Transforming the Delivery of Care in the Post–Health Reform Era: What Role Will Community Health Workers Play?

The Patient Protection and Affordable Care Act (PPACA) affords opportunities to sustain the role of community health workers (CHWs).

Among myriad strategies encouraged by PPACA are prevention and care coordination, particularly for chronic diseases, chief drivers of increased health care costs. Prevention and care coordination are functions that have been performed by CHWs for decades, particularly among underserved populations.

The two key delivery models promoted in the PPACA are accountable care organizations and health homes. Both stress the importance of interdisciplinary, interprofessional health care teams, the ideal context for integrating CHWs. Equally important, the payment structures encouraged by PPACA to support these delivery models offer the vehicles to sustain the role of these valued workers. (*Am J Public Health*. 2011;101:e1–e5. doi: 10.2105/AJPH.2011.300335)

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THE PATIENT PROTECTION AND Affordable Care Act (PPACA), with its interconnected emphasis on improving quality and reducing cost, provides unprecedented opportunities for CHWs to serve more formally as integral participants in fixing a fragmented health care system that threatens not only this country's solvency but also the well-being of its citizens.

CHWs, defined by the US Department of Labor as workers who "assist individuals and communities to adopt healthy behaviors" while helping "to conduct outreach" and "advocate for individuals and community health needs,"[1] remain to a large extent an underused workforce.

The PPACA recognizes the role of CHWs in achieving the goal of improving health outcomes and containing costs. In Section 5313 of the PPACA, Subtitle B—Innovations in the Health Care Workforce, CHWs are explicitly cited as an important part of the care team for delivery system reform.[2] Similarly, in Subtitle D—Enhancing Health Care Workforce Education and Training, the law authorizes funding through the Centers for Disease Control and Prevention for CHWs to help promote positive health behaviors and outcomes in medically underserved communities.[3] The PPACA, using the definition for CHWs set by the Department of Labor,[1] outlines several activities for CHWs, including education, guidance, and outreach to ameliorate health problems prevalent in underserved communities; education and outreach regarding health insurance; and education about, referral to, and enrollment of people in appropriate health care and community programs to improve the quality of these services and eliminate duplicative care.

According to the PPACA, priorities for these services should be given to communities with a high percentage of uninsured but eligible residents, a high percentage of people with chronic conditions, or high rates of infant mortality.[3] These issues often coexist in the same communities and populations. High-need—and often high-cost—individuals require tailored interventions that are responsive to the complex nexus of underlying social and health challenges plaguing these communities. As members of the communities they serve, CHWs are uniquely positioned to deliver these tailored, culturally responsive interventions.

These explicit descriptions of CHW activities in the PPACA are important in understanding their role in increasing access to care and improving health behaviors among medically underserved and vulnerable populations. The PPACA also provides timely opportunities for spurring the formal use and integration of CHWs in health systems. Because these workers gain their core experience from local forms of knowledge,[4] which mirror the social class and racial character of the communities they serve, CHWs can provide unique insight in the development and implementation of care delivery models that emphasize patient-centered care and care coordination, specifically for health, behavioral, and social services. Furthermore, the global payment systems to support these new care delivery models, which are encouraged by the PPACA, can help sustain the role of CHWs.

Two promising strategies for achieving improved outcomes and cost savings are delineated in the PPACA: accountable care organizations (ACOs) and patient-centered medical homes (PCMHs). ACOs are

> provider collaborations that integrate groups of physicians, hospitals, and other providers around the ability to receive shared-savings bonuses by achieving measured quality targets and demonstrating real reductions in overall spending growth for a defined population of patients.[5]

The PCMH model under Section 3502 highlights the importance of "prevention initiatives and patient education" along with "care management resources . . . integrated with community-based prevention and treatment resources."[6] The references to ACOs and PCMHs throughout the law, moreover, capture a recurring, exhortative theme: teams of interdisciplinary, interprofessional health care providers are critically important for treating patient populations.

CHWs have much to offer in advancing these principles. As trusted members of the communities where they live and work, with whom they share common

racial and ethnic backgrounds, cultures, languages, and life experiences, CHWs are well positioned to help people receive timely care by facilitating access to primary and preventive services and by improving the coordination, quality, and cultural competence of medical care. Despite the demonstrated effectiveness of CHWs, meaningful integration into the health care delivery team has eluded them. Failure to secure sustainable funding sources for reimbursement of services still keeps CHWs at the margins of any health delivery team. The PPACA offers a unique opportunity for the overdue incorporation of CHWs as key members in the health care delivery team.

IMPROVING HEALTH AND CONTAINING COSTS

In 2009, the US Agency for Healthcare Research and Quality (AHRQ) conducted a systematic review of CHWs that included an examination of costs and cost effectiveness of CHW interventions.[7] Although the data and research on CHWs are limited, the agency's review concluded that CHWs can serve as a means for improving outcomes for vulnerable populations for some conditions. Data were insufficient for a conclusive finding on cost-effectiveness; nonetheless, the reviewers found notable demonstrations of cost savings or cost reductions. Although the field could benefit from more evidence, several studies have demonstrated the impact of CHWs on health outcomes and costs of care, particularly in 3 areas: securing access to health care; coordinating timely access to primary care and preventive services; and helping individuals manage chronic conditions.

Access to Primary Care and Preventive Services

In several studies, CHWs have been shown to effectively connect and enroll people in health insurance. In New York City, one community organization implemented a CHW initiative to increase enrollment in health insurance among eligible residents.[8] Between 2000 and 2005, CHWs enrolled nearly 30 000 previously uninsured people and helped facilitate access to primary care for the newly insured.

Similarly, CHWs in El Paso, Texas, enrolled 7000 individuals in Medicaid and other state-funded health plans in a period of three years.[9] Another study, aimed at increasing the number of insured Latino children in Boston, found that children in a CHW intervention group were significantly more likely than were children in the control group to be insured and stay insured.[10]

As frontline workers, CHWs often represent the first point of contact for people with no previous access to primary care and preventive services. Several studies have shown that CHW programs increase low-income and immigrant women's use of preventive services, such as mammography and cervical cancer screenings.[11–14] A Denver study of underserved men found that interventions by CHWs shifted care from costly inpatient and urgent services to primary care and prevention. This shift resulted in a return on investment of $2.28 per $1 spent on the community-based intervention, for a total savings of $95 941 per year.[15] Other studies have shown that CHWs can increase healthy food choices and physical activity among people at high risk for developing diabetes,[16–19] as well as for people with diabetes, leading to improved clinical outcomes such as decreased hemoglobin A1c levels.[20]

Management of Chronic Conditions

Numerous studies have demonstrated the impact of CHWs in the management of chronic diseases such as asthma, cancer, and HIV/AIDS. CHWs can help reduce the costs of emergency care and preventable hospitalization,[19,21–35] particularly in communities burdened with high rates of chronic illness.[36–39]

A 2003 study of CHWs working with Medicaid recipients with diabetes in west Baltimore found that CHWs generated a savings of $2200 per patient per year, a 40% reduction in emergency room visits, and a 33% drop in hospital admissions. Participants in the study also reported an improvement in overall quality of life. A limitation of this retrospective study was the potential of selection bias among hospital patients who may have been more highly motivated to participate and who may have perceived participation in this study as more beneficial than did others.[29]

A randomized, controlled trial of two CHW interventions targeted at reducing exposure to indoor asthma triggers demonstrated that the CHW interventions significantly reduced urgent health services use. A comparison of urgent care costs in the two months before and the two months at the end of the high-intensity intervention, which featured multiple CHW visits and a full set of resources, estimated cost reductions of $201 to $334 per child. For the low-intensity intervention, which provided one CHW visit and limited resources, analogous cost reductions were $185 to $315 per child. If the cost reductions persisted for three to four years, the projected four-year net savings per participant among the high-intensity group relative to the low-intensity group would be $189 to $721. This study did not determine a measure of cost per unit of service.

Overall, the literature suggests that CHWs are effective in helping people prioritize health maintenance and primary and preventive care. CHWs promote more cost-efficient use of medical delivery systems by helping clients avoid more resource-intensive services, such as emergency and inpatient care. CHWs play a critical role in improving patients' health outcomes and quality of life and in addressing the chronic conditions that drive health care costs.

OPPORTUNITIES AND SYNERGIES

The emphasis on patient-centered care and improved population health in the ACO and PCMH models of care presents a unique opportunity to capitalize on the value that CHWs offer. ACOs can be defined broadly as clinical and administrative systems capable of (1) promoting evidence-based medicine and patient engagement, (2) reporting on quality and cost measures, and (3) coordinating care (e.g., through remote patient monitoring and other technology). ACOs could employ CHWs to help address the patient engagement and care coordination elements of this model. Under Section 3022 of the PPACA, ACOs are required to

> demonstrate to the Secretary . . . patient-centeredness criteria specified by the Secretary, such as the use of patient and

caregiver assessments or the use of individualized care plans.[40]

Similar emphasis on patient centeredness is echoed in Section 3502, Establishing Community Health Teams to Support the Patient-Centered Medical Home.[6]

Health Team Members

In a team model, primary care physicians and health professionals work in an integrated manner to coordinate care for a patient. CHWs can play a valuable role on the team by providing contextual data about patients' attitudes, behavior, and environment that can inform development of an effective care plan.

In the implementation of such a care plan, CHWs work with patients to help them understand what is being asked of them by providers; assist them with navigating medical, behavioral, and social services; and provide critical feedback to providers to ensure that care plans are tailored appropriately to the needs of each patient. The relationship between the patient and the CHW transforms the concept of patient centeredness into concrete, practical elements as encouraged by the PPACA.

Payment Models

A barrier to proliferating CHW interventions is the lack of sustained funding to support the integration of CHWs into care systems. A significant improvement in financing these workers would be to shift from the ad hoc approach of grants and contracts—the predominant funding mechanisms today—to sustained financing through Medicaid, commercial insurers, or government general funds. Several states have pushed forward in financing the role of CHWs through Medicaid. Minnesota, for example, passed legislation to reimburse CHW services under Medicaid in 2007. In 2008, the Centers for Medicare and Medicaid Services approved a Medicaid state plan amendment authorizing payment for CHWs who worked under Medicaid-approved providers, including physicians, nurses, dentists, and mental health providers. Managed care organizations, such as Molina Healthcare in New Mexico and Denver Health in Colorado, have tapped into federal Medicaid funds for administrative costs that allow them to provide CHW services to targeted populations. Each of these states carved out a defined scope of work that would be performed by CHWs for one service or a combination of services that would improve access to care, support care management and patient engagement, assist in the management of chronic disease, or offer support for lifestyle behavioral changes.

The definitive role CHWs can play in transforming the delivery of care can be sustained, but only insofar as the payment models shift from reimbursing for episodic, volume-based care to outcome-driven, value-based care. Various payment models could support the role of CHWs and help reorganize care to maximize efficiency, coordination, and quality, ultimately leading to improved outcomes in health and reduced costs: (1) partial or full capitation with built-in outcome-based performance and quality measures; (2) bundled payments; (3) shared savings models, as envisioned for ACOs; and (4) pay-for-performance programs that reward physicians for meeting patient outcome goals. Each of these payment models offers opportunities to support the valued role of CHWs, and these arrangements exemplify the types of experimentation in payment models encouraged by the PPACA.

Capitation. In a capitated payment system, health care service providers are paid a set amount for each person assigned to the provider, whether or not that person seeks care during a set period. A capitated payment system that includes performance measures for tracking quality of care and patient outcomes and creates accountability for resource utilization could encourage providers to focus on preventive health care. These providers, and the systems they work in, could benefit from financial savings resulting from reductions in preventable illnesses among their patient base. Under a capitated system that uses patient outcomes as performance measures, CHWs could be reimbursed as part of the health team seeking to improve quality of care and patient outcomes.

Bundled payment. Also known as episode-of-care payment, case rate, evidence-based case rate, and global bundled payment, the bundled payment model provides a single payment for all services related to a treatment—possibly extending to multiple providers in varied settings. Bundled payment discourages unnecessary care, encourages coordination across providers, and can improve quality. Within the context of a team of providers, CHWs offer a cost-effective approach to assist in care coordination and health management, especially for people who have more than one chronic condition, thus leading to a better use of financial resources, greater efficiency, and better patient outcomes.

Shared savings. This global payment model is envisioned as supporting the work of ACOs. Under this model, a per-person spending target would be set by Medicare. If providers (such as a hospital or physicians) could reduce aggregate Medicare spending below the target, they would share the savings with the government. The key to this model is to improve the health of a population to see significant reductions in spending. The unique identity of CHWs as members of the communities they serve could help not only to improve access to primary and preventive care but also to identify population-level challenges to improving the health of a community. If appropriately integrated into an ACO, CHWs can help to identify community health issues, serve as liaisons to health care providers and the community, and tailor and deliver interventions for patients with complex health and social issues. Setting up tracking systems to measure the impact of CHWs in improving health outcomes can help to build the case to sustain their services with the savings realized by an ACO.

Pay-for-performance. Financial incentives to health care providers to achieve specified performance goals link physician pay to the quality of care provided. Performance indicators can encompass a range of clinical outcome or process measures, such as reduced blood glucose levels among diabetes patients and reduced blood pressure in patients with hypertension. The best of these pay-for-performance models incorporate ongoing and timely data collection to inform improvement efforts—for both the providers and the payers. Understanding what is and is not working can help health care teams use resources, such as CHWs, to tailor interventions for patients in need of more intensive care management and service coordination. As part of health care teams, CHWs can help health organizations achieve the

performance targets that payers set forth and can therefore benefit from the financial rewards. These financial gains can be used to fund retention of CHW services.

CONCLUSIONS

Fully or partially capitated payment systems that include outcome-based incentives hold the most potential for supporting CHWs. A capitated system that provides incentives for good or improved patient outcomes would drive prevention and care coordination to achieve the best outcomes and to ensure conservative and appropriate use of services. Examples of modified global payment models that use clinical performance targets to offer financial incentives for improved quality and outcomes are emerging in various states. The most recent example comes from the Alternative Quality Contract model developed by BlueCross BlueShield of Massachusetts.[41] Innovative outcome-based incentive models for providers can encourage the use of the health team approach to achieve cost-effective quality care. If the emphasis in payment reform remains on providing incentives for high-quality care, as measured by improved health outcomes for patients, then the critical scope of work CHWs perform within these models of care can be integrated and sustained.

Now is the time to seize the opportunity and integrate these workers into our changing health care system. The economy of our country depends on whether we succeed in transforming health care. The decisions we make in the next decade have the potential to either bankrupt our national economy or improve the health—and therefore the productivity—of all our citizens. Incorporating the role of CHWs into this next era of health care will help ensure that we achieve improved health outcomes for all at lower cost. ■

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