

Developing Sustainable Community Health Worker Career Paths

By Olenga Anabui, Tamala Carter, Matthew Phillippi, Dominique G. Ruggieri, and Shreya Kangovi

Policy Points

- > Most community health workers want to advance professionally as community health workers rather than become social workers or nurses.
- > Community health workers want to take active roles in the design and leadership of COVID-19 pandemic and racial justice initiatives and policies.

ABSTRACT

Scaling up the role of community health workers (CHWs), which is essential for the future of US public health, economic recovery, and social justice, requires significant workforce development to address the lack of a CHW career pipeline and high rates of turnover. Yet, little evidence exists to guide this work. The Penn Center for Community Health Workers used a participatory action research framework to explore community health workers' perspectives on job satisfaction and career advancement and inform the design of a career development program. Four key findings emerged. First, most CHWs preferred their work as CHWs to that of other professions such as social work or nursing. Second, CHWs wanted a career development program that was structured to preserve unity rather than promote competition and strife among them. Third, CHWs wanted a sustainable career ladder that was based on proficiency rather than formal schooling. Fourth, participants wanted to take active roles in the design and leadership of COVID-19 pandemic response and racial justice initiatives and policies, rather than being restricted to service roles. These findings have important implications for the growing number of community, public health, and health care organizations that are employing CHWs and for policymakers who are interested in scaling up this workforce. CHWs must have a say in the professional matters that affect them in accordance with the principle of self-determination. Employers of CHWs should ground the design of career development programs in an understanding of CHWs' needs and preferences. Policymakers should incorporate the costs of advancement and workforce development into payment mechanisms.

INTRODUCTION

President Biden's \$775 billion campaign plan for a caregiving economy¹ creates 150,000 jobs for community health workers (CHWs): trustworthy individuals who improve health within their own communities through social support, navigation, health coaching, and

advocacy.² CHWs share life experiences with the people they serve and have trust-building traits such as empathy and altruism.³ This makes them highly effective. There is strong evidence for CHWs' ability to support COVID-19 prevention and contact tracing,⁴ improve chronic disease outcomes,⁵⁻⁹ increase access to health care services,⁹⁻¹¹ and reduce hospitalization,¹¹⁻¹⁴ which saves Medicaid \$4,200 per beneficiary.¹⁵

Scaling up of role of CHWs to tackle US public health challenges will require workforce development to address the lack of a CHW career pipeline and high turnover rates. CHWs are a diverse reflection¹⁶ of disadvantaged groups – 65% are Black or Latinx, 23% are white, and 10% are Native American – who may not have extensive formal schooling but often have lived expertise in injustice, health inequity, and racism. Thus, CHWs often must accept entry-level roles with limited scope and low salaries and have few choices to advance professionally or earn more money. Lack of growth opportunities contributes to job dissatisfaction¹⁷⁻¹⁹ and rates of turnover as high as 50%,^{20,21} which can be costly for CHWs and employers.

Unfortunately, little evidence exists to guide employers, including public health departments and primary care practices, as they plan investments in career development programs that will help to retain and expand the CHW workforce. The US literature related to CHW retention and motivation is limited and centered on examining CHW attitudes toward *existing* career development programs and incentives.^{17-19,22,23} To our knowledge there has been no formative research done with CHWs about their career goals, requirements for retention, and suggestions for the design of a career development program. The aim of our project was to use a participatory action research framework²⁴ (research with, not on, people with the goal of enabling action) to explore CHWs' perspectives on job satisfaction and career advancement and inform the design of a career development program. Our findings have important implications for the growing number of community, public health, and health care organizations that are employing CHWs and for policymakers who are interested in scaling up this workforce

PROJECT OVERVIEW

The Penn Center for Community Health Workers is a national center of excellence focused on achieving health equity through effective, sustainable CHW programs. The center has developed the evidence-based **IMPACT model**,^{9,11,25-27} which has been replicated by 50 organizations across a 20-state network including 12,000 individuals served directly by the center in Philadelphia. In the model, CHWs find and meet people where they are, get to know their clients' life stories, and ask each client what they think will improve their own life and health. CHWs then provide tailored support based on these needs and preferences, through a range of activities like battling eviction notices, dropping off food on porches, organizing virtual funerals, or advocating with employers or policymakers for paid medical leave. The IMPACT model also includes a standardized approach to CHW hiring, training, workflows, supervision, documentation, and performance assessment.

In January 2017, to promote CHW advancement and job satisfaction, the center's leadership team (which includes a CHW) launched a four-stage participatory action project to create a CHW career development program. First, we conducted focus groups with CHWs to better understand their career goals, requirements for retention, and suggestions for the design of a career development program. Second, we used our findings to implement a career development program, which included job descriptions, professional development plans, and budgeted salaries that would support growth for CHWs in a career ladder. Third, we conducted a post-implementation focus group to gather perspectives on the career development program. Finally, we held an additional focus group to ask CHWs to contextualize their perspectives on career development in light of the COVID-19 pandemic and anti-racism protests of 2020. Of the 27 CHWs eligible for participation, 14 (52%) participated in one of the focus groups.

KEY FINDINGS

Advancement Within the CHW Profession

Contrary to conventional thinking,^{17,22,28} CHWs preferred to advance professionally as CHWs rather than transition to new fields like nursing or social work. When participants were asked what kinds of work they personally found most rewarding, many spoke about frontline support roles helping people. They said that it made them happiest to do work that looked like their current job: planting urban gardens, battling eviction notices, connecting people to resources like affordable childcare. Alternately, several expressed interest in aspects of the CHW role outside of frontline support work, including systems-level advocacy and training or supervision of CHWs. Universally, participants spoke with pride about their “alternative way of getting things done” as compared with other disciplines. As one CHW put it:

I went to school for nursing, and then it hit me like, ‘Well, I just really like to deal with people as a whole.’ With nursing I felt like I wasn’t dealing with the person. Whereas I had that craving to be more involved with the person more holistically thinking about what I now know — root cause [of their challenges] and all of those things.

Minimizing Winners and Losers

Career ladder programs are often built so that workforce members with skills and interest in “management” advance, while those focused on direct care work remain behind. CHWs told us that they desired a career ladder structure that preserved unity among them rather than promoting competition. Participants wanted *all* CHWs to have the chance to advance their salary, title, and responsibilities, regardless of whether advancement was focused on direct care work with individuals and families or systems-level advocacy and management. They believed that creating a career development program that privileged only one type of skill set or interests might jeopardize the “family atmosphere type of vibe” that they enjoyed within the team.

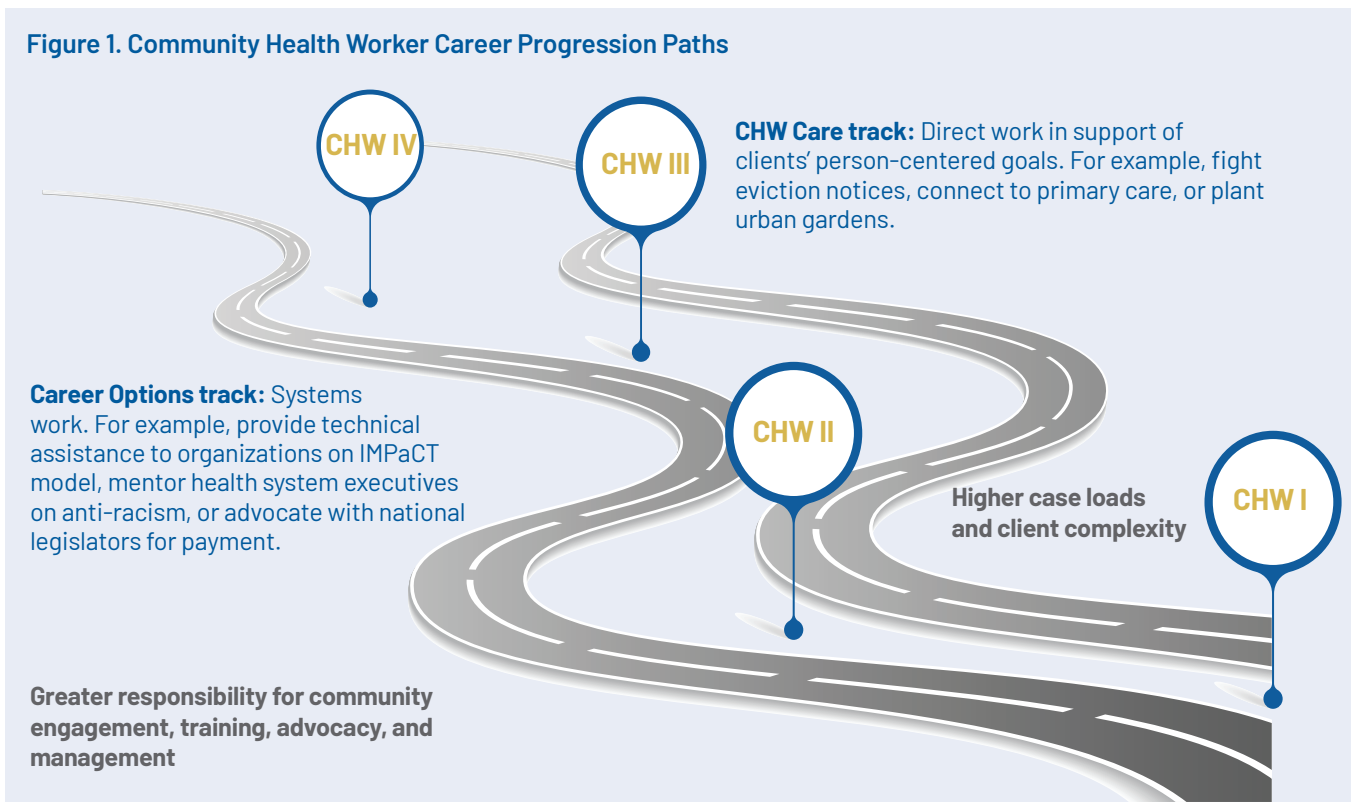
Advancement Criteria and Sustainability

CHWs wanted clear and transparent promotion criteria based on prior performance, character, interpersonal skills, and seniority. CHWs felt that these criteria were more important than formalized schooling or credentials. CHWs also warned against “expanding too fast.” They wanted a program that was well thought out so that promises made about career opportunities could be kept in the future. CHWs communicated that it would be a significant hit to their morale if “in a year, we see it’s not working and is not effective, and then [a program] phases out.”

Table 1. Career Paths Program Design

Program Goal	Illustrative Quotes	Program Design Elements
Advancement within the profession	“I like touching the community, getting out there. I just think it’s so beautiful to get out into your community and really talk to people.”	Career development that allows for professional development and advancement within the CHW profession
Minimizing winners and losers	“No matter how the company expands inward, outward, upward, we still have to keep the—well, how am I trying to put this—the vibe that we have, like the welcoming family atmosphere-type of vibe.”	Two career tracks: 1) CHW Care track: the predominant track focused on core patient work in the community; 2) Career Options track: training, advocacy, and management work One pay, title, and promotion structure for both career tracks
Sustainable and transparent structure	“Don’t say it’s a possibility and then when someone goes for that goal, say, ‘Well, no. You have to do this first.’...Make it plain.”	Clear criteria for promotion based on proficiency rather than educational credentials Financial projections and business case to cover future promotions

Figure 1. Community Health Worker Career Progression Paths



Establishing “Career Paths”

Based on these key themes, we created our career development program, “Career Paths,” to promote equitable, transparent, and sustainable advancement within the CHW profession (Table 1).

We built career ladders consisting of two tracks (Figure 1). Each track allowed for promotion to CHW II, CHW III, and CHW IV levels. The primary track (“CHW Care”) was anchored in direct care work with individuals and families; advancement within this track was linked to higher skill proficiency and the ability to handle more complex individuals and slightly higher caseloads. The secondary track (“Career Options”) was designed for CHWs who were interested in shifting from direct care work into specialty areas: systems-level advocacy and community engagement, training, or management. These tracks had the same pay scales and job titles so that we did not favor one set of interests or skills over others. We created clear job descriptions and promotion criteria, primarily emphasizing proficiency rather than educational credentials. Coaching and professional development opportunities were included for each track.

Next we tackled the most difficult challenge: financial sustainability. The center’s direct care work with

individuals and families is supported by operational dollars from the Penn Medicine health system, the Department of Veterans Affairs, and regional Medicaid payers. These dollars are tied to improvements in the quality of client care (i.e., client-reported quality, access to care) along with reductions in hospital utilization. The center also receives funding from grants for research and advocacy, as well as training contracts. We projected the cost of promotions and developed a business case to cover these costs within the overall framework of a return-on-investment analysis for the IMPaCT program.¹⁵ Promotions on the CHW Care track came with slight increases in caseload or client acuity, which would cover the cost of raises. Promotions on the Career Options track were tied to responsibilities for advocacy, training, or management, which would have to be covered respectively by advocacy-focused grants, training contracts, or, in the case of management, operational dollars. Since the funding sources for the Career Options track were less predictable, we decided to offer these positions only when long-term funding became available.

To promote transparency of this process, we created presentations and written materials for leadership to explain it to CHWs and discuss with them how Career

Paths program would work. We chose organizational staff meetings and conversations between CHWs and their supervisors to disseminate information.

Post-implementation Perspectives

When we spoke with CHWs six months after implementing Career Paths, there were a number of key findings. CHWs felt that Career Paths motivated them to stay in the organization and put their “A-game” on in order to move up, although some expressed disappointment with promotion timelines that felt “too long.” CHWs valued the input they had in shaping the career development program from the outset. They believed that creating the program brought recognition and professionalism to their role, given that many other roles in the health system had a career ladder.

Events of 2020, including the COVID-19 pandemic and civil unrest, spurred some CHWs’ desire to explore the systems-level advocacy, training, and management options of Career Paths. CHWs were often personally affected by these events and saw themselves as lived experts who had important insights on how to design, for example, public health responses or anti-racism policies or initiatives. CHWs felt a disconnect between their expertise on these topics and their level of influence in institutions and societies, in which they were often overlooked as leaders and restricted to service roles. “I want to make changes in policy as a community health worker. So naturally that requires an elevation to not just be in one spot,” one CHW said. The CHWs were glad that the Career Paths program allowed CHWs to grow as leaders and designers, not just implementers, of public health, equity, and social justice interventions and policies. For instance, CHWs informed the design of CHW-led COVID-19 contact tracing interventions, took on leadership roles in institutional anti-racism efforts, and contributed to the design of community-level initiatives to reduce unmet socioeconomic needs.

DISCUSSION

Our findings have important implications for policymakers and the growing number of community and health care organizations that will need to employ and retain the next 150,000 CHWs.

- First, employers should not assume that CHWs want to “graduate” into traditional fields like nursing or social work. On the contrary, such assumptions may

be counterproductive for workforce retention and grounded in a bias that undervalues those who come from and work with disenfranchised communities. Many CHWs only expressed interest in fields like nursing or social work because they perceived them to be the only ways to move up and earn more. CHWs, as experts on their professional development interests, should be consulted to guide employers as they create advancement options within core CHW work and promote retention of high-performing CHWs within the field.

- Second, participants in this project expressed a range of interests that converge with the domains delineated in the Community Health Worker Core Competencies project,²⁹ which span direct care work, systems advocacy, policymaking, and management. Employers should be careful of privileging certain types of skills and interests (e.g., managerial) over others, which is likely to create strife within a close-knit workforce. This is a major cultural shift for most traditional employers; consulting or including CHWs in leadership and decision-making may help to integrate their norms into the dominant culture. Policymakers and thought leaders should avoid pigeon-holing CHWs as service workers and recognize that the CHW competencies include advocacy and leadership. These skills will be particularly important in the post-COVID-19 era of public health redesign and social justice transformation.
- Third, employers should consider promotion criteria that emphasize lived expertise and proficiency over formal educational credentials. This approach may help to prevent “professionalizing” the grassroots CHW workforce so much that CHWs are set up to become less effective allies in the communities they support.^{30,31} This finding supports a recent Agency for Healthcare Research and Quality study,³² which found that efforts to certify CHWs solely based on their formal training did little to improve the quality of CHW services and may weed out “natural helpers” who may not be able to afford or qualify for such training. An alternative approach that is being taken by the National Committee for Quality Assurance (NCQA) aims to develop organizational-level standards³³ for CHW hiring, career development, work practice, supervision, and infrastructure. These standards may incentivize employers of CHWs

to invest in program structures including those focused on job satisfaction, retention, and career development.

- Fourth, employers will have to strike a balance between CHW career development and financial sustainability. CHWs across the United States are lower paid than their clinical counterparts;³⁴ this is an important disparity that undervalues the complexity and intensity of CHW work. Employers should strive to advance CHW salaries and positions as aggressively as possible; however, CHWs in our project cautioned against making promises that could not be upheld in the long term. Thus, we were careful to build financial projections and business cases for CHWs' long-term career advancement within the program.

Finally, policymakers should consider advancing policies that will support CHW workforce development. First, funders of CHW programs, including the Centers for Medicare and Medicaid Services, should move toward sustainable funding for CHWs, since most CHWs are currently paid through a patchwork of grants and relatively limited demonstrations, which undoubtedly drives turnover.³⁵ Funders should incorporate the costs of CHW promotion and career advancement into payments for these programs and consider obtaining additional funding for workforce development through state workforce initiatives. Ultimately, funding for CHWs may be linked with evidence-informed standards for CHW programs such as those being developed by NCQA to ensure that CHWs are supported as a workforce and are able to do their best work.

This project report has limitations. It is exploratory and formative in nature. A small sample size and concentration of participants in one workplace limits transferability of our results. Additionally, in accordance with the participatory action research framework, organizational leaders who wanted CHWs to “co-design” a career development program led this project. The fact that organizational leaders facilitated focus groups could have introduced social desirability bias into data collection.

CONCLUSION

CHWs are increasingly recognized as a critical workforce in the next chapter of US public health, economic recovery, and social justice. As the workforce grows, CHWs must have a say in the professional matters that affect them in accordance with the principle of self-determination. Employers of CHWs should ground the design of career development programs in an understanding of CHWs' needs and preferences. Policymakers should incorporate the costs of advancement and workforce development into payment mechanisms.

APPENDIX: HOW THIS PROJECT WAS CONDUCTED

Setting and Participants

This project was undertaken in the organizational context of the Penn Center for Community Health Workers, which employs approximately 60 full-time employees, most of whom are CHWs. Organizationally, the center is an integrated part of the University of Pennsylvania Health System and sits within the home care and hospice service line. CHWs are full-time employees of the health system with a total annual compensation range of \$53,000 to \$66,000 (including salary and benefits) for a fixed 40-hour work week. Benefits include medical coverage, professional development stipends, and paid vacation and sick days. CHWs are granted college credits for completing an initial training course offered by the center, and they receive tuition benefits for degree programs. The center's CHW annual turnover rate over the past 10 years has been 2.5%, compared with more typical rates as high as 50%.^{20,21}

Project Design

We conducted a formal project in four phases consisting of five focus groups between January 2017 and November 2020. First, we conducted focus groups with CHWs to better understand their career goals, requirements for retention, and suggestions for the design of a career development program. Next, we implemented a career development program based on our findings. After participants had an opportunity to engage in the program and in response to the COVID-19 pandemic and racial and social events of 2020, we conducted quality

Table 2. Characteristics of Focus Group Participants

Characteristics (N = 14)	Number	Percent
Female	11	79
Age, mean years	40	-
Black/African American	12	86
Educational attainment		
High school graduate or GED	5	36
Some college	7	50
College	2	14

improvement focus groups to gather post-implementation perspectives on the career development program.

Of the 27 CHWs eligible for participation, 14 (52%) participated in at least one of these focus groups (Table 2). The project was approved by the University of Pennsylvania Institutional Review Board.

Focus Groups

All of the 27 community health workers working for the organization at the time were eligible to participate in the project and were invited via email to join both pre- and post-program implementation focus groups (phase 1 and phase 3). We developed semi-structured focus group facilitation guides based on Wilhelm et al.'s conceptual model for predictors of job satisfaction and intent to leave among home health workers.³⁶ The facilitation guide for our pre-implementation focus groups (phase 1) explored CHW career goals, factors affecting motivation, job satisfaction, and intent to leave their current roles. We also asked CHWs for their input on the design of a career development program. The post-implementation focus group guides included questions on how job satisfaction and intent to leave the role were affected by the recent implementation of a career development program (phase 3) and later how COVID-19 and racial and social events of 2020 (phase 4) may have reshaped career development interests.

Two project team members (Olenga Anabui, the director of the CHW program, and Tamala Carter, a senior CHW and experienced qualitative researcher) co-facilitated each phase 1 and phase 3 career development focus group session of two hours. These sessions were audio recorded and transcribed and then uploaded into QSR

NVivo 11.0 (QSR International, Doncaster, Victoria, Australia). One project team member (Olenga Anabui) facilitated the phase 4 contextual inquiry focus group of one hour. This session was audio recorded but not transcribed.

Data Analysis

A modified grounded theory approach was used for data analysis.³⁷ We developed a coding schema that included major ideas that emerged from open coding, as well as a set of a priori codes corresponding to key domains of the conceptual model. Two research team members coded all data and met iteratively at coding meetings. During these meetings, the coding schema was modified for clarity, and the degree of agreement between the coders was calculated using the inter-rater reliability (IRR) function within NVivo. Where the IRR for codes was below 90%, we resolved differences through discussion and recoded data until we reached a final IRR of 98% between coders. To validate our findings, we used member checking, a technique in which qualitative researchers discuss project findings with members of the project sample or the broader population the project sample is intended to represent. We met with 21 CHWs at the organization's monthly staff meeting to discuss and validate findings.

COVID-19 Contextual Inquiry

As noted, we convened an additional brief focus group in November 2020 (phase 4) to talk with CHWs about how the events of 2020, including COVID-19 and civil unrest, had affected their perspectives on career definition and advancement. Insights from this session were included in this report as contextual updates.

ABOUT THE AUTHORS

Olena Anabui, MBA, MPH, is director of the Penn Center for Community Health Workers, where she oversees day-to-day programmatic, financial, and personnel operations for community health workers to deliver the evidence-based IMPaCT intervention. Ms. Anabui ensures quality outcomes, including reductions in hospital time, better chronic disease control, and excellent patient satisfaction for 3,000 high-risk patients served annually through the Center. In response to the COVID-19 pandemic and racial and social unrest of 2020, she is implementing a workforce development plan that expands career ladders for community health workers and the Center's justice initiatives across the country.

Tamala Carter holds dual roles as a senior community health worker and community-based research coordinator within the Penn Center for Community Health Workers. She has lived in Philadelphia for her entire life and has decades of experience with community outreach. Before joining the Penn Center for Community Health Workers, she worked with a community development corporation, going door-to-door to educate and organize residents in her community. She has conducted over 400 in-depth interviews with lower-income patients and coauthored several publications detailing her findings. Her original patient interviews were used to design the IMPaCT model.

Matthew Phillippi is a clinical research coordinator within the Penn Center for Community Health Workers. He holds a bachelor of arts from the University of Wisconsin-Madison. His research interests include health equity and increasing access to care for vulnerable populations.

Dominique G. Ruggieri, PhD, is core faculty in the Master of Public Health Program in the Perelman School of Medicine at the University of Pennsylvania, a senior faculty fellow for the University of Pennsylvania's Center for Public Health Initiatives, and the founder and CEO of BonVie Health and Nutrition Consulting. She is a public health professional and health educator, health communications specialist, and nutrition educator with expertise in program planning, qualitative research, and health promotion for various health issues. She has experience in designing messages for improved health engagement and decision making, tailoring health information for diverse populations.

Shreya Kangovi, MD, is the founding executive director of the Penn Center for Community Health Workers and an associate professor at the University of Pennsylvania Perelman School of Medicine. She is a leading expert on improving population health through evidence-based community health worker programs. Dr. Kangovi led the team that designed IMPaCT, a standardized, scalable program that partners with community health workers—trusted laypeople from local communities—to improve health. Dr. Kangovi founded the Penn Center for Community Health Workers, a national center of excellence dedicated to advancing health in low-income populations through effective community health worker programs. She has authored numerous scientific publications and received over \$30 million in funding, including through federal grants from the National Institutes of Health and Patient-Centered Outcomes Research Institute. She is the recipient of the Academy Health Research Impact Award and the Robert Wood Johnson Foundation Health Equity Award. Dr. Kangovi is also an elected member of the American College of Physicians and a member of the National Academies of Sciences, Engineering, and Medicine's Roundtable on the Promotion of Health Equity.

NOTES

- ¹ Biden J. The Biden plan for mobilizing American talent and heart to create a 21st century caregiving and education workforce. Biden-Harris. <https://joebiden.com/caregiving/#>. Updated 2020. Accessed December 22, 2020.
- ² Community health workers. American Public Health Association. <https://www.apha.org/apha-communities/member-sections/community-health-workers>. Updated 2020. Accessed December 22, 2020.
- ³ Butler E, Kangovi S. Health care providers are hiring the wrong people. Harvard Business Review. <https://hbr.org/2019/10/health-care-providers-are-hiring-the-wrong-people>. Updated 2019. Accessed December 22, 2020.
- ⁴ Smith DO, Wennerstrom A. To strengthen the public health response to COVID-19, we need community health workers. Health Affairs blog. <https://www.healthaffairs.org/doi/10.1377/hblog20200504.336184/full/>. Updated 2020. Accessed December 22, 2020.
- ⁵ Long JA, Jahnle EC, Richardson DM, Loewenstein G, Volpp KG. Peer mentoring and financial incentives to improve glucose control in African American veterans: a randomized trial. *Ann Intern Med*. 2012;156(6):416-424. doi:10.7326/0003-4819-156-6-201203200-00004.
- ⁶ Heisler M, Vijan S, Makki F, Piette JD. Diabetes control with reciprocal peer support versus nurse care management: a randomized trial. *Ann Intern Med*. 2010;153(8):507-515. doi:10.7326/0003-4819-153-8-201010190-00007.
- ⁷ Kim K, Choi JS, Choi E, et al. Effects of community-based health worker interventions to improve chronic disease management and care among vulnerable populations: a systematic review. *Am J Public Health*. 2016;106(4):e3-e28. doi:10.2105/AJPH.2015.302987.
- ⁸ Viswanathan M, Kraschnewski JL, Nishikawa B, et al. Outcomes and costs of community health worker interventions: a systematic review. *Med Care*. 2010;48(9):792-808. doi:10.1097/MLR.0b013e3181e35b51.
- ⁹ Centers for Disease Control and Prevention; National Center for Chronic Disease Prevention and Health Promotion. Addressing chronic disease through community health workers: a policy and systems-level approach. Policy brief on community health workers; 2nd edition; April 2015.
- ¹⁰ Chang A, Patberg E, Cueto V, et al. Community health workers, access to care, and service utilization among Florida Latinos: a randomized controlled trial. *Am J Public Health*. 2018;108(9):1249-1251. doi:10.2105/AJPH.2018.304542.
- ¹¹ Kangovi S, Mitra N, Grande D, et al. Patient-centered community health worker intervention to improve posthospital outcomes: a randomized clinical trial. *JAMA Intern Med*. 2014;174(4):535-543. doi:10.1001/jamainternmed.2013.14327.
- ¹² Fisher EB, Strunk RC, Highstein GR, et al. A randomized controlled evaluation of the effect of community health workers on hospitalization for asthma: the asthma coach. *Arch Pediatr Adolesc Med*. 2009;163(3):225-232. doi:10.1001/archpediatrics.2008.577.
- ¹³ Kangovi S, Mitra N, Grande D, Huo H, Smith RA, Long JA. Community health worker support for disadvantaged patients with multiple chronic diseases: a randomized clinical trial. *Am J Public Health*. 2017;107(10):1660-1667. doi:10.2105/AJPH.2017.303985.
- ¹⁴ Jack HE, Arabadjis SD, Sun L, Sullivan EE, Phillips RS. Impact of community health workers on use of health-care services in the United States: a systematic review. *J Gen Intern Med*. 2017;32(3):325-344. doi:10.1007/s11606-016-3922-9.
- ¹⁵ Kangovi S, Mitra N, Grande D, Long JA, Asch DA. Evidence-based community health worker program addresses unmet social needs and generates positive return on investment. *Health Aff (Millwood)*. 2020;39(2):207-213. doi:10.1377/hlthaff.2019.00981.

- ¹⁶ Arizona Prevention Research Center, Zuckerman College of Public Health, University of Arizona. National community health worker advocacy survey: 2014 preliminary data report for the United States and territories. <http://www.institutephi.org/wp-content/uploads/2014/08/survey-of-Community-Health-Workers.pdf>. Published 2014. Accessed December 28, 2020.
- ¹⁷ Bhattacharyya K, Winch P, LeBan K, Tien M. Community health worker incentives and disincentives: how they affect motivation, retention, and sustainability. Arlington, VA: Basic Support for Institutionalizing Child Survival Project (BASICS II) for the United States Agency for International Development; October 2001.
- ¹⁸ Strachan DL, Kallander K, ten Asbroek AH, et al. Interventions to improve motivation and retention of community health workers delivering integrated community case management (iCCM): stakeholder perceptions and priorities. *Am J Trop Med Hyg*. 2012;87(suppl 5):111-119. doi:10.4269/ajtmh.2012.12-0030.
- ¹⁹ Colvin CJ. What motivates community health workers? Designing programs that incentivize community health worker performance and retention. In: Perry H, Crigler L, eds. *Developing and Strengthening Community Health Worker Programs at Scale: A Reference Guide for Program Managers and Policy Makers*. Washington, DC: United States Agency for International Development: Maternal and Child Health Integrated Program; 2014:11-11-16.
- ²⁰ Nkonki L, Cliff J, Sanders D. Lay health worker attrition: important but often ignored. *Bull World Health Organ*;2011;89(12):919-923. doi:10.2471/BLT.11.087825.
- ²¹ Richter RW, Bengen B, Alsup PA, Bruun B, Kilcoyne MM, Challenor BD. The community health worker: a resource for improved health care delivery. *Am J Public Health*. 1974;64(11):1056-1061. doi:10.2105/ajph.64.11.1056.
- ²² Farrar B, Morgan JC, Chuang E, Konrad TR. Growing your own: community health workers and jobs to careers. *J Ambul Care Manage*. 2011;34(3):234-246. doi:10.1097/JAC.0b013e31821c6408.
- ²³ vDugani S, Afari H, Hirschhorn LR, et al. Prevalence and factors associated with burnout among frontline primary health care providers in low- and middle-income countries: a systematic review. *Gates Open Res*. 2018;2:4. doi:10.12688/gatesopenres.12779.3.
- ²⁴ Baum F, MacDougall C, Smith D. Participatory action research. *J Epidemiol Community Health*. 2006;60(10):854-857. doi:10.1136/jech.2004.028662.
- ²⁵ Kangovi S, Mitra N, Norton L, et al. Effect of community health worker support on clinical outcomes of low-income patients across primary care facilities: a randomized clinical trial. *JAMA Intern Med*. 2018;178(12):1635-1643. doi:10.1001/jamainternmed.2018.4630.
- ²⁶ Kangovi S, Grande D, Carter T, et al. The use of participatory action research to design a patient-centered community health worker care transitions intervention. *Healthc (Amst)*. 2014;2(2):136-144. doi:10.1016/j.hjdsi.2014.02.001.
- ²⁷ Kangovi S, Carter T, Charles D, et al. Toward a scalable, patient-centered community health worker model: adapting the IMPaCT intervention for use in the outpatient setting. *Popul Health Manag*. 2016;19(6):380-388. doi:10.1089/pop.2015.0157.
- ²⁸ Kash BA, May ML, Tai-Seale M. Community health worker training and certification programs in the United States: findings from a national survey. *Health Policy*. 2007;80(1):32-42. doi:S0168-8510(06)00036-4.
- ²⁹ C3 Project Team. C3 project findings: roles and competencies. <https://www.c3project.org/roles-competencies>. Published 2018. Accessed June 5, 2020.
- ³⁰ Catalani CE, Findley SE, Matos S, Rodriguez R. Community health worker insights on their training and certification. *Prog Community Health Partnersh*. 2009;3(3):227-235. doi:10.1353/cpr.0.0082.
- ³¹ Malcarney MB, Pittman P, Quigley L, Horton K, Seiler N. The changing roles of community health workers. 2017;52(suppl 1):360-382. doi:10.1111/1475-6773.12657.

- ³² Ibe CA, Wilson LM, Brodine J, et al. Impact of community health worker certification on workforce and service delivery for asthma and other selected chronic diseases. AHRQ Comparative Effectiveness Technical Brief no. 34. AHRQ publication no. 20-EHC004-EF. Rockville, MD: Agency for Healthcare Research and Quality (US); March 2020.
- ³³ Kangovi S, O’Kane M. Community health workers: developing standards to support these frontline workers during the pandemic and beyond. Milbank Memorial Fund blog. <https://www.milbank.org/2020/05/community-health-workers-developing-standards-support/>. Published May 15, 2020. Accessed June 5, 2020.
- ³⁴ U.S. Bureau of Labor Statistics. Occupational employment and wages, May 2018. <https://www.bls.gov/oes/2018/may/oes211094.htm>. Updated 2019. Accessed June 5, 2020.
- ³⁵ Kangovi, S. To protect public health during and after the pandemic, we need a new approach to financing community health workers. Health Affairs blog. <https://www.healthaffairs.org/doi/10.1377/hblog20200603.986107/full/>. Updated 2020. Accessed February 3, 2021.
- ³⁶ Wilhelm J, Bryant N, Sutton JP, Stone R. Predictors of job satisfaction and intent to leave among home health workers: analysis of the National Home Health Aide Survey. Washington, DC: U.S. Department of Health and Human Services; 2015. <http://resource.nlm.nih.gov/101673141>. Accessed June 5, 2020.
- ³⁷ Charmaz K. Grounded theory: objectivist and constructivist methods. In: Denzin NK, Lincoln YS, eds. *Handbook of Qualitative Research*. 2nd ed. Thousand Oaks, CA: Sage; 2000:509-535.

About the Milbank Memorial Fund

The Milbank Memorial Fund is an endowed operating foundation that works to improve the health of populations by connecting leaders and decision makers with the best available evidence and experience. Founded in 1905, the Fund engages in nonpartisan analysis, collaboration, and communication on significant issues in health policy. It does this work by publishing high-quality, evidence-based reports, books, and *The Milbank Quarterly*, a peer-reviewed journal of population health and health policy; convening state health policy decision makers on issues they identify as important to population health; and building communities of health policymakers to enhance their effectiveness.

The Milbank Memorial Fund is an endowed operating foundation that engages in nonpartisan analysis, study, research, and communication on significant issues in health policy. The Fund endeavors to maintain the highest standards for accuracy and fairness in its own publications; in reports, films, or books it publishes with other organizations; and in articles it commissions for publication by other organizations. Statements by individual authors, however, do not necessarily reflect opinions or factual determinations of the Fund.

© 2021 Milbank Memorial Fund. All rights reserved. This publication may be redistributed digitally for noncommercial purposes only as long as it remains wholly intact, including this copyright notice and disclaimer.

Milbank Memorial Fund
645 Madison Avenue
New York, NY 10022
www.milbank.org