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ORIGINAL PAPER

# Integrating Community Health Workers (CHWs) into Health Care Organizations

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**Abstract** Health care organizations increasingly employ community health workers (CHWs) to help address growing provider shortages, improve patient outcomes, and increase access to culturally sensitive care among traditionally inaccessible or disenfranchised patient populations. Scholarly interest in CHWs has grown in recent decades, but researchers tend to focus on how CHWs affect patient outcomes rather than whether and how CHWs fit into the existing health care workforce. This paper focuses on the factors that facilitate and impede the integration of the CHWs into health care organizations, and strategies that organizations and their staff develop to overcome barriers to CHW integration. We use qualitative evaluation data from 13 awardees that received Health Care Innovation Awards from the Centers of Medicare and Medicaid Innovation to enhance the quality of health care, improve health outcomes, and reduce the cost of care using programs involving CHWs. We find that organizational capacity, support for CHWs, clarity about health care roles, and clinical workflow drive CHW integration. We conclude with practical recommendations for health care organizations interested in employing CHWs.

**Keywords** Community health workers · Integration · Workflow · Teamwork

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## Introduction

Community health workers (CHWs) are frontline public health professionals who are closely involved in the communities they serve, enabling them to liaise between health care and community organizations to facilitate access to high-quality, patient-centered care [1]. Functionally, CHWs establish linkages between patients and community and social services. Through resource sharing, outreach, community education, informal counseling, social support and advocacy, CHWs help individuals and communities adopt healthy behaviors and implement health-promoting programs [1, 2]. The CHW role has existed for decades, but interest in CHWs has grown over time [3]. CHWs have the potential to address several pressing problems endemic to health care delivery, including (1) growing demand for primary care and preventive services without corresponding growth in the number of traditional providers [4, 5]; (2) rising health care costs, particularly among high service-using patients with chronic disease and multiple comorbidities [6]; and (3) dissimilarities between providers and the communities they serve, which make it more difficult for providers and patients to achieve rapport and trust [7, 8].

Growing evidence suggests that CHWs can, under the right circumstances, improve patient health outcomes and reduce health care costs [9–12], but only limited research examines the conditions that facilitate or impede CHWs' effectiveness. Given that CHWs' roles require them to access medical data, work alongside providers, and have a role in care planning [13], CHWs are unlikely to be successful if they cannot work effectively with other health care professionals or fit into an organization's workflow. Research suggests that role clarity and recognition of each health care team member's competence and unique contributions facilitate positive working relationships [13–15].

Cultural and professional differences between CHWs and traditional providers may conversely cause conflict [16]. Deliberate recruitment, training, and supervision support the integration of CHWs into health care teams [17, 18]. The processes used to select and train CHWs are rarely well-defined [19]; however, state-level certification of CHWs may facilitate integration by improving the health care team's perception of their ability to provide a high level of care [20]. CHWs' involvement in various aspects of clinical workflow, including team meetings and electronic health records, also contribute to a sense of belonging [21].

This study uses qualitative evaluation data and an organizational perspective to explore these and other factors that influence the adoption and integration of CHWs into health care organizations. In doing so, we respond to the call for more qualitative research on the qualities and contexts in which CHW programs are most likely to be effective [22].

## Data and Methods

Data are from an evaluation of 24 organizations that received Health Care Innovation Awards (HCIA) from the Centers of Medicare and Medicaid Innovation (CMMI). These awardees implemented innovative programs to enhance the quality of health care, improve health outcomes, and reduce the cost of care to Medicare, Medicaid, and Children's Health Insurance Program (CHIP) beneficiaries. The programs entailed health care transformation using care coordination/patient navigation, health information technology (HIT), and delivery of preventive or health promotion services. Awardees represent a variety of organizational types, including hospitals, community health centers, specialty care providers, universities, nonprofits, health plans, and health technology firms. This analysis examines the 13 awardees that developed interventions involving CHWs. More information about the programs and awardees is available on the HCIA website [23].

This study used 3 years of qualitative program evaluation data captured though progress reports, site visits, and telephone interviews. Awardees prepared quarterly progress reports to provide updates on implementation activities and document results of self-monitoring analyses. Evaluators trained in qualitative methods conducted site visit and telephone interviews using standard study protocols. Protocol questions related to program design, implementation progress, partnerships, organizational resources and capacity, workforce development, and lessons learned. Detailed information on data collection processes has been reported elsewhere [24].

We analyzed evaluation data relevant to workflow, defined as *the tasks and activities necessary to implement the program, including inter-dependencies between staff and responsibilities*. Using an inductive analytic approach, all authors independently reviewed a sample of the data and identified preliminary themes for a working codebook. Using QSR International's NVivo qualitative analysis software (version 11.0), we then used the preliminary themes for a second round of independent coding. Ambiguous passages were flagged and discussed within the group or adjudicated by a third reader, informing codebook refinement. To ensure consistency in coding, approximately 40% of the qualitative text was double-coded, and then adjudicated by a third reader. Coders achieved a final κ of 0.8, suggesting excellent interrater reliability [25].

## Results

We identified four factors that influence the integration of CHWs, presented thematically in the following sections: organizational capacity, support for CHWs, clarity about healthcare roles, and clinical workflow. We provide evidence in the form of direct quotes from our interview notes, marked with the interviewee's role, or progress reports prepared by the awardees.

### Organizational Capacity

CHWs tended to be better integrated in health care teams when they increased organizational capacity. CHWs increased organizational capacity by enabling their colleagues to expand care to hard-to-reach target populations. Without the CHWs' unique knowledge of the communities they serve and understanding of patient thought processes, providers might not have identified or addressed barriers to care. As the following report excerpt suggests, in some cases, providers might have been unable to contact their patients at all.

> "Recently, one of the medical providers requested that the CHW and the [nurse] take some very urgent medical information to a patient in the community, and that the nurse explain this information to the patient. In most cases this would be an impossible task; the patient did not have a current phone number or address. However, since the CHW is an active member of the community, she is familiar with how to locate the patient. She knew that the patient would be working in one of the local fields. When the nurse and CHW arrived to the field to talk to the patient, he was very concerned about losing pay, and refused to stop working in the field while the information was being relayed to him. The CHW, understanding this unique barrier, offered to take over weeding the field so he could pay full

> attention to the nurse while she explained the critical information." (Awardee progress report)

As CHWs increased access to patients, their colleagues accepted them as valued members of health care team.

CHWs further increased organizational capacity by assuming responsibilities that other health care professionals could not fully undertake due to high patient volume and competing duties, primarily by completing non-medical tasks, including assessment, education, and addressing psychosocial needs. Physicians, registered nurses (RNs), nurse practitioners (NPs), and other staff acknowledged that they did not always have the availability to realistically manage their patient panels and provide the necessary degree of comprehensive care. The next report quoted indicates that, by establishing linkages between patients and community and social services, and identifying potential barriers to care, CHWs enabled clinicians to focus on the delivery of medical diagnosis and treatment. Reducing the workload of existing staff and expanding the types of care available to patients thus facilitated CHW integration.

> "[CHWs] have been a key asset in identifying barriers that may at some point interfere with a patient's care. They have worked closely with patients to collect information for their comprehensive health assessment forms... Having the [CHW] role in place has allowed care teams to focus on the medical end of the care instead of spending clinical time trying to address the social barriers patients are facing." (Awardee progress report)

Conversely, some providers expressed reluctance to work with CHWs precisely because they perceived that CHW responsibilities, including the delivery of home- or community-based care, psychosocial assessment, and linkages to community and social services, fell outside the boundaries of typical medical treatment. In the interview cited, a project leader describes how different perceptions regarding suitable care led to conflict in the care team.

> *Project Leader*: "We realized that the CHWs were butting heads with the NP because CHWs identified work outside of the NP's or nurse's scope of work, such as social determinants, housing, utility, food, relationship, mental health issues."

Most clinicians receive training in clinic-based, episodic care encounters, and may not feel prepared to be part of a team that provides anything else. CHW integration thus required that all staff approach health care in a more inclusive way.

**Support for CHWs**

Awardees that effectively integrated CHWs supported them by preparing, supervising, and providing adequate tools for their new staff. First, successful awardees adopted thoughtful recruitment and training practices enabling them to identify CHWs well-suited for their positions in terms of knowledge, skills, personality, and/or membership in the patient population served. Thoughtful recruitment and training practices guaranteed that CHWs were capable of providing necessary services, reduced staff turnover, and ensured that the position could also be explained to other health care professionals to build awareness of and confidence in CHWs. One awardee's performance report identifies training as especially important when CHWs with existing skills are difficult to recruit.

> "The ability to recruit locally affiliated CHWs is critical to the project. It is sometimes difficult to recruit from small rural communities and to hire qualified CHWs. The training component is key to being able to get a newly hired CHW trained to provide comprehensive health education and care management in the home setting." (Awardee progress report)

Essential training topics included building relationships with patients; understanding the CHW role; addressing barriers to care, including behavioral health; basic health information; and how to use health IT.

Second, CHW integration required health care organizations provide adequate supervision for incoming staff. As the following interview quote suggests, senior staff—often nurses, physicians, or social workers—managed the workload of CHWs by determining the number and distribution of patients across CHWs' caseloads, and enlisting additional staff as needed.

> *Project Leader*: "... the nurse is sort of the traffic cop in handing the participants to a CHW. A nurse can keep track of what everybody on her team [is doing], what the caseload is, how the person is doing with that, [etc.]. Like, is the CHW's caseload a 20, but she's really struggling to manage that many, and we need to get her down a little bit, or can this person take on more?"

Adequate supervision also entailed recognizing CHWs' background and limitations. CHWs typically lack the training needed to provide advanced medical or psychological treatment, and need to work with other health care professionals to meet the needs of high-risk patients. The partner next cited describes how senior clinicians support CHWs by delivering services that CHWs cannot due to limited medical training or certifications.

> *Partner*: "There is a protocol. Sometimes CHWs will discover that there are some things going on… then they bring in the social worker… On the frontline they are doing the same work; when it gets medical, they bring in the nurse practitioner. When thing get heavy socially, they bring in the social worker."

By coordinating work with CHWs, supervisors could help prevent burnout among new staff and ensure CHWs had work assignments appropriate to their level of expertise.

Finally, organizations that effectively integrated CHWs ensured that new staff could access and use essential workplace tools, and especially health IT. Awardees described how existing health IT tools used throughout the organization may not be optimized for CHW use, making it difficult for CHWs to accomplish and record their tasks.

> "One consistent challenge [the organization] has faced since the beginning of the project is the lack of efficient care coordination templates in the EHR (electronic health records) system… even though the templates were functional,... Data has to be entered in unstructured formats and that make it irretrievable for report generation… [so the organization] continues to use workarounds for care coordination." (Awardee progress report)

Effective CHW integration not only required that health IT tools include the functions necessary for CHWs to provide care, but also that CHWs understood how to use the tools effectively. Other health care professionals expected that CHWs would interact with health IT in ways that complemented their own workflow, and deviations from these expectations could undermine communication and teamwork. One project leader describes how CHWs and providers learned to use health IT in complementary ways.

> *Project Leader*: "The challenge is continually improving communication between the provider and CHWs. When we started this project, we just started with EHRs, so figuring out how to get the CHW to input data that the provider wants to see."

## Clarity About Health Care Roles

CHWs worked most effectively with other health care professionals when every role on the care team was clearly defined. Clear distinctions between roles reduced perceptions of overlap in responsibilities, which improved CHW integration by making staff feel confident that CHWs would not intrude on their established work assignments. In contrast, ambiguity of the CHW role interfered with integration. Other health care professionals often lacked experience working with CHWs and did not always understand what CHWs were trying to accomplish. As one project director put it, "Initially folks [other providers] said, 'What are these young kids doing here, and what can I tell them?'" Since CHWs depended on colleagues for patient referrals and information, role ambiguity affected their ability to work effectively.

Just as existing staff struggled to understand the CHW position in relation to their own, CHWs themselves sometimes lacked familiarity with clinical roles, affecting their ability to work well with other members of the clinical team. As outsiders to the medical establishment, CHWs do not always have the training and knowledge necessary to draw boundaries between different clinical positions.

> *CHW*: "I am not always certain what a nurse practitioner can and cannot do, so that would have been helpful to know. This is true for the medical assistants and other levels of clinical staff. It would have been good to know the parameters of their roles based on their degrees."

Awardees used different methods to improve role clarity, with some preferring a passive approach. These organizations did little to define health care roles or negotiate the division of labor—they simply waited for staff to build experience working with one another. This passive approach forced CHWs to champion their role to other staff. By being vocal about their role, CHWs could present a compelling case for other staff to collaborate with them. However, as new team members and non-clinicians, CHWs might lack the attention and respect of other providers. The CHW quoted below conveys the frustration she experienced with this process.

> *CHW*: "We are still trying to get through to some of the providers. One provider doesn't see [the] point of why we are here, why we are doing this, and why we are going to their homes to see *their* patients? We are not trying to take away your patients or give them diagnosis; we're going to educate, to tell them when they need to see the doctor. That's been a barrier with some of the providers."

Other awardees actively improved role clarity by using targeted communications and staff education to share information about the CHW position. For instance, program leaders occasionally circulated emails or newsletters explaining the CHW role. They also held meetings with providers to introduce CHWs, describe their specific responsibilities, and underscore the benefits of engaging CHWs in care. The CHW quoted explains how providers learned the value of CHW services.

> *CHW*: "They [providers] know that I am there. We did a presentation about what we do and how we

can better assist the physicians and nurses. We have the freedom to go beyond the doctor's appointment. They don't have the time to call and we do. We can do home visits to make sure you are taking your medicine after you are discharged, doing the exercises, making the [physical therapy] appointments and do those follow-up actions that doctors and nurses don't have time for."

### Clinical Workflow

Awardees frequently introduced CHWs without any organizational history of using care coordination, or implemented health programs that entailed using CHWs in new ways. As a result, many awardees identified the need to adapt clinical workflow so that CHWs could work effectively with other staff. The most essential workflow changes involved optimizing the placement of CHWs to facilitate their integration in care. Many CHWs lacked a stable work space in the clinical setting, or worked in locations far from typical patient flow. As described, CHWs located outside of the immediate clinical context tended to be forgotten by physicians, and remained unknown to patients.

> *Project Leader*: "If they [CHWs] are in the back waiting for physicians to call them that a patient needs services, we saw fewer services being provided, and when we put them out in front as the first point of contact, that's when we started seeing people appreciating someone being there to say hi when they arrived and help with paperwork. Often that will translate to having a referral appointment and asking if the [CHW] would come the next week. That has been the difference."

The issue of CHW visibility was closely related to placement. Specifically, the physical presence of CHWs alongside existing staff and patients facilitated relationship building. CHWs who worked in distant or isolated locations struggled to gain the trust of providers. When asked how CHWs were integrating, one program manager responded, "If the CHWs go to a clinic and sit in the clinic, they are more accepted. Sometimes, the CHW will go to a doctor's visit with a participant, and the doctor will ask the CHW to leave." Co-location in the clinic, however, "assists with maintaining a visible presence to encourage referrals and establish relationships."

Health care professionals' response to CHWs often depended, in large part, on their perceptions regarding whether or not CHWs improved or interfered with the existing clinical workflow. For instance, in organizations where integration failed, providers sometimes believed that any benefits associated with CHWs would be outweighed by the costs associated with changing care routines. One awardee intended for CHWs to recruit and serve patients in local hospital emergency departments, but staff refused because not all patients would be eligible for services, and it was "hard for any clinic to change their workflow for less than half their patients." Similarly, providers within a practice occasionally have highly individualized workflow practices, and might be reluctant to work with CHWs if they disrupted those practices. Integration occurred more easily in organizations where CHWs resolved workflow issues that undermined care, particularly for high-need patients seeing multiple providers. As the following excerpt suggests, CHWs helped ensure that patients attended their medical appointments and picked up medications, thus preventing reschedules and refills. They also assisted patients with physically navigating medical facilities, reducing the likelihood of no-shows.

> *CHW*: "Scheduling challenges everyone because appointments are missed. We have a new way of scheduling with our nursing assistants by messaging them, which is important for patients who are frequent no-shows or forget to pick up their medication. Some patients see more than one provider, so the pharmacy won't automatically put the medications in the [bin]. Those types of problems are handled by the CHW. Our role is so much about communication links and being supportive of the patients and to give feedback to the nurse or nurse practitioner as needed."

## Discussion

This study explored factors that facilitate and impede the integration of CHWs into health care organizations. Integration is most likely when CHWs expand organizational capacity, receive adequate support, understand their role and how it relates to others, and clearly fit into and perhaps even improve clinical workflow. CHW integration is unlikely when other providers fail to appreciate how CHWs could increase organizational capacity; CHWs are poorly recruited, trained, and resourced; staff perceive ambiguity about health care roles; CHWs work in locations distant from and invisible to other providers; and staff regard CHWs as disrupting existing clinical flow. Other studies echo these findings, particularly the themes relating to role clarity [13–15] and CHW preparation, supervision, and support [17, 18].

Results suggest practical steps that health care organizations can take to help CHWs work effectively with other professionals and integrate seamlessly into clinical practices (see Exhibit 1). First, organizations must create conditions hospitable to CHWs by communicating with existing health care staff. Strategic communications must explain

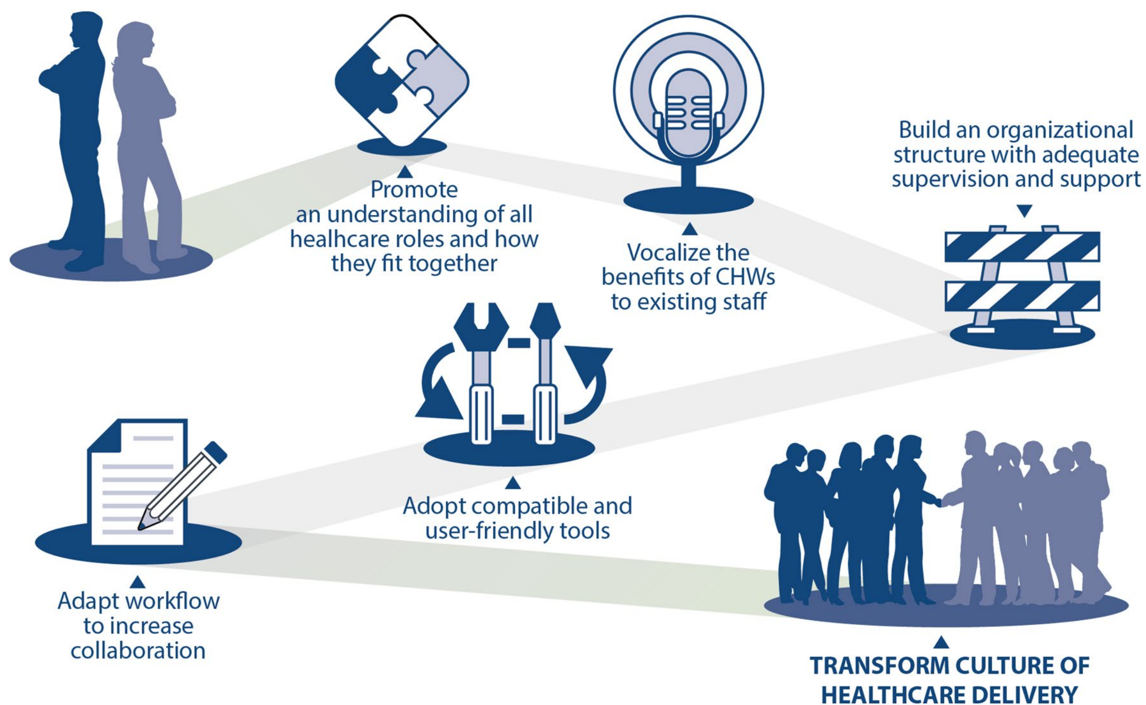


**Exhibit 1** Strategies for promoting CHW integration

the purpose and responsibilities attached to the CHW role, and also distinguish it from the responsibilities assumed by other providers. Transparency about recruitment, selection, and training of CHWs will help providers understand the knowledge and skills of incoming CHWs, laying the foundation for collaboration [17–19]. Although the CHWs in our sample frequently educated their peers about the CHW role and promoted themselves, they were often the newest and least powerful staff in the organizational hierarchy, which limited their influence.

Health care organizations can build enthusiasm for the CHW role by underscoring the potential benefits of CHWs to existing members of the health care team. Existing health care staff are constrained by the types of care they provide and their availability to deliver patient services [13–16]. By assuming responsibility for tasks including assessment, education, outreach, and psychosocial support, CHWs enable providers to dedicate clinical encounters to the provision of medical diagnosis and treatment. CHWs can also increase the effectiveness of clinicians' work by improving access to patients, addressing barriers to care, and resolving problems in patient processing and workflow.

Organizations concerned with integration need to support CHWs with structures that provide adequate supervision and support. Such structures include thoughtful hiring, training, and management systems. CHWs' supervisors help them manage their caseload and prevent burnout. Social workers seem particularly well-suited for such a role, given their influence in health care organizations and appreciation for patients' social and psychological needs. CHWs also need clinical oversight, due to the limitations of their training.

To seamlessly fit into the health care team, CHWs also need tools compatible with their own work and that of other providers. This means that CHWs must have access to health IT platforms, virtual spaces for recording information on patients, and electronic tools that facilitate communication across providers. Tools must be designed with the limited education and training of many CHWs in mind, and management should provide instruction on how to use tools.

Finally, effective CHW integration requires that organizations create hospitable workflows. CHWs must be present where providers and patients can take advantage of their services, which could require changes to the spatial layout of clinics or patient movement through the care process. Health care managers must minimize the disruption of CHWs on clinical routines that already work well and help CHWs repair routines with the potential to be improved.

## Limitations

These findings are not generalizable to all health care organizations. As evaluators, we had limited control over the programs that awardees designed, the characteristics of the funded organizations, and the data available to address

our research question. The sample is mostly composed of new users of CHWs; organizations with mature CHW programs may not exhibit the same facilitators and barriers to integration. Organizations in this sample are also likely predisposed to change, given that they pursued outside funding with the explicit goal of developing innovative programs. The small size of our sample size further limits our ability to draw conclusions regarding how CHW characteristics, organizational characteristics, or local conditions affect integration. Finally, CHWs and other team members involved in the health care programs we studied were typically interviewed only one or two times during the evaluation process. Thus, we can only make limited comments on changes in perceptions over time. Despite these limitations, the findings presented here reflect experiences from a diverse set of organizations and suggest clear strategies for integrating CHWs into health care organizations, and, ultimately, maximizing their impact on patients.

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**Compliance with Ethical Standards**

**Conflict of interest** The authors declare that they have no conflict of interest.

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