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Integrating Community Health Workers Within Patient Protection and Affordable Care Act Implementation

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Abstract

Context—The Patient Protection and Affordable Care Act's (PPACA) emphasis on community-based initiatives affords a unique opportunity to disseminate and scale up evidence-based community health worker (CHW) models that integrate CHWs within health care delivery teams and programs. Community health workers have unique access and local knowledge that can inform program development and evaluation, improve service delivery and care coordination, and expand health care access. As a member of the PPACA-defined health care workforce, CHWs have the potential to positively impact numerous programs and reduce costs.

Objective—This article discusses different strategies for integrating CHW models within PPACA implementation through facilitated enrollment strategies, patient-centered medical homes, coordination and expansion of health information technology (HIT) efforts, and also discusses payment options for such integration.

Results—Title V of the PPACA outlines a plan to improve access to and delivery of health care services for all individuals, particularly low-income, underserved, uninsured, minority, health disparity, and rural populations. Community health workers' role as trusted community leaders can facilitate accurate data collection, program enrollment, and provision of culturally and linguistically appropriate, patient- and family-centered care. Because CHWs already support disease management and care coordination services, they will be critical to delivering and expanding patient-centered medical homes and Health Home services, especially for communities that suffer disproportionately from multiple chronic diseases. Community health workers' unique expertise in conducting outreach make them well positioned to help enroll people in Medicaid or insurance offered by Health Benefit Exchanges. New payment models provide opportunities to fund and sustain CHWs.

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Conclusion—Community health workers can support the effective implementation of PPACA if the capacity and potential of CHWs to serve as cultural brokers and bridges among medically underserved communities and health care delivery systems is fully tapped. Patient Protection and Affordable Care Act and current payment structures provide an unprecedented and important vehicle for integrating and sustaining CHWs as part of these new delivery and enrollment models.

Keywords

community health workers; Health Homes; patient-centered medical homes; Patient Protection and Affordable Care Act; policy

A Community Health Worker (CHW) is "a frontline public health worker who is a trusted member of and/or has a close understanding of the community served." Community health workers have been identified as effective liaisons between service providers and vulnerable populations. Numerous studies confirm CHWs' success in improving health outcomes among low-income and minority populations, specifically in chronic disease management, Prevention of disease and illness, 11,12 and insurance enrollment. In addition, CHWs have been shown to reduce unnecessary health service utilization and generate cost savings. 14–17

Chronic disease affects approximately 133 million Americans, about 45% of the total US population. Reflective of this rising prevalence, the Patient Protection and Affordable Care Act (PPACA) emphasizes and prioritizes improvements to the access to and delivery of health care services, particularly among low-income, underserved, uninsured, minority, health disparity, and rural populations. To assist health care providers in achieving these goals, the PPACA defines the health care workforce broadly to include all health care providers, including CHWs, with direct patient care and support responsibilities. The PPACA also creates opportunities for new payment models that can support the integration of CHWs into existing and new models of care delivery.

Including CHWs in the design and implementation of PPACA programs can help overcome barriers to serving high-need and hard-to-reach populations. In recognition of the unique contributions of CHWs, the PPACA includes funding for programs that support the use of CHWs. The PPACA specifically indicates that grant funding will be provided to entities that utilize CHWs to (1) conduct outreach regarding prevalent health problems in medically underserved communities; (2) promote healthy behaviors; (3) conduct outreach to increase health insurance enrollment; (4) identify and refer underserved populations to health care and community-based resources; and (5) provide home visitation services for maternal health and prenatal care. ²¹ In addition, the PPACA includes several other opportunities to implement new care delivery and payment models that promote the integration of CHWs, ^{22–27} including programs to support team-based care such as patient-centered medical homes (PCMHs) and Health Homes; the Maternal, Infant, and Early Childhood Home Visiting Program; and programs that facilitate the expansion of health insurance coverage such as Medicaid expansion and Health Benefit Exchanges. There also has been and will likely continue to be opportunities to integrate CHWs into new care delivery and payment models under the PPACA-authorized Centers for Medicare & Medicaid Services

Innovation Center programs, such as Accountable Care Organizations, Comprehensive Primary Care initiative, and the State Innovation Model Initiative.

Goal and Methods

The article aims to present ways in which CHWs can be integrated into PPACA programs. In this programmatic and policy analysis, we describe several components of PPACA that offer natural leverage points for the integration of CHWs; describe examples, potential payment options, and present a framework for evaluating a return on investment that can be used to provide support for integration; and discuss key strategies that programs should consider in integrating CHWs into their workforce.

Results: Areas of Integration for CHW into PPACA Programs

Outreach, Recruitment, and Engagement

Sharing a common culture, languages, and experiences allows CHWs to build trust and credibility within communities. Because CHWs have unique access to and understanding of the cultural norms and values of their communities, CHWs have deep expertise in best practices specific to individual communities. Therefore, they can help identify and develop outreach, recruitment, and educations strategies that are responsive to the needs of diverse patients and overcome challenges to access, service delivery, and care coordination—all of which are critical to the success of PPACA programs. Community health workers can offer critical guidance in the design, development, and implementation of health services and patient care teams. For example, CHWs can serve as data collectors for needs and outcomes assessments that will be used to inform the development and evaluation of programs. Community health workers can increase the accuracy and scope of assessments through collecting linguistically and culturally accurate information, including from communities that might otherwise be missed. In terms of implementation, CHWs can help individuals and families who are eligible for or are included in these programs overcome participation barriers and issues, including real and perceived barriers, lack of trust, isolation, and disconnection from services and providers. In particular, CHWs often have expertise in engaging hard-to-reach populations, which makes CHWs ideally suited to conduct outreach for programs for people with complex and costly needs such as those with multiple chronic conditions, mental health conditions, and substance abuse issues.

In summer of 2012, the Centers for Disease Control and Prevention's National Health and Nutrition Examination Survey collaborated with a network of experienced CHWs to strengthen their data collection efforts in Asian American and Russian communities in Queens, NY. Community health workers were tasked with conducting door-to-door recruitment in sample communities and with implementing the survey in a linguistically and culturally competent manner. Because the data collected through the National Health and Nutrition Examination Survey are ultimately used to direct sound public health policy and to design health programs and services, the participation of diverse communities is vital. ²⁸ The inclusion of CHWs in recruitment and implementation efforts helped to address barriers to participation, particularly mistrust. Community health workers could help support similar data collection efforts that are part of PPACA.

Care Delivery and Care Coordination

Community health workers are critical to implementing and delivering new models of care delivery, especially for low-income and minority communities who suffer disproportionately from chronic disease. A combination of CHWs' knowledge of the cultural and linguistic context in which people live and make health and health care choices and CHWs' expertise about available health and social services can increase patients' understanding and appropriate use of services and self-management practices, enhance access and care coordination, and build patient and family support networks. For example, in minority communities where mental illness and disease can carry a significant stigma, ^{29–32} CHWs can refer members to resources in a safe, culturally relevant manner.³³

Community health workers can also improve service delivery by assessing individual patient and community preferences and by creating bridges between services and cultural norms that might otherwise result in inability to access care. For example, cultural norms and social factors may influence whether members are more likely to engage in follow-up services at inpatient or in-home settings or screen for certain diseases while not others. Community health workers have the knowledge to navigate and advise service providers on how to address these factors.

With the advent of the PCMH model, primary care physicians and other health professionals will increasingly need to work in an integrated manner to coordinate patient care.³⁴ Adding CHWs to the primary care team can improve care and coordination for patients with chronic disease at low cost.³⁵ As part of a care team, CHWs can support care management and provide care coordination across settings, in patients' homes, and at community locations. For example, when a patient is discharged from a hospital, a CHW can provide follow-up support as the person transitions home and can facilitate follow-up visits with the primary care provider and other providers and services.

The Bronx-Lebanon Hospital Department of Family Medicine, a PCMH, implemented a highly integrated CHW program in 2007, in which CHWs serve as equal members of the health care team together with clinical care providers. Community health workers in the program are able to provide care management beyond the health care setting, working with patients to overcome barriers and improve control of health problems, providing self-management coaching and goal setting, addressing social and economic needs, connecting clients to services with community partners, and conducting home visits. The program has successfully resulted in declines in emergency department visits and hospitalizations. Other studies have also demonstrated reduced hospital readmissions and cost savings to settings where CHWs have been firmly integrated into the clinical team.

Health Insurance Coverage

Because of the relationships and trust CHWs have in the communities they serve, they are also well positioned to be in-person assisters/navigators/outreach and enrollment assistance workers to help people enroll in Medicaid or insurance through a Health Benefit Exchange.

Sixteen Asian-serving community-based organizations recently partnered to provide culturally and linguistically competent navigation of the New York State Health Plan

Marketplace to Asian American communities in New York City. 38 Community health workers within these organizations are well aware of their clients' needs and are able to assist individuals who may not have Internet access or literacy, or have specific language needs that are not met by Web-based, telephone, or paper application channels. In addition, individuals in largely immigrant communities may be uninformed, misinformed, or fearful of the exchanges and may be more likely to enroll if they receive information and assistance from a trusted community leader such as a CHW. As of December 2013, 14% of enrollees in the New York State Marketplace have submitted applications through an in-person assistor or navigator, excluding brokers. 39

Health Information Technology

The PPACA stresses the expansion of health information technology (HIT), particularly electronic medical records, as well as health information exchange (HIE) among health care providers. Community health workers must be included in this expansion to effectively function on care teams. With access to HIT and HIE systems, CHWs can help monitor and coordinate care and access for high-need individuals, especially those who require care coordination for chronic conditions. Health information technology can also be designed to allow primary care physicians to easily refer patients to community-based services, ^{40,41} while access to HIT and HIE would also improve CHWs' ability to deliver services in home and community-based settings that are aligned with patients' overall care plan. In addition, it would provide other members of the care team access to the rich information collected by CHWs that might not otherwise be captured during medical visits, facilitating the identification of candidates for needed follow-up and targeted risk-reducing interventions^{42–44}. Studies are also beginning to demonstrate that EHR access and communication between the primary care physician and the CHW can facilitate the acceptance and effectiveness of emerging care management models and lead to improved patient outcomes.⁴⁵

Furthermore, some new delivery models such as Health Homes emphasize coordinating care across care settings. There are a number of care coordination software programs that enable multiple providers to use unified patient care plans, support team-functioning and workflows, and use clinical data to create alerts that trigger specific care coordination actions. If CHWs are part of care teams, they need to have access to the software systems. As the new care models are being developed, decisions have to be made about what aspects of the software program team members can have access to, including what patient data they can view and alter. Community health workers being nonclinical staff adds a greater complexity to those decisions.

Despite the integration of CHWs into several healthcare settings, integration within HIT remains uncommon. One successful example is the Baylor Health Care System in Dallas, Texas, which implemented a Diabetes Equity Project, in which CHWs deliver culturally tailored diabetes education at 5 community-based clinics. ⁴⁵ An integral component of the program is a Health Insurance Portability and Accountability Act of 1996 (HIPAA)-compliant Web-based diabetes management system (DiaWEB), which enables CHWs, along with clinicians, to collect data at patient visits and monitor progress over time. Community

health workers are also able to generate a report from DiaWEB of key outcome and process measures for the patient, which can then be forwarded to the primary care provider for inclusion in the patient's medical record. The study authors posit that DiaWEB is a key part of Diabetes Equity Project's success, as it fosters physician acceptance and utilization of the Diabetes Equity Project through the collection of additional data that are helpful in treating patients and provides reassurance that program CHWs will seek clinician input for the management of patients.

The integration of community-based CHWs into HIT can also be beneficial. The New York City Department of Health & Mental Hygiene Primary Care Information Project aims to improve population health, particularly in underserved areas, through HIT and data exchange. Recognizing the access that trusted community leaders, including CHWs, have to community members, the program has trained and equipped faith-based organizations to offer blood pressure monitoring and counseling using a Web-based tracking system, called the "Community Health Dashboard." The secure Web site allows churches to keep track of their congregants with the highest blood pressure readings, review trends to track group-level improvements, and facilitates goal setting. The system can provide an alert to CHWs to invite higher-risk clients to attend community events, such as a healthy cooking workshops or exercise classes, and also allows CHWs to generate personal health reports that can be provided to physicians to aid in care coordination, thereby facilitating the connection of clinical and community resources and services. 46

Table 1 provides further details on potential CHW roles in sample PPACA programs, including PCMHs, Health Homes, an example of a PPACA-supported health improvement program (ie, the Maternal, Infant, and Early Childhood Home Visiting Program), the Centers for Medicare & Medicaid Innovation programs, and Health Benefit Exchanges.

Results: Payment Options

A shift away from fee-for-service payment to new payment opportunities promoted by the PPACA creates new opportunities to fund and sustain CHWs. There are numerous payment models being proposed or tested in the field that support new care delivery models that improve quality and outcomes and lower costs. Payment models typically fall into the categories of capitation, episodes of care, shared savings, and pay for performance. Many models include some combination of these payment types to balance the incentives and disincentives inherent in each.

Capitated payment models have increased in popularity and come in different forms. In some models, providers are paid a set amount for a distinct set of services. An example is a provider who receives a Health Home payment to provide the 6 required core Health Home services. In other models, providers receive payment for each person assigned to them. Capitated payment models can give providers more flexibility to use CHWs because, unlike fee-for-service payments, they can pay for staff and functions that have not been defined as reimbursable. Capitation also incentivizes containing cost, which CHWs can help achieve by assisting patients to improve their health outcomes and prevent avoidable utilization. Using CHWs for roles that do not require clinicians can also reduce unnecessary personnel costs.

As a type of capitated payment, episode-of-care payment—also called bundled payment—provides a single payment for a set of clinically defined services related to treatment of a particular episode of care (eg, a myocardial infarction) or condition (eg, chronic obstructive pulmonary disease) over a defined period of time. Episode-of-care payments also can take many forms and include retrospective or prospective payments. As with other capitated models, these types of payment incentivize providers to deliver care at a cost that is lower than their payment, which supports the use of CHWs for nonclinical functions. In addition, these types of payment often are for care that is provided across care settings, which supports the need for care coordination, including coordination that can be provided by CHWs.

Another payment model that is being used, often in conjunction with other types of payment, is shared savings. Under this model, providers receive payments on the basis of savings they have achieved or are expected to achieve. For example, under Centers for Medicare & Medicaid Services' Advance Payment Accountable Care organization Model, providers receive fixed and variable payments on the basis of expected costs. Under these models, providers can pay for CHWs with savings that CHWs can help achieve.

Pay-for-performance payment models are often combined with the payment models indicated previously. With these payment models, providers receive payments for meeting preestablished targets for care delivery and quality. For example, some states are providing incentive payments after providers achieve recognition as PCMHs. Because CHWs can help providers meet quality targets, especially by helping patients access and engage in care, coordinating care and care transitions, and supporting healthy lifestyle choices, providers can invest in CHWs and use the payments to sustain their positions.

Regardless of the payment model, methods must be developed to evaluate the return on investment of integrating CHWs in new care delivery models. This is especially critical since much of the evidence supporting the value of CHWs evaluated CHW-specific programs rather than the integration of CHWs into care models. Evaluation, therefore, must include indicators that can assess the distinct contributions of CHWs in these models. For example, the New York State Department of Health includes a case finding/outreach and engagement fee as part of its Health Homes payment model. ⁴⁹ Under this model, a Health Home can receive an outreach and engagement per member per month payment for 3 consecutive months after the Health Home begins to provide outreach and engagement services to the patient. The outreach and engagement per member per month is only 80% of the active care management per member per month, which creates an incentive to accelerate transitioning patients to active case management. In addition, if the patient is not engaged in active care management during this period, then the Health Home cannot bill for case finding for that patient for the next 3 months. If a Health Home is using CHWs to conduct the outreach and engagement, the evaluation of the program should include careful tracking of the outreach and engagement services and outcomes. If non-CHW Health Home team members are also conducting case finding, the evaluation should include an assessment of the relative effectiveness of engaging members in active case management, costs per patient engaged by team member, and revenue per patient engaged by CHWS and non-CHW team members.

Discussion & Conclusion

The PPACA recognizes the importance of CHWs in reaching underserved communities by explicitly creating overlap between funded CHW duties and PPACA programs. Although the path toward integrating CHWs into PPACA-funded programs and developing reimbursement mechanisms for CHWs will vary depending on the program and context, there are some critical elements that will be essential for organizations to consider in the implementation of CHW programs. These elements include establishing or enhancing existing infrastructure to support CHWs; establishing a workflow for CHWs within clinical settings; investing in and supporting training of CHWs; and engaging in rigorous evaluation to assess the impact of CHWs in improving patient outcomes. These elements are enumerated in Table 2.

Through PPACA programs, CHWs will have opportunities to enhance service delivery and enrollment as outreach agents, care coordinators, navigators/in-person assisters, and health educators. Community health workers can support the successful implementation of PPACA programs if they are integrated into the design of models, care delivery, outreach and enrollment efforts, and HIT/ HIE use. This can be accomplished by fully tapping into the capacity and potential of CHWs to serve as cultural brokers and bridges among medically underserved communities and health care delivery systems. Doing so requires continually capturing and sharing information on how CHWs are integrated into and contributing to PPACA programs, sustained under new payment models, and contributing to cost-saving and improved health in underserved communities.

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References

- Community Health Workers. http://www.apha.org/aphacommunities/member-sections/community-health-workers. Published 2014.
- 2. Chin MH, Walters AE, Cook SC, Huang ES. Interventions to reduce racial and ethnic disparities in health care. Med Care Res Rev. 2007; 64:7S–28S. [PubMed: 17881624]
- 3. Islam NS, Wyatt LC, Patel SD, et al. Evaluation of a community health worker pilot intervention to improve diabetes management in Bangladeshi immigrants with type 2 diabetes in New York City. Diabetes Educ. 2013; 39:478–493. [PubMed: 23749774]
- 4. Brownstein JN, Chowdhury FM, Norris SL, et al. Effectiveness of community health workers in the care of people with hypertension. Am J Prev Med. 2007; 32:435–447. [PubMed: 17478270]
- 5. Norris SL, Chowdhury FM, Van Le K, et al. Effectiveness of community health workers in the care of persons with diabetes. Diabet Med. 2006; 23:544–556. [PubMed: 16681564]

 Brownstein JN, Bone LR, Dennison CR, Hill MN, Kim MT, Levine DM. Community health workers as interventionists in the prevention and control of heart disease and stroke. Am J Prev Med. 2005; 29:128–133. [PubMed: 16389138]

- Brownstein, JN.; Andrews, T.; Wall, H.; Mukhtar, Q. Addressing Chronic Disease through Community Health Workers: A Policy and Systems-Level Approach. Atlanta, GA: Centers for Disease Control & Prevention; 2012. http://www.cdc.gov/dhdsp/docs/chw_brief.pdf. [Accessed March 3, 2014]
- 8. Baig AA, Wilkes AE, Davis AM, et al. The use of quality improvement and health information technology approaches to improve diabetes outcomes in African American and Hispanic patients. Med Care Res Rev. 2010; 67:163S–197S. [PubMed: 20675350]
- Spencer MS, Rosland AM, Kieffer EC, et al. Effectiveness of a community health worker intervention among African American and Latino adults with type 2 diabetes: a randomized controlled trial. Am J Public Health. 2011; 101:2253–2260. [PubMed: 21680932]
- 10. Islam N, Riley L, Wyatt L, et al. Protocol for the DREAM Project (Diabetes Research, Education, and Action for Minorities): a randomized trial of a community health worker intervention to improve diabetic management and control among Bangladeshi adults in NYC. BMC Public Health. 2014; 14:177. [PubMed: 24548534]
- 11. Martinez J, Ro M, Villa NW, Powell W, Knickman JR. Transforming the delivery of care in the post-health reform era: what role will community health workers play? Am J Public Health. 2011; 101:e1–e15. [PubMed: 22021289]
- Islam NS, Zanowiak JM, Wyatt LC, et al. A randomized-controlled, pilot intervention on diabetes prevention and healthy lifestyles in the New York City Korean community. J Commun Health. 2013; 38:1030–1041.
- 13. Perez M, Findley SE, Mejia M, Martinez J. The impact of community health worker training and programs in NYC. J Health Care Poor Underserved. 2006; 17:26–43. [PubMed: 16520505]
- 14. Fedder DO, Chang RJ, Curry S, Nichols G. The effectiveness of a community health worker outreach program on healthcare utilization of west Baltimore City Medicaid patients with diabetes, with or without hypertension. Ethn Dis. 2003; 13:22–27. [PubMed: 12723008]
- 15. Krieger JW, Takaro TK, Song L, Weaver M. The Seattle-King County Healthy Homes Project: a randomized, controlled trial of a community health worker intervention to decrease exposure to indoor asthma triggers. Am J Public Health. 2005; 95:652–659. [PubMed: 15798126]
- Enard KR, Ganelin DM. Reducing preventable emergency department utilization and costs by using community health workers as patient navigators. J Healthc Manag. 2013; 58:412–427. discussion 28. [PubMed: 24400457]
- 17. Community Health Workers: A Review of Program Evolution, Evidence on Effectiveness and Value, and Status of Workforce Development in New England. Boston, MA: Institute for Clinical and Economic Review; 2013. The New England Comparative Effectiveness Public Advisory Council.
- 18. Wu, S.; Green, A. Projection of Chronic Illness Prevalence and Cost Inflation. Santa Monica, CA: RAND Corporation; 2000.
- The Patient Protection and Affordable Care Act. Pub L No. 111-148, 124 Stat. 119(2010). H.R. 3590; Title V, Subtitle A, \$5001; (2010).
- 20. Patient Protection and Affordable Care Act. H.R. 3590; Title V, Subtitle B, §5101.
- 21. Patient Protection and Affordable Care Act. H.R. 3590; Title V, Subtitle D, §399V.
- 22. Patient Protection and Affordable Care Act. H.R. 3590; Title III, Subtitle F, §3502.
- $23.\ Patient\ Protection\ and\ Affordable\ Care\ Act.\ H.R.\ 3590;\ Title\ II,\ Subtitle\ IV,\ \S 2951.$
- 24. Patient Protection and Affordable Care Act. H.R. 3590; Title X; Subtitle C, §10333.
- 25. Patient Protection and Affordable Care Act. H.R. 3590; Title III; Subtitle F, §3510.
- 26. Patient Protection and Affordable Care Act. H.R. 3590; Title II; Subtitle I, §2703.
- 27. Patient Protection and Affordable Care Act. H.R. 3590; Title III, Subtitle A, §3021.
- 28. Centers for Disease Control and Prevention. National Health and Nutrition Examination Survey, 2013–2014: Overview. Atlanta, GA: Ceters for Disease Control and Prevention; 2014.

29. Atdjian S, Vega WA. Disparities in mental health treatment in U.S. racial and ethnic minority groups: implications for psychiatrists. Psychiatr Serv. 2005; 56:1600–1602. [PubMed: 16339626]

- Fowler-Brown A, Ashkin E, Corbie-Smith G, Thaker S, Pathman DE. Perception of racial barriers to health care in the rural South. J Health Care Poor Underserved. 2006; 17:86–100. [PubMed: 16520516]
- 31. Gary FA. Stigma: barrier to mental health care among ethnic minorities. Issues Ment Health Nurs. 2005; 26:979–999. [PubMed: 16283995]
- 32. Nadeem E, Lange JM, Edge D, Fongwa M, Belin T, Miranda J. Does stigma keep poor young immigrant and U.S.-born Black and Latina women from seeking mental health care? Psychiatr Serv. 2007; 58:1547–1554. [PubMed: 18048555]
- 33. Centers for Disease Control and Prevention. CDC health disparities and inequalities report United States, 2011. Morb Mortal Wkly Rep. 2011; 60(suppl):1–116.
- 34. Zahn, D.; Matos, S.; Findley, S.; Hicks, A. Making the Connection: The Role of Community Health Workers in Health Homes. New York. NY: Health Managemnt Associates; 2012.
- 35. Adair R, Wholey DR, Christianson J, White KM, Britt H, Lee S. Improving chronic disease care by adding laypersons to the primary care team: a parallel randomized trial. Ann Intern Med. 2013; 159:176–184. [PubMed: 23922063]
- 36. Findley S, Matos S, Hicks A, Chang J, Reich D. Community health worker integration into the health care team accomplishes the triple aim in a patient-centered medical home: a Bronx tale. J Ambul Care Manage. 2014; 37:82–91. [PubMed: 24309397]
- 37. Kangovi S, Mitra N, Grande D, et al. Patient-centered community health worker intervention to improve posthospital outcomes: a randomized clinical trial [Published online ahead of print February 10, 2014]. JAMA Intern Med.
- 38. [Accessed March 3, 2014] New York State of Health: The Official Health Plan Marketplace. 2013. https://nystateofhealth.ny.gov/. Pulished 2013.
- State of New York Department of Health. NY State of Health: The Official Health Plan Marketplace. 2013 Dec. Enrollment Report; 2014.
- 40. Fellows JL, Mularski R, Waiwaiole L, et al. Health and economic effects from linking bedside and outpatient tobacco cessation services for hospitalized smokers in two large hospitals: study protocol for a randomized controlled trial. Trials. 2012; 13:129. [PubMed: 22853325]
- 41. Kruse GR, Kelley JH, Linder JA, Park ER, Rigotti NA. Implementation of an electronic health record-based care management system to improve tobacco treatment. J Gen intern Med. 2012; 27:1690–1696. [PubMed: 22865018]
- 42. Community Preventive Services Taskforce. The Guide to Community Preventive Services. Cardiovascular Disease Prevention and Control: Clinical Decision-Support Systems (CDSS). Atlanta, GA: Community Preventive Services Taskforce. The Guide to Community Preventive Services; 2013.
- 43. Persell SD, Dunne AP, Lloyd-Jones DM, Baker DW. Electronic health record-based cardiac risk assessment and identification of unmet preventive needs. Med Care. 2009; 47:418–424. [PubMed: 19238100]
- 44. Persell SD, Lloyd-Jones DM, Friesema EM, Cooper AJ, Baker DW. Electronic health record-based patient identification and individualized mailed outreach for primary cardiovascular disease prevention: a cluster randomized trial. J Gen Intern Med. 2013; 28:554–560. [PubMed: 23143672]
- 45. Walton JW, Snead CA, Collinsworth AW, Schmidt KL. Reducing diabetes disparities through the implementation of a community health worker-led diabetes self-management education program. Fam Community Health. 2012; 35:161–171. [PubMed: 22367263]
- 46. NYU Prevention Research Center. Redesigning the Health Care Team: Integrating Community Health Workers within Affordable Care Act Implementation. New York, NY: NYU Prenvetion Research Center; 2013.
- 47. [Accessed October 29, 2013] Innovation Models. http://innovation.cms.gov/initiatives/index.html#views=models.
- 48. PPACA. H.R. 3590; Title I, Subtitle D, §1311.
- 49. State of New York Department of Health. Health Homes Provider Manual: Billing Policy and Guidance. Albany, NY: State of New York Department of Health; 2014.

50. Ruiz Y, Matos S, Kapadia S, et al. Lessons learned from a community-academic initiative: the development of a core competency-based training for community-academic initiative community health workers. Am J Public Health. 2012; 102:2372–2379. [PubMed: 22594730]

Table 1

Sample PPACA Programs Overview

| Program | PPACA Support | CHW Role |
|---|--|--|
| Patient-Centered Medical Homes ²² | The PPACA indicates that it will establish a program to provide grants to or enter into contracts with eligible entities to establish community-based interdisciplinary, interprofessional health teams that will support Patient-Centered Medical Homes. The PPACA defines Patient-Centered Medical Homes as having a whole person-orientation and delivering coordinated and integrated, safe, high-quality care through evidence-informed medicine, appropriate use of health information technology, continuous quality improvements, and expanded access to care. The PPACA also indicates that payment will reflect the value additional components of patient-centered care. | Care delivery: CHWs can work as part of health teams and support the provision of culturally appropriate, patient and family-centered health care. Care coordination: CHWs can assist in coordinating access to preventive and health promotion services, other providers and care settings, and community prevention and treatment programs and provide support during transitions in care. Data Collection: CHWs can assist in the collection and reporting of data for evaluation, including information on patient experience of care. |
| Health Homes ²⁶ | Provides for payment to designated providers, a team of health care professionals operating with such a provider, or a health team, which is eligible to deliver Health Home services to Medicaid individuals with at least 2 chronic conditions, 1 chronic condition and be at risk for another, or 1 serious and persistent mental health condition. Health Homes must provide 6 core services: comprehensive care management; care coordination and health promotion; comprehensive transitional care, including appropriate follow-up from inpatient to other settings; patient and family support; referral to community and social support services; and use of health information technology to link services. | Outreach and engagement: CHWs can conduct outreach to engage eligible enrollees in Health Homes. Care delivery: CHWs can work as part of health teams to support care management and health promotion. Care coordination: CHWs can work as part of health teams to support care transitions, provide patient and family support, and coordinate referrals to community and social support services. |
| Maternal, Infant, and Early Childhood Home Visiting Program ²³ | The PPACA includes support to assess, strengthen, provide, and improve programs and services for families who reside in high-risk communities. A required statewide needs assessment will identify communities at high risk. Offers services within the home to provide parents with information and support around positive parenting, nurturing homes, and child development during pregnancy and through the child's first years of life. | Outreach and engagement: CHWs can conduct outreach to engage eligible high-risk populations in care and supportive services. Care delivery and care coordination: CHWs can—and in many places already do— provide health promotion and care coordination services as part of home visits under existing Maternal, Infant, and Early Childhood Home Visiting programs. |
| Center for Medicare and Medicaid Innovation ²⁷ | The PPACA authorized \$10 billion through fiscal year 2019 to establish the new CMMI under CMS. The goal of the CMMI is to test innovative payment and delivery models in Medicare, Medicaid and CHIP. | Outreach and enrollment, care delivery, care coordination, and data collection: CHWs can perform numerous functions under many of the new models, including outreach and engagement, service delivery, |

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| Program | PPACA Support | CHW Role |
|--|---|---|
| | Since its launch, the CMMI has issued a number of opportunities for new Medicare, Medicaid and the CHIP care delivery and payment models for states, providers, and other entities. ⁴⁷ | care coordination, and data collection. CMMI awards and contracts have included models that incorporate CHWs into new models of care and payment. |
| Health Benefit Exchanges ⁴⁸ | Starting October 1, 2013, Health Benefit Exchanges began to offer health insurance coverage through an insurance marketplace available to eligible individuals and employers. Some states established a state-based marketplace, other states worked with the federal government in a state partnership marketplace, and other states elected have a federally facilitated marketplace. State and federal grants were awarded to entities to have navigators (also known as in-person assistance workers and outreach and enrollment workers) and certified application counselors conduct outreach and education to people about exchanges and assist people in enrolling. | Outreach and enrollment: CHWs can conduct outreach and education and provide enrollment assistance, especially for hard-to-reach populations. For example, New York State has implemented a facilitated enrollment initiative to support community organizations and use of CHWs in assisting limited English proficient communities with enrollment in the exchange. |

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Abbreviations: CHIP, Children's Health Insurance Program; CHW, community health worker; CMMI, Center for Medicare & Medicaid Innovation; CMS, Centers for Medicare & Medicaid Services; PPACA, Patient Protection and Affordable Care Act.

 Table 2

 Elements Essential to the Integration of CHWs in PPACA Program

| Elements | Examples |
|----------------|---|
| Infrastructure | Establishing institutional buy-in of CHWs through organizational champion or other representative Granting CHWs access to HIT and HIE to increase the coordination of service delivery |
| Workflow | Clearly defining CHW role and differentiating from other staff members Establishing referral system between physicians/nurses and CHWs |
| Training | CHWs should be trained in core competencies to standardize skills across employees and equip CHWs to handle a broad range of issues^a CHWs should engage in job-specific training to ensure their skills and responsibilities align with and are complementary to other members of the care team |
| Evaluation | Evaluate the impact of CHW integration on patient outcomes and costs |

Abbreviations: CHW, community health worker; HIE, health information exchange; HIT, health information technology; PPACA, Patient Protection and Affordable Care Act.

^aFrom Ruiz et al.⁵⁰