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Employers' Perceptions Of Factors Related To The Workforce Development Of Community Health Workers in El Paso, Texas: A Descriptive Study

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EMPLOYERS' PERCEPTIONS OF FACTORS RELATED TO THE WORKFORCE
DEVELOPMENT OF COMMUNITY HEALTH WORKERS IN EL PASO, TEXAS: A
DESCRIPTIVE STUDY

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Dedication

I dedicate this thesis to my parents and sister because with their unconditional love, company, and care they have supported every important journey in my life.

I also dedicate this thesis to my professors; all that I learned from them about the public health field made me admire another part of the reality from a unique and professional perspective. My professors exemplify the motivation and perseverance that are required to accomplish significant goals in life.

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By

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Abstract

Workforce studies are necessary for regional economic development and for having a diverse workforce that meets communities' needs. Workforce studies explore the most salient factors of models aimed at balancing economic forces of supply and demand. In public health, Community Health Workers (CHWs) are recognized not only by the United States (US) Department of Labor (DOL) but by the Patient Protection and Affordable Care Act of 2010 (PPACA) as a professional health workforce that promises to increase public health programs' quality and effectiveness. The US health care system faces shortages in several health professions. Due to the fact that CHWs' service is oriented towards health promotion and disease prevention, CHWs represent an alternative workforce for delivering public health interventions. External and internal factors of the US health care system such as health care and wealth disparities, changing demographics, changing epidemiology of diseases, lack of workforce diversity, and inadequate distribution of workers, shape the communities' need for health services that are affordable, accessible, and focused on quality. Health workforce development planners and other stakeholders in the US health care industry are challenged not only by the existing communities' need for health services, but also by the recently developed health policies aimed at increasing the access and availability of health services. A health workforce that is adequate in size, composition, and distribution can be strategically planned through identifying local opportunities for workforce development.

Through the coordination and sponsorship of HEART Project, team members formed the "Paso del Norte CHW/Promotora Workforce Coalition." The three Coalition's strategic directions for CHW workforce advancement (Policy and Publicity, Training and *Capacitacion*, and Research and Evaluation) served to generate a survey instrument to study the workforce from the

employers' perspective. The present study's focus was on the issues concerning the demand for CHWs in the region. The results generated from the study answered the following research questions: 1) What are the most important marketing strategies that health care industry employers' could use to recruit and promote CHWs?, 2) What are the most reported health care industry employers' opportunities to interact with legislators and other stakeholders to favor the CHW workforce?, 3) What are the most common factors that, according to health care industry employers, promote and hinder both job generation and retention of CHWs?, 4) What are the most important CHWs' attributes (knowledge and skills) required by health care industry employers?, 5) What are the most salient health care industry employers' opinions on training options for CHWs?, and 6) What are the most important strategies that health care industry employers know for evaluating the impact of CHWs in their agencies?

The 27 employers in El Paso, Texas that completed telephone surveys are categorized within the industry cluster "Health Care and Social Assistance" under the North American Industry Classification System (NAICS). From the employers' perspectives about the CHW workforce development, the marketing strategies to effectively promote CHWs were listed. Employers were willing to better understand the CHWs roles and support job generation for CHWs by considering increase public health services to the community; they believe that lack of financial resources is one of the factors that hinder CHW advancement. Local employers suggest the use of a standardized framework to evaluate CHWs. Through this study, decision makers are provided by regional employers' perspectives about CHW workforce development. The Coalition is better prepared to build specific action goals and objectives that benefit the industry sector and the overall participants in the CHW workforce.

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CHAPTER 1: The problem

1.1 INTRODUCTION

The Community Health Worker (CHW) workforce is recognized by the Patient Protection and Affordable Care Act (ACA, 2010) as an integral component of the infrastructure for population-based health services delivery in United States (US) communities. CHWs represent an ad hoc workforce whose functions are aligned with the US health care system's approach of developing a health services workforce that meets the populations' needs for a quality efficient service that is accessible and affordable. Recently, there have been advances in the study of the CHW workforce to foster its recognition and timely integration in local industries across the nation. Massachusetts and Minnesota, in particular, have made progress towards the integration and development of the CHW workforce (Rosenthal et al, 2010). However, advances in the CHW workforce have been slow.

Community Health Workers (CHWs) services in the health arena have been documented since the 1960s (HRSA, 2007). Today, the legal context for the CHW workforce development has the potential to accelerate the recognition and development of this workforce. The current availability of workforce development incentives can favor CHWs employment. The incentives include policy initiatives in states, financial resources proposed in the ACA, and the organizations' emerging interest and commitment in the planning, design, and implementation of CHWs programs.

CHWs represent an alternative human resource for health care services. The US health care reform supports strategies that have the potential to both reduce high and rising health care costs and increase access to quality health care services. Information on CHWs can be found in several studies. The National Community Health Worker Workforce Study of 2007 (CHW-WFS)

is the main source of data on the national CHW workforce. However, studies with updated data on the national CHW labor force do not exist. There are no CHW workforce projections that come from the US Department of Labor (DOL) thus far. The DOL is the governmental agency that administers Federal labor laws and resources to foster welfare and advancement of the US workforce. The DOL also produces workforce related data using national economic measurements (i.e. income, benefits, and employment) and statistical analyses. In 2010 the term “Community Health Worker” was included in the DOL national surveys that generate statistics on the U.S. workforce (data and analyses on CHW workforce is still not available).

Available data on CHWs are only estimates of the CHWs number and characteristics, employers’ profile, and CHWs programs’ description. There are no analytical studies/reports about the regional demand of CHWs (community needs assessments and health care industry employers’ expectations about CHWs) and supply of CHWs that include external and internal variables that impact industries’ performance such as population growth, equity factor, number of professionals in a certain area, attrition rate, salary cost, training cost, and production patterns. These studies would provide relevant information to decision makers, employers, and other industry stakeholders that seek to balance human resources to fulfill populations’ health needs. Local efforts to characterize the CHW workforce are necessary. Each location has its own challenges and opportunities for the community and workforce development.

The US health care services system focuses on cost-efficiency, quality, increased access, and preventive services; CHWs have the opportunity to strengthen and unify their vision of promoting community health. The ability to fuel the CHWs advancement, regardless of the available financial resources to generate projects that employ CHWs (ACA, 2010), is characterized by the interested agencies’ willingness to recognize and support the

policy/governing instruments (government's means available for implementing policies such as taxes, information, subsidies, regulations, direct provisions, etc.) that promise success for workforce development.

The effective planning of the CHW workforce depends not only on studies of CHW supply and demand, but also on all health care system agencies. The collaborations among agencies that generate long-term plans for workforce development and the joint vision of organizations can enhance and accelerate addressing communities' needs.

This proposed study focused on determining the health care industry employers' expectations about CHW workforce development. Understanding these expectations can help researchers identify local CHW workforce development opportunities for planning actions that include the industry sector's voice.

1.2 PURPOSE STATEMENT AND RESEARCH QUESTIONS

Consistent steps are needed with respect to the integration of CHWs. The new context, in which the health care system operates, including health care reform, is promoting changes in market structures and exposes new opportunities for the CHW workforce. Under the aims of the Health Education Awareness Research Team (HEART) project, the support of influential advocates in the CHWs field, and on behalf of local agencies with varied experiences in workforce development or CHWs, the Coalition (El Paso, Texas) will identify key strategies for better integration of the CHW workforce. This study will be valuable to identify the employers' expectations for CHW workforce development. Through a focus on demand, action steps can be created within the working groups to impact the industry and facilitate the generation of new employment opportunities for CHWs.

The purpose of this study was to assess the El Paso, Texas, CHW employers' opinions, attitudes, and beliefs regarding the areas/factors/domains that, according to a newly generated regional model for CHW workforce development, are believed to impact the CHW workforce. The overall goal was to build a regional employer perspective on CHW workforce development to determine the options that the Coalition has to effectively collaborate with them and generate specific action goals and objectives to benefit the sector.

The following specific research questions guided the study:

- 1) What are the most important marketing strategies that health care industry employers' could use to recruit and promote CHWs?,
- 2) What are the most reported health care industry employers' opportunities to interact with legislators and other stakeholders to favor the CHW workforce?,
- 3) What are the most common factors that, according to health care industry employers, promote and hinder both job generation and retention of CHWs?,
- 4) What are the most important CHWs' attributes (knowledge and skills) required by health care industry employers?,
- 5) What are the most salient health care industry employers' opinions on training options for CHWs?, and
- 6) What are the most important strategies that health care industry employers know for evaluating the impact of CHWs in their agencies?

1.3 DELIMITATIONS, LIMITATIONS, AND ASSUMPTIONS

Delimitations. The results of this study only apply to the contexts of the region of El Paso, Texas. Study participants were employers in the health sector/industry including the public, private, and nonprofit arenas. Regardless of previous experience with CHWs, the

employers were defined as CEOs, executive directors, office managers, and/or owners in the health care industry. Employers could assign an agency's representative to answer the survey which was limited to the following individuals: those who coordinate and supervise public health programs, and directors or deputy directors of human and financial resources. Other potential CHW employers from sectors other than the health care industry were excluded. Results from survey were expressed as recommendations for employer leadership to develop the CHWs workforce. The survey collected only relevant data for the purpose of the Coalition's strategic planning efforts.

Limitations. Regarding the methodology used in this study, the accuracy of responses cannot be determined and recall bias may have occurred. During the analysis of information, non-response outcomes were difficult and limited generalizability.

Assumptions. It is assumed that the knowledge and experience of each employer were within the minimum required to complete the questionnaire and obtain reliable data.

CHAPTER 2: Literature Review

The US health care system (system) faces high and rising health care costs. The system has four actors: 1) purchasers (payer) include individuals/patients, the government, and employers; 2) insurers (seller and payer) are public -Medicare and Medicaid- or private; 3) providers (seller), include all health professionals; and 4) suppliers (seller) which are pharmacies, computer industry, and medical suppliers (Bodenheimer, 2005a). "A market is a place where buyers and sellers make transactions" (Bodenheimer, 2005a, p. 850). Payers introduce money into the system; the government contributes 45% of the total health care dollars, employers 36%, and patients 15%. Hospitals, physicians, and pharmaceutical companies receive the largest amount of dollars generated in the market with 33%, 23%, and 10% respectively (Bodenheimer, 2005a).

Table 1. A free market is a strategy with the potential to reduce rising health care costs

Payers	Sellers	Free market
Patients	Health care facilities Health care professionals	There is sufficient information on the costs of different providers. Sellers compete, lower their fees, and attract payers.
Insurers	Health care facilities	There is a sufficient number of hospitals in a geographic region (not consolidated*). Sellers compete, lower their fees, and attract payers.
Employers	Insurers	There are sufficient health plan options
Healthcare facilities	Healthcare professionals	There are effective models that promote employment.

*Hospitals consolidate when they create multihospital systems; they reduce the number of hospital entities and competition.

The health care system could fail to achieve improvements in the populations' health as escalating costs in the system imply reduced access to health care. The US spends \$5,267 on health care per capita/individual per year; these expenditures are the highest around the world

and continue to rise. Factors external to the system such as population aging explain only 6% to 7% of health spending growth. Other factors have contributed to this health care problem. For example, the lack of a free market (see table 1) has resulted in high costs in the system because hospitals and insurers have consolidated. Also, sellers hinder price competition and impede cost-containment strategies to control and reduce health care costs (Bodenheimer, 2005a).

The introduction of technological innovations into the system generates high costs since more capital is required for new facilities and equipment, workforce, and promotion and marketing. Technology quickly diffuses in geographic areas where there are numerous physicians; physicians receive income when they promote the use of new technologies. The construction of hospitals with new technology attracts medical specialists to the zone. The positive effects of medical advances are worth their costs, but the problem is lack of control over the rapid diffusion of the innovations. Demand for technology is explained by the influence of manufacturers and physicians rather than by the population's needs. There is an overuse of technologies that expose patients to innovations that do not necessarily benefit them (Bodenheimer, 2005b).

The US health care system lacks cost-containment measures such as expenditure caps and global budgets that can limit the expenditures for all services as they are set in advance. Suppliers and providers have market power. This is the ability to raise prices without losing market. US medical care, inpatient services, and pharmaceutical costs are the highest globally (Bodenheimer, 2005b).

In the 1990s, the government took measures to control prices and reduce high health care costs. In response, physicians increased the amount of their services since they are paid on a fee-for-service basis. Primary health care physicians have not consolidated as effectively as other

specialists and have suffered reductions in prices (reimbursement) for their services. Physicians, as well as hospitals, consolidate when they form strong organizations that allow them avoid the effects of cost-containment measures/price controls. There is a supplier-induced demand for health care services where the amount of services is not related to their quality. Cost containment strategies include promoting a more competitive market, implementing technology assessment programs that regulate the use of new technologies, and limiting the amount of money flowing through the system. To preserve the quality of services, while reducing their costs, strategies should be applied to medical practice (Bodenheimer, 2005c).

Problems related to quality of health care services range from overuse to misuse. Only 10% of the population incurs in 70% of total service expenditures; focusing strategies on this population sector is important for improving the system. The elderly (people 65 years and older) with two or more chronic diseases spend more money on health care (inpatient care) than other age groups. The elderly must be included in health interventions before they become high spenders. Readmission rates to hospitals are reduced when patients, leaving the hospital, receive health education, follow-up visits, and face-to-face encounters with care managers. Also, loss of bone spine and loss of muscle strength, associated with prolonged hospitalization, are avoided. Referral of patients to primary health care is associated with hospitalization reductions. When patients share treatment decisions with their physicians, the system benefits because the health care becomes more appropriate and patients are more informed (Bodenheimer& Fernandez, 2005).

The Patient Protection and Affordable Care Act (ACA) of 2010 intends to change the system approach from focusing on the development of health specialties to focusing on disease prevention and health promotion efforts that empower the population to maintain their own

health. The ACA (2010) endorses coping with population's needs by emphasizing the delivery of health-related services in homes and communities, supporting non-traditional health care providers, highlighting the importance of cultural sensitivity for health care delivery, preparing the nation to attain cost efficiency of services, and stressing the focus on the care of chronic diseases (Kaiser Family Foundation, 2011).

As mentioned by Rosenthal et al. (1998), Community Health Workers (CHWs) provide public health services, deliver preventive services, improve access to health care services, and assist in the treatment of diseases. CHWs deliver cost-efficient health-related services “when resources are limited and demands are great” (Rosenthal et al., 1998, executive summary). CHWs face challenges to professionally advance within the health care system. The lack of evaluation of CHW services and CHW program reliance on multiple sources of funding impede the initiation of new CHW programs and/or sustaining existing ones. Evaluation of CHW programs is hindered by the lack of funds. Lack of recognition of CHW roles, lack of support for CHW networks, and lack of career advancement opportunities for CHWs are known workforce development challenges.

The National Community Health Worker Workforce Study (CHW-WFS) was published in 2007. The study explained that CHWs are an alternative health care workforce that can be used in low-cost public health programs. The CHW-WFS described the CHW workforce; generated profiles for CHWs, CHW programs, CHW employers, and trainers; and gave national estimates of the CHW workforce size and characteristics.

To develop the CHW workforce, a unified network of CHWs and stakeholders that advocate for national standards of CHW competencies, is required. It is recommended to conduct research to generate data trends on the CHWs workforce. Most importantly, the roles of CHWs

must be supported in their full range (Rosenthal, Wiggins, Ingram, Mayfield-Johnson, & Guernsey de Zapien, 2011).

The CHW workforce has progressed towards its integration and development. In Texas, through the Texas Department of State Health Services (TDSHS), a certification program for CHWs was established and implemented (HRSA, 2007). Nationally, the US Department of Labor (DOL) Office of Apprenticeship (OA, 2010) recognizes CHWs as an apprenticeable occupation. The DOL Bureau of Labor Statistics (BLS, 2010) assigned an occupational code to CHWs in 2009. This present study explored the opinions, attitudes, and beliefs of local employers about the development opportunities for CHWs. The study is linked to the efforts of a Coalition in El Paso, Texas whose mission is to support, develop, and sustain CHWs.

2.1 THE U.S. HEALTH CARE SYSTEM

The health care system is comprised of the activities controlled by the US Department of Health and Human Services that provide personal health services such as prevention, diagnosis, treatment and rehabilitation, and non-personal health services such as reducing tobacco consumption and promoting water sanitation. The health care system includes the intersectoral actions of institutions that advocate for improving health-related services (law, education, tourism) (Murray & Evans, 2003).

The system's four basic functions are the following: 1) financing, collects revenue and funding packages that are put into specific actions for health, 2) provision of services, combines inputs to deliver personal and not-personal health services, 3) resource generation, enables or restricts the system's ability to conduct business in all its potential including training efforts and investment, and 4) administration, implements and monitors the rules underlying the system and identifies strategic directions for the health system (Murray & Evans, 2003). Institutions that

provide human resources, physical resources (plant and equipment), knowledge (research and education), and technologies are essential for the health system to fulfill the financial and service delivery functions.

Health Care Workforce

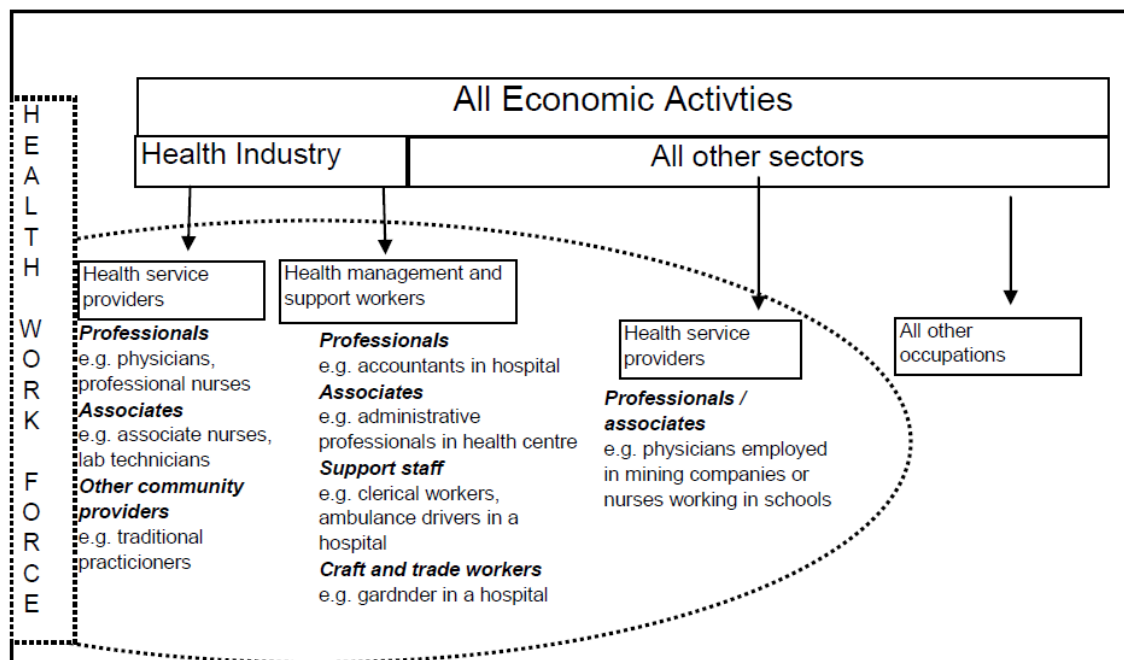
A labor force provides services to populations and addresses their specific needs. A workforce is specific to an economic sector and represents the human resource for service delivery. According to the Health Insurance Portability and Accountability Act (HIPAA) of 1996, a workforce includes those individuals whose conduct in performance of work in an entity, is controlled by the entity whether or not being paid by that entity. According to the US DOL, Bureau of Labor Statistics, the labor force include the employed, unemployed (volunteers and students), or individuals in the armed forces that are counted in national workforce surveys. The official definition of labor force also includes people who are 16 years and older (Current Population Survey, 2010).

The health care workforce is responsible for achieving the health care system's goal of improving the population's health. In order to improve the average level of population's health and reduce inequities, the concept of "responsiveness" should be incorporated and implemented throughout. Responsiveness involves positively impacting all customers (patients) from the beginning of the client-service interaction to the end of that interaction. Householders' contributions to finance the health care system must be fair and equate the monetary sacrifice with the services provided. A service with quality and equity has the potential to promote, protect, and improve the population's health (Murray & Evans, 2003).

Health Care Professionals.

The US DOL Bureau of Labor Statistics (BLS, 2011), in its “Career Guide to Industries”, indicated that dentists, registered nurses, social workers, therapists, and physicians have the highest level of responsibility and most complex duties within the health care delivery system compared to other health service providers. In addition to providing services, these medical professionals supervise other workers and conduct research. They may have little or no contact with actual patients (see Figure 1). Workers who operate medical equipment and aid practitioners in the diagnosis and treatment of illnesses include health information technicians, radiology technicians, and dental hygienists. They require one or two years of postsecondary training. Workers such as nursing, home care, and mental health care assistants provide health care for the sick, disabled, and elderly. They require little or no specialized education or training (BLS, 2011).

Figure 1. Health Workforce.



From Dal Poz, Kinfu, Dräger&Kunjumen (2007); p. 3.

Employers

Employers in the health care industry are those who diagnose, treat, and manage health care of people. Nationally, there are 595,800 health care establishments including private clinics in small towns or hospitals in large cities. Offices of physicians, dentists, and other health professionals comprise 76% of the establishments. Only 1% are hospitals. Yet, 35% of the employment of all health workers is in hospitals, 42.6% in ambulatory health care (health professional offices, ambulatory care centers, and medical and diagnostic laboratories), and 22.8% of employment in residential and nursing care facilities (community care facilities for the elderly and others) (BLS, 2011).

Community Health Workers

CHWs are volunteers and/or paid community members who work almost exclusively in community settings such as community clinics, nonprofit organizations, and public health departments. They serve as liaisons between health care consumers and providers and promote health among groups that have traditionally lacked access to adequate care. CHWs provide education about disease and injury prevention and assist community residents understand how to access formal health and human service systems. CHWs respond creatively to local needs by identifying community problems, developing innovative solutions, and helping individuals and groups take greater control over their health. They have specialized training and generally share experience, language, and culture with the communities they serve (Balcazar et al., 2011; Rosenthal, 1998; Witmer, 1995).

Nationally, the American Public Health Association Special Primary Interest Group (APHA SPIG) policy committee (2009) agreed on a definition for CHWs that was adopted by the U.S. Department of Labor in 2009 (DOL, 2010):

“CHWs assist individuals and communities to adopt healthy behaviors. Conduct outreach for medical personnel or health organizations to implement programs in the community that promote, maintain, and improve individual and community health. May provide information on available resources, provide social support and informal counseling, advocate for individuals and community health needs, and provide services such as first aid and blood pressure screening. They may collect data to help identify community health needs. Excludes "Health Educators" (21-1091).”

The National Community Health Worker Workforce Study (HRSA, 2007) is the only study to date that has provided estimates of the CHW workforce. CHW-WFS generated CHWs workforce estimates from the analysis of occupations that may have included the services of CHWs. CHWs were included, for the first time, in the Current Population Survey of 2010. The results of the report are not available this year. The best option for analyzing the size of the workforce is reviewing the CHW-WFS data.

Community Health Workers Size and Characteristics

Nationally, there are approximately 85, 879 CHWs. About 67% of CHWs were paid (46.8% had payments ranging between \$9.00 and \$12.99 hourly). Most CHWs were between the ages of 30 to 50 (54.8%) and most CHWs were female (81.6%). Only 7.4% had less than high school education, and most of them had high school GED education (34.8%). Texas had 5.8% of the total CHWs and ranked third among all states. Most CHWs were Hispanic or Non-Hispanic white (35% and 39% respectively), followed by African-Americans (15.5%), Native Americans (5.0%) and Asian and Pacific Islanders (4.6%)(HRSA, 2007).

CHW Roles

The National Community Health Advisor Study (Rosenthal, 1998) described the core roles that are practiced by CHWs in a wide variety of programs and locations as follows:

1. Provide cultural mediation (through navigation) between the community and the health care system,

2. Provide culturally appropriate health education and information,
3. Assure people get the health services they need,
4. Give informal counseling and social support,
5. Advocate for individual and community needs,
6. Provide direct health services and meet basic needs, and
7. Build individual and community capacity.

CHW Competencies (skills)

CHWs provide a range of community services (volunteering or being paid) which were categorized into 8 core competencies (Wiggins in Rosenthal, 1998):

1. Communication Skills: listening, writing, appropriate use of language.
2. Interpersonal Skills: relationship-building, ability to work as a team, counseling.
3. Service Coordination: identify and access resources, network and build coalitions, follow-up.
4. Capacity-Building Skills: empowerment, leadership, motivation, strategies.
5. Advocacy Skills: overcome barriers, speak-up for individuals and communities, withstand intimidation.
6. Teaching Skills: share information one-to-one.
7. Organizational Skills: set goals and plans, juggle priorities and manage time.
8. Knowledge Base on Specific Health Issues: gain and share knowledge, and stay current on health topics and human services.

2.2 THE U.S. HEALTH CARE SYSTEM CHALLENGES

Health Care Workforce Challenges

CHW workforce challenges can be better understood by discussing the factors that have influenced the entire health services system. There is a current need to deliver an affordable, accessible, and quality health services to individuals and communities (Balcazar et al., 2011). A health care services approach to primary care is crucial to attain the goals of the health system (Family Strengthening Policy Center, 2006; HRSA, 2007; Goodwin & Tobler, 2008). External and internal factors of the health care system influence the system's dynamics. Researchers have proposed to generate strategies to balance the health care market's supply and demand forces taking into account the changing workforce needs of size, composition, and distribution.

A steady increase in health care costs is the main problem for the US population. The following factors are challenges not only for the health care delivery system but also for workforce specialists working on adjusting their action plans to meet new demands for a well distributed, more diverse, and more competent workforce.

Disparity of Income and Wealth.

The health care delivery system in the US is mainly private. The population receiving high income or employed is insured or can pay for health care. The health care workforce is inclined to serving the insured population. Communities where the uninsured abound represent a challenge for agencies, institutions, and health professionals. These disadvantaged geographic areas are unsafe for workers and the jobs in these communities are low paying. There is a need to attract health personnel to disadvantaged areas and generate strategies to retain them (Mullan, Frehywot, & Jolley, 2008).

Aging Society, Life Expectancies, and Population Growth.

Individuals who reach age 65 are considered to be the elderly. It is estimated that the elderly population will continue growing, and by 2030 the share of the population ages 65 and older will increase from 13 to 19%, reaching 87 million in 2050 (presence of the baby boomers) (HRSA, 2007; Federal Emergency Management Agency, 2011). People demand more health care services later in life. Even though this population sector represents only 13% of the total population, they represent half of the physician visits and hospital stays (Mullan, Frehywot, & Jolley, 2008). From a study conducted by the Institutes of Medicine (IOM, 2008), trends in the aging population are expected to increase the demand for health care services and demand a more prepared health care workforce.

Life expectancy in the US is increasing. A significant percentage of baby boomers can expect to reach age 85 and beyond. This will increase the demand for delivering quality health care services that are consistent with the diversity and specific needs of this sector. It is noteworthy that the percentage of minority populations in the elderly population will increase from 23% in 2020 to 43% in 2050 (HRSA, 2007).

Increased fertility among minority populations will expand the diversity of the total population. Younger cohorts are increasing in number. Individuals from low income families demand a wider range of services, better cultural competence by health professionals, community health education, and translational services. If the needs of minorities are addressed, the health care system will be more effective in preventing diseases and promoting health, which ultimately will also promote better economy in the regions. (HRSA, 2007).

Lack of Workforce Diversity and Retirement.

Diversity comprises all dimensions of an individual such as: race/ethnicity, gender, age, religion, sexual orientation, communication style, work style, organizational role/level, economic status, and geographic origin. Every service system that values the customers' and workers' diversity attains better individual productivity, organizational effectiveness, and sustained competitiveness (US Department of Commerce, 2000). Unfortunately, the current health workforce lacks an adequate minority representation; while the US population becomes more diverse, the health care workforce reflects a low percentage of minority representation. Likewise, the workforce is aging, and, eventually, the retirement of health professionals will occur at the same time in which demand for services increases (Matherlee, 2003; HRSA, 2007; Mullan, Frehywot, &Jolley, 2008).

Racial and Ethnic Disparities in Health Care.

In the coming decades, the racial and ethnic composition of the population will continue to change. It is important to have a workforce as diverse as the population it serves. If there is an ineffective relationshipbetween health care providers and patients, and if professionals work without cultural competency, the disparities in the quality of health care of minority populations will be perpetuated (Mitchell, 2006).

The Technological Innovations and their Rapid Growth.

As technology advances, the need for health personnel increases at all levels. From technicians to medical specialists are required to manage technology. Technological advancement has influenced the orientation of health professionals toward specialties. Health professionals move from an interest in primary health care. The creation of new methods to disseminate scientific information among professionals has favored the formation of professional

associations that focus on improving access to services, patient communication, patient compliance with treatment, a better range of preventive services, and early diagnosis of disease in minority communities (Mullan, Frehywot, &Jolley, 2008).

Changing Epidemiology of Diseases.

The USdemography has been changing which has resulted in having an agingpopulation. This demographic change is explained by the shift fromhighfertility andmortality rates tolow fertilityand mortality rates. The epidemiology ofdiseases has also been changing. Lowfertility and mortality rates are the result of implementing public health programs and advancing the medical practice;increased population's life expectancy allows for a greaternumber of older adults. Communicablediseases have become less frequent due to the implementation of public health control measures such as: improvedhygiene, education,and nutrition. Sedentarylifestyles (frequent in developed economies) and theaging of the populationallownon-communicable diseases predominate in the population.Many of these prevalent non-communicable diseases inaging populations are chronic and the health care systemfaces pressure to finance health services for this population's sector. Chronic diseases among the elderly translate to increased demandsfor adequate healthservices.(Mullan, Frehywot, &Jolley, 2008).

Misdistribution of health workers and workforce shortages.

The Health Professional Shortage Areas (HPSAs) are federally designated specific geographic areas, populations groups (based on income), and facilities that have a problem with shortages of health care professionals. These designations are made for primary care physicians, as well as for the dental and mental care. The designations exclude the study of other areas/professions within health care services. Not having enough health professionals preventsefficient interaction amongpatients, and health personnel and incomplete continuum of

care (Michigan Center for Health Professions, 2010). However, the number of practitioners other than physicians has grown rapidly, influencing patterns of care. The need for a better distributed workforce requires planning (Matherlee, 2003). Documentation shows that in rural and remote areas there are shortages of all kinds of health professionals. According to a forum held in Abuja (High-Level Forum on the Health MDGs, 2004), health workers want to live in urban areas because these areas offer better opportunities for their families. The US places a greater value on efficiency rather than on equity in the health care system. This leads to uneven access to health care for the population as a whole. Uninsured, underinsured, and other vulnerable populations have relied on America's Health Care Safety Net, consisting of public hospitals, Community health centers (CHCs), and local health departments, for health care (Hoffman & Sered, 2005).

Primary Care, Geriatric Care, and Data about Health Workforce.

The advancement in technology has led to a disinterest by health professionals in primary health care. Low primary health care salaries, long working hours, and technological appeal have favored specialty orientation of health professionals. For filling in the primary care gaps, the medical home concept has promised to include assistants in health care. Geriatric care generates demands for specific care and treatment, yet there are very few training programs in geriatric care (Michigan Center for Health Professions, 2010). Access to data on the health labor force is limited throughout the nation. Health care workforce data are essential to inform policy discussions and to create legislation that favors the workforce (Mullan, Frehywot, & Jolley, 2008).

2.3 COMMUNITY HEALTH WORKERS EFFECTIVENESS

Impact of service: effective strategies implementing a CHW model (importance of workforce)

Empirical evidence on the effectiveness of CHWs is abundant and is subject to criticism due to the type of designs that are used to evaluate CHW. Studies with greater scientific validity which have implemented the CHW model are scarce (Balcazar et al., 2011; Rosenthal, 1998). There are several indicators for the CHWs model success in public health interventions (performance measures): increased use of health services by the community (primary and secondary), improved health status of communities, efficiency in the use of health resources in agencies, and increased access to a health care service. CHWs services break the barriers existing between the health system and the potential of the community to advocate for constant individual and collective well-being (Witmer et al., 1995).

Data about the effectiveness of CHWs performance in public health programs is crucial for CHW workforce development (Balcazar et al, 2011). According to the World Health Organization (WHO) (2007), there are promising benefits of CHWs in promoting access to preventive services and in improving outcomes of certain diseases. There are also other CHW impacts on communities that are difficult to quantify such as social mobilization and building of trust. Swider (2002) conducted a literature review on the health outcome effectiveness of CHWs, which suggested that CHWs help increase community participation in health promotion programs.

CHWs are effective for increasing access to care in underserved populations. They can facilitate the community's proper use of screening or follow-up services; increase rates of mammograms, Pap tests, and prenatal care; get women into a program to stop smoking; and increase access to care information to children with asthma. CHWs increase the knowledge of communities on how to maintain health and prevent diseases. Health status and behavioral

change are also promoted by CHWs (Swider, 2002). These findings are consistent with the study conducted by Viswanathan, Kraschnewski, Nishikawa, et al. (2009) which delineated the CHWs' service impact on communities including: knowledge, behavior, health outcomes, and health care utilization.

CHW programs are expected to positively impact underserved communities. CHWs represent a cost-effective strategy for the health care system to provide low-cost services to those communities (WHO, 2007). A study compared the cost-effectiveness of a control program that used CHWs with another government program that did not. The results showed that the costs associated with the cure of a patient in the CHW program was \$64 compared to \$96 for a patient in the government program. According to those results, involvement of CHWs represents a cost-effective approach to health (WHO, 2007). However further research is needed to assess the cost-effectiveness associated with CHW services. Measures of both costs of care and costs avoided through prevention are still needed (Swider, 2002).

CHWs coping with health care system challenges and the importance of CHWs workforce development (who is favored by this workforce?)

CHWs are recognized by the Patient Protection and Affordable Care Act (ACA, 2010) as an integral part of the health care workforce. With incentives and opportunities for grant appropriations for the development of the CHW workforce, the nation is attempting to cover the increased demand for health care professionals, including CHWs. New increases in the demand of health care services and health care workforce are caused by the additional population that will be included in the insurance system, the increased access to preventive services, the plan to create new community centers that will demand community health workers, and an approach to combat health disparities. Increased interest in the CHWs workforce, by the government, has the

potential to promote the workforce development of CHWs (Viswanathan et al., 2009; Rosenthal et al., 2011). The ACA (2010) is posing a challenge to the agencies that deliver health care services. Such agencies may need to reform their human resources strategies to attract personnel who have both cultural competencies and the ability to effectively integrate the community in the ongoing promotion of health (Harris, 2010).

The agencies have several options to fulfill the demands that the ACA is posing to them. They can modify the definitions for full- and part-time employees and plan for a more diverse, competent workforce. To collaborate with and integrate the community in the continuum of care, the use of CHWs is recommended. CHW interventions are a means to improve the knowledge of disadvantaged populations on health issues that can lead to the prevention of diseases (use of pap smears, mammograms, etc.) (Viswanathan et al., 2009). In order to improve US health care, there are two needs that must be met: 1) decrease to the minimum possible the health care disparities, and 2) translate public health research into practice. CHWs can help disseminate public health interventions in populations that rarely benefit from the advances of health care services. The virtues of CHWs position them as key change agents that can join the health services and communities (Viswanathan et al., 2009).

2.4 EFFORTS TO DEVELOP THE COMMUNITY HEALTH WORKERS WORKFORCE

Workforce development

According to Giloth (2000), workforce development is a series of strategies applied to the human resources of industries in a specific region. The ultimate goal of a workforce development strategy is economic progress and equity in regions. An outline for workforce development considers not only aspects of employment and/or vocational training, but also issues concerning employers attitudes, connections with communities, career advancement of employees,

comprehensive human services support, industry-driven education and training, networks, and agencies that operate as partners.

In the 1990s, changes in the labor market led to job growth, a service-based economy, a collapse of career ladders, high performance job designs, non-traditional work arrangements and time, and finally, uncertainty for employees and job seekers. Other influencing factors also point to the current revival of workforce development: the aging out of industries and occupations, the increasing diversity of the workforce, increased demand for skilled workers, and the social pressures of welfare programs whose expectations and implications for development affect the workforce (Giloith, 2000).

Although these facts promoted the availability of incentives for workforce development to close the gaps between supply and demand, city and suburb, and neighborhood and sector, firms now lack the capacity to find and retain workers. There is a new paradigm of workforce development that combines two approaches for workforce development. The first approach is called the employer-linked/sector-based approach (focus on demand), which is developed from the perspectives of employers and industry. The strategies are aimed at training job seekers; this approach helps the industry to grow, promises well-paying jobs and better retention (as high as 80% after a year), and promotes career advancement. However, not all job seekers benefit from this strategy because there are a number of prerequisites for entry into these programs: basic skills, job readiness, aspirations, and work experience. This approach to workforce development generally excludes low-income workers located marginal zones where no employment opportunities exist. The second strategy for workforce development is called place-based/community/focus approach (focus on supply) which consists of programs that aim to move communities out of poverty by teaching them how to obtain and retain jobs. These strategies

saturate the neighborhood with workforce-related activities and increase employment rates (i.e. gain market entry work). However, people often end up being volunteers and generates few jobs that are part time and very few are full-time with low retention rates (20% per year). This approach generates a habit of working in the population, creates networks, and generates models of job opportunities. Low-income job seekers benefit because the only entrance requirement to those programs is interest (Giloith, 2000).

A workforce development program, under the proposed new paradigm, must properly mix the above workforce development strategies and adapt them to the specific contexts of groups of employers and job seekers. There are several models and programs that integrate both strategies of this new paradigm. An example of effective models is community colleges that integrate skills training with "bridge" community programs and employer services. However, there is no framework for joint implementation of these workforce development strategies. Targeting strategies according to a series of dimensions for workforce development can facilitate the generation of a model in workforce development. The dimensions/workforce development imperatives were identified on the basis economic and political factors that shape labor markets(Giloith, 2000).

Retention and advancement. The programs seek a win-win scenario where the employee is retained in the work and can progress within it. Employers are committed to move up and hire low-cost/entry-level employees to fill the spaces left by more trained employees. An employer who invests in career development avoids the high turn-over rates that result in several internal problems such as high administrative costs related to the searching and replacing of staff, lost productivity, and the diminishing return of the training costs (Giloith, 2000).

Investing in retention. Investments are made for 1) employee training to adjust the labor to the employer needs, 2) changes in the practices of domestic markets, and 3) peer support and mentoring. Information systems are needed to track participants for a long time to know how they are progressing and what investments have been most effective. Databases on both unemployment compensation and social assistance programs are essential to inform market specialists in the process of upgrading their programs. To increase retention, programs must create an atmosphere of high expectations for employees, provide a wide range of intensive services to participants, and stay connected for a long time with participants. As participants move to different jobs, they may require re-employment services; the strategy is retention in the labor market rather than keeping a specific job.

For workers, career advancement means better pay and benefits, increased responsibilities, new job titles, and improvements in basic skills. The career progression is more likely to occur when employees have high levels of basic skills, have better jobs, receive education services and training, and have some type of certification beyond high school. Employers have to believe in the benefits of investing in increasing the skills of their workers. When employers invest in training for their workers, they increase the firm's production. Community colleges are effective partners to design strategies to deliver training services to employees (i.e., home computer-based instruction). Training can be available at different times, can be affordable, and can provide human-service support. Career advancement can occur at a cross-sectoral level, which increases worker retention (Giloith, 2000).

Dual customers. In workforce development, programs for both the employer and the employee are very important. The employer plays an integral part in the program's implementation and design. Employers' experience contributes to generate new jobs and relevant

curriculum. They also can participate in counseling groups and coordinate with instructors in the industry. Employers must commit to investing in skills, modernization, and internal cultural change to promote the support of non-traditional and diverse workforces (supervision, diversity, mentoring, incentives, and advancement). The success of these programs is measured by counting the number of customers who return to join the program for a new job or to improve their skills. Some not-for-profit organizations have helped job seekers by mentorship and support and by advocating for public policy (Giloith, 2000).

Regions, cities, and neighborhoods. Suburbs and cities are interdependent; they share goals and political interests. The industry sectors are arranged in regions. It is proposed that the program approach for workforce development consider regions rather than towns or neighborhoods, although many obstacles impede that goal. The residents of the suburbs face problems of transportation, commuting time, and complicated child care. Despite the existence of welfare programs in the suburbs and neighborhoods, many programs face recruitment problems, such as difficulties finding recruits, poor training attendance, or lack of trust in conventional practice. City revitalization efforts are often more effective than the promises of regional approaches. Markets and access to the labor force in cities are more advantageous than in regions (Giloith, 2000).

Race matters. The challenges of workforce development include not only those generated by changes in the economy, technology, or organization of industries, but also the challenges faced by workers according to their culture, race, and gender. Job seekers must have the skills that each sector and occupation seek and must also understand the specific corporate culture. In the hiring process, employers value job interview more than the skills of employees; employers often rely on small networks with their current employees to find new recruits. Employers

decrease their relationship with local schools or hiring networks. For the recruitment and selection of supervisors, employers base their decisions on productivity and longevity rather than on supervisors' management skills; there are often problems where supervisors lack the skills to manage a diverse workforce. It is recommended that programs for workforce development focus on the following: creating a standard for job-readiness of job seekers, training supervisors, including diverse workforce, and changing hiring practices and internal market (Giloith, 2000).

Ideas, best practices, and replication. Programs on workforce development which has enough experience to predict outcomes regarding job placements, retention, community connections, and quality of work, are considered "best practices." The challenge is to translate "best practices" knowledge to activities applicable to different populations in different contexts. In order to find problems, opportunities, and promising practices, data collection on innovative interventions for workforce development is required. Such data may include recruitment and retention strategies, and participant and employer characteristics (Giloith, 2000).

Systems change and labor market. Labor market needs to change to support the creation of and access to good jobs and career ladders for low-income people. It is necessary to understand the interconnectedness of regional labor markets, sources of funding for workforce development, governing structures like the 1998 WIA, community colleges, employment security, adult education, and youth employment. The labor market includes employers' investments, the supply and demand forces, domestic markets of firms, and intermediaries (unions and educational institutions) (Giloith, 2000).

To integrate the new paradigm for workforce development, employers are required to take the lead and focus on job placement, retention, career advancement, and financing. It is essential to identify the type of leadership that leads to workforce innovations that can be applied

in different contexts. Job placement, retention, and career advancement require partnerships; therefore, employers and other agencies have to invest in the capacity of local organizations to become partners since they help with recruitment, support, and follow-up services. Projects have to be inclusive with the needs of low-income populations and promote employment opportunities to them. Finally, there is a need to train human resources departments to move workforce development projects into practice and generate policy changes that support the sustainability of these projects. To ensure that workforce development projects positively impact low-income populations, joint efforts need to take place to eliminate wage, income, and wealth inequality, race and gender discrimination, lack of connection between school, post-secondary education and employers (Gilothe, 2000).

CHWs Workforce Development

A series of recommendations for CHWs workforce development were published in 1998 by the National Community Health Advisor Study (NCHAS). The recommendations were derived from four specific goals proposed for CHW career advancement and have their application in four levels or spheres of activity: individual CHW, CHW training, CHW program/agency, and inter-program CHW networks. These four levels of strategic direction for career development were identified by studying other professional fields. The following is a brief summary of the recommendations for each goal. Note that the name “Community Health Advisors” (CHAs) mentioned throughout the NCHAS is equivalent to CHWs.

Goal 1: Improve working conditions and future opportunities for CHAs. Recommendations are to establish a national CHA certification, create academic linkages for CHA training, assure wage and benefit rewards reflective of CHA contributions, and develop CHA career paths within and outside CHA programs.

Goal 2: Standardize approaches to CHA core training. Recommendations are to promote paid on-the-job CHA training, establish CHA core curriculum and guidelines, include community-specific training in basic CHA training, establish multi-program CHA training and support centers, and develop CHA supervisor training.

Goal 3: Delineate and disseminate program practice guidelines. Recommendations are to develop best practice guidelines for CHA programs, establish clear role delineation between paid and volunteer CHAs, clarify inter-agency CHA roles in health and human services, and create visibility for essential CHA roles and competencies.

Goal 4: Strengthen coordination in the CHA community. Recommendation is to strengthen local CHA networks and form a national CHA-led association.

Several strategies within the four levels of support and intervention for CHWs career advancement were identified. A literature review of the strategies for career development of CHWs was conducted in relation to the four identified dimensions. The review of strategies for the professional advancement of CHWs provided an overview of the possibilities for developing the workforce. However, to date, there is no summary or report that shows the current state of development of the CHW workforce under the scheme of the four levels. The following are the strategies and programs that are relevant to the area of CHWs as they represent successful events that were aimed at having a more integrated and recognized CHW workforce.

Rosenthal, Brownstein, Rush, Hirsch, Willaert, Scott, et al. (2010) described the efforts of Massachusetts and Minnesota that represent cases of success in their efforts to develop the CHWs workforce. Through leadership and advocacy efforts of alliances and partnerships, it has been possible to enhance the integration of CHWs by promoting the participation of state support and funding for this workforce.

In Massachusetts, the Health Care Reform of 2006 included the CHWs in two of its provisions and assigned the public health department with conducting a statewide study of CHWs. During the study, CHWs were supported with financial resources to provide services to the uninsured. In 2007, the Massachusetts Association of Community Health Workers (MACHW) included its voice at the state level to provide advice on policy decisions that affect the public's health. In 2010, the results of the statewide study on CHWs were shared. Results highlighted the efficiency of CHWs in increasing access to primary care and improving the quality and cost-effectiveness of care. The study's results also led researchers to make recommendations for further integration of CHWs in the health care delivery system. The recommendations were to implement a campaign for CHWs professional identity, to expand training and certification programs for CHWs and supervisors, to finance payments to CHWs, and to create a state office for CHWs to identify career pathways and policy development (Rosenthal et al., 2010).

In Minnesota, the Community Health Worker Alliance is comprised of statewide private and public stakeholders. The Alliance developed the scope of practice for CHWs and a credit-based curriculum applicable in community colleges. The Alliance conducted research to prove that greater investment in CHWs would imply neutral budget for the legislature. In 2007, the legislature approved the reimbursement per hour of CHWs through Medicaid. In 2008, the Centers for Medicare and Medicaid Services approved that CHWs who complete a state certification program can work under the supervision of a practitioner approved by Medicaid (Dower, Knox, Lindler, & O'Neil, 2006; Rosenthal et al., 2010).

2.5 THE “PASO DEL NORTE CHW/PROMOTORA WORKFORCE COALLITION”

HEART - coordinated and sponsored - May 26th strategy for CHW workforce development

The Health Education Awareness Research Team (HEART) project is a National Institutes of Health (NIH) funded public health initiative to prevent Cardiovascular Disease (CVD) among underserved populations in El Paso, Texas. The research team promotes both healthy lifestyles (implementing fitness programs and nutritional classes) and positive environmental changes that can reduce CVD risk factors in the community and, at the same time, provide culturally competent health education. The HEART project has a policy aim that seeks strategies to sustain the positive impacts of the project on the health of the community in the Lower Valley of El Paso, Texas (mainly composed of Hispanics). The public health interventions are delivered by a group of CHWs.

Sustaining the effects of the HEART project actions in the community depends a great deal on the CHWs' efforts to clearly understand the needs and motivations of the communities facing health problems. The CHW local labor force is, as in many states of the nation, fragmented and not well understood. HEART project members helped create a working group for CHW workforce development strategic planning.

Monthly meetings with key stakeholders, decision makers, and CHW labor force representatives were scheduled in preparation for a strategic planning event in El Paso, Texas. Input from working group members was gathered during meetings and new emerging insights were included in the CHW workforce development monthly meeting agenda.

The working group for the CHW workforce development prepared a strategic planning event to join local, state and national expertise on CHWs workforce issues. The working group was composed of representatives from various local agencies, projects, and institutions:

Community Health Workers local networks; the HEART Project of The University of Texas at El Paso and The University of Texas, Houston, School of Public Health El Paso Regional Campus; El Paso Community College; Texas Department of State Health Services; Texas Health and Human Services Commission Office of Border Affairs; and the Upper Rio Grande Workforce Development Board, among others. The purpose of the working group members was to create a five-year strategic plan for the local CHW workforce development.

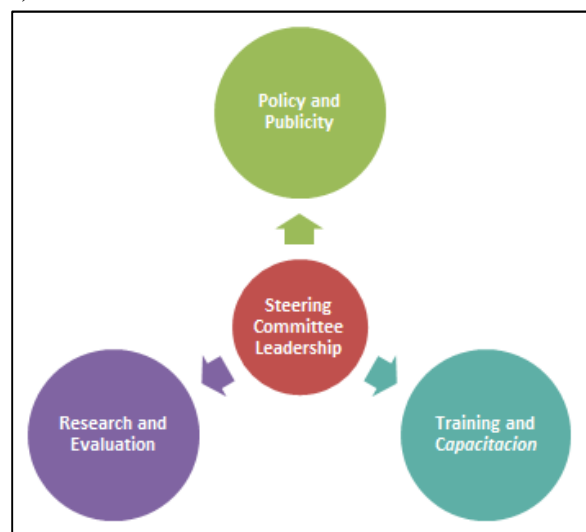
The CHW workforce development strategic planning event was scheduled on May 26, 2011. During the strategic planning event, national, state and local experts on issues concerning the CHW workforce shared their insights to generate an ad hoc vision for workforce development and action strategies for a five-year plan to promote CHW career advancement and workforce development. Over 50 participants including CHWs, students, researchers, educators, employers, and representatives from key local agencies met to share their thoughts and experiences regarding the CHW workforce. The main focus for the meeting was to target actions that will help promote integration and expansion of the CHW workforce.

Based on the participants' language preferences, the group was divided into four subgroups. Opinions and knowledge of the participants were registered by applying an Institute of Cultural Affairs (ICA) facilitation process (see Appendix A). More information and resources for facilitation strategies can be found at the Institute of Cultural Affairs' website (<http://www.ica-usa.org/>). The process of discussion involved the active participation of participants in two focus workshops. During the first workshop, participants were asked to visualize the CHW workforce status five years ahead of the date. They were specifically asked to think of the accomplishments that would have positioned the CHW workforce toward a more integrated workforce in El Paso, Texas. By consensus, the results of this first workshop are the

proposed actions to integrate and expand the workforce (see Appendix B). There was also another workshop, called the “Obstacles Workshop,” where participants identified the obstacles that could prevent achievement of the vision for CHW workforce development. The results (see Appendix C) were of vital importance to continuing with the SMART action brainstorming activity. SMART actions meant for participants to identify actions that were Specific, Measurable, Attainable, Realistic/Relevant, and Time bound. This final activity resulted in the creation of a table outlining SMART actions to address the obstacles and move forward to achieving the vision(see Appendix D).

From the data gathered during the May 26th event (see Appendix D), categories were generated to assign roles and comply with the proposed actions. Three working groups were generated (see Figure 2). Participants at the meeting of June 24, 2011, were included as leaders within the working groups. That same day, the team agreed on a name, “Paso del Norte CHW/Promotora Workforce Coalition,” and its meetings will continue. The diagram below shows the results of multidisciplinary efforts of the Paso del Norte CHW/Promotora Workforce Coalition in El Paso, Texas.

Figure 2.Strategic Directions Working Groups.Paso del Norte CHW/Promotora WorkforceCoalition (2011).



The scheme shown in Figure 2 served as a reference for generating the domains of a survey instrument that was used for the present study on CHW workforce development (see Appendix E). This instrument was applied to employers in the health care industry. The opinions, attitudes, and beliefs of employers will serve as a guide to address the expectations of the Coalition in achieving actions, objectives, and goals to improve the recognition, integration, and expansion of the CHWs workforce.

2.6 THE US HEALTH CARE REFORM SHAPING THE NEED FOR ADJUSTING AND ADVANCING THE HEALTH CARE WORKFORCE

On March 23, 2010, the new law on health care which proposes a reform in the health care services was approved. This law initiated a wave of federal funding and policy changes that will extend health insurance coverage to 32 million Americans beginning in 2014 (ACA, 2010).

Various provisions in relation to the health care workforce are intended to provide support for having a more extensive, diverse, and trained workforce. A workforce that is dedicated to providing competent services meeting the demands of citizens. The new law does not detail the impact that its provisions will have on the workforce. Several studies have predicted the possible effects of this health care reform on the workforce within regions (Kaiser Family Foundation, 2011; Michigan center for health professions; AAMC, 2010). The following provisions are relevant to the present study which focuses on the development of the CHWs workforce. Provisions of the law directly or indirectly affect the workforce.

Title V of the ACA (2010) indicates new needs and challenges for an expanded health care workforce. The health care system is giving priority to serving minority populations, the uninsured, and those facing financial and/or geographic difficulties. The law makes resources available for the expansion and development of the health care workforce and emphasizes the

importance of a multidisciplinary approach to delivering health services (ACA, 2010, sec. 5102). As the number of insured people increases, the demand for health care will increase as well. The supply of health care providers in general will be too low to handle the growth. Effective strategies for the recruitment and retention of health care providers are necessary; such strategies can be better pay for workers, incentives, greater acceptance of students into health careers, and improved the possibilities for internships (Iglehart, 2009; Tobler, 2010; Mahoney, Nuttbrock, & Pittman, 2010).

The Patient Protection and Affordable Care Act will give preventive health services for free to all Americans. This national prevention/wellness strategy has an effect on the demand for health care professionals, specifically those engaged in primary health care. It is expected that recognized professionals, that work in underserved and disadvantaged communities, including CHWs, are supported with incentives for integration into the system and future advancement. Available funding for Community Health Centers will increase the demand for health care providers dedicated to working in underserved areas (rural). ACA (2010) primary care-related provisions indicate that the states will provide home and community care for individuals; the type of disciplinary mix required in these establishments (Community Health Centers and other settings) will create job opportunities for CHWs.

The law makes incentives available to promote the expansion of the health care workforce and supports mainly workers who choose to focus on priority areas such as rural and disadvantaged communities (ACA, 2010, secs. 3510, 5205, 5302, 5313, 5507). Financial resources are being directed to agencies like the Department of Labor to train workers who have little training or who do not require high-level training in health care. Entry-level CHWs can benefit from such educational programs to improve their service capacity.

For planning, designing, and monitoring a national health care workforce scheme, one of the most important aspects of the new law was the creation of the National Workforce Commission (Commission). This Commission was formed on September 30, 2010, and represents the infrastructure required for analysis of the national labor force (ACA, 2010, sec. 5101). Among the assignments of the Commission are collecting and analyzing data on the labor force (supply-demand data projections, supply and distribution, demographics, skill sets, etc.), establishing action plans, and making recommendations to federal agencies to set priorities, goals, and policies related to the health care workforce. This governmental agency will evaluate the implementation of the grants that are available to states for workforce development under The State Health Care Workforce Development Grant Program. The Commission will support, disseminate, and communicate information on effective career pathways and important policies that impact retention, education, recruitment, and training for the health care workforce.

Data will be obtained through the Commission's work: capacity for workforce education and training; number of students graduated from certification, training, and apprenticeship programs; number of trainers; education and training demands. Emergence of a more centralized record of the factors and measures of the health care workforce is anticipated. Collaborations among agencies also promoted by the Commission, will lead to multisectoral and multidisciplinary decisions and views essential to efficiently serve the diverse current and future population. One of the priority areas established within the health care reform is planning a diverse workforce. The ACA (2010) specifically recognizes Community Health Workers as members of the health care workforce and addresses the workers' needs for training (Rosenthal et al, 2010).

Although some of the provisions of this new law were already authorized, the majority of provisions that have financial resources available for workforce development depend on appropriations. The allocation of financial resources to specific programs depends on a prompt response of the institutions applying for funds or resources, adequate planning of programs to improve the quality of services, and adherence to the intentions of the health care reform. Also, changes can still occur in this new law. Although the health care reform frames the legal context of the labor force by directly affecting the performance of CHWs, the law should not be considered as the only strategy for CHWs advancement. Providing support to the CHW workforce is essential for building a solid network of health professionals (as they are recognized in Title V of the new law) that play a multidisciplinary role in agreement with the health care reform intentions.

2.7 THE WORKFORCE SYSTEM AND WORKFORCE STUDIES

The workforce system

The US workforce is supported by a system of agencies at the federal, state, and local levels (Public Workforce System) that connects employers, educators, and community leaders. The purpose of this workforce support network is to help in the development and growth of the economy. The Public Workforce System connects firms and agencies with workers that can meet their needs (DOL, the public workforce system, 2011). Through the financial support that the 1998 Workforce Investment Act provides to the U.S. states, Workforce Investment Boards create strategic plans to focus resources on priority areas for investment. Also, the local Workforce Investment Board, according to regional economic needs, are interested in contacting local businesses to establish collective workforce needs, growth opportunities, and collaboration strategies (DOL, the public workforce system, 2011).

The workforce support network in the state of Texas is composed of 28 Workforce Development Boards serving nearly 450,000 employers and nearly 12 million workers throughout the state. The Texas workforce system is composed of the Texas workforce commission (state government agency), the boards, additional workforce partners such as community colleges, independent school districts, and other agencies related to economic development and growth. The Upper Rio Grande Development Board number 10 serves the following counties Brewster, Culberson, El Paso, Hudspeth, Jeff Davis, and Presidio (State of Texas, 2005). In El Paso, Texas, Workforce Solutions Upper Rio Grande, whose website is constantly updated (urgjobs.com), represents one of the 280 Workforce solutions offices in Texas that provide services to local employers and job seekers and vital workforce development tools that help workers find and keep good jobs. The offices also help employers hire the skilled workers they need to grow their businesses.

Workforce study

A workforce study is important to meet the diverse needs of populations and promote a regulated and competitive market. An infrastructure for having data about state, local and regional workforce needs (i.e., identifying areas that lack professionals) is required to find and generate strategies for advancing the workforce (i.e., aligning career pathways in health care with the specific contexts of communities). At the national, state, and local level, supported by the US workforce system and the Department of Labor, an infrastructure generates data about the workforce. The data are primarily provided by the US Bureau of Labor Statistics. Workforce analyses are based on economic indicators that describe employment projections and the challenges and needs of the workforce. The following indicators are used to characterize the US workforce: inflation and prices, employment, unemployment, pay and benefits, spending and

time use, productivity, workplace injuries, international comparisons and indexes, and industry and occupation projections (BLS, 2011).

A workforce study should include national, state, and local factors that provide context to labor market dynamics. Every profession faces its own challenges, and a workforce study may start by providing a detailed profile of the profession under study. Workforce studies are largely fed by data such as labor force size and features, the infrastructure for education and training (as well as the characteristics of training programs), an inventory of employers, evidence about the effective service of professionals, and information about future labor trends. In addition to providing statistical data, a workforce study considers the actors who make decisions and influence the workforce. The expectations and opinions of these actors are important for generating more suitable strategies for a more competent and integrated workforce (Family Strengthening Policy Center, 2006).

Employers

In Texas, potential employers for CHWs include non-profit organizations, clinics and hospitals around the state, Federally Qualified Health Centers (FQHC), private clinics/businesses, federal government (excluding postal services), and state government. In El Paso, Texas employers can include non-profit organizations, college or universities, clinics and hospitals along the border region (including FQHC), and private clinics/businesses. Health care providers from hospitals and clinics, college and university investigators, and every manager of a program (that is focused on the delivery of care to communities which experience health disparities) may be interested in employing CHWs (HRSA, 2007). According to the CHW-WFS (HRSA, 2007) the industries most likely to employ CHWs were individual and family services,

social advocacy organizations, outpatient care centers, education programs, ambulatory health care services, and offices of physicians.

CHWs can be successfully included as a cost effective element in programs aimed at the following:

- Organizing communities
- Developing comprehensive health action plans
- Addressing health disparities by using one-to-one outreach
- Gaining access to hard-to-reach populations
- Coaching clients in culturally appropriate terms and induce behavioral changes
- Improving communication with clients
- Developing trusting and caring relationships
- Addressing certain client needs such as adapting health regimens to family and community dynamics

HSR 9/10 Certified CHWs listed a total of 30 employer agencies (January 2011). Fifty-seven certified CHWs out of 99 were employed; this represents 58% of the certified labor force in service region 9/10 (El Paso, Brewster, Hudspeth, Culberson, Jeff Davis, and Presidio counties) (TDSHS, 2011).

Trainers

As for January 6, 2011, El Paso, Texas, had seven certified institutions for CHWs. Also, EPCC was the single institution approved by the Texas Department of State Health Services (DSHS) to deliver education for CHWs. In 2010 in El Paso, Texas, 98 CHWs had certification, and 33 CHWs graduated from a DSHS-certified community health worker certification training program. Updated in April 2011, the list from the DSHS of the approved training programs and

sponsoring organizations for CHWs included El Paso Community College (EPCC), Texas A&M Colonias Program, and The University of Texas School of Public Health Regional Campus. (TDSHS, 2011). There are options for distance learning certification courses, distance learning/online continuing education, and other training opportunities/workshops. It is recommended the creation of CHW training centers, on-the-job training, and standard training curriculum for CHWs and CHW supervisors (CHW-NEC, 2011).

2.8 IDENTIFIED CHALLENGES AND OPPORTUNITIES FOR CHW WORKFORCE DEVELOPMENT

Workforce development includes all those strategies in projects, programs, initiatives or partnerships aimed at improving the workforce to expand and support it. The existing models for workforce development integrate work in the following areas: collaborations among the government, education, labor, and firms; improvement of the employment system; and infrastructure for professional training (The Workforce Development Forums, 1993).

In order to develop a workforce, the social, economic, and legal factors that impact the success of programs have to be taken into account. A clear definition of the profession or occupation is needed for promoting labor force development. Workforce development specialists need to know the workforce needs of knowledge and skills. Finally, strategies to deliver the required education to individuals and contribute to the workforce development need to be generated. The health care industry is changing from a system organized, planned, and developed by educational institutions and health professionals to a system focused on workforce needs demanded by a changing population (size, diversity, and problems they face). Constant and rapid demographic changes have exceeded the capacity of health systems to conduct market transitions towards a balance of supply and demand for services. Investment in a well trained workforce is essential for workforce development.

There are already demands for health care labor that exceed the current worker supply. As mentioned, the ACA (2010) add new challenges and more health care workers will be required to cover the services demanded by the community that accesses the health care coverage/insurance system.

Most of the studies and collaborative efforts for health care workforce development suggest a need for an inventory of workers in specific health professions (employed, unemployed, or seeking work). It is also necessary to analyze changes in the demand for services and how these changes impact the workforce. Developers must identify education and training requirements of health professions, address these educational needs from governmental leadership (federal, state, and local), and use available technology (distance learning) for the efficient training of professionals (Pew Health Professions Commission, 1995; Love, Legion, Shim, Tsai, Quijano, & Davis, 2004).

Identified challenges and opportunities for CHW workforce development

Challenges

There is no national report on the occupation represented by the CHWs. Recently, with the approval of an occupational definition for CHWs (DOL, 2010) and its inclusion in the national surveys to count the labor force (Current Population Survey), a national report on CHWs will eventually become available to the public. However, data and analyses of these surveys will not be available within one year or even longer. The data that exist about the regional CHW workforce profile represent only approximations and not statistical evidence (HRSA, 2007). There are not enough programs or projects that generate the labor market information at regional levels for CHWs (picture of unemployed, supply/demand projections, etc.). Short term and long term information is required to generate a profile of the CHW workforce and invest in its

advancement. The short-term funding and dependence of agencies on multiple funding sources result in low pay to CHWs. It is necessary to further evaluate the CHWs practices using rigorous scientific research designs. The lack of such studies prevents recognition of and therefore a lack of integration of CHWs in the workforce (Balcazar et al., 2011; Witmer, 1995).

Among health professionals, there are divided opinions about the legitimacy of the CHWs. Other professionals notice the variability of features of CHWs which can be: certified, not certified, volunteer, and not volunteer. A lack of unity among CHWs, a lack of professional guidelines (defined body of knowledge, ethical body, etc.), and driving forces that make supervisors assign multiple functions to CHWs all affect the position of CHWs within the health care system. CHWs have not been integrated as a permanent element in the continuum of preventive health care services. They often complement the functions of other health care practitioners (Balcazar et al., 2011; Rosenthal, 2003).

New economic policies can mitigate the reliance of the health system on physicians. The inclusion of CHWs in the professional path of health care services is a relief to the high demands of highly trained professionals (physicians and nurses). CHWs trained in a more generic way are more adaptable and prepared for clinical innovations and changes in practice patterns.

Opportunities

The competencies of CHWs, promoted by the certification program in the state of Texas (implementation in 1999 to date), demarcate the CHWs scope of work and reflect a professional development process for CHWs (TDSHS, 2011a). Ballester (2005) propose that CHWs career advancement can be promoted by the generation of on-the-job training and continuing education opportunities for CHWs. CHWs quality of service can be enhanced through career advancement strategies' implementation. On July 7, 2010, the Department of Labor approved Community

Health Workers as a registered “apprenticeable occupation.” Registered Apprenticeship (RA) is a successful model for competency-based training for occupations. RA address recruitment and retention issues related to workforce development since it is intended to train the workforce (OA, 2010).

According to economists, the best and least expensive strategy for CHW workforce development is to identify information that will help researchers and stakeholders match workers and firms. Billions of dollars are being invested in training and retraining of US workers every year (private or governmental), but it is wasteful to invest blindly. The suggested work process schedule of the CHW apprenticeable occupation (OA, 2010) and the employers’ insights on the regional strategic planning for CHW workforce development can help shape action steps for CHWs success.

CHAPTER 3: Methods

In this chapter the methods and procedures used in the present study are described. Participants selected based on inclusion and exclusion criteria and the process for participants' recruitment are included. Data were collected by administering questionnaires via telephone; employers were queried about their perceptions about the CHW workforce development. Every employer has specific needs, opinions, and experiences about the following CHW workforce development imperatives: 1) recognition, recruitment, job generation, and retention practices for CHWs, 2) training, needs for CHWs' attributes, and evaluation of CHWs, and 3) opportunities to participate and collaborate with regional and state agencies to promote political changes to favor the CHW workforce. This present study elicited health care industry employers', located in El Paso, Texas, perceptions, about CHW workforce development issues to ultimately find the collaborative options that exist between employers and other regional agencies for advancing the CHW workforce.

3.1 STUDY DESIGN

This study employed a quantitative non-experimental (descriptive) method that followed a cross-sectional survey design to obtain data. The investigation of the opinions, attitudes, and knowledge of health industry employers located in El Paso, Texas was completed by administering telephone questionnaires. The purpose of administering telephone questionnaires was to identify the employers' opinions about the variables that impact the regional CHW workforce development. Exploring and understanding employers' needs and expectations about the CHW workforce help generate a perspective for the CHW workforce development that is focused on the demand for CHW services. Workforce development agencies, CHWs networks, and the health care industry, which have knowledge and skills in economic and labor development, can verify the present workforce study and develop collaborative efforts to

strategically plan the CHW workforce development. The needs of health care agencies for a specific health workforce in the region reflect the population's needs for health-related services. This study also intended to elucidate the opportunities that the Coalition, identified during a follow-up meeting of the May 26, 2011 CHW workforce development event in El Paso, Texas, has for integrating the leadership represented by the health sector (employers).

3.2 SAMPLE SIZE

The population sample of this study is represented only by employers in the health care industry located in El Paso, Texas. Employers that are within the industry cluster "Health Care and Social Assistance" under the North American Industry Classification System (NAICS), which is the national standard for classification of industries, were selected and included in the study. The databases containing contact information of employers were largely obtained from the website of the Texas Workforce Commission (TWC) (<http://www.twc.state.tx.us/>). The areas of employment agencies within the cluster "Health Care and Social Assistance" include ambulatory health care services, hospitals, nursing and residential care facilities, and social assistance. A total number of 1170 employers were initially identified in El Paso, Texas in the health care industry sector. After limiting the study to only employer sizes of 20-1000 or more employees, 251 employers were included on the final list for participation in the proposed study. A list of the 251 potential participants was randomized. Previous to participants' recruitment, specifically while verifying respondents, 99 employers were lost. For instance, some agencies could not be located because their contact information, obtained from free databases (Texas Workforce Commission), was inaccurate; also, some listed agencies had no primary contact person and pre-notification letters could not be sent (personalized). A final list of 152 potential participants was left.

It was expected that, from the list of 152 employers, some employers would not answer the telephone, decline to participate, and/or did not complete the telephone questionnaire during the initial calling timeframe. In order to complete as many questionnaires as possible within the one month of surveying timeframe, a total 152 employers were contacted and surveyed. A sample size of 67 was required to have a 95% confidence level with a +/- 9% margin error (a margin error of 9% is adequate/acceptable for making inferences of workforce variables in studies in which executives/employers are the population sample [Buerhaus, et al., 2007]).

Recruitment process

From the Texas Workforce Commission website (www.twc.state.tx.us), mail addresses and telephone numbers of the employers were obtained. A week before conducting the telephone questionnaires, employers received, by mail, an invitation letter which had the following features: the UTEP-College of Health Sciences/Department of Public Health Sciences letterhead sent on behalf of the “Paso del Norte CHW/Promotora Workforce Coalition” (see Appendix G), the study’s rationale, a CHW workforce definition, the agencies supporting the study, the dates and times set to conduct the telephone surveys, and the principal investigator’s name, telephone number and email address for any questions that employers may have regarding the study. During that week, employers sending a telephone and/or email notification indicating that they did not desire to participate in the study were excluded from the study.

After a week of sending the invitational mails to employers, the principal investigator contacted every agency from the list by telephone in an attempt to interview employers. When directly talking to employers from the list, the principal investigator either scheduled a date and time to call back or read the script that introduced the study and asked for employers’ consent to participate in the study (see Appendix F). Employers who agreed to both participate in the study

and answer the telephone survey were asked for preferred dates and times (and contact information) that were within the study's telephone surveying timeframe. Some participants were ready to respond to the questionnaire at the time of the first call, others scheduled another date and time for a call back interview. Call scheduling was not a guarantee of employers' participation in the study.

3.3 INSTRUMENT AND MEASURES

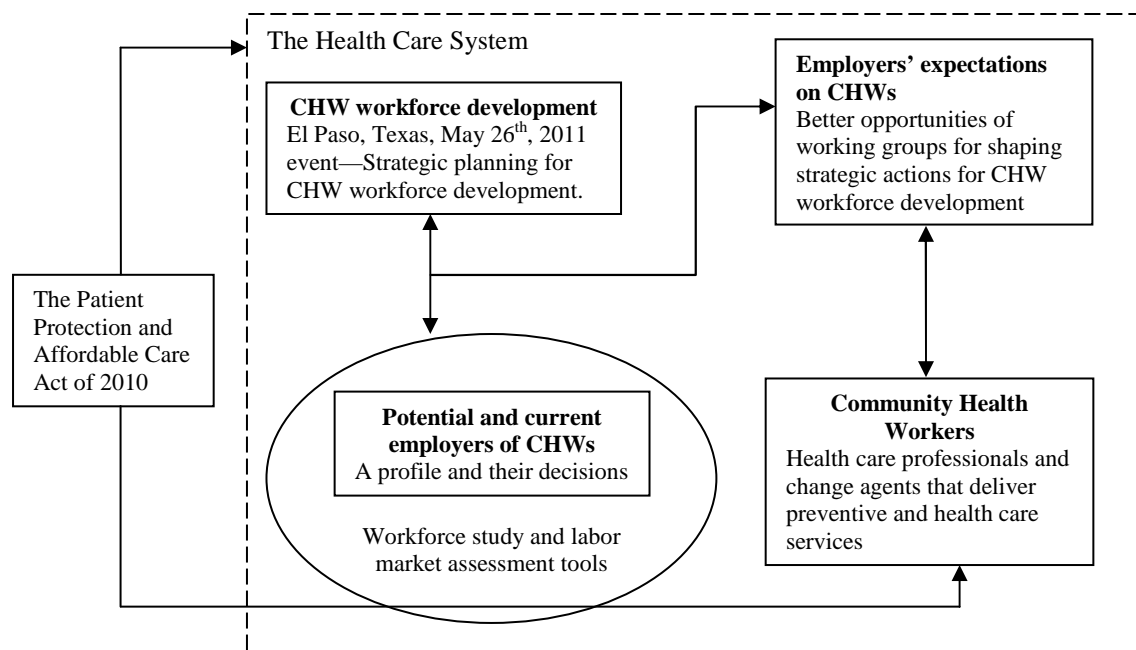
To obtain data on CHW workforce development, a questionnaire was administered by telephone to employers. The survey instrument was developed from a literary framework (see Figure 3) that situates employers' potential participation in the local efforts for CHW workforce development. The employers' input is considered important because employers' leadership can potentially influence labor market changes needed for a better balance between employee and employer. Some of the questions in the questionnaire were adapted from previous studies on CHWs like the CHW-WFS (HRSA, 2007). The questions focused on exploring the opportunities that employers perceived in order to participate within three domains of CHW workforce development (May 23, 2011). These domains or dimensions of the survey represent the names of working groups that will assume the responsibility to follow strategic directions for advancing the CHW workforce (see Figure 2).

The unit of analysis was the employer. Industry classification (NAICS codes 6211-6223, 6231-6233, 6239, and 6241-6244), employer size (small, medium, or large), employer experience working with CHWs, and employers' interest in CHWs were also explored. Previous studies about the CHW workforce (CHW-WFS) included samples of verified CHW employers (excluding those employers who have no previous hands-on experience with CHWs). Exploring "employer interest in CHWs" and "employer experience working with CHWs" would have been

essential to understand obstacles and opportunities for CHW workforce advancement, but the analysis of this variable in relation to the study's outcome variables was beyond the scope of this study. The collection of CHW workforce data from the health care industry, which is necessary to generate the profile for the demand of CHWs' services, was made regardless of whether or not the employer knew and/or had an interest in CHWs.

The study's survey had applicability to the extent that the CHWs' position within US health care system was clearly conveyed to employers. A definition of CHWs was provided to employers to position the roles of CHWs within the US health care system. Employers developed their opinions according to the key scenarios that would promote the CHW workforce advancement.

Figure 3. Study's framework.



To facilitate the study and minimize the ambiguity of data collection related to instrument characteristics (content), the thesis committee members reviewed the instrument's content.

Thesis committee members' careers and credentials give proof of their sustained commitment to the public health arena and/or the CHW and health care workforce field.

Measures

The three strategic areas for CHW workforce development are: 1) Policy and Publicity, 2) Training and *Capacitacion*, and 3) Research and Evaluation. These three sections represent the regional model for CHW workforce development.

Policy and Publicity

The variables measured were: 1) recognition and recruitment of CHWs, and 2) participatory and collaborative action to promote the CHW workforce. Marketing strategies that had worked to recruit CHWs or could help in the recruitment of such workforce were registered from the local employers' perspectives. Regarding the recognition of CHW, strategies to promote/advertise the CHW workforce were registered. It is also important to know what the employers' experiences about their involvement/participation in legislative decisions that may affect the CHW workforce. Based on these employers' experiences regarding participation, they were asked about the options/opportunities they foresaw or considered viable for the timely interaction with legislators in favor of a pool of CHWs. A list of activities for participation/collaboration with legislators for the CHWs advancement was provided to employers; employers had the opportunity to mention any recent collaborative events with various agencies (networks, institutions, and legislators) regarding CHW workforce development.

Training and *Capacitacion*

In this section, the following study variables were explored: 1) CHW job generation and retention, 2) most important CHWs attributes (skills and knowledge), and 3) CHW training. Factors that, according to employers, have the potential to generate employment for CHWs were registered; employers selected those factors from a list and had the opportunity to broaden their views by mentioning some other factors that promote employment for CHWs.

Also, the factors affecting the employer's ability to generate employment for CHWs were solicited; employers selected those factors from a list and were given an option to mention some other factors not included in the list. As for the variable “retention of CHWs”, employers focused on those actions that result in the promotion of internal and external mobility of CHWs; employers selected those actions from a list. Also, to analyze "retention of CHWs", employers selected from a list of factors that they believed hinder the retention of CHWs. According to their needs/demand for labor force, employers had the opportunity to profile the skills and knowledge of a CHW to ensure that when seeking work, the CHW can be trained in the areas most importantly qualified in accordance with the views of the local health care industry. This section in the survey may be designated as a study of the CHW job-readiness profile. For the variable "training", employers selected from a list of training options, the ones that they considered appropriate for a CHW so that CHW can obtain the necessary training; also employers' knowledge on the available training for CHWs in the region was assessed.

Research and Evaluation

In this section, the variable "evaluation" was studied. It was asked if employers had a strategy to evaluate the benefits that CHWs provide to their agencies. Employers proposed a strategy to assess the impact of CHWs in their agencies.

3.4 PROCEDURES

As mentioned by Fanning (2005), the Dillman's method is the quintessential guide, based on research principles, that considers the known factors on the design and implementation of surveys that affect the survey's response rate. Having the respondent as a priority allows that the survey's response rate be sufficient which determines the study's success. The following describes the process for the thesis methods' implementation to study the variables of a regional CHW workforce development model. Both processes for the survey's design and the participants' recruitment, as described above, as well as the protocol for conducting telephone surveys included recommendations for survey research (Center for Health Promotion, 1999) and a modified version of the Dillman's Total Design Survey Method.

Once the study was approved by The University of Texas at El Paso Institutional Review Board, a letter of invitation was sent by mail to agency's representatives/employers to inform them about the present study. Having prior authorization of both the HEART Project's team members and Coalition's members, the invitation letter with a UTEP-College of Health Sciences/Department of Public Health Sciences letterhead mentioned the importance of the study and included a message from the organizations participating in the Paso del Norte CHW/Promotora Workforce Coalition (see appendix G). In addition, the letter of invitation included the study's principal investigator contact information, a CHW workforce definition, and the dates and times set to conduct the telephone surveys. Telephone questionnaires were administered to employers after a week of sending the pre-notification mails to employers. During that week, employers sending a telephone and/or email notification indicating that they did not desire to participate in the study were excluded from the study.

Telephone questionnaires were administered to employers in a period of four weeks; the principal investigator (PI) was working on conducting the telephone interviews during weekdays from 9:00am to 5:00pm. The PI called each agency by telephone and when an employer was contacted, read the script that introduced the study and asked for employers' consent to participate in the study (see Appendix F); also, the incentives available for employers that answered the survey were mentioned (if employers completed the survey, they participated in two prize draws to win a gift card per draw, \$25 each).

Employers who gave verbal consent to participate in the study were asked either to answer the study questions at the moment or to indicate their preferred dates and times, which were within the study's telephone surveying timeframe. The PI proceeded to administering the telephone questionnaire to each employer as appropriate. Data analysis was facilitated by the use of *SPSS 19.0* software.

Participants in the study received a thank you letter either by mail or email and were informed about the incentives after completing the questionnaire and when time of surveys' administration was over. As indicated in the study's invitation mail, survey respondents will be informed of the study's findings.

3.5 APPROACHES TO ANALYSES

Health care industry employers were contacted from a list of 152 local agencies despite of their characteristics which include the following: employer industry classification, size (number of employees), working experience with CHWs, and willingness/interest in working with CHWs in the future. Different circumstances may shape the diverse employers' motivations to participate in CHW workforce development issues. Finding out employers' opinions and attitudes regarding CHW workforce development activities was the main purpose of the present

study. However, this study can also open discussion for future research to determine if there are significant differences or correlations between specific employer industry characteristics and their opinions on CHW workforce development.

The first step in the analysis of data was to classify participants by summarizing their characteristics using descriptive statistics. Descriptive statistics were also used to present the frequencies of the employers' selected items of the following variables: *CHWs recognition and recruitment, employers' participation and interaction with legislators and other stakeholders in the CHW field, CHWs job generation and retention* and *CHWs training*. Frequency tables were created to describe the findings on all these variables.

For the variable *CHWs' attributes (knowledge and skills) required by employers (CHW job-readiness profile)*, employers' rankings for each CHW's skills (CHWs core competencies) were analyzed using descriptive statistics to generate an overall CHW job-readiness profile. A chart was generated (Table 9); frequencies allowed identifying the ten most wanted CHW skills. The highest count per skill/item that was within the 1-very important and 2-important scale was considered for the CHW job-readiness profile (this means combining ordinal items into two categorical descriptors: 1-2 are included in the job-readiness profile, and 3-5 are considered secondary skills for CHWs job-readiness). Responses obtained from Likert scales were treated as ordinal variables for which analysis of frequencies is sufficient. In this study, response average per item/*Mean* was calculated by analyzing row response data as if every item represented a continuous variable.

The statements provided by employers as answer to the open questions about *CHWs recruitment* and *evaluation* were analyzed qualitatively; recurrent phrase segments, themes categories and their connections were identified and interpreted in relation to each variable.

CHAPTER 4: Results

4.1 HEALTH CARE INDUSTRY EMPLOYERS' GENERAL INFORMATION

Health care industry employers represent the unit of analysis in this study. A total of 152 employers were contacted to participate in the telephone survey during a one-month timeframe. Forty-four employers declined participation in the study leaving 78 employers available to be contacted. In all, 27 employers responded to the survey for a response rate of 17.8%.

The number of employers interested in working with CHWs were 20 (74.1%), and 7 (25.9%) employers were not interested in working with CHWs with 12 (44.4%) of the respondents having previous experience with CHWs. Fourteen (51.8%) respondents were classified within the health industry cluster “ambulatory health care services.” Other respondents fell within the following health industry clusters: 1 (3.7%) in managed care organizations, 2 (7.4%) in hospitals, 2 (7.4%) in nursing and residential care facilities, and 8 (29.6%) in social assistance.

Regarding employer size, 15 (55.5%) employers were within the *small* employer size which constitutes a workforce of between 20 to 50 employees; 7 (25.9%) employers were in the *medium* category with 51 to 250 employees. Finally, 5 (18.5%) were classified as *large* employers with over 250 employees. Table 2 shows the results of employers' characteristics and the characteristics according to employers' interest in CHWs.

Table 2. Frequency Distribution of Participant Characteristics * Interest in Working with CHWs Crosstabulation

Characteristic	n (%)	Interested in CHWs (%)	Not interested in CHWs (%)
<i>Health care industry classification</i>			
Managed care organization	1 (3.7)	1 (3.7)	0 (0)
Ambulatory health care services	14 (51.9)	9 (33.3)	5 (18.5)
Hospitals	2 (7.4)	1 (3.7)	1 (3.7)
Nursing and residential care facilities	2 (7.4)	2 (7.4)	0 (0)
Social assistance	8 (29.6)	7 (25.9)	1 (3.7)
<i>Employer size</i>			
Small (≤ 50)	15 (55.6)	11 (40.7)	4 (14.8)
Medium ($51 \leq 250$)	7 (25.9)	6 (22.2)	1 (3.7)
Large (over 250)	5 (18.5)	3 (11.1)	2 (7.4)
<i>Working experience with CHWs</i>			
I had worked with CHWs	12 (44.4)	12 (44.4)	0 (0)
I had not worked with CHWs	15 (55.6)	8 (29.6)	7 (25.9)

4.2 CHW WORKFORCE IMPERATIVES ANALYSIS

Promotion and recruitment. To address the question, *What are the most important marketing strategies that health care industry employers could use to recruit and promote CHWs?*, employers selected from a list of marketing/promotional strategies. Twenty-seven employers responded to this question and identified the most relevant options they considered effective for the promotion and recruitment of CHWs. Eighteen (66.7%) selected *advertising*; 12 (44.4%) *employment agencies*; 24 (88.9%) *networking/word-of-mouth*; 18 (66.7%) *school/university employment center*; 4 (14.8%) *professional unions*; 22 (81.5%) *referrals*; and 7 (25.9%) indicated another promotional/recruitment strategy under the option *other*. According to the employers' responses, networking/word-of-mouth, referrals from, and advertising are the most relevant potential ways for recruiting CHWs.

Based on the answers gathered from the open ended question about promoting the CHWs services, the most important strategies for the promotion/recruitment of CHWs were reported as : using online job postings (career building), partnering with institutions (talk to CHWs' supervisors at El Paso Community College (EPCC) and access their CHW pool),connecting with agencies that know CHWs (some employers can offer internships), and accessing CHW email lists through the internet (employers email them if they need them). Also, an employer mentioned "a satisfied client would promote CHW services as well." The number of employers' selections for promotional/marketing strategies is shown Table 3.

Table 3.Actions to Recruit and Promote CHWs

Which of the following options can help you to know/recruit CHWs?	Frequency ^a	Percent of responses	Percent of cases (n = 27)
Networking/word-of-mouth	24	24.5	88.9
Referrals from	22	22.4	81.5
Advertising	18	18.4	66.7
School/university employment center	18	18.4	66.7
Employment agencies	12	12.2	44.4
Checked professional unions	4	4.1	14.8
Total	98	100	100

^aThe number of total selections exceeds the total number of employers (cases) answering these questions since each employer may have selected one or more promotional strategies.

Employers answered an open ended question about the actions that could be taken to effectively promote CHW services to diverse populations in the region. The suggestions that employers gave based on what media strategies have been effective in the past are presented in Table 4.

Table 4. Promotional/marketing Strategies for CHWs

Type of promotional strategy ^a	Activities
Internet marketing: online marketing techniques.	<ul style="list-style-type: none">• Post CHWs' descriptions in free listings• Use social media such as Facebook and Twitter
Advertising: any communication using mass media.	<ul style="list-style-type: none">• Distribute flyers• Marketing campaign: launch a community education program about CHWs• Transmit information through the television (commercials), radio, public service announcements, and newspapers
Public relations: special events, community relations, media relations, and fundraising, among others.	<ul style="list-style-type: none">• Networking with regional institutions (universities, colleges), workforce development boards, and governmental programs• Health fair: educate/bring awareness to the community on CHWs' roles• Forums: present CHWs' services to very specific groups giving importance to the potential benefits that CHWs can give to those groups• Connect CHWs with agencies by promoting the generation of internships• Attend executive meetings in clinics, hospitals, and share about CHWs so that employers can know them

^a Promotion strategies. (n.d.). Retrieved April 29, 2012, from Learn Marketing web site at <http://www.learnmarketing.net/promotion.htm>

Previous to communicating a promotional message about CHWs to the public, employers suggested to conduct a needs assessment to identify the population sectors that may benefit by the use of CHWs. In order to create a significant message about CHWs for the public, employers stated the need to motivate multi-agency collaboration to model a program that demonstrates CHW cost and outcome effectiveness. Conducting research on national CHW promotional strategies was recommended. Employers mentioned that one of the capabilities of a CHW is one-to-one communication; training CHWs in persuasion would prepare them to effectively share

information with the community about both the programs in which they work and the activities they conduct.

Participation/interaction with agencies (institutions, networks, legislators).

Regarding the question, *What are the most reported health care industry employers' opportunities to interact with legislators and other stakeholders to favor the CHW workforce?*, a total of 25 employers responded. This number represents the 92.5% of total respondents. Employers selected from a list of the key actions and strategies that would facilitate collaboration with legislators. A total of 21 (84%) employers selected *attend annual meetings where legislators discuss the local health care workforce* as one of the preferred options to participate and interact with stakeholders to support the advancement of CHWs; 19 (76%) employers selected *sponsor projects aimed at delivering training on best-practices for multi-agency collaboration*, and 14 (56%) selected *generate a committee to analyze potential legislations that promote your health care workers pool*. In the option classified as *other*, employers described the following: send emails and letters to congress members or members of organizations to promote CHWs and health workers in general, conduct research and identify incentives available for CHWs to make their services reimbursable, and promote local collaborative.

Table 5. Key actions that can be taken to participate in legislative decisions to favor CHWs

Policy options to favor CHWs	Frequency ^a	Percent of responses	Percent of cases (n = 25)
Attend annual meetings where legislator discuss about local health care workforce	21	38.9	84.0
Sponsor projects aimed at delivering training on best-practices for multi-agency collaboration	19	35.2	76.0
Generate a committee to analyze potential legislations that promote your health care workers pool	14	25.9	56.0
Total	54	100	100

^aThe number of total selections exceeds the total number of employers (cases) answering these questions since each employer may have selected one or more promotional strategies.

Job generation and retention. Employers were queried about the actions that are within their reach and have the potential to promote employment for CHWs. Employers selected from a list of actions they deemed were viable for job generation. Of the 26 employers that answered this question, 14 (53.8%) reported that *applying for financial support* is an action that can create employment for CHWs; 8 (30.8%) said that *advancing the career of certain employees and filling the spaces left with new workers* (CHWs) is a possible action; 15 (57.7%) respondents agreed that *attending workforce development meetings* has the potential to generate jobs for CHWs; 15 (57.7%) indicated that, under the context of the health care services legal system, the *adoption of models to expand its programs in health promotion and disease prevention* is a viable way of generating jobs for CHWs; 15 (57.7%) indicated that *recognizing the importance of CHWs* is an action step (and probably the first step) that may lead to the generation of jobs for CHWs.

Table 6. Key actions that can be taken to create jobs for CHWs

Job generation strategies for CHWs	Frequency ^a	Percent of responses	Percent of cases (n = 26)
Attend workforce development meetings	15	22.4	57.7
Adopt models to expand your services in health promotion and disease prevention	15	22.4	57.7
Recognize the importance of CHWs	15	22.4	57.7
Apply for financial support	14	20.9	53.8
Advance the career of CHWs to free spaces for CHWs	8	11.9	30.8
Total	67	100	100

^aThe number of total selections exceeds the total number of employers (cases) answering these questions since each employer may have selected one or more promotional strategies.

The challenges that employers would face if they have decided to create jobs for CHWs were explored. Of the 24 employers who answered this question, 16 (66.7%) reported that *lack of financing* (such as federal incentives and no access to sources of capital [investment]) represents an obstacle to job generation for CHWs; 13 (54.2%) reported that *regulatory burdens* which are regulations that affect funding for agency expansion, taxes, paperwork requirements, and health insurance are significant challenges when considering job creation for CHWs; 8 (33.3%) employers believed that *lack of information technology* hinders their ability to create jobs for CHWs; 12 (50%) reported that *lack of public support programs* is a factor that prevents job generation for CHWs; and 13 (54.2%) think that *shortage or lack of skilled workers* would be the major cause for not attempting to create jobs for CHWs (employers believe that not having enough CHWs that are adequately and homogeneously trained, would be an impediment to consider creating jobs for CHWs).

Table 7. Challenges that may be faced in order to create jobs for CHWs

Examples of factors that hinder your capacity to create jobs for CHWs	Frequency ^a	Percent of responses	Percent of cases (n = 24)
Lack of financing	16	25.8	66.7
Regulatory burdens	13	21.0	54.2
Lack of information technology	8	12.9	33.3
Lack of public support programs	12	19.4	50.0
Shortage or lack of skilled workers	13	21.0	54.2
Total	62	100	100

^aThe number of total selections exceeds the total number of employers (cases) answering these questions since each employer may have selected one or more promotional strategies.

As for the variable, Retention of CHWs, employers indicated that *providing on-the-job training* and *supporting external training* are the actions that can be taken to promote internal mobility of CHWs. Internal mobility comprises the strategies that agencies can implement to retain employees, for example, advancing employees' careers by promoting them from lower positions to higher positions within the agency. Table 8 depicts the frequencies of each selected item that represents the options for promoting internal mobility of CHWs.

Table 8. Retention of CHWs through internal mobility

Options that promote CHWs' internal mobility	Frequency ^a	Percent of responses	Percent of cases (n = 25)
Provide on-the-job training	25	19.5	100.0
Support external training	20	15.6	80.0
Expand the responsibility of CHWs	18	14.1	72.0
Increase access to benefits for CHWs	18	14.1	72.0
Generate better payments for CHWs	17	13.3	68.0
Generate a variety of job titles for CHWs	16	12.5	64.0
Promote CHWs specialization according to the study area	14	10.9	56.0
Total	128	100	100

^aThe number of total selections exceeds the total number of employers (cases) answering these questions since each employer may have selected one or more promotional strategies.

The retention strategies reported by surveyed employers with regard to the actions that promote external mobility of CHWs are detailed in table 9. External mobility includes the strategies that agencies can implement to retain employees in the health care market by, for example, facilitating employees' career advancement outside the agency. The most popular employer selected option to retain CHWs when focusing on external mobility of CHWs was *train supervisors of CHWs so that CHWs are able to move between health careers*.

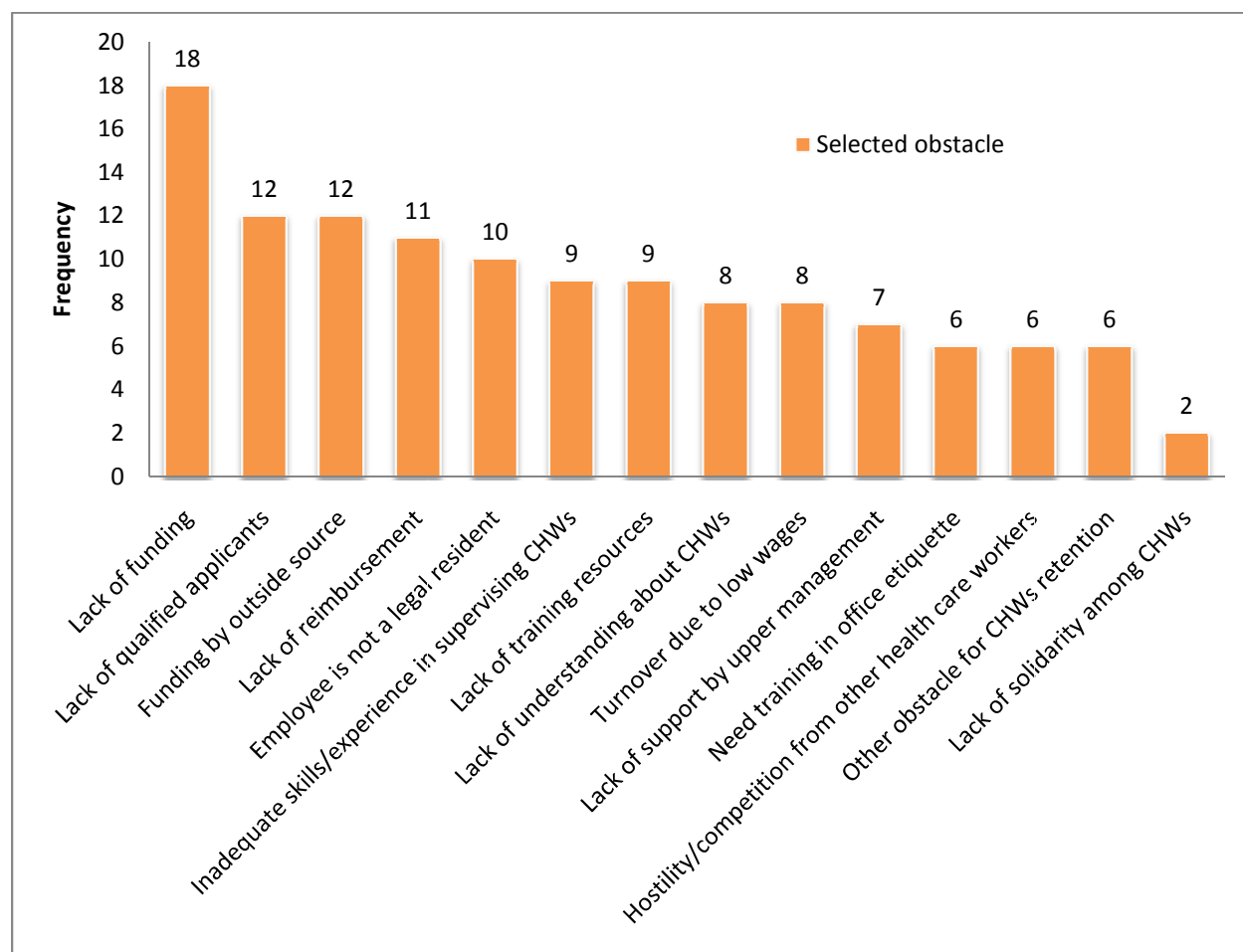
Table 9. Retention of CHWs through external mobility

Actions to promote CHWs' retention in the labor market	Frequency ^a	Percent of responses	Percent of cases (n = 24)
Train supervisors of CHWs so that CHWs are able to move between health careers	22	40.0	91.7
Expose other agencies' advertising when new CHWs positions open	20	36.4	83.3
Share your CHWs: partner with other organizations	13	23.6	54.2
Total	55	100	100

^aThe number of total selections exceeds the total number of employers (cases) answering these questions since each employer may have selected one or more promotional strategies.

Employers reported that a *lack of funding*, *lack of qualified applicants*, and *funding by outside source* are the three more important causes that can hinder the retention of CHWs in the agency. Figure 4 details the selected factors, and frequencies of those selections, that according to employers hinder CHWs retention.

Figure 4.Obstacles that prevent CHWs retention.



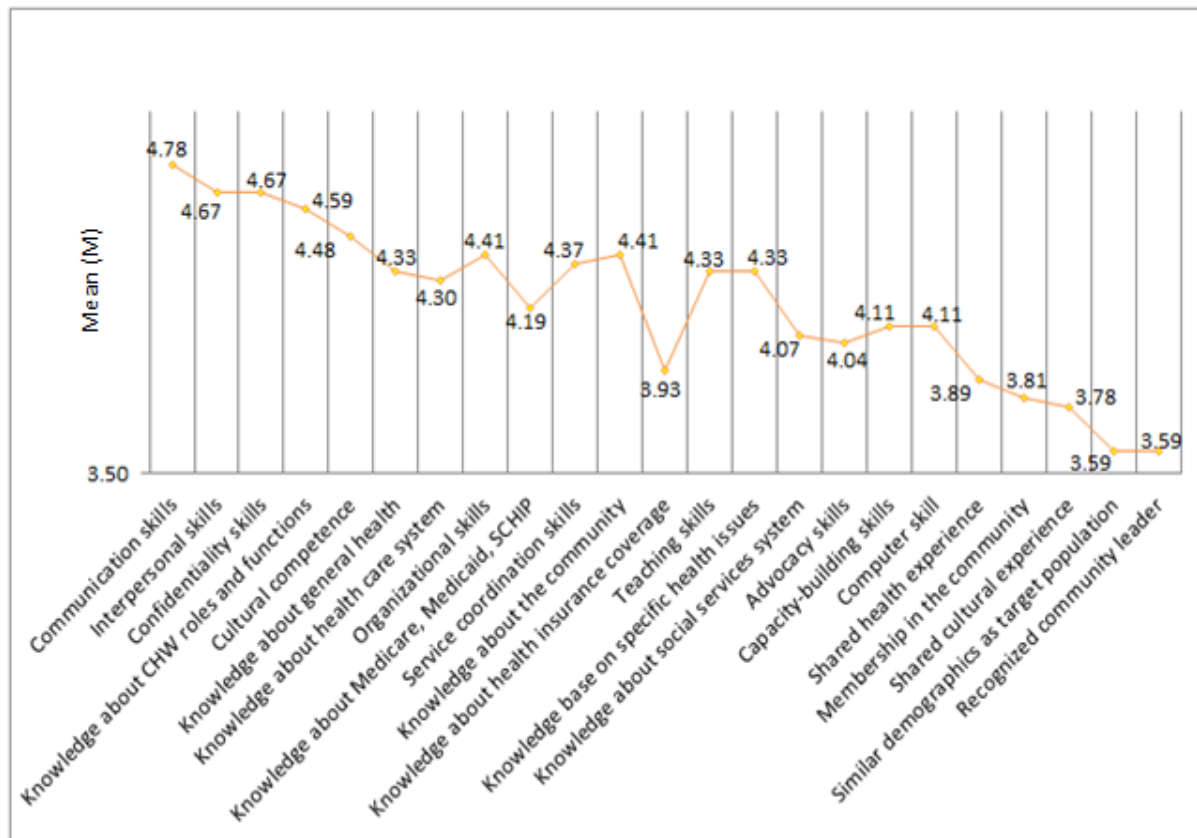
CHWs job-readiness profile. Employers were queried as to the most important CHW attributes (knowledge and skills) required. Employers ranked 23 CHWs' skills and knowledge attributes based on a 5-point Likert scale. The ten highest-rated CHWs' skills and knowledge (refer to Table 10) are communication skills, interpersonal skills, confidentiality skills, knowledge about CHW roles and functions, cultural competence, knowledge about general health, knowledge about the health care system, organizational skills, knowledge about Medicare (federally funded health insurance program for the elderly), Medicaid (medical and health-related services program for low-income families and people with disabilities funded by federal and state governments), and SCHIP (the State Children's Health Insurance Program

covers uninsured children, it is federally funded), and service coordination skills. The *Mean* denotes the importance of each CHW's attribute as rated by employers (see Figure 5). The *Mean* was calculated by analyzing employers' ratings to each CHW attribute based on a 5-point Likert scale. During survey administration, 1 = very important, 2 = important, 3 = neutral, 4 = not so important, and 5 = not important; during data entry, in order to facilitate data analysis, all given values for employers' responses were changed to 1 = not important... to 5 = very important (i.e. an employer that gave a 1 to communication skills was coded as a 5 during data entry).

Table 10. Frequency of employer ratings of CHWs' attributes according to their needs for CHWs skills

#	Skills	Very important	Important	Neutral	Not so important	Not important
1	Communication skills	21	6	0	0	0
2	Interpersonal skills	19	7	1	0	0
3	Confidentiality skills	19	7	1	0	0
4	Knowledge about CHW roles and functions	17	9	1	0	0
5	Cultural competence	15	10	2	0	0
6	Knowledge about general health	14	11	0	1	1
7	Knowledge about health care system	14	9	2	2	0
8	Organizational skills	14	11	1	1	0
9	Knowledge about Medicare, Medicaid, SCHIP	13	10	1	2	1
10	Service coordination skills	13	12	1	1	0
11	Knowledge about the community	12	14	1	0	0
12	Knowledge about health insurance coverage	12	6	5	3	1
13	Teaching skills	12	12	3	0	0
14	Knowledge base on specific health issues	12	13	1	1	0
15	Knowledge about social services system	11	10	4	1	1
16	Advocacy skills	10	10	5	2	0
17	Capacity-building skills	8	14	5	0	0
18	Computer skill	8	15	3	1	0
19	Shared health experience	8	11	5	3	0
20	Membership in the community	6	12	7	2	0
21	Shared cultural experience	6	12	6	3	0
22	Similar demographics as target population	6	10	7	2	2
23	Recognized community leader	4	12	7	4	0

Figure 5. Employers' needs for CHWs attributes.



Training options for CHWs. In addition, by asking an open ended question and a multiple choice question, employers were queried about their opinions on training options for CHWs. Answers for the open ended question assessed the knowledge of employers about existing local training options for CHWs as shown in Table 11. Employers indicated that CHW certification, GED/high school diploma, and vocational/technical training are options that are more appropriate for acquiring the skills they need (see Table 12).

Table 11. Knowledge on training options for CHWs

Item	n (%)
I know what are the training options for CHWs	13 (48.1)
I do not know any training option for CHWs	14 (51.9)

Table 12.Viable methods for CHWs to acquire skills

Items	Frequency ^a	Percent of responses	Percent of cases (n = 26)
CHW certification	23	25.0	88.5
GED/high school diploma	19	20.7	73.1
Vocational-technical training	17	18.5	65.4
College certificate training	12	13.0	46.2
College associate's degree	11	12.0	42.3
College bachelor's degree	10	10.9	38.5
Total	92	100	100

^aThe number of total selections exceeds the total number of employers (cases) answering these questions since each employer may have selected one or more promotional strategies.

Evaluation of CHWs performance. The most important strategies that the respondents reported regarding evaluating the potential impact of CHWs in their agencies was addressed. A total of 27 employers provided their input about the available options to evaluate CHW performance. Only 15 (55.6%) of respondents have or would have a strategy available to measure the benefits of hiring CHWs in their agency. Some believe that their employee evaluation process may apply to CHWs. The proposed strategies to evaluate the impact of CHW services in the agency are: *customer's satisfaction surveys* (administered to clients/patients/communities), *hiring practices* (interviews to new prospects, surveys to measure prospect's skills/competencies/knowledge) to bring only the most prepared professionals to accomplish agency's goals and objectives, and *customer's impact surveys* that measure customers' changes due to CHWs programs/interventions (pre- and post-tests, also exit surveys). Employers mentioned that multi-agency collaboration is important to generate the tools and standards to evaluate CHW effectiveness.

CHAPTER 5: Discussion

The Paso del Norte CHW/Promotora Workforce Coalition's purpose is to strategically plan the El Paso CHW workforce. The present study was aligned with this expressed purpose. The study's methods were framed by the Coalition's local model for the CHW workforce development. The theoretical framework of this study included the legal and political issues that potentially impact the CHW workforce development, not only in the nation but, at the state and local levels as well.

The CHW workforce development variables that were previously validated by local stakeholders are: promotion & recruitment, participation/interaction with legislators, job generation & retention, job-readiness profile, training options, and evaluation. These variables were studied to measure the potential employers' opinions about CHW workforce development. Information about the potential employers' perspectives on CHW workforce development can assist stakeholders to better understand the health industry's needs (demand for CHW workforce) and potentially the community's needs.

Locally, there are no data about the demand for the CHW workforce. Local stakeholders interested in the CHW workforce development can consider the health industry's opinions to advance this workforce. To meet the specific study's aims, 27 questionnaires were administered by telephone to health industry employers located in El Paso, Texas. Results of surveys reflected the employers' views of workforce development variables that impact CHWs. The interpretation of results and recommendations that include workforce development references applicable to the CHW field are provided.

Promotion/recognition and recruitment of CHWs

CHWs are recognized by federal agencies such as the Department of Labor, but locally, their integration is not optimal. CHW services can relieve the burden placed on the US health care system by delivering public health services focused on disease prevention and health promotion (ACA, 2010). This section provides information about the promotional/marketing strategies that can enable recognition and future inclusion of CHWs in the regional health industry.

Promotion and recruitment have financial implications for agencies. To address their need to recruit employees, employers market their agencies' services by implementing a suitable recruiting strategy that leads to reductions in time, costs, and turnover rates. Effective recruitment practices also consider employees' management to encourage retention (and avoid turnovers) (Paris & Hoge, 2010). Both employers and employees are interested in promotional activities: recruitment, and marketing strategies. There is no documented existence of CHWs shortages, thus, marketing strategies would depend mostly on understanding employers' needs for a CHWs' professional profile.

According to the results of the study, in order to recruit CHWs (if there would be an actual need), most employers would make use of referrals from both current employees and networks, as well as through advertising. As observed in the values reported in Table 2 of the study results, of the 12 (44.4%) respondents who had experience working with CHWs, 12 (44.4%) also had an interest in retaining and/or working with CHWs in the future. CHW experience working with employers could be considered an advantage to establish future collaborations with such employers; no statistics for crosstab analysis were calculated and statistical significance in this assumption cannot be assured. The integration of CHWs in these agencies can be facilitated by building strong linkages among CHWs networks and local

agencies' networks. Employers should first seek referrals from CHW networks (institutions such as colleges and universities employment centers). Advertising is also a means to reach CHW candidates for employment.

Some agencies without previous experience working with CHWs had been exposed to the roles of CHWs (including those initially exposed to a CHW definition at the beginning this study) and reported having an interest in this type of worker. Based on the employers' opinions, CHWs can market their services on the Internet by posting their emails (or other contact information) on free listings using social media such as Facebook and Twitter. CHWs can also connect with agencies through health fairs, forums, executive meetings, and through the use advertising. Advertising as a promotional strategy can include the following activities: distribution of flyers, transmittal of CHW information through the television, radio, public service announcements, and advertisements in newspapers.

Agencies that had no experience working with CHWs and no interest in CHWs stated that they need specific staff to deliver the specific services that the agency provides to clients. Also, there are requirements (license, registration, and certification) for the staff that are governed/regulated by federal (i.e. Medicaid, Medicare) and state codes (Departments in Texas, regulatory divisions) (personal communication, April 27, 2012). Although some agencies indicated the potential for expanding their services, others indicated that taking action to include CHW services is not in their future plans. More elaborate promotional measures might be designed to include the support of these agencies to favor CHWs.

Carter-Pokras, Jaschek, Martinez, Brown, Mora, Newton, and Luciani (2009) attempted to define best practices for CHW identification and recruitment. Interviews were administered to CHW program coordinators. Half of them used word-of-mouth to recruit CHWs. Some

organized presentations in the community and thus, attracted CHWs. Others distributed flyers in public places and advertised their programs/job positions on the radio. Also, online recruitment using listservs or Craigslist helped them in recruiting CHWs. These results are in accordance with the El Paso, Texas employers' recruitment practices. As potential recruiting strategies, local employers would use word-of-mouth/referrals from advertising, free online listings, and public presentations.

Job generation & retention of CHWs

Once an employer decides to create job positions for CHWs, recognizing the importance of CHWs, adopting models for expanding services to health promotion and disease prevention, attending workforce development meetings, and applying for financial opportunities, can help in achieving that goal. According to the results of the study, obstacles to creating jobs are: lack of funding, regulatory burdens, and lack/shortage of skilled workers. In order to create jobs for CHWs, local agencies need to be aware of the financial options that may be available to them, understand the laws relating to such financial options, and there have to be enough available workers whose skills fit the needs of the agencies. The financial support of CHW job generation have included the following: 1) at the federal level, agencies such as Health Resources and Services Administration, Centers for Disease Control and Prevention, National Institutes of Health, and Environmental Protection Agency, among others as well as legislation supporting public health programs such as the Health Center Consolidation Act/Public Health Service Act, and the Ryan White HIV/AIDS Treatment Extension Act, among others, 2) at the state level, state health departments and workforce commissions, and 3) at the local level, non-profit organizations and private businesses, among others (HRSA, 2007).

Job generation for CHWs is problematic. According to May and Contreras (2007) CHWs have been confined to serving underserved communities by agencies delivering a variety of health services. These agencies have created jobs for CHWs by both expanding their scope of services and relying on funding sources outside the community.

Stakeholders in the public health field need to take part in initiatives that access federal funding. Through the appropriation of federal funds directed towards designing and implementing public health programs, entry-level health workers, such as CHWs, can gain employment and training opportunities to better serve communities. Populations with extreme poverty and poor health can benefit from these initiatives. Local employers in the health industry have to be involved more often in these types of projects. At the end of each public health intervention, evidence-based reports indicating positive outcomes can support the implementation of programs aimed at CHW job generation (Freudenberg & Tsui, 2011; Balcazar et al., 2011). Disseminating these studies to the health sector can help to mobilize resources for policy change to sustain public health programs and to develop the CHW workforce.

Retention as a workforce variable has its impact on workers and industries as well as in the community that receives the health services. Losses in the continuum of care and economic losses are related to ineffective retention practices in industries. High quality and continuity in health care is associated with staff retention because when workers stay longer in the market, they can increase their skills and provide better services. Loss or turnover of staff, leads to potential loss of expertise and recruitment expenses (Buykx, Humphreys, Wakerman, and Pashen, 2010; Mason et al., 2011). In the present study, respondents to the survey proposed that supporting both on-the-job and external training of CHWs, expanding the responsibility of CHWs, increasing access to benefits, and promoting CHW internal mobility may result in CHW

retention in the agency. Results of the present study also indicated that when CHW supervisors empower CHWs to navigate the health services system external mobility/career advancement may occur, and thus, CHW retention in the market is promoted. These findings relate to the results of Buykx et al. (2010), which stated that recruiting qualified applicants, providing adequate agency's infrastructure, giving and maintaining incentives, fostering harmonic management and supervision, recognizing and rewarding employees, and ensuring social, family, and community support, are part of a recommended comprehensive retention strategy that may work for the CHW workforce.

In order to retain CHWs, actions that both promote retention and reduce barriers to CHW retention have to be considered. Obstacles for CHW retention mentioned by employers in the present study were lack of funding (internally), lack of qualified applicants, and lack of funding from outside sources (i.e. funded by a program [federal, state, local, non-profit, and/or private financial support]). Consequently, retention actions will not occur if solid financial support is not available and if workers do not meet the employers' job description. Effective retention strategies would reduce CHW turnover rates and keep CHWs active in the market. When workers are retained and stay active longer in the industry, they have the opportunity to advance their career by increasing their skills and knowledge in the field. Thus, a continuity of quality service to the community can be observed (Giloith, 2000; Buykx, Humphreys, Wakerman, and Pashen, 2010).

Participation/interaction with legislators

As previously mentioned, according to employers in the present study, the lack of funds is the main barrier to CHW job creation and retention. The national, state, and local government laws provide financial opportunities to organizations, alliances, institutions, agencies in the

industry, and other partnerships to promote both the overall advancement of the economy and the welfare of communities. Law appropriations and consensual law proposals (bills) to advance the CHW workforce should be fostered; policy initiatives are the most effective way to change the environment that shapes the workforce dynamics (Mason et al., 2011). Therefore, participation/interaction with legislators is a strategy/CHW workforce development variable with the potential to generate momentum to influence the political context in the Paso del Norte region.

While exploring El Paso employers' opinions about how they perceive their involvement with legislators, 38.9% considered that attending annual meetings with legislators is important to update their knowledge about local health workforce. Trainings on how to collaborate with multiple agencies (35.2%) was also considered a viable option that can advance CHWs. If there is lack of support of any type from the government, employers also reported that they can send letters to congressmen or to coalitions to promote the availability of funds.

Mason et al. (2011) implied that behind every policy change that impacts the CHW workforce, there must also be the leadership of an alliance. This alliance has to prioritize (through consensus) policy goals that are grounded in social justice in order to advance CHWs. The policy change needs to include the following items: 1) a problem of public interest that attracts the legislators' attention, 2) a proposed solution to that problem, and 3) a way to take advantage of the current political situation to include policy change initiatives in the agenda. Such alliances can include CHW leaders, health sector employers, state-level departments (i.e. public health), and foundations, among others. The legislation to support CHWs may depend on a legislator's understanding about the importance of CHWs in the health industry. This legislator

could then support legislations that favor CHWs by setting priorities which would lead to the adoption of laws (Balcazar et al. 2011).

According to the results of the study, although El Paso employers shared their opinions about potential actions to collaborate with legislators, it was noted that the respondents' commitment to the CHW workforce development which is crucial in order to initiate health industry's advocacy activities. Selecting from a list of potential key actions to participate in legislative decision does not reveal the actual employer's intention to take these actions. Agencies organize partnerships and leadership in the CHWs field. It is essential to convey the CHW roles to employers through a promotional campaign. Recognition of CHWs is the first step towards CHW workforce development. This recognition must include effectiveness of services, positive outcomes, and evidence-based research/analyses indicating cost savings (please refer to 'evaluation of CHWs' section of this thesis chapter) (Balcazar et al., 2011). Increased knowledge of CHW services would facilitate collaboration with agencies, attract funding, increase attendance at meetings regarding current policies, and help generate a plan for CHW policy change (Dower, Knox, Lindler, & O'Neil, 2006).

Job-readiness profile

The CHW job-readiness profile presented in the results' chapter represents the employer demands regarding the skills of CHWs. According to employers' responses, a CHW who possesses communication, interpersonal, confidentiality, organizational, and service coordination skills (i.e. knowledge about services' availability, location, agency's hours of operation, and clients' eligibility; develop active referral networks [NCHAS, 1998]) would have the key attributes that employers seek in a potential employee of this type. These skills (soft skills) are fundamental to the workers' performance and are actually in short supply in the labor market

(Handel, 2003). Knowledge about the specific CHWs skills, such as knowledge of their roles and functions, knowledge about general health, and knowledge about the health care system, is considered by El Paso employers to be a part of a suitable CHW profile.

In this study, employers described other general skills when they were asked about mentioning/adding another CHW attributes that were not in the provided list. These general skills that are also important for employers in the region are: work ethic, language skills (knowledge of two languages, English and Spanish), and values such as honesty, integrity, and morality. Cultural competence was ranked 5th out of 23 and is another employer desirable skill for CHWs. These results verify the CHW certification program (TDSHS) training outline that includes courses on the eight core CHWs competencies identified in the National Community Health Advisor Study (Rosenthal et al., 1998). These eight core competencies are: communication, interpersonal, service coordination, capacity-building, advocacy, teaching, and organizational skills, and knowledge based on specific health issues. Participants in this study did not rank capacity-building (ranked 17th out of 23), advocacy (ranked 16th out of 23), and teaching skills (ranked 13th out of 23) as part of a top-ten CHW attributes.

The El Paso employers' perceptions about CHW skills, represents a regional CHW job readiness demand profile that, if used to train CHWs, has the potential to better prepare and facilitate CHWs to enter to the health services market. Ethical and professional CHW practice is a competence learned on-the-job through apprenticeships for CHWs. This includes training in the ethical and confidentiality skills that local employers that participated in this study considered important. This suggested apprenticeship for CHWs was sent by the Texas Coastal AHEC and Nebraska State Apprenticeship to the US Department of Labor-Employment and Training Administration Office of Apprenticeship (OA, 2010). The technical assistance is an attempt to

standardize training for CHWs (apprenticeship) and must be considered an option to address the needs of employers in El Paso, Texas.

According to May and Contreras (2007), CHWs value personal attributes such as being members of the community, being community leaders, and sharing cultural and health experiences with clients; however, employers in the present study ranked these attributes last. Many CHWs have to leave their communities to find jobs. CHWs sometimes compromise their ideas of having a unique job profile since job offers are tailored to the requirements of both health programs and agency's needs (May and Contreras, 2007). Cultural competence is a desirable skill for CHWs living in geographic areas where CHWs jobs are scarce. This is consistent with the El Paso employers' opinions about the importance of CHW cultural competence (ranked 5th out of 23). Now that there is a Standard Occupational Classification Code for CHWs, the uniqueness of CHWs can be maintained by a nationally recognized definition (SOC, 2010). Still, efforts to market CHWs services must take place in the region and evidence-based research on CHW effectiveness has to be shared to the health industry.

Training options for CHWs

Less than half of surveyed employers are aware of CHW training options (48%). El Paso Community College was the most frequently mentioned institution that provides training for CHWs. Most employers who knew about CHW training options in the region believed that CHW certification is sufficient to train a CHW (88.5%). The recognition of local institutions for CHW training is an initial step that may lead to future collaborations between institutions that develop curricula and employers, who ultimately offer job positions to the workforce.

Evaluation of CHWs

Most employers surveyed who have or propose having a strategy to evaluate the impact of CHWs in their agencies, mentioned that both questionnaires administered to measure customer satisfaction and the available recruitment/hiring instruments are the assessment tools for their employees' performance. In the present study, employers reported that the use of standardized instruments to evaluate CHW effectiveness is important, but currently none of them uses such instruments. Some employers in the present study indicated that they evaluate CHW efficiency and effectiveness in terms of program goal and objective achievement.

The CHW certification program in Texas may provide evidence of CHW competency acquisition and generate trust in the health marketplace; then, hiring practices would be enough for employers to select competent CHWs. Rigorous scientific research on CHW effectiveness in improving populations' health and reducing both health disparities and rising health care costs are needed to foster policy change in the CHW field (Balcazar et al., 2011). Agencies that currently employ CHWs can collaborate with institutions and design evaluations that use standardized instruments to assess CHW competencies acquisition and effectiveness.

5.1 LIMITATIONS

Participant randomization was conducted at the beginning of the thesis methods' application. From an initial list of 251 randomized participants, 99 were excluded for different reasons. For example, available databases contained inaccurate information and participants could not be located; also, when contacting participants, some indicated that they did not receive the pre-notification letter. A list of 152 potential participants resulted. Twenty-seven employers of this participant pool completed the questionnaire with a response rate of 17.8%. This limits

the generalizability of the results. This study is a means for describing and clarifying the employers' views about CHWs.

The CHW workforce development variables were not analyzed in their relation to the employers' characteristics. This analysis was outside the scope and purpose of the present study and with the small sample size, correlation analysis could have led to inaccurate inferences. Regarding participant selection, employers were included in the study regardless of their interest and/or knowledge about CHWs. Employers who were not aware of CHWs shared their perspectives about assumed/supposed CHW workforce development scenarios and not about their actual experiences with CHWs. The information shared with employers about CHWs may have been insufficient to evoke employers' reflections on CHW workforce development issues.

The instrument was only reviewed by the thesis committee; committee members have credentials that reflect their background and experience in the CHW field. The instrument's content validity was assured by the thesis committee revisions and by including in the survey some question-items that were applied in other CHW workforce studies. One limitation is that the instrument was not pilot tested and no instrument's reliability tests were estimated.

These results were limited to the local health care industry employers' perceptions about CHW workforce development. These employers' views represent a general snapshot of regional industry's perceptions. No inferences or relations between employers' perceptions and the specific employers' characteristics such as size, interest in CHWs, and industry cluster, should be made. The results of this cross-sectional descriptive study illustrate health care industry employers' opinions about the regional CHW workforce development.

5.2 CONCLUSION

There has to be a balance between CHW needs and employer needs. In an ideal scenario, CHWs would have the adequate professional profile to enter the labor market and employer agencies would have the leadership, a unique culture, and an administration that would provide a wide range of services to support and retain their employees (Giloith, 2000). CHW job-readiness profile, employers' participation in legislative decisions, CHW training, job generation for CHWs, CHW recruitment, CHW evaluation, and CHW retention are interlinked workforce development variables.

The first action recommended within strategic planning for the CHW workforce development is the initiation of a regional awareness campaign to market the CHWs' services. The CHW marketing campaign has to emphasize employers' most needed CHW skills and the effectiveness in health outcomes, as well as the cost-savings that this workforce brings to communities. Simultaneously, institutions that provide CHW training can work with current CHW employers to refine the training curricula and integrate the entire health sector's perspectives about CHW workforce development.

For legislative action, it is recommended to focus on only current or previous CHWs employers because those who know, have a passion for, and are leaders in the CHW field can best garner resources to support alliances/coalitions' actions. The Paso del Norte CHW/Promotora Workforce Coalition has the opportunity to generate a policy agenda to advance the CHW workforce. The policy agenda may be directed toward writing initiatives to reform current laws (amend, repeal, replace, and/or add new pieces) affecting the CHW advancement. As the CHW workforce was recently federally recognized and is still dealing with the process toward professionalization, job generation will depend on creating strong

partnerships with legislators who perceive CHWs as valuable change agents in the public health field.

Employers also need the financial support to start expanding their services to health promotion and disease prevention. As indicated by the results of the study, employers are willing to include a public health focus to improve and maintain the health of more individuals in El Paso, Texas. The recruitment and retention practices conducted by current regional employers (agencies) in the health sector are geared toward complying with the specific agency's mission, vision, goals and objectives. The use of specific employee targeted recruitment and retention practices and their efficacy related to CHWs would depend on the evaluation of CHWs. Evaluation of CHWs is the process that can secure the steady progress of these workers in the health industry.

5.3 FUTURE DIRECTIONS

The use of telephone surveys to conduct workforce research in the health sector is difficult because the primary contact with the agency is usually an operator and not the potential participant. It is suggested that researchers that want to collect data by administering telephone surveys take meticulous care in both the study's relevancy to participants and the availability of time for survey administration. Having enough time for survey administration is necessary to provide follow-up for participants in order to achieve a higher response rate.

McCarty (2003) indicates that telephone survey response rates depend on both the interviewer's effort (i.e. the time spent on each participant to complete the survey) and the intrinsic method of survey design (i.e. the time the survey takes to be completed, participants, and survey administration period). Cycyota and Harrison (2001) explains that for surveys directed to executives, response rate enhancers such as monetary incentives, advance notice, follow-up,

and personalization, have no significant effect on the response rates. Surveys administered to employers result in lower response rate than when administered to employees (those in the lower tiers of the organization). This is due to the following factors: 1) executives do not have enough time to complete surveys, 2) executives perceive that the survey may reveal confidential information about the firm, and 3) executives find that the survey has no applicability to their agencies (lack of topical salience).

The analyses of relationships between independent and dependent variables can add validity to this type of studies. The use of combined methods to obtain data such as face-to-face interviews and telephone surveys can help in gathering important data for this type of studies. Exploring the demand for CHWs and other health professionals is important. Locally, further exploration about the CHW workforce is required. A dissemination plan to share study's results is being created. The use of the study's results will support the advancement of CHWs.

In the following table (Table 13) a series of recommendations for practice and policy about the CHW workforce development, that will be shared to the “Paso del Norte CHW/Promotora Workforce Coalition”, are presented. These recommendations are intended to integrate the local health care employers' perspectives in the Coalition's decisions for the strategic planning of the CHW workforce.

Table 13. Recommendations for including the health care employers' perceptions in the CHW workforce development activities of the Coalition

1. Policy and publicity
A. Launch a regional marketing campaign about CHWs
<p>Create a CHW promotional message</p> <ul style="list-style-type: none"> • Conduct a needs assessment: find the neighborhoods that would benefit most from CHWs services. • Build strong relationships among Coalition members, CHWs networks, regional stakeholders in the CHWs field, and consultants (experts in several disciplines, i.e. marketing): find common expectations for work in a team to ensure decision makers/participants' engagement in the implementation of marketing strategies. • Model a program that demonstrate CHW cost and outcome effectiveness in delivering health-

<p>related services to communities: include research that uses rigorous scientific design (i.e. Randomized Control Trials, cost-benefit analyses –return of investment-)</p> <ul style="list-style-type: none"> • Study the national, states, or other regional CHW promotional strategies that have been effective to bring awareness to communities about CHWs: adapt those strategies to the regional context and seek for advice and recommendations. • Recognize the CHWs' communication/teaching skills: CHWs themselves are change agents in communities, they can communicate one-to-one to people and share who they are, what they job is about, and what are the skills they possess. • Include, in the promotional message, the opinions of the employers in the health sector about the most demanded CHWs attributes: the ten highest-rated CHWs' skills and knowledge were 1) communication skills, 2) interpersonal skills, 3) confidentiality skills, 4) knowledge about CHW roles and functions, 5) cultural competence, 6) knowledge about general health, 7) knowledge about the health care system, 8) organizational skills, 9) knowledge about Medicare, Medicaid, and SCHIP, and 10) service coordination skills. • Share about the values of CHWs: employers in the health sector believe that honesty, integrity, morality, and work ethics are important CHWs attributes. <p>Share a CHW message in both languages: according to employers in El Paso, CHWs need to be bilingual in order to give competent services.</p> <p>Use a combination of the employers' suggested marketing/promotional actions</p> <ul style="list-style-type: none"> • Internet marketing: post CHWs' descriptions and emails (or other contact information) in free listings and use social media such as Facebook and Twitter. • Advertising: Distribute flyers and transmit information through the television (commercials), radio, public service announcements, and CHWs success stories in newspapers. • Public relations: Network with regional institutions (universities, colleges), workforce development boards, and governmental programs; educate the community on CHWs' roles in health fairs; organize forums and present CHWs' services to the community; connect CHWs with agencies by promoting the generation of internships; and attend executive meetings in clinics, hospitals, and share about CHWs. <p>Find the resources (human, capital and financial) to support the marketing campaign</p> <ul style="list-style-type: none"> • Build partnerships with businesses and foundations (grant-making initiatives and donations), conduct community fundraising (in-kind support, volunteers, sponsors, marketing materials), and get federal, state, and local revenue (programs funds and grants) (The finance project, 2008). 	<p>B. Find the potential policy initiatives that may impact the CHW workforce</p>
<ul style="list-style-type: none"> • Generate understanding of CHWs in the local health care industry to build employers' respect for and commitment to the CHW workforce development. • Include the opinions of current CHW employers and develop policy plans for CHW workforce development: invite employers to annual meetings where legislators discuss the local health care workforce. • Encourage employers to create a board to sponsor projects aimed at both analyzing potential legislations that promote CHWs and delivering training on multi-agency collaboration. • Explore the financial options of employers (public subsidies, and federal, state and local incentives) to extend their services to health promotion and disease prevention. Help employers to solve questions about how to design jobs for CHWs and overcome obstacles related to changes in their agency's activity. • Study the success policy strategies that have helped other states to develop CHWs and frame a policy agenda that is adequate to the local health workforce context: Massachusetts and Minnesota success stories about CHWs. 	<p>2. Training and Capacitacion</p>
<p>A. Enhance the importance of CHWs state certification program and recommend training schemes that includes both CHW certification and on-the-job continued training</p>	

<ul style="list-style-type: none"> • Inform employers about the CHW apprenticeship program: this nationally recognized program for CHWs can assure that CHWs advance their careers and have more job stability (retention). • Offer enough CHW certified Continuing Education Units (CEUs) that are focused on enhancing CHWs' cultural competence and ethical practice.
B. Foster health sector participation in developing curricula for CHWs training
<ul style="list-style-type: none"> • Increase the employers' recognition of local certified institutions that provide training for CHWs. • Share with CHWs' training institutions the CHW skills and knowledge (competencies) that local employers demand.
C. Promote among current CHW employers the use of CHWs job descriptions that are focused on CHWs competencies; this may facilitate evaluation of CHWs performance
3. Research and evaluation
A. Coordinate with actual CHW program coordinators and employers to assess efficacy of current CHW evaluation strategies
<ul style="list-style-type: none"> • Begin with a vision of generating evaluation schemes that facilitate reporting cost analysis and effectiveness of employing CHWs • Conduct research on available evaluation frameworks that may give certainty to CHW skills acquisition • Distribute evaluation programs to current CHW employers

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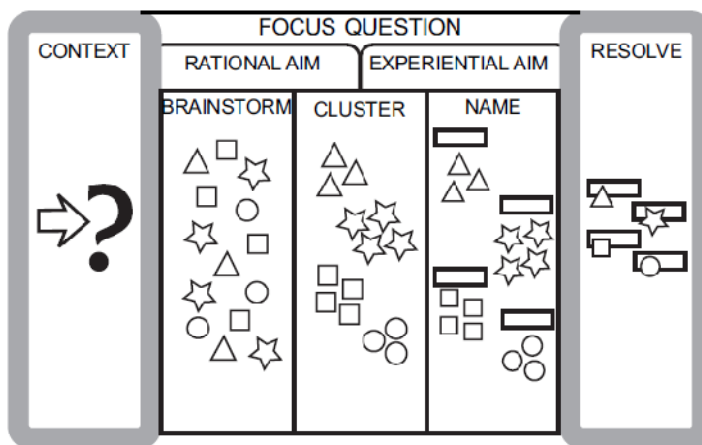
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Appendix A

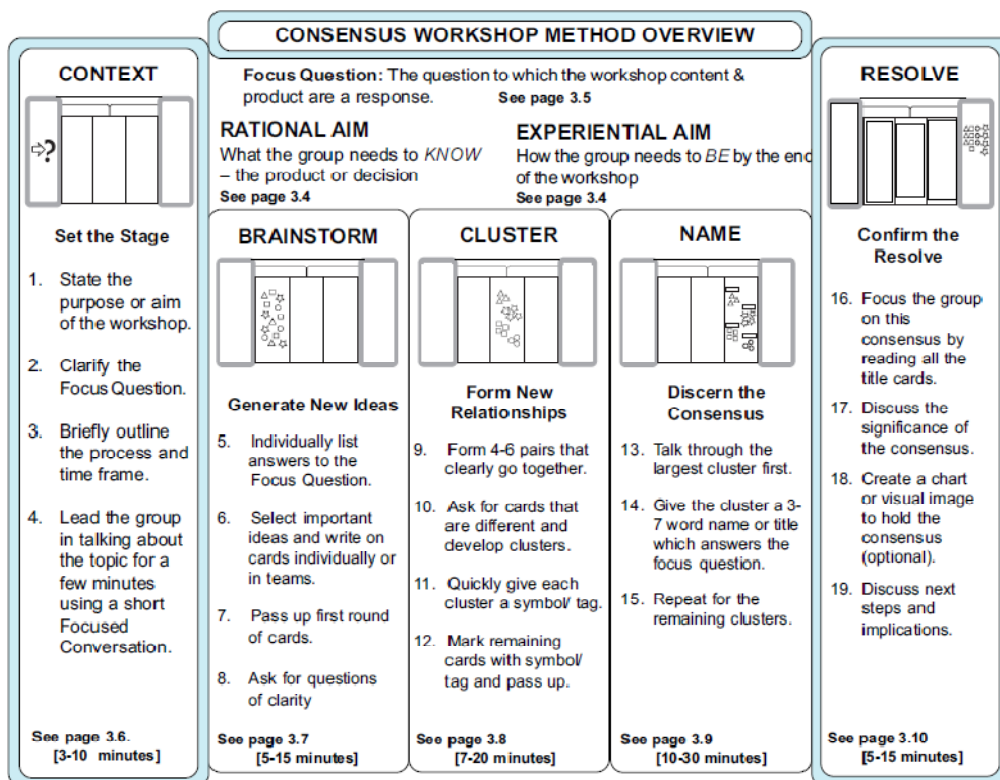
Consensus Workshop Method



ToP* Group Facilitation Methods: Consensus Workshop

3.1

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These times represent from 30 - 90 minutes.

ToP* Group Facilitation Methods: Consensus Workshop

3.3

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Appendix B

Our Vision – by the entire group				Nuestra Visión – por el grupo entero			
In the next 5 years in El Paso, we collaborate to promote the integration and expansion of the CHW promotor(a) workforce to support wellness and community development by...				En los próximos 5 años en El Paso, vamos a colaborar para promover la integración y expansión del papel que tiene el(a) CHW promotor(a) en el bienestar y desarrollo de la comunidad al...			
<p>Capacity building of CHW through an umbrella agency</p> <p>Desarrollar las capacidades de los promotores a través de agencias</p>	<p>Establishing the CHW as formal occupation through research and evaluation</p> <p>Establecer la promotoría como una ocupación formal por medio de investigación & evaluación</p>	<p>Achieving policy change to seek sustainability that will impact the community</p> <p>Lograr cambio en las políticas para asegurar la sostenibilidad de la promotoría que impactará en la comunidad</p>	<p>Assuring CHW's receive compensation packages commensurate with experience and qualifications</p> <p>Asegurar que los promotores reciban paquete de compensación de acuerdo con sus experiencias y cualidades</p>	<p>Create one unified local CHW collaborative union</p> <p>Crear un sindicato local de promotores</p>	<p>Organize and implement the strategic plan</p> <p>Organizar e implementar un plan estratégico</p>	<p>Strengthening communication between existing & potential partners</p> <p>Fortalecer la comunicación entre los socios existentes y potenciales</p>	<p>Developing an aggressive marketing strategy</p> <p>Desarrollar una estrategia de mercado agresiva</p> <p>Create jobs with benefits</p>
<ul style="list-style-type: none"> Assuring that CHW's receive proper education with state involvement Asegurar que los promotores reciben educación adecuada, con participación del Estado Providing ongoing training and education Proporcionar entrenamiento y educación continua Creating a Community Health worker training center Crear un centro de educación de salud comunitario Certification y educación continua Certification and continued education 	<ul style="list-style-type: none"> Establish evaluation system for CHW work Establecer un sistema de evaluación para el trabajo de los promotores Integrating the role of CHW's into the Healthy People objectives Integrar el rol de los promotores en los objetivos "Healthy People" Defining the role of CHW Definir el rol de los promotores Increasing, introducing CHW's to varied workplaces Presentar a los promotores a los variados lugares de trabajo 	<ul style="list-style-type: none"> Impactando comunidades Impacting communities Advocating policy change through recognition and institutionalization of CHW Abogando por cambio político a través del reconocimiento e institucionalización de promotores Improve quality of life in community Mejorar la calidad de vida en la comunidad Improve quality of life in community Mejorar la calidad de vida en la comunidad 	<ul style="list-style-type: none"> Establish specific baseline salary Establecer un salario base específico Promote/protestas con derechos a beneficios Professional CHW's with benefits Creating employment opportunities by professionalizing the field Crear oportunidades de empleo por medio de profesionalizar el campo 	<ul style="list-style-type: none"> Create CHW union Crear sindicato entre promotores Organizarnos para unirnos para lograr el reconocimiento Get organized to unify and achieve recognition Supporting the creation of a state-wide association Apoyar la creación de una asociación a nivel estado 	<ul style="list-style-type: none"> Developing strategic plan Desarrollar un plan estratégico Creating a working group to carry out strategic plan Crear un grupo de trabajo para llevar a cabo un plan estratégico Lograr el éxito Achieve success 	<ul style="list-style-type: none"> Collaborating with local, regional and state-wide associations Colaborar con asociaciones locales, regionales y estatales Increasing partnerships leading to more opportunities for CHW's Incrementar las alianzas que conducen a más oportunidades para promotores 	<ul style="list-style-type: none"> Raising community awareness thru marketing Generar conocimiento sobre los promotores en la comunidad a través de mercados Developing a marketing strategy Desarrollar una estrategia de mercado (promoción de promotores) Increasing sustainability through resources and funding Incrementar la estabilidad de los promotores a través de recursos y financiación

Appendix C

Obstacle Workshop – by the entire group			Taller sobre obstáculos a nuestra Visión – por el grupo entero				
What are all the obstacles that will prevent us from achieving our Vision?			¿Cuáles son los obstáculos que podrían evitar que lográramos nuestra Visión?				
The workforce does not know the role of the CHW's La fuerza laboral no conoce el rol de los promotores	Las Promociones no hemos sabido integrarnos como parte de una profesión We as CHW's have not been able to feel a sense of belonging	Not enough thorough evaluations of local programs to secure new CHW funding No existen evaluaciones comprensivos de programas locales para asegurar nuevo financiamiento	Limit of specialized skills to compete in the workplace Limite de habilidades en el área de trabajo	Non-existing of unified effective approach to educate stakeholders No existe un enfoque unificado y efectivo para educar "líderes-tomadores de decisiones"	El gobierno y universidades no reconocen el trabajo de las promotores, por nuestra falta de identidad como cuerpo CHW The government, universities, & institutions do not recognize us because we do not have an identity or vision as professional CHW's	Inconsistent funding sources and allocation to employ CHWs No es consistente el poner los fondos y recursos para dar trabajo a las promotores	No established professional code of conduct No existe un código de conducta profesional establecido
<ul style="list-style-type: none">• No standardized• No hay un nombre estandarizado• No credibility• No hay credenciales• Limited understanding of CHW role• Limited entendimiento del rol del promotor• Absence of accreditation• Lack of personal value	<ul style="list-style-type: none">• No unified• No Unity• Lack of teamwork amongst CHWs which prevents accomplishments• Falta de trabajo en equipo entre CHWs lo cual previene el tener logros• Poor infrastructure to support CHW needs• Pobre infraestructura para soportar las necesidades de las Promociones	<ul style="list-style-type: none">• Limited funding• Apoyo financiero limitado• Mature leadership in sources of funding• Liderazgo inmaduro para tener fuentes de financiamiento• Lack of funding and resources• Falta de apoyo financiero y recursos	<ul style="list-style-type: none">• Limited readiness to compete in the workforce• Capacidad limitada para competir en el mercado laboral• Limited CHW education• Limitada educación de Promotores• Need for better preparation for CHW's	<ul style="list-style-type: none">• Existing bias from professionals• Sesgo estereotipo de los profesionales• Limited stakeholder educator• Educador Limitada de agentes participantes• High barriers around collaborator• Grandes barreras para colaborar	<ul style="list-style-type: none">• Falta de apoyo de instituciones educativas• Lack of support from governmental and educational institutions• Evidence of the work of professional CHW's do	<ul style="list-style-type: none">• Falta de apoyo económico• Lack of economic support• Limited opportunities (work)• Oportunidades limitadas (trabajo)	<ul style="list-style-type: none">• Falta de ética profesional• Lack of professional ethics

Appendix D

Part 5 – Smart Action Brainstorming / Parte 5: Lluvia de ideas acción SMART

What SMART actions will address the obstacles and implement the CHW vision?	Siguiendo la teoría SMART que acciones resolverían los obstáculos e implementarían la vision el/la Promotor/a
Meet with legislators regularly to discuss the necessity of CHW's	Reunirse regularmente con legisladores para discutir las necesidades de los Promotores de Salud
Create and disseminate cost benefit analysis on hiring and retaining CHW's	Crear y diseminar un análisis de costo-beneficio acerca de contratar y retener Promotores de Salud
Customize existing training to meet needs of the workforce	Adaptar los entrenamientos existentes acorde con las necesidades de la fuerza laboral
Through policy change have Medicaid reimbursement	A través de cambios políticos, lograr tener reembolso por Medicaid
Develop a state board of community health workers	Desarrollar una cámara estatal de Promotores de Salud
Have an actual count of # of Promotoras graduating from college or certified thru state of Texas being reported to State Board	Tener el conteo actualizado, que está siendo reportado a la cámara del estado, de los Promotores graduados del colegio o certificados por el Estado de Texas
Have both local and regional networks collaborate on developing common goals	Conseguir que redes locales y regionales colaboren para desarrollar metas comunes
Talk to each professional healthcare provider about CHW's role in the community	Hablar a cada profesional relacionado con el área de la salud acerca del rol de los Promotores de Salud en la comunidad
Teach health objectives to CHW's	Enseñar objetivos de salud a los Promotores de Salud
Write a code of ethics	Escribir un código de ética
Integrate professional/academic support	Integrar soporte/apoyo profesional y académico
Locate financial resources to support both Promotora networks	Localizar los recursos financieros para apoyar las redes de Promotores de Salud
Contact health insurance for CEU's & feedback	Contactar compañías aseguradoras de salud para unidades de educación continua y retroalimentación
Identify existing marketing strategies; use existing strategies for advertising CHWs and create the strategies that are not being used yet.	Identificar los recursos publicitarios que ya existen, utilizar los existentes y crear los que falten
Develop documents that discuss the CHW roles.	Desarrollo de documentos que discutan el rol de la Promotoría
Conferences, annual meetings with CHWs, organize a community forum to introduce the roles of CHWs	Conferencias, reunión anual de Promotores, hacer un foro comunitario para presentar el rol de la Promotoría
Develop career pathways that allow for multiple exit points	Desarrollar alternativas para una carrera que permita múltiples puntos de salida
Develop CE sponsored education sessions on the roles of CHW for medical professionals	Desarrollar sesiones patrocinadas para educación continua acerca de los roles de los Promotores de Salud para profesionistas en el área de la salud
Develop clearing house for training activities of CHW's	Desarrollar un centro de intercambio de información para las actividades de entrenamiento de Promotores de Salud



Appendix E

SURVEY—CHW WORKFORCE DEVELOPMENT—AGENCIES

The overall goals of the Coalition were translated into goals that apply to Employers. The employer goals were classified per strategic direction and the questions were generated. Survey responses will give a detailed description of the employers' possibilities for workforce development action.

Strategic Directions Working Groups and their Goals/Accomplishments	Agencies' implications
	Participation options (built on models that work and best practices mentioned in CHW studies on Workforce Development-WFD): Action (s) that agencies can conduct
Engage in CHWs promotion and advocacy	
Talk to each professional healthcare provider about CHW's roles in the community	Understand CHWs roles Plan to include promotional activities to share the CHWs message to diverse audiences
Contact health insurance for CEU's & feedback	Generate meaningful networks for CHW workforce development and/or participate in coalitions (alliances focused on WFD) Effectively collaborate with agencies in which CHWs work; they promote a better CHWs performance
Identify existing marketing strategies; use existing strategies for advertising CHWs and create the strategies that are not being used yet	Circulate job-opportunities (posts) for CHWs (available in the agency and in other agencies within the health care industry)
Support CHW/Promotor(a) Policy Initiatives	
Meet with legislators regularly to discuss the necessity of CHWs/Promotores(as)	Effectively communicate with CHWs to understand their needs Understand and register the needs for CHWs career advancement (some require keeping the job, some want to move towards another health care career, etc.)
Through policy change have Medicaid reimbursement	Seek financial stability to keep and continue CHWs programs Seek support and improvements in CHWs payments and benefits
Develop a state board of CHWs/Promotores(as)	
Enhance CHW/Promotor(a) Training and Capacitacion Opportunities	
Customize existing training to meet needs of the workforce	Have a clearly articulated expectation of CHWs and integrate and respect those expectations through CHWs job-descriptions Incorporate CHWs in agency's meeting and decision making activities Balance institutional workforce needs with CHWs needs Promote access to training when referring CHWs to educational opportunities
Teach health objectives to CHWs/Promotores(as)	Assist CHWs to build their skills
Develop career pathways that allow for multiple entry/exit points	Support CHWs training to validate and recognize CHWs roles in the industry Generate strategies to career advancement, increase CHWs payments according to higher CHWs job hierarchies, and increase responsibilities to CHWs to generate areas of specialization and give benefits Are proactive, generate new positions for CHWs, promote internal and external job-mobility Offer flexible work schedules to CHWs Pay on-the-job training to CHWs that is linked to future work within the mission of the firm Give to CHWs free access to counseling services Promote job safety Prepare and train supervisors so that they can improve CHWs job performance and prepare them for advancement Give incentives and benefits to CHWs that are entering the labor market

	Encourage leadership among CHWs so that they can unite and be more prepared for advancing their careers
Develop Continuing Education sponsored education sessions on the roles of CHWs/Promotores(as) for medical professionals	
Develop clearing house for training activities of CHWs/Promotores(as)	
Promoting CHW/Promotor(a) Research and Evaluation	
Create and disseminate cost benefit analysis on hiring and retaining CHWs/Promotores(as)	Identify by evaluations, the CHWs programs' effectiveness and help in designing best practices guides for CHWs Plan evaluations of CHW programs
Have an actual count of the number of CHWs/Promotores(as) graduating from college or certified programs thru the state of Texas being reported to State Board	Maintain a data base of their human resources and allow access to institutions for workforce development efforts
Integrate professional/academic support	Collaborate with other agencies for CHWs workforce development
Develop documents that discuss the CHW/Promotor(a) roles	

Appendix F

Telephone Survey Script and Instrument

Script

COMMUNITY HEALTH WORKER (CHW) WORKFORCE DEVELOPMENT SURVEY

Good morning/good afternoon, my name is Aurora Aguirre Polanco. I'm calling from UTEP-College of Health Sciences on behalf of the University of Texas at El Paso, the Project HEART, and the Paso del Norte CHW/Promotora Workforce Coalition. A week ago, we sent to you a pre-notification letter about this study which is about Community Health Workers. Before continuing, have I reached [agency's name]?

If no, ask them for best agency's contact information and hang-up

If yes, proceed.

Am I speaking with [if name available, please mention it] the CEO, executive director, office manager, and/or owner of [name the agency]?

If no, ask them for best employer's contact information and date/hours to call them

If yes, proceed.

You are part of a group of employers in El Paso, Texas, that was selected to voluntarily participate in this study. Last week, a letter of invitation was sent to your agency with a description of this study. This study is about the development of the Community Health Worker workforce. Is this an appropriate time to discuss the survey?

If no, can we set up a time to call you back and talk about the study?

If yes, proceed

This study is being conducted through the University of Texas at El Paso and supported by the HEART Project, a National Institutes of Health (NIH) publicly funded health initiative to prevent Cardiovascular Disease (CVD) in El Paso, Texas. The HEART project's public health interventions are delivered by CHWs. The HEART Project sponsored a strategy to advance the CHW workforce.

The purpose of the research is to assess the healthcare industry employers' opinions about the areas that, according to the regional model for CHW workforce development, are believed to impact the CHW workforce. These three strategic areas for CHW workforce development are: 1) Policy and Publicity, 2) Training and Capacitacion, and 3) Research and Evaluation. All the questions in the survey are related to recognition, recruitment, job generation, retention, job-readiness profile, training options, and evaluation of CHWs.

If you decide to take part in this study, the telephone survey will last from 15 to 20 minutes. There are no risks or costs to you associated with this study. Incentives will be available for you; at the

end of the survey you will be invited to participate in two prize draws to win two gift cards, \$25 each. In addition, the results of this study will be shared with your agency.

Taking part in this study is voluntary. You have the right to choose not to take part in this study. If you do not take part in the study, there will be no penalty. If you choose to take part, you have the right to stop at any time. If there are questions that you do not want to answer, that will be fine.

Your part in this study is confidential. No records with your contact information will appear on individual participant records retained by the sponsor. Participants (you) will not be personally identified in any reports or publications that may result from the telephone survey. Data generated by the telephone survey will only be accessed by the authorized research team.

Before making your decision whether to participate or not in this study, do you have questions?

If yes, answer those questions

If no, proceed

Do you want to complete this telephone survey?

If yes, "thank you very much for your help, we really appreciate it"

If no, "thank you very much for your time"

Record reason (refusal, or call-back option)

El Paso, Texas
Community Health Worker Workforce Development
Employer/Agency Survey

1. Do you now work or have you ever worked with CHWs?

2. Is there an ongoing need to hire/employ CHWs in your agency?

3. Is there an ongoing need to retain CHWs in your agency?

A. Training

4. Which of the following obstacles can prevent CHWs retention?

- a) Lack of funding
- b) Lack of qualified applicants
- c) Employee is not a legal resident
- d) Funding by outside source
- e) Lack of reimbursement (Medicaid, Medicare, Private Insurance)
- f) Lack of support by upper management
- g) Need training in office etiquette
- h) Hostility/competition from other health care workers
- i) Inadequate skill/experience in supervising CHWs
- j) Lack of solidarity among CHWs
- k) Lack of training resources

- l) Lack of understanding about CHWs contributions to the community
- m) Turnover due to low wages

Other (specify)

5. Which of the following factors hinder/diminish your capacity to create jobs for CHWs?

- a) Lack of financing -federal incentives, no access to sources of capital (investment)-
- b) Regulatory burdens -regulations affect getting funds for agency's expansion, taxes, paperwork requirements, health insurance-
- c) Lack of information technology
- d) Lack of public support programs
- e) Shortage or lack of skilled workers

6. Which of the following actions can you take to create jobs for CHWs?

- a) Apply for financial support
- b) Advance the career of CHWs to free spaces for CHWs
- c) Attend workforce development meetings
- d) Adopt models to expand your services in health promotion and disease prevention.
- e) Recognize the importance of CHWs (cost-effectiveness and improved health outcomes)

Internal mobility includes the strategies that your agency can implement to retain employees by, for example, moving them from lower positions to higher positions within your agency.

7. Which of the following actions could you take to promote internal mobility of CHWs?

- a) Provide on-the-job training
- b) Support external training
- c) Expand the responsibility of CHWs
- d) Generate better payments for CHWs
- e) Increase access to benefits for CHWs
- f) Generate a variety of job titles for CHWs
- g) Promote CHWs specialization according to the study area

Other, please describe

External mobility includes the strategies that your agency can implement to retain employees in the health care market by, for example, facilitating employees' career advancement.

8. Which of the following actions could you take to promote external mobility of CHWs?

- a) Train supervisors of CHWs to stimulate improved performance of CHWs so that they develop skills to move between health careers
- b) Expose other agencies' advertising in your agency's alleys when new CHWs positions open
- c) Share your CHWs: partner with other organizations and temporary place the critical competencies of workers in other agencies

Other, please describe

The following section is to articulate a skills' profile for CHWs so that any CHW can be ready to enter the market (despite the possibilities that CHWs may have for continuous training within and outside your agency).

9. According to the particular needs of your agency and in order to create a CHWs job-readiness scheme, qualify by degree of importance the following CHWs skills/attributes.

1-very important/2-important/3-neutral/4-not so important/5-not important

Knowledge about CHW roles and functions
 Knowledge about the community
 Knowledge about general health
 Knowledge about health care system
 Knowledge about health insurance coverage
 Knowledge about Medicaid, Medicare, SCHIP
 Communication Skills
 Interpersonal Skills
 Service Coordination Skills
 Capacity-Building Skills
 Advocacy Skills
 Teaching Skills

Organizational Skills
 Knowledge Base on Specific Health Issues
 Computer skill
 Confidentiality skills
 Cultural Competence
 Knowledge about social services system
 Membership in the community
 Recognized community leader
 Shared cultural experience
 Shared health experience
 Similar demographics as target pop.
 Other

10. Which of the following is the most viable method for CHWs to get the skills and knowledge they need?

- a) CHW certification (CHW WFS)
- b) GED/High school diploma
- c) Vocational-technical training
- d) College certificate program
- e) College Associate's degree
- f) College Bachelor's degree

Other (specify)

11. Which training options for CHWs do you know in the region? (Whether you have or have not used them)

Explain_____

I do not know

B. Policy and Publicity

Beyond the formal interactions that your agency, through your programs, has or has had with the agencies in which CHWs deliver their services:

12. What of the following key actions could you take to participate in legislative decision to favor of CHWs?

- a) Plan or attend annual meetings (events, conferences) where legislators or representatives discuss information affecting the local health care workforce
- b) Sponsor projects aimed at delivering training on best practices (guides to effective partnerships under workforce development frameworks) for multi-agency collaboration
- c) Generate a committee charged with the task of analyzing potential legislations that promote your health care workers' pool

Other, please describe

13. Which of the following promotional/marketing strategies can help you to know about or recruit CHWs?

- a) Advertising
- b) Employment agencies
- c) Networking, word-of-mouth
- d) School/university employment center
- e) Checked professional unions
- f) Referrals from

Other, please describe

14. What can be done to effectively promote the CHWs services to diverse audiences in El Paso, Texas?

C. Research and Evaluation

15. Do you have available a strategy to measure the benefits of hiring CHWs (based on evaluation of your programs)?

16. What strategy would you propose to evaluate the impact of CHWs in your agency?

17. Do you have any plans and/or interest in working with CHWs in the future (next year)?

Surveys' closing statement

This is the end of the survey!

Thank you very much for participating in this study and answering the questions.

With your answers, you are helping CHW workforce development strategies to be implemented more efficiently. Your answers are the health care services industry voice and, as such, are crucial to understanding the supply and demand forces that sustain the local economy and welfare of communities in El Paso, Texas.

The principal investigator, Aurora Aguirre Polanco, on behalf of the Coalition, thanks you and will report to you the results of this study as soon as they are available.

You are automatically participating in two prize draws to win a gift card per draw, \$25 each. You can receive a report with the results of this study, how would you prefer to receive notification about these? It can be either by mail or by email.

For further questions about the study, please contact Aurora Aguirre Polanco at aaguirrepolanco@miners.utep.edu. Best regards.

Appendix G

Invitation letter

[Date]

Dear [employer's name]:

My name is Aurora Polanco, a graduate student at The University of Texas at El Paso, Master of Public Health Program and a Research Assistant in the Health Education Awareness Research Team (HEART) Project, a community-based participatory research project funded by the National Institutes of Health. Part of my academic requirements in the MPH program is to complete a thesis project. I have chosen the topic "Employers' Perceptions of Factors Related to the Workforce Development of Community Health Workers in El Paso, Texas" which purpose is to assess the health industry employers' opinions regarding the Community Health Worker (CHW) workforce development. My thesis supervisor is Dr. Sharon Davis, Associate Professor in the Department of Public Health Sciences.

We thank you in advance for taking the time to read this letter. Within a week, you will be contacted via telephone to request your participation in a telephone survey about Community Health Workers (CHWs).

CHWs are a health workforce with a trajectory documented since the 1960s. CHWs provide public health and preventive services, improve access to health care, and assist in the treatment of diseases; CHWs deliver cost-efficient health-related services. They serve as liaisons between health care consumers and providers and promote health among groups that have traditionally lacked access to adequate care.

Locally, there are no updated studies to identify the healthcare industry's needs regarding the CHW workforce. CHW workforce development strategies can be more efficiently planned by including the health care employers' opinions about CHWs.

This study focuses on three strategic areas for CHW workforce development: 1) Policy and Publicity, 2) Training and Skills Development, and 3) Research and Evaluation. The model for the strategic planning of CHW workforce development was designed by **The Paso del Norte CHW/Promotora Workforce Coalition** and has the purpose of advancing the CHW workforce. The Coalition includes the representation of the following agencies: El Paso Community College, Texas Department of State Health Services, Texas Health and Human Services Commission Office of Border Affairs, and the Upper Rio Grande Workforce Development Board.

Your participation in this study will help in the creation of CHW workforce development strategies. Your answers are crucial to understanding the supply and demand forces that shape the CHWs advancement in this region. Completing the survey may take between 15-20 minutes. Surveys will be administered during [month] from 9:00am to 5:00pm. After completing the survey, as our appreciation for your participation, you will receive a thank you letter and the results of the study will also be shared with your agency. In addition to this, you will also be entered into a drawing in which you could receive one of two \$25 gift certificates

If you have any questions about this study, want to be excluded from the study, and/or want to provide us with your best contact information, please contact PI Aurora Aguirre Polanco at (915)747-8285 or aaguirrepolanco@miners.utep.edu. Thank you very much for your consideration.

Sincerely,

PI: Aurora Aguirre Polanco, MPH Student

Faculty Advisor: Sharon Davis, PhD, MPH, MCHES

Curriculum Vita

Aurora Aguirre Polanco was born in Delicias Chihuahua, Mexico. She studied a bachelor's degree in chemistry; she graduated with honors from the Autonomous University of Chihuahua in 2006. During her formal education and because of her outstanding performance in school she has been awarded with scholarships from the government of the state of Chihuahua. During a social service year as a chemist in Mexico, she developed her first interest in public health. Since 2003, she has been involved in research looking at vulnerable populations. Aurora was accepted in the Master of Public Health (MPH) program at the University of Texas at El Paso in the fall of 2009. She worked as a research assistant under NACHC grant and also for Project HEART. Project HEART is a community-based participatory research project aimed at reducing risk factors for CVD in Hispanics in the Lower Valley of El Paso, Texas. Aurora's Masters' thesis looked at policy issues related to the CHW Workforce and Project HEART; her aim was to deepen understanding of efforts to sustain CHWs in El Paso so that they can make a positive impact on the health of the community.