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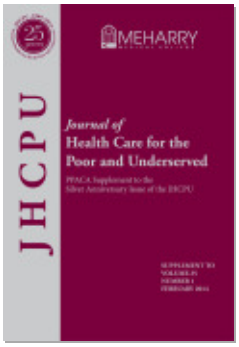
Workforce Development in Maryland to Promote Clinical-Community Connections that Advance Payment and Delivery Reform

Leo Quigley, Karen Matsuoka, Kathryn Lothschuetz Montgomery, Niharika Khanna, Thomas Nolan



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Summary: Promoting clinical-community linkages is at the heart of Maryland's efforts systematically to transform health care delivery, with community health workers (CHW) playing a central role. This article describes how Maryland is using the evidence-base on CHW effectiveness and training to develop a workforce capable of most effectively connecting communities with care.

Key words: affordable care act, access to health care, case management, community health, community health workers, medical home, primary care, workforce, public health, health promotion, social determinants of health, community outreach, community-institutional relations.

Through a State Innovation Model (SIM) planning grant from the Center for Medicare and Medicaid Innovation, Maryland will begin to lay the groundwork for a Community Integrated Medical Home (CIMH) model that builds upon primary care by expanding the boundaries of the medical home to include public health and community health initiatives in order to improve individual and population health. Advancing these community-clinical linkages is important because they enable underlying social, behavioral, and environmental determinants of health to be more effectively addressed: though known to have a major impact on population health and health disparities, these non-medical determinants of health remain largely outside the influence

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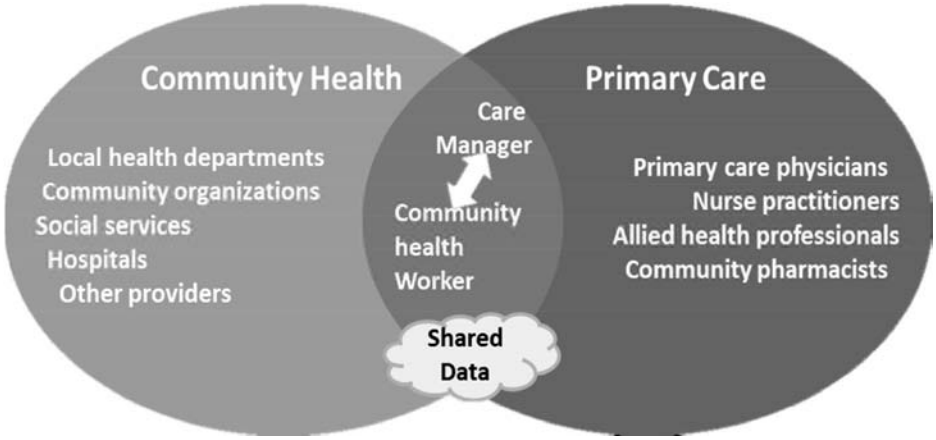

Figure 1. The community integrated medical home model.

of health care.[1,2] In the treatment of childhood asthma, for example, an approach that combines medical (e.g., medication reconciliation) and non-medical interventions (e.g., improving indoor air quality in the home by eliminating allergens, pests, and mold) is likely to be more effective than a clinical or community intervention in isolation.

Community health workers (CHWs) are envisioned as playing a critical role in the CIMH, connecting primary care teams with the public health and community infrastructure (Figure 1). Though definitions and roles of CHWs vary across states and programs—as to their precise relationship to the community served, for example, or the level of training required—their roots in community development give them the unique potential to operate at the overlap of community health and primary care as Figure 1 illustrates, supporting data-driven care management and assisting the transformation of our fragmented health care system towards a more holistic type of care, centered on the total needs of the individual patient and embedded in the community and culture in which the patient lives.[3,4,5]

For this model to operate as envisioned, a strong CHW workforce must be created in Maryland. This report articulates the issues surrounding—and assesses the strength of the evidence base for— determining the most prudent role for CHWs within Maryland's CIMH model, together with the best approach to developing a trained and competent community-based workforce that is integrated into health care delivery.

The Role of Community Health Workers and a Review of the Evidence

The CHW role is one recognized and celebrated around the world[6] and can include health educator, outreach worker, health system navigator, and health advocate.[4] Within the United States, although benefitting from strongly felt support,[6,7,8,9,10] it has yet to win over the majority of payers, providers, or legislatures.[11,12] The reasons for this are complex and multifaceted but include fragmented program financing, often linked to uncertainty as to the capability of CHWs and their added value compared with more established health professionals.[3]

However, according to major reviews of studies of CHW effectiveness, first by Swider in 2002[13] and subsequently by Dower in 2006,[3] the Health Resources and Services Administration (HRSA) in 2007,[4] and the Agency for Healthcare Research and Quality (AHRQ) in 2009[5]—and supported by more recent studies not included in these reviews[11,14,15,16,17]—the use of CHWs in delivering health education, promoting healthy behaviors, and improving compliance with disease management and prevention strategies can significantly improve patient outcomes, particularly in underserved or marginalized populations. Reports published by other states attempting to integrate CHWs in their own health care delivery reform efforts reinforce the findings in the peer-reviewed literature.[18,19] One such study cites five CHW programs with returns on investment of 3:1 or better,[20] one of which has been published in the peer-reviewed literature.[21]

With regard to Maryland, at least 1,340 CHWs are already deployed in a variety of programs[22] including some with published evaluations,[14,23,24,25,26,27] suggesting we have a strong program and workforce base to build upon (Table 1).

Traditionally, CHWs have been deployed in programs with a narrow focus on particular health conditions for which the health system does not have a good record of success—typically chronic conditions with complex management regimens, or populations marginalized through ethnicity or disease.[12] Prior research suggests that by providing health education, CHWs can improve self-care for both chronic disease sufferers and those at risk of developing chronic care problems[3] as well as improve the take-up of health services among hard-to-reach and underserved populations.[3,5] The literature further suggests that CHWs are particularly well-suited to working with community members (often through social networks) and to community capacity building,[28] both of which will be important to the effective functioning of the CIMH.

Though CHWs are generally considered to be lay members of communities rather than health professionals, efforts to utilize them in roles more closely linked to the wider health delivery system are beginning to blur this distinction. For example, a number of studies suggest that nurse-CHW partnerships provide an effective mechanism through which CHWs can be more integrated with health care delivery.[14,15,16,27,29,30] Community health workers played significant health roles in these programs (e.g., collecting specimens, collecting and reporting patient health metrics, and reviewing charts), and also acted as health care navigators, helping to address social barriers to treatment adherence[14] and empowering patients to become more active in clinic visits and setting care goals.[31] When CHWs work in partnership with established health professions the effectiveness of both can be enhanced.[16]

These results seem to indicate that the CHW role can be successfully extended to encompass certain clinical functions, especially those that can be highly specified and protocol-driven (for example, checking and reporting on height, weight, and vital signs).[16,25,32] The ability to do so could free up other health professionals to operate on the more complex work for which they alone are licensed,[25] thus minimizing duplication of effort, reducing overall costs, and facilitating the financial sustainability of the overall health care system through disruptive innovation.[33]

Table 1.

MARYLAND CHW PROGRAMS WITH PUBLISHED EVALUATIONS

Study	Location	CHW Role	Outcomes
Allen[14]	Baltimore FQHCs	In nurse practitioner (NP)/CHW team, identify and address social barriers to treatment adherence, reinforce instructions by the NP related to integration of lifestyle modifications and medication therapies and assist patients to design reminders systems for following complex regimens	Improvements in cholesterol, triglycerides, systolic and diastolic blood pressure, HbA1c, perceptions of quality of their chronic illness care
Gary[16,27]	East Baltimore	Home visits or phone calls offering to schedule appointments, provide education, reinforce behavior, mobilize social support, provide physician feedback	Improvement in HbA1c; triglycerides; diastolic blood pressure (BP)
Chernoff[23]	Baltimore	Visits and phone calls to children and parents	Decrease in anxiety for mothers
Fedder[24]	West Baltimore	Patient contact and follow up; linking them with care; monitoring self-care; providing social support to patients and families	Reduced ER visits; hospital admissions; mean Medicaid expenditures
Hill[25]	Baltimore inner city	Home visits; referrals to social services; assistance with housing	Reduction in BP; rates of BP control; slowing of progression of left ventricular hypertrophy
Levine[26]	Baltimore inner city	Monitor, educate, counsel and follow up with BP management through home visits	Decrease in systolic and diastolic BP; % with controlled hypertension

Community Health Worker Training and Certification Programs

Training is a critical component of any successful CHW program, whether it is delivered program by program (usually on the job) or as part of a state-wide workforce development strategy, which may include a college-based component and a more formal testing process. States that have worked to expand the use of CHWs have developed training curricula matched to agreed-upon competency standards,[34] typically developed in partnership with academic institutions and CHWs, and addressing a range of skills—communication, interpersonal, service coordination, capacity-building, advocacy, teaching, and organizational skills—as well as knowledge of community needs, services, and health issues.[35] Training can extend to an 11-credit curriculum, as in Minnesota.[3]

Preparing CHWs to fulfill clinical functions beyond their more traditional roles will require enhanced training, likely incorporating intensive practica. In an intervention with urban African Americans, for example, a basic CHW training curriculum was supplemented with additional phases to address home-based assessment and education, field experience, skill reinforcement, and maintenance and quality control.[16] Expanding the role of CHWs means also expanding the role of the supervisor, suggesting that supervisor training is also critical.

Although CHW training can build CHW career structures independently of formal occupational regulation, the desire to build and maintain a stable funding base for CHWs has led some states to establish certification programs.[36] Certification or licensure programs are often viewed as conferring legitimacy to health professions because they define a scope of practice and typically require continuing education to keep up with advances in the field. Nevertheless, the degree of standardization necessary for certification is often seen as a threat to the core connection between CHWs and the unique communities in which they serve.[3,37] The resource requirements associated with implementing, testing, and overseeing programs associated with certification can be considerable,[38] and when scope of practice regulations do not keep pace with advances in the field they can often serve to limit innovation and efficiency.[39] This may explain why only four states (Minnesota, Ohio, Oregon, and Texas) have made certification a requirement of practice.[40]

We in Maryland must weigh carefully the balance of all these factors as we develop our CHW workforce. We are also working to coordinate our efforts with Maryland's Department of Labor, Licensing, and Regulation and its implementation of the EARN Bill,[41] a new initiative passed during the 2013 Legislative Session that provides up to $4.5 million to invest in Maryland's workforce and equip workers with the skills demanded by industries such as construction, manufacturing, cyber, and health care.

Applying the Research to Policy and Practice in Maryland

Analysis is currently underway of hospital encounter data to help identify Maryland's super-utilizers and the types of community-integrated clinical interventions they are likely to need in light of their demographic and diagnostic profiles. As the CIMH model is further refined on the basis of that analysis, it will be possible to delineate the types

of services that must be offered and the type of health professionals most appropriate to offer them. The evidence base on CHW effectiveness and their capacity to operate at the community health/primary care boundary (Figure 1) will certainly inform those policy deliberations. However, the overall limitations of this evidence are well known and include a limited volume of studies of sufficient quality and an inconsistency in data classification that precludes amalgamation of results.[5]

To help fill some of the evidence gaps—and to take into account the existing CHW workforce in Maryland and its potential to take on new functions that are perhaps more clinical in nature—Maryland is approaching its SIM planning effort in close consultation with providers, payers, medical systems, and community-based organizations. Eighteen of Maryland's CHW programs have already been interviewed as part of this work, including four programs that have made progress towards integration with health services. Table 2 provides a short summary of these programs and the major functions their CHWs fulfill.

In addition to interviews, we organized a workshop attended by 24 CHW programs that explored the key characteristics of effective CHW programs. The workshop resulted in a number of practical recommendations, including the importance of financially sustaining the CHW workforce, addressing legal issues such as CHW liability and HIPAA, and guidance aimed at supporting community-driven flexibility in the deployment of CHWs.

As curricula and training programs are developed to ensure a skilled CHW workforce for the CIMH, we intend to vet them through additional community and stakeholder meetings. We have also begun to complement our in-state activities with site visits to other states to see how their community workforce is deployed and integrated with clinical care, exploring lessons we might learn from their experiences in establishing certification, training, and licensing programs to underpin sustainable financing of CHW activities. In these states, achieving and documenting improved patient outcomes and letting those results speak for themselves has been as critical for conferring legitimacy on their CHW programs as their training and certification programs, and has emerged as an early lesson learned that we plan to incorporate into our own workforce development.

A fundamental challenge from the point of view of Maryland's SIM planning work is that the bulk of the literature does not address the research questions relevant to designing scaled-up models capable of improving population health. Rather than *whether* CHWs were effective in a highly specific intervention, we need to know more broadly—and predictively—*when* CHWs are likely to be effective in primary care intervention opportunities, especially with the high-utilizers, whose care offers the greatest potential for outcomes.[42–44] Therefore, it has become apparent to the SIM planning team that we will need to experiment with differing roles for CHWs in the CIMH, and attempt to address three key questions in the process:

- If CHWs were to work at the "top of their license," what should their scope of work be and what would be their core competencies?
- If bridging community and care is a CHW core competency, how is this bridge most effectively brought into being?

Table 2.

EXISTING MARYLAND PROGRAMS THAT INTEGRATE CHWS INTO THE HEALTH SYSTEM[44]

	Program			
	Jacques	**Way Station**	**J-CHIP**	**Garrett County**
Target group	Community members with HIV	Primary care patients with behavioral health needs	Highest risk Medicare and Medicaid patients	Expectant mothers in a high-risk community
Program objective	Provide primary care and social support to people living with HIV	Improve health and decrease medical costs related to chronic care	Reduce ED use	Enhance perinatal maternal and child outcomes
Location	Baltimore, MD	Frederick, Garrett & Washington Counties, MD	East Baltimore, MD	Garrett County, MD
Who are recruited as CHWs?	HIV-positive peers with well-controlled HIV	Open recruitment	Recruited from client's own community & speak their language	Recruited from the community
Health access tasks	Community outreach and peer support services including facilitating testing and access to care	Proactive outreach to target population using "assertive community treatment"	Each patient is assigned a Community Health Worker via prediction tools or physician referral. Some patients cannot be located or resist/decline	Patient activation
Health education tasks	Healthy lifestyle education	Self-care skills, hygiene, social skills, independent living skills	Focused health education	Use of car seats & smoke detectors Breast feeding
Adherence to treatment/ prevention tasks	Medications adherence, emotional support, tracking of progress, support in getting medications, financially linking to pharmacy programs and other areas of social support	Work with the client in the home setting to meet treatment goals	Assess barriers to care and address barriers regarding transportation, linkages with community resources, and help navigate the health system	Care coordination, transport, housing connections
Outcomes	Ongoing evaluation	Aiming to reduce Medicaid claims by 16% off trend and 2% actual	Ongoing evaluation	Reaching 24% of eligible population with reduction from 3.1% to 1.6% in low birth weight deliveries

- Given this scope of work and core competencies, what would be the most effective way to train and sustain a CHW workforce and provide quality assurance?

Piloting several different approaches in this way, with a capacity to learn from the variation and to course-correct as implementation proceeds, is likely to be the best way to build on—and contribute to—the existing evidence base.

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