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Community Health Workers: Bridging the Gap between Patients and the Health Care System

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I. Introduction

During the past decade, private insurers, business enterprises and the Federal government have sought to implement or at least propose changes in health care delivery and financing. They are in fact responding to unprecedented increases in health-related expenditures amidst hypercompetitive global markets as the cost of providing adequate health care to the population at large has become very high. Contributing factors to the cost inflation include population changes, provider shortages, and accelerating technological progress. For example, the elderly population continues to grow and is estimated to swell to 87 million by 2050. They will increasingly require adequate preventive, acute, and long-term care. Additionally, an increase in population diversity and the size of younger cohorts of individuals from low-income families is predicted. Demographic diversity will fuel population growth as well, with African-Americans increasing by 71 percent, Hispanics by 188 percent, and Asians by 213 percent. Yet, many providers are in short supply, and are caring for more diverse populations in environments that seem to discourage patient/provider interaction and continuity of care (1).

Furthermore, the complex healthcare system in the United States seems to be increasingly difficult to navigate, especially for those who are poor, under- or uninsured, and/or minorities. While consumers have high expectations of the power of medicine and its technical sophistication, they often criticize the health care system as not only too complex, but also too impersonal, budget-driven, and expensive. The anticipated changes in the size, structure, and diversity of the U.S. population have and will continue to require a diverse range of health services for families and communities. New science and advancing technology is continually at the forefront, although it does not necessarily offer all-inclusive solutions to such needs. Cultural understanding, community health education, and translation services will be increasingly necessary in order to deliver effective care to low-income, underserved communities. Consequently, telemedicine and new methods of disseminating scientific information have the ability to empower individuals with less extensive clinical training, but strong personal and community skills, to become valuable members of medical teams. These individuals are often considered a component of cost-effective strategies that address the growing health care needs of underserved communities (1).

Several intervention programs have evolved that train indigenous community members to serve as links between their communities and the professional health care system (2). These lay people are identified by approximately 35 different titles, making it difficult to delineate the field (3) and lending the designation as such to a spectrum of duties and positions in the health care system. Essentially, though, they have the potential to become valuable members of established medical teams for improving access to health care, patient-doctor communication, treatment adherence, outreach, early diagnoses, and disease prevention. Community health worker (CHW) and lay health advisor (LHA) are the current terms of choice in the United States; however,

countless terms are utilized, including community health advisors, community health aides, barefoot doctors (1), peer counselors, lay volunteers, natural helpers, paraprofessionals, patient navigators, promotores (primarily used in Latino communities), and outreach workers (4). CHW is often the overarching term utilized to encompass the range of duties, titles, and positions within the health care system that a person with this designation may have. Therefore, for purposes of this chapter, unless otherwise specified, community health worker (CHW) will be the term used most frequently.

CHW interventions can be effective for a myriad of reasons. Ethnic and racial minority communities have been historically marginalized from the health care system and CHWs have earned recognition as those capable of gaining entry into such communities to promote health (5). Because CHWs often share the priority population's language, ethnicity, religious beliefs, and social characteristics, the assumption is that they can promote preventive behaviors more effectively than health professionals alone can (2). They exemplify cultural specificity, which refers to people and/or programs that seek not only to include the cultural values and beliefs of the recipients, but also go a step further by providing relevance within the context of the participants' everyday life and the community in which they live (6). CHWs can develop a connection between the health care system and their own community (7). Their interventions may also be more appropriate than professional-driven approaches for affirming and strengthening a community's own assets to improve health (8) because CHWs can understand and harness a community's strengths in order to promote better health behaviors.

Essentially, from their unique position in the community, community health workers can:

- 1) increase access to care and facilitate appropriate use of health resources by providing outreach and cultural linkages to traditionally underserved populations;
- 2) reduce costs to both providers

and patients by providing preventive services, health education, screening, early detection of disease and basic emergency care; and 3) improve quality of care by aiding patient-provider communication, facilitating continuity of care (by providing follow-up), and by acting as a patient navigator and advocate within the health care system (3).

II. Community Health Workers: Who they are and what they do

No single accepted definition of the community health worker exists so there is a broad spectrum of descriptions. Basically, a community health worker is:

a lay member of a community (1) who applies his or her unique understanding of the experience, language, and/or culture of the populations he or she serves in order to bridge individuals, communities, and health and human services, provide culturally appropriate health education and information, ensure people receive the services they need, provide direct services such as informal counseling and social support, and advocate for individual and community needs (9).

In terms of whom they target and what their goals are, CHWs can be more socially and community focused or they can be more clinically focused. They can integrate both health and social services or concentrate purely on health issues. They may be responsible solely to the community or they may be employed in a health care setting. CHWs may also act purely as volunteers or they may collect a salary (3).

In addition, community health workers may be trained formally, through such programs as the Community Health Worker Certificate program at City College of San Francisco (10), may be taught the necessary skills in an informal setting, or may simply be self-taught (11). At the formal end of the continuum is the paraprofessional CHW intervention strategy. These CHWs are extensions of the health service delivery system and perform tasks typically carried out by practitioners, such as translation, transportation, and explanation of procedures and insurance. They are often paid by an agency, social advocacy organization, or hospital, and while

the paraprofessional CHW has an opportunity for employment and career advancement, the community may suffer as the talents and accountability of the paraprofessional CHW are shifted to the service delivery system (4).

At a more informal end of the LHA continuum, natural helper CHWs differ from other types of CHWs in how they carry out their activities. Natural helpers “provide informal spontaneous assistance, which is so much a part of everyday life that its value is often not recognized” (12). Natural helper interventions tap into a reservoir of natural assistance, spreading health information through normal interactions with friends, family members, and acquaintances. In addition, natural helpers may participate in the same sorts of structured outreach efforts as do other CHWs; however, the assumption is that they will have access to a larger network of existing contacts within the community in conducting their outreach mission. Natural helping CHWs provide a community-based system of care and social support that complements the more specialized functions of health professionals. However, not everyone can be a natural helper CHW. It requires a unique individual who has an already established rapport with the community and a reputation for good judgment, sound advice, compassion and honesty (4).

In fact, natural helpers are often considered the ideal candidate for the community health worker because they may already exemplify some aspects of the CHW role. The community health worker concept rests on the premise that such people exist in the community and if trained, they could serve as important providers of health information. This is what is referred to as the *true* lay advisor, a person who is identified by other community people as one who offers help and embodies the culture of the target community (13). Overall, the lack of definition and recognition of who community health workers are has been identified as one barrier to the use of CHWs by the health care delivery system (14). In fact, considerable overlap may occur in the

role of the community health worker with that of patient advocates, ombudsmen, social workers, interpreters, nurses, and physicians (specifically those in primary care). The essence and defining characteristics of a community health worker, though, is their already established connection to the community, their tendencies to be a natural helper to family and friends, as well as their typically shared characteristics of language, ethnicity, and cultural beliefs with community members. This ambiguity in the health care field, however, is certainly an obstacle that needs to be addressed if community health workers, lay health advisors, patient navigators, or any lay person familiar within a community are to be at all effective in improving access to health care, especially for those who are medically underserved.

III. Barriers to Healthcare

Poverty, limited English skills, lack of health insurance, unemployment, immigrant and refugee status, homelessness, and an inability to access transportation are among the main obstacles preventing some individuals and families from receiving the health care and services they need (15, 16). In addition, according to the Institute of Medicine's report, *Unequal Treatment: What Healthcare Providers Need to Know about Racial and Ethnic Disparities in Healthcare*, racial and ethnic minorities receive lower quality healthcare than whites, even when they are insured to the same degree and when other healthcare access-related factors (such as ability to pay for care) are the same (17). Patients vary in help-seeking behavior and some racial and ethnic minorities may be more likely than whites to avoid or delay seeking care, perhaps because of a general mistrust of health care providers, negative experiences in the clinical encounter, or a perception that their doctor is not invested in their care. Cultural competence may be lacking in the health care field, as cross-cultural education is increasingly being implemented

to promote cultural sensitivity, knowledge, and skills to improve health professionals' awareness of how cultural and social factors influence healthcare (17). The combination of these socioeconomic, cultural, clinical, and systemic barriers leaves a large gap between patients and the healthcare system and the need for a bridge between the two that can potentially be filled by a community health worker.

IV. History of Community Health Workers

The concept of community members as active health advocates and healers is a familiar one around the world. Several cultures worldwide have different types of lay health care systems that are comprised of natural health aides- community members to whom neighbors consult for health advice. The first systematic use of community health workers arose in China. After the Chinese Revolution of 1949, Chinese leader Mao Tse Tung established the Barefoot Doctor Program, a program where workers brought basic health care to rural populations and addressed issues such as nutrition, vaccinations, and sanitation (18). In the United States, lay health advisor programs prior to the 1970s were based on the concept of community health worker, health aide, or outreach worker. They focused mainly on health care access, services, and delivery. One of the earliest documented uses of CHWs was by the New York City Health Department in the 1960s who involved "neighborhood health aides" in a tuberculosis program (19). The oldest and largest community health worker program in the United States is the Community Health Representative Program (CHRP), established in 1968 by the U.S. Office of Economic Opportunity and expanded by the Indian Health Service. Created to address the needs of American Indian tribes, its goals were to increase involvement of American and Alaskan Indians in their own health program, improve cross-cultural communication between the Indian

communities and the providers of health service, and increase basic health care and instruction in Indian homes and communities (3, 20).

The role of the CHW was reemphasized internationally in 1978 during the Alma Ata conference, the first international conference on primary health care. It called for “health for all by the year 2000” and emphasized the role of CHWs as “one of the cornerstones of comprehensive health care” (3, 21). In fact, community health worker programs initiated during and after the 1970s followed the “natural helper” perspective in their use of community members (22, 23). The “Resource Mothers” curriculum was developed for the Virginia Task Force on Infant Mortality during the 1980s and became of the earliest curricula distributed nationally. It trained personnel for a community health worker program focused on maternal and child health (24). In 1989, the Health Education Training Centers program was created to serve the U.S.-Mexico border region and areas with large immigrant populations (25). During the 1990s, standardized training received greater recognition, and although many bills were introduced at the national and State levels, none passed.

Nevertheless, in 1992, Arizona Health Start was one of the first CHW programs to receive ongoing appropriations from State general revenue (26). The New Mexico Community Health Worker Association was founded in 1993 with the support of the University of New Mexico, and it began annual CHW training conferences in 1996 (27). That same year the National Advisory Committee on Rural Health and Human Services recommended that initiatives should be developed to broaden access and innovation in health care delivery by supporting local programs that utilize indigenous community workers and paraprofessionals as essential members of community health care delivery teams (28). By 1998, the Health Resources and Services Administration Bureau of Primary Health Care organized the first major national

outreach conference on CHW activities to discuss milestones in the field and future strategies across funding programs (29).

Public policy regarding CHWs started to change beginning in 1999. CHW training and certification legislation was passed in Texas (30) with a bill that mandated pilot projects involving CHWs in Medicaid managed care. The National Rural Health Association in addition to the American Public Health Association issued public policy statements in 2000 and 2001, respectively, supporting expanded roles for CHWs (31, 32). Ohio passed credentialing legislation in 2003 (33), while the University of Arizona began the development of a standardized CHW educational program supported by the U.S. Department of Education (34). Most recently, the Patient Navigator Outreach and Chronic Disease Prevention Act signed into law in June 2005 (35) became the first major CHW legislation adopted at the Federal level.

While the patient navigator act focused on cancer, previous studies have illustrated that community health workers effectively deliver an individualized health intervention that serves a role in several health issues, including HIV/AIDS prevention (6), prenatal care (36), pesticide exposure (37), heart disease and stroke (38), lead poisoning (39), nutrition (40), environmental health (41), general health advocacy (42), and recruitment of research trial participants (43). CHWs also provide navigation through the health care system, offer social support and social networking for patients (5), and essentially serve as a link between community members and the medical care system through outreach, education, information dissemination, and/or system navigation (44).

V. Are Community Health Workers Effective?

As stated above, interventions and studies utilizing community health workers have focused on a spectrum of health concerns. Below are just a few examples which document the effectiveness of community health workers, their ability to cater to various populations, and their capacity to help in some way with a broad range of issues. Essentially, they demonstrate that community health workers can be useful not only during the course of an illness, but they can empower patients, help them navigate the system, and/or facilitate disease prevention and health promotion.

Asthma

Despite significant strides in the treatment of asthma, higher prevalence rates for childhood asthma are noted in African American and impoverished children (45, 46). In fact, poverty has not only been associated with an increased prevalence of asthma (46) and a higher chance of developing the disease, but also with a higher level of severity (47). Subsequently, this leads to increased hospitalizations due to asthma (48, 49). As part of their community action plan to improve medical care for low-income children with asthma, Allies Against Asthma coalitions employ community health worker (CHW) programs. The programs use individualized, home-based interactions between a CHW and a family whose child(ren) has asthma and/or provide one-on-one guidance and education in community settings, such as schools and health fairs. Often CHWs identify and recruit families of children, conducting door-to-door surveys of residents or independent interviews to identify potential participants. Families are also referred from external sources, such as clinicians, schools, emergency departments, and managed care organizations or may be identified by chart review, provider reports, and/or registries that indicate children with poorly controlled asthma, persistent asthma, and/or no asthma education (49).

CHWs focus not only on recruitment, but education, environmental trigger reduction, care coordination, building relationships, and family empowerment. They act as an extension of the clinician, providing education in a family-friendly setting, context, and place. CHWs ensure that the meeting location is convenient for the families, and offer the time and support that physicians and nurses often cannot. Families learn about basic asthma self-management education, rationale for daily medication use, recognition of signs and symptoms, appropriate use of equipment such as inhalers and spacers, and recognition and avoidance of asthma triggers. CHWs provide resources to families to reduce environmental triggers such as pillow and mattress covers, asthma-friendly cleaning kits, and low-emission vacuum cleaners. Because many families live in rented homes, Allies Against Asthma CHWs often address environmental issues through property owners and/or landlords.

To coordinate care, the CHW frequently facilitates doctor's appointments and refer families to external services and resources. The CHWs utilize role-playing of common scenarios to improve families' communication with their health care providers. They teach them how to prepare for physician visits and to ask questions. In addition, the Allies CHWs emphasize building a relationship with the families with whom they work. They spend significant time simply visiting with family members and listening to stories and concerns. Sending birthday cards and/or holiday baskets and keeping track of current events in the families' lives are small, yet effective measures that CHWs employ to earn the trust and rapport of family members. Consequently, CHWs seek to also empower families to improve their children's health and advocate for their needs. They help them understand what constitutes good asthma management and thus develop a sense of control over the disease. While Allies CHWs are certainly utilized at an individual level, they are also beneficial at a larger community level. For example, in Long

Beach, California, CHWs successfully engaged families in efforts to oppose a proposed freeway expansion route that threatened to increase pollution (and thereby increase suffering for asthmatics) in their neighborhood (49).

Cancer

Mammography is underutilized, particularly in poor, minority, and rural women. In fact, African Americans and Native Americans have lower rates of breast cancer screening examinations and higher rates of breast cancer mortality than white women (50, 51). A lay health advisor intervention was developed in Robeson County, North Carolina, a rural, low-income, triracial (white, Native American, and African American) population. It was an educational intervention that utilized community residents and trained them to deliver health information. The aim of the project was to increase awareness of the benefits of early detection of breast cancer and to encourage women to reduce their own risk of breast cancer death. The program sought to identify and reduce important barriers to obtaining mammography screening and provide basic knowledge and education about the breast, breast abnormalities, and breast cancer screening.

The intervention consisted of an intensive, face-to-face interactive educational program over 9-14 months. Two Native American women (a former nurse and a social worker) and one African American woman (a research study interviewer) who lived in the community were hired as lay health advisors. They received extensive training on breast development, breast abnormalities, breast cancer screening, diagnosis, treatment, and risk factors. At the first home visit, the LHA described the project, provided educational materials about cancer risk, discussed what mammography, breast cancer, and breast self-examination are, and explained methods of

overcoming barriers to receiving a mammogram. These barriers included transportation, lack of respect or encouragement to receive a mammogram from healthcare professionals, cost and lack of insurance, misconceptions about mammograms (that they are painful or cause cancer), and the false impression that if a woman feels well, she does not need to bother receiving a mammogram.

The second home visit reinforced breast self-examination and the need for scheduling mammogram appointments (with which the LHA offered assistance). Phone calls were utilized in months 2 and 6 to assist participants in making mammography appointments, discuss any remaining barriers to obtaining a mammogram, provide information on other important health topics, determine stage of readiness to change, and encourage women to discuss their mammogram experiences. Mailings and postcard reminders were sent during months 4 and 8. Near month 10, the LHA made a final home visit, inquired about screening received and the participant's ability to do breast self-examination, and reiterated the importance of good breast care. Small gifts (such as cups and calendars) were given to participants in appreciation of their time and cooperation.

This study effectively impacted these low-income, rural, minority women through a personalized intervention that provided navigation through the health care system, social networking, and social support. Women assigned to the LHA intervention had higher mammography rates (42.5% versus 27.3%), more accurate beliefs and improved knowledge about mammography, and fewer barriers to obtaining breast cancer screening (11). They also were twice as likely to obtain a mammogram without a doctor's order, illustrating that the LHAs served as agents for positive behavior change. Essentially, the LHAs successfully delivered messages about breast cancer health and effectively served as a link between these typically

underserved community members and the medical care system through outreach, education, information dissemination, and system navigation.

Cardiovascular Disease

Obesity, poor diet, lack of exercise, and exposure to tobacco smoke are undoubtedly identified as behavioral risk factors associated with cardiovascular disease (CVD). Coronary heart disease continues to be the leading cause of death for men and women in the United States (52). In particular, it is the leading cause of death and disability-adjusted life years for both men and women in Los Angeles County (LAC) (53, 54). The impact of CVD is especially noted in Latinos, as it is their primary cause of death in California and nationwide (55). More than half (54%) of Latino adults are considered overweight and obesity is on the rise, afflicting about 1 of 4 Latino adults. Eating habits, such as consuming fewer fruits and vegetables and choosing fast food when eating out of the home, are major contributing factors to this health crisis (56). In fact, compared to any other ethnic group in LAC, Latinos have the highest rates of a sedentary lifestyle (46%) and report high exposure to tobacco smoke at home and at work (57).

A lay health advisor program was implemented to reach Latino residents and provide content tailored to be linguistically and culturally relevant to Latinos to address the disproportionate cardiovascular health risk factors in the LAC Latino community. The LHAs were referred to as health promoters, or *promotoras de salud*, a more meaningful term in the Latino community. The study consisted of three phases: 1) a community needs assessment, 2) recruitment and training of LHAs, and 3) educational outreach activities by the LHAs within their own communities. The initial community needs assessment indicated that many Latinos could not recall a doctor or nurse ever talking to them about exercising (37.5%), their weight

(42.2%), what they ate (35.9%), or smoking (50%) (58). The outreach activities consisted of classes that were offered in Spanish to adult Latinos recruited through the LHAs' social networks. They provided content aimed at promoting better nutrition by teaching alternative methods to preparing traditionally Latino meals, increasing physical activity, and encouraging smoke-free environments. They were held in familiar sites to community members, such as school-based parent centers, community centers, homes of the LHAs or participants, a church, and a workplace site (58).

At the end of the three sessions, the program demonstrated overall improved lifestyle behaviors of participants. Regarding nutrition, participants reported eliminating unhealthy foods from the family diet, consuming less sugar, grease, and red meat, and eating more fruits and vegetables. They described their efforts to incorporate healthier ways of food preparation by for example, substituting chicken for red meat or decreasing consumption of canned soups. However, families faced challenges of maintaining family interest and cooperation in eating healthier in addition to adolescent children's continued interest in fast foods (58). Nevertheless, success was also reported in physical activity such as feeling a sense of well-being, weight loss, integrating family members into an exercise routine, and incorporating an exercise schedule into a family's daily routine. Challenges included facing family resistance to exercise and time limitations. Finally, arranging a smoke-free environment in the home was also a reported success by families who put up "no smoking" signs in their homes and had family members smoke outside. Participants did, however, state that difficulties arose because many of the extended family members smoked.

This outreach program illustrated not only that lay health advisors can be an effective tool in delivery of cardiovascular health promotion, but it emphasized the importance of tailoring

health promotion in a cultural context- a key component to why lay health advisors can be crucial parts of the healthcare delivery system. It was pivotal to understand not only the language barrier, but the eating habits of Latinos- what oils they use, what family members are accustomed to eating, and what family pressures exist (58)- and their overall culture and lifestyle.

Lead Poisoning

Despite reductions in both environmental sources of lead and blood lead levels over the past 20 years, lead exposure, especially among young children, is a significant environmental health problem (59, 60). Cognitive and neurobiological deficits are associated with moderately increased blood lead levels, and some evidence even suggests that deleterious effects are linked to only slightly raised levels (61, 62). Northeastern Oklahoma, where this study was conducted, is home to eight tribes and formerly one of the world's largest lead and zinc mining operations. Although the mines are no longer active, Ottawa County still contains 48 million cubic yards of lead-contaminated mine tailings spread over hundreds of acres and stored in large piles up to 200 feet in height (63). Building and road construction have used the mine tailings and consequently, the soil of several small communities around the mining area is contaminated. A study of children aged 6-72 months in 1996 living in the area found that 31% had elevated blood lead levels (64). The Tribal Efforts Against Lead (TEAL) Project is a university/tribal partnership to prevent lead poisoning among Native American children in this area. It employed a lay health advisor (LHA) model to work with community members in Ottawa County to address the environmental lead problem (65, 66) by a) reducing the prevalence of elevated blood levels, b) inducing sustainable behavior changes to reduce lead exposure and lead absorption, c) increasing

blood lead screening and follow-up of Native American children, and d) enhancing the capacity of the local Native American community to reduce environmental lead exposure (65, 66).

To tailor the lay health advisor concept to a Native American community, the intervention was modeled along the concept of a Clan Mother to reflect the notion of a central figure within an extended family network. In recognition of their role as listeners and advice givers, the LHAs called themselves the Society of Clan Mothers and Clan Fathers. The project coordinator, a member of one of the participating tribes, discussed the idea with several tribal elders and the project's Community Advisory Board to ensure that this would be culturally acceptable. To recruit and train LHAs, the following description was utilized:

We all have those elders or other person in our lives who we seek out in times of need. We may only want information, often time we crave someone to listen, sometimes we require assistance and ask for their counsel. We see this kind of person to volunteer as a Clan Mother/Clan Father. As a Clan Mother/Father we accept the responsibility to prepare for the coming faces, even up 'til the seventh generation (66).

Recruitment ranged from recommendations by the Community Advisory Board to those belonging to local social and tribal networks. The LHAs exhibited a wide age range (less than 25 years old to over 65) and represented eight local tribes.

The LHAs engaged in interventional activities at a range of locations, including chance meetings (most common), home visits, telephone calls, family gatherings, and tribal meetings. The most common topics covered were sources of lead, the importance of blood lead screening, strategies for removing lead sources, and the importance of hand washing and playing in the grass rather than in "chat" (a local term for mine tailings). Once the data was analyzed, it was determined that among Native American children in this area, mean blood lead levels decreased and many families incorporated preventive measures into their lives (such as using a damp cloth when dusting and obtaining annual blood lead screening). Increased knowledge was also

observed regarding perceived susceptibility of lead exposure and the health benefits of playing on safe surfaces (39). In addition, the nature of the growing community concern created a turbulent backdrop for the study such that a governor's task force was formed, residents organized to demand relocation, and lawsuits were filed. However, changes observed cannot be attributed solely to the intervention and such widespread community concern may have resulted in temporal changes in lead poisoning prevention behaviors of community members. Regardless, the study did demonstrate that the intervention was successful in engaging Native American natural helpers to disseminate lead poisoning prevention information through their social networks (39, 67).

VI. Guidelines for the Implementation of a CHW Program

Programs have proliferated throughout the United States that train indigenous community members to serve as links between their communities and the professional health care system. Implementing a community health worker program is a feasible, but by no means easy, process. Outlined below are the six basic building blocks to effective implementation of a successful CHW program as defined by the Centers for Disease Control and Prevention-funded National Training Center for the Prevention and Early Detection of Cancer (68). These building blocks include: a) community assessment, b) program planning, c) recruitment, d) training, e) management and maintenance, and f) evaluation and are applicable to CHW programs not just targeted at cancer, but toward essentially any health issue.

A. Community Assessment

The first building block of successful community health worker programs is a strong comprehension of the scope of the problem and what role is needed for CHWs to play in the

targeted communities. This originates from a community assessment consisting of: 1) data collection, 2) needs evaluation, and 3) identification of community, funding and physical resources. First, the data collection is an overall evaluation of what issues need to be addressed, how receptive the intended community is, and the knowledge, attitudes, and behaviors of the intended audience, including historical and cultural factors that can influence patients' feelings about medicine in general and trusting medical staff. Language and literacy skills also need to be considered as do any potential barriers (such as age, ethnicity, language, cultural sensitivity and number of providers) to reaching the target population. Consequently, the needs evaluation will pinpoint what ethnic, socioeconomic, and/or age groups are most affected by a specific problem.

In addition to the data collection and needs evaluation, identifying resources is a critical aspect of this first step in CHW program development. It involves examining whether using CHWs is a culturally appropriate method of outreach and health promotion. It also mandates finding the preferred channel of communication that fits best with the intended audience, such as one-on-one services, group presentation, mass media, and/or printed materials. Finding funding resources begins with identifying program funds, often through government grants, private organizations, local governments, and/or non-profit agencies. Partnership or collaboration with other community programs can be helpful in maximizing physical resources and learning from existing programs. Regardless of how the data collection, needs assessment, and resource identification are executed, it is important to remember that effective CHW programs develop and reflect a deep understanding of and familiarity with the values, diversity, spirit, culture, and organizations that compose a community. This is the essence of why CHW programs can be a valuable tool in health care and should be highlighted by any CHW program.

B. Program Planning

The second component of CHW program development is program planning. This involves developing a work plan that utilizes a timeline for achieving objectives, allocating resources, and assigning responsibilities. Creating a work plan should build on the six key components of developing a CHW program. A common mistake made by CHW programs is to plan only the recruitment and training components. Furthermore, set a target date for starting the program and subsequent components, though realize that these dates are simply guidelines and can be adjusted to fit the needs of the program.

Another key task required in program planning involves reviewing the assessment analysis. What programs needs and resources exist? Is the goal to change people, the environment, or both? The answers to these questions will determine how and where to target program activities. In addition, clearly define overall goals and specific objectives that will guide the program. Finally, overall agency commitment should be a priority, as it enables CHWs programs to function with credibility and authority in a stable, supportive environment. Obtaining staff and community buy-in should also be of main concern so that those surrounding the program support it, understand its importance, and value its mission.

C. Recruitment

The third building block of community health worker programs is recruitment. Selecting appropriate, trustworthy, and culturally sensitive community health workers is a critical component to effectively communicating health messages to intended audiences. The first step is to identify the scope of work of the CHWs and thereby determine the specific roles, responsibilities, and associated duties to achieve program goals and objectives. After developing a job description of what is expected of the CHWs, the recruitment process involves four more

steps: 1) establishing criteria, 2) identifying candidates, 3) recruiting candidates, and 4) hiring CHWs.

To set criteria, programs should identify the qualities, skills, and experience desired in the CHWs to be hired and may find an advisory board and/or representative community members beneficial to this process. Communication skills, the ability to create interpersonal relationships and maintain confidentiality combined with organizational skills are often highly regarded attributes for a job as a CHW (1). Identifying candidates requires recognizing that the combination of at least some of the following qualities are essential to an effective CHW: 1) commitment to serving the community, 2) compassionate, warm, honest and patient personality, 3) respect by the community, 4) shared values and experiences of the target audience, 5) membership in the community being served, 6) good health practices, attitudes, and self-esteem, 7) ability to learn, grow, and evolve, and/or 8) leadership in the community. Other desired skills of CHWs include: 1) good communication (speaking, writing, listening, and often bilingualism), 2) cultural competence and open-mindedness, 3) knowledge of health issues and the health care system, 4) cognizance of the importance of family and friends, 5) initiative and ability to work independently, 6) capacity to facilitate empowerment and leadership, and/or 7) ability to resolve conflicts. Although educational level is an important factor, it may not be the most indicative factor of how effective a CHW will be. It is important to keep in mind that CHWs can be an invaluable component of the health care system not necessarily because of their level of education, but more so because of their ability to connect with community members on a more personal, empathetic level.

Various strategies may be utilized to recruit community health workers, such as word of mouth, identification by advisory boards of “natural helpers” in the community, making face-to-

face contacts with key people in the community, and planning a community meeting for all interested persons. Hiring CHWs requires community involvement, particularly in candidate selection. It is critical to consider that the best CHWs may not have a resume, but may be recruited by more informal methods such as a personal recommendation. CHWs do not necessarily have to be working professionals, but of greater importance is their ability to be trusted, connect with community members, and successfully communicate disease prevention, health promotion, and/or health care system navigation in a culturally sensitive manner.

D. Training

The fourth component of effective CHW programs is training, regardless if the program is formally accredited or more informal. Successful programs frequently and routinely offer ongoing in-service, growth, and development education. CHWs are more likely to develop knowledge and skills if the training is highly interactive, allows time to share stories, and offers a chance to practice interfacing with patients. Participants should also learn about health behavior theories, the different stages of behavior change, and health issues in general.

The time commitment of CHW training program ranges widely, as does the training content. Participants can learn facts about health issues by simply reading brochures, listening to presentations, playing games, or watching videos and can practice interpersonal and communication skills through role-plays. Regardless, cultural respect, including what language will be used, should be at the forefront of any CHW training program. Additionally, regular contact with referral and service agencies (such as health clinics) as well as social networks and organizations is a key component to ensure that CHWs will be welcome and acknowledged as part of the health care team. Identifying and interfacing with individual and organizational

contacts, such as churches, senior centers, and housing projects, helps pave the way for fluid community-level education.

Training methodologies need to acknowledge that everyone has a different learning style. Trainers should vary training methods and aids ranging from role-plays, demonstrations, and group discussions to problem-solving, lectures, case studies, and audiovisuals. Naturally, the training location should be convenient for the trainees and if necessary, transportation should be provided. Once training is completed and/or CHWs have successfully entered and impacted the community, recognition of their accomplishments, especially those of volunteers, is crucial. A graduation ceremony or special celebration is an effective method of invigorating, exciting, and motivating CHWs and items such as framed graduation certificates, diplomas, letters, or plaques are often well received and appreciated.

E. Management and Maintenance

The fifth building block of a successful community health worker program is management and maintenance. To manage and maintain CHWs, managers should address team-building, the unique contributions of community health workers, recordkeeping, quality assurance, skills development, recognition, and incentives. Management and maintenance of community health workers require development of a relationship that strikes a balance between typical supervision and mentoring. Acknowledgement and recognition are important to maintaining this relationship as is respect for the cultural norms of the community. Managers also should communicate the special contributions of community health workers to all program staff members to gain initial buy-in. CHWs need to feel that they are perceived as valuable members of a team. As stated above, regular contact with and obtaining “buy-in” from all staff, including health care providers (including social workers, nurses, and doctors), managers, and

administrative personnel is needed to create successful programs that acknowledge CHWs as part of the health care system.

One of the greatest skills and contributions of community health workers is their problem-solving ability. Whether it involves empowering community members and/or helping them navigate the health care system, community health workers' primary concern is helping the targeted population and/or their family in a holistic manner, including health education, social support, referral to services, and/or advocacy. Not only is it necessary for management to recognize this skill, but it is also essential that managers ensure quality assurance throughout the program. Patient confidentiality is of the utmost importance and CHWs should feel comfortable discussing sensitive issues or emotionally draining situations with their supervisors.

Finally, ongoing continuing education opportunities in addition to recognition and incentives are crucial components of successful program managers. They should establish methods to increase their CHWs skills and confidence, provide opportunities for recognition by peers, agencies, communities, and family members, and offer meaningful incentives to CHWs (such as opportunities for professional development, flexible schedules, benefits, and certificates).

F. Evaluation

The sixth and final component to effective community health worker programs is evaluation. Designing the evaluation includes developing measurable objectives (such as what is intended to be achieved in a specified period of time), selecting tools, reporting results, and utilizing an empowerment approach to evaluation, i.e. ensuring that the evaluation is discussed, modified, and accepted by the community health workers themselves. Measurable objectives should include outcome evaluation, such as changes in client knowledge, changes in client stage

of readiness, number of eligible participants receiving services, and changes in client and agency practices. On the other hand, measurable objectives should also include process evaluation, which examines how the program is working and what areas need improvement. Various evaluation methods and tools are available, ranging from surveys of the population before and after training, CHWs questionnaires or interviews, and observational assessments.

Reporting evaluation results includes sharing results regularly with the stakeholders, such as the funding source, program staff, and community. Evaluation reports should be based on the progress toward achieving the objectives and goals of the project and what obstacles impeded that progress. An empowerment approach to evaluation (which involves community health workers in evaluation design) is often a beneficial technique to developing credibility to outsiders, documenting the CHWs' accomplishments, giving them a sense of contribution to the population they are serving, and even increasing funding.

VII. Workforce Issues

A myriad of workforce issues and barriers exist in the recruitment and retention of community health workers. In a survey analysis of CHWs in Massachusetts, the Massachusetts Department of Public Health notes a multitude of contributing factors. First, no formal career ladder exists for community health workers. CHWs stated that their only opportunities for advancement consisted more so of building skills and increasing levels of responsibility within their current position, rather than a change in role, additional training, or an increase in salary. Subsequently, CHW wages can be relatively low (the MDPH reported the mean salary for their CHWs was \$23,000 per year) and salary levels for CHWs tend not to increase with educational level, experience, or years in the position. CHWs with college degrees earn approximately

\$13,000 less than other individuals with college degrees in the general population. Furthermore, many CHWs do not even receive health insurance through their jobs, which poses an ironic problem. CHWs teach fellow community members, who are often underserved, how to use the system and then they themselves cannot even afford health insurance or pay the bills because of their poor pay (9).

Secondly, unpredictable funding tends to impact CHW job security. Because funding for public programs in Massachusetts, for example, is appropriated on an annual basis, every year community-based agencies are uncertain of their program and operations budget. It is not surprising that consequently, CHW turnover is high. Longevity averages 4 to 5 years in the CHW field, slightly longer (5 to 7 years) for supervisory roles. The lack of a standard CHW definition and the absence of understanding and acceptance among health care providers about CHW services contribute to the challenges they face. Thus, with a lack of opportunities for promotion, poor compensation, lack of benefits, questionable job security, and high turnover, community health workers can face compromising work conditions.

Therefore, it is essential to develop a set of core competencies and guidelines for CHWs, offer them ongoing training and supervision to ensure they meet the community's evolving health care needs, and propose a career ladder for CHWs. In addition, stable funding sources must be identified that promote long-term program planning and sustainability of CHW services and establish recommendations for fair and equitable pay for CHWs. Finally, it is essential to educate health providers and policy makers about the potential of CHWs and their contributions to the health care system so that they can be effectively utilized and their credibility of CHWs is not undermined (9).

VIII. Conclusions

As the cost of providing adequate health care to the population continues to rise, national and state health care reform efforts have called for the restructuring of the delivery and financing of care (1). Population projections predict a huge increase in the U.S. elderly population as well as that of minority groups. Coupled with provider shortages and the increasing complexity of the health care system, these changes in the size, structure, and diversity underserved populations underscore the need for a broader range of health services for families and communities. Cultural understanding, community health education, and translation services will be increasingly necessary for delivering effective care to underserved populations, especially racial and ethnic minority groups. The converging demographic and economic forces set the stage for the emergence of the community health worker (CHW).

Community health workers have been a staple in health care delivery in many countries throughout the world for many years. They have been widely used throughout the world for a spectrum of issues, ranging from providing immunizations to teaching sex education to helping prevent heart disease. Nevertheless, the role has waxed and waned in popularity in the United States, and some studies even question their effectiveness (69). However, CHWs have flourished in very remote areas, often serving as the only source of health care, and more recently, the role has proliferated in inner city areas and communities of ethnic minorities, where the workers function to reach vulnerable populations typically neglected by the traditional health care system (70).

Although there is no single accepted definition of a community health worker and the position is associated with multiple titles, CHWs are broadly defined as community members who serve as a link between health care consumers and health care providers to promote health,

especially to underserved populations. They typically share the ethnicity, language, socioeconomic status, and life experiences with the community members they serve. CHWs vary widely in their level of education, as their essence lies in the fact that they have the ability to connect with community members at a more personal level and can invest more time in patients than health care providers typically can. They offer services ranging from interpretation, translation, and culturally appropriate health education to aiding patient-provider communication, facilitating continuity of care, and empowering patients to navigate the health care system.

Community health workers not only increase access to care, but a critical component of why they have such potential is their ability to reduce the costs of care. As extensions of the primary care system, they can promote preventive medicine and reduce the unnecessary reliance on costly emergency department and specialty services (1, 69). The importance of strong social ties and supportive social relationships in influencing health-related behaviors is the essence of the community health worker and their potential cost-effectiveness. This ability to facilitate the patient-provider relationship, increase health care utilization, and promote risk behavior reduction makes them a potentially invaluable link between communities and the health care system. Moreover, a spectrum of programs has corroborated the direct relationship between social networks, social support, and positive health outcomes that build on the strengths within a community or cultural group. This illustrates that the community health worker has the capacity to step beyond an individual level of change, increase social norms for health promotion, and thereby promote an overall *systems* change for improved public health.

IX. Additional Resources

For comprehensive knowledge about community health worker programs:

- Community Health Worker National Workforce Study:
<http://bhpr.hrsa.gov/healthworkforce/chw/>
- A Handbook for Enhancing Community Health Worker Programs: Guidance from the National Breast and Cervical Cancer Early Detection Program-
<http://www.cdc.gov/cancer/nbccedp/training/trainpdfs/hb-introduction.pdf>

For more information about training community health workers and accredited programs:

- U.S. Department of Health and Human Services- Training Community Health Workers: Using Technology and Distance Education-
<http://ruralhealth.hrsa.gov/pub/TrainingFrontier.asp>

For more information about evaluating community health worker programs:

- The University of Arizona Community Health Worker Evaluation Tool Kit-
<http://www.publichealth.arizona.edu/chwtoolkit/>

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