APPLYING THE COMMUNITY HEALTH WORKER MODEL TO THE IMMIGRANT

AND REFUGEE POPULATION IN PITTSBURGH, PA

by

Adriana U. Dobrzycka

B.A., St. Cloud State University, 2004

MID, University of Pittsburgh, 2007

Submitted to the Graduate Faculty of

Graduate School of Public Health in partial fulfillment

of the requirements for the degree of

Master of Public Health

University of Pittsburgh

2008

UNIVERSITY OF PITTSBURGH

GRADUATE SCHOOL OF PUBLIC HEALTH

This thesis was presented

by

Adriana U. Dobrzycka

It was defended on

August, 4th, 2008

and approved by

Patricia Documet, MD, DrPH
Assistant Professor
Department of Behavioral and Community Health Sciences
Graduate School of Public Health
University of Pittsburgh

Christopher R. Keane
Assistant Professor
Department of Behavioral and Community Health Sciences
Graduate School of Public Health
University of Pittsburgh

Paul J. Nelson
Associate Professor of International Development
Graduate School of Public and International Affairs
University of Pittsburgh

Thesis Director: Martha Ann Terry, PhD
Senior Research Associate
Department of Behavioral and Community Health Sciences
Graduate School of Public Health

APPLYING THE COMMUNITY HEALTH WORKER MODEL TO THE

IMMIGRANT AND REFUGEE POPULATION IN PITTSBURGH, PA

Adriana U. Dobrzycka, MPH

University of Pittsburgh, 2008

Community health workers (CHWs) are community natural helpers who serve as bridges between the health care system and their community, empowering individuals through access to information and social support that, in turn, enhances access to primary health services. This qualitative study sought to determine whether implementing a CHW program at a local healthcare provider, would be a feasible and desirable solution to address the unique health needs of immigrants and refugees living in Pittsburgh, PA. The study identifies the public health significance of community health workers as a means to improve immigrants and refugees' access to health services, enhance understanding of community needs and assets and increase community participation in defining appropriate solutions.

This study conducted open-ended interviews with key staff from twelve agencies serving immigrants and refugees. Four national providers with established CHW programs participated in the study as well as key staff from eight Pittsburgh-based providers. While national providers gave insights into CHW logistics, local providers assessed their organizational capacity in responding to immigrant and refugee needs and stated their interest in CHW programming. The data was analyzed with qualitative data analysis tools.

Study findings confirmed the positive impact of community-based advocacy efforts, such as CHW programs, resulting in stronger social networks and empowered immigrant and refugee community. However, CHW programs are resource-intensive initiatives that require continued

community engagement in all stages of program planning and implementation as well as adequate compensation and professional development opportunities for CHWs.

Pittsubrgh-based providers do not have the necessary resources of time, staff and funding to create their own CHW programs or to engage in collaborative community-based health advocacy programming. Although creating a CHW program might not be possible due to capacity constraints, Pittsburgh-based agencies should lay the groundwork for future community-based collaborations by engaging in information-sharing to learn from each other's experiences. By involving communities in these conversations, and adopting a strengths-based approach that identifies organizational and community-based resources, such a collaboration will pave the way to an optimization of service provision that maximizes the use of available resources and engages the consumers in addressing their own health needs.

TABLE OF CONTENTS

LIST OF TABLES

PREFACE

Thank you to all those who offered patient and caring advice and support that deeply impacted me throughout the years as a graduate student. I would also like to acknowledge those who took time off their busy schedules to share with me insights about and experiences with working with immigrants and refugees letting me be inspired by their everyday work and helping me find the answers to my numerous questions. Finally, thank you to the family and friends who encouraged me to move forward.

1.0   INTRODUCTION

1.1   PROBLEM STATEMENT

Despite the growth of Pittsburgh's immigrant and refugee populations in the last decade, the capacity of local service providers has not increased as rapidly. Furthermore, the international community is still considered to be too small to warrant the creation of programs that go beyond responding to basic needs. Services offered are reactive in nature, offer short-term solutions, and fail to engage the whole community in defining needs and appropriate solutions.

1.2   STUDY PURPOSE

This study aims to (1) assess the current capacity of providers working with immigrants and refugees in Pittsburgh; (2) identify strategies used to engage these communities in their health; and (3) determine whether implementing a community health worker (CHW) program at local healthcare providers, could offer a feasible solution to the health needs of immigrants and refugees. Community health workers (CHWs) are defined in this study as natural helpers who are bridges between their community and the healthcare provision system, enhancing community's access to primary healthcare services and eliminating health disparities (CDC, 2003).

This study seeks to learn from the experiences of organizations working with immigrants and refugees, specifically established community health worker (CHW) programs and through a variety of initiatives run by Pittsburgh-based providers. While national providers were asked about their experience with designing and implementing CHW programs, Pittsburgh-based agencies were asked to assess their organizational capacity and assess their interest in using the CHW model to improve health outcomes among immigrants and refugees.

Recent research has shown that CHW programs provide an effective approach for educating communities and healthcare providers, increasing community access to resources (i.e., referrals, screenings), promoting social support and improving health outcomes (i.e., people are more likely to engage in healthy behaviors). Assisted by CHWs, underserved communities become empowered and engaged in the process of defining their needs and creating solutions.

By analyzing organizational response to health needs of immigrants and refugees, this study identifies strengths and weaknesses of the service provision system, noting opportunities for change and growth (e.g., collaboration between providers to improve individual response as well as the effectiveness of the entire service provision system). Enhancing information and resource sharing, for example, would allow service providers to improve the quality and the number of services offered and help create a strong, regional voice to advocate for increased support of immigrant and refugee health services to eliminate health disparities in service access and utilization.

1.3   RESEARCH QUESTIONS

This study addressed the following research questions:

Does the community health worker (CHW) model offer a feasible and effective solution, within the Pittsburgh context, to engage community members and address barriers they encounter in accessing health services?

- o What is the current capacity of local agencies serving immigrants and refugees?

- o What strategies are used to engage immigrants and refugees in their health?

- o What do local agencies think about the CHW approach?

    - Did they consider using this model in the past?

    - Why? Why not?

    - What support would agencies need to implement the CHW model?

2.0   LITERATURE REVIEW

This section reviews existing information about the history of the community health worker model and its theoretical underpinnings and implications for program design and implementation. Background information about Pittsburgh's immigrant and refugee population is also presented.

2.1   BACKGROUND ABOUT COMMUNITY HEALTH WORKERS

2.1.1   Historical Roots

Early accounts of community health workers date back to 17th century Russia, where medical personnel shortages compelled the training of community members to provide basic services to soldiers. Chinese "barefoot doctors," midwives and Latin American *Promotores/as de salud* of the 1950s are other examples of traditional lay health providers who connected impoverished communities with needed health services. In the United States, CHW programs emerged in the 1960s, supported by the Federal Migrant Health Act (1962) and the Economic Opportunity Act

(1964), to address needs of migrants and underserved communities (Perez & Martinez, 2008). In 1968 the Indian Health Service created a community outreach program that worked in Native American communities across the United States.

In 1978, the World Health Organization's (WHO) Declaration of Alma-Ata recognized the need to address unequal access to primary health care, a particularly serious problem in the developing world (WHO, 2006). Difficult economic conditions and limited access to healthcare infrastructure in poor and remote areas of many developing countries gave the impetus for expansion of CHW programs in the international setting. These programs, like ones in the US, aimed to provide poor and isolated communities with health education, low-cost access to treatment and support for treatment compliance (Partners in Health, 2006).

The effectiveness of CHW programs was questioned in the 1980s, and in the 1990s the United States saw a decrease in the number of CHWs (Lewin et al., 2005). However, the AIDS epidemic, the increasing impact of chronic and infectious diseases as well as the growing interest in community involvement, underscored the role that CHWs could play in achieving Millennium Development Goals (MDGs) (Physicians for Human Rights, 2005). Most recently, CHW programs won the recognition of the Institute of Medicine, the Centers for Disease Control and Prevention as well as state and federal agencies interested in standardizing CHW training and certification process (DHHS, 2007).

2.1.2   Theory and Practice

The impact of community health workers on community health outcomes is closely connected to concepts of social support and social networks. Paulo Freire's empowerment approach and

community action model explain the positive impact of the community-based self-help strategies (Hennessey et al., 2005).

Social support is an important function of social networks, defined as a set of social relationships to which individuals have access. Social support can be emotional (love, trust, caring), instrumental (money and services), informational (advice) and appraisal (social comparison and feedback). Unlike other social interactions, social support is intentionally provided by the sender, who aims to benefit the recipient in a context of mutual trust. Social support and social networks have positive impacts on all dimensions of individual and community health: physical, mental and social (Glanz, 2002).

On the individual level, social support strengthens coping skills by expanding one's access to new information, strengthening problem solving and increasing the individual sense of control. Social support and social networks also influence health behaviors, support behavioral change, enhance adherence to treatment and encourage preventive health practices that result in improved health outcomes. On the community level, social support and social networks enhance a community's resilience and capacity to respond to external stressors (Glanz, 2002).

According to Glanz's 2002 typology there are four types of social network interventions: (a) enhancing existing linkages, (b) developing new linkages, (c) strengthening existing social networks through indigenous natural helpers, and (d) enhancing networks through capacity-building. Studies show that indigenous helpers reinforce social networks in a community and that women are more likely to be both senders and recipients of social support. Positive health outcomes are more likely to be observed in communities in which social relationships are characterized by high levels of emotional support (intensity) and support exchange (reciprocity) (Glanz, 2002). The community health worker model engages natural helpers and encourages

them to use their social networks to strengthen community coping and problem solving skills (Glanz, 2002). This, in turn, empowers the community so that "people gain control of their lives, [gain] democratic participation in the life of their community and a critical understanding of their environment" (Perkins & Zimmerman, 1995, p. 570).

In the 1970s, the World Health Organization (WHO) recognized that insufficient resources were invested in the health system, benefiting only a small portion of the population and leaving the average person little control over his or her health care (WHO, 2006). To counter this trend, WHO called for increased community participation that would determine health priorities and help identify sustainable solutions. The Declaration of Alma-Ata, mentioned earlier, recognized every person's right and duty to participate in the planning and implementation of health care (Jewkes & Murcott, 1998). At the core of this shift is the assumption that empowering communities in the decision-making process will, in the long-run, eliminate those socioeconomic conditions that give rise to disparities in health outcomes (Glanz, 2002).

Freire and his empowerment approach ground the educational process in the "lived experience" (Hennessey et al., 2005). The educational process, community dialogue and consciousness-raising strengthen communities' confidence in creating change. The first step in the empowerment process is for communities to "deconstruct" their problems. Then, through consciousness raising (conscientization), communities become aware of the broader societal forces that create and re-create inequities and power differentials. Finally, capacity-building provides communities with the appropriate skills to identify specific needs, decide on desired changes and implement an action plan to achieve results (Hennessey et al., 2005).

2.1.3   A Closer Look

A community health worker is "an individual who is indigenous to his/her community and consents to be a link between community members and the service delivery system" (Eng et al., 1997, p. 414). Although this concept of community health worker is not new, only recently have CHWs gained recognition as part of the formal health workforce (DHHS, 2007). Demographic shifts, increasing diversity, shortages of providers and technological advances have led to increasing costs and complexity of the health care system (DHHS, 2007). Changes in our society, such as economic recession, unemployment, cuts to medical coverage (i.e., Medicaid), and increasing insurance costs have led to shrinking social "safety nets" and a growing number of uninsured and underinsured individuals.

The need for a community-based approach to health exemplified in CHW programs is underscored by the experience of underserved populations that are more likely to be affected by health disparities, limited availability of culturally sensitive services and lower utilization of health services. Among providers, inadequate understanding of community-specific needs hinders effective response to community needs (California HealthCare Foundation, 2003). According to Healthy People 2010, "the greatest opportunity for reducing health disparities are in empowering individuals to make informed health care decisions and in promoting community-wide safety, education and access to healthcare" (Healthy People 2010, 2006b, p. 16).

Community health workers (CHWs) are natural helpers who possess cultural competency, language skills and relationships in the community and the health system. They are trusted members of the community respected by stakeholders in the formal and informal networks within which they operate. CHWs' familiarity with local resources enables them to strengthen existing local networks while their knowledge of community needs allows them to

provide targeted, cost-effective and a culturally sensitive "community-based system of care" that complements, but does not substitute for the formal health care system (CDC, 2003). Furthermore, CHWs strengthen community capacity through community activities, role model stories, goal setting and skill development (Taiwo et al., 2008). CHWs also play a role in broadening health professionals' cultural competency and understanding of community needs.

According to the 1998 National Health Advisor Study, which involved nearly 400 community health workers across the United States, CHWs perform the following roles (CDC, 2003):

- Mediating cultural differences between communities and the health care system;

- Providing culturally appropriate and accessible health education and information, often by using popular education methods

- Assuring that people get the services they need

- Providing informal counseling and social support

- Advocating for individuals and communities within the health and social service systems

- Providing direct services (such as basic first aid) and administering health screening tests

- Building individual and community capacity

As evidenced above, community health workers play many roles in the community. According to Eng et al. (1997), on one end of the spectrum are *paraprofessional* CHWs who are employed by a service provider, receive trainings and are expected to be proficient in a number of competencies. They are the "extenders of the service delivery system." On the other end of the spectrum are the *natural helping* CHWs who mobilize resources, assist people with unmet needs and negotiate with healthcare providers but are not paid for their community work (Eng et al.,

1997). Job titles, training, and services provided vary across communities to reflect specific needs, history, traditions and cultures. The DHHS Community Health Workers Workforce Study also points out that CHWs, as volunteers or paid staff, may be employed by a variety of agencies: community-based organizations (CBOs), local health departments, managed care organizations, churches, schools and community health centers. For example, CHWs may be called lay health workers (LHWs), *Promotores/as de salud*, health or peer educators, patient or health advocates, health or cultural advisers (DHHS 2007).

While there are many advantages to the adaptability of the CHW model, a clear drawback to this flexibility is the difficulty of generalizing successful programs to other across communities. Consequently, detecting causal relationships between CHW programs and impact on community access and use of health care services, and ultimately on health outcomes, may be challenging. Similarly, demonstrating cost-effectiveness of CHW programs is often problematic (Lewin et al., 2005). Even though a definite connection between CHW programs and cost-effectiveness has not yet been established, several agencies such as the CDC and Institute of Medicine have recognized the impact of CHWs in addressing racial and ethnic disparities and increasing access to services. Committed to supporting effective community-based approaches, the CDC has even formed an internal working group on CHWs and has implemented several diabetes-related projects that utilize this model (CDC, 2003).

2.1.4   Advocacy and Social Justice

Healthy People 2010 underscores the need to recognize and address disparities in access to quality healthcare. Financial, structural and personal barriers, such as lack of health insurance as

well as cultural and language barriers, render access to quality services extremely challenging (Healthy People 2010, 2006a). Given that race, gender and class are closely correlated with access to health, employment and education, ethnic and minority groups are more likely to live in medically underserved communities (Ro et al., 2003).

Motivated by the fundamental assumption that everyone has an equal right to access quality health services, CHWs have traditionally advocated on behalf of communities (Mack et al., 2006). More recently, however, CHW programs across the country started implementing capacity-building and policy advocacy trainings for community members to empower and mobilize them as agents of change who speak out on their own behalf (Ro et al., 2003).

Despite efforts to increase community-based participatory research to provide insights on community needs and resources, policymakers and providers are often unaware of the full spectrum of challenges that underserved communities face. Because of their role in their community and thanks to their profound understanding of community culture and history, CHWs are an invaluable resource for policymakers and health care providers. CHWs not only educate policymakers about community trends, needs and strengths but also provide the much needed support to create informed and effective public policy (Perez & Martinez, 2008).

2.1.5   Community Health Workers: Program Planning and Implementation

The shrinking social safety net, described above, contributes to the barriers that render those living in underserved communities less likely to access to health care. Given their familiarity with community needs and resources, CHWs are well suited to provide tailored outreach that

empowers community members, fills service gaps, connects individuals to health care services through referrals, enrollment in government funded programs and providing culturally sensitive support and strengthens local capacity, leadership and effective advocacy efforts (Meyer et al., 2003). By enhancing social networks, CHWs also provide support with follow-up and treatment adherence while encouraging the adoption of preventive approaches that improve health outcomes over time (Glanz, 2002).

According to the Community Health Workers National Workforce Study, there were approximately 86,000 CHWs in 2000, of which 82 percent were women. While nationally 67 percent of CHWs were paid, in Pennsylvania it was estimated that 83 percent of the 3,600 CHWs were paid staff (DHHS, 2007). One third of all CHWs were Latino/a, one third was white and one sixth African American. According to DHHS, evidence from the study suggested that some of the most effective CHW programs were focused on specific issues such as nutrition, women's health and child health.

Most commonly, CHWs implement community-based outreach efforts for specific campaigns such as those aiming to increase prenatal care, smoking cessation, cancer screenings, immunizations and diabetes management. The literature review revealed that CHWs occasionally implement programs that have much broader goals, aiming to integrate access to care, community mobilization and advocacy efforts (Mack et al., 2006). In these programs, community members are not just mere participants but have a full spectrum of their needs, health and non-health related, addressed by CHWs, who encourage community members to "move from being consumers and clients to being civic participants and problem solvers" (Mack et al., 2006, p. 17).

To staff CHW programs, providers recruit community members who are familiar with the population of interest or the health conditions that the CHW program intends to address (Lewin et al., 2005). CHWs should also be willing to address community's concerns on individual and community levels, representing the community with policymakers and the healthcare system, when needed (Jewkes & Murcott, 1998). Providers identify potential CHWs through self-identification and recommendations of community members and local leaders. Qualities that employers most value when hiring CHWs are cultural competency, communication and interpersonal skills as well as ability to maintain confidentiality (DHHS, 2007). CHW training curricula are typically based on the popular education model that encourages future CHWs to identify problems in their community and connect them to the broader societal forces. Once these forces are identified, and their impact understood, CHWs learn where and how change can be created (Hennessey et al., 2005). Training helps CHWs become catalysts for change in their community. This role is for CHWs a source of great pride and prestige allowing them to strengthen their social networks, create new linkages and gain a sense of empowerment (Migrant Health Promotion, 2005).

When designing a CHW program, attitudes of local policymakers and health professionals need to be taken into consideration. Without their support, the quality and cost-effectiveness of CHW services may be undermined, particularly when CHWs are perceived as a potential threat to the traditional healthcare system (Lewin et al., 2005). Success of a CHW program depends, in large measure, on the capacity and support system provided by the implementing agency. However, it is equally important for the local healthcare system to have the capacity needed to handle a surge in service utilization resulting from the CHWs' efforts to facilitate access to these services (Lewin et al., 2005). Other issues to consider when designing a

CHW program are recruitment strategies, skills training, compensation, CHW competencies (skills and qualities), community readiness and availability of community members who will serve as CHWs (Dower et al., 2005).

The Center for Sustainable Health Outreach (CSHO) illustrates how a community-based health outreach program can be introduced to a community where no formal health advocates operated before. In the late 1980s a California-based organization reached out to the southern states to address the problem of rural poverty. This outreach effort was based on study findings that clearly identified the need in the region. Poor health outcomes resulted from insufficient funding and inadequate capacity of the local healthcare system health as well as poverty and people's limited knowledge of available services. When approached for funding, Mississippi legislators supported this community-based collaborative effort, linking service providers to local communities. The intervention identified natural helpers and trained them as volunteer community health advisors. When four years later evaluation showed positive impact, providers concluded that most effective interventions are implemented when communities are engaged in the planning and implementation stage. CSHO's experience demonstrates that even when funding and capacity are limited, mobilizing individual and organizational assets (e.g., advocacy skills, connection with state legislators and national providers) may yield important gains for the underserved communities (CSHO, 2008).

According to Dower et al., "successfully funded, sustainable CHW programs" (a) have a clear mission; (b) fulfill a specific healthcare need; (c) understand their population's health needs; (d) have champions who support CHW programming; (e) demonstrate program impact on access, cost and health status; and (f) provide CHWs with training that addresses the specific needs of the population served (Dower et al., 2005).

The most common sources of funding for CHW programs are government agencies and foundations, Medicaid, general state or local government funds and private entities (e.g. hospitals, insurance companies and employers). Funding provided by government agencies and foundations is the most common type of funding. However, this type of funding tends to be time-limited and provided for issue-specific initiatives, which limits CHW program size, scope and timeframe (Dower et al., 2005). Though they offer a more stable source of funding, Medicaid, private entities and general state or local funds are rare and time-consuming to establish (Dower et al., 2005). To sustain their CHW programs, then, agencies often utilize a variety of funding sources making program sustainability directly dependent on the agency's ability to continually search for funding to support its programming (Ro et al., 2003).

Successful CHW programs engage communities in which they operate and have a clear plan to address specific issues identified through a needs and strengths assessment. CHW programs should also invest in the ongoing professional development of CHWs' skills by providing trainings and capacity-building opportunities. As highlighted by Lewin, CHW programs thrive in organizations with clearly defined management structures that support CHWs in their community work (Dower et al., 2005). Having a stable group of supporters who recognize the importance of the CHW program, and a well-functioning data collection system to evaluate and document program successes is crucial when appealing to funders for financial support (Dower et al., 2005).

2.1.6   Community Health Worker Program Evaluation

Evaluation of CHW programs is particularly challenging due to the limited availability of detailed data and the broad variability of programs across communities (Lewin et al., 2005). The

Community Health Worker Evaluation Tool Kit designed by the University of Arizona provides, however, a well-accepted evaluative tool that can help agencies make the case for CHW program effectiveness and impact (Family Strengthening Policy Center, 2003).

Further research will be needed to ascertain cost-effectiveness of CHW programs across a broad variety of settings, health issues and resources available to the CHWs (e.g., increased support from implementing organizations and financial support) (Lewin et al., 2005). One strategy to address this issue could be to compare outcomes of two similar services, for example, one provided by CHWs and one by another health care agency (Dower et al., 2005). Another strategy to evaluate program impact is to combine the quantitative (e.g. tracking insurance enrollment, number of emergency visits) and qualitative evaluation tools (e.g. focus groups, social audits, community forums, key informant interviews).

As discussed above, CHWs strengthen social support and empower individuals and communities with access to information and tangible resources that enhance community capacity to make informed decisions and achieve desired change. Consequently, program evaluations should measure empowerment as an indicator of program success. According to the World Bank, empowerment, "the capacity to make effective choices," is composed of agency (actor's ability to make choices) and opportunity structure (context within which actor operates) (Alsop and Heinsohn, 2005). Change in agency is measured by monitoring change in "asset endowments" (e.g., education, literacy, access to information and social capital, to mention a few) while opportunity structure is measured by the "presence and operation" of institutions, laws and norms that regulate behavior (Alsop and Heinsohn, 2005).

Since degrees of empowerment result from variability in agency and the context of opportunities, the level of empowerment can be measured by assessing (a) if the individual has

the opportunity to make the choice, (b) whether this opportunity is utilized and (c) after the choice is made, whether it brings the expected outcomes. The impact of CHWs on individual and community empowerment can be assessed by measuring change in agency, opportunity structure and the effectiveness of choices made by communities and individuals (Alsop and Heinsohn, 2005).

2.2 BACKGROUND ON IMMIGRANTS AND REFUGEES

2.2.1 Health Disparities in the United States

According to Health People 2010, health disparity refers to the difference in health outcomes that occur by "gender, race or ethnicity, education or income, disability, geographic location, or sexual orientation" (Healthy People 2010, 2006 b, p. 11).

Health disparities are generated by the interaction between biological factors, behavior and external environment; national health data confirms the correlation between health outcomes and the variables listed above (Healthy People 2010, 2006 b). For example, when compared to whites, Latinos have higher rates of diabetes while African Americans have higher rates of infant mortality, heart disease death, cancer and HIV/AIDS (Healthy People 2010, 2006 b).

Inequalities in income and education also give rise to health disparities. For example, poor communities with limited educational attainment tend to have worse health outcomes than wealthier communities. Census data show that 12.5 percent of the US population lived below the

federal poverty line in 2003 (US Census, 2004). African Americans had a poverty rate of 24 percent; Latinos had a poverty rate of 22 percent while the Asian population had a poverty rate of 11 percent and whites 8 percent. Besides ethnicity, nativity also appears to be connected to poverty rates: foreign non-citizens have a poverty rate of 21 percent as opposed to native-born whose rate is 11 percent.

Finally, national statistics show that minority populations are more likely to be uninsured which leads to lower service utilization and worse health outcomes (Documet and Sharma, 2004). According to the Census, in 2004, more than 44 million people were uninsured which limited their utilization of health services (US Census, 2005). One fifth of African Americans and Asians (19 percent and 18 percent respectively) were uninsured, as was one third (32 percent) of Latinos, nearly three times the rate of whites (US Census, 2004). Nativity and the likelihood of being insured was correlated: the foreign-born population was two and a half times more likely to be uninsured than the US-born population (33 percent and 13 percent, respectively). Furthermore, citizenship status among the foreign-born was correlated to the likelihood of having health insurance. In fact, foreign-born non-citizens (21 million in the US) were less likely to be insured than naturalized citizens: 44 percent of non-citizens and 17 percent of naturalized foreign-born individuals were uninsured (US Census, 2005).

2.2.2 Access to Healthcare: Barriers and Facilitators for Immigrants and Refugees

In his health care access model, Andersen points out that health outcomes are affected by service utilization which in turn is affected by "population characteristics, health behaviors and health

practices" (Documet and Sharma, 2004, p. 5). To create the context for discussion of factors that affect access to health services among foreign-born, a brief population profile is provided below.

The Census estimates that 33.5 million foreign-born lived in the US in 2003 (Larsen, 2004). Of these, more than half, 53 percent, originated from Latin America, 25 percent from Asia and 13 percent from Europe. Compared to the US-born population, the foreign-born population had a greater proportion of individuals between the ages of 25 and 44 years. On average, foreign-born individuals had larger families, were more likely to marry early in life and were less likely to achieve a high school level of education (Larsen, 2004). Foreign-born workers were more likely to be employed in the service industry and, among the foreign-born groups, those from Latin America were the most likely to earn less than $20,000 and least likely to earn more than $50,000 (Larsen, 2004).

Access to health services can be either potential or realized. While all individuals have an equal right to potential access to care (refers to resources that facilitate service utilization, e.g., health insurance), realized access (the actual use of services) should be need-based (Documet and Sharma, 2004). Several barriers, however, limit access to health services among ethnic minorities. Besides health insurance, other barriers are ethnicity, age, poverty, education, language skills, legal status, area of residence, isolation, access to transportation and culturally competent service providers (Glanz, 2002). For example, women are less likely to use prenatal care services if they think they face obstacles to service access and usage (Frisbie et al., 2001).

Having access to instrumental and emotional social support, however, increases the chance of seeking health services. In the Latino community, for example, traditional women-to-women support networks facilitate knowledge transfer and informal care, contributing to the Latina paradox, which refers to the presence of positive health outcomes despite limited access

to economic and psychosocial resources (i.e., income, health insurance) (McGlade et al., 2004). One explanation for the paradox is social support, coupled with cultural traits such as *marianismo* (devotion to the role of the mother) and the positive cultural perception of pregnancy also contributes a powerful motivation to access prenatal care.

2.2.3   Immigrants and Refugees in Pittsburgh

Two agencies offer refugee resettlement services in Pittsburgh: Catholic Charities of the Diocese of Pittsburgh, and the Refugee and Immigration Service Center of the Jewish Family and Children's Service of Pittsburgh. Their activity is regulated by the PA Department of Public Welfare Refugee Resettlement Plan (RRP), which is approved annually by the US Department of Health and Human Services Office of Refugee Resettlement (ORR). The state refugee resettlement plan encourages refugees to achieve economic self-sufficiency as quickly as possible from the time of arrival to Pennsylvania (PA Refugee Resettlement Program, d).

To achieve the RRP goals and objectives, resettlement agencies provide refugees with intensive case management and coordinated services that range from airport pick-up to providing clothing, apartment rental and job seeking, orientation and referral to Welfare, Social Security and English as Second Language (ESL) programs (PA Refugee Resettlement Program, c). Typically, after the first several months of intensive case management, refugees shift to receiving only more sporadic need-based support. Resettlement agencies do not track clients' movements beyond the first months from arrival, making estimates of refugee population more difficult.

According to the Pennsylvania Refugee Resettlement Program, between 2001 and 2006, 932 refugees were resettled in Southwest Pennsylvania (Region 1) which roughly corresponds to

10 percent of the total number of refugees resettled in Pennsylvania (9,124 individuals) (PA Refugee Resettlement Program, b). In 2006-2007, the most recent year for which data are available, 97 refugees from Burma, Russia, Somalia and Liberia arrived in our region (PA Refugee Resettlement Program, a).

According to the statistics of the Pennsylvania Refugee Resettlement Program, refugee demographics, place of origin and educational level have changed considerably, creating new challenges to service provision among the local resettlement agencies. In the 1990s, refugees who arrived from Eastern Europe were older and highly educated. More recent refugee arrivals come from Asia and Africa, are younger, have lower educational attainment and large families with long-term refugee camp experience.

Catholic Charities estimates that over the last three decades the agency resettled over 10,000 refugees in the region. In its early days, Catholic Charities resettled refugees from Asia (Vietnam, Cambodia and Thailand). More recently, confirming the shift described above, the agency has resettled refugees from Burma, Bhutan and Africa (Sudan, Somalia and Burundi) (Conte, 2005). Since 2004, 200 Somali Bantus relocated to Pittsburgh's Lawrenceville, North Side and Prospect Park areas. Burmese and Burundian families started arriving in Pittsburgh in 2007 while in April 2008 the first Bhutanese refugees made Pittsburgh their new home. In 2008, Catholic Charities expects to resettle 170 Bhutanese in Pittsburgh (Adhikari, 2008).

Local government and foundations have for years sponsored efforts to create jobs for the diverse refugee population, hoping to increase retention and spur economic growth in a region that has faced severe human capital losses over the last several decades (Schmidt, 2001).

According to the Welcome Center for Immigrants and Internationals, Pittsburgh is home to an estimated 62,000 foreign-born (WCII, 2005). Latinos constitute the single largest

immigrant population in Pittsburgh. According to the Census, in 2006, Allegheny County had a population of over 1.2 million with an estimated 17,000 Latinos living in the region (DiversityData, 2007). Although the Latino population represents a small portion of the total Allegheny County population, it has grown 44 percent between 1990 and 2000, from an estimated 7,749 to 11,166 (US Census, 1990 and 2000). The Latino community tends to be dispersed across the region, segmented along socioeconomic lines, resulting in a less visible and less organized community compared to other major US cities (Documet and Sharma, 2004).

In comparison with other ethnic groups, US-born Latinas had the worst overall health indicators after African Americans (DiversityData, 2007). Between 2001 and 2002, 14 percent of teenage mothers in Pittsburgh were Latina girls, with US-born Latinas being twice as likely to have a child compared to foreign-born Latinas. Furthermore, foreign-born Latinas had higher rates of access to adequate prenatal care (79.6 percent) than US-born Latinas (77 percent) and were less likely to smoke during pregnancy, have preterm or low birth weight babies (DiversityData, 2007).

No comprehensive health statistics exist to accurately describe health outcomes among refugees living in Pittsburgh, PA. Since health statistics are based on Census data, and since the Census records ethnicity (e.g., Non-Hispanic white, Hispanic, Non-Hispanic Black and Asian/Pacific Islander) and place of birth (US-born and foreign-born) but does not provide details relative to immigration status for the foreign-born, it is virtually impossible to tease out health statistics specific to our region's refugees (DiversityData, 2007).

Although quantitative data describing the health of Pittsburgh's foreign-born population are limited (Documet and Sharma, 2004), unpublished qualitative studies conducted at the

University of Pittsburgh, Graduate School of Public Health shed light on the challenges immigrants and refugees encounters in accessing health services.

A community needs assessment conducted in the Somali Bantu community revealed that language and limited access to interpretation services are the greatest obstacles preventing effective doctor-patient communication and productive encounter. The community underscored the need of having easily accessible interpreters on-call and present during specialized procedures, such as birth deliveries (Shamalla-Hannah, 2007). Another study showed the impact of limited English language skills on personal agency of Somali Bantu refugees and how this limited sense of control of one's life affects the relationship with service providers (Taylor, 2007). Somali Bantu community also expressed the need for receiving additional information about insurance billing and medication prescribed by the doctor. Among Somali Bantu women, limited access to financial resources, long wait times, cultural beliefs, and difficulty in understating the need for preventive care negatively affected health access (Shamalla-Hannah, 2007).

A qualitative study conducted with uninsured Latino immigrants living in Pittsburgh identified, among the most pressing challenges, access to health insurance, dental services, specialized care (e.g. mental health and optometric services) and prescription drugs (DeLuca, 2007). Limited financial resources prevented 38 percent of Latinos from having health insurance, a factor that affected regular access to care for 20 percent of Latinos in Pittsburgh (Documet and Sharma, 2004). Other barriers to adequate health access were lack of cultural sensitivity among healthcare providers, limited access to interpreters and difficulty in phone follow-up with a healthcare provider to schedule an appointment (DeLuca, 2007).

3.0   METHODOLOGY

This section describes the process of collecting and analyzing data that sheds light on the following research question:

- Does the community health worker (CHW) model offer a feasible and effective solution, within the Pittsburgh context, to engage community member and address barriers they encounter in accessing health services?

The study protocol was reviewed and approved by the University of Pittsburgh Institutional Review Board as an exempt study (PRO08050201).

3.1   CONTACT AND RECRUITMENT OF STUDY PARTICIPANTS

Both national and local service providers working with immigrants and refugees participated in this study, offering insights into their experience of serving the foreign-born population.

National providers were identified through literature review and an on-line search. Examples of terms entered in internet search engines were: *community health workers immigrants*; *community health workers refugees*; *promotoras de salud US;* and *community*

health worker networks. National providers were recruited on the basis of their experience with community health worker (CHW) programs serving immigrant and refugee populations. In each agency, key staff (e.g., executive directors, program directors and managers) were identified on the basis of their knowledge of the agency and its programming. These individuals were then invited, via email, to participate in the study. Recruitment materials included a brief study overview, explanation of the data collection process, expected outcomes and a guarantee of anonimity and confidentiality (Appendix C). If the subject agreed to participate in the study he or she received an email containg the Informed Consent Form for National Providers and was asked to return the form, signed, to the author (Appendix A). Then, a suitable time was scheduled for a phone interview.

For Pittsburgh-based providers, potential subjects were identified through literature review and referrals from other study participants. Pittsburgh-based providers were chosen on the basis of their working relationship with immigrants and refugees. Key staff from the selected agencies received an email invitation to participate in the study. Recruitment materials consisted of a brief study overview, explanation of the data collection process, expected outcomes and a guarantee of anonimity and confidentiality. If the subject agreed to particpate, her or she received an email containg the Informed Consent Form for Local Providers and was asked to return the form, signed, to the author. Then, a suitable time for an in-person meeting or a phone interview was scheduled, according to individual availability.

3.2   INTERVIEWS

Data were collected through open-ended interviews with twelve providers: four national agencies with experience with the community health workers model, and eight local agencies serving immigrants and refugees in Pittsburgh.

Two sets of interview questions, one for national and one for local agencies, were developed by the author and approved by the Institutional Review Board, along with all other materials (Appendix B). These questions were general in nature and limited to the implementation and management of programs serving the immigrant and refugee community.

National agencies were asked to describe their experience working with CHWs in the immigrant and refugee community, including challenges, successes and strategies for effective program design and implementation. Local providers were asked to describe agency's capacity in responding to immigrant and refugee needs and articulate strategies used to engage community members. Local providers were also asked about their interest in the CHW model. Interviews lasted between 30 and 45 minutes.

3.3   DATA ANALYSIS

This study utilized qualitative data analysis tools. Interviews were not taped but detailed notes were taken. To ensure confidentiality, no names or other identifiable information was recorded. After each interview, answers were transcribed into an electronic file using a word-processing software. Then, the text was analyzed for patterns and themes describing (a) best practices for planning and implementation of CHW programs, (b) the overall organizational capacity of

agencies serving immigrants and refugees and (c) emerging themes that impact the feasibility of

CHW programming in Pittsburgh as a vehicle to engage the foreign-born community and address

barriers they encounter in accessing health services.

4.0   RESULTS

This section describes the study findings from the twelve interviews conducted with national and local providers in July 2008.

4.1   INTERVIEWS WITH NATIONAL PROVIDERS, USING THE CHW MODEL

National providers involved in this study were experienced with community health worker programming for immigrant and refugee populations. These agencies were:

1) A non-profit organization working with community health initiatives in the US and abroad. This agency has an established CHW program serving refugees living in the US. It is also engaged in state-wide and national CHW coalitions and networks;

2) A university-based center that provides technical assistance to existing community health workers programs as well as capacity-building to agencies interested in adopting the CHW model;

3) A non-profit organization with established *Promotores/as* programs, serving farm workers and migrant workers. This agency also provides capacity-building for agencies interested in replicating the *Promotores/as* model;

4) A statewide non-profit organization that conducts advocacy, leadership, skills and professional development trainings for *Promotores/as* and CHWs working with the

Latino community. This agency also conducts community needs assessments and training curricula.

Each of the national organizations involved in this study had between seven and 25 years of experience working with the *Promotores/as* and CHW model; three of the agencies were founded in the late 1970s and early 1980s and one was founded in early 2001. Two of the agencies involved in this study were direct service providers while the other two specialized in training and capacity-building. All agencies were active in regional CHW networks.

Among direct service providers, one agency reached out to the resettled refugee community to eradicate health disparities and increase access to health services that addressed community and individual needs. Another provider worked closely with migrant populations that are a transitory and difficult to reach population. By mobilizing community members as *Promotores/as,* this agency engages community members through individual and group activities that empower community members to take control over their own health. The other two providers centered their work on training and capacity-building of organizations across the United States interested in adopting the CHW model. These respondents explained that they worked closely with their individual clients (e.g. hospitals, clinics and other organizations) to develop tailored interventions that addressed community needs and utilized local resources.

According to the respondents, CHWs most commonly work on specific health-related campaigns (e.g., diabetes prevention, smoking cessation, prenatal healthcare access), although occasionally they provide other services that are not directly related to health matters (e.g., assistance with job search). Health education campaigns are implemented through home visits and group events where information and tangible resources are shared (e.g., referrals to local

clinics and educational materials). CHWs function as liaisons between their community and local healthcare providers, informing community members about available services, helping clients schedule appointments, arranging transportation and clarifying health benefits and the health insurance billing system. CHWs also educate health providers about cultural competency and community needs. While one of the respondents used the terms "*Promotores/as*" and "CHWs" interchangeably, another respondent pointed out a clear distinction between these two concepts. Unlike CHWs who are typically employed by a healthcare provider, *Promotores/as* are community-based natural helpers who provide informal assistance for which they are not formally compensated.

Respondents agreed that community members have the right to participate in defining needs and solutions that will impact them. Therefore, communities should be involved as partners in all stages of CHW program planning and implementation (e.g., needs assessment, resource mapping, recruitment and program evaluation), rather than being mere service recipients. They should participate in the decision-making process, defining needs for community-based advocacy efforts and providing input that may affect program design and implementation. Adopting a participatory approach to program planning and implementation is crucial in enhancing agency's accountability to the community partners and other project stakeholders (e.g., staff, funders, donors and local healthcare providers) (ActionAid, 2006). Equally important is responding to community concerns, which may entail modifying programs according to expressed community needs to reinforce trust and commitment of all stakeholders involved in the program.

Respondents stated that the most desirable qualities sought in candidates for *Promotores/as* or CHWs are commitment to helping their communities, interest in health issues,

having leadership skills and being respected and trusted by the community. Other skills, such as record-keeping, are taught during CHW training and professional development. Recruitment strategies often include speaking to community leaders and asking for recommendations, circulating job announcement, going door-to-door to announce the openings and posting the job ads through a variety of media (Internet, radio, newspaper).

CHWs work in a variety of community organizations, such as clinics or hospitals, and may be volunteers or paid full and part time employees. Respondents strongly recommended that, whenever possible, *Promotores/as* and CHWs should be compensated for their community work. Whether provided as stipend, hourly wage or in-kind incentive, compensation for community work recognizes the value of CHWs' work and dedication to community outreach. One respondent stated that CHW salary should match livable wage standards. Among respondents, stipends averaged $100 per week while hourly wages varied between $13 and $17. Examples of incentives provided to CHWs were education, training, referrals to English as Second Language (ESL) programs.

According to the study participants, federal or state funding is preferred to support the broad range of programming efforts implemented by *Promotores/as* and CHW programs. Although foundation support supplemented federal funding, it was the least relied upon source of financial support. Respondents stated that funders are most likely to support highly specific, short-term programs with clear-cut deliverables. This trend demonstrates that funders still struggle with investing in community efforts that utilize the participatory approach to program planning and implementation. This approach, though empowering for the community, is slow to generate tangible outcomes, as the foundations would like to expect. Inadequate documentation

of program's activities and successes may also affect foundations' willingness to commit resources to support community initiatives.

Program evaluation plays a critical role in helping agencies describe their impact and securing their funding. During the design and implementation stages, it is crucial to engage the community in developing performance indicators that accurately quantify progress toward achieving program goals and objectives. Respondents stressed the need of using both quantitative and qualitative measures that assess increased access to primary care services, cost-effectiveness and community empowerment. Indicators of program success are improved health indicators, increased number of community members seeking services, increased individual knowledge of healthy behaviors as well as a greater sense of agency and control over individual and community health. To assess the effectiveness of a CHW programs, the following data collection tools could be used: surveys, focus groups, social audits, key informant interviews and direct observations. Anecdotes and quotes from clients also provide powerful accounts of CHWs' impact.

National providers also provided some lessons learned and reflected on resources needed to implement a CHW program. Among cornerstones for a successful program implementation is agencies' recognition of the key role CHWs play in reaching out to community and mobilizing its assets. Providers should respect and value CHWs' contributions and create opportunities for clinical and community-based staff to engage in trust and team-building exercises. Finally, providers should offer CHWs with adequate supervision, compensation, clear and reasonable performance expectations as well as periodical trainings and professional development opportunities.

4.2   INTERVIEWS WITH LOCAL PROVIDERS SERVING IMMIGRANTS AND REFUGEES

Eight Pittsburgh-based service providers, serving immigrants and refugees, were interviewed for this study. These agencies were:

1) Two agencies engaged in refugee resettlement in Pittsburgh;

2) An agency who is part of a local hospital and reaches out women and their families;

3) A healthcare provider who works with diverse refugee and immigrant populations;

4) A healthcare provider who offers services to uninsured immigrants;

5) A local program, part of a government agency who provides nutrition support to lower-income pregnant women and mothers;

6) A community-based center who provides immigrant and refugee families with child development support;

7) A non-profit organization who provides a wide array of services from referrals for health centers to assistance with health insurance purchase and other non-health related areas (e.g. ESL, immigration-related services and translation of documents)

Among study participants were two agencies that resettle refugees, two healthcare providers, three agencies that offer health-related services and programming, and one agency that offers general resources. While one of the agencies has thirty years of experience serving the foreign-born population, other providers involved in this study were created in the early 1990s and 2000s.

Study participants represented a diverse group of providers that play different roles in the service provision spectrum benefiting immigrants and refugees. For example, refugee

resettlement agencies are federally funded organizations that provide support to newly-arrived refugees. Immediately after arrival case management is typically very intense and ranges from airport pick-up to job search, enrollment in federal benefits programs, accompaniment to health appointments and assistance with transportation and translation. Other organizations serving Pittsburgh's refugees offer a variety of services to new and more experienced refugees, such as referrals to health centers and specialty care, support with medial bill re-payments, parent-child activities and acculturation.

Several respondents stated that they offered services to the local immigrant community and the Latino community was the largest immigrant community benefiting from services provided by the local providers. Immigration status, financial resources and language skills play a strong role in determining access to health services. According to the providers, immigrants learn about available services through their social networks and referrals from organizations that connect them to services that are low-cost and that accommodate less English proficient (LEP) clients.

During their interviews, study participants were asked to discuss health needs observed in the immigrant and refugee community, describing how they respond to these needs. Study participants were invited to assess organizational capacity and describe ideal capacity. Providers were also asked to share examples of successes and challenges encountered in serving immigrants and refugees. Finally, respondents were asked to consider the community health worker (CHW) model and assess their interest in adopting such a model.

Overall, respondents identified language, cultural barriers, transportation, and access to affordable specialized care (particularly mental health) as the most pressing barriers to adequate access to health services among immigrants and refugees. Among barriers affecting immigrants'

ability to access health services were legal status, lack of access to public assistance and limited financial resources. Additional barriers encountered by refugees were medical staff lacking cultural competency and understanding of refugees' health needs, difficulty in understanding the need for preventive care, long wait times, and limited access to caseworkers able to assist clients with all aspects of medical appointments (scheduling, transportation, support, translation etc.). Typically, agencies responded to these needs and barriers by hiring additional paid and volunteer staff with appropriate language and cultural competency skills, and by connecting with other organizations that can assist with translations and referring refugees to these agencies.

Study participants stated that responding to the needs of Pittsburgh's foreign-born population was complicated by the great diversity of cultural and material needs encountered among the foreign-born populations. The diversity of needs stem from personal immigrant and refugee experiences as well as the relationship with the local community. For example, the resettlement experience for Russian refugees, educated, older and welcomed by the Pittsburgh's Jewish community is a radically different experience from that of African refugees who arrive with families to a city where the African community is very small and having lived for many years in refugee camps, with little access to education and health services.

All participants indicated that they were overwhelmed with the demand for services, lack of funding and shortage of staff. Several agencies stated that they tried, in their everyday work, to go above and beyond, using any resource and connection at their disposal to meet individual and community needs, educating healthcare providers and advocating on behalf of immigrants and refugees. Four agencies stated that their staff even performed duties similar to those of CHWs, although they were unable to devote themselves fully to community outreach and education because of the core demands of their jobs. Ideal capacity was described as the ability

to have a larger number of specialized staff with the necessary language skills (e.g. social workers, case managers, employment specialists, and psychiatrists), increased access to specialized medical care services as well as greater information sharing with other organizations working with immigrants and refugees and more systematic community outreach efforts.

All providers interviewed in this study expressed an interest in CHW programming, although initially only three out of eight agencies were aware of the role CHWs play in the community. It will be unlikely, however, that these service providers implement a CHW program in the near future. On the organizational level, limited capacity, the need to concentrate on urgent day-to-day needs, difficulties in reaching out to foreign-born communities and limited knowledge of community assets hinder the implementation of a community outreach program. On the community level, respondents stated that the immigrant and refugee community is too small and too new to implement the CHWs model. Other factors preventing the implementation of CHW programs are the absence of a physical community and considerable diversity in community demographics, origin, cultural traits, economic opportunities, adaptability, acculturation and support from local community.

Interestingly, several providers participated in small-scale, community-driven collaborative efforts that could offer a foundation for future CHW programming. Four agencies also mentioned collaborating with other local providers to map community resources and discuss successes and challenges associated with working with immigrants and refugees. Unfortunately, these collaborations were relatively short-lived and depended heavily on the leadership and personal commitment of the individuals involved. Although these unsuccessful collaborations may negatively affect agencies' willingness to engage in future partnerships, two providers were

hopeful about collaborative efforts they are currently engaged in to increase community participation.

Funding was cited as one of the largest problems associated with limited capacity and the inability to create CHW programming. Although all agencies stated an interest in learning more about CHW programming, only three agencies appeared ready to consider such a program in the near future, if appropriate funding could be secured. Respondents expressed great interest in considering collaborative CHW programs, perceived to be more cost-efficient because several agencies pool their resources together to create the necessary capacity to plan and implement a community health advocates program.

Finally, providers pointed out to the complexity and diversity of cultural and material needs encountered among immigrants and refugees in Pittsburgh. This diversity of needs stems from the individual backgrounds of immigrants and refugees as well as their relationship to the local community. For example, the resettlement experience for Russian refugees, who are educated, older and welcomed by the Pittsburgh's Jewish community, was radically different from the experience of African refugees, who arrived with large families in a city where the African community is very small, after having lived in refugee camps for many years with little experience with education and health services.

5.0   DISCUSSION

Though specific health needs vary across different cultural and ethnic groups of immigrants and refugees, there are common barriers that Pittsburgh's foreign-born community encounters in access to quality healthcare (See Table 1).

According to the literature review, and insights offered by national and local providers, a CHW program could effectively address several of these barriers and, unlike the caseworkers employed by the local providers, CHWs would be easily accessible in their community and able to address concerns quickly and efficiently. To implement a CHW program, providers will have to consider creating a pilot intervention in a specific community with which it has an established working relationship. Before planning starts, the agency should engage community leaders to assess their interest in a community-based intervention like the community health workers. Once the agency establishes community buy-in, the specifics of the program should be determined (e.g., the role CHWs will play in the community, program inputs, stakeholders involved in program planning and implementation and evaluation strategy).

Table 1: Barriers to health access for Pittsburgh's immigrants and refugees, proposed CHW interventions and inputs needed to implement these activities.

Barriers limiting access and utilization of health services	CHW activities	Inputs
IMMIGRANTS and REFUGEES:		
Language	Interpretation to schedule appointment, during and after the visit	Medical translation training for CHWs
Lack of information about available health services	Refer community members to appropriate medical service	CHWs develop an understanding of available resources in the community, connect to local agencies that specialize in referrals
Illiteracy	Accompany client to medical visit; information is communicated orally	CHWs have access to a means of transportation to accompany the client
Transportation	Accompany client to medical visit	CHWs have access to a means of transportation to accompany the client
Trust in the medical system	Explain how the medical system operates and provide support in building a relationship with medical provider	CHWs understand how the medical system operates (e.g. scheduling medical visits, insurance benefits and payment)
Limited time to seek medical attention	Help schedule medical appointments during available time	CHWs work with client to set a suitable time for medical visit
Difficulty in understanding patient responsibilities after the visit (e.g., payment, medication)	Explain insurance benefits and payments and after the medical visit CHW answers questions regarding medical treatment, provides assistance with insurance billing	CHWs understands insurance benefits and payments, is able to have regular interactions with clients to inquire about
Hostile medical intake staff	Negotiate with the healthcare providers and offer sensitivity training to intake staff	Buy-in of healthcare providers to recognize the need and offer a solution
IMMIGRANTS:		
Legal Status	Provide referrals to clinics where immigration status is not reported	CHWs are aware of clinics where immigration status is not reported
Lack of health insurance	Provide referrals to clinics that use a sliding scale for payments	CHWs are aware of clinics where payment is made on a sliding scale
Limited financial resources	Provide referrals to clinics that use a sliding scale for payments	CHWs are aware of clinics where payment is made on a sliding scale
REFUGEES:		
Limited access to case workers	Collaborate with refugee intake agencies and their case workers to provide support with clients	Refugee intake agencies work closely with CHWs
Long wait times	Negotiate with healthcare providers to lower wait time	Healthcare providers are willing to collaborate with CHWs to lower wait time
Difficulty in understanding the preventive care approach (e.g., need for screenings)	Provide clients with information about the risks and need for preventive care, accompany clients to appointments	CHWs understand the medical system clients had access to before arriving to US, understand risks clients incur if they do not adopt the preventive care approach

The study revealed a great interest among local providers to explore new ways of providing effective health-related services for immigrants and refugees. The concept of the community health worker (CHW), who advocates on community's behalf and serves as a bridge between community members and the healthcare system (CDC, 2003), appealed to the Pittsburgh-based providers involved in this study. However, a closer look at the current organizational capacity revealed that the agencies are in no position to commit themselves to planning and implementing any new programs. This conclusion was confirmed by the literature review that identified organizational capacity as one of the most important factors on which depends the success of CHW programming (Lewin et al., 2005).

From the interviews, it emerged that local providers serving immigrants and refugees have a very limited capacity and are overwhelmed with the demand for services. Although in the last decade the refugee community (PA Refugee Resettlement Program, b) and the immigrant Latino population have increased considerably (US Census 1990 and 2000), local providers have been unable to expand their capacity in response to this population growth trend. Some organizations had to actually reduce the number of employees due to severe funding cuts.

Among causes of limited capacity, respondents cited limited funding as the main obstacle to current service provision and future capacity expansion. Limited funding creates a vicious cycle that negatively affects staff retention and agency's ability to serve the foreign-born population. This, in turn, renders any fundraising effort even more difficult. Limited program funding is partly caused by insufficient federal and state funds provided for the services resettlement agencies are expected to perform. Funding allocations for individual case management, for example, do not cover the cost for all the services that a client receives. The

fixed sum of money that the agency receives for every qualifying individual covers only some of the costs of services while the remainder is underwritten by the agency.

When asked about success with grantwriting, few respondents reported receiving substantial foundation support for their current programs. Among the reasons were limited knowledge of funding sources, insufficient time for grantwriting where funding sources were known, inability to plan for future capacity-building efforts, and unwillingness to request funding for programs that will eventually have to be supported with agency funding. Providers working for large organizations have to coordinate their grantwriting efforts with the division director, convince him/her that writing a grant proposal is a productive use of staff time and that it will neither affect organization's fundraising prospects nor day-to-day operations. Certainly, as federal funding decreases and needs grow, agencies traditionally supported by the US government will have to diversify their funding sources.

Since government agencies and foundations are the most common sources of financial support for community-engagement efforts, learning about these local, state and federal resources will be particularly important for those providers interested in exploring innovative community-based efforts such as the CHW model (Dower et al., 2005). To obtain this type of funding agencies will have to demonstrate a track record of effective service-provision, well-defined program goals based on expressed community needs as well as effective strategies to evaluate impact (Dower et al., 2005). Limited efforts to monitor and evaluate program impact, revealed by the study, is likely to hinder future funding prospects for local service providers.

Another effect of an understaffed and overburdened system is inability of agencies to engage in long-term strategic planning. The severity of needs addressed every day creates the perception that daily tasks are more urgent than strategic planning or community engagement.

However, strategic planning and community engagement should be seen as long-term investments, important for the future well-being of the immigrant and refugee community, participation in defining needs and ownership of solutions. Community-outreach initiatives, such as CHW programs, should be an integral part of organizational strategic plans, expressing agency's commitment to community empowerment.

While the agencies involved in this study recognized the value of engaging in collaborations and information-sharing they also pointed out that unsuccessful past partnerships affect their willingness conversations with other agencies. Furthermore, partnerships are by definition time-consuming and require partners to address conflicting interests and invest considerable amount of resources. With limited time to engage in planning for the future, creating a partnership to implement a collaborative CHWs program may seem unlikely.

Before engaging in collaborations with external partners, providers should address several organizational needs. First, agencies should restate their commitment to cultural competency and the preventive approach, which addresses gaps and offers solutions that reduce future needs. Second, providers should adopt a strength-based approach, recommended by national service providers interviewed in this study. This type of approach builds upon individual and organizational assets, capacities and abilities (including relationship with immigrant and refugee community leaders, experience with community empowerment and asset building) providing the basis for future capacity development.

McKnight and Kretzmann (1996) state that the "deficiency-oriented social service model" leads low-income communities to think of themselves in terms of needs and not assets (McKnight and Kretzmann, 1996). Similarly, service providers participating in this study seem defining their activities in terms of what they cannot do due to limited capacity. Since

42

"identifying capacities and assets, both individual and organizational, is the first step on the path toward community development" agencies should map available resources to capitalize on capacity-building efforts (McKnight and Kretzmann, 1996, p. 3). This asset map should reflect "accessibility" of assets identifying resources that (a) are easily accessible because "located in" and controlled by the agency, (b) are accessible to the agency but controlled by others, and (c) least accessible, outside of the agency's sphere of influence (McKnight and Kretzmann, 1996).

Once an asset map is created, providers can devise a tailored strategy to creatively engage these assets and maximize their yield over time. Creating this long-term strategic vision for asset use and development requires the investment of additional resources, a factor that may stop organizations from engaging in strategic thinking. However, Forbes Funds is a local foundation that provides capacity-building grants to support strategic planning and capacity-building efforts. It is the ideal partner for short-term projects that will have a long-term impact on agencies' growth and development.

As suggested by the national service providers and by the literature review, local agencies should increase their community outreach efforts to meaningfully engage their stakeholders at all stages of planning and implementation of a community-based intervention. Community members are invaluable partners in resource mapping and hold the key to mobilizing resources and creating systemic change (Mack et al., 2006). Although ineffective past information-sharing efforts may impact agencies' willingness to engage in such efforts, there is a great need for providers and scholars to share knowledge, experiences and best practices. This dialogue could take place in informal gatherings or, alternatively, in a mini-conference organized by one of the local universities where service providers can network, share successes and challenges and learn about academic research that involved local immigrants and refugees. Community leaders should

also be invited to participate in this event to offer an opportunity for communities to voice their concerns and create new linkages to service providers.

Although the immigrant and refugee community in Pittsburgh is relatively small, one national provider countered that local agencies, foundations and governmental agencies should not use this as a justification for limiting their effort to engage community members. Although the community, and its needs, may be small today, natural growth over the next decade will turn concerns into much more complex problems. If, however, providers adopt the preventive approach and create community-based projects such as the CHWs, the benefit over time will manifest itself with increased access to health care services, community empowerment, retention of the foreign-born population, saving of public funds, greater cultural competency of local providers and so on.

Cultural competency of service providers was identified in the literature review and study interviews as one of the biggest obstacles to effective service provision to address needs of immigrants and refugees (Glanz, 2002). While the hospital and clinic executive teams may be supportive of serving foreign-born populations, intake medical staff may inadvertently create an environment that is unwelcoming to immigrants and refugees. While we should bring hospital and clinic managers on board with increasing efforts for cultural competency the intake staff, who deal with immigrants and refugees on daily basis, urgently need cultural competency training that will provide strategies to increase cultural sensitivity in the medical setting. These trainings should be carried in collaboration with local service providers and the immigrant and refugee community to promote dialogue and trust.

One unexpected theme that emerged during data analysis was the need to clarify, in future studies, the dynamic that leads stakeholders to explore CHW programming as a viable

model for responding to community needs. Literature review and conversations with national providers indicated that typically it is the local service provider (e.g., clinic, hospital, health department) who, upon learning of a specific health-related need, approaches community partners to plan and implement a CHW program. While communities are involved in program planning and implementation, they appear to be unlikely originators of CHW program discussions.

There are several possible reasons that explain why communities seem less likely to initiate dialogue about implementing CHW programming. First, new growth foreign-born communities may have not yet developed adequate collective agency to approach local partners about creating a CHW program (Taylor, 2007). Second, in an effort to build credibility and establish best practices for CHW programming, available literature favors components of effective CHW programs (e.g., CHWs' role in the agency and community, health issues, recruitment and curriculum development) over the historical roots of these community efforts. As a result, little information is shared about the steps taken to bring stakeholders together to engage in a dialogue about the CHW model. Understanding how communities can meaningfully engage providers to spark their interest in the CHW model will prove useful for communities like that of Pittsburgh, where service providers seem unlikely to initiate a CHW program and the community is seeking opportunities to improve service provision.

Insights provided by national providers, using CHWs to serve immigrants and refugees, shed light on the resources needed to successfully plan and implement a community health worker program. Based on their input, it is evident that local providers are not ready to implement a CHW program due to limited organizational capacity (e.g., insufficient staff and funding), inadequate knowledge of community needs, assets and leadership structure as well as

limited community engagement experience. Unwillingness to collaborate with other service providers further hinders information and resource-sharing that could facilitate the creation of a joint CHW program.

Despite these challenges, internal and external strategies identified by this study could have a considerable impact on expanding providers' access and effective utilization of available resources that would enhance organizational capacity and enhance community participation that would build the foundation for future, more involved, collaborations between local healthcare providers and the immigrant and refugee community that will enhance mutual trust and support the growth and empowerment of the immigrant and refugee community.

6.0   CONCLUSION AND RECOMMENDATIONS

A number of themes, described above, emerged from the data collected through the open-ended interviews conducted for this study. Below, are several recommendations for service providers to move forward the discussion of community engagement in health provision.

1) Recognize the centrality of health in all of its dimensions: emotional, social and physical.

2) Engage in internal asset mapping and undertake strategic planning initiatives to further develop organizational capacity.

3) Increase efforts to foster dialogue and active participation of the immigrant and refugee community in mapping resources, determining health priorities and solutions to health needs. Providers should also assess whether these communities are interested in creating a community-based program such as community health workers.

    a. To gather quantitative data on the health status of immigrants and refugees, providers could conduct a community-based survey involving a representative sample of the foreign-born population living in Pittsburgh.

4) Convene with other service providers to learn about resources and services available in the community and in local agencies serving immigrants and refugees. Providers could discuss service provision process, successes, challenges and best practices. Some questions to consider are:

a. What factors affect healthcare providers' work on organizational, community and regional levels?

b. What are areas of organizational strength? What can providers teach one another? Where resources can be pooled to improve quality of services?

c. What are the needs observed among immigrants and refugees?

5) Convene with local providers and the academic community to capitalize on knowledge acquired from past studies and to create opportunities for professional development.

6) If service providers are interested in implementing the CHW model:

a. Identify a community where a CHW pilot program could be implemented;

b. Assess community interest in such a program and engage community members in mapping needs and resources available to the community;

c. Plan program activities and approach funding sources to request financial support; and

d. Mobilize volunteers with medical and public health background interested in reaching out and learning about cultural competency from the community.

In conclusion, this study confirmed that community health workers (CHWs) can effectively address the unique needs of the underserved communities, increase access and utilization of health services that will improve health outcomes. In Pittsburgh, where the refugee and immigrant community is relatively small and less organized than in other large US cities, CHWs could organize and empower communities as well as engage service providers and policymakers in community dialogue and collaboration.

7.0   LIMITATIONS

Study findings inform local service providers, advocates, immigrants and refugees about opportunities for growth and development of new partnerships between communities and service providers. However, this study has several limitations.

First, limited time available for research prevented the author from interviewing more local providers. Second, this study interviewed key staff from agencies serving immigrants and refugees. In future studies, insights from caseworkers, who on a daily basis interact with healthcare providers and community members, should also be included. Third, future studies could benefit from expanding qualitative data collection tools (e.g., focus groups, forums and social audit) to gain in-depth knowledge about providers and community's attitudes toward the community health worker model. Finally, future studies should investigate the specific circumstances that led to the creation of CHW programs in communities presenting similar challenges to those encountered in Pittsburgh.

APPENDIX A. INFORMED CONSENT FORM, NATIONAL AND LOCAL PROVIDERS

Informed Consent Script (National Providers)

This study aims to determine what it takes to implement a community health worker (CHW) program, and whether implementing one, at a local health care provider, would be a feasible and desirable solution to the unique health needs of immigrants and refugees, living in Pittsburgh, PA.

For this reason, this study seeks to interview providers from organizations, across the United States, who have already established community health worker (CHW) programs serving immigrant and refugee populations. Pittsburgh-based providers, serving immigrant and refugees, who do not currently utilize CHWs, will also be interviewed to assess capacity and interest necessary to introduce the CHW model to better serve their foreign-born population. The interview will last approximately thirty minutes to one hour and will be conducted via phone. If you are willing to participate in this study you will be asked to describe your organization's background and programming for immigrants and refugees. In particular, you will be asked questions about your community health worker (CHWs) program addressing health needs of the immigrants and refugees. Finally, considering your organization's experience with CHWs, you will be asked about designing and implementing a sustainable CHW program for immigrant and

refugee population. The interview will not be recorded but detailed notes will be taken to capture the interview's content.

There are no foreseeable risks associated with this study nor are there any direct benefits to you, as result of your participation. However, it is the hope of the researcher that you will find the final report, generated as a result of this research, to be useful in highlighting the effectiveness of CHW programs addressing immigrant and refugee health needs. Data will be recorded excluding identifiable information, which means that your name, or that of others, will not be included in any written materials related to this study. The responses provided during the interviews are confidential and the notes taken during our conversation will be kept under lock and key. Your participation in this study is fully voluntary and you may withdraw from this study at any time.

This study is being conducted by Adriana Dobrzycka who can be reached at 320 493 6441, if you have any questions.

_____   _____

Signature   Date

Informed Consent Script (Local Providers)

This study aims to determine what it takes to implement a community health worker (CHW) program, and whether implementing one, at a local health care provider, would be a feasible and desirable solution to the unique health needs of immigrants and refugees, living in Pittsburgh, PA.

For this reason, the study will interview Pittsburgh-based providers who work with the immigrant and refugee populations but do not have established community health worker (CHW)-based programs. Providers from across the United States, who use community health workers to serve immigrants and refugees, will also be interviewed to collect their experiences, successes and challenges in designing and implementing this type of programs. The interview will last approximately thirty minutes to one hour and will be conducted via in-person meetings or phone, according to your availability. If you are willing to participate in this study you will be asked to describe your organization's background and current programming for immigrant and refugee populations (i.e. direct outreach). You will also be asked to provide your opinion on community health worker model as a strategy to address the health needs of immigrant and refugee population in Pittsburgh. Finally, considering your organization's experience of working with immigrants and refugees you will be asked whether you have capacity and interest to support the development of this type of program at your organizations. The interview will not be recorded but I will take detailed notes to capture the entire interview content.

There are no foreseeable risks associated with this study nor are there any direct benefits to you, as result of your participation. However, it is the hope of the researcher that you will find the final report, generated as a result of this research, to be useful in highlighting the effectiveness of CHW programs addressing immigrant and refugee health needs. Data will be recorded excluding identifiable information, which means that your name, or that of others, will not be included in any written materials related to this study. The responses provided during the interviews are confidential and the notes taken during our conversation will be kept under lock and key. Your participation in this study is fully voluntary and you may withdraw from this study at any time.

This study is being conducted by Adriana Dobrzycka who can be reached at 320 493 6441, if you have any questions.

_____   _____

Signature   Date

APPENDIX B. **INTERVIEW QUESTIONS, NATIONAL AND LOCAL PROVIDERS**

Interview Questions National Providers

1) What is your current role in the organization?
    a. Responsibilities
    b. Number of years in position
2) What are the main program areas of your organization?
    a. Population served? Activities?
3) Does your organization currently utilize Community Health Workers (CHWs) for immigrant and refugee groups?
    a. Number of years CHWs have been utilized for?
    b. What internal and external needs compelled the agency to adopt CHWs?
4) What services do CHW offer to the immigrant and refugee community (i.e. information about services, information about specific health issues, information about insurance, interpretation, adherence support, social support, transportation etc)
5) What role do CHW play in your organization?
6) Who do the CHW serve?
7) What strategies are in place to recruit and retain CHWs?
    a. What are the skills and knowledge sought when hiring new CHWs?
    b. What type of training is provided?
        i. Cultural competency?
    c. Are they paid for their work? Other incentives?
    d. Profile of a CHW
8) How has your organization addressed the issue of program sustainability?
9) How do you evaluate CHW work?
10) What are some of the successes and challenges that your program has encountered?
    a. What are some lessons learned?
11) What resources are needed to implement and sustain a successful CHW? (i.e. financial, relationships with the community, other organizations etc.)
12) What advice do you have for organizations considering the implementation of a CHW program?
13) Is there anything else that you would like to add?

Interview Questions Local Providers

1) What is your current role in the organization?

       a. Responsibilities
       b. Number of years in position
2) What are the main program areas of your organization?
       a. Population served? Activities?
       b. Are immigrant and refugee groups served?
3) What are some of the most pressing needs you encounter among immigrant and refugees?
       a. Barriers in access to services and information? (i.e. information about services, information about specific health issues, information about insurance, interpretation, adherence support, social support, transportation etc)
       b. Among immigrant and refugee clients are there any ethnic or socioeconomic groups that are having greater difficulties than other in accessing health services?
4) How are you responding to these needs?
       a. Have you been working with the immigrant and refugee communities to address their needs regarding access to health care?
5) How would you characterize the current capacity of programming for immigrant and refugees?
       a. What is the ideal capacity you would like to achieve?
6) What are some of the successes and challenges/barriers your organization faces in serving this population?
       a. What are some lessons learned?
7) Do you think training Community Health Workers (CHWs) would enhance immigrant and refugees' access to health care in the Pittsburgh region?
8) Why did your organization choose not to utilize Community Health Workers (CHWs)?
9) Would you consider adopting the CHW model in the future, to serve immigrants and refugees?
       a. Why or why not?
            i. IF YES, what type of resources/assistance would you need to implement a CHW program?
               1. Do you think that the immigrant and refugee community would support this type of initiative?
               2. Are you aware of resources in the community, funding and other agencies that could be interested in working with you on this project?
               3. Would you interested in learning more about the CHW model?
            ii. IF NO, What are the principal challenges that prevent you from considering to implement the CHW model to address the needs of the immigrant and refugee population?
10) Is there anything else that you would like to add?

APPENDIX C. SAMPLE RECRUITMENT MATERIALS, NATIONAL AND LOCAL PROVIDERS

Dear ___,

I am writing to speak to you about a research study I am currently researching agencies with established Community Health Worker (CHW) programs serving immigrants and refugees. Like yourself, I am interested in creative solutions that aim to eradicate disparites in health access and empower immigrants and refugees living in the US. This research study is part of my Master's thesis being completed at the Department Behavioral and Community Health Sciences of the Graduate School of Public Health at the University of Pittsburgh.

As part of my research, I look forward to learning from organizations that have already established a Community Health Worker program for immigrants and refugees. What has made the program possible? What is your advice for organizati,ons considering similar programs? I found your agency online and read through the information available with great interest. Unfortunately my research window is limited, so I am hoping to connect with someone from ___ in the coming two weeks.

Do you have time for a brief (~30 min.) phone call some time this week or next? Here are some openings in my calendar:

_____

_____

Please let me know if there is a good time for you on the days indicated above. If you are not available I would greatly appreciate if you could indicate another person at your organization I could connect with on this subject. Thank you for all your help!!

Sincerely,

Adriana Dobrzycka

BIBLIOGRAPHY

ActionAid (2006). Alps, accountability, learning and planning system. Retrieved August 16, 2008, from
http://www.actionaid.org/assets/pdf/ALPSENGLISH2006FINAL_14FEB06.pdf

Adhikari, D. (2008). "Bhutanese Refugees Find New Home." Pittsburgh Post-Gazette. Retrieved April 30, 2008, from http://www.post-gazette.com/pg/08121/877596-51.stm

Alsop, R., Heinsohn, N. (2005). Measuring empowerment in practice: structuring analysis and framing indicators. Retrieved August 17, 2008, from
http://www.actionaid.org/assets/pdf/ALPSENGLISH2006FINAL_14FEB06.pdf

California HealthCare Foundation (2003). Allies for Quality: Lay Health Workers' Role in Improving Healthcare Quality. *Issue Brief*. November 2003.

Centers for Disease Control and Prevention (2003). Community Health Workers/Promoters de Salud: Critical Connections in Communities. Retrieved May 6, 2008, from
http://www.cdc.gov/diabetes/projects/comm.htm

Community for Sustainable Health Outreach (CSHO) (2008). A History of the Center for Sustainable Health Outreach. Retrieved July 2, 2008 from
http://www.usm.edu/csho/history.html

Conte, A. (2005). "Refugees Reborn in Pittsburgh." Pittsburgh Tribune Review. Retrieved May 6, 2008, from http://www.pittsburghlive.com/x/pittsburghtrib/s_397851.html

DeLuca, M. (2007). *Health care Needs and Social Integration Among Pittsburgh's Uninsured Latinos*. Unpublished Master's Thesis. University of Pittsburgh, Graduate School of Public Health.

DiversityData (2007). Profiles by Metro Area: Pittsburgh PA Summary Profile. Retrieved June 9, 2008, from http://diversitydata.sph.harvard.edu/profiles.jsp?ma=6280

Documet, P., Sharma, R. (2004). Latinos' Health Care Access: Financial and Cultural Barriers. *Journal of Immigration Health*, *6*(1), 5-13.

Dower, C., Knox, M., Lindler, V., O'Neil, E. *Advancing Community Health Worker Practice and Utilization: The Focus on Financing*. San Francisco, CA: National Fund for Medical Education. 2006.

Eng, E., Parker, E., Harlan, C. (1997). Lay health advisor intervention strategies: a continuum from natural helping to paraprofessional helping. *Health Education & Behavior, 24,* 413-417.

Friesbie, W., Echevarria, S., Hummer, R. (2001). Prenatal Care Utilization Among Non-Hispanic Whites, African Americans, and Mexican Americans. *Maternal and Child Health Journal*, *5*(1), 21-33.

Glanz, K., Rimer, B., Lewis, F. (2002). Social Networks and Social Support. *Health Behaviors and Health Education. San Francisco: Jossey-Bass, Third edition* (pp 161-274). Jossey-Bass.

Healthy People 2010. (2006 a). Access to Quality Health Services. Retrieved August 10, 2008 from http://www.healthypeople.gov/Document/HTML/Volume1/01Access.htm

Healthy People 2010. (2006 b). A Systematic Approach to Health Improvement: Goal 2, Eliminate Health Disparities. Retrieved August 10, 2008, from http://www.healthypeople.gov/document/pdf/uih/uih.pdf

Hennessey Lavery S., Lau Smith M., Avila Esperza A., Hrushow A., Moore M., Reed D. (2005). The Community Action Model: A Community-Driven Model Designed to Address Disparities in Health. *Am J Public Health, 95,* 611–616.

Jewkes R., Murcott, A. (1998). Community representatives: representing the "community". *Social Science & Medicine, 46*(7), 843-58.

Larsen, L. (2004). The Foreign-Born Population in the United States: 2003. *Current Population Reports*. Retrieved July 20, 2008, from http://www.census.gov/prod/2004pubs/p20-551.pdf

Lewin, S.A., Dick, J., Pond, P., Zwarenstein, M., Aja, G., van Wyk, B., Bosch-Capblanch, X., Patrick, M. Lay health workers in primary and community health care. *Cochrane Database of Systematic Reviews* 2005, Issue 1.

Mack, M., Uken, R., Powers, J. (2006). People Improving Community's Health: Community Health Workers as Agents of Change. *Journal of Health Care for the Poor and Underserved, 17,* 16-25.

McGlade, M.S., Saha, S., Dahlstrom, M. (2004). The Latina Paradox: An Opportunity for Restructuring Prenatal Care Delivery. *American Journal of Public Health, 94*(12), 2062-2065.

McKnight J., Kretzmann J. (1996). "Mapping Community Capacity." Retrieved August 8, 2008, from http://www.northwestern.edu/ipr/publications/papers/mcc.pdf

Meyer, J., Silow-Carroll, S., Waldman, E. (2004). Lessons for National Health Policy. *Community Voices Publication*. February 2004.

Migrant Health Promotion (2005). "Who are Promotores(as)?" Retrieved August 25, 2008, from http://migranthealth.org/our_programs/who_are_promotora.php

National Human Services Assembly. (2006). Community Health Workers: Closing Gaps in Families' Health Resources. *Family Strengthening Policy Center,* March 2006.

Partners in Health (2006). Community Health Workers. Retrieved May 15, 2008, from http://www.pih.org/issues/delivery.html

Pennsylvania Refugee Resettlement Program (2008a). About Refugees in PA-Arrivals by Region July 2006-June 2007. Retrieved May 12, 2008, from http://www.refugeesinpa.org/program/RefugeeinPA/demographic/Arrivals%20by%20country.asp

Pennsylvania Refugee Resettlement Program (2008b). About Refugees in PA-Cumulative Arrivals By Region. Retrieved May 12, 2008, from http://www.refugeesinpa.org/program/RefugeeinPA/demographic/Arrivals%20by%20region.asp

Pennsylvania Refugee Resettlement Program (2008c). Refugee Resettlement- Services. Retrieved May 12, 2008, from http://www.refugeesinpa.org/program/abouttheprogram/services/default.asp

Pennsylvania Refugee Resettlement Program (2008d). Refugee Resettlement-PA Refugee State Plan. Retrieved May 12, 2008, from http://www.refugeesinpa.org/program/abouttheprogram/parefugeestate.asp

Perez L., Martinez J. (2008). Community health workers: social justice and policy advocates for community health and well-being. *American Journal of Public Health*, *98,* 11-14.

Perkins D, Zimmerman M. (1995). Empowerment theory, research and application. *American Journal of Community Psychology*, *23,* 569-579.

Physicians for Human Rights. (2005). Achieving the Millennium Development Goals: Human Resources for the Health Crisis in Africa. *Physician Human Rights Report.* May 2005.

Rashid J., Taiwo O., Barraza-Roppe B., Lemus M. (2004). Using community health workers to prevent infectious diseases in women [conference summary]. *Emerg Infect Dis*. Retrieved May 15, 2008, from http://www.cdc.gov/ncidod/EID/vol10no11/04-0623_06.htm

Ro M., Treadwell H., Northridge M. (2003). Community Health Workers and Community Voices: Promoting Good Health. *Community Voices Publication*. October 2003.

Schmidtt, E. (2001). "To Fill Gaps, Cities Seek Wave of Immigrants." New York Times. Retrieved May 25, 2008, from http://query.nytimes.com/gst/fullpage.html?res=9C03E4D9133CF933A05756C0A9679C8B63&sec=&spon=&pagewanted=all

Shamalla-Hannah, L. (2007). *Culture and Health: A Qualitative Study of Somali Bantu Women In Pittsburgh.* Unpublished Master's Thesis. University of Pittsburgh, Graduate School of Public Health.

Taylor, L. (2007). *Somali Bantus in Pittsburgh: An Experience of Resettlement*. Unpublished Master's Thesis. University of Pittsburgh, Graduate School of Public Health.

U.S. Census Bureau (1990). 1990 Census, Summary Tape File 3 (STF 3) - Sample data, Detailed Tables. Allegheny County, Persons of Hispanic Origin. Retrieved September 1, 2008, from http://factfinder.census.gov/servlet/DTTable?_bm=y&-context=dt&-ds_name=DEC_1990_STF3_&-mt_name=DEC_1990_STF3_P010&-CONTEXT=dt&-tree_id=101&-all_geo_types=N&-geo_id=05000US42003&-search_results=01000US&-format=&-_lang=en

U.S. Census Bureau. (2000). 2000 Fact Sheet, Allegheny County Pennsylvania. Retrieved September 1, 2008, from http://factfinder.census.gov/servlet/SAFFFacts?_event=&geo_id=05000US42003&_geoContext=01000US%7C04000US42%7C05000US42003&_street=&_county=allegheny+county&_cityTown=allegheny+county&_state=04000US42&_zip=&_lang=en&_sse=on&ActiveGeoDiv=&_useEV=&pctxt=fph&pgsl=050&_submenuId=factsheet_1&ds_name=ACS_2006_SAFF&_ci_nbr=null&qr_name=null&reg=&_keyword=&_industry=

U.S. Census Bureau. (2004). Income Stable, Poverty Up, Numbers of Americans With and Without Health Insurance Rise, Census Bureau Reports. Retrieved May 29, 2008, from http://www.census.gov/Press-Release/www/releases/archives/income_wealth/002484.html

U.S. Census Bureau. (2005). Income, Poverty and Health Insurance Coverage in the United States: 2004. Retrieved September 1, 2008, from http://www.census.gov/prod/2005pubs/p60-229.pdf

U.S. Department of Health and Human Services. (2007). Community Health Worker National Workforce Study. Retrieved April 15, 2008, from http://bhpr.hrsa.gov/healthworkforce/chw/2.htm

Welcome Center for Immigrants and Internationals (WCII). (2005). Welcome Center for Immigrants and International Opens in Pittsburgh. Retrieved August 16, 2008, from http://www.wcii.org/CMSADMIN/document/files/WCII%20release%20final.pdf

WHO. (2006). Declaration of Alma-Ata. Retrieved May 23, 2008, from http://www.who.int/hpr/NPH/docs/declaration_almaata.pdf