the contact meet the eligibility requirements?

-This person is not a professional or academic researcher in the field of the community-academic research partnership
-This person is a member of a community or staff/volunteer of a CBO, who collaborated on current or past research involving a community they represent
-This person or CBO collaborated with academic partners on the research process (they were not just a data collection participant)
-The research was in the metropolitan Atlanta area
-This person is 18 years of age or over

**Please email Michelle (mmarcus2@gsu.edu), text, or call (404.512.3542) if you have questions about eligibility criteria.

- ○ Yes
- ○ No

What is the best way to contact this person? Please provide an email address, phone number, or any other contact information, as well as any instructions for contacting them.

Briefly explain why you referred this person.

Would you like to introduce your community contact to the researcher? If so, please describe how you would like this to happen.

Thank you so much for your contribution! I would like to be able to tell the participant who referred them. Please provide your contact information.

Name

Email address

Other preferred contact info