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THE EVOLVING U.S. HEALTH WORKFORCE

The Changing Roles of Community Health Workers

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Objective. To examine what different types of employers value in hiring community health workers (CHWs) and determine what new competencies CHWs might need to meet workforce demands in the context of an evolving payment landscape and substantial literature suggesting that CHWs are uniquely qualified to address health disparities.

Study Design. We used a multimethod approach, including a literature review, development of a database of 76 programs, interviews with 24 key informants, and a qualitative comparison of major CHW competency lists.

Principal Findings. We find a shift in CHW employment settings from community-based organizations to hospitals/health systems. Providers that hire CHWs directly, as opposed to partnering with community organizations, report that they value education and training more highly than traditional characteristics, such as peer status. We find substantial similarities across competency lists, but a gap in competencies that relate to CHWs' ability to integrate into health systems while maintaining their unique identity.

Conclusions. As CHW integration into health care organizations advances, and as states move forward with CHW certification efforts, it is important to develop new competencies that relate to CHW–health system integration. Chief among them is the ability to explain and defend the CHW's unique occupational identity.

Key Words. Determinants of health/population health/socioeconomic causes of health, health care organizations and systems, health workforce: distribution/incomes/training, integrated delivery systems

Community health workers (CHWs) have gained the attention of policy makers and health care providers because of their unique role in addressing health disparities and socioeconomic drivers of disease. To date, there has been limited research specifically describing the variation in CHWs' roles and relationships, and how that variation relates to management, to health system integration, and to the competencies CHWs should have in different roles.

In this study, we explore several related questions. First, we ask how health systems are employing CHWs and what these programs value in their

hiring practices. Second, we explore the elements that are viewed by employers and experts as key to a successful CHW integration. Lastly, we examine current CHW competency sets in light of this new demand profile.

The term “CHW” includes many different job titles and roles, such as lay health worker, community health advocate, and promotor, and also includes titles that involve special training/knowledge in a particular area, such as an asthma educator. The American Public Health Association’s (APHA) general definition of CHW is “a frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served” (APHA 2009). Their unique defining characteristic is not just that they possess an intimate knowledge of community needs and resources, but that they have a shared life experience with the community which enables them to gain trust in ways that the traditional health care workforce may not. This attribute enables CHWs to address the social determinants of health where the health care system may fall short due to lack of time, skills, cultural affinity, and community linkages (American Public Health Association 2009; U.S. Department of Health and Human Services Office of Minority Health 2015).

The only national survey of CHWs, carried out by HRSA in 2007, estimated the number of CHWs in the United States at 86,000 in 2000, increasing to 121,000 by 2005 (U.S. Department of Health and Human Services, Bureau of Health Professionals, Health Resources and Services Administration 2007). Evidence from the Bureau of Labor Statistics indicates substantial variation across the nation in numbers of CHWs relative both to state populations and to general employment in each state, with total CHW numbers continuing to grow (U.S. Department of Health and Human Services, Bureau of Health Professionals, Health Resources and Services Administration 2007; Bureau of Labor Statistics 2012, 2013, 2014).

A growing body of research demonstrates CHWs’ positive impact on patient and community health, particularly among low-income and minority

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populations: CHWs have shown success in improving chronic disease management (Norris et al. 2006; Reinschmidt et al. 2006; Brownstein et al. 2007; Baig et al. 2010; Spencer et al. 2011; Islam et al. 2013b; Islam et al. 2014), enhancing disease prevention and screening (Navarro et al. 1998; Hunter et al. 2004; Hansen et al. 2005; Ingram et al. 2007; Martinez et al. 2011; Islam et al. 2013a), promoting positive lifestyle behavior changes (Corkery et al. 1997; Elder et al. 2005), facilitating insurance enrollment (Perez et al. 2006), and reducing unnecessary health service utilization (Fedder et al. 2003; Enard and Ganelin 2013).

Given their unique potential to generate positive health outcomes, CHWs are increasingly being acknowledged as valuable members of the health care workforce (AMA 2015). In 2010, the U.S. Department of Labor officially recognized CHW as a labor category (U.S. Office of Management and Budget 2009). Federal-level efforts—including HHS's *Action Plan to Reduce Racial and Ethnic Health Disparities* (U.S. Department of Health & Human Services 2011) and their *Promotores de Salud Initiative* (U.S. Department of Health & Human Services 2015)—recognize the important contribution CHWs make in reaching underserved Americans and call for the engagement of CHWs to help reduce health disparities.

In addition, an important new Medicaid rule change (Centers for Medicare & Medicaid Services 2013) allows Medicaid programs to reimburse for preventive services provided by CHWs so long as the service was initially recommended by a licensed practitioner. States are exploring whether and how to implement this rule change (Association of State and Territorial Health Officials n.d.), but the prospect of the change itself, along with ongoing system changes driven by the Affordable Care Act (ACA) that are transforming the health workforce (Katzen and Morgan 2014), has sparked debate as to the future role of CHWs within the health system. In a new payment and service delivery landscape that incentivizes providers to focus on the social determinants of health, increasing opportunities for CHWs to partner or integrate with the health system is a priority (NEHI 2015). However, the appropriate mechanisms of CHW–health system integration have not been well examined by the literature (NEHI 2015).

Of interest is whether standardization of the CHW profession is warranted, and, if so, what that should look like (NEHI 2015). An emerging mechanism for CHW standardization is state certification or credentialing, present in several states and underway in others (Association of State and Territorial Health Officials n.d.). However, standardization through certification involves gains and losses for different stakeholders (Bovbjerg et al. 2013). For CHWs

themselves, certification can improve employment stability and lead to career pathways (Dower et al. 2006). Payers may see certification as a way to guarantee a standard skillset and knowledge base for CHWs (Miller, Bates, and Katzen 2014), and states may view it as an opportunity to bring consistency to a growing area of the health care workforce (Anthony et al. 2009) and increase funding for services (Agency for Healthcare Research and Quality 2014).

However, for an emerging occupation, the prospect of standardization may mean that a "professionalized" workforce in which standards are defined and enforced could potentially threaten what makes CHWs unique—the trust of the community served (Davis 2013; Weil 2014). This would represent a significant break with the historical roots of the CHW movement and could create barriers to entry into the profession (Goodwin and Tobler 2008; Bovbjerg et al. 2013; Weil 2014). For this reason, CHWs themselves have set out to establish their own standards (Community Resources, LLC n.d.).

Stakeholders often have different interpretations of what competencies should be expected of CHWs as part of state certification/credentialing. Competencies focus on what CHWs are expected to be able to do, but they also determine curriculum design and serve as an evaluation tool (Rosenthal 1998; U.S. Department of Health and Human Services Bureau of Health Professionals 2007; Anthony et al. 2009; McCormick et al. 2012). The scope of CHW activities included in competencies is, therefore, a critical issue for the emerging standardization of the profession and its ability to integrate with the health system in ways that advance patient health. If competencies respect and encompass the unique contribution CHWs make to the health care system, it could mean that the standardization process can move forward in ways that maximize, rather than compromise, the value of CHWs.

Methods

Our study objectives sought to answer several questions: (1) What are the range of employment settings in which CHWs are currently working and what are employers' hiring preferences? (2) What do experts believe are the keys to successful CHW integration into health systems? (3) Are current CHW competency lists consistent with the hiring perspectives of current employers?

To answer the first question, we developed a database of programs that employ CHWs through a range of complementary data collection approaches, including key informant interviews. For the second, we drew specifically upon

the key informant interviews. For the third, we conducted a comparative analysis of CHW competency lists. Each approach is detailed below.

Between January and May 2015, the GW research team built a database of programs that employ CHWs. We used the APHA definition to select programs for inclusion (American Public Health Association 2009). While we accepted a broad range of CHW job titles, we excluded two job titles: "Health Educator" and "Patient Navigator." Often, these job titles refer to a clinic-based position (e.g., educating patients about their conditions prior to discharge and helping patients with chronic conditions navigate the health care system), so we excluded these unless CHWs hired by the program also had responsibilities consonant with the APHA definition, such as familiarity with the target community, language affinity, or community outreach and advocacy. We excluded programs that carried out community health activities with practitioners other than CHWs, such as nurses or social workers.

To search for programs, we began with a literature review. Team members also gathered information on programs at 2014 and 2015 conferences (see Appendix SA2) on such topics as health system transformation, payment reforms, CHWs, health disparities, and prevention. We then conducted Internet searches using the search terms "community health worker," "health worker," "promotora(s)," "community care coordinator," and "CHW."

To supplement this information, we also conducted semistructured interviews with a total of 24 CHW employers and other thought leaders. We developed an initial list of interviewees based on consultations with experts and from our literature review. We selected participants purposefully so that their expertise would cover the range of program types in our database and a range of documented CHW characteristics. Participants included CHW experts from academic institutions and think tanks, state and federal public health departments, national nonprofit organizations, payers, and various CHW employers (including hospitals, health centers, health plans, and community-based employers). The interview schedule covered broad domains and focused on both the perceived changes in the employment of CHWs, and the keys to what they believed would be successful integration of CHWs into health systems. We pilot tested our interview schedule with five subjects to ensure the appropriateness of the domains covered. Interviews were recorded and transcribed. Analysis included coding according to the major database variables, as explained below, and themes relating to integration.

We further supplemented the database using publicly available descriptions on websites, in the lay media, or in published research. We then sent program contacts a request to provide further information via a survey in which

we asked participants to validate the data collected on their programs and fill in gaps by selecting the appropriate variables under each database category. The form was sent to 76 programs that met database inclusion criteria, with three follow-up requests. We received 19 unique responses (25 percent of programs). The database was then refined based on collected responses.

Our search yielded 117 programs, 76 of which met inclusion criteria. While we collected data on a range of characteristics, for the purposes of this analysis, we focused on the following four variables: (1) primary site of intervention, (2) leading organization, (3) funding source, and (4) preferred hiring qualifications (Table 1). These are not the only structural elements that are of interest to CHW integration, but they provide the advantage of having been used in HRSA's 2007 Community Health Worker National Workforce Study (U.S. Department of Health and Human Services, Bureau of Health Professionals, Health Resources and Services Administration 2007).

Table 1: Database Findings—CHW Program Characteristics

CHW Program Characteristic		*No. of Programs*	*% of Programs*
Primary site of intervention	Hospital setting	6	7.9
	Nonhospital clinic setting	13	17.1
	Patient home	28	36.8
	Other community setting	29	38.2
Leading organization	Health/social agency	7	9.2
	Health care provider/clinic	10	13.2
	Community-based organization	12	15.8
	Health plan (public/private)	10	13.2
	Other nonprofit entity	18	23.7
	Hospital/health system	24	31.6
Funding source	Health plan	9	11.8
	Health system	15	19.7
	Foundation	21	27.6
	State/local health/ social agency	15	19.7
	Federal health/social agency	27	35.5
Hiring qualifications	Educational level	8	10.5
	Community membership/ familiarity	37	48.7
	Training	27	35.5
	Language skills	17	22.4
	Peer status	5	6.6
	None specified	15	19.7
Type of integrations	Direct hire	41	53.9
	Community partner	7	9.2
	Informational resource	9	11.8
	Independent	21	27.6

To describe the variation in CHW integration, we looked for emerging themes that appeared to classify the types of arrangements most common. Through a review of program descriptions and an iterative discussion among the investigators, we identified four categories: Direct Hire, Community Partner, Informational Resource, and Independent.

Analysis of the database included a quantitative description of variables. Because the database is a convenience sample, rather than a representative sample, the aim of this descriptive analysis was to generate, rather than confirm, hypotheses. Our primary interest was in observing the range of possible CHW work arrangements and the associated hiring preferences.

The second part of our research involved a comparative analysis of competency lists. With the aim of understanding the extent to which alternative sets of CHW competencies in current use reflect the needs of programs documented in our database, we identified CHW competency lists on state websites or on the websites of organizations that work closely with state or city health departments to develop the competencies. Our search yielded nine competency list representing eight states.

Results

Our findings are presented in three sections. The first reports on five main variables that vary across CHW employers and then examines important associations among them, in particular with regard to the type of CHW integration and employers' hiring criteria. Second, we summarize the main themes that emerged from our key informant interviews relating to characteristics of successful CHW integration into health systems. Lastly, we compare competency lists and discuss whether there are gaps in light of our findings in the two previous sections.

Program Characteristics

Primary Site of Intervention. Fifty-seven programs in our database (75 percent) provide services in home and community settings: 28 programs utilize the home as a primary site of intervention, and 29 programs are delivered primarily in "other" community settings (e.g., churches, schools, and community centers). Another 13 programs have a primary site of intervention in a nonhospital clinical setting, such as a physician's office or a school-based health

center. Finally, six programs have a primary site of intervention in a hospital setting. Statements from interviews supported database results.

Leading Organization. Forty-four programs (58 percent) are led by clinical providers and health plans: hospitals/health systems led 24 programs; other clinical providers (e.g., a federally qualified health center) led another 10 programs; and public or private health plans served as the leading organization for 10 programs. Community-based organizations (CBOs) and other nonprofit entities (such as universities or community coalitions) served as the leaders for 29 programs, while health/social agencies, such as a local health department, lead seven programs.

It is interesting to note that, contrary to database results, most (15) interviewees assumed that CBOs continue to be leaders of most organizations that employ CHWs. This may be explained by the distribution of CHW workers in various programs. For example, a number of the health plans in our database employed just a handful (fewer than five) CHWs, where CBOs were often leading a much larger CHW workforce. Results from other CHW surveys show that the majority of CHWs work for CBOs (University of Arizona Prevention Research Center 2014). In addition, in 28 programs (37 percent) CHWs were directly hired by a hospital, health system, or health plan, yet served patients in a community setting. Interviewees' statements may reflect an incorrect assumption that because there are many CHWs working from a community locus, this means that CBOs are the primary leaders of these programs.

Funding Source. Twenty-seven programs were funded by a federal health/social agency (primarily the Centers for Disease Control and Prevention, the Heath Resources and Services Administration, and the Centers for Medicare and Medicaid Innovation); private foundations funded another 21 programs; state or local health/social agencies funded 15 programs; health system entities (typically hospitals or integrated health systems) funded 15 programs; and health plans served as the funding source for 9 programs. A small portion of programs (9) were funded by more than one source of funding. While our database is a convenience sample, these findings are consistent with data from the literature that show that the most common funding model for CHWs is reliance on short-term categorical grants and contracts (Dower et al. 2006; Alvillar et al. 2011; Alvisurez et al. 2013). Lack of public and private

insurance reimbursement has been described by the literature as a barrier to the expanded employment of CHWs (Dower et al. 2006; Johnson et al. 2012).

Statements from interviewees confirm the range of ways that CHWs are funded, and six interviewees stated that, as an emerging profession, there is no standard way that organizations that employ CHWs are supported financially. Three-quarters of interviewees (16 of 21) described the importance of the ACA for funding innovation in this area, but 18 interviewees cited the continued importance of public health dollars and philanthropic funding.

Hiring Qualifications. Almost half of the programs in our database (37) required applicants to live in the community served (community membership) or have considerable understanding of that community from past experience (community familiarity). Programs rarely set educational requirements: Only eight programs cited any educational criteria, most requiring CHWs to have a high-school diploma or GED. Twenty-seven programs required some "other" type of training, for example, becoming a certified asthma educator or passing a program-based training course. Seventeen programs had requirements for language fluency or proficiency. Five programs required applicants to have some level of "peer status," for example, a diabetic CHW who is working in a diabetes prevention program. While this is not an exhaustive list of all hiring criteria, these are the most common types of hiring criteria found in the database. It should be noted that for 15 programs in our database (19.7 percent), hiring criteria could not be determined.

Interviews echo database findings. Every person interviewed stated that community membership/familiarity was essential to the CHW profession, and several (7) cited peer status as being important. Interviewees were aware of few programs where "education level" is a requirement for CHWs. Three interviewees stated that to their knowledge, even where some educational level is preferred, CHW employers often prioritize hiring individuals who have community membership/familiarity.

Types of Integration. In reviewing the database and interview transcripts, we identified four types of integration, as follows:

- Programs defined as "direct hire" are those arrangements where CHWs are integrated into the larger health team, functioning as an

internal member as opposed to functioning as an external partner or resource. In many of these arrangements, the health team has built their own CHW workforce by hiring and training individuals that bridge the gap between the health care system and the community.

- Programs defined as "community partner" are those arrangements where CHWs are employed by an external entity that has a formal partnership with the health system. In many of these arrangements, the external CHW program receives referrals from and communicates back to the health system through formal communication channels, but the CHW does not function as a specific member of the larger health care team.
- Programs defined as "informational resource" are those arrangements where CHWs serve as an external informational resource to the health system without any formal partnership or communication channel. In these arrangements, part of the role for the CHW is to educate health practitioners on issues ongoing in the community related to the determinants of health.
- Programs defined as "independent" are those that are unconnected to the health care system beyond simply fielding referrals. CHWs working in these arrangements are not integrated as part of a team or formal partnership, and serving as an informational resource to the health system is not one of their defined tasks.

"Direct hire" was the most common integration type, with 41 programs (53.9 percent) incorporating CHWs as a member of a larger team of health professionals. A smaller number of programs (7) were "community partner" arrangements, and two programs in our database utilize both the "direct hire" and "community partner" approaches, hiring some CHWs as part of their internal team and formally contracting with an external CBO. We categorized nine programs as "informational resource" arrangements and 21 as "independent." Matching up these integration types with the four structural elements examined above reveals, first, that when clinical entities (health care provider/clinic and hospital/health system) and health plans in our sample serve as leaders and/or funders of CHWs, they are more likely to directly hire CHWs, as opposed to partnering with existing CBOs. Second, we find that programs that directly hire CHWs are more likely to place educational and training requirements on applicants, even though all integration approaches value community membership/familiarity as hiring criteria.

Expert Perceptions of the Keys to Successful Integration

Our second research question explores key informants' perceptions of factors that are critical to the success of CHW integration within health systems. Informants expressed concern that integration could weaken the unique role of CHW unless competencies and health systems work to preserve the elements of their independence. In particular, informants emphasized three interrelated themes, which are important to consider when examining competency lists (described in the next section).

Communications about Patient Care. Most interviewees (16) stated that for CHWs to be well integrated into the health system, established communication channels need to be present so that CHWs can communicate freely with other providers about patient care. Examples of such channels (as described by interviews and as documented in our database) include CHWs: attending daily clinical rounds, entering patient information into a shared electronic medical record, and participating regularly in appointments/calls between providers and patients. These mechanisms ensure a frequent, bidirectional flow of information between health practitioners and CHWs.

Sharing of Provider Expertise. Many interviewees (10) considered it equally important that programs allow for the transfer of expertise between CHWs and other providers. For example, do CHWs just attend daily hospital rounds or do they contribute information and lend expertise? Do other providers understand the unique contribution of CHWs such that they seek CHW advice? Examples of mechanisms include a forum for CHWs to share "best practices" and trainings for clinical providers to understand the unique role of CHWs in enhancing care for patients.

CHW Autonomy. A third characteristic that emerged from several interviews (13) concerned the level of autonomy that CHWs have in conducting their work. Even where communication channels are present and CHWs are able to share their expertise, if CHWs merely follow care instructions from other providers or deliver structured information to patients and cannot make their own judgements about patient needs in real time, then the system is not optimizing the capabilities of CHWs. Examples of mechanisms that facilitate

CHW autonomy include where CHWs create individualized action plans for patients and where CHWs are empowered to respond to shifting patient circumstances (e.g., loss of transportation or housing).

These factors will be important to keep in mind as we compare competency lists and consider changes in the types of organizations employing CHWs and their respective hiring preferences.

CHW Competencies

The question of determining and standardizing CHW competencies was top of mind for all of our informants, and questions about how to incorporate the challenge of CHW integration into these competencies were raised by many experts and program leaders. To answer this question, we identified major competencies produced by states or state-affiliated bodies and conducted a comparative analysis.

We found nine sets in total: Minnesota (Minnesota Community Health Worker Alliance 2013), Michigan (Michigan Community Health Worker Alliance n.d.), Boston (Action for Boston Community Development n.d.), Massachusetts (Massachusetts Health and Human Services 2014), San Francisco (Berthold, Avila, and Miller 2009), Texas (Texas Department of State Health Services n.d.), New York (Zahn et al. 2010), New Mexico (New Mexico Department of Health 2013), and Ohio (LAWriter Ohio Laws and Rules 2009). Table 2 presents a crosswalk of these competencies.

We found a high degree of consistency across competency sets, with most of the variation simply a function of different ordering of broadly similar role categories. Indeed, all seem to reflect common roots in the seven-core CHW activity areas developed in the landmark 1998 National Community Health Advisor Study (Rosenthal 1998; LAWriter Ohio Laws and Rules 2009).

However, when considering the new CHW landscape—in particular increased CHW employment by health systems observed in our sample and the viewpoints expressed by study participants regarding factors for successful integration—we note two weaknesses in current competency sets. First, we observe that more could be developed with regard to competencies CHWs need to successfully integrate into health systems. Second, the lists do not clearly distinguish the competencies of CHWs as compared to other health occupations. In other words, there is no one thing in these lists of competencies that other occupations could and do not also do. We discuss this further in the Discussions and Implications section.

Table 2: Competency Crosswalk

Minnesota	*Michigan*	*Boston*	*Massachusetts*	*City College of San Francisco*	*Texas*	*New York*	*New Mexico*	*Ohio*
(1) Role, advocacy and outreach	(1) Advocacy and outreach	(1) Outreach methods and strategies	(1) Outreach methods and strategies	(6) Advocacy skills	(5) Advocacy skills	(6) Advocacy skills	(6) Advocacy skills (8) Community health outreach skills	(4) Individual and community advocacy
(2) Organization and resources: community and personal strategies	(2) Community and personal strategies	(2) Client and community assessment	(2) Individual and community assessment	(8) Organizational skills	(7) Organizational skills	(8) Organizational skills	(9) Community knowledge and assessment	
(3) Teaching and capacity building	(3) Teaching and capacity building	(5) Health education for behavior change (8) Community capacity building	(5) Education to promote healthy behavior change (8) Advocacy and community capacity building	(7) Teaching skills (3) Knowledge base about the community, health issues, and available services (5) Capacity-building skills	(6) Teaching skills (4) Capacity-building skills	(7) Technical [teaching] skills (5) Capacity-building skills (3) Informal counseling	(7) Technical teaching skills (5) Capacity building skills	(2) Community resources
(4) Legal and ethical responsibilities	(4) Legal and ethical responsibilities		(10) Professional skills and conduct					
(5) Coordination, documentation and reporting	(5) Coordination, documentation and reporting	(6) Support, advocate and coordinate care for clients (9) Writing and technical communication skills	(6) Care Coordination and system navigation (9) Documentation	(4) Service coordination skills	(3) Service coordination skills	(4) Service coordination skills	(4) Service coordination skills	(6) Service skills and responsibilities

continued

Table 2: *Continued*

Minnesota	*Michigan*	*Boston*	*Massachusetts*	*City College of San Francisco*	*Texas*	*New York*	*New Mexico*	*Ohio*
(6) Communication and cultural competence	(6) Communication skills and cultural competence	(3) Effective communication (4) Culturally based communication and Care	(3) Effective communication (4) Cultural responsiveness and mediation	(1) Communication skills (2) Interpersonal skills	(1) Communication skills (2) Interpersonal skills	(1) Communication skills (2) Interpersonal skills	(1) Effective communication skills (2) Interpersonal skills	(3) Communication skills
(7) Health promotion competencies	(7) Health promotion				(8) Knowledge base on specific health issues		(3) Health coaching skills	(1) Health care (5) Health education
(8) Healthy lifestyles		(7) Apply public health concepts and approaches	(7) Use of public health concepts and approaches					

Sources: Minnesota (Minnesota Community Health Worker Alliance 2013); Michigan (Michigan Community Health Worker Alliance n.d.); Boston (Action for Boston Community Development n.d.); Massachusetts (Massachusetts Health and Human Services 2014); City College of San Francisco (Berthold, Avila, and Miller 2009); Texas (Texas Department of State Health Services n.d.); New York (Zahn et al. 2010); New Mexico (New Mexico Department of Health 2013); Ohio (LAWriter® Ohio Laws and Rules 2009).

Competencies that were deemed important to integration by the study informants include the ability to function as a member of an integrated health care team and in particular the abilities to speak the provider's language, operate in the provider's environment, and meet the provider's standards with regard to record keeping.

Study informants also emphasized another necessary subset of competencies that relate to the ability of CHWs to operate according to a care philosophy that is distinct from that of clinical team members. These might include competencies such as a deep and clear understanding of the rationale behind the CHW contribution and the ability to explain it to others; the ability to combine advocacy for the patient with empathy for the provider (high-level negotiating, diplomacy, and conflict resolution skills); and leadership skills—in the health setting as a representative of the community, and in the community as a representative of the provider.

Discussion and Implications

As compared to a 2007 HRSA study that assessed the size and employment settings of CHWs (U.S. Department of Health and Human Services, Bureau of Health Professionals, Health Resources and Services Administration 2007), we find a shift in CHW employment settings from CBOs to hospitals and health systems that hire these workers directly. This shift is not surprising, as clinical entities are increasingly implementing team-based models of care and incorporating community-based interventions in response to new funding opportunities and ACA-driven market changes. Trends include enhanced attention to prevention and population health, value-driven care, care coordination, team-based care through medical homes, and state-based innovations (Abrams et al. 2015).

Where hospitals, health systems, and health plans are funding and leading CHWs, CHWs may be more likely to interact with patients in clinical settings. However, it should not be assumed that CHWs have to work *in* the clinical setting to be cohesive members of a larger health care team. Our results indicate a trend toward hospital/health system/health plan leadership while maintaining the CHW in a community setting. Database and interview findings show that CHWs can work in health care teams or in partnership with other health care practitioners from a community locus, and these arrangements may be particularly effective where certain program characteristics are in place: established communication channels; opportunities for the transfer

of expertise between CHWs and other providers; and mechanisms that facilitate CHW autonomy.

The continued push for CHWs to operate in community settings over clinical may indicate that the newer wave of CHW funders and leaders (i.e., health systems and health plans) has at least an appreciation for the roots of the CHW profession as being frontline public health workers, serving the community. Hiring qualifications may also reflect this appreciation: community membership/familiarity is often a more important hiring criterion than formal education.

However, as CHWs are thrust into health reform discussions, health care provider organizations and payers are interested in standardizing it in ways that allow for appropriate CHW recruitment, for example, by establishing CHW education and/or training/certification requirements as hiring criteria (Crigler et al. 2013). Our database echoes this landscape: hospitals and health systems in our analysis that hire CHWs directly (as opposed to partnering with external organizations) are more likely to place educational/training requirements on CHW applicants. This finding may indicate that when program funders or leaders are not as personally connected to CHWs and their community, education or training may be the most concrete hiring criteria for selecting applicants.

We also find that as states move forward with various certification systems intended to set standardization around the CHW profession, it is important to consider competencies that relate to CHW–health system integration to help CHWs and their supervisors understand and defend the unique CHW role within teams.

One way to clearly articulate CHWs' unique contribution as a group is to draw out the mechanisms by which CHWs help improve health outcomes beyond what can be achieved in the traditional clinical model of care. While each of these mechanisms, or "modes of impact," is already present to varying degrees in the competency of other professionals, taken as a block, they signal an alternative approach to improving health. Major modes of impact frequently cited in the literature include the following:

1. *Outreach* to new and existing service recipients in their homes or in other community locations. Many of the skills, knowledge, and abilities needed to perform outreach activities are similar and involve being able to work comfortably in different community locations and to move around these locations easily.

2. *Trust-building* reflects a belief that health care delivery is more successful with engaged patients. This category is linked to outreach in that visiting a patient at home is one way of building trust.
3. *Patient and community empowerment* can begin once trust is established. This involves a combination of knowledge building (e.g., health education), motivation (motivating the patient to engage in their own care), personal organization (helping that patient to schedule medical appointments), and assertiveness building (helping the patient to respond to medical advice).
4. *A focus on social determinants* recognizes that much of what drives health is located in the environment, community, or family relationships and that solutions often require resources or service from beyond health care (e.g., transport, housing, food). The CHW connects people to these services.

The ability to articulate these modes of impact could help CHWs defend and protect their unique contribution, especially as they increasingly form part of team-based clinical care. The modes of impact may also assist in the review of current lists of CHW competencies, as they place the focus squarely on the reasons CHWs are being hired and help to categorize the activities that generate impact. To the extent that this helps identify additional competencies that may be lacking from current competency sets, the use of competencies in any state standardization process will be more likely to maximize the unique roles and capabilities of CHWs.

These categories of impact certainly merit further review and discussion among CHWs, their employers, and educators. Not all CHWs will be integrated with health systems, and these additional competencies need not be applied in those cases; states should take this into account in their thinking about certification for CHWs. Regardless of the final set of modes of impact that are accepted by CHWs, articulating the value of the profession is, in and of itself, an increasingly important competency as more CHWs are hired by hospitals, health systems, and health plans.

One important issue for further research is exploring why CHW employers believe CHWs are more appropriate than other occupations for tasks associated with the above modes of impact. As noted previously, other occupations can substitute for the CHW for most, if not all, of the competencies described. Four explanations might be explored, each of which suggests different factors contributing to employers' beliefs:

1. CHWs are better at tasks involving these modes of impact than other occupations (knowledge/skills/abilities factors);
2. CHWs are generally reimbursed at a lower rate than other occupations (cost factors);
3. CHWs are more willing or available to undertake these tasks (labor market/payment factors); and
4. CHWs are able to carry out tasks related to these modes of impact in locations that others cannot or will not; this could encompass both the service location (e.g., home visiting) and the global location (e.g., willingness to work in underserved areas).

One hypothesis for exploration through such research is that CHWs, by virtue of the very "grant funding" that has been identified as a barrier to their development as an occupation (Dower et al. 2006), are free to carry out tasks that do not satisfy the "medical necessity" criterion that drives much health insurance-based reimbursement—in contrast to health "professional" occupations who traditionally earn their income through fee-for-service. The basis for such a hypothesis would be that employers are increasingly identifying key tasks that are not in themselves reimbursable but contribute to improved health if delivered through a cost-effective and efficient model. If this hypothesis holds, we could expect to see increasing use of CHWs in emerging value-based payment models.

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Supporting Information

Additional supporting information may be found in the online version of this article:

Appendix SA1: Author Matrix.
Appendix SA2: Attended Conferences, 2014–2015.