

Development of a Framework to Describe Functions and Practice of Community Health Workers

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Abstract: There is evidence to support the effectiveness of community health workers (CHWs), as they practice in a wide range of health care settings; yet, the perceived value of CHWs suffers from a lack of uniform credentialing and from a dearth of billing and payment structures to recognize their individual work. In turn, credentialing and billing for the work of CHWs is hampered by widely variable regulation, conflicting job titles and position descriptions, and general confusion about CHW identity, sometimes complicated by service boundaries that overlap with those of other health care and social service occupations. This article presents evidence from a rapid review of the CHW literature from 2003 to 2018. It includes clinical trials, meta-analyses, and policy reports summarizing more than 200 CHW interventions intended to improve patient health status or care delivery. The evidence is used to identify CHW roles, responsibilities, behaviors, and competencies. Four categories of CHW practice are developed from the evidence: peer CHW, general CHW, clinical CHW, and health navigator. A framework is proposed to recognize unique CHW roles, promote and further integrate varied levels of CHW function into health care–related organizations, and to inform decisions regarding certification, education, and payment for CHW services in the United States.

Keywords: community health workers, roles, responsibilities, education, training, credentialing

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As the World Health Organization addresses challenges of global health care workforce shortages, policy makers in the United States draw lessons from worldwide studies to improve the design, implementation, performance, and evaluation of community health worker (CHW) programs in the United States. CHWs are frontline public health workers who are trusted members of and/or have an unusually close understanding of the community they serve.^{1,2} CHWs excel as liaisons between health care and public health services providers and target communities. They provide social services, build individual and community capacity, and increase health knowledge and self-sufficiency, through a range of activities such as out-

reach, community education, informal counseling, social support, and advocacy.^{1–3}

US policy makers have long endorsed the efficacy of CHWs, recommended core CHW qualifications and functions, and promoted their use^{3,4}; Virginia in 2006; Massachusetts in 2009⁵; New York in 2011,⁶ and the US Centers for Disease Control and Prevention in 2015.⁷ In 2016, the Centers for Disease Control and Prevention offered online training regarding CHW roles, policies, credentialing, sustainability, and states' efforts to use CHWs.⁸

Clinical trials show the success of CHWs in managing disease-specific and non-disease-specific conditions in a variety of cultures.^{9,10} CHWs can help patients by reducing health risks, improving outcomes, and reducing inappropriate use of health care services.¹⁰ They can reduce readmission rates and improve the patient-provider relationship.^{11,12} Systematic reviews find favorable effects of CHWs on immunization uptake and improved outcomes for acute respiratory infections and malaria,¹³ on primary and community health care for maternal and child health, and in management of infectious diseases.¹⁴ Program recipients appreciate the skills of CHWs but also the similarities between themselves and the CHWs.¹⁵ Major influences of success include program acceptability, appropriateness and credibility, and health system constraints.¹⁶

CHWs may reduce costs and improve the effectiveness of health care systems,^{17–19} leading participants in a National Academy of Sciences Roundtable on Population Health Improvement to conclude that if cost savings for CHWs were the “results of a clinical trial for a drug, we would likely see pressure for fast tracking through the FDA.”²⁰

Despite their effectiveness and limited costs, inclusion in the Affordable Care Act, and recognition by the US Department of Labor,²¹ CHW programs have not been stable or replicated widely nor have CHWs been brought into the mainstream of US health care delivery through direct reimbursement of their individual specific services.²² This lack of direct payment is a

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major impediment to implementation of CHW programs. They are ordinarily financed through public health or nonprofit organization grants, service or managed care organizations, or hospitals and health care organizations.^{23,24}

INCONSISTENT ROLE DEFINITIONS OF CHWs

Perhaps, the earliest published study of CHW function was Koch²⁴'s 1998 National Community Health Advisory Study (NCHAS). NCHAS engaged the subjects of their research, then called Community Health Advisors, in the process of gaining and creating knowledge about their occupational roles and responsibilities. Results were reported from discussion groups and a survey of 281 Community Health Advisors and program supervisors from 200 programs in 31 states and the District of Columbia. Sixty-six titles were identified (eg, Lay Health Advocate, CHW, Peer Health Worker, and Promotor), and seven core roles were listed: cultural mediation, social support, health education, advocacy, assurance of services patients need, building individual and community capacity, and direct services. Eight skill/knowledge clusters were identified: communication, interpersonal skills, service coordination, capacity-building, teaching, and organizational skills, as well as a knowledge base of community, special health issues, and health and social service systems. Sixteen years later, the Association of Schools and Programs of Public Health collaborated with the League for Innovation in the Community College to recommend required education for a group of workers called health navigators.²⁵

Twenty years later, Rosenthal et al²⁶ published another American Public Health Association report, The Community Health Worker Core Consensus (C3) Project. The goal of C3 was to identify the values, roles, and responsibilities of CHWs to promote a national consensus. C3 conducted a crosswalk analysis and consensus process, comparing benchmark documents from the 1998 NCHAS report²⁴ against documents from six states (CA, MA, MN, NY, OR, and TX) and from the tribal Community Health Representative programs. Notably, data came from select states in which either a formal state-level process had been conducted specifying CHW roles and skill requirements or which had a robust history of well-regarded CHW education programs. The C3 project expanded the suggested scope of CHW practice to 10 roles, with multiple subroles and 11 skills required for CHW competency.²⁶ Also, in 2016, the US Department of Health and Human Services²⁷ issued a policy brief specifying the potential for CHWs to improve health care delivery and outlining key challenges to CHW programs.

More recently, Hartzler et al²⁸ reviewed 30 studies and identified 12 core CHW functions: care coordination, health coaching, social support, health assessment, resource linking, case management, medication management, remote care, follow-up, administration, health education, and literacy support. Three prominent roles of CHWs represented clusters of functions: clinical services, community resource connections, and health education and coaching.²⁸

CHW functions overlapping with those of other professions can be viewed as an advantage because CHWs serve regularly as members of multidisciplinary teams, often working in concert with nurses and others who provide similar or overlapping services. But, it can be viewed as a disadvantage to their value. For example, CHW services are delivered frequently in the home, but home visitation is not a unique characteristic of CHW practice. More

regulated professions, including nurses, physicians, speech therapists, home health aides, health educators, and occupational health and physical therapists, provide services to individuals in the home. These professionals may also be licensed or certified to provide services at the group or population level.

INCONSISTENT CHW CREDENTIALING

A credential indicates that an individual, group, or organization has been evaluated by a qualified and objective third-party credentialing body and was determined to have met standards that are defined, published, psychometrically sound, and legally defensible.²⁹ A credentialing system is designed to assure the safety of individual patients and populations, while promoting the integrity and recognition of the workers who seek to serve them.³⁰ In the United States, CHWs are credentialed variously on a state-by-state basis if at all.³¹ Massachusetts, New York, CA, and Virginia have studied the role and use of CHWs,^{4-6,32} while Minnesota already allows for direct Medicaid reimbursement to CHWs who have earned community college credits and who have become certified.³¹ Eight states have recognized a CHW scope of practice, but only two of those states have established core competencies recognized by legislation.³¹

At this writing, nine states support a training and certification program.³¹ Certification provides increased recognition for the unique characteristics, skills, body of knowledge, and role of CHWs. It can also help to improve pay, working conditions, and job stability. The CHW workforce recently established the National Association of Community Health Workers,³³ an organization to unite and represent CHWs as frontline public health workers who are trusted members of and/or have unusually close understandings of the communities they serve—and their allies from other professions, in efforts to promote health equity, social justice, and improved health in diverse communities.³³ The National Association of Community Health Workers intends to serve as a “powerful voice to promote the collective interests of the CHW workforce through movement building, policy development, advocacy, training and technical assistance, education, and research.”³³ For example, HealthConnect One promotes the use of CHWs in peer-to-peer support for pregnancy, birth, breastfeeding, and early parenting.³³ The CHW Section of the American Public Health Association supports similar goals, furthering development of the CHW role through adoption of a standardized definition, delineation of a scope of practice and encouragement of state governments, and other entities to involve CHWs in developing training standards and credentialing.²

Still, there is no centralized or coordinated movement toward a standardized credentialing process, accrediting body, or formal acknowledgment of qualification to advance recognition of CHWs as a discrete profession, secure in social contract, self-regulation, and gaining in eligibility for third party payment and reimbursement for services.

SOLUTION

Missing from the various CHW role definitions is a uniform, consolidated, consensus framework to specify CHW roles and functions across various states, organizations, and practice venues. Absent such a framework, each organization providing CHW services or training find itself at risk of repeating the work

of defining roles, skills, and qualities for practicing CHWs, resulting sometimes in very different and conflicting policies. This hampers CHW assessment to assure uniform, safe, high-quality care. It also hampers CHW credentialing to advance CHW professional status and value. A consolidated framework should be rooted in evidence and should differentiate function and practice by training and experience.^{30,34}

REVIEW THE LITERATURE FOR CHW SERVICES, POLICY, AND PROGRAM DEVELOPMENT

We therefore performed a rapid review of the CHW literature, with citations in MEDLINE from 2003 into 2018. We condensed the information and focused on synthesis of evidence to inform decisions regarding CHW health care service, policy, and program development.^{35,36} We included clinical trials, meta-analyses, and policy reports summarizing more than 200 CHW interventions, looking for themes to improve patient health status or care delivery. The purpose of the review was to generate an evidence-based model for guiding CHW workforce assessment and policy. Three of the four authors (J.C.-M., P.E.M., and W.R.S.) reviewed each article, report, and study. The goal was to compile an evidence base of specific CHW roles, responsibilities, behaviors, and competencies identified or used in the broad range of successful CHW interventions and reports. Results of individual interventions were abstracted using the Johns Hopkins Nursing Evidence-Based Practice Individual Evidence Summary Tool.³⁷ The quality of the evidence was graded using the associated Johns Hopkins Nursing Evidence-Based Practice Evidence Level and Quality Guide.³⁸ The Evidence-Based Practice Question was “What are competencies and behaviors expected of a community health worker?” When reviewing meta-analyses and policy reports containing evidence, the evidence grades of the authors were accepted as valid. Otherwise, we required unanimity of new reviewers for evidence grades. Policy briefs and reports which helped frame the problem statement of the review are not included in the review itself.

RESULTS: CHW CORE COMPETENCIES, FREQUENCIES, AND FUNCTIONS

Supplemental Table 1 reports the levels of evidence and methodological quality assigned to each article (see **Table 1, Supplemental Digital Content 1**, <http://links.lww.com/JCEHP/A63>). It also lists each role, responsibility, behavior, and competency identified in our review. Using the review evidence itself, nomenclatures found in previous reports, policy briefs, and our expert consensus, we assigned each role, responsibility, behavior, and competency identified into one of seven discrete categories or core competencies. We assigned a role, responsibility, or behavior to a core competency based on best match, as determined by unanimous agreement of the three authors most experienced in the delivery of clinical care (J.C.-M., S.J., and W.R.S.). We found multiple terms and phrases to describe each of the core competencies: They are displayed in parentheses.

We then used this list of all the CHW roles, responsibilities, behaviors, and competencies to tabulate a numeric frequency count of each role, responsibility, competency, and behavior mentioned (see **Table 1, Supplemental Digital Content 1**, <http://links.lww.com/JCEHP/A63>). We listed the number of occurrences of each CHW function by each of the three types of citations. We

counted how frequently each specific role, responsibility, competency, and behavior was described by each study or report for a total of 299. To interpret the results, we reasoned that the more frequent behaviors were more essential or generally required of all CHWs; however, the less frequent behaviors were either more specialized or less often required of all CHWs.

We found wide variability and also some overlap in the functions related to each competency. A preponderance of evidence suggested CHWs are effective in providing education about specific diseases (106 citations), providing counseling and support (78 citations), and assisting with making or reminding patients about medical appointments (54 citations), and linking patients to resources (46 citations). There was less evidence for the efficacy of CHWs in the provision of direct services, such as assistance with health insurance, blood pressure monitoring, or conducting a health screening, although several of the policy and governmental reports outlined these functions as important roles for the CHW. Neither outreach and case finding nor participation in evaluation or research was mentioned often. Although all the policy and governmental reports discussed advocacy as an important function of the CHW, only five reviewed sources included it as a role.^{11,13,15,39,40}

Supplemental Table 2 proposes an evidence-based framework of CHW function and practice. It aligns evidence sources supporting each suggested qualification, function, including behaviors, interventions, and competencies, and characteristic for further review (see **Table 2, Supplemental Digital Content 2**, <http://links.lww.com/JCEHP/A64>). The framework synthesizes titles and descriptions currently used across the array of CHW services and commends four categories of CHWs: (1) peer CHW (PCHW), (2) general CHW (GCHW), (3) clinical CHW (CCHW), and (4) health navigator (HN).

Category I: PCHWs

They are lay workers with functional relationships with clients or potential patients.^{41,42} PCHWs aim to affect client self-care that does not involve visits to a clinician or health care institution. Their training and supervision typically come from community-based organizations rather than formal health care institutions. It is not uncommon that PCHWs share the targeted condition/disease or experiences of the population being served. Typically, they assist with education and advocacy. PCHWs may require significant training or professional development before successfully working with clients. Paradoxically, perhaps more than other CHW categories, a risk of PCHWs is that inherent credibility may be lost with their client as more training and skills are obtained: Clients may identify less with the PCHW or vice versa.³³

Category II: GCHWs

They aim to affect both patient behavior and patient–clinician relationships. They are not ordinarily supervised by clinicians nor are they hired employees of health care institutions, but they tend to know and communicate formally with clinicians or health care systems, as well as with clients. GCHWs typically assist clients not only with education and advocacy but they also work as a community liaison to assist clients to obtain screening services. For example, O’Brien demonstrated improved Pap smear screening rates and increased patient knowledge levels of cervical cancer by using promotora led community-based educational interventions.⁴³ GCHWs may or may not share the disease/condition, experiences, or identity of the targeted patient population.

Category III: CCHWs

They serve on complex care teams, often as employees of a specific health care agency, institution, or system.³⁴ They aim to affect client relationships and behaviors within those organizations. They may hold certification or training offered by a health care system to improve care or health outcomes for the population. Even as most of their time may be spent moving throughout the community, CCHWs may be based in a health care facility such as a Federally Qualified Health Center.⁴⁴ CCHWs assist clients not only with education and advocacy but also with connections to community and health system resources. Like GCHWs, CCHWs may have to earn credibility and rapport with their clients.

Category IV: HNs

They are degreed professionals with a variety of special training and formal credentials. Nurses often fill the HN role. They may perform CHW functions; they also may deliver health care services directly, as they supervise the ongoing activities of CHWs. HNs are hired by a health care system and are not assigned a specific case load but are population focused. They may not only educate, advocate, and assist with system navigation but also provide medical advice and support treatment plans. As employees, they may be assigned a system-focused mission such as cost reduction, utilization reduction, or efficiency enhancement to place them in possible conflict with the best interests of the client or patient population. The HNs' knowledge, formal degree, and ability to provide direct services afford them recognition and passage as liaisons between clients and health care providers, institutions, or systems.^{45,46}

LIMITATIONS AND CONCLUSION

Recommendations: A Framework, Credentialing, Studies, Pathways Toward Professionalization, and Extended Research on Rapid Review

Rapid reviews use systematic review methods to search and critically appraise existing research in studying what is already known about a policy or practice. Rapid reviews are used with increasing frequency to synthesize and analyze evidence informing health care decisions that require shorter turnaround times. The completeness of the searching is determined by time constraints. The typical synthesis is narrative and tabular. Analysis ordinarily involves the quantity, quality, and direction of the literature, especially regarding questions of clinical effectiveness, efficacy, and cost-effectiveness.^{35,36}

Rigorous methodology is made useful only in so far as potential users are able to make decisions regarding the credibility of the review's findings⁴⁷; like many review types, there is no single cohesive method to conduct a rapid review.^{35,36} Future research is important to understanding the impact of current rapid review methods and reporting on health care decision making, the effects of potential biases that may be introduced with streamlined methods, and the effectiveness of any rapid review reporting guidelines designed for transparency.^{35,36}

Our review shows varied job titles and descriptions of the roles and responsibilities of CHWs, with service boundaries sometimes blurred, overlapping with others in health promotion, social service, and health care. Although CHWs are recognized for the value they bring to clients, patients, and populations, their individual services usually are not directly reimbursed by payers.

We propose our evidence-based framework be tested, validated, and adopted or adapted by leaders deciding education and

policy standards for CHW scope of work, certification, registration, and licensure. We recommend the development of minimum standards for assessment of competency to inform curriculum and training in each of the four proposed categories and competency-based pathways through registration, certification, and licensure of CHWs. To assure the recognition of related professions and opportunities for appropriate career path progression of CHWs, we recommend communication by current CHW workers and their employers with those whose occupational boundaries may overlap with CHW practice. We recommend education for policy makers in health systems and public health who may influence the pathways of CHWs toward professionalization. We recommend the involvement of CHWs, employers, professional associations, voluntary health agencies, community colleges, and other degree granting institutions in the design, implementation, and evaluation of educational activities meant to improve the well-being and performance of CHWs in all four categories.^{29,33,48,49}

Six states already show a formal mechanism in place to require continuing education for CHWs, and other states are taking steps to meet that goal.⁴⁹ We recommend that educational leaders reach beyond the continuing education classroom toward continuing professional development of CHWs, focusing on the individual learner at home, in the workplace, and at the point of care, to support the individual CHW in embracing self-appraisal, career development, personal coping, and personal growth, with proven reliable methods such as self-directed learning projects, individualized coaching, or technology-assisted learning.^{1,34,48} Finally, we recommend more research to demonstrate the value that CHWs trained in each category bring to patient outcomes and cost studies that can attribute benefit or harm more precisely to CHWs working within health programs or communities.

Lessons for Practice

- Based on a rapid review of the literature, a framework is proposed; it specifies titles, roles, and functions of CHWs practicing in various health care venues.
- The framework should be tested, validated, and adopted by those who design curricula or determine policy for credentialing the peer CHW, the general CHW, the clinical CHW, and the health navigator.
- Research and cost studies should be conducted on patient and population health outcomes to demonstrate the value and cost-effectiveness of CHWs trained in each category.

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