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Improving Research-Based Practice through Qualitative Inquiry:
A Community-Based Study of Minority Health Care

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ABSTRACT

This inquiry provides an overview of a collaborative, community-based qualitative research project that explored how public health workers can better utilize research to improve practice in the area of minority health care. We discuss key aspects of our research design and the decision-making process employed at all stages of the research project to clearly articulate the methodological components of our study. This methodological analysis sets the stage for a review of our findings that yielded five overarching participant-driven themes targeted at strengthening links between research and practice. We conclude with the development of a model to further organize and better visualize these themes and provide suggestions and implications of our research. We hope this study aids efforts toward realizing our mutually shared goal of reducing minority health disparities and fostering more equitable health care through forging proactive collaborative community-based partnerships between researchers and practitioners.

INTRODUCTION

Project Background and Personnel

In January, 2013, Mindy Anderson-Knott, Core Facility Manager, Survey, Statistics, and Psychometrics, University of Nebraska-Lincoln (UNL), contacted Dr. Wayne Babchuk also at UNL (Departments of Educational Psychology, Sociology, and Anthropology) to conduct a qualitative study on research-to-practice links in minority health to guide future UNL efforts in improving the health and well-being of all Nebraska residents.

To achieve a better understanding of the ways in which practitioners utilize research in their practice settings and to develop a list or model of strategies or best strategies for improving practice for public health workers working in the area of minority health disparities in the community, a qualitative research design was employed. A less proximate but equally important long-term goal of this research project was help build a foundation for forging more effective linkages between the University of Nebraska-Lincoln and public health workers in the area of minority health care.

Dr. Babchuk (Primary Investigator) recruited Lesa Brand (Secondary Investigator), a doctoral student at UNL in Teaching, Learning, and Teacher Education, to aid him in this research project. The two researchers met several times with Ms. Anderson-Knott throughout January, 2013 to develop a viable research design and interview protocol. Although Ms. Anderson-Knott did not play a direct role in data collection and analysis, her feedback and input was invaluable at all stages of the research project. Peter Rainey, a UNL doctoral student in the field of Medical Family Therapy at UNL, who has considerable experience in public health research in the State of Nebraska, volunteered to conduct an external audit of the research and also played an important role in the later (data analysis) stages of this research project. The research project spanned from its inception in January, 2013 to July, 2013.
Project Goals and Description

The overarching goal of this study was to identify effective strategies or best practices linking research to practice, policy, and training in the field of minority health care. Two university researchers were charged with the task of conducting a qualitative research study to ascertain how public health workers in the community: (1) access and utilize research in their daily practice and, (2) how these practitioners could better utilize research to improve practice, policy, and training. In effect, this inquiry focused on how public health workers view and utilize research in their current practice and how research-to-practice links could be strengthened to ultimately better facilitate more equitable and accessible treatment of members of traditionally underserved minority groups. A collaborative, community-based qualitative methodology was employed under the assumption that this type of research design would allow for a deeper understanding of how participants viewed the role and potential of research in their daily practice than that afforded by more limiting traditional quantitative approaches. To accomplish this task, 13 participants working in the area of public health care were identified and interviewed by the researchers.

This document provides a comprehensive account of all aspects of this research project. First, we review our qualitative research design and detail the specific process we employed at all stages of the research project. Second, we present the findings of this study at increasingly higher analytical levels building from codes, to categories to themes. We conclude with participant-driven recommendations gleaned from this research that are consistent with findings from the broader literature base on minority health care. As teachers, researchers, and practitioners in education and the social sciences, we are interested in learning more about effective strategies for linking research-to-practice to foster more productive partnerships between educational institutions and communities of practice.

Statement of the Problem

There is a broad and extensive literature base covering a wide range of issues pertinent to the study of minority health disparities over time and across disciplines. Much research has focused on topics such as health literacy and how systemically disadvantaged individuals access and are served by the health care system and how this process can be improved at all levels (Bann, McCormack, & Squiers, 2012; Berkman, Sheridan, Donahue, Halpern, Viera, Crotty, Holland, Brasure, Lohr, Harden, Tant, Wallace, & Viswanathan, 2011; Dennis, Williams, Taggart, Newall, Denney, Zwar, Shortus, & Harris, 2012; Eckman, Wise, Leonard, Dixon, Burrows, Khan, & Warm, 2011; Primack, 2007, Primack, Bui, & Fertman, 2007). Research attempting to clarify and articulate terminology and definitions surrounding the concept of health disparity or inequity and how these definitions have influenced research design and the measurement of disparities across populations has also had active tradition (Adler & Reskopf, 2008; Bravemen, 2006; Carter-Pokras & Baquet, 2002; Steward & Napoles-Springer, 2003), as has the study of the potential effectiveness of evidence-based practice for improving minority health care (Brownson, Allen, Duggan, Stamatakis, & Erwin, 2012; Scharff, Rabin, Cook, Wray, & Brownson, 2008). Along these lines, researchers have called for interdisciplinary or transdisciplinary models of collaboration among researchers (Satterfield, Spring, Brownson, Mullen, Newhouse, Walker, & Whitlock, 2009; Gehlert, Murray, Sohmer, McClintock, Conzen,
Olopade, 2010) and emphasized the importance of collaboration between and among academic and community partners, often advocating emerging strategies of community based participatory research or CBPR (Israel, Schulz, Parker, & Becker, 2001; Koh, Oppenheimer, Massin-Short, Emmons, Geller, & Viswanath, 2010; Layde, Christiansen, Peterson, Guse, Mauana, & Brandenburg, 2010; Wallerstein & Duran, 2006; 2010, and see Brydon-Miller, Kral, Maguire, Noffke, & Sabhlok., 2011). Another overarching theme that cross-cuts much of this literature is its strong emphasis on a social justice approach that argues for the use of scientific research to help close the disparities gap and eliminate the inequalities suffered by individuals and groups in the realm of public health care (Braveman, 2006; Dankwa-Mullan, Rhee, Williams, Sanchez, Sy, Stinson Jr., & Ruffin, 2010; Koh et al., 2010; Thomas, 2006; and see Charmaz, 2011, for further elaboration of this approach and how it can be implemented through qualitative designs).

Of particular interest to our research is Dankwa-Mullan, Rhee, Williams, Sanchez, Francisco, Stinson, and Ruffin’s (2010) summary report of the National Institute of Health (NIH) 2008 summit titled, The Science of Eliminating Health Disparities (held in National Harbor, Maryland). Drawing on a wide range of experts on health disparities research representing diverse array of fields, these scholars generated recommendations and conclusions aimed at bridging science, policy, and practice and taking into account social determinants of health, community engagement and partnerships, capacity-building, and media outreach. Over a three-day period, 4400 participants representing all 50 states participated in 3 multi-topic plenary sessions within 4 breakout tracks totaling 100 speaker panels and 328 poster presentations. A comprehensive summary of the plenary sessions, comprised of moderated panel discussions, yielded the following conclusions: (1) health disparities research should focus on social determinants of health, (2) research needs to be collaborative and needs to promote community engagement, (3) research should promote effective and sustainable partnership models, (4) research should promote infrastructure and capacity for health disparities research, and (5) media outreach and communication is an essential component of the dissemination of research findings (p. S13).

Breakout sessions focused on five distinct tracks including translating science to policy and practice, health disparity diseases and conditions, health disparity target populations, building capacity, and partnerships, collaborations and opportunities. Recommendations from 83 breakout sessions were analyzed using a mixed-methods qualitative and quantitative approach. Results from these sessions clustered around three themes: (I) Intersections between Science, Policy, and Practice, (II) Partnerships and Collaboration, and (III) Research Capacity-Building and Infrastructure Development.

Recommendations emerging from a discussion of Theme I focused on bridging science and practice, science and policy, and policy and practice. Here, participants emphasized the need for improved data collection and measurement for health disparities research and the importance of an increased understanding of the social determinants of health and their relationship to public health care practice to meet this goal. Participants suggested that this research also needed to explore the role of culture and patient-centered care with diverse populations and in further clarifying the concept and implications of health literacy in terms of definition, measurement, and environmental factors (science and practice). Other recommendations included that scientists need to be better educated in policy-making, further examination of socio-political
processes that influence social determinants of health to guide more effective interventions is needed, and more comprehensive efforts to establish policy to promote equity in quality-of-care research should be promoted (science and policy). Participants also recommended increasing the number of health professionals from underrepresented minority groups, and placing more emphasis on patient-centered communication and intercultural competency skills training in health professions education (policy and practice). Theme II, Partnerships and Collaborations included subthemes cross-disciplinary collaborations and partnerships and community partners. Recommendations from the cross-disciplinary collaborations subtheme included seeking new methodologies and linkages between disciplines, borrowing existing successful models of interdisciplinary collaboration, and providing interdisciplinary training. Collaboration between federal (NIH) and nonfederal and nontraditional partners was stressed here. Similarly, the community partners subtheme recommendations advocated community-based participatory research, community-owned and managed research, and community outreach programs. The main thrust here was to facilitate partnerships to accelerate the translation of research to practice and policy that would benefit communities and neighborhoods. Research Capacity-Building and Infrastructure Development was a broad theme (Theme III) encompassing previously identified recommendations and emphasizing a participatory approach and community involvement in all aspects of the research process.

In conclusion, the Science of Eliminating Health Disparities summit took steps toward building an agenda to design and implement cross-disciplinary interventions that integrate science, practice, and policy in health disparities research. Moving into the future, overarching considerations include: (1) causes and impacts of health disparities transcend health care, (2) partnerships and collaborations are critical, (3) build health disparity research capacity and expand training opportunities, and (4) partner with media to disseminate health disparities information and research.

Building on the theme of research-to-practice, Koh et al. (2010) recommends a social determinants social justice approach to eliminate health disparities through the translation and dissemination of proven interventions that affect all people regardless of social class or racial or ethnic background. Based on their analysis of several U.S. and global initiatives aimed at translating research to practice, they underscore the need to transcend “the confines of academia to reach and influence broader real-world settings” (p. S72) through collaborative social action to facilitate long-term sustainable change. One such resource reviewed by these authors is a handbook titled Tackling Health Inequalities through Public Health Practice (2006) published by the National Association of County and City Health Officials, that offers information and suggestions for how local health departments can implement programs aimed at social justice and health equity. Another useful resource they identified is the Centers for Disease Control and Prevention’s recent Promoting Health Equity report (Brennan Ramirez, Baker, & Metzler, 2008). Drawing from nine small- and large-scale project case studies, this document provides real-world examples of program and policy initiatives aimed at reducing health equities that involve innovative and multidisciplinary partnerships to promote community action through a social determinants approach.

Layde, Christiansen, Peterson, Guse, Maurana, and Brandenburg (2012) compare the potential effectiveness of two disparate approaches to community-based interventions commonly used in
public health care. The first is the traditional evidence-based research-driven translations models relying on rigorously evaluated interventions from academic institutions and governmental agencies at state and national levels for use in local communities. This model rests on expert knowledge of academic and governmental researchers to identify and assess health needs in local communities and provide solutions. This top-down approach tends to view community members as research participants and passive recipients of services rather than active change agents needed to promote effective and context-specific meaningful change through collaborative empowerment. Evidence-based approaches typically entail using rigorous scientific research to develop sound practices and policies geared at improving health outcomes and a more efficient use of resources. Ideally in this model, policymakers are assured that policy decisions are based on the best information available. Traditional research-based approaches, however, can be of limited usefulness if fundamental elements of individual communities are misunderstood or ignored, local priorities are neglected, and community ownership is not achieved.

Conversely, an alternative approach to implementing community-based interventions demands active community involvement and participation in identifying local health needs and problems and the planning, development, and implementation of health improvement strategies tailored to them. Layde et al. (2012) provide examples of several such models incorporating community input and develop their own integrate version drawing heavily from the community health process (CHIP) approach. Their model, called the evidence-driven community health improvement process (EDCHIP), works toward combining salient aspects of community-input models with evidence-based approaches. According to them, their integrated approach can be effective in helping local communities plan and implement interventions that are sensitive to local needs and can build upon community-academic partnerships and local-state partnerships. Thus, the overall goal of EDCHIP is to prioritize community health needs and improve health outcomes for community members. To fully realize the potential of their model, the authors emphasize that communities must have the skill base and resources needed to implement this process such as “developing a community coalition; assessing community health status, identifying local priorities; finding relevant, evidence-based interventions from the literature that would be feasible and acceptable within the community; implementing an intervention successfully, and evaluating its impact” (p. 623).

Brownson, Allen, Duggan, Stamatakis, and Erwin’s (2012) provide a comprehensive review of the literature from public health and related disciplines to identify successful administrative evidence-based practices (A-EBPs) defined as “the integration of science-based interventions with community preferences in population health” (p. 309). Taking into account both reviews of the literature and original empirical studies conducted primarily in the U.S., they identified 11 high-priority A-EBPs covering five domains: workforce development, leadership, organizational climate and culture, relationships and partnerships, and financial processes. Although not focusing on minority health disparities per se, this review underscores the importance of the development and enhancement of partnerships between community organizations, schools, hospitals, universities, social services, business, and law enforcement, and cooperative agreements with state and/or local health departments. They conclude: “Although implementing these A-EBP’s is an era of tight resources will be challenging, there is room for considerable optimism that health departments along with community, professional, and academic partners will be able to adopt these administrative and management practices, ultimately benefitting the
health of the public” (see also Satterfield et al., 2009 for an elaboration of the historical context and current developments of evidence-based practice for public health, and Scharff et al., 2008, who identify 24 competencies for moving research to public health practice). This goal of forging community partnerships is one of the 10-national health goals and objectives recently laid out by Healthy People 2020 which recommends mobilization of community partnerships and action to identify and solve health problems (Bann, McCormack, Berkman, & Squiers, 2012).

In light of the findings from the extensive body of research on minority health disparities in general and the critical role of establishing and building stronger linkages between academic institutions and communities of practice needed to reduce these disparities in specific, we were interested in how local public health workers view the role of research in their daily practice and how they believe it can be better utilized to meet this goal. We asked whether public health workers at the micro level would share the concerns of others across the nation serving these populations and what might be unique about our participants. Would they identify the same challenges and offer the same recommendations as those reported in the larger literature base? What were their perceptions of the role of research for improving practice? Given the nature of our study and a long precedent in the field of health care (see Morse, 2011), we were convinced that a qualitative design would be most effective for exploring these issues in more depth.

**Purpose Statement and Research Questions**

The purpose of this qualitative research study was to determine how public health workers can better utilize research to improve practice in the area of minority health. The long-term goal of this research is to assist public health workers in facilitating more equitable and accessible treatment of members of traditionally underserved groups through community-based, collaborative efforts of multiple stakeholders. To this end, the central or “grand tour” (Spradley, 1980) research question we posed was: **How can public health workers better utilize research to improve practice in the area of minority health care?** From this central question, five subquestions were developed (Appendix A):

1. **RQ1:** How do public health care workers view the role of research in the area of minority health care?
2. **RQ2:** How do public health workers currently access research in the area of minority health?
3. **RQ3:** How do public health workers utilize research to affect change in practice, policy, and training in the area of minority health?
4. **RQ4:** What are major challenges faced by public health workers in applying research to practice in the area of minority health care?
5. **RQ5:** How can research be more effectively utilized by public health workers to improve practice in the area of minority health care?
Definitions of Terms

For the purposes of this study, public health workers included those individuals who currently work in the area of public health care either in governmental or non-governmental local and state agencies. The term community health worker was considered by us to be largely synonymous with public health worker and the two are used interchangeably throughout this report. For our sample, we targeted individuals who were employed in public health care positions that directly or indirectly served minority groups. All participants shared the common goal of striving to reduce minority health disparities at the local, regional, and national level.

The term “minority health care worker or administrator” does not imply that the participant was a member of a minority group. We defined “minority” according to traditional sociological convention: “Any category of people distinguished by physical or cultural difference that society sets apart and subordinates” (Macionis, 2013; p. 478). However, in our research we tended to take a somewhat more limited view of “minority” or “minority health disparities” consistent with much of the literature on this topic and the use of traditional U.S. social ethnic and racial categories. Therefore, we did not include all groups of individuals that are considered “minorities” such as women, the impoverished, the aged, those living in rural areas, etc., but of course many of these individuals also hold minority status. This decision was based on some of the research literature on this topic discussed below, assumptions of our funding organization, the language of our research participants, and our own thinking as we constructed and implemented this study. Our central research question, How can public health workers better utilize research to improve practice in the area of minority health care?, was initially conceptualized around this notion of minority groups (i.e., based primarily on ethnic and racial categories) with the idea that in the U.S. “the term health disparities is generally assumed to refer to racial/ethnic disparities” (Braveman, 2006, p. 188). Although convenient and commonplace, this narrow view may in fact cloud the picture especially in light of the important role that socioeconomic status plays in the differential access and delivery of health care across individuals and groups.

In this vein, there is a fairly extensive and historically-rich literature base that is directed at elucidating and clarifying the somewhat elusive term “health disparities” paralleling its “meteoric rise into common usage in the health literature” (Adler & Reskopf, 2008, p. 236). Although there is by no means a consensus as to a universally accepted definition among researchers or practitioners, Carter-Pokras & Baquet (2002) argue that the term “health disparities” is used almost exclusively in the United States whereas “health inequity” or “health inequality” are used more commonly elsewhere (and see Braveman, 2006). As would be expected, how health disparities is defined, measured, and operationalized holds important implications affecting research, practice, and policy at all levels.

Generally speaking, however, a health disparity or health inequity implies differences between and among groups that are unjust or unfair—i.e., that represent a social disadvantage to some—and that presumably can and should be addressed through better health care efforts. These disparities have been viewed most broadly as differences based on a wide range of demographic factors such as race, ethnicity, geographical location, sexual orientation, education, income, disability, etc. (see Table 1 below) to more narrow interpretations, focusing primarily on ethnicity and race differences in health care. As such, they are reflective of and interlaced with
In a foundational article on this subject, Carter-Pokras & Baquet (2002) identify 11 definitions of “health disparities” commonly employed in the United States. Of these, the researchers cite the three most commonly used definitions: Healthy People 2010 (2000), the National Institute of Health (2000) and the Health Resources and Services Administration (2000). As shown, these definitions are broad-based and inclusive and contrast to the specific focus on racial or ethnic differences seen in the Institute of Medicine (2002) definition also listed in Table 1. They conclude:

Although the term “disparity” is widely used in public health in the United States, there is a difference of opinion of what is meant by a disparity. These differing opinions are based on dictionary definitions as well as personal beliefs of what is avoidable and what is unfair. Confusion can arise from different operational definitions adopted by various health organizations. What should be agreed upon is that a disparity acts like a signpost—indicating something is wrong. If a disparity is identified and described, then the health community, policy makers, and the public can become more aware of it. If a disparity is determined to be avoidable and unfair, then it is considered an inequity. . . To make progress in reducing and ultimately eliminating disparities in health, policy makers

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<th>Table 1: Common Definitions of “Health Disparity” Used in the U.S. (Amended from Carter-Pokras &amp; Baquet, 2002)</th>
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should go beyond discussion of inequality and consider what is inequitable. . . Research priorities should focus on what we do not know regarding how to avoid a given disparity, what determinants are amenable to intervention, and how to make changes based on what we do know (p. 432).

A theme that cuts across most of the research on health disparities, regardless of specific definition employed, is the central concept that a health disparity or inequity represents a differences in health care that, as Margaret Whitehead (1990; 1992) stated in her oft-cited definition of health inequalities, are differences in health that “are not only unnecessary and unavoidable but, in addition, are considered unfair and unjust”. Similarly, Braveman (2006) defines health disparities/inequalities as “potentially avoidable differences in health (or in health risks that policy can influence) between groups who are more or less advantaged socially; these differences systematically place socially disadvantaged groups at further disadvantage on health” (p. 180). In light of these definitions, we view the terms “health disparities” or “health inequalities”, as underscored by Braveman (2006), to “refer to a very specific subset of differences deemed worthy of special attention because of social values, including ethical concepts of distributive justice and core human rights principles” (p. 188).

**Researcher Positioning/Reflexivity**

The primary investigator or Project Director/Primary Investigator (Dr. Wayne A. Babchuk) for this research was assigned the task of directing a research project to help identify best practices in research-to practice links between research, policy, practice, and training when addressing minority health disparities. Dr. Babchuk currently teaches undergraduate and graduate level research methods courses as well as other courses in three departments—Educational Psychology (Quantitative, Qualitative, and Psychometric Methods), Sociology, and Anthropology at the University of Nebraska-Lincoln. In addition to research methodology, Dr. Babchuk teaches several undergraduate and graduate courses in the Departments of Sociology and Anthropology that either focus explicitly on ethnicity and race (e.g., *Nationality and Race Relations 217*), or include major sections of the course devoted to these topics (e.g., *Introduction to Cultural Anthropology/Ethnic Studies 212*). In addition, he served for approximately ten years as Program Specialist and Program Director for the Department of Academic Conferences and Professional Programs at UNL and was responsible for developing and directing human rights and diversity programming. He has also served as a consultant in the field of medical anthropology and has conducted research and published on indigenous rights issues. The Secondary Investigator/Research Associate (Lesa L. Brand) was invited to join the study by Dr. Babchuk from a large pool of graduate students at the University of Nebraska representing the departments for whom he works. Ms. Brand teaches full-time at Andersen Middle School in the Millard Public School System and is also a part-time instructor at the University of Nebraska-Lincoln in the College of Education and Human Sciences, Peru State College, and the College of Saint Mary. Ms. Brand is a doctoral student at UNL in the Department of Teaching, Learning, and Teacher Education and has considerable coursework and training in qualitative research methods and their application.

The researchers have also collaborated in various capacities prior to this study. Dr. Babchuk and Ms. Brand have served as co-instructors of a graduate-level qualitative research methods course
and Dr. Babchuk is a member of Ms. Brand’s dissertation committee. However, it is important to note that neither researcher works specifically in the field of minority health disparities nor had considerable prior research experience in this area. Both researchers, however, share expertise in qualitative research design and implementation and were brought on board based on this expertise rather than their knowledge of minority health disparities for the purposes of this study. Both researchers are epistemologically and pragmatically committed to the short- and long-term goals of this project and are fully vested in the shared vision of reducing minority health disparities and advancing a social justice research agenda. As specialists in qualitative research methodologies and not in the area of minority health, the researchers entered this project with few presuppositions about how public health care workers access and utilize research in their daily practice. True to assumptions inherent in the qualitative paradigm, the design took an inductive “bottom-up” approach viewing “participants-as-experts” and focusing on their views of the central phenomenon of the study rather than on any preconceived notions held by the researchers prior to the study. Although researchers were surprised by some of the findings, particularly the enthusiasm that nearly all participants shared for the potential role of research and their expressed interest in forging stronger partnerships with research institutions to improve their practice, the researchers attempted to “bracket” any preconceived notions they held in the area of public health care and set them in temporary abeyance throughout the study.

**METHODOLOGY**

**Rationale for a Qualitative Approach**

Sometimes referred to as “the qualitative revolution” (Charmaz, 2006), the rapid expansion and proliferation of qualitative approaches in the social sciences has spurred new and emancipatory ways of linking research to practice across disciplines and subject areas. This retooling of the research enterprise has demanded a refocusing of epistemological, theoretical, methodological, and practical assumptions and a concomitant shift in not only how research is conducted, but in the very questions that are asked. Traditional mainstream forms of qualitative research such as ethnography, grounded theory, case study, narrative, and phenomenology have been realigned with and augmented by other forms of critical and transformative research that strives to amplify the voices of participants and bring them front and center to the heart of the research process. Qualitative researchers employing a social justice perspective consider conditions that have historically disenfranchised individuals, groups, and cultures, respect participants and the sites of research, strive to enter into reciprocal relationships with participants, attempt to minimize power imbalances that may exist in the research relationship, and focus on collaborative empowerment during all phases of the research process (Charmaz, 2011; Creswell, 2013; Denzin & Lincoln, 2011). Those committed to a social justice perspective often share and embrace the views and agendas of the participants to help realize more equitable conditions and implement social change. To this end, many qualitative researchers have been attracted to this approach because of their belief that members of traditionally oppressed groups have been vastly underrepresented and unaccounted for in positivist or post-positivist research designs which they believe have served to further marginalize these groups and reinforce an unjust status quo.

These more political and action-oriented research goals can be better accomplished through the principles and practices of the qualitative research enterprise. Shared characteristics that help
define the qualitative paradigm include long-term face-to-face research conducted in naturalistic settings, a focus on rich description and the understanding of participants’ points of view or meanings, inductive data analysis, the researcher as the primary data collection instrument, a concern with process, an emergent and flexible design, nonrandom, purposeful sample selection based on knowledge and experience of the central phenomenon rather than population representativeness, and a holistic understanding achieved through collection and analysis of multiple sources of data and perspectives (Babchuk & Badiee, 2010; Bogdan & Biklen, 2007; Corbin & Strauss, 2008; Creswell, 2013; Denzin & Lincoln, 2011; Glesne, 2011; Hatch, 2002; Litchman, 2013; Marshall and Rossman, 2010; Merriam, 2009; Richards & Morse, 2013; Stake, 2010). Researchers are expected to stand comfortably at the intersection of art and science, benefit from a humanistic orientation, are ambitious and committed enough to embrace the time and effort needed to conduct qualitative research, are flexible, open-minded and able to see things from multiple perspectives (Babchuk & Badiee, 2010; and see Denzin & Lincoln, 2005, pp. 4-6; Creswell, 2007, p. 41; Corbin & Strauss, 2008, p. 13; Merriam, 2009, pp. 16-18).

A qualitative approach has the potential to open the world of the participants making transparent their unique views and perspectives in ways not easily achieved through quantitative research. It was our goal from the onset of this research project to learn how public health workers strive to better utilize research to improve practice and ultimately realize our mutually shared goal of reducing disparities in minority health care. As is apparent from the above discussion, we approached this study from an interpretive, social justice theoretical lens. We view our research as a collaborative and transformative community-based qualitative endeavor that blends elements of several time-tested and often-utilized methodologies. This blended approach draws on aspects and techniques of traditional qualitative research: an inductive approach employing the method of constant comparison pioneered by Glaser & Strauss (1967) together with the interpretivist open and focused coding techniques advanced in constructivist grounded theory (Charmaz, 2000; 2006), the goal of elucidating the shared understanding of a central phenomenon from the participants point of view and adapting coding techniques or strategies of “horizontalization” and “clusters of meanings” associated with transcendental phenomenology (Moustakas, 1994), and approaching our research as the study of a bounded system as in a collective case study focusing on one issue or concern across multiple sites (Creswell, 2013). Ethnographically, we studied a culture-sharing group of individuals (i.e., public health workers) committed to and working for reducing minority health disparities. We also took inspiration from the approach often used in counseling psychology research called Consensual Qualitative Research (CQR). CQR provides a systematic qualitative approach to analyzing the data through the use of a research team that reaches consensus in the ongoing formation of domains, categories, subcategories, and themes. This approach describes the central phenomenon from the participants’ perspectives, relies on constant comparisons of the data, and facilitates the joint process of collaboratively reflecting on these data and analytically building the analysis (Hill, 2012; Hill, Thompson, & Williams, 1997; Hinojos, ms).

For the purposes of this study, we have employed the Qualitative Research Design Procedural Checklist (Appendix B) developed by Dr. Babchuk as a tactical tool for teaching qualitative methods and to fulfill semester-long student research project requirements at the graduate level (see Babchuk & Wassenmiller, 2012 for a discussion of this approach for face-to-face and blended classrooms, and Creswell, 2012, for other examples of useful qualitative checklists).
IRB and Ethical Considerations

The foremost concern in any research study is the safety and well-being of the research participants and ethical issues permeate all aspects and all stages of a research study. Researchers hold the responsibility to maintain these ethical safeguards by going through the proper channels to obtain informed consent, must at all times protect the participants’ privacy and confidentiality, and provide a climate of reciprocal trust and authenticity (Creswell, 2013; Litchman, 2013). Both researchers have completed the CITI Training as required by the University of Nebraska Institutional Review Board (IRB) and submitted a research proposal to them that was approved prior to data collection and analysis (Appendix C). The Informed Consent Form includes the purpose of the research, procedures, potential risks and/or discomforts, benefits, confidentiality/anonymity, opportunity to ask questions, voluntary participation and freedom to withdraw at any time, and the right to receive a copy (of the form). Study participants were given a copy of this document in advance and then it was read to them prior to each interview. These forms were signed by participants and one form was left with them and one collected by the primary investigator. Prior to the study, the Informed Consent Form and Interview Protocol were sent to participants for their review.

Both digital and analog tape recordings of participant interviews were made by the researchers and transcribed by the Bureau of Sociological Research at the University of Nebraska-Lincoln. Files were exchanged between these parties via Dropbox, a protected electronic communication system. Digital files including the audio recordings, interview transcriptions, and detailed coding of these materials are password protected and accessible only to the researchers and hard copies of these materials are kept in locked file cabinets of the researchers. To further protect and ensure participant privacy, participants were assigned pseudonyms and numerical codes known only to the researchers. As form of participant protection and a means of triangulation of data (e.g., member-checking), copies of the printed transcripts were sent to the participants and their feedback on these (their interviews) is part of our data analysis.

Sampling

There are a number of types or strategies of purposeful sampling employed by qualitative researchers (see Creswell, 2013, p. 158 for a detailed listing). Unlike the sampling strategies employed in quantitative designs that typically focus on achieving population representativeness, qualitative researchers base purposeful selection of participants, sites, events, etc. on their relevance for gaining a more in-depth understanding of the researcher research problem or question. Although specific criteria employed for sample selection including the number and types of sites and individuals varies across qualitative designs, it is common for researchers to strive to flush out the detail of the central phenomenon (i.e., how researchers can better use research to inform their practice) until they have reached “saturation” and have developed a fairly comprehensive understanding of this phenomenon (Babchuk & Badiee, 2011). We employed criterion and snowball or chain sampling procedures in this study.

The initial planning for this project involved a series of meetings with Dr. Babchuk and Ms. Brand with Mindy Anderson-Knott. Ms. Knott identified a key member of the community, Josie Rodriguez, Administrator, Nebraska Department of Health and Human Services, Office of
Health Disparities and Health Equity. The three of us met with Ms. Rodriguez, who played a key role in our study. She provided invaluable feedback in the development of our research design and interview protocol and identified potential participants for our study. In addition, she sent out an initial letter to these potential participants to let them know we (Babchuk and Brand) would be contacting them and encouraged them to participate in the research (see Appendix D). We contacted most of the individuals she identified who became participants in this study (see Appendix E). Several other potential participants were also recruited through a public health worker who also is a doctoral student in the College of Education and Human Sciences (UNL) who provided recommendations to us given the nature of our research design (Appendix F). There were a total of 13 participants who were part of the research study and two pilot participants who provided suggestions and guidance in the early stages of the project.

Participants

Thirteen participants (n=13) were interviewed for this research project. Questions seeking demographic and background information was included in the interview protocol (see Appendix G) including organization they worked for, their position, time in present position, how long the participant had worked with minority health disparities or in public health, highest level of education, and ethnic background (self-identified from a U.S. Census Bureau list).

Participants’ time in present position ranged from 3 weeks to 14 years and the total time spent working in the field of minority health ranged from 17 months to 27 years. All participants had a post-secondary degree and all but three of the 13 had at least one graduate degree. Participants ranged in age from 32 to 60. There were nine females and four males. Nine participants self-identified as White/Caucasian, two as Latino/Hispanic, one as African American, and one as Native American.

Data Collection Procedures

As is often the case in qualitative research, the primary mode of data collection was interview (Merriam, 2009) and the researchers acted as the primary data collection instrument. A semi-structured interview protocol was designed by the research team and two pilot interviews were conducted during which the interviewees provided insightful feedback and suggestions. Both Dr. Babchuk and Ms. Brand jointly conducted the first pilot interviews and jointly coded the transcript. From what we learned from this process, we amended the initial protocol with the hope of clarifying and better focusing our interview questions. We also consulted with Ms. Anderson-Knott and notified IRB of the changes which were approved. Upon approval of the revised protocol, Dr. Babchuk and Ms. Brand jointly conducted another pilot interview to test our instrument and again coded it together. Satisfied with the protocol we used it for the remainder of the interviews (Appendix G). This semi-structured interview protocol consisted of a heading designed to collect general procedural information (day, date, location, interviewer, interviewee, pseudonym, time and duration of the interview) and a series of demographic questions about the interviewee and the organization for which he/she worked (organization, position of interviewee, time in present position, how long the participant has worked in public health, highest level of education, age, sex and ethnic background). The main body of the interview protocol consisted of three initial open-ended questions and four probes, six
intermediate questions and one probe, and two closing questions. We borrowed the format suggested by Charmaz’s (2006) as a model for this design. Our central goal was to ask questions that enabled participants to provide information addressing our central research question and subquestions.

Fifteen interviews (the two pilot studies and the thirteen study participants) were conducted jointly by the two researchers. We found this collaborative format very effective for the two pilot interviews so the decision was made to continue interviewing participants together for the remainder of the study. This procedure seemed to make the interviews flow more smoothly and more comfortably for both researchers and participants. We had no set format for which researcher asked the participant which questions and were able to bounce back and forth naturally and seamlessly. The interviews took between 20 minutes to a little over an hour with a mean length of approximately 35 minutes each. Of the 13 participant interviews, 11 were held at the work site of the participants, one was conducted over the phone at the Bureau of Sociological Research at UNL, and one was conducted at a restaurant as requested by the participant. Participants were sent a copy of the interview protocol prior to the interview to help prepare them for a productive, information-rich interview session. The researchers took notes during the interviews and wrote both descriptive and reflective notes and memos on their own interview protocols. We discussed these notes and on our reflections on them following each interview in our own form of debriefing. All interviews were digitally recorded by both researchers and analog tapes were also used for backup on all but two interviews. All interviews were transcribed by the Bureau of Sociological Research and were exchanged via a password protected Dropbox system. Completed transcripts were sent to respective participants along with an initial thank you note (Appendix H) and a request for participant feedback or member-checking.

Data Analysis Procedures

A qualitative “blended” analytical format was employed merging elements based on time-tested qualitative approaches (e.g., traditional and constructivist grounded theory, transcendental phenomenology, and consensual qualitative research) and the knowledge of the researchers both experienced in qualitative design and implementation. As outlined in the Data Collection Procedures section above, both researchers jointly conducted the interviews and wrote descriptive and reflective notes and analytical memos during the interviews. We discussed these notes immediately following each interview and again when we jointly coded the transcripts. Uncoded transcriptions of the interviews were sent back to the participants who were asked to review them and provide feedback or input to us for further clarification for member-checking.

We pioneered our own multi-stage individual and collaborative coding and analysis procedures that we found to be quite effective for this stage of the research process. Running with the idea that our joint interview process was working well, we initially listened to the interviews and coded the transcripts and wrote memos as a research team. After we had finished this first round of coding, we loaded all codes into an excel spreadsheet with participants listed by number on the horizontal axis and the questions listed and corresponding codes on the vertical axis. At this point, we each went back to the transcripts and individually recoded and rechecked our codes in a second and third round of coding using this spreadsheet as an organizational tool. We then reconvened and jointly rechecked our collaborative (first round) and individual coding (second
and third rounds) and made yet another pass (fourth round) through the transcripts and codes to agree upon and reach consensus on the labels we assigned to the data. We also jointly explored participant comments provided to us as part of the member-checking process.

We decided early on to forego line-by-line coding of the transcripts and used a “close-cousin of line-by-line coding through a comparative study of incidents” (Charmaz, 2006, p. 53) that essentially consisted of a comparative incident-to-incident technique. We felt that there was often too little information on each line to make this a productive approach and took partial or whole sentences and broke them down assigning either in-vivo codes or researcher codes to the participant statements.

Once the codes were in place, we again jointly went through the codes and assigned them to categories and developed visual models or figures (Appendices J-K) of these categories aligned with the interview questions. This necessitated moving some of the data around to a more appropriate place in the analysis as often participants discussed aspects of one question while answering another. We continued to build at higher levels of abstraction through analytical (Merriam, 2009) or focused (Charmaz, 2006) coding procedures to jointly move from categories to themes to the interrelations of themes to models to best explain our data.

When the analysis was coming together in the last stages of the research process, we solicited the aid of an external auditor (is discussed above) to help validate our process, findings, and conclusions. We also took the final draft and sent this copy to Mindy Anderson-Knott and to the participants for their feedback to help focus and validate our findings.

**FINDINGS**

We approach our discussion of the findings logically grouped into three sections we called: (1) Current Responsibilities, (2) Current Use of Research, and (3) Challenges and Suggestions for Improving Research-to-Practice. “Current Responsibilities” aligns with interview questions 1, 3, and 7.2. Section 2, “Current Practices” aligns with interview questions 3, 4, 5, 6, 7, and 9, and Section 3, “Suggestions for Improving Research-to-Practice” aligns with interview questions 8, 10, and 11.

**Current Responsibilities**

Participants were asked to describe their role in their current position (Appendix H):

**IQ1:** Please describe what you do as a public health worker in the area of minority health.

Probe 1: Tell me about a typical day for you in your current position?
Probe 2: What percent/proportion of time do you spend working in the area of minority health in a given day? (i.e., proportion of day)

**IQ2:** What is your role in working directly with minority populations in the area of public health?

Probe 1: With whom do you generally work on a daily basis?
Probe 2: When you are working in minority health, what do you generally do?

IQ7:
Probe 2: What additional training are you required to pursue in your position?

We coded participant responses to these questions into categories grouped together under our section heading, “Current Responsibilities.” Participant responses to the question: **Please describe what you do as a public health worker in the area of minority health (IQ1)**, clusters into three broad categories: (1) Address Cultural Sensitivity, (2) Administration and Management, and (3) Collaboration with the Community. **Address Cultural Sensitivity** responsibilities focused on coaching/consulting, cultural and intercultural competency, fostering diverse leadership, and identifying barriers to success (in reducing minority health disparities). **Administration and Management** included data collection and management, administration of personnel and grants, planning and managing programs, helping develop public health infrastructure, working with community organizations, and accreditation preparation. The **Collaboration with the Community** category included outreach efforts, health promotion, managing and implementing preventive care and preventive health programs, and fostering an awareness of community-level issues relating to health care for members of minority groups.

Participant responses to **Tell me about a typical day for you in your current position (IQ1.1)** were grouped into the same three categories as in Question 1 (IQ1) above: (1) Address Cultural Sensitivity, (2) Administration and Management, and (3) Collaboration with the Community. As above, **Address Cultural Sensitivity** included coaching/consulting, cultural competency, fostering diverse leadership and identifying barriers. Similarly, **Administration and Management** included data collection and analysis, administration of personnel and grants (including meetings and training), planning and managing programs, working with community organizations, and accreditation preparation. **Collaboration with the Community** also included many of the same codes as above (IQ1) such as outreach, health promotion, preventive care and preventive health programs, and awareness of community level issues. Another code listed here was connecting people with services such as language/translation requests.

Based on the suggestion gleaned from the initial pilot study, participants were asked **What percent/proportion of time they spent working in the area of minority health in a given day? (IQ1.2)**. As illustrated in Appendix H, there was much variability in the responses to this question and we grouped these into broader categories (Figure 1): 0-5% (5 individuals), 10-20% (2), 33% (1), 70-80% (1), and 100% (4).

**What is your role in working directly with minority populations in the area of public health? (IQ2)** was grouped into four categories (1) Indirect Role with Minorities, (2) Working with Partner Agencies, (3) Direct Services, and (4) Management and Grants. Codes for **Working with Partner Agencies** included serve on boards/committees, technical assistance, and identifying people for diversifying committees. **Direct Services** included identifying barriers; help achieve minority access to care, public presentations, and conducting prevention awareness programs. **Management and Grants** included reviewing grants, accreditation preparation, funding, and creating infrastructure.
Not surprisingly, answers to the question: **With whom do you generally work on a daily basis? (IQ2.1)** included both Internal and External/Community individuals and groups. *Internally*, participants worked with staff, colleagues, and volunteers, and *External/Community* involved partner agencies, local health directors, grantees, epidemiologists, school and hospital personnel, and outreach volunteers.

Responses to the question, **When you are working in minority health, what do you generally do? (IQ2.2)** was coded into three categories: (1) Working with Partner Agencies, (2) Direct Services, and (3) Management and Grants. *Working with Partner Agencies* included working with boards/committees, technical assistance, identifying people for diversifying committees, *Direct Services* encompassed identifying and eliminating barriers, help achieve minority access to care, and help facilitate presentations and promotions as well as prevention awareness programs, and *Management and Grants* involved reviewing grants, accreditation preparation, funding, creating infrastructure, and coordinating or monitoring programs/initiatives.

**What additional training are you required to pursue in your position? (IQ7.2)** was included in our data analysis, Current Responsibilities. Only one of the thirteen participants was required to pursue additional training but most said they were “encouraged” by their superiors and were self-motivated to seek additional forms of educational opportunities and trainings relevant to their positions. These included conferences, workshops, webinars, and summits that many claimed they participated in on a regular basis (generally once or more per year).

**Findings: Current Use of Research (Appendix I)**

Participants were asked several questions regarding their current use of research and access to such in their practices, policy and training.

- **IQ3:** What do you view is the role of research in serving minority populations in the field of health care?
- **IQ4:** In your position, how do you access current research or other potentially pertinent information?
- **IQ5:** In your position, how do you use research and other forms of information to better inform your practice?
- **IQ6:** How do you use research to inform policy? How do you access research that informs policy?
- **IQ7:** What strategies do you feel are most effective for linking research to practice?
- **IQ9:** Are there other ways you use research to improve practice, policy, and training?

Participant responses to **What do you view is the role of research in serving minority populations in the field of health care? (IQ3)** yielded three broad categories. (1) Challenges,
Best Practices, and (3) Fight for Social Justice. Though this question did not specifically call for participants to illuminate Challenges to using research in the practice of public health, inevitably responses included hurdles of inadequate data for specific minority groups, inadequate minority representation in data, inadequate Census Bureau race distinctions, the need for data to be collected to include the minority experience, and for solution-oriented research that is culturally and ethnically specific to underserved populations. The Best Practices category included that research should change practice and interactions, help practitioners discover best practices, allow practitioners to base educational sessions on data, help practitioners create healthier communities, make interventions fit reality, and include collaboration based on assessments completed with minority populations. The Fight for Social Justice category provided an underlayment to all categories and themes of the study (Appendix I). In this particular prompt, its codes included the role of research to help understand challenges minorities face, to measure effects of language barriers, to reduce barriers and establish trust with minority clients, and to apply culturally sensitive program delivery in the public health system.

There were three basic and overlapping categories of responses to the question In your position, how do you access current research or other potentially pertinent information? (IQ4) which are depicted in Figure 1 below: (1) Online Sources, (2) Face-to-face Sources, and (3) Other Sources. Participants cited the use of Online Sources such as websites, online agency reports, the CDC website, listservs and online university libraries. Face-to-face Sources included conferences and summits, while Other Sources included local agency data and hospital data. Overlapping the three categories were journals, which were found online as well as subscribed in physical copy at various agencies; webinars, which are a hybrid of face-to-face and online formats; and the mixed-modal means of sourcing information via epidemiologists, community experts, Robert Wood Johnson, and data requests conducted via email and phone.

Three categories of responses emerged from the codes as participants replied to the prompt In your position, how do you use research and other forms of information to better inform your practice? (IQ5). These were (1) Practices/Program Implementation, (2) Future Best Practices/Programs Development, and (3) Challenges. Research use described in the category Practices/Program Implementation included responses from participants who indicated that they used research to support a position and/or a presentation, to perform cost- benefit analysis (CBA) of programs, and to determine program efficacy. Responses which included that research was used to encourage evidence-based grant applications/evidence-based practices (i.e., inform programs), make environmental change, identify priorities, and help boards understand value of diversity fell under the category of Future Best Practices/Program Development. Challenges emerged from participant responses including coded responses of inadequate evidence that research-based practices are effective for different cultures, inadequate minority data, and the difficulty in getting politicians to care about evidence-based information.

The research-to-policy connection was explored with the question How do you use research to inform policy? How do you access research that informs policy? (IQ6). The two-category breakdown included (1) Internal/Program Policy and (2) External/Public Policy. According to participants, research impacted Internal/Program Policy by encouraging practitioners to
restructure programs in culturally sensitive ways, to review finance/employment policies, to assure compliance with federal law, to develop worksite wellness policy and programs and to use financial data to support proposed policies. The External/Public Policy category included the coded responses of using research to create environmental change that the agencies investigated in this research project do not lobby legislation but may inform legislation, and that research informed a public smoking ordinance.

When asked *What strategies do you feel are most effective for linking research to practice?* (IQ7), participants collectively described a model suited by the single category label *Essential Strategies for Linking Research and Practice*. The codes which provided the structure to the category represented in Appendix J and included: research must fill a need, research must provide solutions, research should directly inform culturally sensitive practices/intercultural competence, researchers must identify researchable problems, research priorities should be determined by the community, the research must have accurate data, there must be open dialogue between researcher and practitioners (communication), practitioners need a person to provide a link between university research and public health practice, practitioners want an entity to transform the research into something that go to the community in a culturally sensitive manner.

Participant responses to the question *Are there other ways you use research to improve practice, policy, and training?* (IQ9) were coded into a single category, *Increase Cultural Competence*. This category included: create educational sessions for staff, be culturally sensitive, encourage
participation in programs, educate the population (practice), learn personal stereotypes (self-reflection), and facilitate intercultural competence.

**Challenges and Suggestions for Improving to Practice (Appendix J)**

Of the questions asked, three informed us in ways to improve the link between research and practice.

**IQ8:** What are the major challenges you face in utilizing research in your practice?

**IQ10:** In your position, how do you feel research can be better utilized to help you be more effective in serving minority populations?

**IQ11:** Are there any other suggestions you have of how public health workers can better utilize research to improve practice in the area of minority health?

Two major categories emerged from the codes as participants responded to the question *What are the major challenges you face in utilizing research in your practice?* (IQ8). These were (1) External/Overarching Barriers (Macro Barriers) and (2) Contextual Barriers to Success (Micro Barriers). *External/Overarching (or Macro) Barriers* included the codes: research and data collection (issues), research needs to be accessible, research needs to be communicated back to public health entities, inadequate/inaccurate minority data, research applicability to specific populations, understanding problems at the community level, and finding the balance between research that is rigorous and useful. *Contextual Barriers to Success (Micro Barriers)* included time constraints; information overload; funding; developing evidence-based, culturally sensitive programs (that are cost effective); stereotypes/perceptions of minorities by public health workers; capacity and skill set (to understand research); and access to journals/full text articles.

When participants were asked *In your position, how do you feel research can be better utilized to help you be more effective in serving minority populations?* (IQ10), two fundamental categories developed from the codes: (1) Increase Collaboration and Communication and (2) Improve Data Sources/Research. Coded responses that were included in the category *Increase Collaboration and Communication* were: make research accessible, make research applicable, communicate translated/filtered results to public health entities/policy makers (feedback from researchers), effective promotion of evidence-based best practices, and collaborate with university. The codes for the category *Improve Data Sources/Research* were culturally accurate, adequate, sensitive data; proper sample size, and grassroots prioritizing.

Finally, participants were asked *Are there any other suggestions you have of how public health workers can better utilize research to improve practice in the area of minority health?* (IQ11), from which two categories of codes emerged: (1) Collaboration/Partnerships between Researcher and Practitioner and (2) Creating Better Public Health Practices. Coded under *Collaboration/Partnerships between Researcher and Practitioner* were: communicate research results back to public health workers, assistance (collaboration) to translate and apply research,
network between researchers or practitioners, better data collection of minority groups/cutting for race across data (better access to academic research), and community level priority setting. The two codes which constituted the category Creating Better Public Health Practices were: recognize and address stereotypes and beliefs of public health workers, and move healthy practices to convenient places for minority populations.

Themes

There were five strong, recurrent themes drawn from the data. Beginning with a sense that we were hearing similar stories from our participants, and as the categories themselves developed, we made multiple passes through the transcripts to determine how tightly into the experiences of our participants the themes were woven. We developed questions around the themes to re-examine the transcripts, codes, and categories to support the body of the thematic text in their collective experiences. From this exhaustive analysis, the following themes emerged:

“Fighting for Social Justice”
- Improving Minority Data
- Priority Setting and Applicability of Research
- Collaboration
- Research Accessibility

We will expound on each theme here bolstered through the words of our participants.

“Fighting for Social Justice”

“What it still comes down to is we still have prejudice in our community, and a lot of people want to think that we’re over that and they don’t want to deal with that. But it’s still alive and well, and it still affects the way we interact with other people and it affects the kind of care that they receive as a result of that.” ~ Aaron

When asked what is the role of research in serving minority populations, within his response, Aaron noted that research is used in “fighting for social justice,” effectively labeling the essence of the practitioner’s role for each of our participants (Figure 2).

The fight for social justice was an explicit theme (in vivo) that developed when participants were asked what they believed was the role of research in serving minority populations in the field of health care, but it was clear throughout all interviews that this collection of participants felt passionately about delivering equitable and quality care to all people served by their agencies. The impassioned participants echoed the voices of many in their field that have sensed the inequities of health care, and the subsequent ramifications. Koh et al. (2010) delivered the strong message of the CSDH, noting that “The CSDH (Commission on Social Determinants of Health) boldly and bluntly concluded in its 2008 report that ‘social injustice is killing people on a grand scale’ (Citing: Commission on Social Determinants of Health. Closing the Gap in a Generation. Geneva, Switzerland: World Health Organization; 2008) and calls on all governments to achieve health equity and close the health gap in a generation” (p S75). The connection between disparities in health care and research for the purpose of serving social justice was underscored
as Thomas (2001) claimed, “A growing body of scientific evidence suggests that racism is a pathogen with biological consequences” (p 1046), followed by a suggestion for better research describing and defining those effects.

Figure 2: Theme 1: Fighting for Social Justice

From caring for the traditionally underserved, as in this example by Janet, “We have a refugee outreach program to make sure that folks that may not have had health education specifically around STD and AIDS get some of that education early on when they arrive,” to recognizing personal stereotypes, the participants spoke through the social justice lens. Doris noted, “Every culture, every population has a different story to tell about how they use the system, how they view the system, how they interact with the system of healthcare.” Zach added that the role of research was to “help me find ways of reducing barriers of how to better serve minority populations,” a hallmark of social justice underpinnings to the tasks of public health workers. The “language barrier will top everything” was Ray’s explanation for why minority clients he serves need help navigating the system of health care and finding medical homes. He added, “I think there’s also that level of trust” as clients rely on his services once he has helped connect them to a provider.
Aaron noted “It’s because we have not clearly linked the fact that there are disparities with how we deliver healthcare…it’s hard to know, how do we measure the impact of the discharge (of an) individual who’s an LEP individual, that doesn’t understand everything that was going on, but said yes to everything because that’s what was expected of them?”

Doris explained the plight of the traditionally underserved being under-represented, or misrepresented in data. Referring to safety surveys which included items such as smoking and seatbelt use, she said, “And we recognized very early on…we weren’t reaching an adequate number of individuals that are minority to ask them those questions. And even if they were, they weren’t adequate questions. They weren’t the right kind of questions to ask people who were new to this country or that didn’t…view the system in the same way that we did.” Her response was not only to change the questions, but also the manner of collection – going door-to-door to elicit better responses.

Others discussed the constitution of various governing boards and promoting minority representation on them as a means of achieving social justice. As minority leaders have been recruited and trained, Doris indicated that the paradigm has shifted from fulfilling a quota to understanding the value of having diverse boards, “You have to train and equip agencies to understand what value that brings to their organization.” Making the case for creating a more diverse workforce, Aaron argued that an institution can have a diverse workforce as a means of meeting a requirement, but that it raises a greater question about the employer’s worldview, “Are you doing it because you want to be compliant, or are you doing it because you recognize the value in having a more diverse workforce?”

The Social Justice underlayment to the work of the public health participants was present in every aspect. Aaron stated, “You begin to look at the disparities and how can we begin to disentangle the very complex disparities that are out there to small pieces that we can actually begin to impact in each of our individual hospitals.”

Developing intercultural sensitivity is a component of social justice. The public health participants we interviewed talked about developing cultural competency and intercultural sensitivity as well. Terri described cultural sensitivity this way: “For some it’s very significant cultural differences. So…you have 720 volunteers, too, who tend to have a pretty white bread paradigm, so being sensitive to this refugee from Burma who’s never seen a doctor before, just trying to bridge those gaps” creates a barrier in equitable care. This required an uncomfortable self-reflective practice and change in behaviors and beliefs. Aaron described helping a fellow healthcare professional understand that there are disparities in treatment when the colleague expressed that “We do treat everyone the same” by telling him, “I know in your heart you believe that, but there’s too much data out there to show that we don’t, our brain doesn’t operate that way.”

Additionally, participants acknowledged the process and comfortableness associated with becoming culturally competent and sensitive. Aaron described this eloquently, “Becoming culturally competent and addressing issues of health disparities is not a simple little thing that you just decide to model that you’re going to do it, because it deals with deep-seeded feelings that people have. It deals with world views that people unconsciously hold and they don’t even
know it. But when you begin to discuss some of these things in a very real way, it gets very ugly...it can get uncomfortable, and so it requires a commitment from the top that we’re going to see through this whole bumpy transition...but we know we’re going to be better off when we get to the other side of it.”

Cultural sensitivity and awareness training was “challenging” for Terri; however, she felt that the challenge was beneficial because, “it’s disturbing when you find out you think you’re so great and you’re not…but it’s helped us to be more aware of how we see.”

The social justice theme had direct interplay with the notion of research to practice. The idea that change as a result of research might change the fundamental culture of a tribe was an issue for Harry. “There are folks who believe that researchers are exploiting the population for their own career development, and the finding that they have, they don’t believe that the interpretations are adequately reflecting what they know of themselves...(and) the research might be doing things that could impact the tribes financially...It could be disrupting the culture in one way or another...teaching people a way of life that’s a little different than what it is that the tribe was trying to preserve. So can contribute to further assimilation of Indian cultures.” In this passage, Harry was describing the fine line between interventions that are helpful and those that erode the cultural fabric of the tribe.

The frustrations and suggestions made by the participants iterated the standards set forth by the United States Department of Health and Human Services, Office of Minority Health in their National CLAS Standards (http://minorityhealth.hhs.gov/templates/browse.aspx?lvl=2&lvlID=15), which directly address issues of cultural sensitivity, leadership, and practice methods that are specifically culturally and linguistically appropriate for the community served by each agency.

**Improving Minority Data**

A common frustration among participants in this study involved the inadequacy and inaccuracy of data as it related to minority populations (Figure 3). More than once, comments were made such as one made by Harry, “Our race fields are so incomplete they didn’t give us...any confidence at all,” to which he added, “Sampling is inadequate to hit our population.” Doris also lamented inadequate data collection among minority groups, as we noted in the Fighting for Social Justice Theme.

The difficulties created by drop down menu race fields on surveys and in data collecting health care facility forms that are based on Census Bureau race/ethnicity options include incomplete race fields (left blank by the client or patient), or inaccurate race fields. Participants indicated that inaccuracies may occur because the client does not understand the question, another person completed the race fields on behalf of the client, or the proper race descriptors were not present. Similar problematic data collection was among the findings of Stewart and Naoles-Springer (2003) who also found that surveys and other data collection tools either failed to adequately reach minority households, or required translation and/or literacy proficiency beyond the English literacy skills of the minority informants.
Regarding his impression that Census Bureau race and ethnicity fields to be completed by all people and for minorities can be highly problematic, Aaron illustrated with this example, “So you ask them, you know, ‘What’s your ethnicity?’ ‘Well, I’m Hispanic.’ So the next question is, ‘Well, what’s your race?’ ‘Well, there’s nothing on here that says anything that would be similar to Hispanic.’ ‘Well, it’s white.’ ‘Well, I don’t see myself as white.’ So what box do they check and how much of that data is being confounded because people don’t understand that?” This is compounded by inaccurate race fields due to the option “Unable to determine” which could be marked by the client/patient, or by another person on their behalf.

There are multiple problems with minority data, including self-reported information measures. As noted by Stewart and Napoles-Springer (2003), “Currently, little is known about the measurement quality of popular self-report measures of health and its determinants across diverse groups, because measurement studies in health disparities research are relatively scarce” (p. 1208). The researchers advocate for consistent language and methods in collecting racial and
ethnic data from clients. “Researchers usually have individuals self-identify their racial/ethnic group to reduce misclassification. Self-identification using a standard method such as the Office of Management and Budget (OMB) Federal Standards for Racial and Ethnic Data permits comparisons across studies and consistency with federal data;” further noting that “More precise classifications can more effectively identify groups at risk of poor outcomes” (p. 1208). While the need to improve minority data was a theme that evolved from the codes, several participants expressed specific ways in which data could be improved. Interviewees (Harry, Aaron, Kate) called for disaggregated data that could target specific racial groups and ethnicities.

Kate suggested better cutting among the data to reveal racial groups for whom research is most effective, stating that, “You know, if it’s effective among white, suburban moms, is that the same as black rural moms or Native American reservation moms? So, cutting the evidence-based finer and more detail would be helpful.” Additionally, Aaron recommended having researchers disaggregate data to a level of “granularity” to see disparities and the effects of healthcare and treatments. Harry indicated that his small minority population could not be cut away from the larger group due to the labels in the Census Bureau and hospital drop down race and ethnicity fields. While a client or patient may find a race field for “Native American,” a specific tribe is not listed; therefore, he lacks pertinent data related to tribal affiliations. Combined with an overall small population count, reliable data that cut to a specific tribe was inadequate and “useless.”

Local population samples for use in research were recommended by Zach and Martha. Carol noted the lack of local minority data “…we don’t have access to great minority information because there’s just not enough numbers in a lot of area in order for us to get really solid information. So the minority information we use is almost always national information,” adding, “…if we’re going to look at good, solid information, we can’t use poor data,” reiterated by Harry who said, “Federal data is generally not so useful.”

Thomas (2001) implored, “Without racial/ethnic data, we cannot monitor progress or setbacks in addressing racial/ethnic inequalities in health” (p. 1047) and the need for accurate data collection and adequate disaggregation was an imperative delivered by the participants in this study.

**Priority Setting and Applicability of Research**

According to Wallerstein and Duran (2010), “Indigenous knowledge is local, unique to cultures, and focused on problem solving; it is the basis for community decision making in health, education, resource allocation, etc.” (p. S41).

The participants in our study called for research that was based on local needs and found it problematic at times to translate research to their own community settings with positive results (Figure 4). Layde, et al. (2012) described a similar phenomenon, concluding that “Limitations of research-driven approaches to evidence-based public health arise when fundamental characteristics of the specific community are ignored or not understood and when communities do not feel ownership of health improvement interventions” (p. 617). The goal of healthy communities is burdened with the difficulties of translating research from the research setting into an entirely new setting, with its own culture, possibly situated in racial and ethnic communities completely different from (and with different needs than) the research population.
Warnecke et al. (2008) found that “neighborhood context” was a key factor determining individual risk that was “independent of individual characteristics” (p. 1613), indicating that the local context brought much to bear against community health program content and effective delivery systems. Research conducted outside of the local arena, and/or that does not draw its problem statements from local concerns, risks being less effective according to the participants in our study.

Sheri said, “…if that was not a priority for that particular population base, then it wouldn’t matter what we brought to the table. So it was very important to us to first get their feedback and what their priorities were, and then we tailored our monthly educations around that” as an example of listening at the local level to determine program content. Research that ignores what is important to the population base will be less impactful for the intended minority population. Later, in response to being asked what are the most effective strategies for linking research to practice, Sheri stated, “The most important thing is truly listening and being very in tune to what the needs are of the population you’re serving.” As Doris said, “…I think part of it is we forget that sometimes we create programs based on what we think we believe the answer is, and we don’t always go to where the source of the information is,” adding that she felt “there’s a huge disconnect between the services and the leadership and the research. It’s based more on feelings and emotions and a connection to a specific organization than it is based on truly the evidence.”

For research to be applicable for the participants of this study, collectively they felt that it needed to apply to the specific minority groups they served at their agencies or who were served by...
funding from their agencies. They also indicated that research should emanate from a local sample group to know that the practices that come from the research would be applicable to their service area. “Really understanding an issue as it truly is in the community. So our challenge is to ensure that you...have an ear out there everywhere, not just being selective into what you’re hearing or who you’re talking to,” was Sally’s opinion regarding priority setting. Sheri, whose setting was rural, stated, “I think there are a lot of challenges when you look at the rural setting because things that work in an urban setting just don’t necessarily fit in that same mold.” The same sentiments were true for Martha who said, “…we know these things work, how do I make that work here?” regarding the role and applicability of research. Harry indicated that there were sensitive issues lost when translating public health practices into the American Indian experience, “…it’s not always clear that the risk and protective factors for any particular condition for American Indians is going to be the same for the general population. There might be culturally specific things going on, there might be factors that are related in different ways.”

Similarly, Zach said, “A lot of the research that even we have access to is...not local research, so how applicable is it, you know? Maybe they’re at bigger cities, or maybe the populations are different even regionally, or whatever…” confessing later that he was unaware of research being conducted at a local university that could apply to public health, saying “…we all should be paying a little bit more attention probably to what’s going on, at least locally.”

There is urgency for research that develops from community concerns, and that has at its core, localized delivery systems that are culturally sensitive and appropriate. As Israel et al. (2001) found, “…methodological flexibility is essential, that is, the use of research methods that are tailored to the purpose of the research and the context and interests of the community involved” (p. 189).

“Things that have actually been tried and true with minority populations or specific minority populations are very difficult to find,” was a frustration expressed by Cheryl regarding valuable minority research. She added, “Help us build that so that when somebody says to me, ‘Okay, how can I best reach Somali populations with health education on diabetes?’ Okay, then I can say ‘Well, here’s an evidence-based practice or best practice, try this.’”

Regarding the many concerns of translating research into practice, Koh et al. (2010) asserted that “Effectiveness comes through brief, carefully constructed, and feasible interventions that public health workers can implement in multiple real-world settings” (p. S74). Applicability of research includes applicability of research-based interventions across different ethnicities, and also among same ethnicities in very different locations. Echoing Koh et al. (2010), Janet asked, “How can we research those best practices and make sure they’re still applicable in multiple populations?” and sought “…evidence-based practice that works in multiple settings with multiple cultures.”

Carol related experiences working with collaborators to drill down research to a local application level, with the ultimate goal of deciphering how recommended practices which are evidence-based/research-based will work at the local level with local populations.

Kate urged researchers to listen to community concerns, “What communities see as their issues and what we see as their issues are not necessarily the same and they are not unrelated...you
can’t go into a community and say I’m going to solve your infant mortality problem. The community’s consciousness is at rats in the garbage. Or, you know, housing. And we can go in and say lead poisoning, African American kids are at much higher risk of lead poisoning. But the community says, ‘Well, at least they’re in a house.’ …So, you have to work with where people are and not ‘but I know best and I’m just going to string you along until you see my way of doing it.’ It really is a lot of participatory, community-based participatory research, community-oriented care…” adding, “…don’t do the priority setting in a vacuum.”

To precipitate local minority research, a few of the participants alluded to their own ability to tap into minority populations, or act as gatekeepers. Zach suggested that health departments could help locate participants for minority studies, and Martha indicated that “I believe the practice community can help researchers get in, gain entry into those communities when necessary.” A research partnership of this nature could lead to the type of local research-based information our participants desired.

Collaboration

In an analysis of summit recommendations by the National Institute of Health mentioned earlier, Dankwa et al. (2010) categorized several suggestions for eliminating health disparities. Among them was strong support for collaboration, which was a theme that emerged from our participants as well. According to Dankwa et al., “…research needs to be collaborative and needs to promote community engagement, research should promote effective and sustainable partnership models” (p. S13), as well as stating that “Research should promote effective and sustainable partnership models,” (p. S14), and “Research should promote infrastructure and capacity-building for health disparities research. Focus on building infrastructure is needed, along with an optimal pipeline of researchers that promotes mentoring, promotes career development, and creates a diverse workforce. Cultural sensitivity and inclusion should continue to be of utmost importance across the spectrum of knowledge translation and dissemination into practice and policy efforts” (p. S14).

There was a distinct appeal from our participants for collaboration between researchers and public health practitioners (Figure 5). “Just develop a community of practice and research,” was the shared call of participants, voiced here by Martha. “I think we’ve got to get together, the research and practice folks, and talk about which, what type of research studies are needed.”

Some expressed a rough edge between researchers and practitioners. “The academia and operations a lot of times don’t meld well…I’m not an academic” was the way Terri described the difficulty in linking research and practice, and lamented that researchers who involve her facility in data collection seldom report back results of their studies, so little is gained from the partnership from her perspective. Wallerstein and Duran (2006) conveyed agreement with Terri’s comments, “…people’s assumption of academic research expertise or University agenda may unintentionally hide or silence others’ voices, so that concerns are not directly raised. Hidden voices may threaten the research process by causing people to feel that they cannot contribute or cause them to consciously or unconsciously subvert the collaborative process to exert control, the result of which can be withdrawal and internalization of the lack of voice or the subversion and/or resistance of research implementation and results (citing Scott, 1990; Wallerstein, 1999)” (p 316) which beckons an improved collaborative effort with open lines of communication.
Regarding communication, Janet indicated that one of the most successful strategies for linking research to practice was “just a lot of open dialogue between researchers and practitioners;” however added, “I think there’s sometime still feels like a little bit of a divide between academia and practice… I think there’s some practice folks that kind of feel like oh, those researchers sit over on campus or wherever at CDC in their ivory tower and aren’t in the real world.”

Janet also suggested that communication would bridge the gap because “I assume researchers want to do research on what’s really needed, and I think practitioners want to trust researchers,” as she implored both sides to work together and be patient with one another. Aaron recommended collaboration among health systems, insurers, government, and research-based facilities to “re-envision the paradigm that we’re applying to disparities,” adding that “…we need to come out of our competitive boxes and share whatever information we have.” Janet added, “Sometimes, I think there is great research out there, and practitioners don’t take the time to read it and implement it or even test it, and I think researchers have come a long way in saying…”Okay, let’s not just do research to publish, let’s do research that’s going to help the community, help public health or local health departments, for instance, or community non-profits, implement programs better.”

Carol thought that, “…if we can be provided research that is really pretty targeted and applicable to our, either our populations or whatever issue we’re trying to accomplish or whatever, that if we can take that and run with it, that would be beneficial to us,” in a process she visualized as a funnel.
Zach suggested utilizing marketing research, social media and new technologies to reach populations; a process that could involve collaboration as “health departments are probably interested in partnering more in research,” and “more relationship building with researchers and public health officials” would meet that agenda. He recommended more open lines of communication between local researchers and practitioners so that both could stay abreast of development and needs in the local minority community.

Harry suggested bringing in “a university consultant…to guide us to important topics,” and called for universities and tribes to work together to “learn more about what it is that’s really happening, what we can do to help make - change things for the better.”

Embedded in the call to collaborate, the participants were very clear about some of the tasks necessary in collaborative communication. Literature in public health includes mandates for researchers to develop “skills in group process, communication (e.g., the use of language that is understandable and respectful), conflict resolution, participating in multicultural contexts, ability to be self-reflective and admit mistakes, capacity to work within different power structures, and humility” (Israel et al., 2001; citing Israel et al., 1998, p. 190).

Ray felt that, “…it takes a link in order to distribute this data,” and that for data to be useable in public health, researchers who collaborate with practitioners “need to modify it into something that’s going to be appealing.” In an effort to “transform it into something that can go to the community,” care must be taken to “find out how different cultures like to receive their information,” adding a layer of collaboration to the process of moving research to practice. “There’s a kind of a person that’s missing there, you know, between the data and then the product that we disseminate.”

Janet suggested having a “book club on minority health topics,” or journal discussions to facilitate talk about relevant topics to issue forth some accountability on the part of stakeholders.

Martha said, “I like that kind of environment where we sit down with the researchers and think about projects together,” in reference to a research to practice network in her community. “I think if researchers and practitioners would come together a little bit more, we could come up with some really great research projects” and need more “face-to-face time” to do so. She also suggested that researchers should conduct presentations of projects to public health workers, saying that “I often feel like what’s happening at the universities isn’t being presented with us in the practice communities, so I don’t know what’s going on.”

Promoting Community Based Participatory Research (CBPR), many researchers call for collaborative partnerships (e.g., Dankwa et al., 2010; Koh et al., 2010; Siebler & Tolich, 2013; Wallerstein and Duran, 2006;), transdisciplinary models (Gehlert et al., 2010), and informationalist training (Oliver, et al., 2008). The participants in our study expressed ideals in adherence to these concepts and to CLAS Standards (Office of Minority Health, 2013), specifically standards #11, #12, and #13, as applied in research to practice collaborative alliances.
Research Accessibility

Research accessibility was a clear theme that cut across the collaboration theme, as well as several categories that emerged from the questions (Figure 6). The meaning of “accessibility” included both the language of academic research and a minor subtheme of physical access to studies.

Doris suggested that to better utilize research in public health practices, researchers should “make it more available or to make concrete recommendations from it.” She addressed having the skill set to access data, stating that, “funders usually aren’t in a position to say, to interpret the data. They want somebody to interpret it and then give it to them,” and suggested a “learning institute or...a place that helped public health workers put information into practice” as a means to operationalize research since it is “difficult interpreting it and applying it.”

Similarly, Aaron advised using researchers to analyze data to determine outcomes for racial and ethnic groups. Aaron added, “…we have got to figure out a way where we take our scientific research and convert that into something that the lay person that’s doing the front line care delivery can understand,” to which he expounded with, “Data is always good, Data is always good, but they have to be able to understand it.” Sheri’s comments concurred with this, as she remarked that in rural settings, “…when you’re looking at specific research, we don’t have the capacity or the skillset level within the organization that you would at some of your bigger areas as far as credentials” to handle analysis of data and interpreting results.

Harry mentioned access to academic research and the challenges posed by using it, “I really doubt that any community organization that will be trying to work with any minority population would have access to this kind of information directly. Not that they’d even have the staff, I
mean, I wouldn’t even know if they have the staff who would be able to look at it and have the background necessary to get it all in perspective.” As Carol put it, “I think it can be a challenge even deciphering the research.”

Kate echoed these sentiments and included that researchers need to make research “more accessible to programs and then making the evidence-based concepts more firmly implanted in the programs” would create a better link from research to practice. She commented, “Part of it is translating research for non-science people, and the other is just continuing to clarify that evidence-based cuts two ways. This works, this doesn’t work, and just making it easier for people to understand what you’re saying when you say, well, this program doesn’t work.” To do so, Kate suggested teaching public health staff “the rudimentaries of data and how to understand it, and how to communicate it,” an idea repeated by Cheryl.

Cheryl also felt that effective strategies for linking research to practice included, “Explaining it in terms that people can understand,” adding that “…we are extremely busy in public health…we’re consistently underfunded, we’re understaffed, we’ve got too much to do and expecting somebody to grab a research article, which can be very, very technical, and figure out how to filter that down and apply it to something…that’s a big, big challenge.” Like others, Cheryl suggested receiving help translating research into terms that people can grasp, in terms “people can understand.”

Martha desired a partnership with the university for access to full text holdings of journals that could aid her practice, and also called for “translation of research.” In this case, the contextual definition of “translation of research” was taken to mean revoicing research from academic terminology into practitioner language; making the meaning of research transparent and useful in community health settings.

As Dankwa et al. (2010) stated, “The goal of scientific knowledge pertinent to health disparities is practice improvement, e.g., the application of best evidence, and translation of scientific findings to close the disparity gap” (p. S13). Our participants felt it incumbent upon researchers to communicate results of relevant, local research in terms familiar to practitioners. This challenge was addressed by Wallerstein and Duran (2010) when they noted that “The third challenge is language, which includes incompatible discourse between the academy and the community, and the power of naming, which encompasses such commonly used terms as “institutionalization” or “collaborators” (p. S41) and “The fourth challenge is one of business as usual, where academics control the research process, often by adapting and “manualizing” the evidence-based behavioral prescriptions to impose on the “other,” or by using community participation with the single intent of increasing minority enrollment in clinical trials” (p. S41).

As in Brownson’s model (as described in Satterfield et al., 2009), our participants seemed to be strongly voicing a need to complete some critical pieces of the cycle, including “Engaging the community in assessment and decision making” and “Disseminating what is learned to key stakeholders and decision makers” (p. 379) in a respectful and appropriate manner that would promote community health.
Limitations and Delimitations

There were several limitations of this research project that should be noted. First, as is often common in qualitative forms of inquiry, we employed a small sample (n=13) not generalizable to all public health practitioners working in the area of minority health. These individuals were selected based on their experience with and knowledge of the central phenomenon of the study rather than on any other demographic characteristics or considerations. Along these lines, the sample was also limited geographically, with all but one participant working in the same central locality. Furthermore, the sample consisted almost exclusively of administrative staff, as other levels of community health employees were not identified to participate in our interviews. Since our participants generally held administrative positions it is likely they would be more supportive of proactive strategies linking research to practice than their subordinates who typically look for guidance in this area rather than feel it is their own responsibility to pursue such linkages. Moreover, we only employed one data collection method—in-depth, semi-structured interview—although we did triangulate our data through ongoing researcher collaboration, team meetings, and critical dialogue, memoing, member checking, and peer review. We also faced challenging time constraints in that the entire project from conceptualization to completion was limited to six months. With more time, we could have employed theoretical sampling techniques to flush out the detail of our emergent themes through subsequent interviews and analyses. Finally, at the onset of this study, neither of us was well-versed in the field of minority health disparities. This limitation could also be viewed as strength of this research as it demanded that we be extremely receptive and open-minded to participant responses since we had few preconceived notions going into the study. As was the goal from the onset, participants identified strategies to facilitate research-to-practice in the area of minority health disparities and provided data uncontaminated by our pre-existing knowledge or potentially biased views of the phenomenon.

Conclusions and Implications

The purpose of this community-based qualitative research study was to explore how public health workers can better utilize research to improve practice in the area of minority health care. Thirteen participants were interviewed using a semi-structured interview protocol. Data analysis involved team-based coding into increasingly higher analytical levels from codes to categories to five emergent and recurring themes: “Fighting for Social Justice”, Improving Minority Data, Priority Setting and Applicability of Research, Collaboration, and Research Accessibility. These themes encapsulated participant responses cutting across the data and were consonant with the broader, nationally-based research literature addressing this topic. Initially bracketing this literature until after data collection and analysis were well under way, we were struck with how similar our participants’ views reflected and extended key findings conducted among previous researchers investigating the potential effectiveness of research for informing practice to achieve the overarching goal of reducing disparities in minority health care. Our research underscored on a local and regional level shared concerns and proposed solutions that bind community health workers and researchers together both epistemologically and in practice.

Based on our findings and this broader research literature, we recommend a model of local collaboration (Figure 7) between formal research/educational institutions and community health agencies. Incorporating the highly touted Community Based Participatory Research (CBPR) approach (e.g., Israel, et al., 2001; Koh, et al., 2010; Layde, et al., 2012; Sieber & Tolich, 2013;
Wallerstein and Duran, 2006), we suggest an intense recursive model of research and communication.

According to Dankwa-Mullan, et al. (2010), discussions amongst stakeholders at the 2008 NIH Summit indicated that community health research “needs to be collaborative and needs to promote community engagement, research should promote effective and sustainable partnership models” (p. S13), and must include effective translation of scientific findings to policy and practice. The overarching thrust of the proposed model aligns with key principles of CBPR, which in essence strive to equalize power relationships between research and practice entities and emphasizes shared information and collaborative, equitable involvement of all partners in all phases of research. These principles are clearly articulated by Israel et al. (2001, and see Siebler & Tolich, 2013 and Brydon-Miller et al., 2011) that posit that “true” CBPR:

- Recognizes community as a unit of identity
- Builds on strengths and resources within the community
- Facilitates collaborative, equitable involvement of all partners in all phases of the research
- Integrates knowledge and intervention for mutual benefit of all partners
- Promotes a co-learning and empowering process that attends to social inequalities
- Involves a cyclical and iterative process
- Addresses health from both positive and ecological perspectives
- Disseminates findings and knowledge gained to all partners
- Involves long-term commitment by all partners

![Diagram of Proposed Model for CBPR to Facilitate Research to Practice](image)

Figure 7: Proposed Model for CBPR to Facilitate Research to Practice

To maximize effectiveness, local research and/or educational institutions should base minority health research on priorities set at the local level as conveyed to them through proximal
community health agencies. Using local priority-setting to situate research addresses the direct applicability of research, an aspect that was missing for our participants. Additionally, institutions that conduct or organize the research driven by local priorities must make the results of their research consumable for community health agencies, providing abbreviated versions in lay terms to local practices.

In our proposed model, priorities communicated by community health agencies to the research entities will be developed into research projects. Through an established communication network between these bodies, the agencies will provide participants for studies and the researchers will communicate back to agencies at all stages of research projects. When possible, researchers representing both research institutions and community-based practice settings will share the processes and results of research efforts for the benefit of all parties. At the conclusion of CBPR community health and minority health projects, these researchers will develop both an academic report and a condensed version of the research study for participating and otherwise affected agencies. Through this collaborative network, the agency and research bodies will work together to develop culturally sensitive tools and promotions for community health projects. Research developed collaboratively can then be used to monitor the effectiveness of programs that result from this partnership. Only through collaboration, communication, and commitment at all levels can our mutual goal of reducing minority health disparities be met.
References Cited


<table>
<thead>
<tr>
<th>Central Question</th>
<th>Initial Open-Ended Questions</th>
</tr>
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<tbody>
<tr>
<td>How can public health workers better utilize research to improve practice in the area of minority health care?</td>
<td>Please describe what you do as a public health worker in the area of minority health.</td>
</tr>
<tr>
<td><strong>Subquestions</strong></td>
<td>What is your role in working directly with minority populations in the area of public health? With whom do you generally work on a daily basis?</td>
</tr>
<tr>
<td>1. How do public health care workers view the role of research in the area of minority health care?</td>
<td>What do you view is the role of research in serving minority populations in the field of health care?</td>
</tr>
<tr>
<td>2. How do public health workers currently access research in the area of minority health?</td>
<td><strong>Intermediate Questions</strong></td>
</tr>
<tr>
<td>3. How do public health workers utilize research to affect change in practice, policy, and training in the area of minority health?</td>
<td>In your position, how do you access current research or other potentially pertinent information?</td>
</tr>
<tr>
<td>4. What are major challenges faced by public health workers in applying research to practice in the area of minority health care?</td>
<td>In your position, how do you use research and other forms of information to better inform your practice?</td>
</tr>
<tr>
<td>5. How can research be more effectively utilized by public health workers to improve practice in the area of minority health care?</td>
<td>How do you use research to inform policy?</td>
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<tr>
<td><strong>Closing Questions</strong></td>
<td>What strategies do you feel are most effective for linking research to practice?</td>
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<tr>
<td>In your position, how do you feel research can be better utilized to help you be more effective in serving minority populations?</td>
<td>What are the major challenges you face in utilizing research in your practice?</td>
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<tr>
<td>Are there any other suggestions you have of how public health workers can better utilize research to improve practice in the area of minority health?</td>
<td>Are there other ways you use research to improve practice, policy, and training?</td>
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## Appendix B: Qualitative Design Procedural Checklist (Babchuk and Wassenmiller, 2012)

### Qualitative Research Design Procedural Checklist

<table>
<thead>
<tr>
<th>Title (reflect the qualitative design used and communicate the central focus of the study)</th>
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<tbody>
<tr>
<td>Abstract (tight, succinct, and comprehensive)</td>
</tr>
<tr>
<td>Introduction and identification of the research problem (what is the topic, why it is an important topic to study, why the study is needed, etc.)</td>
</tr>
<tr>
<td>Qualitative purpose statement (or problem statement)</td>
</tr>
<tr>
<td>Qualitative research central and sub-questions (consistent with the goals and rationale of the study, feasible, well-written, and succinct)</td>
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<tr>
<td>A concise summary of relevant literature and how and where it is used in the study</td>
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<tr>
<td>Researcher positioning/reflexivity (worldview, theoretical lens, and approach)</td>
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<tr>
<td>Definition of terms (clearly define terms and concepts used in the study)</td>
</tr>
<tr>
<td>Rationale for why qualitative research was selected (over quantitative or mixed methods)</td>
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<tr>
<td>Rationale for choice of qualitative approach (e.g., case study, phenomenology, grounded theory, ethnography, narrative, discourse analysis, participatory research, etc.)</td>
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<tr>
<td>IRB and ethical considerations (identify permissions that have been granted)</td>
</tr>
<tr>
<td>Sample selection procedures documented and explained (include number and demographic information of participants, how participants will be recruited and how they will benefit from the study; also provide site selection criteria, etc.)</td>
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<tr>
<td>Data collection methods documented and justified (e.g., interviews, observations, document analysis, etc.). Multiple forms of data used as one form of triangulation?</td>
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<tr>
<td>Data analysis methods (indicate general data coding and analysis procedures, use of software, multiple coders, validation strategies, triangulation, etc.)</td>
</tr>
<tr>
<td>Discussion and presentation of research findings, results, and conclusions. What emerged? (narratives, models, themes, theory, etc.). Use of visual representations (tables, graphs, figures, diagrams, flow charts), comparisons to other research, implications for research and practice, strengths and limitations, suggestions for future research</td>
</tr>
<tr>
<td>Attached data collection instruments</td>
</tr>
<tr>
<td>References cited pages</td>
</tr>
</tbody>
</table>
Appendix C: Informed Consent Form

INFORMED CONSENT FORM

Title of Project: Research to Practice Links in Minority Health

Purpose of the Research:

The purpose is to identify best practices in research-to-practice links between research, policy, practice and training when addressing minority health disparities. This will help UNL (and others) learn how to effectively interweave research with practice, policy and training. You must be 19 years of age to participate.

Procedures:

Participation in this study will require approximately one hour of your time. You will be asked questions in a semi-structured interview about your experiences with minority health disparities research, practice, policy, or training. The interview will be audio taped. The interview will take place in location of your choice (private space is available at UNL). You may be contacted a second time if clarification is needed, which may require up to an additional 30 minutes of your time. You may also be presented with the transcript from your interview.

Risks and/or Discomforts:

There are no known risks to participating.

Benefits:

There are no direct benefits to participants, but information gained may be used to modify approaches to integrating research, practice, policy and training.

Confidentiality:

Information about specific departments and who participated will be kept confidential by the researchers. Any identifying information obtained from the interviews will be de-identified and will only be reported in aggregate form to the UNL Minority Health Disparities Initiative steering committee, and results may also be published in scientific journals or conferences. Audio tapes and transcripts will only be available to the researchers.

Opportunity to Ask Questions:

You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study. You may contact the primary investigator at any time by contacting Wayne Babchuk at wbabchuk1@unl.edu or 402-472-7942. You may also direct questions about being a research participant to the University of Nebraska-Lincoln Institutional Review Board at (402) 472-6985.

Voluntary Participation and Freedom to Withdraw:

Your participation in this study is completely voluntary. You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship with the investigators or the University of Nebraska. Your decision will not result in any loss of benefits to which you are otherwise entitled.
Consent, Right to Receive a Copy:

You are voluntarily making a decision whether or not to participate in this research study. Your signature certifies that you have decided to participate having read and understood the information presented. You will be given a copy of this consent form to keep.

________________________
Check if you agree to be audio taped during the interview.

Signature of Participant:

Signature of Research Participant ___________________________ Date ____________________

Name and Phone number of Investigator(s)

Wayne Babchuk, Principal Investigator
Lesa Brand, Secondary Investigator
Appendix D: Interview Invitation 1

Office/individual to whom the letter is addressed

February 15, 2013

Dear (Potential Participant):

I am writing to make you aware of an important community-based and collaborative research study designed to improve our efforts to better utilize evidence-based practices in the field of minority health. I am working with Wayne Babchuk, Lesa Brand, and Mindy Anderson-Knott from the Department of Survey, Statistics, and Psychometrics at the University of Nebraska-Lincoln to increase our understanding of how public health care workers can more effectively use research to improve practice in the area of minority health care.

The overall purpose of this research is to learn more about how public health workers view and utilize research to better achieve the ultimate goal of facilitating more equitable and accessible treatment of members of traditionally underserved groups. They are hoping to find out how public health workers feel research can be more effectively utilized to better serve minority populations in the future. An aggregate report summarizing the results from this study will be shared with our office, but all information will remain confidential.

This letter is to inform you that you may be contacted within the next few weeks by Wayne Babchuk or Lesa Brand asking you to participate. I hope that you will participate when you receive the invitation. Participation is voluntary, but I think you will enjoy this opportunity to share your experiences and thoughts about applying minority health research to practice. Thank you for your consideration.

Sincerely,

Josie Rodriguez

Josie Rodriguez, Administrator
DHHS Health Disparities & Health Equity
301 Centennial Mall South, PO Box 95026
Lincoln, NE 68509-5026
Phone 402-471-1409
Fax 402-742-2342
URL: http://www.dhhs.ne.gov/healthdisparities
Appendix E: Interview Invitation 2

Date

Potential Participant Contact Information

Dear:

As a follow-up to a letter you recently received from Josie Rodriguez, Administrator, DHHS Health Disparities and Health Equity, we are writing to ask for your participation in part of a collaborative, community-based study being conducted by the University of Nebraska-Lincoln to better understand the connection between research, practice, policy and training in the area of minority health disparities.

We would like to conduct a one hour interview with you at a location of your choice to discuss your experiences with minority health disparities research, practice, policy, or training. It is imperative that we hear from a wide range of participants to ensure we understand the connections from many different perspectives, so we hope that you are available to participate and help us in this important study.

If you are able to participate in this interview, please email me at wbabchuk1@unl.edu or call me at 402-617-6223 (cell) or 402-472-7942; 402-472-4033 (offices) and we can set up a time that is convenient. We look forward to hearing from you in the near future.

Sincerely,

Wayne A. Babchuk

Wayne A. Babchuk, Ph.D.
Department of Educational Psychology  Department of Anthropology
31 Teachers College Hall  931 Oldfather Hall
University of Nebraska-Lincoln University of Nebraska-Lincoln
Lincoln, NE 68588-0345 Lincoln, NE 68588-0368
(402) 472-4033 (office) (402) 472-7942 (office)
wbabchuk1@unl.edu wbabchuk1@unl.edu
Appendix F: Interview Invitation 3

April 22, 2013

Address

Dear:

I am writing to invite your participation in an important study designed to improve efforts in utilizing evidence-based practices in the field of minority health. I am working with Wayne Babchuk and Mindy Anderson-Knott from the Department of Survey, Statistics, and Psychometrics at the University of Nebraska-Lincoln to increase our understanding of how public health care workers can more effectively use research to improve practice in the area of minority health care.

The overall purpose of this research is to learn more about how public health workers view and utilize research to better achieve the goal of facilitating more equitable and accessible treatment of members of traditionally underserved groups. We are hoping to discover how public health workers feel research can be more effectively utilized to better serve minority populations in the future. An aggregate report summarizing the results from this study will be shared with your office, but all information will remain confidential.

____ _____ with Bryan College of Health Sciences mentioned you as a possible participant in our study. She felt that you would have interest and expertise related to the topic of linking research to practice in the area of minority health. Participation is voluntary, but I think you will enjoy this opportunity to share your experiences and thoughts about applying minority health research to practice. If you would be willing to share your expertise with us, we will send you a list of the interview questions and arrange a time for a taped interview (about 45 minutes). It is imperative that we hear from a wide range of participants to ensure we understand the connections from many different perspectives, so we hope that you are available to participate and help us in this important study.

If you are able to participate in this interview, please contact me at lbrand@huskers.unl.edu or 402-472-2231; 402-618-1292 or my colleague Dr. Wayne A. Babchuk at wbabchuk1@unl.edu or 402-617-6223 (cell) or 402-472-7942; 402-472-4033 (offices) and we can set up a time that is convenient. We look forward to hearing from you in the near future.

Sincerely,

Lesa Brand

Lesa Brand, Doctoral Student and Research Associate
Department of Teaching, Learning, and Teacher Education
Henzlik Hall
University of Nebraska-Lincoln
Lincoln, NE 68588-0355
402-472-2231; 402-618-1292
lbrand@huskers.unl.edu
Appendix G: Interview Protocol

Participant ID__________

Interview Protocol: Minority Health Disparities Study

Day and Date:______________________________________________________________

Location:______________________________________________________________

Interviewer:________________________________________________________________

Interviewee:________________________________________________________________

Pseudonym:________________________________________________________________

Time of Interview:________ Start time ____________ End Time ____________

Thank you for agreeing to meet with me (us) today for this interview. Qualitative researchers often view the interview process as a focused conservation about the central phenomenon of interest they are studying. I (we) intend for this interview to be a conversation and want you to feel comfortable throughout our meeting and feel free to ask questions as we go. Before we get started with a few basic demographic questions, we need to go over the informed consent form and have you sign it. As you are aware, this form provides some basic information as to how we will proceed, what the study is about, your role, my role, etc.

Review Informed Consent

Please select a pseudonym that I can use for the purposes of this study:

Do you have any questions before we move forward with our conversation?

Turn on the tape recorder

To start with, will you please answer a few broad demographic questions about yourself and your current position.

Organization:________________________________________________________________

Position of Interviewee:______________________________________________________

Time in Present Position:____________________________________________________

How long have you worked with minority health disparities or in public health? ____________

What is your highest level of education?__________________________________________
Age: ____

Sex: Male    Female

Ethnic Background:
- Asian American
- Black/African American
- Hawaiian or Pacific Islander
- Hispanic/Latino
- Native American
- White/Caucasian (European American)
- Other(s) __________________________________________

**Initial Open-Ended Questions**

1. Please describe what you do as a public health worker in the area of minority health.

   Probe 1: Tell me about a typical day for you in your current position?

   Probe 2: What percent/proportion of time do you spend working in the area of minority health in a given day? (i.e., proportion of day)

2. What is your role in working directly with minority populations in the area of public health?

   Probe 1: With whom do you generally work on a daily basis?

   Probe 2: When you are working in minority health, what do you generally do?

3. What do you view is the role of research in serving minority populations in the field of health care?

**Intermediate Questions**

4. In your position, how do you access current research or other potentially pertinent information?

5. In your position, how do you use research and other forms of information to better inform your practice?
6. How do you use research to inform policy? How do you access research that informs policy?

7. What strategies do you feel are most effective for linking research to practice?

   Probe: What additional training are you required to pursue in your position?

8. What are the major challenges you face in utilizing research in your practice?

9. Are there other ways you use research to improve practice, policy, and training?

**Closing Questions**

10. In your position, how do you feel research can be better utilized to help you be more effective in serving minority populations?

11. Are there any other suggestions you have of how public health workers can better utilize research to improve practice in the area of minority health?
Appendix H: Participant Transcription Information Letter

June 4, 2013

Dear Participant:

Thank you for participating in our collaborative minority health research study. As indicated in the informed consent form and as we mentioned in our interview, we have enclosed a copy of the interview transcript for your review. If you have any comments or clarifications or thought of something you wish you had mentioned, please contact us at wbabchuk1@unl.edu (402-472-7942) or lbrand@mpsomaha.org (402-618-1292). We are hoping to be finished with data analysis by the end of the month. If you could get any comments or suggestions you might have by June 15th we would appreciate it given our ambitious timeline.

We interviewed 15 participants and we think we have some interesting and potentially informative data that we look forward to sharing with you. We will continue to update you as we progress in our data analysis. Again, thanks for your help in this study. We will be in touch again soon.

Sincerely,

Wayne A. Babchuk, Ph.D.
Department of Anthropology
931 Oldfather Hall
University of Nebraska-Lincoln
Lincoln, NE 68588-0368
402-472-7942 ; 402-617-6223
wbabchuk1@unl.edu

Lesa Brand, Doctoral Student
Department of Teaching, Learning, and Teacher Education
118 Henzlik Hall
University of Nebraska-Lincoln
Lincoln, NE 68588-0355
402-472-2231; 402-618-1292
lbrand@huskers.unl.edu
Appendix I: Current Use of Research

Challenges (Using Research)
Inadequate data related to minorities
Inadequate minority representation
Adjust data collection to capture minority experience
Inadequate Census Bureau race distinctions
Research typically identifies problems, not solutions
Research needs to be ethnic/culturally specific

Best Practices (Effective Strategies)
Research should change practice & interactions
Discover best practices
Base education sessions on data
Create healthier communities
Make interventions fit reality
Base collaboration on assessments with minority populations

(Questions)
IQ3. What do you view is the role of research in serving minority populations in the field of health care?
IQ4. In your position, how do you access current research or other potentially pertinent information?
IQ5. In your position, how do you use research and other forms of information to better inform your practice?
IQ6. How do you use research to inform policy? How do you access research that informs policy?
IQ7. What strategies do you feel are most effective for linking research to practice?
IQ8. Are there other ways you use research to improve practice, policy, and training?
IQ9. How do you feel about the current state of research in your field?
IQ10. What are some challenges you face in using research to inform practice?

Practices/Program Implementation
To support a position/presentation
Use research data to perform cost-benefit analysis (CBA) and program efficacy

Future Best Practices/Program Development
Encourages evidence-based grant applications/evidence-based practices (inform programs)
Make environmental change
Identify priorities
Help board understand value of diversity

Challenges
Inadequate evidence that research-based practices are effective for different cultures
Inadequate data
Hard to get politicians to care about evidence-based research

Internal/Program Policy
Tuition reimbursement policy
Restructure programs in culturally sensitive ways
Finance/employment policies
Compliance with federal law
Worksites wellness policy and programs
Financial data to support policy

External/Public Policy
Environmental change
Do not lobby legislation but may inform legislation
Smoking ordinance

Essential Strategies for Linking Research and Practice (Model)
Research must fill a need
Provide solutions
Directly inform culturally sensitive practice/Intercultural competence
Identify researchable problems
Priorities should be determined by the community
Having accurate data
Open dialogue between researcher and practitioners (communication)
Need a person to provide a link between university research and public health practice
Transform the research into something that go to the community
*(Identify needs, accurate data, solutions, priorities)
*(Communication: Dialogue between researchers and practitioners, identify a link between these entities)
Memo: Steps are emerging of how to link research to practice. Formal practices (same hub) to link the research and practice community. Visual form (hub, wheel, circle).
Steps:
*Identify need in community
Collect relevant data
(Open dialogue between researchers and practitioners)
Translate research into usable product for PHWs
Person and place (liaison) to provide a link between university and practice (Missing

Increase Cultural Competence
Educational sessions for staff
Be culturally sensitive
Encourage participation in programs
Educate population (practice)
Learn stereotypes (self-reflection)
Facilitate Intercultural competence
Appendix J: Challenges and Suggestions for Improving Research to Practice

<table>
<thead>
<tr>
<th>External/Overarching Barriers (Macro)</th>
<th>Increase Collaboration and Communication</th>
<th>Collaboration/Partnerships Between Researcher and Practitioner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research and Data Collection</td>
<td>Make research accessible</td>
<td>Communicate research results back to public health workers</td>
</tr>
<tr>
<td>Research needs to be accessible</td>
<td>Make research applicable</td>
<td>Assistance (collaboration) to translate and apply research</td>
</tr>
<tr>
<td>Research needs to be communicated</td>
<td>Communicate translated/filtered results</td>
<td>Network between researchers or practitioners</td>
</tr>
<tr>
<td>back to public health entities</td>
<td>to public health entities/policy makers</td>
<td>Better data collection of minority groups/cutting for race</td>
</tr>
<tr>
<td>Inadequate/inaccurate minority data</td>
<td>(Feedback from researchers)</td>
<td>across data (better access to academic research)</td>
</tr>
<tr>
<td>Research applicability to specific</td>
<td>Effective promotion of evidence-based</td>
<td>Community level priority setting</td>
</tr>
<tr>
<td>populations</td>
<td>best practices</td>
<td>“Learning institute: to link Research-to-Practice innovation</td>
</tr>
<tr>
<td>Understand problems at community</td>
<td>Collaborate with university</td>
<td>and transformative practices”</td>
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<tr>
<td>level</td>
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<tr>
<td>Balance between research that is</td>
<td></td>
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<tr>
<td>rigorous and useful</td>
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<tr>
<td>Contextual Barriers to Success (Micro)</td>
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<tr>
<td>Time</td>
<td>Culturally accurate, adequate, sensitive</td>
<td>Creating Better Public Health Practices</td>
</tr>
<tr>
<td>Information overload</td>
<td>data</td>
<td>Recognize and address stereotypes and beliefs of public</td>
</tr>
<tr>
<td>Funding</td>
<td>Proper sample size</td>
<td>health workers</td>
</tr>
<tr>
<td>Develop evidence-based, culturally</td>
<td>Grassroots prioritizing</td>
<td>Move healthy practices to convenient places for minority</td>
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<td>sensitive programs (that are cost</td>
<td></td>
<td>population</td>
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<tr>
<td>effective)</td>
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<tr>
<td>Stereotypes/perceptions of minorities</td>
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<tr>
<td>by public health workers (to make</td>
<td></td>
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<tr>
<td>effective)</td>
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<tr>
<td>Capacity and skill set</td>
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<tr>
<td>Access to journals/full text</td>
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</table>

IQ8. In your position, how do you feel research can be better utilized to help you be more effective in serving minority populations?

IQ10. In your position, how do you feel research can be better utilized to help you be more effective in serving minority populations?

IQ11. Are there any other suggestions you have of how public health workers can better utilize research to improve practice in the area of minority health?