



Closing the Gap:

Applying Global Lessons
Toward Sustainable
Community Health Models
in the U.S.



Office of the UN Secretary-General's
Special Envoy for Health in Agenda 2030
and for Malaria



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Executive Summary

Despite spending more on healthcare per capita than any other nation in the world, the United States has so far failed to achieve health outcomes on par with peer nations. At the same time, health outcomes across populations within the U.S. vary dramatically across groups by income, race, and geography: a child born in poverty in Detroit has a life expectancy six years shorter than a child born in similar circumstances in New York City. Both the failure of high spending to produce improved outcomes and the disparities in health across communities point to the essential role of non-clinical social factors in shaping opportunities for healthy lives. The solution to this problem is the development of a care model capable of bridging the gap between clinical and community settings. Experience in the U.S. and around the world has shown that such a care model can be built around community health workers (CHWs) – non-clinical workers who come from the communities of the patients that they serve and whose job is to help those patients be healthier within the context of their lives as well as to help providers better understand and respond to patient needs.

CHWs are globally recognized as an essential strategy for improving health for vulnerable patients by linking the clinic and the community. While CHWs have long existed in the United States, programs have struggled to achieve the dual mission of demonstrating health impact and achieving financial sustainability. However, ongoing changes to the U.S. healthcare system present an important opportunity for renewed efforts to develop CHW programs that are able to sustainably contribute to improving health outcomes.

In March of 2016, the Office of the Special Envoy for Health in Agenda 2030 and for Malaria, in partnership with the Arnhold Institute for Global Health at the Icahn School of Medicine at Mount Sinai, convened a Task Force of key stakeholders and leaders in the global and domestic development of CHW programs with the purpose of developing a framework for sustainable, effective CHW programs in the U.S. This Report draws on the experience of those leaders in an effort to provide practical guidance on planning and implementing the programmatic, operational, and financial needs of CHW programs. Our intent is to provide a framework to guide local community and healthcare leaders as they develop sustainable programs to suit the health needs of their communities.

Key Takeaways

The work and experience of this Task Force has highlighted key principles for developing effective programs and essential questions to consider while the business case for a CHW program is being developed. Such a business case should explain why investors (from major payors to providers to the public sector) should support community health and how investments will be translated into captured value.

Key Principles for Effective, Sustainable CHW Programs

1. Prioritize the patient at the center of care.
2. Reflect community needs in every aspect of design.
3. Follow clearly defined, evidence-based protocols to meet patient needs.
4. Build strong systems to support the services provided by CHWs.
5. Select and develop a high-quality workforce.
6. Make CHWs an integrated part of the full care team.
7. Align programmatic, operational, and financial models.
8. Be a strong partner to health systems.

Essential Questions to Consider as the Business Case is Developed

1. What is the work being done by the CHW-based care model?
2. What are the essential programmatic components needed to support this model?
3. How does this model create value?
4. To whom does that value accrue, and how?
5. How does that value translate into investment?

INTRODUCTION:

Potential Value and Core Challenges for CHW Programs in the United States

Global Experience with Community Health Workers

Since the 1960s, CHW programs have been utilized around the world to improve access to healthcare, especially for vulnerable populations in the hardest to reach and lowest income areas in both urban and rural settings. Because these programs arose independently in different settings, they present a broad range of programmatic and operational designs, and have resulted in varying degrees of health and economic impact.

Ultimately, CHW programs succeed at making the formal health system more accessible when they reflect the context in which they are established: the sociocultural, economic, political, demographic, and geographic landscapes that shape the lives of the individuals and communities they seek to serve. At the same time, the study of multiple CHW programs – some that have thrived and others that have struggled – in diverse contexts over time reveals the importance of a few fundamental structural elements across all contexts.

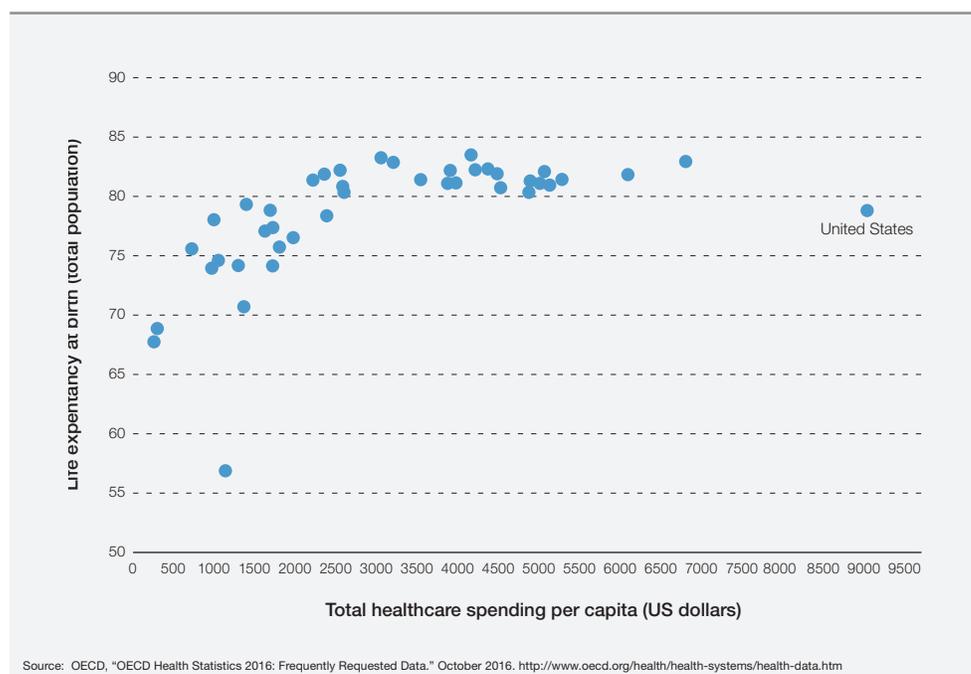
In 2015, a cross-organizational team convened by the Office of the UN Secretary General's Special Envoy for the Health Millennium Development Goals and for Malaria developed a set of guiding principles, identifying the essential features of high-impact CHW programs.¹ That review included many programs from South America, sub-Saharan Africa, and Southeast Asia. In many of the examples cited, countries built national health systems that positioned CHWs as the first point of contact with individuals in communities and often as the primary mechanism to ensure the continuum of care.

In the United States, the health system has been built on the basis of clinical care delivered within the walls of a hospital or clinic as the first line of care. While CHWs have existed in the U.S. for several decades, they are not widely seen as a core unit of health infrastructure, the way they are in many countries abroad. As a result, the guiding principles for successful CHW programs identified in the 2015 report need to be tailored to the U.S. context.

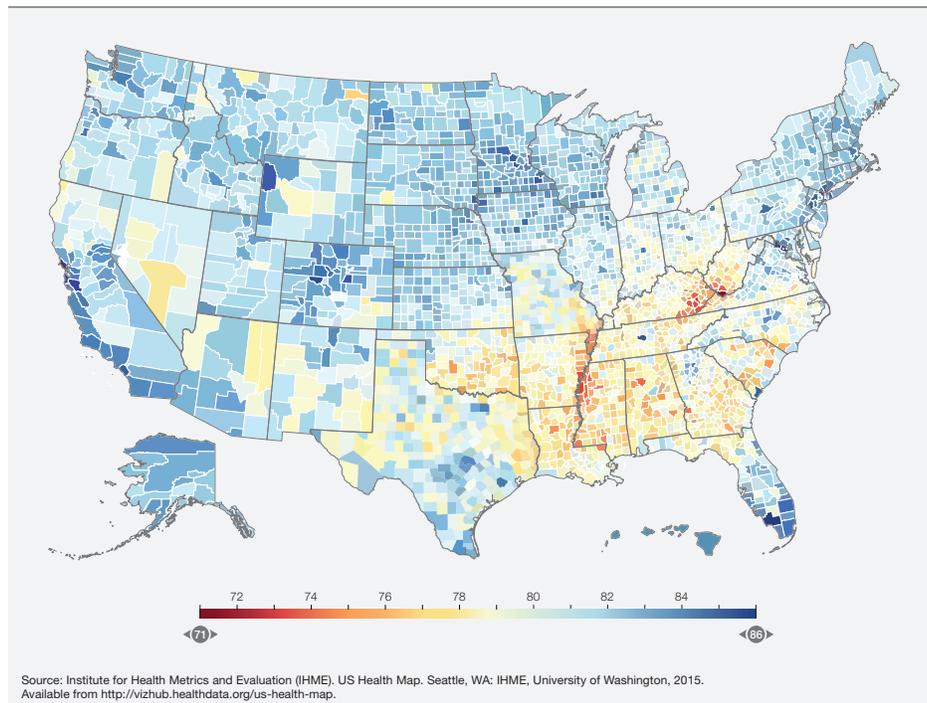
Background: The Gap Between Communities and the American Healthcare System

The United States has persistently suffered from a terrible healthcare paradox: spending more on healthcare than peer nations while experiencing poorer outcomes in many key health indicators. As of 2013, the US spent US\$8,713 per capita on healthcare, while the OECD average was US\$3,453.² That same year, life expectancy at birth for a person born in the US was just 78.8 years, behind the

Total Healthcare Spending vs. Life Expectancy, OECD Nations



Life Expectancy of Females at Birth in 2013



OECD average of 80.5 and well below leading countries like Japan (83.4) and Spain (83.2).³

Importantly, national statistics on life expectancy mask extraordinary variation at the local level. Within the same city, two neighborhoods may have very different life expectancies. In New York, life expectancy in the low-income community of East Harlem is just 76 years. Ten blocks south, in the high-income neighborhood of the Upper East Side, life expectancy is 85 years.⁴ While income is a strong factor, it isn't the only one. Between cities in America, life expectancy for the poorest Americans also shows strong variation. For example, those in the lowest quartile of income have life expectancies 6 years higher in New York than in Detroit.⁵

The failure of high health spending to produce improved outcomes and the variation in life expectancy across localities both point to the essential role of non-clinical factors in shaping health outcomes. A growing body of evidence shows that social, economic, and cultural factors can strongly impact the ability of individuals to build and maintain health.⁶ For example, being able to access affordable, healthy foods, knowing how to prepare them, and understanding the importance of eating them, are all essential steps for preventing and managing diabetes.

Given these realities, healthcare leaders around the U.S. are coming to the realization that clinical care is not sufficient to create health. From the perspective of health systems, this problem manifests in the form of patients whose health fails to improve despite the availability

of – and often, high utilization of – high-quality clinical care in their communities. The problem is that clinical care systems in this country were not built to engage with communities, but rather to stand apart as discrete, controlled, fully-contained units. The gap between clinical care and communities leaves the realities of patients' lives and perspectives out of the care plan. Patients may be prescribed medications they cannot afford, be told to make lifestyle changes they don't understand or cannot access, and offered clinical solutions to problems that arise from the conditions of their communities.

The solution to this problem is the development of a care model that is capable of bridging the gap

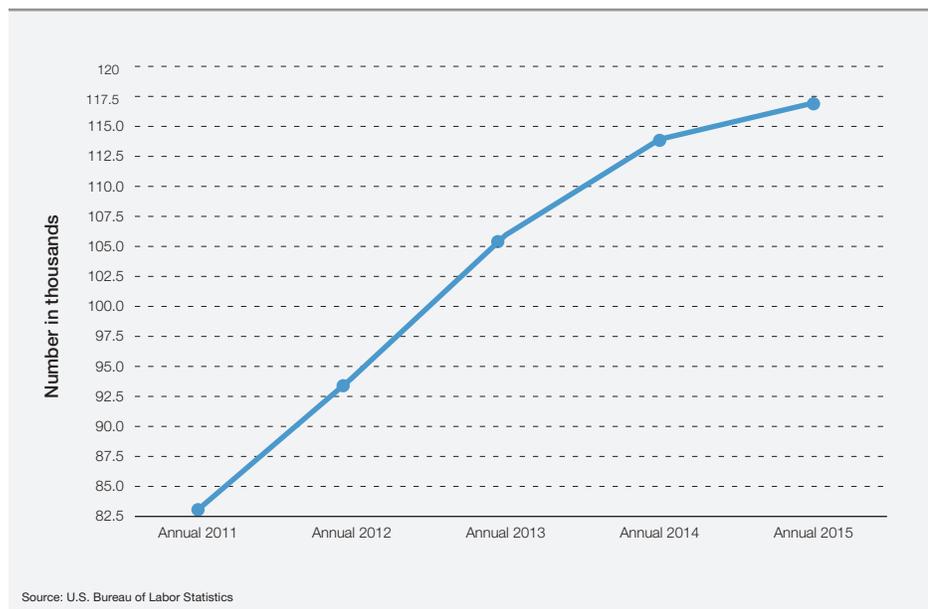
between clinical and community settings. Such a bridge may be built using community health workers: non-clinical workers who come from the communities of the patients that they serve and whose job is to help those patients be healthier within the context of their lives as well as to help providers better understand and respond to their needs.

Shifting Culture: Integrating Non-Clinical Workers in American Healthcare Systems

The idea of integrating non-clinical workers into healthcare represents a massive culture shift, one that is only just beginning to take root. The question that health systems – and the country as a whole – now face is how to take these beginnings and transform them into robust systems that can be sustainable and that continue to solve the problem of bridging the clinic and the community over the long term.

While CHWs have existed in the U.S. for several decades, they have recently attracted increased attention as a means to improve access and to reduce clinical care costs as the health sector faces a shifting financial landscape. Hundreds of community-oriented health programs now exist, although not all are strictly defined as CHWs. While terms such as “promotores,” “health coaches,” “navigators” are often used interchangeably with “community health worker,” they are not identical:

Number of Community and Social Service Specialists, Including Community Health Workers, Employed in the U.S.



CHWs are defined not just by the functions they provide but by their identities as members of the communities that they serve. Many are funded and operated by state or local governments, while others are based in hospitals or operate as private non-profit organizations.

The current surge in the hiring of non-clinical workers carries with it tremendous risk. If CHWs continue to be hired on a one-off basis, without the development of a strong evidence base and examples of fully-realized models that go to scale, interest in non-clinical workers is likely to fade, and the gap between clinical care and the community will remain unfilled. But with careful construction of the right care models, including all of the organizational and financial infrastructures needed to support them, CHWs can contribute enormous value to patients, communities, and health systems alike.

Persistent Challenges and Emerging Opportunities

As the American health system continues to move through a period of reform, many opportunities are emerging for robust, sustainable CHW programs to contribute to improving health and to create value at the local, state, and national levels.⁷

The challenge of professional status has been central to many of the conversations around CHWs in recent years. Much progress is being made on the creation of

guidelines for the profession. For example, the Community Health Worker Core Consensus Project (C3 Project) has worked with key stakeholders nationwide to develop a set of core roles, skills, and qualities for CHWs.⁸

Despite growing literature around best practices for program design and implementation, major gaps in the translation of that knowledge into practice continue to exist. Too often, individual programs left to start from scratch are unable to anticipate the challenges of designing operational infrastructure and standards that match the needs of their program goals. These include such needs as organizational structure and management, approaches

to hiring and training, relationships to existing care infrastructures, and infrastructural needs such as systems for gathering, analyzing, and sharing data.

In addition, major challenges remain when it comes to developing sustainable financial models, even as new opportunities emerge. Population health initiatives give health systems the motivation to engage in non-traditional approaches to supporting the health of the communities they serve. Financing structures like risk management contracts and capitation leave health systems with the opportunity to decide how to fulfill population health needs, a space that can be filled in part by CHWs if robust care models can be developed and scaled.

Changes enacted under the Affordable Care Act also create new opportunities for financing CHWs. Importantly, regulatory changes made during ACA implementation make it possible for CHWs to be reimbursed through Medicaid for providing preventive services. However, individual states must take action to enable reimbursement, and so far only a few have taken steps toward doing so.⁹ The details of these programs are further described in Appendix III.

As these factors continue to evolve, carefully designed and implemented CHW-based care models will be well positioned to meet the needs of both communities and health sector organizations that are seeking solutions to improve health and create value in the emerging population health landscape.

Bridging Global Lessons for Domestic Success

The goal of this section is to lay out guiding principles for planning and implementing robust care models to bridge clinical care systems with communities through the use of CHWs. These principles are drawn from global experience and shaped for the U.S. context through the experience of our Task Force members in designing and implementing CHW programs across the country. Where applicable, they are supported by literature.

Effective programs make measurable impact on specified health goals.

Sustainable programs have the financial, operational, and programmatic infrastructures to continually adapt to changing needs over time.

We believe that these principles provide a framework for what is necessary – although not necessarily sufficient – for the creation of effective, sustainable CHW-based care models in the U.S. context. We define *effective* CHW programs as those which fulfill one or more community and stakeholder needs, making measurable impact on specified health goals. *Sustainable* CHW programs are those with financial, operational, and programmatic infrastructures which allow the program to adapt and grow to fit the needs of communities and health systems over time. This requires demonstrating the program’s value to the community and stakeholders and also being sustained primarily by funding that is based on provision of services, not time-limited.

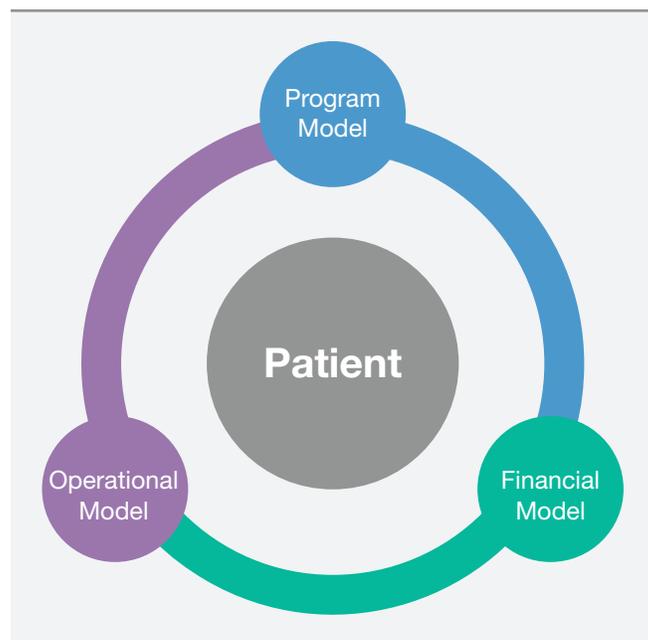
It is not our intent to prescribe the right or wrong way to fund, organize, train, or deploy CHWs. These decisions must be made by stakeholders in each community in order to suit that community’s needs. Rather, these are principles meant to guide the process of making those decisions.

Prioritize the patient at the center of care.

An effective care model has to begin by asking and answering the question: what does this patient need to be healthy? After all, the goal is to deliver effective care that improves health and that can only happen when the program is designed to suit the needs of the patient. One way to achieve this goal is by designing the program through participatory action research: iterative cycles of conversations with patients aimed at identifying problems and generating potential solutions.¹⁰ This approach can reveal important details about the realities faced by patients in their communities and ensure that patient needs are at the heart of program design from the start.

At the level of individual patients, the role of the CHW in meeting those needs can vary widely and is not necessarily limited to traditional “healthcare” activities. These activities may not be listed as part of the core program but would arise organically in response to barriers that patients might need to overcome in order to achieve the goals established in the program design. For example, a CHW may help a patient reengage with people or

Patient-centered health care models



activities that they find fulfilling, be a workout partner at the gym, or fill out an application for food stamps.

An important aspect of this challenge is targeting: appropriately identifying the patients who can benefit most from a specific CHW-based intervention. This may mean restricting the program to patients with certain clinical characteristics, such as having multiple chronic conditions, or specific social needs, such as children living in public housing.

Reflect community needs in every aspect of design.

Global Lesson: Community buy-in and community satisfaction are key to CHW program success. If the community does not accept the CHW and consider the role to hold unique and valuable social and cultural capital, the program will not thrive. The CHW Investment Case Report acknowledges that the “Involvement and participation of communities at all levels of CHW programming – from health priority setting, to recruitment, monitoring, and evaluation – has been recognized as central to a community’s buy-in and to successful ownership and implementation of the programs.” Before a CHW program design is realized, the idea should be discussed with the community. Engaging community resources and structures can ease and even fast-track acceptance of the CHW as a community-based resource and serve to empower the CHW to a greater degree in the long term.

In Brazil’s Family Health Program, Pakistan’s Lady Health Worker (LHW) Program and Nepal’s Voluntary Health Worker (VHW), Maternal and Child Health Worker (MCHW) and Female Community Health Volunteer (FCHV) system, key community stakeholders are involved in the recruitment and oversight of CHWs and their supervisors and in “programmatically decision-making, planning, and monitoring and evaluation.”¹¹

Fitting U.S. Context: As skilled members of the communities they serve, CHWs are unique in their ability to arbitrate the cultural divide between the clinical care systems and communities. The personal relationship and strong sense of trust between a CHW and each individual patient stands at the heart of the effectiveness of the care model in improving health. Even as CHWs are an integral part of care teams, it is essential that they are seen foremost as representatives of the community to the care system and not the other way around.

In order to achieve and maintain their community-centered focus, programs should incorporate explicit

structures holding them accountable to the communities they serve. For example, a program may establish a “Community Board” composed of individuals nominated by the community to represent their interests to program leadership in making key decisions. These include, but are not limited to, decisions about whom to hire, how to train CHWs and managers, and which services to provide as well as oversight of ongoing program activities.

Follow clearly defined, evidence-based protocols to meet patient needs.

Not every CHW program should be providing the same set of services. Program goals and contents should be designed to match the needs of the community and individuals. But whatever those needs are, they will be best addressed through the use of clearly-defined protocols using evidence-based interventions that have been demonstrated to improve health outcomes. Open-source protocols from the Penn Center for Community Health Workers are available as one starting point.¹²

Build strong systems to support the service provided by Community Health Workers.

Global Lesson: CHW performance in the short and long term is a product of the system in which the CHW operates. First and foremost, the functionality of the CHW in both the immediate and long term is inextricable from his or her reliable access to basic supplies. In low-income contexts, this is a constant battle that often irreparably erodes the CHW’s commitment and efficacy as well as the reputation of the individual worker and the program. Operational systems, over which the CHW has little control, also play a major role in the reputation of the program and the success enjoyed by the program and its stakeholders, including patients. An enabling environment must include training and mentorship for CHWs in order to prepare and guide them through these systems and to provide regular opportunities for feedback that can be valuable to program development.

One of the key environmental factors is supportive supervision. Supervision of CHWs is often the weakest and least funded component of CHW programs in low-income settings. The 2015 CHW Investment Case Report identifies five key factors for successful supportive supervision: understanding of the CHW role by those who are selected to supervise; proper training on how the CHW

role fits into the larger health system and the strategies and objectives of strong supervision that can facilitate this; fair remuneration for supervisors that is tied to intended outputs; planning for supervisors' time and resources for supervisors to perform active supervision and mentoring (particularly if supervision of CHWs is built into another full-time job); and integration of the supervisory structure into the overall health system.¹² When effectively designed and executed, supervision reinforces the role of the CHW in the eyes of both the CHW and the community. Supportive supervision should strive to heighten the legitimacy and efficacy of the CHW within the overall health system so that he or she may serve in a key role to positively impact patient and population health outcomes.

Fitting U.S. Context: Because the ultimate goal is to serve patients and that service is delivered by CHWs, every aspect of operational infrastructure should be designed with the aim of making it easier for CHWs to do their job well. One or more CHWs should be directly involved in designing core system elements to ensure that their needs are met. These elements include:

- **Easy-to-follow protocols:** Protocols for all workflows should be clear, allowing CHWs to be confident in executing their work while also providing the flexibility to match the specific needs of individuals.
- **Defined management structures:** CHWs are best supported when they know to whom they are responsible and from whom they can expect help. This requires clearly identified roles, responsibilities, and management pathways, all of which should be made explicit across all levels of the organization.
- **User-friendly data systems:** Data systems are essential to support core capabilities such as standardized patient assessment and tracking, program evaluation, and quality improvement efforts. But ultimately, the usefulness of these systems depends on how well they support the work of the CHW. They should be easy to use and facilitate effective sharing and utilization of relevant data between all members of the care team.

Select and develop a high-quality workforce.

Global Lesson: Not only is careful selection of CHWs a major determinant for how they will perform, it is a factor indelibly tied to achieving program indicators, including quality of patient care and patient outcomes. A study in Uganda found a clear association between the selection

criteria for CHWs and the clinical outcomes of HIV patients benefitting from CHW services. The objectives of the position must guide the recruitment efforts, taking into account cultural and contextual nuances. A 2014 study conducted in Zambia examines how differently composed job advertisements for the same CHW position (same training, same remuneration, same supervision) resulted in markedly different levels of performance between the two recruited groups once on the job.¹³

Once CHWs are selected, training is essential to preparing the CHW to perform their role effectively. Classroom-based learning must be complemented with practice-based learning and must include familiarization with the broader health system and emphasis on how the CHW role links to and complements roles played by other members of the care team.

Training should be taught in manageable segments but aim continually to build the knowledge base of the CHW. Globally, this often means a baseline training unit lasting from several weeks to a few months, then regularly scheduled refresher trainings. Ethiopia, Brazil, Pakistan, and India train their CHWs in a modular fashion over a period of two months to one year. Training should be tied directly to intended outputs and should empower CHWs to respond effectively (and with confidence) to the macro- and micro-level political and sociocultural systems within which they will operate.

Although many communities have plenty of volunteers willing to work limited hours, experience across many countries has shown that full-time CHWs should be compensated well and given clear paths to career development in order to increase motivation and retention.¹⁴ Highlighting opportunities for career development at time of recruitment can attract more qualified and driven candidates. A 2014 study in Zambia finds that “CHAs recruited with career incentives conduct 29% more household visits and organize over twice as many community meetings,”¹⁵ suggesting that investment in the cadre itself actually reaps programmatic and population health benefits. India, similarly, has successfully established a system of scholarship for ASHAs to pursue nursing education.¹⁶ If the prospect of career advancement exists, the CHW has an impetus to build rapport with his/her manager. This mutual investment will result in more accessible social and financial capital for the CHW and stimulate a more integrated and collaborative health system.

Fitting U.S. Context: Making hiring decisions based on the wrong criteria can lead to high turnover and dropout rates, making programs less efficient and potentially threatening the quality of services provided and the

reputation of the program at the community and health system levels. Structured, formalized hiring processes should be used to assess and select candidates based on the interpersonal skills needed for successful patient relationships, not just formal skills or experience. Above all else, it is essential that CHWs are members of the communities that they serve.

Sustainability requires that CHW programs be able to hire selectively from a competitive and continuously replenishing pool of qualified applicants. As with any professional workforce, this requires that CHWs receive effective education and training, clearly articulated opportunities for advancement and pathways for career development, and compensation commensurate with the importance of their work. To this end, CHW programs should include explicit plans for career development and advancement of CHWs.

Make CHWs an integrated part of the full care team.

Global Lesson: CHWs must be integrated into an interdisciplinary care team to function fully and in order for optimal program efficacy to be realized. Perceptions of CHWs as separate from the primary care team, or as lesser health workers, stand in the way of their ability to provide effective linkage to the full continuum of care. CHWs should be given clear roles within a larger, integrated team in order to maximize their contributions and in order best to align them with the skills and contributions of others working towards a unified objective. The ultimate goal of integration is to build a context-specific, inter-professional care team that broadens coverage and provides proactive, patient-centered care. Ministries of Health in Brazil and Ethiopia are striving to reach this goal by establishing tiered or multidisciplinary care teams that, in the Brazilian context, are inclusive of CHWs, social workers, nutritionists, medical practitioners, and public health practitioners.¹⁸

Fitting U.S. Context: CHWs should be understood as an essential component of primary care systems, not just an ad hoc solution to particular problems. The CHW model can and should be utilized in conjunction with such models as patient-centered medical homes and mental health integrated primary care, rather than as an alternative to such models. Integration into care teams is essential to allow collaborative planning, keeping clinical teams informed of relevant non-clinical issues and positioning the CHW to be supportive in carrying out prescribed interventions (such as helping a patient schedule a

follow-up visit with a specialist or understanding their daily regimen of medications).¹⁹ They should be directly involved in care planning conversations, have access to necessary medical information about their patients, and granted the same professional respect given to other members of the care team.

In order for the CHW to hold an integral and respected place within an inter-professional care team, and for a bi-directional referral pathway to be established and utilized, existing health care providers must be engaged in the design and realization of the CHW role. A 1970s article written by a team of physicians in Baltimore proposed the careful development of Family Health Teams trained together to extend patient-centered coverage, significantly cut health care costs, address debilitating gender and socioeconomic equity gaps, and institute clear career pathways (within which a graduate degree was not a prerequisite). These non-physician teams, of which CHWs are the frontline worker, would successfully meet up to 80% of the population's need for primary care.²⁰

Even as they integrate with care systems, CHWs should maintain a clearly defined role distinct from other caregivers in the system. While CHWs participate alongside nurses, social workers, or certified care coordinators in care planning, their ultimate responsibility is distinct from each of these roles: they follow through on implementation of the care plan, not just its creation. At all times, it should remain clear that the CHW is there to represent the community-based needs of the patient to the clinical care system and not the other way around.

Align programmatic, operational, and financial models.

Global Lesson: Unreliable funding streams have negative impacts on the CHW, the recipient of CHW services, and the quality of the program. For the CHW, the risk of losing a job due to loss of funding has negative impacts on motivation. Volatility in CHW program budgets and CHW income should be avoided at all costs, particularly because establishing trust is essential to the success of a community-based program. A 2013 study in Tanzania notes that "It has also been shown that financial incentives can increase CHW motivation by contributing to financial stability, removing pressures to tend to supplemental income-generating activities, and raising the status of CHWs among formally employed health worker cadres."²¹

Fluctuating program activity due to inconsistent funding also impedes the objective of providing reliable care. Boom and bust financing endangers individual patient

lives clinically, socially, and economically. A 2014 study in South Africa identified a direct correlation between CHW visitation and patient outcomes.²² When policy ‘failed’ the CHWs and they lost their pay, care-seeking behavior and overall health of patients formerly enrolled in a home visitation program worsened.

Fitting U.S. Context: There is no single “right” design for CHW programs. Instead, the important question is whether the financial and operational models being used are designed to support delivery of the services identified to meet the needs of the community and stakeholders.²³

However, those needs are dynamic – e.g., changing demographics in a neighborhood, a health system expanding to a new geography, or policy changes at the State level creating new funding opportunities for CHWs. Sustainability therefore requires that the organizational and technological infrastructures of CHW programs are designed to respond and adapt as needs change over time. Funding streams, data systems, and internal policies should all be oriented toward matching the health needs of the community and not toward the provision of a static set of services.

Technology and data infrastructure should support core capabilities, including but not limited to standardized patient assessment and tracking, program evaluation, and quality improvement efforts.

Be a strong partner to health systems.

Global Lesson: A well-designed CHW program is integrated into the larger health system. As a result, the ability of the CHW program to perform its role well is contingent upon its ability to be a strong partner to other units of the health system. This requires stability in funding, as erratic funding streams can impact other areas of the health system that rely on the services of the CHW program.

Because CHW programs often aim to extend health services to a level beyond the health facility, quality assurance measures must be taken to monitor the effectiveness of this extension and the quality of services provided. Integration of data collected by CHWs into broader health system information systems, if carefully planned and actively managed, can provide system leaders and health practitioners with enhanced, population-based monitoring and heightened preparedness to respond to problems (such as outbreaks) as they arise.²⁴ The utilization of CHWs in data collection also allows for a conduit – and greater incentive – to

monitor individual worker performance. Ethiopia, Brazil, and Malawi have built extensive M&E platforms to measure worker performance as well as indicators for key program goals such as disease prevention and control.

Fitting U.S. Context: Whether a program is hosted within a health system or by an external organization, strong partnership with the health system is essential to providing a sustainable link between the community and clinical care. Even if the health system is not providing any or all of the funding for the CHW program, it must buy in to the importance of integrating the CHW into their approach to patient care. Earning that buy-in from all levels of the health system – including C-suite, middle-management, and frontline staff – is essential to building a sustainable program.

Payors are grappling with the seismic shift toward value. More and more risk is being pushed onto large providers and healthcare systems. So, ***we need flexible strategies*** that can change depending on the needs of the partner.

Richard Park, MD, CEO, CityMD

Beyond cost savings, health systems are concerned about their ability to provide access to high-quality care for their patients across all locations in the system. To do so, they need to rely on robust programs that demonstrate an ability to provide value to patients and to the system. Gaining the confidence of a health system partner requires strength in multiple financial and operational traits, including:

- **Capitalization:** Understanding any financial risks of the program and having the assets to sustain the program through those risks.
- **Stability:** Other than financial risks, the program needs to be able to mitigate and handle any potential legal risks or other threats to its existence.
- **Capacity to scale:** Ultimately, health systems want programs that can serve the needs of the full enterprise. This means being able to take on new geographies, understanding what resources and infrastructures are needed to do so, and being able to provide a timeline for that to happen.

- **Quality:** Programs need to be able to constantly monitor and improve the quality of their services, which means constantly improving the protocols, data systems, and organizational structures that support those services.
- **Timing:** The culture shift toward recognizing the role of non-clinical workers in supporting and creating health is only just now taking root in the United States. Individual health systems and hospitals are each at very different stages of understanding and engaging this shift – some

have not yet thought about it at all. In order to develop effective partnerships, organizational and financial models must be designed to fit the needs of where health systems are today but be prepared to evolve as those needs and capabilities change over time. While smaller-scale pilots may be appropriate to get started, programs will only be effective over the long term if they can continue to demonstrate value in the face of changing needs.

Designing a Business Plan for Sustainable Success

At the core of the business case for any enterprise are essential questions: what value is being created by the work, to whom does that value accrue, and how? For CHW programs, high level answers to these questions will be common. However, the details will depend on the particular design of each program: the needs of the population being served, how those needs are being addressed, and the business models of the health systems and other investors involved. Here, we lay out the top-level considerations for addressing each of these questions.

Ultimately, the business case is inseparable from the overall design of the program model. What is most important is that the financial plan for each individual program supports the operational needs of the program which in turn must be designed around the needs of the patients being served.

What is the work being done by the CHW-based care model?

The ultimate goal of any CHW program is to improve the health of its patients by bridging the gap between clinical care and the community. A program that effectively meets the needs of the patient, and with constant monitoring and improvement of quality, will provide a valuable service for a health system looking to meet new population health goals in a value-based environment. In developing a plan for financial sustainability, it is essential that the program is designed for the patient, not just for short-term cost-effectiveness or the needs of investors.

What are the essential components needed to support this model?

We address this question in detail in the “Key Principles” section of this Report, but a few points are particularly important in considering the financial needs of the program:

- **Community needs:** The intervention being delivered through the CHW-based care models will depend on the needs of the patients being served.
- **Integration with the full care team:** Successful deployment of a CHW-based care model requires that

they be fully embraced members of the care team. This in turn requires the buy-in and active partnership of health systems and provider organizations. We explore this question in greater detail below in the subsection “Becoming a Strong Partner for Health Systems.”

- **Operational infrastructure:** Data and technology infrastructures are essential for enabling information sharing and quality monitoring and improvement.
- **Workforce development:** Processes and resources for effective hiring and training are essential to building a high-quality workforce of CHWs capable of delivering services effectively.
- **Clearly defined management structures:** Beyond the CHWs themselves, staffing for management and administrative roles is essential to building a robust care model.

How does this model create value?

CHW-based care models can impact all three aspects of healthcare’s “Triple Aim:” improving the health of the population, enhancing the patient experience, and reducing per capita costs.²⁵ As an example, a trial of the ‘IMPACT’ model developed by the Penn Center for CHWs showed that this model – which focuses on providing individualized support to high-risk patients – increased access and utilization of primary care, improved patient mental health, and reduced recurrent hospital admissions.²⁶ Ultimately, it is essential for CHW programs to be able to accomplish two goals: first and foremost, improve health outcomes for patients; and second, reduce the total cost of care.

From a strictly financial perspective, literature shows some carefully targeted CHW programs have achieved returns on investment ranging from \$2.28 to \$4.80 for every dollar spent.²⁷ The majority of returns come from improved prevention and care coordination as these can prevent use of high-intensity services. This combination of better preventative care that keeps people out of emergency rooms plus direct ‘task shifting’ has been well summarized by Carl Rush in the Journal of Ambulatory Care and by others studying the return on investment of CHW programs.²⁸

However, these returns vary tremendously across programs and are not at all guaranteed. They depend on a wide variety of factors including program design, the population being served, and the channels through which investors derive value.

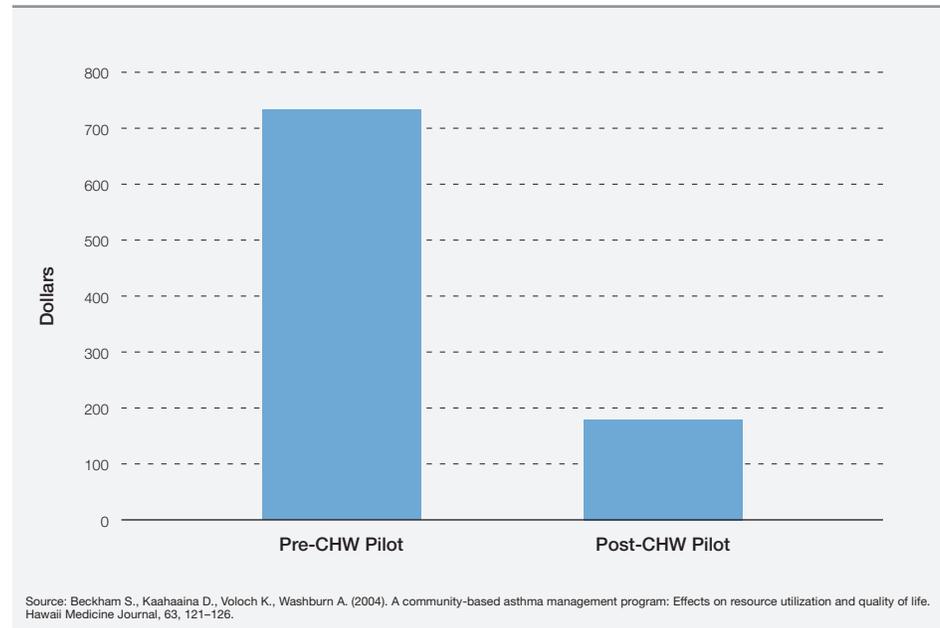
To whom does that value accrue, and how?

CHW programs have the potential to create important financial benefits for health systems, public and private payors, local governments, and other investors. For example, a program designed to help diabetic Medicaid patients in an urban setting to control their blood glucose levels will have different potential returns to the local safety-net hospital (reduced costs on expensive emergency room care), the Medicaid plan those patients participate in (reduced reimbursement for emergency room visits), and city government (increased workforce participation as patients stabilize their health). Then again, if the program is not well designed and executed, it may have no, or negative, returns.

Opportunities to capture value vary across states.

The channels available for providing value to stakeholders will vary dramatically across different localities and at different points in time. For example, Medicaid – a state-based program – has a number of patient- and population-focused programs that can serve as a source of funding for a CHW-based care model. These include Health Homes, Patient-Centered Medical Homes, and Delivery System Reform Incentive Payment (DSRIP) programs as well as reimbursement for preventive services. However, the existence of and details of how each program works is determined by each state such that opportunities for funding available in one state may not be available in another. Understanding which opportunities are available in the location served by a specific program is essential to developing a financial model. For more detail on some of the major funding opportunities currently available, see the Appendix.

Beckham et al. Average Asthma Related Spending per Capita



Understanding Types of Value

The majority of economic benefits from CHW programs stem from improved prevention and care coordination, which can prevent use of high-intensity services. This combination of better preventive care that keeps people out of emergency rooms plus direct ‘task shifting’ has been well summarized by Carl Rush in the *Journal of Ambulatory Care* and by others studying the return on investment of CHW programs.²⁹

There is substantial evidence, for example, that CHWs can reduce the overall cost of care for high utilizers of emergency departments (EDs), from both short- and longer-term perspectives. As one example,³⁰ a study from Denver Health of 590 men in a CHW case management initiative showed increased use of primary and specialty care and reduced use of urgent care and inpatient and outpatient behavioral health care. The program managers found a return on investment (program costs vs. overall reduced costs of care) of 2.28:1.

Another CHW program in Baltimore found that the initiative led to a 40% reduction in ED visits, a 33% decrease in ED admissions, a 33% decrease in total hospital admissions, and a 27% reduction in Medicaid reimbursements.³¹

CHWs can also help with diabetes care and management. A CHW-led lifestyle intervention for low-income Hispanic adults with Type 2 diabetes was found to have a cost of \$33,319 per QALY gained, which is deemed cost-effective based on the conventional cutoff of \$50,000 per QALY gained in Diabetic patients.³²

Further, CHWs can be helpful in managing asthma, the prevalence of which having grown at 2.9% annually in recent years,³³ especially among urban and low-income populations. A study in Hawaii showed a reduction of 75% in annual asthma-related costs, as shown in the figure on page 12.³⁴ Further, an on-going, three arm, randomized trial in Harlem and the South Bronx (in which City Health Works is participating) will compare the effectiveness of clinical care for asthma supported by an Asthma Care Coach (ACC) against the impact of CHW/home-based care coordination and self-management support, with the hypothesis that patients with more severe asthma and those at greater risk of missed appointments due to impairment or psychosocial issues will be more likely to benefit from the CHW/home-based care model.³⁵

Beyond keeping adults out of emergency rooms, CHW programs have also been found to be highly effective for maternal and prenatal care. A CHW program in Ohio resulted in a substantial drop in the prevalence of premature births and low birth weights, substantially reducing Medicaid costs.

Finally, CHWs have been shown to be highly effective at helping keep individuals at home. In Arkansas, total Medicaid costs fell for a long-term care eligible population from a CHW intervention that integrated community-based services which allowed the individuals to remain at home longer.

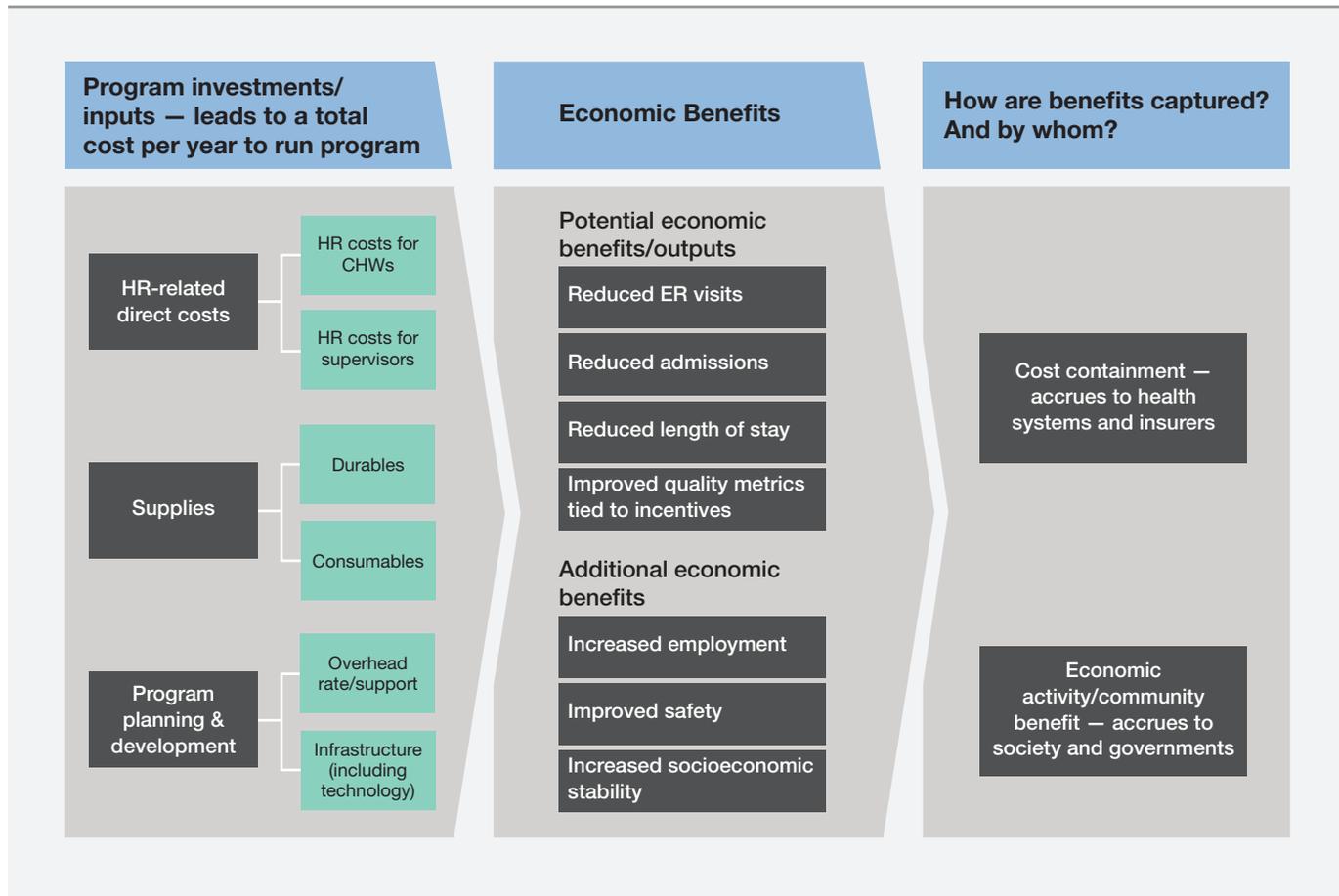
Additional benefits

Secondary benefits from CHW programs may include the 'stimulus' of additional employment,³⁶ reduced days of work lost to sickness, and potentially improved safety (from having additional responsible adults engaged with high-risk populations). These benefits are more challenging to quantify and attribute and most relevant to municipalities rather than specific payors/providers/investors. As such, they should be calculated on a case-by-case basis.

Modeling Value

Below is an example showing how a program manager might outline the likely program investments required for a community health care model focused on supporting

Illustrative Economic Value Diagram for Community Health Care Model



diabetes patients to control their blood glucose. As can be seen in the diagram, the range of benefits accrue to at least two types of investors.

How can that value translate into investment?

Once the channels for how value is generated are established, the financial sustainability of the CHW-based care model depends on translating that value into investment in the program. There are two types of financial needs that programs should think about addressing:

- **Capital:** The investment needed to support initial costs and infrastructure investments as well as to protect against financial risk in the long term. Although revenue is needed to ensure sustainability, philanthropic or investor capital can be useful to support programs in the early stages of development. This can come in the form of:
 - **Grants:** One-time gifts for which no return is expected.
 - **Loans:** One-time payments that need to be paid back.
 - **Investments:** Up-front payments for which the investor expects long-term returns.
- **Revenue:** One or more long-term revenue streams are needed to create financial sustainability. Revenue streams can also take multiple forms, including:
 - **Fee-for-service:** The program may be paid each time it performs a service for a patient.
 - **Per capita payment:** The program may be paid a global fee for services to a single patient (like an annual “subscription” to services for each patient). For example, the Medicaid Health Homes program provides a per-member-per-month payment for all services, which may include CHWs.³⁷
 - **Pay-for-performance:** The program may enter into a contract wherein they receive payment based on the outcomes achieved (e.g., reduction of ER visits for patients served).

Since each investor will derive a unique value from the program – including potential cost containment and/or improved overall health outcomes – and have different incentives based on this value derived, it is likely that the types of investments will also take a range of forms that align with these incentives. For example, public health officials and foundations that desire to improve health

outcomes might be well placed to provide the up-front capital in the form of grants and low-interest loans. Meanwhile, payors such as Medicaid that are at risk for high rates of hospital admissions might find it attractive to directly reimburse for services provided by CHWs.

Becoming a Strong Partner for Health Systems

While funding for any particular program may come from a variety of sources, there is one type of stakeholder whose engagement is essential to both the programmatic and financial success of any program: health systems (providers), because the goal of a CHW-based care model is to link the clinical care system with the community. Success in this mission requires that the health system embrace the CHW-based care model as part of its operations, integrating CHWs into care teams and workflows. This can only happen when health system leaders view the CHW program as a strong and valuable

Health systems and providers are interacting directly with patients: ***our physicians care mostly about the health of their patients, not cost savings.*** So while we have a strong impetus for pursuing innovative solutions, generally we need to prove the financial case

Dave Chokshi, Assistant Vice President, NYC Health and Hospitals

partner. While being cost-effective is important, it is not the only factor health system leaders care about when deciding to partner with a new organization or deploy a new intervention. Ultimately, health systems are looking for interventions that can reliably and sustainably improve health for the patients they serve.

Discussions with a range of health systems as well as emerging community health programs suggest an array of important ‘lessons’ for community health care models as they seek to become attractive partners for healthcare systems.

First, it is imperative to begin by designing a program that can deliver a high-value, high-quality service. As Scott Tornek of the Penn Center for Health Systems suggested, “start with the science” and build a program designed to deliver value to patients, first and foremost. Dave Chokshi of NYC Health and Hospitals echoed that sentiment: to get buy-in, programs need to “demonstrate improved outcomes and reduced cost of care.” When total cost of care data are not available, reduced utilization of acute care services can be a useful proxy.

Second, programs need to demonstrate that they are sufficiently robust to withstand unexpected risks. Programs need the financial underpinning, legal infrastructure, and expertise on staff to effectively manage operational complexities, linkages with existing health systems, and challenges linked to managing high-risk patients.

Third, it is important that community health programs are ready to scale when appropriate for the patient base

and existing health care system. This means having the management systems, infrastructure (including technology), and capital that will be needed to support the program as it expands and/or seeking additional investors who can support such an expansion.

Furthermore, it is also important to understand where a potential healthcare system partner stands in the ‘culture shift’ around value-based care delivery models and the extent to which senior leadership of the health system embraces the ideals, practices, and operational practices such a shift necessitates.

Relatedly, it is also imperative that the program designers of the community health initiative engage early with the ‘c-suite’ of the health system – especially the Chief Financial Officer, Chief of Population Health, and Chief Technology Officer — working together to understand the potential health and economic returns of the project from a key investor perspective.

Applying the Framework in Newark, New Jersey

Developing a Pilot Program

Having identified the programmatic, operational, and financial needs of a successful CHW program, the intent of the Task Force was to provide a framework that can inform sustainable programs in diverse localities. While we hope this report adds value to the growing number of conversations and activities in the CHW space across the country, we were fortunate to have a number of local community and healthcare leaders from Newark, New Jersey, join the Task Force. As a result, and in conjunction with this report, a pilot CHW project connected with a hospital in Newark is underway. Jointly funded by the state, one of the state's largest health systems, and one of New Jersey's largest health care management companies, the goal is to evaluate the efficacy and sustainability of this model in improving health outcomes. While the planning and implementation of the pilot is underway, the program background and preliminary plan is described below. As the program moves forward, the Task Force will continue to track its results and provide subsequent updates to this report.

Why Newark?

Newark lags behind much of the rest of New Jersey in health outcomes. The city's premature death rate is 36% higher than that of New Jersey, and the life expectancy of a child born in the city is four to five years shorter than for one born just a few miles outside the city.^{38,39} Essex County, which contains Newark, is ranked 20 out of 21 counties for health outcomes in New Jersey.⁴⁰ The city faces a challenging healthcare environment that would benefit from using CHWs to effectively deliver healthcare to patients.

Population and Access

Newark residents face a number of obstacles to accessing healthcare that can be addressed with CHWs. First, many of Newark's residents are immigrants who must confront cultural and linguistic barriers to care. One in four Newark residents have limited English proficiency.⁴¹ Native-born residents also often face social and financial barriers to care that the health system is not equipped to manage.

More than one in five Newark residents live below the poverty level, and 30.4% of Newark children receive SNAP assistance.^{42,43} One in five Newark residents went without healthcare in the last year because they could not afford it.⁴⁴ CHWs, recruited from local communities, would serve as ambassadors from these communities to the healthcare system to make the system more responsive to patients' needs.

Another strong barrier to healthcare access in Newark is lack of health insurance. Last year, 17% percent of residents of greater Newark were uninsured, compared to a statewide average of 9% percent. More than a quarter of residents were enrolled in Medicaid, compared to 13% of New Jersey residents and only 43% of Newark residents had commercial insurance, compared to 62% of state residents.⁴⁵ CHWs can work with patients to help them determine insurance eligibility and to link them with appropriate insurance options, reducing the uninsured and under-insured population.

Primary Care

On top of the many barriers to accessing care Newark residents face, the city also suffers from a shortage of primary care physicians (PCPs). In 2008, the city's number of PCPs per capita was less than two-thirds the County Health Rankings National Benchmark.⁴⁶ In 2012, Essex County had 1,100 residents per PCP.⁴⁷ Newark scores in the fourth quintile nationally for adults with a usual source of care and the fifth quintile for adults with age-appropriate vaccines.⁴⁸ CHWs serve as a health force multiplier for PCPs, allowing them to reach more patients and provide higher quality care while better understanding the environment in which their patients live and work.

Perhaps due to lack of access to primary care, Newark has unusually high rates of ED usage. Some areas of Newark have as many as 774.3 ED visits per 1,000 residents per year. Essex County's ED visit rates for Ambulatory Care Sensitive Conditions (ACSCs) are 38% higher than the state average.⁴⁹ Some areas of Newark experienced adult ACSC ED visit rates three and a half times the state average. Newark also scores in the fifth quintile for 30-day readmission after discharge from the hospital, fifty percent higher than the national average.⁵⁰

Disease burden

Newark suffers from an unusually high burden of unmanaged chronic diseases, a challenge CHWs have historically addressed successfully.

Diabetes and heart disease are highly prevalent in Newark, and residents could benefit from CHW-led health education and coaching on healthy living. More than one in ten Essex County residents has diabetes, and more than one in four is obese. Only 43.1% of residents engage in regular physical exercise. Newark residents report heart disease at rates double that of New Jersey's and report previous heart attacks at rates fifty percent higher than the state average. In addition, Congestive Heart Failure is the leading cause of ACSC ED visits in Essex County, followed by asthma.⁵¹ Training CHWs to engage with their community members to live healthier lives could have a large impact on the health of the community and on system costs.

Asthma is also highly prevalent and poorly managed. Under the right conditions, asthma can be managed in the primary care setting without a need for ED visits. Sixteen percent of Newark residents report having asthma, a rate double that of Essex County.⁵² Both ED visit rates and ACSC ED rates for asthma in Essex County are double those of New Jersey, a sign of poor management of asthma and poor access to primary care.⁵³ Essex County has 8.9% of New Jersey's population but accounts for 17.8% of the state's asthma ED visits and 14.3% of asthma-related hospitalizations in 2012.⁵⁴

Newark also has high rates of HIV/AIDS, it scores in the fifth quintile of deaths from breast cancer nationally (a symptom of lack of primary care screening), and its rate of prenatal care is two-thirds the national average.^{55,56,57} CHWs could be useful in coaching patients to prevent and manage chronic conditions while expanding access to the healthcare system to save the healthcare system the costs of escalating, complex conditions. STDs are also prevalent, with school nurses anecdotally noting an increase in cases while being unable to provide treatment. CHWs can work with schools, referring students to health centers where they can receive STD treatment without parental consent.

The population of Newark faces a combination of social determinants of health and poor access to primary care that has resulted in substandard health outcomes. Because effective health care delivery is complicated by social determinants, incorporating CHWs recruited from the community into the healthcare delivery system can help provide Newark residents with opportunities to improve their own lifestyles – with the goal of improving health outcomes.

Existing CHW Programs

Local community and healthcare leaders in Newark have long acknowledged the substandard health outcomes of the city and the barriers to care and have made various efforts to build CHW programs to address these challenges. Past and existing programs include:

- ***SPAN (Statewide Parent Advocacy Network).*** SPAN's CHW program is part of its Improving Pregnancy Outcomes (IPO) Initiative funded by the NJ Department of Health. The overarching goal of SPAN's Essex County Improving Pregnancy Outcomes Project is to improve preconception, prenatal, and interconception care and reduce pre-term births, low birth weight, and infant mortality rates by connecting Essex County underserved women and men to needed services and supports. The project uses four CHWs to target women in communities, including Newark, who are least likely to receive prenatal care or to have a "medical home," and are most likely to have poorer pregnancy outcomes.
- ***Partnership for Maternal and Child Health of Northern NJ.*** The Partnership's CHW program is part of its Improving Pregnancy Outcomes (IPO) Initiative funded by the NJ Department of Health. The program uses CHWs to improve pregnancy outcomes by linking pregnant women and women of childbearing age to needed services. While the program has operated in Newark it is currently focused on Hudson, Union and Passaic Counties.
- ***Newark Community Health Centers, Inc.*** NCHC operates seven Federally Qualified Health Centers (FQHCs) in Newark, Irvington, and East Orange. Outreach workers are employed to go into communities and refer patients back to the centers. The number of workers has varied over the years, as has the training.
- ***RESPIRA.*** An asthma intervention using CHWs to make in-home visitations, affiliated with University Hospital and Rutgers NJ Medical School and funded by United Health Insurance, the program demonstrated impact but was unable to build a sustainable financial model and was forced to close.
- ***Rutgers Community Health Center.*** As part of the Rutgers School of Nursing, RCHC serves four public housing developments in low-income neighborhoods of Newark. Employing community health workers from within the neighborhood, the program has improved management of chronic diseases. The program is in the early phases of demonstrating the model's impact on hypertension, diabetic management and asthma management: improving vaccine rates in children

under the age of two, addressing the issue of obesity and exercise, improving the delivery of mental health services, and addressing issues of violence as a public health concern by working with women before pregnancy and improving parenting skills. For additional information, see the case study in Appendix II.

- Greater Newark Healthcare Coalition Pediatric Care Coordination Pilot Initiative.** In 2015, GNHCC received funding from The Strong, Healthy Communities Initiative to pilot a pediatric care coordination model for children in the South Ward of Newark. GNHCC's approach utilized a team of healthcare providers and clinical and community partners with the designated function of coordinating healthcare services and assisting individuals to navigate complex health and social service systems that contribute to well-being. The pediatric care team included an RN Care Coordinator (contracted through RU School of Nursing), a Clinical Liaison – a medical school graduate who helped families navigate the healthcare system, and two Community Health Workers who helped families navigate social services. The care team received referrals from South Ward school partners and CHoNJ at NBIMC and had the clinical capacity to provide tertiary care, management, and coordination of health and social services, and health screening and assessments. This care team worked closely with primary care providers to coordinate services.

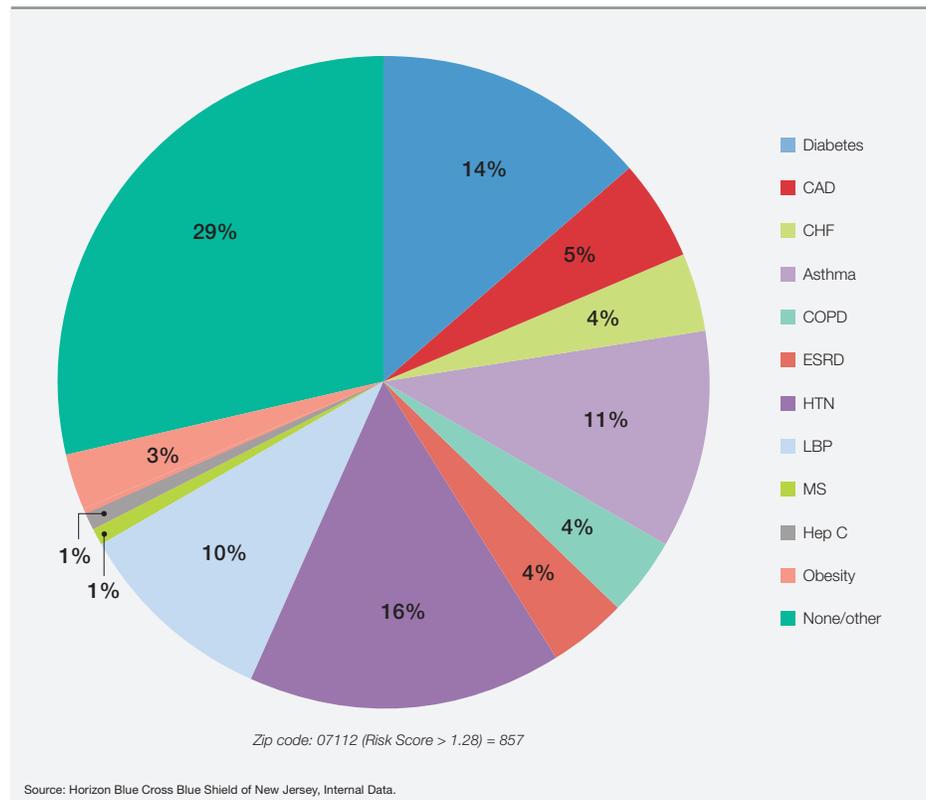
While many of the programs above can cite success in improving various health metrics, rigorous evaluations and returns on investments are scarce. In almost all cases, CHW programs in Newark are funded on a year-to-year basis through various sources. This lack of predictability makes planning, employment, and growth difficult, and funding for evaluation has been difficult to come by. Developing a program with monitoring and evaluation built in from the start to clearly track patient outcomes and costs averted will demonstrate impact and attract funding from more sustainable sources like health systems and insurance companies.

Newark CHW Pilot Program

In 2015, in an effort to address both the healthcare and employment needs of its urban centers, the State of New Jersey adopted a new pilot apprenticeship program for community health workers funded by the Office of Apprenticeship, Employment & Training Administration at the United States Department of Labor and implemented in conjunction with Rutgers School of Management and Labor Relations. The apprenticeship for low-income residents includes 160 hours of classroom training and 2,200 hours of on-the-job training through participating hospitals. New Jersey's Department of Labor will pay 50% of the CHW salaries for the first 6 months, with the health systems providing the additional funding. The goal of the program is to train and place 300 CHWs. See Appendix IV for the curriculum.

Employers in the greater Newark area have hired 18 individuals who are receiving Temporary Assistance for Needy Families (TANF). The starting salary is \$10/hour for 40 hours/week. In addition to the salaries, Work First New Jersey provides support services including bus passes and support for childcare expenses.

Health Challenges for high-risk Horizon clients in the 07112 zip code



Newark Beth Israel Medical Center, the city's largest hospital, has hired five Community Health Workers from the Department of Labor program. The cost of the workers will be shared among Newark Beth Israel, Horizon Blue Cross Blue Shield of NJ, the largest Medicaid MCO in the city, and the NJ Department of Labor. Horizon will evaluate the program for 12 months, looking at its impact on the neighborhood immediately surrounding the hospital, zip code 07112 in the South Ward of Newark and potentially zip code 07103, a particularly underserved community in the West Ward.

The graph on the previous page identifies the health challenges for high-risk Horizon clients in the 07112 zip code. The goal of the CHWs will be to (1) reduce readmissions on behalf of patients who had been discharged with chronic conditions and (2) improve outpatient appointment attendance for patients with mental illness (the hospital has struggled with no-show rates as high as 70+%). The CHWs will partner with community and faith-based organizations in these zip codes to support their efforts.

While success metrics are still being established as part of the program monitoring and evaluation design, the goal is to demonstrate increased use of primary care, reduced use of the emergency department for non-emergent care, and increased engagement with patients who have outpatient behavioral health appointments. If the return on investment demonstrates that program costs are a fraction of overall reduced costs of care, Horizon will build CHWs into its new model of small, microsystem health hubs, currently in development. At the same time, discussions are underway at the state level to complete a State Plan Amendment for its Medicaid Plan that will designate CHWs as non-licensed providers capable of providing reimbursable preventive services.

The Newark CHW Pilot Program is in its nascent planning stages but the completed first step of bringing stakeholders together and gaining the crucial participation and interest of key health systems and potential payors is the largest hurdle. The Task Force looks forward to tracking the progress of the program and to reporting back on its success in subsequent reports.

CONCLUSION:

The Path Forward to Sustainable, Effective CHW Programs in the U.S.

It is the hope of this Task Force that this report will inspire and assist local leaders in creating CHW programs to meet the needs of their own communities. Building on the experience of many strong CHW programs in the U.S. and around the globe, this report is meant to provide a framework for designing impactful and long-lasting programs.

As local community and healthcare leaders look ahead to a future of care systems oriented toward population health management, the path forward can be uncertain. Even as reform is under way, the poorest communities in the U.S. continue to struggle under high burdens of disease and, in some cases, a 15-year life expectancy deficit.⁵⁸ The principles detailed in this report are meant to provide a structured but flexible approach for designing programs capable of navigating that uncertainty. Experience in the U.S. and abroad shows that the health outcomes achieved by well-designed CHW programs can create a return on investment upwards of \$2 for every dollar invested.⁵⁹ By partnering with essential stakeholders from both

healthcare provider systems and the community, working to understand their needs and how they can capture value from a CHW program, and developing strong infrastructural supports, CHW programs have the potential to both improve health outcomes and reduce the cost of care for communities across the country.

Achieving this dual goal of improving health and reducing costs will continue to require the hard work and dedicated leadership of a broad range of stakeholders, from community leaders and healthcare providers on up through state and federal governments. Ultimately, the success of CHW programs, like that of any care model, will depend not only on macro-level policy change but on the sound financial, operational, and programmatic design of each individual program. If CHW programs can succeed in sustainably closing the gap between clinical care and communities, those communities and this nation as a whole will reap the health and economic benefits for generations to come.

APPENDIX I:

Monitoring and Evaluation

When done well, monitoring and evaluation (M&E) is essential to ensuring that a CHW program is both effective and sustainable. Strong programs incorporate M&E into their core design, with implications for operations, infrastructure, and financing needs. Being able to demonstrate impact and effective resource utilization is also key to strong partnerships with health systems, community partners, and other investors. For example, an insurance company interested in potentially reimbursing physicians for referring patients to a CHW will want to know whether that referral can be expected to reduce utilization of expensive services – like visits to the emergency room – and save money down the line. At the same time, community partners such as the residents' association of a public housing unit will want to know that when they encourage their neighbors to participate in a program, or spend their own time advising program design, their effort will result in improved health for their community.

While similar, monitoring and evaluation are two distinct processes with distinct goals:

- **Monitoring** focuses on measuring productivity and processes: are program activities being carried out as planned, or if not, why?
- **Evaluation** measures impact and outcomes: did the activities of the program make a difference in the health of the patients served?

Examples of how programs **monitor** their processes include:

- Supervisors in India's ASHA program keep records of how often CHWs visit newborns within one day of birth, go to households to provide counseling on nutrition, and attend immunization camps.⁶⁰
- The Rutgers community health program keeps track of the number of individuals who have participated in different types of activities: as of March 2016, 98 community members have participated in CHW-led support groups, 63 in exercise programs, 335 in awareness programs, and 224 in HIV testing.

Examples of programs **evaluating** their impact include:

- City Health Works monitored the A1c (a measure of blood glucose) of its clients with diabetes and found that 83% showed improvement.
- In Zambia, the government-run CHW program partnered with an academic institution to perform formal impact evaluation. The research found the deployment of CHWs in communities to be associated with increases in the proportion of children fully immunized and decreases in the prevalence of malaria.⁶¹

The purpose of this section is to lay out essential considerations for integrating effective M&E into the structure of a CHW program. Although individual measures will differ according to the aims of each program, the overall framework presented here is applicable across contexts.

Only measure what you can act on.

Overly complex or thorough monitoring or evaluation schemes can overwhelm the efficiency and effectiveness of CHWs. CHWs who are asked to process patients through extensive data-collection surveys find that it detracts from building the trusting, personal relationship that is at the core of effective CHW work. According to Aaron Baum, former Business Manager at City Health Works, "the golden rule" is to only ask CHWs to collect information that will inform their work. For example, if a CHW is not empowered and trained to help patients plan healthy eating, there is no reason for the CHW to ask the patient how many vegetables he or she eats per day. Likewise, process monitoring measures should focus on points of the process which the program has the ability to adjust or change. If the program is not prepared to stage a campaign encouraging doctors to refer patients to the CHWs, it may not be worth trying to measure how often doctors fail to refer qualified patients. Start with processes that the program can completely control – such as how often CHWs fail to reach out to referred patients – and build from there.

When possible, utilize existing data sources.

Being able to access and analyze existing data can reduce the data collection load for CHWs. For example, if a program is aimed at improving control of asthma, having access to electronic medical records could help the program to track outcomes such as visits to the emergency room and medication compliance, even after a patient has completed the CHW program. Partnering with a local school system might also let the program find out whether an asthmatic child missed fewer days of school. Before adding any new data collection question or measure to a CHW's workload, consider whether that piece of information is already being collected elsewhere.

Time evaluations to match the needs and capacities of your program.

Although randomized controlled trials (RCTs) are the gold standard for measuring the impact of any intervention, they are logistically complex and resource-intensive. As a result, they are not always appropriate for assessing programs, especially in the early stages of development. Consider using a tiered approach to impact evaluation:

- 1. Process Monitoring:** Begin with monitoring, not evaluation. For programs just getting started, tracking process measures like number of home visits, percentage of patients who complete the full program, and staff turnover rates can be valuable to getting a program up and running efficiently. These measures can be especially important to gaining and retaining investors who want to know that their funds are being used efficiently as well as indicating whether aspects of the program need adjustment. For example, an unexpectedly high staff turnover rate can indicate a need to revise hiring, training, and management processes, all of which will be highly important to producing health impact in the long run.
- 2. Retrospective Evaluation:** Once procedures are well established and working smoothly, it becomes possible to conduct quasi-experimental evaluations that don't require any additional data collection or infrastructure. For example, one program compares health outcomes for patients at a hospital who had been referred to their program but did not enroll against those who did enroll in and complete the CHW program. Although not a perfect control – as there may be characteristics of the group of patients who did not enroll that also impacted their health outcomes – this type of study does provide

a point of comparison and can indicate whether the program is having any impact at all.

- 3. Randomized Control Trial:** RCTs can provide the cleanest picture of the degree of impact that a CHW program has on health outcomes by controlling for other factors that could have affected outcomes. For example, the Penn Center for Community Health Workers conducted an RCT of 446 hospitalized patients, half of whom were assigned to the program, and found positive impact on several measures including hospital readmission, mental health, and access to primary care.⁶² If the study had not included those patients who were not assigned to the intervention, it would have been impossible to say whether the CHW intervention truly changed outcomes, or whether patients would have been expected to do just as well without the CHW program. However, because RCTs by definition require tracking patients who are not participating in the CHW program, they create additional layers of administrative work and data collection. Programs may choose to contract with a third party with expertise in conducting RCTs, such as a nearby academic medical center or non-profit consulting firm.

Not all data are created equal.

Established actors in the healthcare industry will place higher value on data collected using standard, recognized tools as compared to data collected through new or ad hoc methods. For example, a CHW may routinely collect blood pressure information as part of a regular visit. However, if blood pressure readings are also available from EMR data, many investors or external evaluators will assume the EMR data to be more valuable. That said, being able to review both the CHW-collected data and the EMR data can provide an opportunity to demonstrate the quality of data collected by the program's CHWs or even identify trends or data points that would be missed in EMR data alone.

There are many existing protocols to guide M&E planning for programs aimed at improving health outcomes. As one well known example, the IHI Model for Improvement lays out a "Plan-Do-Study-Act" approach to guide programs through cycles of evaluation and improvement.⁶³ The model emphasizes identifying the right types of measures to inform action and improvement and also gives guidance on some of the mechanics of evaluation, such as choosing sample populations and conducting data analysis.

APPENDIX II:

U.S. CHW Program Case Studies

The following are case studies of three CHW programs currently operating in the United States: City Health Works, the Penn Center for Community Health Workers, and Rutgers Community Health Center. Each program highlights one or more of the key lessons for success

and sustainability described in this report. Collectively, the diversity in their approaches reinforces the understanding that there is no single “right” way to build a CHW program – the most important design principle is to fit the program to the circumstances of the community it serves.

CASE STUDY: City Health Works

Setting:

The East Harlem neighborhood in New York City has a life expectancy nine years lower than the Upper East Side neighborhood that is just ten blocks south. Many residents suffer from multiple chronic conditions, poverty, and don't speak fluent English. City Health Works was inspired by the success of the CHW model overseas to build an organization that uses CHWs to address complex patients in Harlem.

Core Focus:

The objective of City Health Works is to create a health care delivery and payment model that transforms the way health systems care for the most complex patients – the five percent of patients who account for fifty percent of healthcare spending. To date, City Health Works has enrolled 350 patients, almost all of whom have chronic conditions and live below the poverty line.

Model Elements:

- **Care Team Integration:** In concert with an RD/CDE certified supervisor, locally hired CHWs are responsible for keeping the clinical care team abreast of developments in the patient's situation and escalating patient needs to appropriate levels of care when necessary.
- **Technology & Data Infrastructure:** A customized, mobile-friendly technology and data infrastructure supports and reinforces the work of CHWs and the care team with patient management tools, guides for progressing through the curriculum, checkpoints to identify potential medical problems proactively, and by integrated support for a robust quality improvement process.
- **Business Model:** The core customers for the City Health Works business model are risk-bearing provider organizations who benefit from the savings that come from caring for a healthier population. Service to those customers is enabled by the underlying data infrastructure which allows tracking of individual patients and population outcomes as well as access to electronic medical records.

Outcomes:

City Health Works has reduced A1c levels in 83% of its patients, with average A1c reduction of 1.6 points one year post-intervention. Nearly a quarter of patients had an A1c drop of two points or more. City Health Works escalated an urgent medical, medication, or mental health issue that was otherwise unknown to the provider for 1 in every 2 patients, and early analysis of payor data demonstrated a \$600 drop in per member per month cost between months two and three of coaching. The organization has a Net Promoter Score (NPS) of 92, demonstrating excellent patient satisfaction that outpaces the healthcare NPS benchmark of 71.25. It has demonstrated that a full-care business model designed around CHWs can succeed financially by improving the health of local communities in the current healthcare environment.

For more information: www.cityhealthworks.com

CASE STUDY: Penn Center for Community Health Workers

Setting:

West and southwest Philadelphia have high proportions of low-income households and are predominantly African-American. Patients from these neighborhoods often have one or more chronic conditions as well as limited access to primary care. Many rely on emergency department visits to receive care.

Core Focus:

The Penn Center for Community Health Workers serves as a model of evidence-based program development. Its care model, Individualized Management for Patient-Centered Targets (IMPACT), was designed with significant patient input through participatory action research. IMPACT has since shown success in a large randomized controlled trial.⁶⁴

Model Elements:

- **Participatory Action Research:** This community-grounded approach was used to identify major barriers to health for recently hospitalized patients and for outpatients with multiple chronic conditions. This research identified five core themes which were then translated into the model design.^{65,66}
- **Hiring & Training:** CHWs are recruited based on shared life experiences with their patients and personality characteristics: “the type of person who will bring soup to a sick neighbor.”⁶⁷ CHWs are trained using a college-accredited curriculum which includes goal setting and action planning, trauma-informed care, motivational interviewing, navigation of the healthcare system and connecting patients to key resources.
- **Evidence-Based Model Design:** Qualitative and quantitative research is used to design, evaluate, and evolve every element of the IMPACT model. This includes organizational infrastructure, such as identifying an ideal ratio of CHWs to supervisors, as well as programmatic design. Multiple randomized controlled trials have shown that IMPACT improves outcomes, including mental health and access to primary care, while reducing costly hospitalizations.

Outcomes:

IMPACT's proven outcomes translate to an annual return on investment of \$2 for every \$1, fueling a rapid expansion of care delivery in Philadelphia where over 6,000 patients have been served. Over 800 organizations across the country have accessed IMPACT's open-source toolkit, creating a national network and generating demand for program replication. The organization is now developing a cloud-based documentation and training platform to facilitate scale of the program to new sites and have already replicated IMPACT in Veterans Affairs, federally qualified health center, and academic settings.

For more information: <http://chw.upenn.edu>

CASE STUDY: Rutgers Community Health Center

Setting:

As part of the Rutgers School of Nursing, Rutgers Community Health Center (RCHC) serves four public housing developments in low-income neighborhoods of Newark, New Jersey. The population is primarily African-American and suffers from high maternal and infant mortality, limited access to medical and mental health care, and high rates of chronic conditions.

Core Focus:

RCHC demonstrates the benefits of building a CHW model around community involvement. The program incorporates and is driven by community input at all levels of operational and program design.

Model Elements:

- **Community Advisory Board:** All CHW activity is directed by a Community Advisory Board (CAB) composed of residents from the public housing developments and communities served by the program. The CAB oversees the recruitment, training, and program activities of CHWs.
- **Community-Identified Needs:** Programming is designed and changed over time to meet specific needs identified by the CAB and community. These include chronic disease self-management groups, exercise programs, a mental health initiative, and a new focus on maternal health.
- **Elevated Clinical Care:** In partnership with the program, Rutgers nurses and nurse practitioners also visit the homes of patients who require additional clinical services beyond the skills of a CHW. In 2014, nurses and nurse practitioners made over 2,135 home visits.

Outcomes:

RCHC has shown a reduction in blood pressure and blood sugar among its patients 36 months after starting the program. It also has a great deal of community participation in its programs and has been successful at distributing immunizations and providing HIV tests.

For more information: <http://nursing.rutgers.edu/jhchc/>

Current Opportunities for Financing CHW Programs

A lack of sustained financing has been a historic challenge for Community Health Worker (CHW) programs in the U.S., with most secured funding in the form of time-limited startup grants from foundations or private donors. Though the Institute of Medicine (IOM), the Patient Protection and Affordable Care Act (ACA), and the Department of Labor recognized the significant return on investment CHWs produce, much work remains to be done to inform state and federal policy makers of the positive impact of incorporating CHWs into health workforces and to develop sustainable, long-term financing options.

In the United States today, there is a range of potential investors in community health systems. These funding opportunities include public sources – primarily Medicare, Medicaid, and local governments – as well as private sources ranging from foundations to private providers, academic medical organizations, impact investors, and venture capital firms.

As managers – and communities – design community health programs, they need to consider what mix of financing sources will be required to launch, track, and sustain program impact as well as scale the program over time. Reliance on short-term philanthropic funding for CHW programs (though often easier to secure) may prevent the full integration of CHWs into a professional workforce, making it difficult to secure employees and demonstrate impact over time for advocacy purposes. Ultimately, the financing pathway chosen must align with the program's cost and scale over time. Disruptions in financing have obvious impacts on programmatic flow and additionally lead to employee and community mistrust in the program.

Below is an assembled list of financing opportunities currently available for CHW programs in the U.S.

Public Sources

The existing structure of the agency is key to understanding the perspective and direction associated with this potential funder, opportunities that may accompany the decision to accept funding from this body, as well as potential unintended consequences associated with pursuing funding through this source as opposed to another. Under the current Center for Medicare and Medicaid Services structure, Medicare is federally administered by the Department of Health and Human Services and available for eligible Americans over the age of 65. Alternatively, the Medicaid program is administered by states with federal funding support. States determine eligibility and service offerings individually while meeting a minimum set of federal requirements. Under the ACA, states can expand Medicaid coverage to cover low-income adults outside the minimum requirements. As of October 2016, 31 states and the District of Columbia have expanded Medicaid services.⁶⁸

Understanding the nuances of Medicaid and Medicare structures is central to understanding the nature of each as a mechanism for transforming (and funding) the role of the CHW within the U.S. health system. Operational health reform is typically envisioned, pursued, and administered on a state-by-state level with federal guidance and funding. Without significant impact evidence, the centralized administration of Medicare by federal agencies is less structurally poised for innovative Community Health Worker program financing. State- and city-based programs serve as incubation sites for future system-wide change, with most public sector change occurring in the state-owned arena of Medicaid.

By formally recognizing Community Health Workers as viable and valuable members of an effective multidisciplinary healthcare team, the ACA expanded opportunities for states to pilot innovative health care delivery models. The newly established Center for Medicare and Medicaid Innovation (CMMI), within the Center for Medicare and Medicaid, fosters innovative delivery models to increase efficiency and outcome for recipients.

By submitting a State Amendment Plan to CMS outlining the role of the CHW within the health system, states can access alternative funding models that include:

- Increased access to reimbursement of CHW activities, via *preventative health services* funding, *fee-for-service reimbursement*, and *1115 waivers*
- Financing options for coordinated care through ‘*Health Homes*’ that utilize CHWs to address chronic illness
- Capitation rules for Medicaid and Medicare Advantage *Managed Care Organizations* (MCOs) plans

With payment models actively shifting away from fee-for-service reimbursement, providers are under increased pressure to hold their health systems accountable for the “whole” patient. As they transition from disease-focused to patient-focused care, states are recognizing the added value of engaging CHWs in efforts to lower healthcare costs by reducing acute medical needs as well as increase patient satisfaction and improve outcomes over time.

“Many recipients of CMMI’s Health Care Innovation Awards (HCIA) and State Innovation Models (SIM) grants have incorporated CHWs into their plans and programs for optimizing care and lowering healthcare costs. Other noteworthy activities occurring nationally are likely to affect the CHW movement at large. Currently [2015], 18 states have proposed or initiated policy processes for building a CHW infrastructure ... Attention is focused on agreeing on occupational definitions and qualifications for CHWs, workforce development, financing strategies, and research or evaluation guidelines.”⁶⁹

Reimbursement

There is a range of opportunities for CHWs to be funded via Medicaid reimbursement:

Preventative service reimbursement: In 2013, CMS changed its regulations to allow services recommended by a physician or licensed provider but provided by an unlicensed provider, like a CHW, to be reimbursable. To designate CHWs as non-licensed providers capable of providing prescribed preventive services, a state must complete a ‘State Plan Amendment’ for its Medicaid plan outlining the qualifications for the non-clinical providers and specific reimbursable services. This funding stream limits reimbursable CHW activities to ACA-designated preventive services only, including individual and group health promotion, health education, targeted consultation as recommended by a physician, YMCA diabetes prevention,⁷⁰ asthma prevention (example: Regional Asthma Management and Prevention Program, PHI⁷¹), etc. Case management, health system navigation, and referral

support would not be reimbursable through this particular regulation.⁷²

1115 Waivers: 1115 waivers offer states the opportunity to go beyond traditional Medicaid requirements to experiment with new health care delivery and payment approaches. Under 1115 waivers, states have the flexibility to reimburse CHWs for additional services. “States such as Alaska, California, and Minnesota have received waivers to deem CHW programs as reimbursable providers, and others such as Texas are exploring this option.”⁷³ California and Massachusetts have included CHWs in waivers in order to expand access to family planning and to provide heightened services to Medicaid-enrolled children with asthma, respectively.⁷⁴

Coordinated care

The ACA provision for Patient Centered Medical Homes (PCMH) and Medicaid Health Homes (HH) emphasizes the need for holistic care, which includes addressing the cultural and linguistic obstacles for patients – a role that CHWs are uniquely qualified to fill. Under state-specific designations, Katzen and Morgan note in the 2014 report, “Affordable Care Act Opportunities for Community Health Workers,” the provision of four of the Health Home mode’s six core services can be delivered by the CHW: “health promotion; comprehensive transitional care and follow-up; patient and family support; and referrals to community and social support services.”

For the first two years of the Health Homes program, the federal government covers ninety percent of the six central services provided. As with preventive funding, in order to receive this financing, states must file a ‘State Plan Amendment’ to add the Medicaid Health Home to their health program. Fifteen states have programs ongoing as of 2014.⁷⁵

Additionally, the ACA provision for Community Health Teams (CHTs) provides federal funding to states to build multidisciplinary care teams that operate in Patient Centered Medical Homes.⁷⁶ Vermont, California, and Massachusetts are examples of states currently engaging CHWs as members of CHTs to achieve the Triple Aim (defined as a three-dimensional objective constituting the improvement of patient satisfaction, the improvement of population health, and the reduction of health care costs).⁷⁷ California’s St. John’s Well Child and Family Centers and the Transitions Clinic (based out of San Francisco’s Southeast Health Center) and Massachusetts’s Cambridge Health Alliance have incorporated CHWs into care teams to provide tailored services to identified patient populations.⁷⁸

Capitation

Managed Care Contracts: *Control costs by managing health care risks.* States can elect to incorporate CHWs into their Medicaid programs through their per patient capitation contracts with Managed Care Organizations (MCOs):

“Given that more than 70 percent of Medicaid beneficiaries nationwide are covered under managed care, this option may be an attractive one for many states. MCOs generally have more flexibility to cover services that are not covered under traditional Medicaid, which is another reason this option appeals to states. Through the process in which Medicaid programs must contract with Medicaid managed care plans, states can require managed care organizations to make CHWs available to beneficiaries, establish a minimum ratio of CHWs to beneficiaries, establish a minimum list of services that CHWs must provide, and establish other requirements. Some MCOs have also partnered with state Medicaid programs, health care providers, and others to test innovative ways of integrating CHWs into delivering care.”⁷⁹

- Health Plus is one of New York City’s largest MCOs – having nearly 300,000 members, offering government-funded health plans, and employing 35 CHWs (referred to as Community Health Education Associates) – to exceed Medicaid requirements by providing outreach services to enrollees. Because Medicaid MCOs have flexibility in using their funds, CHW programs can often be financed under their auspices and under various rubrics.⁸⁰
- Kaiser Permanente, along with corporate donors, has been integral in the financing of the nineteen Latino Health Access Promotora programs serving Latinos in Orange County, California. Multi-sectoral partnerships (governmental agencies, educational institutions, HMOs, and community-based organizations)⁸¹ have led to the piecemeal funding of Latino Health Access programs through private and public short- and long-term funding:

As grant-funded demonstration programs (both governmentally and privately funded) are shown to be successful, the goal is to develop them into fee-for-service programs in contract with local institutions and health care organizations. Latino Health Access has

had some success with this model and has recently contracted to provide a version of its highly successful diabetes management program with Kaiser Permanente. Fundraising activities have also brought in corporate donors that support particular programs or aspects of a group of programs.

Additional public funding

Individual public agencies also offer specialized grant funding for health-related interventions, including:

- Federally-administered grants such as State Innovation Models, Federal Public Health Grants, and Federal Office of Rural Health Policy (FORHP) Grants, which are meant to help constrain costs while improving quality⁸³
- Local government investments to build regionally-specific community care teams.

There is no “right” funding source: find the mix of sources that supports program needs now, and over the long term.

Federally administered grants

State Innovation Models: Under the ACA, the State Innovation Models (SIM) initiative provides states with access to federal funding and technical assistance to design and then trial revised, patient-centered delivery and payment platforms to heighten the standard of care and lower costs. In 2013, close to \$300 million was made available for the “development and testing of state-based models for multi-payor payment and healthcare delivery system transformation.”⁸⁴ Four of the six states awarded with Model Testing awards (notably Arkansas, Maine, Minnesota, and Oregon) reference CHWs within their proposed workforce models, thereby making them eligible for reimbursement through the SIM grant and unifying them with other providers and delivery systems that are embedded in shared risk and responsibility arrangements (such as ACOs).⁸⁵

Minnesota utilized SIM funding to develop a toolkit to “help employers integrate CHWs into their care teams,”⁸⁶ while Oregon was awarded a Medicaid waiver and SIM grant of \$45 million to “test the effects of its CCOs on clinical outcomes and cost savings. As an integrated care delivery system, these CCOs focus on prevention and improving health equity based on new payment models and patient-centered medical home models. Participants in the program work with health navigators or qualified CHWs.”⁸⁷

Federal Public Health Grants: Other ACA-related grants that can assist with CHW funding include the Patient Navigator program (enacted in 2005 and reauthorized in 2015), Incentives for Prevention of Chronic Disease in Medicaid (consisting of \$100 million over 5 years for states to reduce incidence of chronic disease in Medicaid beneficiaries), Prevention and Public Health Fund (\$1 billion in FY12, increasing each year to \$2 billion in 2015 to fund initiatives designated by Congress and the Secretary of HHS, Immunization Programs, Education and Outreach Campaigns, and Grants to Promote the Community Health Workforce).⁸⁸

Federal Office of Rural Health Policy (FORHP) Grants:⁸⁹ Three grants – the Rural Health Care Services Outreach Grant Program, The Rural Health Network Development Grant Program, and The Rural Health Network Development Planning Grant Program – through the Federal Office of Rural Health Policy (FORHP) support community-based interventions, including (if proposed) the training and utilization of CHWs for the improvement of rural service delivery. To all three grants, the applicant organization must be a rural non-profit or a public entity representing a consortium or network of three or more separate healthcare providers.

- The Rural Health Care Services Outreach Grant Program offers three-year grants to improve outreach and service delivery in rural communities.
- The Rural Health Network Development Grant Program funds integrated health networks in rural settings that are collaborating to “*achieve efficiencies; expand access to, coordinate, and improve the quality of essential health care services; and strengthen the healthcare system as a whole.*”

The Rural Health Network Development Planning Grant Program provides one-year of financing to support the development of healthcare networks that are collaborative and community-focused.⁹⁰

Local governments

City and state governments – understanding the value proposition of community health as a core component of their public health program – may directly invest into community-based programs working with CHWs or, if functional programs already exist, directly into CHW salaries. Massachusetts, California, and Kentucky make direct investments into CHW programs through their local governments.

Examples:

- Since the passing of its health reform law in 2006, Massachusetts has been a pioneer in national efforts to include CHWs in the health system. Remarkable results (over 200,000 previously uninsured residents enrolled in health insurance through CHW accompaniment) led to increased state funding in 2012 as part of major state-led payment reform efforts. Through the Primary Care Payment Reform Initiative, CHWs became eligible for reimbursement of services, and funds were earmarked for these purposes. Additionally, through the Prevention and Wellness Trust Fund and Health Workforce Transformation Fund, measures were taken to explore models of integrating CHWs into care teams.⁹¹
- In California, the signing of the 2016-2017 state budget allocated an investment of \$100 million into building out a strong primary care team to respond to the state’s rural and underserved populations.⁹² Proposed solutions reference the efficacy of CHWs within strategies to improve delivery and reduce costs. Fortunately, the state has historically engaged CHWs as part of its primary care workforce, with, for example, state funding supporting the CHW program at the Department of Public Health in San Francisco and Fort Worth.
- The CHW initiative at the Kentucky Homeplace program receives direct funding from the state.⁹³

Additionally, nonprofit organization working in community develop have opportunities to seek individualized grants that may be available through government calls for proposals, for example Section 330 Health Center funding for organizations like Health Care for the Homeless⁹⁴ and Department of Labor funding for specific training initiatives like those at Rutgers Community Health Center.

Private sources

The perception (and often the reality) that more easily pursuable funds are sourced from foundations has, in part, contributed to the boom and bust in funding experienced by many community-based programs. This is a challenge experienced on both global and domestic levels. Foundation funding often comes with more liberty on the part of the recipient to utilize monies based on the program's premediated approach or objectives. Rather than molding the project to suit the grant, as is often required to achieve federal funding, foundations often appear to offer more liberal, program-oriented support. This perceived freedom, however, does not come without drawbacks. Piecemeal grants can fragment dependent work streams, with funding timelines making it challenging for program managers to successfully operationalize an integrated program over time. For this reason, in this report we emphasize foundations primarily as sources for start-up financing before a program shifts to more sustainable, system-oriented financing.

Private sector funding for Community Health Workers within the U.S. health sector does not only include foundations. Private systems and health insurance remain the largest provider of healthcare in the United States. Under health reform, many are seeking innovative modeling to maintain costs while a diversifying patient-base gains insurance coverage for the first time. Community Health Workers present a cost-effective opportunity to prevent excess health spending in clients with comorbidities.

Providers

Health systems that bear risk under cost-sharing or value-based care agreements are becoming increasingly open to investing in CHW programs, either directly or through Medicaid engagement.⁹⁵

Examples:

- **The Christus Spohn Health System:**⁹⁶ In 2004, a highly successful (on both fiscal and improved patient experience levels) pilot project led to the inclusion of a full-time CHW workforce within the Christus Spohn health system. Objectives of integrating the community health workforce include: seeking to ensure the comfort of patients on the wards; enrolling patients in the county's indigent care program and at the health centers; conducting targeted health education, checking in on recently discharged patients through home visitation services, and decreasing readmission rates by linking frequent emergency care users with primary care services.⁹⁷ With four CHWs based out of the Christus Spohn Hospital emergency department

and inpatient floors, and one at each of the three Christus Spohn family health centers, this non-profit, faith-based health system employs CHWs as full-time, salaried employees funded through the system's overall operating expenses. A long-term contract between the Christus Spohn Memorial Hospital and Nueces County, spanning thirty years and \$24 million, covers half of all operational costs.

- **Mount Sinai:** Mount Sinai Health System has contracted with City Health Works to provide health coaches for patients with chronic conditions who are being cared for in specific Mount Sinai clinics.
- **Tri-County Rural Health Network:** A summary of the TCRN reads as follows: "The Arkansas-based Tri-County Rural Health Network administers a Community Connectors program that uses CHWs to qualify Medicaid-eligible individuals who are at risk of nursing home placement, and to arrange for those individuals to receive home- and community-based care. The three-year, three-county pilot program resulted in a 3:1 ROI and the program is now implemented in 15 counties across the Arkansas Delta... Over three years, no participants needed nursing home placement, and the program resulted in a 23.8% average reduction in Medicaid spending per participant in contrast to the comparison group."

Academic Medical Institutions:

Academic Medical Institutions are in a unique position to support CHW services due to long-standing community relationships, access to private and government funding, and engagement across multiple clinical, research, and administrative disciplines.

*The University of Pennsylvania Health System:*⁹⁸

Established in 2013, the Penn Center for Community Health Workers' Individualized Management for Patient-Centered Targets (IMPACT) model deploys care teams (inclusive of one manager [often a social worker], one half-time coordinator, six CHWs, and two senior CHWs) to provide tailored care to high-risk patients. Additionally, partnership with UPenn has initiated collaboration between CHWs and fourth-year medical students.⁹⁹ Funding sources include the University of Pennsylvania Health System, Penn Medicine Center for Health Care Innovation, Penn Center for Health Improvement and Patient Safety, Leonard Davis Institute of Health Economics, Penn Clinical and Translational Science Community-Based Research Grant, Penn Center for Therapeutic Effectiveness Research, Eisenberg Scholar Research Award, Penn Department of Medicine, Penn Presbyterian Department of Medicine, Penn Armstrong Founders Award, and the Bach Fund.

Private payors

Private insurers – recognizing the unique ROI of CHWs – have invested directly in CHW services.

One sub-set of private payors – self-insured employers with incentives to manage costs – may also find it attractive to invest in preventive and cost-reduction approaches such as community health services. For example, in the innovative delivery and payment method of the CHW program at Hidalgo Medical Services in New Mexico, CHW services are supported by an “additional per-member, per-month payment from Molina Healthcare to Hidalgo Medical Services... This design helps integrate CHWs as equal members of the care team and ensures that the services they provide are recognized as a core part of the care that Hidalgo offers.”¹⁰⁰

Case management for high-utilization patients is increasingly being provided directly by insurance companies. Nurses, or other providers, ensure that clients receive pre-emptive care to prevent unnecessary emergency room visits and readmissions. Case management services offer another opportunity for CHW integration into the private health systems, as salaried employees of private insurance companies.

Foundations: Foundations often provide short-term start-up funds for initial program establishment with the program’s intention to shift to sustainable funding streams following a successful trial. Sometimes, foundations will partner with academic institutions to execute a time-limited, community-based grant.

Examples:

- One of the earliest examples is *a partnership between the Annie E. Casey Foundation and the University of Arizona* in 1998 to conduct the first national CHW study. Other foundation-supported CHW work includes the state of Minnesota, which, with support from the Blue Cross and Blue Shield Foundation of Minnesota, developed a standardized training and certification program for CHWs in 2003.¹⁰¹
- *The Robert Wood Johnson Foundation* has supported a range of CHW-related programs, including a two-year grant provided to City Health Works to support a pilot program to test its hypothesis that “active management using the CHW model will have a beneficial impact on population risk and health care utilization, compared with usual care.” City Health Works used this funding to produce a detailed evaluation of the program and a business plan for a shared-savings scale-up.¹⁰² The Robert Wood Johnson Foundation also funded the

Camden Coalition of Healthcare Providers (CCHP) to develop interdisciplinary care teams, including CHWs. “CCHP was one of the earliest users of “hot-spotting” to identify Camden residents with the highest utilization of healthcare services, including emergency rooms, hospitals, and physician offices. Providing care management to these patients group enabled the CCHP to help patients prevent avoidable hospital visits and reduced costs by 40% to 50%.”¹⁰³

- Other funders of community health programming have included the *Annie E. Casey Foundation* and the *Blue Cross Blue Shield Foundations of Massachusetts and California*.

Impact investors: While a social impact bond has yet to be launched to support community health workers, bonds have been developed to support other health workforce cadres.

Pay for Success projects – for example, the South Carolina Nurse-Family Partnership which seeks to support first-time mothers and their children in low-income communities – mobilizes collaboration among non-profits providing targeted social services, private and philanthropic funders, and independent evaluators in order to merge doing ‘good’ business with evidence-based solutions in need of funding.

The investigation for diversified financing pathways for CHWs models – particularly in light of the ROI which *should* be appealing to investors – must not overlook the prospects posed by impact investors and venture capitalists. Through VC-funded models, for example, various entities may fund a medical group or startup primary care provider who could in turn employ CHWs. Funding can be through a rich capitation or through shared savings in a risk-bearing arrangement. In one such example, the venture capitalist (such as Iora) may fund the start-up costs, including the CHW infrastructure, in its early days. The business model is for practices and CHW teams to be financially sustained by revenue from capitation and shared savings funding and contracting with a large employer or health plan.

In addition, venture capitalists can be involved in a model that involves direct primary care, where patients join a practice and pay for primary care services that include community health workers as an incentive. This can take the shape of general concierge medicine plans or patient group-specific practices. Iora is funding one such venture: Grameen VidaSana, a clinic designed to serve immigrant women in Queens.

Other potential public and private funding agencies:

Community health program managers should consider exploring funding opportunities through other public and private funding agencies such as the National Institutes of Health (NIH), The Centers for Disease Control and Prevention (CDC), Kaiser Permanente, Public Health Institute (PHI), Temporary Assistance for Needy Families, the Bureaus of Primary Health Care, Maternal and Child Health, and HIV/AIDS through the Human Resources and Services Administration (HRSA).¹⁰⁴

Additional Resources Describing Financing Opportunities

Association of State and Territorial Health Officials. Expanding Access for Preventive Services: Key Issues for State Public Health Agencies. 2015. <http://www.astho.org/Health-Systems-Transformation/Medicaid-and-Public-Health-Partnerships/Expanding-Access-for-Preventive-Services-Issue-Brief/>

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APPENDIX IV:

New Jersey Department of Labor Community Health Worker Training Program Curriculum Outline

This complete program is taught over 160 hours of instruction. However, training can be modified to 80 hours to meet the needs of the employer. Instructors are experts in their field and provide meaningful, interactive, and engaging learning sessions for participants. In addition to the topics below, individuals currently employed as outreach workers will share their experiences with the class, and employers will highlight the roles of outreach workers in their agencies.

I. Course Content Descriptions and Hours

<p>a. Role, Advocacy, and Outreach 20 hours</p> <p>This course focuses on the role of the community health worker, including personal safety, self-care, personal wellness, and the promotion of health and disease prevention of clients.</p>	<p>f. Communication and Cultural Competency 20 hours</p> <p>This module provides the content and skills in communication to assist the Community Health Worker in effectively interacting with a variety of clients, their families, and a range of healthcare providers. Included are verbal/non-verbal communication, listening, interviewing skills, networking, building trust, and working in teams. Communication skills are grounded within the context of the community's culture and the cultural implications that can affect client communication.</p>
<p>b. Organization and Resources: Community and Personal Strategies 20 hours</p> <p>The course focuses on the community health worker's knowledge of the community, and their ability to prioritize and organize their work. Emphasis is on the use and critical analysis of resources and information problem solving.</p>	<p>g. Reporting: Health Promotion Competencies Healthy Lifestyles 40 hours</p> <p>This course focuses on the knowledge and skills a CHW needs to assist clients in realizing healthy eating patterns, controlling their weight, integrating exercise into their lives, taking their medications, talking with their doctors, controlling substances such as tobacco, managing stress, achieving life balance, and attaining personal and family wellness. Emphasis will be on learning strategies that can be used to aid in client awareness and education and incorporation of health into their daily living. This course also provides information and activities through which the CHW can assimilate these concepts into their own lives.</p>
<p>c. Teaching and Capacity Building 40 hours</p> <p>This course focuses on the community health worker's role in teaching and in increasing capacity of the community and of the client. Emphasis is on establishing healthy lifestyles and on clients developing agreements to take responsibility for achieving health goals. Students will learn and practice methods for planning, developing, and implementing plans with clients to promote wellness.</p>	<p><i>Role of the CHW – Health Promotion Competencies</i></p> <ul style="list-style-type: none">a. Healthy Lifestylesb. Heart and Strokec. Maternal – Child and Teensd. Diabetese. Cancerf. Oral Healthg. Mental Health
<p>d. Legal and Ethical Responsibilities 10 hours</p> <p>This course focuses on the legal and ethical dimensions of the community health workers' role. Included are boundaries of the community health worker position, agency policies, confidentiality, liability, mandatory reporting, and cultural issues that can influence legal and ethical responsibilities.</p>	
<p>e. Coordination and Documentation 10 hours</p> <p>This module focuses on the importance and ability of the CHW to gather, document, and report on client visits and other activities. The emphasis is on appropriate, accurate, and clear documentation with consideration of legal and agency requirements.</p>	
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Total Course Hours	160 hours

II. Student Learning Outcomes for the Community Health Worker certificate (general):

Upon successful completion of the Community Health Worker Training Program, students will be able to demonstrate the following learning objectives:

1. Analyze and discuss the root causes and consequences of health disparities in local, national, and global communities.
2. Research (including online research) and evaluate the quality and accuracy of health information and culturally relevant resources and services.
3. Discuss and integrate healthy professional skills including ethics, scope of practice, professional boundaries, cultural humility, conflict resolution skills, and self-care practices.
4. Conduct an initial interview or assessment with a client, applying a strength-based approach, to assess needs, resources, priorities, and proposed actions.
5. Interpret and provide non-clinical health advising on various health topics, from a client-centered perspective.
6. Demonstrate client-centered counseling, drawing upon active listening skills and motivational interviewing concepts and skills.
7. Prepare, implement, and document a client-centered service coordination/case management/ action plan including the provision of culturally appropriate referrals.
8. Create and facilitate a group health education training or presentation (about core competencies) using popular education theory and methods.
9. Describe and demonstrate effective group level or team work.

III. Instructional Method

Community Health Worker Training courses are offered in-class and consist of lectures, independent and group projects, and skills-building activities to extend learning outside the class.

IV. Course Materials

Students in this course will be equipped with the Minnesota Community Health Worker Manual.

V. Course Locations

The Community Health Worker Training can be offered across the state of New Jersey.

VI. Training Institution

The Community Health Worker Training program is operated by the Health Care Talent Development Center located within Rutgers University School of Management and Labor.

Endnotes

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