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Early Lessons and Strategies from Statewide Efforts to Integrate Community Health Workers into Medicaid

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Abstract

The 2010 Affordable Care Act provided new impetus and funding opportunities for state Medicaid agencies to integrate community health workers (CHWs) into their health systems. Community health workers are trusted community members who participate in training so they can promote health in their own communities. This qualitative study shares lessons and strategies from Oregon’s early efforts to integrate CHWs into Medicaid with concomitant financing, policy, and infrastructure issues. Key informant interviews were conducted with 16 Coordinated care organizations (CCO) and analyzed using an iterative, immersion-crystallization approach. Coordinated care organizations found CHW integration a supportive factor for Medicaid-enrolled members navigating health and social services, educating members about disease conditions, and facilitating member engagement in primary care. Barriers to CHW integration included a lack of understanding about CHW roles and their benefits to health systems, as well as a need for more intensive guidance and support on financing and integrating CHW services.

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Complex social and economic factors—among them food insecurity, housing instability, and various forms of discrimination—contribute to poor health among Medicaid members. In response, states have begun to integrate community health workers (CHWs) into their Medicaid programs to provide a broad range of culturally-appropriate health, social, and community services.[1] CHWs are trusted community members who participate in training so they can promote health in their own communities.[2] CHW roles include both individual-level and community-level services; a list developed in the 2015 CHW Core Consensus Report includes cultural mediation, culturally appropriate health education, care coordination, coaching, advocacy, community capacity building, direct services, assessment, outreach, evaluation, and research.[3] One goal for state policymakers is finding the most effective ways to pay for and integrate CHW services into Medicaid programs to achieve better health outcomes, greater equity, better health care quality, and lower health care costs.[4]

Efforts to integrate CHWs into clinical settings and managed care environments date to the 1960s and 1970s[5] and were renewed in the 1990s.[6] However, CHW programs were mostly grant-funded and situated in community-based organizations and clinics.[7] The 2010 Patient Protection and Affordable Care Act (ACA)[8] provided a strong impetus to incorporate CHWs into large health systems with options to fund CHW services under alternative payment models (APM) that encourage lower costs and better quality and performance.[9] Oregon, along with a few other states, were early adopters in using Medicaid 1115 waivers to allow them the scope and flexibility to fund a broad range of CHW services.[10] Under the once pervasive fee-for-service (FFS) payment model, a 2013 rule change by the Centers for Medicare & Medicaid Services (CMS) also allows states to file a state plan amendment for CHWs to be reimbursed for limited types of preventive services when recommended by a licensed medical practitioner.[11]

Despite growing interest in integrating CHWs, many payers and provider organizations remain unfamiliar with CHW roles and how to operationalize them.[12] A 2017 systematic review of CHW interventions for individuals with chronic conditions demonstrated a high level of heterogeneity, as well as mixed evidence of effectiveness in health care outcomes and costs.[13] Although studies have described how single systems have integrated CHWs,[14,15] there is a paucity of research about how various agencies can work together to integrate CHWs into routine practice.[16,17] Oregon's attempt at CHW integration provides an excellent case study for public health officials interested in implementing CHW programs as part of state Medicaid reforms.

Building on a history of successful CHW programs in Oregon, in 2012, the state set ambitious goals for the inclusion of CHW services in Medicaid to provide care coordination, improve access to services, and eliminate health disparities.[18,19] Oregon's 1115 waiver created 16 regionally based *coordinated care organizations* (CCOs), a type of accountable

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care organization responsible for providing all medical, dental, and behavioral health services for Medicaid members [hereafter, *members*].[19] The state provided each CCO with a global (capitated) budget, allowing CCOs the freedom to experiment with innovative care delivery models. The state explicitly directed CCOs to provide their members access to Traditional Health Workers (THW), including CHWs, and created a CHW certification process to support Medicaid reimbursement for CHW services, a THW registry, and a *transformation center* that provided technical support and grants for programs.[20,21]

The goal of this study was to learn how Oregon's CCOs integrated and funded CHW services. Through interviews with leaders across all 16 of Oregon's CCOs, we gained insight into how CCOs operationalized their CHW programs and identified facilitators and barriers. We also examined the extent to which CCOs engaged CHWs in a full range of CHW roles, with a goal of using experiences in Oregon to inform the integration of CHWs in other states.

Methods

A multidisciplinary team with expertise in qualitative research, public health, and health economics, as well as the roles of community health workers, conducted this qualitative study. Academic and community-based partners contributed to all phases of data collection, analysis, and dissemination.

Study setting and data collection.

We interviewed key informants from Oregon's 16 CCOs; all had been in operation between four and five years at the time of data collection. We conducted semi-structured interviews between April and December 2017. We invited key informants to interviews based on their knowledge of CHW policies in their CCOs. We conducted 18 interviews with one to four key informants per CCO for a total of 31 key informants. Key informants across CCOs included individuals working in quality improvement leadership (n=9), clinical leadership (n=6), administrative leadership (n=5), community health leadership (n=5), health equity leadership (n=4), health education leadership (n=1), and as a community health worker (n=1). Interviews followed a semi-structured guide with questions related to the participant's role in the CCO, organizational planning, CHW roles, settings, financing, workflows, and barriers and facilitators encountered. We conducted interviews via telephone and audio-recorded them with informed consent from interviewees. Interviews averaged 50 minutes.

Data management and analysis.

Audio recordings were professionally transcribed and checked for accuracy. Transcripts were entered into ATLAS.ti (Version 8.0, ATLAS.ti Scientific Software Development GmbH, Berlin, Germany) for data management and analysis. We analyzed data concurrently with collection in four steps using an iterative, immersion-crystallization approach in which researchers first immerse themselves in the data, and then analyze and discuss as a group until a shared interpretation solidifies.[22,23] First, we reviewed interview transcripts and tagged segments of text with illustrative codes (e.g., payment, training). We used this first pass to refine our codebook in group analysis sessions. Second, we reviewed interviews to

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develop an understanding of each CCO as a case. Third, we reviewed and grouped codes in line with larger concepts and generated output (pieces of textual data) based on coding schemas and related memos. We analyzed the output with an eye toward commonalities and outliers between CCO cases and prepared code summaries that were reviewed with the larger study team. Finally, we identified themes and situated the findings within authoritative definitions of CHW roles and competencies.[24,25]

Results

Five years after the initial state-related efforts to enhance the integration of CHWs, 13 out of 16 CCOs had operating CHW programs. Coordinated care organization programs were, on average, four years into development. Three CCO program initiatives were not fully operational (0–1 year). We identified five themes about CCOs' experience with CHWs from the interviews.

CHW history and training.

Regional experience with the CHW model and access to CHW resources influenced rates of CHW program development at the CCOs. One informant at a CCO that hadn't launched a program lamented the dearth of training resources, certified CHWs, and community partners in their rural region, all of which slowed down program initiation.

> I've been running up against brick walls with respect to where we train these folks, where we find them in the first place, how we can get them trained.—Interviewee, #23, clinical leader

Coordinated care organization representatives in another rural part of the state referred to a decades-old training program and existing community based organizations with which they could quickly engage to start their programs.

> Here in [CCO region] we have a real strong collaborative nature. And like I said there were 31 agencies that sat around the table to design our [regional CHW] … model. And many of those agencies involved CHWs.—Interviewee #30, community health leader

CHW roles and priority populations.

Although CHW program initiatives took various forms throughout the state, CHW roles and priority populations within CCOs shared some characteristics. All CCOs engaged CHWs in the roles of care coordination and systems navigation. Other CHW roles included cultural mediation, strengths-based coaching, group health education, direct services (e.g., blood pressure readings), outreach, and building individual capacity. Although less frequent, some CCOs engaged CHWs in upstream roles of community-level capacity building and advocacy.

The most common priority populations CHWs served were communities most affected by disparities needing access to culturally and linguistically appropriate services, individuals needing support accessing health care and social services, and individuals needing assistance with managing chronic health conditions.

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CHW employment structures.

Table 1 displays four major employment structures that CCOs used to integrate CHWs, with some CCOs using more than one. The first employment structure was one in which CCOs employed CHWs directly, a relatively new structure, that corresponds with the introduction of accountable care organizations following ACA Medicaid reform. Five CCOs adopted this strategy (dubbed "CCO Hire"), most of them in rural areas with fewer than 50,000 members; none had employed more than five CHWs. Under CCO Hire, CHWs supported the CCOs by working with priority populations and individuals referred by providers. Priority populations were individuals with complex medical conditions that were not well-controlled, high utilizers of hospital inpatient or emergency department services, or those needing assistance with accessing primary care and social services. In the CCO Hire structure, CHWs also supported the larger health system by working with care coordination teams and participating in outreach, case management, and transitional care. For the most part, CHWs in this group were based out of the CCO's administrative office.

A second group of CCOs provided payment mechanisms to allow contracted provider groups to hire CHWs. The "Provider Hire" strategy occurred in CCOs of all sizes and geographic characteristics, but CCOs with a wide geographic coverage area or large membership (>50,000) were more likely to use this approach. Primary care clinics were the main employer of CHWs by direct hire or contracting. Other types of employers included high schools, relief nurseries, jails, housing complexes, behavioral health clinics, hospitals, community-based organizations, and county health departments. Provider Hire and CCO Hire approaches had similar priority populations. The Provider Hire approach also allowed CHWs to focus on organizational and local priorities including providing culturally and linguistically-appropriate services to local communities. In rural areas, for example, Provider Hire CHWs supported individuals who were isolated from services and helped mitigate provider workforce shortages by supporting care teams. One hospital in a remote rural area funded a CHW mobile transport service for hospital outpatients and referred members.

The last two employment structures were organized as "hub" formations with a central organizing agency and "spokes" on the wheel corresponding to an array of partners. A central agency managed contracts and services with partners. Health care organizations, community-based organizations, payers, and government agencies participated in these hubs. Hubs provided individuals with coordinated access to a wide range of services from partners. The hub structures, including a shared information technology platform, facilitated care coordination and integrated the tracking and evaluation of services and outcomes.

One of the hub structures, the "Pathways Hub," is a nationally recognized care coordination model (the Pathways Community HUB) developed in 2004 and implemented in multiple states.[26] The Pathways Hub receives funding from participating health care organizations to pay for CHW services; the Hub funds CHW salaries; and community partners employ CHWs. Health care organizations refer individuals into the Pathways Hub, then CHWs help members navigate the health care and social services system. A CHW assesses needs or "pathways" for members (e.g., medication management) and provides support for them along selected pathways to achieve measurable health and social outcomes.[27] Each hub

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defines its own selection criteria for inclusion, as well as its own set of available pathways. One CCO, in a rural area, prioritized community members experiencing housing insecurity or homelessness for participation in the Hub. An urban CCO, to take another example, chose its inclusion criteria as individuals who had uncontrolled diabetes, low income, and social service needs.

The second type of hub, a "Contracting Hub," was a distinctive collaboration in Oregon, between the statewide CHW association and community-based organizations. The CHW Contracting Hub was intended to make it easier for health care organizations to establish contracts for culturally and linguistically-appropriate CHW services from community-based organizations without having to train, employ, and supervise their own CHW workforce. The Contracting Hub would track and evaluate CHW activities based on CHW core consensus roles[27] and evaluation measures.[28] One of the CCOs in the area invested significant funds and time for the development of this hub. Formal contracts had not yet been developed with the health systems at the time of the interviews.

Perceived benefits of CHW integration.

Box 1 displays commonly perceived benefits and challenges of integrating CHWs into an organization.

Coordinated care organizations envisioned incorporating CHW services as a way to improve quality and access to services and to save health care costs. One of the most common perceived benefits of CHW integration was to support members in navigating health and social services. A CCO community health leader described the providers' satisfaction with having CHWs at their primary care clinics:

> They [providers] can't imagine life without a CHW being a part of their clinic … from the health perspective and health outcome, but also [a] social support stability perspective … it really [shows in] the success of patients who have a CHW as part of their team.—Interviewee #13

Provider organizations involved CHWs with member engagement in primary care. Community health workers facilitated communication between members and providers, and provided education about disease conditions and management. According to informants, CHWs reduced licensed provider time on certain activities, expanded services (e.g., home visits and outreach) and supplemented services in rural areas with shortages of licensed providers. Respondents hoped that the CHWs would help their organizations achieve annual quality targets (e.g., lower avoidable emergency room utilization), some of which would allow them to earn incentive payments offered by the state.[29]

Perceived challenges of CHW integration.

Because CHWs were a relatively new workforce for many health systems and regions, CCO staff found it difficult to implement CHW program initiatives without a clear model for integration into their organizations. Health care leadership and providers lacked a clear understanding of the benefits and roles of CHWs.

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> We can't go in and say, "You're going to have a CHW." People are going to be, like, "What's that?" or, "We're not ready for that," or, "We don't understand the value of that"… So there's a lot of education around it, and then also determining the feasibility of it for an organization.—Interviewee #6, community health leader

In some cases, CCO leaders had unrealistic expectations that CHWs could bring about quick improvements to members with the most complex health care and social needs. Health system leadership and providers expected CHWs to make sure patients showed up on time, improve clinical outcomes, or generate cost savings. Yet, these are goals that take time to achieve from the perspectives of CHW staff.

> [The providers] give us the most challenging patients and say, "Well, fix this person. You're a CHW, right? Make this person get to their appointment. Make this person take their medication."—Interviewee #20, health equity leader

Coordinated care organizations also faced difficulties in evaluating the impact of CHW services on clinical outcomes or spending in short time period. Programs had insufficient data or could not attribute changes specifically to CHW services. Many of these members had low engagement rates and moved in and out of the health care system.

While some CCOs expected cost savings as a result of integrating CHWs, respondents frequently expressed a need for more time to demonstrate a return on investment (ROI) and a frustration with the focus on immediate results as opposed to long-term, upstream improvements in health. A quality improvement leader reflected on the difficulty of shifting health system culture towards prevention.

> I think that what we need to do is make smart investments that are cost effective and that strengthen communities without having that granular clinical pressure to somehow prove that the dose of a community health worker is what delivers that A1C [diabetes monitoring test] going from 9 to 7.5.—Interviewee #10

Funding sources and payment mechanisms.

Coordinated care organizations funded CHW services from capitated global budgets that were reported out to the state as medical, administrative, or health-related service expenses. Other sources of funding were quality incentive funds (i.e., bonus payments for meeting performance targets) and grants. (See Appendix 1—available from the authors upon request—for additional information on funding sources and payment mechanism definitions.) Grants provided funds for CHW pilot programs at CCOs and provider organizations.

Although Oregon's capitated global budget was intended to offer CCOs great flexibility in program design, paying for CHW services remained an area of great consternation. A central challenge was finding ways to have CHW activities count as "medical" services, since CCOs (despite their capitated budgets) had to maintain a medical loss ratio (MLR; the percentage of expenses reported as "medical" services as opposed to administrative or other expenses) of 85% or greater. Coordinated care organizations also raised concerns about how their spending on CHW activities would impact the next year's capitation rates or "rate-setting," which determined how much the CCO would receive for each member, also known as a "per member per month" (PMPM) payment. Coordinated care organizations preferred CHW

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services to contribute towards the "medical portion" of their rates. Administrative and health-related services were not included in the medical portion of the CCO capitation rates; thus, these expenses would not build up rates for the next year.

Coordinated care organizations that hired CHWs directly ("CCO Hire") usually reported their expenses as "administrative," which did not contribute to the MLR nor to the medical portion of their rates. The numbers of CHWs directly hired by CCOs remained small (<6).

> Once [CHWs are] employed by the CCO, we don't do any billing to pay for their work. That gets counted as an administrative expense, which gets to be an issue when the state sets minimum medical loss ratio [MLR] targets. That doesn't count in those [MLR targets] as a medical service. […] When rates get tight, new and innovative programs are the first to go.—Interviewee #25, quality improvement leader

The "Provider Hire" structure allowed CCOs to subcontract with provider organizations using alternative payment models (APM; typically sub-capitation payments) or fee-for-service (FFS) financing. Funding for CHW services through these payment mechanisms counted towards the "medical portion" of their expenses (FFS), allowing them to sidestep MLR concerns.

A key barrier with the FFS payment mechanism, reported by several CCOs, was waiting for the state to provide guidance through a CHW billing policy and acceptable billing codes. Only one CCO forged ahead with its own billing policy and provided billing codes for CHW services to their network of providers. The CCO's billing policy contributed to the rapid growth of the CHW workforce, which doubled in one year from 50 to 100 CHWs. Some CCO respondents expressed concerns about the prospect of relying only on billing codes for CHW activities, because they would not cover different types of CHW roles and activities.

While most funding originated in CCOs' global budgets, some CCOs leveraged other funding sources to support their programming. Development of hubs required a considerable investment of time, funding, and resources for planning and collaboration. Funding for hub employment structures came from a mix of sources including grants, CCO funds, health system budgets, and hospital community benefit funds. Mixed funding streams allowed the Pathways Hub to serve both Medicaid and uninsured populations.

Discussion

Oregon's Medicaid program fostered CHW program initiatives by requiring the integration of the CHW workforce and providing supportive financing, policy, and infrastructure. About 80% of Oregon's CCOs had a CHW program within four years after starting their organizations. However, CCOs expressed a lack of clarity and guidance on how to finance and integrate CHWs into their organizations, as well as hire and train CHWs, as impediments to starting, growing, and sustaining CHW programs. We identified similar barriers to CHW integration as those identified in the past, including a lack of sustainable payment mechanisms to fund CHW services[12,30,31] and insufficient knowledge about CHW roles and competencies and how to integrate CHWs into health care systems.[32,33]

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Our findings direct attention to several areas in which states could provide guidance and policy to promote large-scale, sustainable engagement of CHWs in Medicaid programs. In Oregon, incentives for CCOs' cost and quality metrics were evaluated annually, and therefore emphasized short-term outcomes and ROI. However, CHWs may be better positioned to make meaningful changes in prevention, health care, and social determinants of health over a longer time period. Furthermore, the study sheds light on how payment mechanisms can shape the roles that CHWs play. Upstream roles of community education, advocacy and capacity building were less common among Oregon CCOs. Funding and payment mechanisms for CHWs working outside health care systems, for example, at community-based organizations may create opportunities not found within the health system, such as community capacity building and increasing access to services.[34] For example, CMS has directly funded community-based organizations in its Medicare Diabetes Prevention Program.[35] Medicare funds YMCAs to provide lifestyle coaching to Medicare members without a health care provider referral. With the CHW workforce in health services growing, state Medicaid systems, health care systems, and community-based organizations should work together to develop payment mechanisms, investments, and metrics to fully engage CHWs' potential to promote community health.

This study has limitations. First, we selected interviewees based on their high-level knowledge of CHW integration within their CCOs and among their member clinics. In spite of our attempts to identify the appropriate interviewees, respondents varied in their levels of knowledge about CHW programs, roles and practices. Respondents were not always aware of the CHW services provided by their provider organizations, particularly for larger systems. We attempted to remedy this shortcoming by conducting a small number of follow up interviews with additional informants from particular CCOs. Second, we explored the status of CHWs in CCOs at a single point in time, and thus, report only a cross-sectional view of CHW activities rather than how programs evolve over time. Finally, we interviewed CCO staff about CHWs working within their networks. We made no attempt to learn about CHW services provided by other health and community-based organizations, although in some cases, those may have been part of the larger CHW delivery system accessed by the CCO. An opportunity for future work includes looking across all organizations that integrate CHWs in order to develop a more comprehensive analysis of needs, innovations, and challenges. Despite these limitations, our findings contribute to the limited body of knowledge regarding CHW integration in Medicaid health plans.

Based on our findings, we conclude that as state Medicaid programs further integrate CHWs into health services, they should provide more funding and technical assistance for setting up payment mechanisms, conducting education and research, monitoring implementation, and addressing barriers to uptake of payment mechanisms. Our conclusion is also consistent with suggestions from a recent statewide assessment on CHWs and the 2018 recommendations of the Oregon Traditional Health Worker Commission in a CCO 2.0 report.[36,37] A better understanding of CHW roles and benefits by health care administrators and providers will help manage expectations of how CHWs can realistically contribute to improving health care access, quality, and outcomes. Future research in the field can build on this study by investigating how payment mechanisms support different CHW roles and integration models, how long-term metrics affect CHW roles and services, and how geographic and

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organizational characteristics influence selection of CHW employment structures including perceived benefits and challenges.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Box 1.

COMMONLY PERCEIVED BENEFITS AND CHALLENGES OF CHW INTEGRATION

Perceived Benefits	• Supporting members with navigation and care coordination for health and social services • Educating members about disease condition and management • Improving metrics for cost savings and quality • Reducing avoidable ER and hospital visits and lengths of stay • Reducing licensed provider time with patients and mitigating provider shortages • Improving member engagement in primary care • Facilitating member and provider communication and patient advocacy • Better understanding member's social needs and home environment
Perceived Challenges	• Unrealistic expectations of CHWs to make changes for members with highest needs in a short time by providers and health system leadership • A lack of guidance on CHW funding mechanisms from the state including CHW billing structure • A need for better understanding of CHW roles and benefits by providers and health system leadership • A lack of clear models for the best ways to fund and integrate CHWs into health systems with different priorities and resources • Finding appropriate CHW workforce candidates and a lack of local CHW training in rural areas • Relating CHW services to direct outcomes in health care and cost savings • Changing the health system's cultural focus on clinical outcomes in order to integrate preventive services and traditional CHW functions • Cost and quality metrics emphasized a short-term rather than a long-term return on investment

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Table 1.

MEDICAID CHW INTEGRATION APPROACHES BY CCO EMPLOYMENT STRUCTURE

Employment structures[a]	**CCO Hire** ***n* = 5**	**Provider Hire** ***n* = 8**	**Pathways Community Hub** ***n* = 2**	**CHW Contracting Hub** ***n* = 1**
Medicaid Members				
Small CCO *n* (<50,000)	4 (80%)	4 (50%)	1 (50%)	0 (0%)
Large CCO *n* (>50,000)	1 (20%)	4 (50%)	1 (50%)	1 (100%)
Geographic Characteristics[b]				
Predominately frontier	0 (0%)	1 (12.5%)	0 (0%)	0 (0%)
Rural	3 (60%)	1 (12.5%)	1 (50%)	0 (0%)
Predominately Rural	2 (40%)	4 (50%)	0 (0%)	0 (0%)
Urban	0 (0%)	2 (25%)	1 (50%)	1 (100%)

Notes:

[a]Thirteen of 16 CCOs had CHW program initiatives; some CCOs had more than one employment structure. These are early stage characteristics of CCOs by employment structure but are not necessarily inherent nor permanent to the structure.

[b]Geographic designations are based on Oregon Office of Rural Health definitions.