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Community health worker training and certification programs in the United States: Findings from a national survey☆

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Abstract

Objective: To analyze trends and various approaches to professional development in selected community health worker (CHW) training and certification programs in the United States. We examined the expected outcomes and goals of different training and certification programs related to individual CHWs as well as the community they serve.
Method: A national survey of CHW training and certification programs. Data collection was performed through personal interviews, phone interviews and focus groups. Data sources included public health officials, healthcare associations, CHW networks, community colleges, and service providers. Initial screening interviews resulted in in-depth interviews with participants in 19 states. We applied human capital theory concepts to the analysis of the rich qualitative data collected in each state.
Results: CHW programs in the U.S. seem to have been initiated mainly due to lack of access to healthcare services in culturally, economically, and geographically isolated communities. Three trends in CHW workforce development were identified from the results of the national survey: (1) schooling at the community college level—provides career advancement opportunities; (2) on-the-job training—improves standards of care, CHW income, and retention; and (3) certification at the state level—recognizes the work of CHWs, and facilitates Medicaid reimbursement for CHW services.
Conclusion: Study findings present opportunities for CHW knowledge and skill improvement approaches that can be targeted at specific individual career, service agency, or community level goals. Trained and/or certified community health workers are a potential new and skilled healthcare workforce that could help improve healthcare access and utilization among underserved populations in the United States.

Keywords: Lay health workers; Training; Certification

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1. Introduction

Community health workers (CHWs) – sometimes referred to as community health advisors, promotoras/promotores, navigators, community health aides, lay health workers, and many other titles – help individuals and groups in their own communities access health and social services and educate community members about various health issues [1–3]. CHWs have been part of a rapidly growing health, human services and social services workforce in the U.S. over the past decade. This observed growth is mainly due to intensified utilization of such culturally skilled workers within the Health Resources and Services Administration (HRSA) funded primary care programs as well as local not-for-profit public health initiatives [4–6]. Although we do not know the official number of CHWs working on the U.S. due to a lack of standard definition of CHWs, they are a part of a larger field of social and human services paraprofessionals with substantial growth capacity [7]. In the U.S. Public Health System, CHWs have been most engaged and successful in activities related to health promotion/prevention and education through their broad knowledge about the their own community culture, behaviors, and needs [1,8,9]. Today, CHWs in the U.S. offer health advice, assist with health insurance and housing, work as part of a research team, track health status of families in their service area, and inform health systems about how to improve the delivery of services [7,10]. The growing role of the CHW as a member of a multi-disciplinary team engaged in culturally appropriate health and social services delivery has drawn attention to appropriate training and possible certification of CHWs in many U.S. states. Rising healthcare costs, continued access gaps among underserved populations, and the growing diversity of the U.S. population are all reasons for more intensive and structured training of the CHW and the possible expansion of the role of the CHW [1].

1.1. Impact of CHWs in the U.S.

A review of large-scale CHW programs has shown improvement in equity of service delivery at low costs for underserved populations, but not necessarily consistent or significant health impact [11]. More than a decade ago, the General Accounting Office reached the conclusion that home visiting is an effective strategy for maternal and child health outcomes in hard to reach populations, and consideration should be given to utilizing and training "non-nurses" or para-professionals as home visitors [12]. Recently, the National Rural Health Association recognized the value of the CHW as a natural helper and link to health care services, and therefore encourages the development of CHW programs [13]. In 2002 the American Public Health Association published a resolution recognizing the value of CHWs in improving access to healthcare services in their communities and called for support for CHW programs in order to meet the Nation's health care needs [14]. The Centers for Disease Control and Prevention's Division of Diabetes Translation has recognized the effectiveness of community health workers in diabetes education and self-care, and recently recommended CHW program development, stronger support for CHWs within diabetes healthcare teams, and evaluation of CHW programs related to diabetes care [15]. All of these agencies have recognized the important role the CHWs can play in closing the healthcare access gaps, and therefore call for further development of CHW programs, including educational opportunities for CHWs and a well-established evaluation process.

1.2. Research objective

Today, there appears to be a new trend towards standardizing training and certification of generalist CHWs, who traditionally have worked within their communities as volunteers. The goal in this paper is to explore the development of standardized training and certification programs in the U.S., and their potential workforce policy implications. The analysis of CHW programs in the 50 states is based on qualitative data from a national survey of CHW certification programs conducted in 2003 [16]. The two questions of interest in this paper are:

1. What factors contributed to the development of CHW training and certification programs in the United States?
2. What are some of the outcomes of increased standardized training and certification of CHWs?

2. Methods

The data for this analysis come from the CHW Certification and Training National Survey [16]. The purpose of this qualitative study was to provide a national overview of state policy and state involvement on certification of CHWs, and to analyze the potential effects of these policy trends on the sustainability and effectiveness of CHWs, local and regional programs and CHW organizations, and on the formal healthcare system. The primary informants in each state were state public health officials (e.g. program directors at the state's department of health or office of public health, directors of health agencies, outreach coordinators, directors of mental health services, and head start programs), offices of rural health, primary healthcare associations, departments of social services, CHW networks and associations, community colleges with CHW training programs, and direct service providers who provide on-the-job training for CHW staff. State legislative websites were another source for identifying legislative bills or laws concerning the training or certification of CHWs in each state.

2.1. Data collection

The survey of the 50 states was planned and conducted in two phases: (1) initial screening interviews and (2) in-depth phone interviews with selected program directors. Using the snowball technique, each informant was asked to identify other people in the state to be interviewed, resulting in more than 100 total screening calls. The screening interviews identified 19 candidate states with potential statewide CHW training or certification programs, programs supported by the state either financially or by other means. Only states with a training and/or certification program for non-professional "lay health workers" that had achieved at least a regional geographical reach were qualified to be included in the phase 2 interviews. A total of 24 in-depth interviews were conducted in these 19 selected states. The phase 2 survey included open-ended questions about the certification/training program history, structure, goals, curriculum, evaluation, impact, and future of the programs. The total number of selected states was reduced to 17 after applying initial analysis and selection criteria, as described in the following discussion.

2.2. Analytical framework and data analysis

The data were analyzed and coded according to the question categories, such as history, goals, structure, training curriculum, evaluation process, future impact, and issues. Qualitative data including audiotapes, digital audio files, and interview summaries prepared by the interviewers were coded and analyzed using Atlas.ti [17]. After the interviews were completed and analyzed for emerging themes, additional codes identified the type of program (training program, training and certification program, and certification program), level of state support, and geographic reach. From these analyses emerged a typology of the programs, reducing the number of qualified states from 19 to 17. The selected states had training and/or certification programs for non-professional "lay health workers" that had achieved at least a regional geographic scope.

A second stage of analysis was guided by human capital concepts related to schooling and training. Human capital theory enabled us to look at CHW training and certification program characteristics from a "resource scarcity" and "capital investment" perspective [18]. The results from the National Survey of CHWs Certification Programs appeared to follow basic human capital theory concepts as established by Becker [19]. We explain the results of the national survey based on the framework of "market failure" when analyzing the history and initiation of CHW programs in the U.S. [20], and "human capital theory" when looking at the goals and impact of the CHW training and/or certification programs [19,20]. Further analyses, therefore, were focused on the nature of training institutions involved in the education of CHWs.

3. Results

Results of in-depth interviews were analyzed for the following 17 states: Alaska, Arizona, California, Connecticut, Florida, Indiana, Kentucky, Massachusetts, Mississippi, North Carolina, New Mexico, Nevada, Ohio, Oregon, Texas, Virginia, and West Virginia. Based on the analytical framework, programs in these 17 states were categorized into three main categories: "state certification program" (certification or licensure by a state department or agency), "community college

training" (certificate programs and non-certificate programs at community colleges, but no state-level certification), and "agency level training" (program specific training provided at the agency level, sometimes in collaboration with other educational institutions, but no state-level certification). Data from the selected CHW training and certification programs were then summarized based on these three categories. A summary of relevant information about these training and certification programs is tabulated in Exhibit 1.

3.1. Responding to unmet needs

Most of the CHW activities started as community initiatives lead by volunteer lay health workers who saw a need for better access to health and social services in their communities. Once the initial informal CHW programs were established in these communities, healthcare organizations, local health departments and community leaders were made more aware of the value of the volunteer lay health workers and their effec-

State	Agencies Providing Training	Training Emphases	State Legislation	CHW Certification	Starting Year
1. Alaska	State supported training centers	Healthcare delivery: primary and emergency care	Yes	Yes	1950s
2. Arizona	Four community colleges throughout the state and some of the AHEC centers	Health education and outreach; core competencies	No	Possibly in the future	1999
3.a. California-Southern (San Diego)	Local agencies, mental health services, environmental agencies and nutrition experts	Health outreach, community development and mental health	No	Possibly in the future	1997
3.b. California-Bay Area	San Francisco Community College, and Blue Cross & Blue Shield; program provides training for other agencies	Social determinants of health, health education and outreach	No	No	1992
4.a.Connecticut Community College Program	Three Rivers Community College	Health outreach and access	No	No	2003
4.b. Connecticut HIV/AIDS	Department of Public Health staff, CDC, Planned Parenthood, Red Cross	HIV/AIDS prevention; community health education	No	No	1999
5. Florida	Florida Golf Coast University, and future community colleges	Family development and health outreach	No	No	2003
6. Indiana	Not-for-profit agencies provide prenatal care services; agency trainers are trained by state department of health	Maternal and Infant health with inclusion of whole family	No	Yes	1994
7. Kentucky	KY Medicaid program, College of Medicine, substance abuse and prevention	Health outreach and mental health (KY Home place)	No	Possibly in the future	1994

Exhibit 1. Summary of CHW training and certification programs in 17 states.

State	Agencies Providing Training	Training Emphases	State Legislation	CHW Certification	Starting Year
8. Massachusetts	Community based agencies	Health outreach	No	Possibly in the future	1993
9. Mississippi	Multiple-agencies contract with CSHO for CHW training; CHAs receive training directly from CSHO	General health promotion (CHAN); Cancer; Maternal and Infant Health (MIHOW)	No	No	1998
10. Nevada	NV state welfare, Medicaid office, NV SCHIP, NV department of human resources, and other partners	Health access and outreach; Medicaid enrollment	No	Moving towards certification	1999
11. New Mexico	Through New Mexico Department of Health agencies; AHEC	Health education and outreach	No	Moving towards certification	1991
12. North Carolina	State agencies: immunization department, domestic violence, department of agriculture	Farmworker health, health outreach and education	No	No	1993
13. Ohio	OH Department of Health, CAP	Health education and outreach; care coordination	Yes	Yes	1999
14. Oregon	Portland Community College	Capacitation of CHWs	No	No	1998
15. Texas	Certified training centers including community colleges	Health education and outreach; core competencies	Yes	Yes	1999
16. Virginia	State agencies and other organizations for specialized training	Comprehensive health investment (CHIP); Community outreach; child health	No	No	1992
17. West Virginia	WV University Morgantown and state department of health (Lending a Hand Program)	Volunteer based community development, social support and health	No	No	2000

Exhibit 1. (*Continued*).

tiveness in linking minority communities with health and social services agencies. Regardless of the type of program (certification versus community college versus agency training program) all programs reported a common theme in the creation and history of their programs: unmet needs and lack of access to healthcare services in culturally, economically and geographically difficult to reach communities. Training and certification programs for the CHWs were initiated after primary healthcare providers, community programs, and, in some cases, state leadership recognized the value of the CHWs' work and invested resources and effort in improving their skills related to improving the health of their community members.

CHW certification initiatives were responses to high infant mortality among African Americans in Indiana, underserved farmworker families and high infant mortality rates in the U.S.–Mexico border states, lack of access to care in rural areas of West Virginia, Mississippi, and lack of purchasing power due to no insurance in most states. There was evidence of a disproportionate distribution of assets and skills in cultural minority

communities due to language barriers, fear of government authorities, and lack of access to health insurance. Other major disproportionate distributions had to do with skills and knowledge, such as ability to find resources, and knowledge about eligibility for Medicaid and state children's health insurance. All of these factors contributed to the lack of purchasing power in the healthcare market and led to market failures [20]. Society, in the case of CHW training and certification programs, recognized the direct connection between the gaps in healthcare access for underserved communities and the value that the community volunteers brought to closing these gaps and responded by investing in the training and skill development of the CHWs. Both the emergence of CHWs working as volunteers in their communities and the initiation of training and certification programs to enhance their abilities represent attempts by the society to correct a perceived market failure.

3.2. Establishment of training programs

Most of these 17 states had training programs at community colleges and direct service agencies, such as not-for-profit community centers and clinics. Many of these programs were supported by the state either financially or through other means such as referrals, marketing, technical assistance, and training (Exhibit 2).

Issues that motivated the creation of a training program were generally due to the lack of standardized system-wide training and skill development of CHWs, and the need for basic core competencies of CHWs already working in their communities. Most training programs and curricula for CHWs have emerged in the 1990s, as utilization of the CHW as a health outreach worker intensified and their value to the health delivery system was recognized by healthcare professionals and community leader. Key leaders and collaborators in the initiation of certification and training programs do not merely include CHW networks and leaders, but also health professionals, state legislators, state and county departments of health and institutions of higher education.

Three states – Ohio, North Carolina, and Nevada – established standards for training of CHWs at the state level, and provided training for lay health workers at the state departments of health. While certain levels of standardized training were required for some or all CHWs in these states, North Carolina and Nevada did not require certification or administer a certification program. Participants received a certificate of completion, which is not considered a state-level certification. Ohio implemented a certification program for CHWs at the state level after the completion of this study in 2004.

North Carolina requires all staff CHWs who are employed by a state funded agency to attend at least three training workshops offered by the state department of health. The Ohio department of health on the other hand has implemented standardized training for "community care coordinators" through funding by HRSA's community access program (CAP). Ohio has currently six demonstration sites, geographically distributed throughout the state. The state department of health has also developed web based training modules for supervisors and is planning to develop one for the community care coordinators (CHWs). Nevada's "Feet on the Street" program is administered through the Great Basin Primary Care Association in partnership with the state of Nevada. The state was involved in the creation of the training program and also houses the training of CHWs. The CHWs in Nevada mainly focus on increasing Medicaid enrollments in their communities.

The majority of the states with larger CHW populations have supported the establishment of CHW training programs at the community colleges (although not all curricula are standardized), and some states have collaborated with, or supported regional CHW agencies that also provide training. Arizona, California, Florida, Massachusetts, Kentucky, New Mexico, and Virginia fall under the category of training programs that are supported by the state either financially or through other means. New Mexico is exploring the feasibility of a state CHW training program that may include certification.

Massachusetts, Arizona, California, and Virginia have shown leadership in the areas of curriculum and program development at community colleges, and in establishing CHW associations. Massachusetts, which has a large and coordinated CHW network, is currently participating in a national CHW workforce study underwritten by HRSA. These states, despite the well-established networks and training standards for CHWs, have not moved towards state certification yet. A philosophy shared among many of the community college

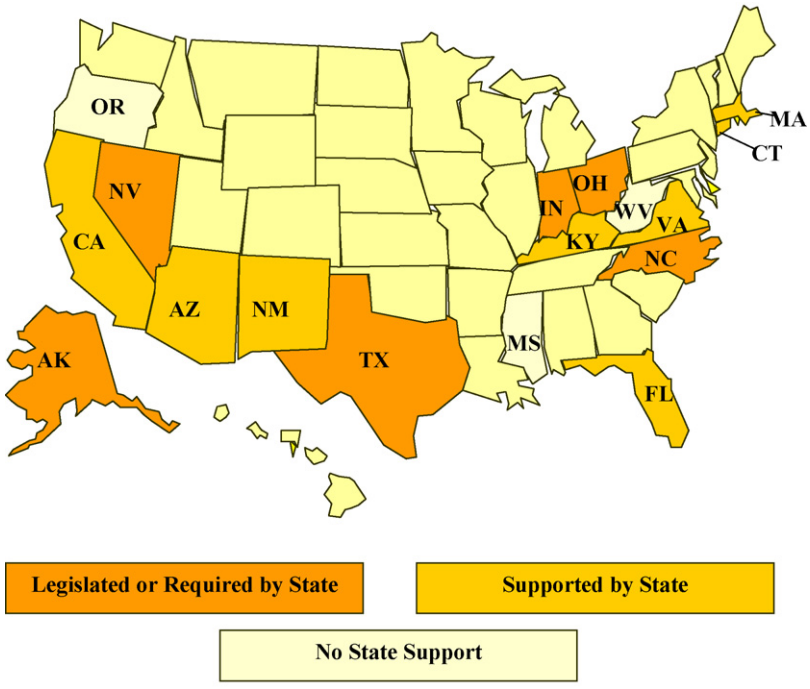

Exhibit 2. Level of support from state for CHW program. *Source*: CHW Certification and Training National Survey [15].

programs is that training of CHWs at the community college level will help them achieve higher career goals long-term.

Kentucky Homeplace is a state supported CHW direct service program that also provides training for the CHWs. The workers are called family health care advisors (FHCA). They are lay health workers who are culturally competent for the communities they work in, and have experience with the state health insurance (Medicaid). The program was created in 1994 under the leadership of Representative Paul Mason and has a statewide reach [21]. Although the state has considered certification of the FHCAs, it has not been implemented yet due to uncertainties about the pros and cons of certification.

In Oregon, Mississippi, and West Virginia, CHW programs took the approach of establishing strong agency based direct service programs utilizing CHWs as important members of the care coordination and outreach team. CHWs serve as the link between their communities and the agency's network of services. Each one of these programs has a unique model of community outreach initiative and has been successful in securing federal and foundation funding for its program without the assistance or financial support by the state. Training of CHWs is conducted on-the-job at the agency level or is contracted through the agency. Training curricula are based on community and agency needs and preferences, as well as the unique philosophies and healthcare foci of the programs. There are no statewide training or certification programs for CHWs in these states, and the states are not involved in the administration of or funding for these agency based programs.

3.3. Granting of certification

Alaska and Indiana have implemented certification programs for highly skilled outreach workers. Texas and Ohio, on the other hand, certify "generalist" CHWs. Alaska trains and certifies skilled community health aides (CHAs) to provide basic medical

and dental services in addition to health education and outreach. The CHAs work closely with physicians' assistants [21].

Indiana has a state certification program for specialized CHWs working for maternal and child health programs and has been able to reimburse certified CHWs working for the Medicaid eligible agencies in the state. Indiana's state department of health has established a training packet, trains the agency trainers at the agency level, and provides technical assistance with the training of CHWs for agencies that want to implement a maternal and child health program reimbursable through Medicaid. Training of the CHWs is performed at the agency level with state oversight. Indiana's unique approach to staffing is reflected in the innovative care coordination teams combining a registered nurse, a social worker and a CHW into one work group. Based on health professional research and literature, one would expect some level of conflict between the role of the social worker and the newest member of the team to acquire certification from the state [22]. Nevertheless, the National Association of Social Workers supported the creation of the CHW program in Indiana and the inclusion of lay health workers into the care coordination team. Further research on possible future inter-professional conflict would be useful as more states involve CHWs into multi-specialty teams.

Texas implemented a state legislated certification program and to date has officially certified more than 500 CHWs [23]. Texas established criteria for the certification at various levels: training institutions, trainers, and individual CHWs; all three levels of certification have been implemented. The Texas certification program was initiated through a bill passed in 1999. Although certification of all CHWs is not required in order for them to be employed (or work as volunteers) the trend is to require CHW certification for certain classifications, e.g. if employed in a program funded with state dollars, or participants in a state supported research and/or outreach grant. Both Texas and Indiana informants list Medicaid reimbursements and more stable compensation for the CHW as the major goals of their program in addition to legitimizing and recognizing CHWs at the state level. Both certification programs require a specified number of hours of classroom training and field training.

Ohio passed legislation in 2004 related to the certification of CHWs and of community care coordinators.

	Certification	Training
State Legislated or Required by the State	Alaska, Indiana, Ohio, Texas	North Carolina, Nevada
Supported by the State (financial or other support)		Arizona, California, Connecticut, Kentucky, Massachusetts, New Mexico, Virginia, Florida, West Virgina
Not Supported by State		Oregon, Mississippi

Exhibit 3. Typology of CHW certification and training programs.

For the latter, the state provides on line electronic training. Certification for Ohio's CHWs is provided through the Board of Nursing. Some states, such as Arizona, California, Kentucky, Massachusetts, Nevada, and New Mexico, were considering the development of a state-level certification program for CHWs when interviewed.

After careful analysis of the results by the emerging themes, states with certification and/or training programs for CHWs were grouped into six categories based on level of state support and type of program (Exhibit 3).

We grouped CHW programs at the state level distinguishing between merely CHW training versus CHW certification programs (the two columns in Exhibit 3). Next we distinguished between:s (1) states that did not involve themselves in the training or certification of CHWs, (2) states that supported the CHW programs through financial resources, in-kind contribution or networking efforts, and (3) those states that actually legislated or mandated by agency stipulations CHW training and certification. The majority of the states (a total of nine) fall into the category of CHW training programs that were supported by the states, but not legislated by the state. Four states created some level of legislative involvement in the certification of CHWs, and two states had legislation associated with CHW training, but no certification. Another consideration that appeared to be important, but was not depicted in this typology, is the geographic reach of the certification/training program. For example, some of the most established and recognized training programs, such as Center for Sustainable Health Outreach

(CSHO) programs based in Mississippi, have surprisingly not yet established a statewide training program in their home state, although CSHO has affected the training of CHWs and establishment of CHW programs on a national level.

3.4. Summary of training and certification results

Characteristics of CHW training and certification programs varied across states. There were more states that provided training for CHWs at community colleges and direct care agencies than states with structured certification programs. Agency level training appeared to be most prevalent in states that utilized lay health workers for specialized areas of healthcare such as heart disease, cancer, mental health, and child/maternal health, as in the case of programs developed through the CSHO based in Mississippi. Agency level training programs were least likely to be supported or regulated by the state, while community college programs and state administered training and certification programs were more likely to receive some state support, but were not necessarily regulated by standardized rules of training and/or certification.

Six outcomes have emerged from the analysis of the training and certification programs:

(1) *Career advancement*: Schooling at the community college level for CHWs provides career advancement opportunities and college credit that is transferable to other career programs. Many CHWs attended training programs at the community college level and continued with higher education and advanced to nursing and social work professions.
(2) *Enhanced earning capacity*: The data suggest that trained, and where available certified, CHWs have been able to secure higher wages, which has improved their job security.
(3) *Enhanced CHW retention*: One theme indicated in the data is that healthcare agencies providing on-the-job training have improved retention rates. It is important to note that enhanced retention of CHWs can translates into lack of vertical job mobility and therefore less motivation to get "better" jobs [22]. Possible issues with vertical job mobility have to be considered in labor markets with shortages of health professionals such as nurses and social workers.
(4) *Outcomes*: Agency level respondents indicated that on-the-job *training* at the agency level improved standards of care, health outcomes, and reliance on CHWs skills and competencies.
(5) *CHW status*: Certification at the state level provided potential for enhanced recognition of the work of CHWs and in some cases increased earnings, especially in cases where ways were found to reimburse CHWs through Medicaid.
(6) *Improved self-esteem and self-worth*: One of the strongest findings is that CHW certification strongly and positively affects CHWs' personal fulfillment.

We were able to link the reported results of community college based training programs to the human capital investment model. Schooling, like any other knowledge, can significantly raise real income due to "production possibilities" and "the effects of different parties or social arrangements" [19]. All respondents in states with school-based training programs cited enhanced opportunities for the CHWs to advance in their careers and pursue additional professional schooling as a main goal and potentially positive impact of the community college training programs. Further evaluation of the economic impact of school-based training and vertical labor mobility and geographic mobility is necessary to understand the effects of CHW training on the economic stability of their communities. Empirical research on schooling and labor mobility has shown that high levels of education decreases labor mobility, but increases geographic mobility [24].

States that have invested in on-the-job training programs at the agency level (e.g. North Carolina and Nevada) as well as states with well developed agency programs not supported by the state (e.g. Oregon, Mississippi, West Virginia) have achieved better health outcomes due to specialized training, including reimbursement for the services of the CHW through Medicaid, and better retention of CHWs, all translating into higher productivity.

Finally, we found that the majority of training and certification programs had a limited program evaluation component in place. Training programs generally conducted course evaluation surveys, while a limited number administered skill assessment test. Programs that were funded by federal government demonstra-

tion grants were most likely to have implemented a program evaluation component. Future efforts to study the capital investment costs of training and certification of CHWs will help with the evaluation of the impact of trained CHWs in healthcare delivery system compared to the long-term costs of training and certification.

4. Discussion

Our in-depth survey of the 17 states revealed that each state's CHW program has unique histories, foci, and approaches to improving the skills and knowledge levels of lay health workers. We have identified three major trends in the states: community college based training, on-the-job training, and state legislated certification. Most states have supported training programs at the community college and local agency levels, while a few have decided to implement training requirements and certification programs. Depending on the desired outcome, policy may be directed toward improving the vertical mobility and career advancement of CHWs by subsidizing community college based education, or providing stable jobs and incomes for CHWs by supporting the reimbursement of trained and certified CHWs.

Results from this survey confirm that CHWs provide a critical link between their communities and the health and social services system [25]. Healthcare communities in many U.S. states recognized the value of CHWs as a member of the health delivery team and therefore have supported the utilization and skill development of CHWs. Prior research has shown that non-professional healthcare providers are more likely to care for underserved populations, especially in rural areas and among ethnic minorities [26]. Further, the CHW could play an important role as a member of a research and evaluation team that is culturally well aligned with the target population studied [27]. The projected growth of "social and human services assistants" has been estimated at 76% between 2000 and 2010; one of the fastest growing careers [28]. Therefore, trained and/or certified CHWs are potentially an important healthcare workforce that will continue to assist with improved health and social services access and improved heath services utilization among underserved populations.

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