Strengthening the Entry-Level Health Care Workforce:

Finding a Path

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The Assistant Secretary for Planning and Evaluation (ASPE) advises the Secretary of the U.S. Department of Health and Human Services (HHS) on policy development in health, disability, human services, data, and science; and provides advice and analysis on economic policy. ASPE leads special initiatives; coordinates the Department's evaluation, research, and demonstration activities; and manages cross-Department planning activities such as strategic planning, legislative planning, and review of regulations. Integral to this role, ASPE conducts research and evaluation studies; develops policy analyses; and estimates the cost and benefits of policy alternatives under consideration by the Department or Congress.

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Introduction

Demands on the healthcare system have been increasing due to the aging of the population, increased prevalence of chronic disease, and continuing high levels of mental and substance use disorders. There is a maldistribution of existing health care resources, resulting in shortages in some provider types in many settings and geographic areas, which may worsen over time as demands increase. The COVID-19 pandemic disrupted health service delivery and has prompted a re-examination of how best to meet the population's health care needs and build a health system that maximizes value.

Better use of the entry-level health care workers (EHCW) can be a partial solution to some service gaps, but their expanded effective use faces many challenges. The EHCW workforce (defined as healthcare workers with less than bachelor-level education) is heterogeneous. It is made up of many types of workers, who work in a wide variety of health care settings, including long-term care, behavioral health, primary and acute care, and community health. Despite their differing roles, there are common challenges:

- Licensing, certification, training, and job requirements vary across worker type and across states, which can hinder these workers being used to their full potential.
- In general, EHCW receive low pay and may lack benefits and economic security. They may be exposed to personal risk and stress in their work. (The COVID-19 pandemic has reinforced this point). They also often lack clear paths to career advancement and access to high-quality training programs.
- Federal efforts addressing these workers are spread across several Departments, and HHS programs have been limited. Where the Department does support efforts to utilize these types of workers, evaluations of such efforts is, in most cases, scant. The Health Profession Opportunity Grant Program in the Agency for Children and Families is a notable exception.
- Basic data on these types of workers is scarce.

Addressing these challenges is important because of the contributions of these workers in expanding access to care, supporting value-based care in a variety of settings, and in building their own rewarding career path. Benefits can accrue to the health system, patients, and importantly to the workers and their families.

The country has recently lost millions of jobs as a result of the COVID-19 public health emergency. Many of these jobs may not come back for some time, and given the increasing needs in the healthcare sector, expanding the role and size of the EHCW may be one promising approach to increasing employment opportunities, particularly for younger workers.

Background

At the request of Deputy Secretary Eric Hargan, the Office of the Assistant Secretary for Planning and Evaluation (ASPE) contracted with the RAND Corporation to assess opportunities to strengthen and expand the EHCW workforce. The following report assesses gaps in the existing health care workforce, challenges facing the EHCW, current EHCW training programs and contexts where they are used effectively, and potential strategies and policy opportunities to strengthen the EHCW. As part of this work, RAND conducted 10 case studies with EHCW employers, training programs, and funders. This introduction summarizes key findings from the RAND report. It is important to note that RAND's work for this report was conducted prior to the COVID-19 Public Health Emergency (PHE). However, the PHE has had a significant impact on these workers, has reinforced their importance, and has revealed new opportunities going forward. In many cases, the EHCW serve on the frontlines of caring for COVID-19 patients.

Who are Members of the Entry-Level Health Care Workforce?

In this report, the term "entry-level health care worker" (EHCW) encompasses a large and heterogeneous group of health care workers who require less than a bachelor's degree and minimal prior training. Together, these workers constitute a significant proportion of the overall health care workforce. Entry-level health care workers in the long-term care sector, in particular, constitute one of the largest and fastest-growing workforces in the country, playing a vital role in job creation and economic growth, particularly in low-income communities.

A few examples of these types of workers include:

- Community health workers
- Behavioral health peer support specialists, including peer counselors, peer navigators, and peer educators
- Long-term care direct care workers, including home care workers and residential care aides (home health aides, personal care aides, and nursing assistants)
- Medical/dental assistants
- Licensed vocational nurses
- Respiratory therapist assistants

Members of the EHCW work in a wide variety of roles across the health care system. Just a few examples include:

- Direct care (including providing hands-on personal assistance with activities of daily living to the elderly, persons with disabilities, and those with other chronic conditions; and helping people to remain engaged in their communities)
- Care coordination (including scheduling patients, coordinating referrals, updating medical records, and helping patients navigate the health care system)
- Chronic pain management (including treating pain, coordinating other care and providing supportive counseling)

- Peer support (including providing emotional support and supporting self-management and attainment of recovery goals)

Context for the Entry-Level Health Care Workforce

The United States is facing a shortage of health care workers across professions, in general, and among the EHCW specifically. Reports forecast shortages of clinicians and other health workers in communities throughout the U.S., particularly in rural areas, as well as those serving racial/ethnic minorities or working in certain sectors such as behavioral health and long-term care.[1] However, there is a lack of basic data on the EHCW, including how many individuals are working in these jobs and where, making it difficult to assess how they are used, where they are needed, and how to assess their performance.

Although EHCW are not a replacement for clinicians, strengthening and expanding the role of the EHCW is one option for expanding the capacity of the clinical workforce, while addressing individual health care needs and promoting population health.

The Need for Improved Job Quality

The report highlights the overarching challenges related to recruiting, retaining, and utilizing entry-level workers to their fullest capacity. The COVID-19 pandemic has underscored the important role that the long-term care segment of the EHCW workforce is playing in the lives of the extremely vulnerable people they serve. It has also reminded us that they are frontline workers who face extraordinary health risks and mental stress along with the physical challenges and work-related stress inherent in these positions. The need for investment in entry-level workers has never been greater. Yet, there are many challenges facing these workers, which are barriers to raising the floor of job quality.

- **Weak Training Standards** – Entry-level health care worker training and job requirements are not standardized, resulting in inconsistencies in training and unclear scopes of practice. For example, only six states require the 120 hours of training for home health aides recommended by the National Academy of Medicine (the federal requirement is 75 hours). Some states have no training requirement for some EHCW occupations.

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[1] The Health Resources and Service's Administration's Bureau of Health Workforce Analysis regularly produces reports analyzing the supply and demand for various types of health care professional and health care worker. Their reports have addressed some components of the EHCW, such as community health workers (https://bhw.hrsa.gov/sites/default/files/bhw/nchwa/projections/community-health-workers-2016-2030.pdf) and direct care workers (https://bhw.hrsa.gov/sites/default/files/bhw/nchwa/projections/hrsa-ltts-direct-care-worker-report.pdf). HRSA also funds university-based centers for workforce studies. The Center for Health Workforce Studies at the University of Washington (https://depts.washington.edu/fammed/chws/hwrc/allied-health/) specializes in studies related to allied health occupations; the University of Michigan Behavioral Health Workforce Research Center (http://www.behavioralhealthworkforce.org/projects/) focuses on behavioral health; and University of California at San Francisco Health Workforce Research Center focuses on Long-Term Care (https://healthworkforce.ucsf.edu/). This report draws on the work of these three centers.

- **Limited Career Advancement Opportunities** – Unlike some occupations that build distinct ladders for workers to advance on their career paths, often through apprenticeship programs that provide skills-based education that prepares workers for well-paying jobs, EHCWs have limited opportunities to become more "highly-skilled" and more "highly-valued" and to move forward in career paths.
- **High Turnover, Limited Replacements** – EHCWs leave their jobs for other industries, primarily because of poor quality jobs. Challenges with recruitment and retention stem from low wages, limited benefits, inconsistent and inflexible schedules, lack of career ladders or opportunities for advancement, and challenging work conditions that include emotionally and physically taxing work and lack of consistent support and supervision.

Federal Government Programs that Address the Entry-Level Health Care Workforce

The Veterans Health Administration is making major use of peer specialists to help support recovery from mental illness among veterans, and in some cases is expanding peer specialist roles to primary care. Most federal grant support for training and education of the EHCW is found at the Departments of Labor and Education.

While the Department of Health and Human Services (HHS) maintains a broad array of health workforce-related programs, in agencies including the Health Resources and Services Administration (HRSA), the Indian Health Service, and the Agency for Children and Families (ACF), in general, its efforts are not heavily focused on entry-level health care workers. Programs often take the form of loans and scholarships, frequently with a service obligation, and provide support for educational institutions that train health personnel, often through innovative projects. However, these workforce programs are generally targeted to members of the healthcare workforce who have, at a minimum, a bachelor's degree and often to workforce members with post-baccalaureate training including physicians and dentists, advanced practice nurses, physician assistants, psychologists, and social workers.

There are exceptions to this general rule. Notably, the Health Professions Opportunity Grant (HPOG) program, administered by ACF, was created to provide education and training to Temporary Assistance for Needy Families program recipients and other low-income individuals for occupations in the health care field that pay well and are expected to either experience labor shortages or be in high demand. Since its inception in 2010, two rounds of 32 grantees each have been funded in this demonstration program, with the second round of projects approaching completion. The most common training programs funded include those for nurse aides, home health aides, licensed and vocational nurses, registered nurses, medical assistants, pharmacy technicians, and phlebotomists. Evaluation of this program has yielded an extensive portfolio of studies (see: https://www.abtassociates.com/projects/evaluating-hhss-health-profession-opportunity-grants-program). Results of these analyses are mixed. For example, a third-year impact study of the first cohort of grantees found that when compared to a control group, the

HPOG treatment group had completed more training, were more likely to be employed in health care, and experienced greater career progress; however, earnings were similar in each group.[2]

In addition, the Community Health Aide Program (CHAP) within the Indian Health Service serves the dual purpose of helping fill the need for health care services in remote areas of Alaska, while increasing the skill set of entry-level workers through a structured graduated training program. In areas where other care options may not be available, community health aides can progress through training and gain competency in providing first-line care. While the program has been limited to Alaska, there are plans for its expansion to other tribal areas in the United States pending available funding.

One of the more relevant examples of training support for entry-level workers provided by HRSA is the Behavioral Health Workforce Education and Training (BHWET) program. Among its multiple purposes, this program provides behavioral health training for individuals to become community health workers, outreach workers, social services workers, mental health workers, substance abuse/addiction workers, youth workers, and peer workers.

Looking Forward

This report underscores the need to identify short-term strategies and longer-term approaches to:

- bolster and maximize the role of the EHCW to expand healthcare delivery capacity;
- support value-based care across health care settings;
- improve career ladders, working conditions, and wages;
- increase employment; and
- address the impact of the COVID-19 pandemic on this workforce.

The report has made clear the need to better identify workforce needs in the context of a healthcare system that demands value and to work more closely with the Departments of Labor, Education and Veterans Affairs, with whom we share common concerns.

The report recommends future actions including:

Scaling Innovative Efforts:

- Promote accelerated adoption of evidence-based models of care, support public-private partnerships and identify how funding from multiple sources such as CHAP can advance the EHCW.

[2] https://www.acf.hhs.gov/sites/default/files/opre/hpog_three_year_impacts_nov_2019.pdf

Evaluating Existing Models:

- Improve evaluation of promising models. Evaluations of training and standardized training curricula are relatively weak in the empirical literature.

Fostering Learning at the Community Level:

- Localities tend to have specific EHCW needs and challenges, which require local solutions that can draw upon lessons learned from other communities. Gathering leaders of innovative efforts from around the country—employers, educators, employee associations, and other stakeholders—can create learning networks, develop best practices, and identify opportunities for additional, or replicated, investments.

Addressing Gaps in the Research:

- How can open jobs be best filled and how can those who need jobs be best matched to appropriate job opportunities?
- What are the evolving roles that members of the EHCW are playing in facility- and community-based settings? Have competency-based curricula adapted accordingly?
- What are the relative costs and benefits of EHCW roles, both current and expanded, including potential cost savings and population health gains achieved?
- What are the effects of scope of practice laws on the EHCW, and on the populations that the EHCW serves?
- What is the role of alternative payment models in shaping the roles played by EHCWs?

Expanding the Use of Technology:

- The COVID-19 PHE has underscored the role telecommunications technology is currently playing in training and health service delivery. Identifying how this transition to greater use of telecommunications technology can best be applied to the EHCW is an emerging issue. The expanded use of technology requires new workforce skills and tailored training, but also offers opportunities for new roles for these workers and efficient remote training opportunities.

Report

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Preface

This project report provides potential approaches to expand and strengthen the entry-level health care workforce in the United States, with a primary focus on seven occupations: nurses, medical assistants, dental assistants and hygienists, health aides, community health workers, peer specialists, and other specialized providers.

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Contents

Preface ... iii
Figures ... vii
Tables ... viii
Summary ... ix
Acknowledgments ... xvi
Abbreviations ... xviii
Part 1. Background, Methods, Data, and Framework (Chapters 1–3) ... 1
1. Introduction ... 2
The EHCW ... 2
The EHCW and Changing U.S. Health Care Needs ... 2
The EHCW Supply and Demand Mismatch and Barriers to Entry ... 3
Motivation for This Project: Challenges and Opportunities ... 4
Study Objectives ... 5
A Note on Terminology ... 6
2. Methods and Data ... 7
Environmental Scan ... 7
Key Informant Discussions ... 13
Case Studies ... 14
Limitations ... 16
3. Framework ... 17
EHCW Program Objectives ... 17
Part 2. Training and Development (Chapters 4–5) ... 21
4. Objective I: Strengthen Training Quality ... 22
Improved and Broadened Curricula ... 22
Training Requirements ... 25
Licensing and Certification Requirements ... 27
Standardization of the Curriculum ... 28
Apprenticeships with Credit from Educational Institutions ... 29
Continuing Education for EHCW Members ... 30
Training Duration ... 31
Training for Patient-Centered Care ... 32
For-Profit Training Organizations ... 33
Policy Opportunities ... 34
5. Objective II: Expand Training Opportunities ... 36
Flexible and Accessible Training via Technology ... 36
Collaborative Partnerships for Training ... 37
Expanded Recruitment for Training ... 39

Financial and Nonfinancial Resources for Trainees 39
Increased Capacity for Training 41
Policy Opportunities 42
Part 3. Recruitment (Chapters 6–7) 43
6. Objective III: Expand Recruitment Strategies 44
Broadened Hiring Pool Composition 44
Targeted Recruitment 45
Collaborative Partnerships for Recruitment 46
Financial Incentives for Recruits 48
Nonfinancial Incentives 49
Expanded Recruitment Venues 50
Immigrants 50
Policy Opportunities 51
7. Objective IV: Match the Best-Fit Candidates to Jobs 53
Clarified Job Qualifications to Improve Matching with Candidates 53
Evidence-Based Screening 54
Internships with Job Placement 55
Policy Opportunities 55
Part 4. Retention (Chapters 8–9) 57
8. Objective V: Create Career Pathways 58
Career Ladders 58
Support for Ongoing Training for Skill Development 62
Role Expansion Through Skill Development 63
Policy Opportunities 64
9. Objective VI: Improve Work Environment 66
Performance Recognition 66
Positive Work Environment and Supportive Supervision 67
Burnout 68
Work Flexibility and Predictability 70
Policy Opportunities 71
Part 5. Health System Strengthening (Chapters 10–14) 73
10. Objective VII: Improve Workforce Distribution 74
Target Training and Recruitment to Areas of Need 74
Use Compensation to Improve Distribution 75
Policy Opportunities 76
11. Objective VIII: Empower the Workforce 77
Role of Unions 77
Role of Cooperatives 78
Role of Coalitions 79
Policy Opportunities 80
12. Objective IX: Recognize the Financial Value of the EHCW 81

Wages 81
Wage Policy 82
Reimbursement Policy 83
Demonstrating Cost Savings 85
Unpaid Roles 85
Policy Opportunities 86
13. Objective X: Use Technology to Support the EHCW 87
Telehealth and Teleconsultation 87
Devices 88
Coordination and Communication 89
Limits to Technology: Access and Training 89
Policy Opportunities 90
14. Research Needs 91
More Data, More Coordination 91
Addressing Gaps in Research 93
Policy Opportunities 93
Part 6. Conclusions (Chapter 15) 94
15. Conclusions 95
I. Scale Innovative Efforts 96
II. Evaluate New Models of Care 98
III. Convene Stakeholders to Foster Learning 99
IV. Address Gaps in Research 100
V. Expand the Use of Technology 102
Other Considerations 104
Concluding Thoughts 104
Appendix A. Case Studies 106
Alaska's Community Health Aide Program 106
Peer Specialists in the Veterans Health Administration 113
Advancing Peer Support in Integrated Care Settings: The Hogg Foundation for Mental Health's Work in Three Community Health Centers in Texas 122
Kaiser Permanente's Training and Recruitment Efforts in Southern California 127
Care Connections Project in New York City 133
The Individualized Management for Patient-Centered Targets Model in Philadelphia, Pennsylvania 137
Health Professions Pathways Consortium 146
Service Employees International Union Multi-Employer Training Funds 154
Peninsula Homecare Cooperative for Health Aides 160
Mercy Health System in West Michigan 165
Appendix B. Key Informant List 169
Appendix C. Process and Outcome Indicators for EHCW Research 171
References 173

Figures

Figure 1.1. Home Health Aides: Projected State Workforce Gaps by 2025 4
Figure 3.1. Conceptual Framework for EHCW Strengthening 17
Figure A.1. Alaska Village Clinics and Training Centers Participating in CHAP, 2016 108
Figure A.2. Collaborative IMPaCT Decision Aid 142

Tables

Table 2.1. Sample List of Search Terms 9
Table 2.2. Programs Identified by Year and by Occupation, 2009–2019 11
Table 2.3. Occupations and Objectives of Identified Programs 12
Table 2.4. Case Study Descriptions 15
Table 15.1. Policy Options, by Category 95
Table 15.2. Successful Innovative Programs 97
Table 15.3. Research Needed and Implications 102
Table 15.4. Matrix of Objectives and Policy Opportunities 105
Table A.1. Selected Peer Support Job Titles and Definitions, Both Inside and Outside the VHA 114
Table A.2. Kaiser Foundation Overview 128
Table A.3. Co-Grantee Colleges in the Health Professions Pathways Consortium 147
Table A.4. Partner Organizations in the Health Professions Pathways Consortium 147
Table A.5. 1199SEIU TEF and SEIU UHW Joint Employer Education Fund Programs 157
Table B.1. Overview of Key Informants 169
Table C.1. Potential Measures for Success of Workforce Development 172

Summary

Background and Purpose

Projections indicate that the United States faces an anticipated health care workforce shortage. Strengthening and expanding the role of the entry-level health care workforce (EHCW)—a heterogeneous group that we define as health professions at the prebaccalaureate level that directly support patient care—is one potential option to help fill gaps in the existing health care workforce. EHCW members include licensed practical nurses, home health aides, community health workers (CHWs), and numerous other professional groups. Members of the EHCW serve critical functions in the U.S. health care system, such as scheduling patients; coordinating referrals; updating medical records; helping patients navigate the health care system; monitoring symptoms; and providing health coaching, patient education, and literacy support. They also can play a key role in hands-on care, emotional support and cultural competency, self-management, and the attainment of recovery goals. Cumulatively, these functions are essential for supporting individual health care needs and promoting population health. Moreover, when they are effectively coordinated, these functions reduce the workload on doctors, nurse practitioners, and physician assistants, allowing these providers to spend more time in direct consultation with patients.[1,2] However, in such professions as primary care physicians and specialty providers, shortages also exist in the EHCW.

The EHCW constitutes a significant percentage of the overall health care workforce: about half of the health care workforce in the nation's 100 largest metropolitan areas.[3] However, current estimates predict substantial shortages in the health care workforce in general and among the EHCW specifically, with especially concerning shortages in rural areas; in locations with limited health infrastructure; and in specialty sectors, such as behavioral health care and long-term health care.[4-11] Anticipated shortfalls across major segments of the health care workforce—including the EHCW—are partially attributable to the aging of the U.S. population and a growing prevalence of complex, chronic conditions.[12-14]

There are many reasons to strengthen this workforce. Enabling the full potential of entry-level health care workers ultimately supports a vision of team-based care that is consistent with the patient-centered medical home, which includes care coordination between visits and settings by a diverse array of professionals.[3-5] In addition, improving career pathways for EHCW members should bolster opportunities to increase individuals' scopes of responsibility and promote job satisfaction and retention.[15-17] At this point, career ladders are not well defined for many EHCW occupations, with many workers in low-paying positions lacking opportunities for advancement. Real wages have been stagnant over the past 40 years for a preponderance of Americans, and the development of career pathways for EHCW members could counter this

stagnation by offering vocational and financial growth in one of the largest sectors of the U.S. economy.[18,19]

Despite the value inherent in this proposition, there are also significant gaps within the EHCW—including in the training and skill sets, recruitment, and retention of these individuals. Cumulatively, these shortfalls represent a major barrier to enhancing the quality, equity, and efficiency of the U.S. health care system.

The goal of this research was to review evidence on promising strategies—including innovative policies and programs—to strengthen and expand the EHCW and identify potential opportunities for stakeholders to consider based on this review. In the following sections, we describe the approach we took to identify policy opportunities, various key challenges facing this segment of the workforce, strategies to strengthen the EHCW, and policy opportunities based on the findings of our work.

Study Purpose and Approach

To identify policy opportunities, we addressed three research questions:

1. What is known from the academic and gray literature (and on the ground) about **challenges facing the EHCW** in its efforts to support the wider health care workforce and address patient needs?
2. What **innovative strategies are being used** to strengthen the role of the EHCW? What lessons can be learned and generalized from these strategies?
3. What are the **potential public policy opportunities** to further strengthen the EHCW, potential barriers to their implementation, and examples of where such barriers have been addressed?

To answer these questions, we performed an environmental scan of academic and gray literature on relevant programs and policies, conducted key informant discussions, and developed ten case studies of promising programs. Our environmental scan identified 228 programs and 284 articles from the academic and gray literature, and we conducted key informant discussions with 41 experts. We uncovered additional literature and information sources through conversations with experts, bibliographical review, and web searching.

Challenges Facing the EHCW

Current projections indicate that the demand for health care workers—particularly home health aides—is expected to grow over the next ten years, reflecting a sharper upward trend when compared with any other occupational category.[20] However, supply is forecasted to grow at a slower pace, ultimately resulting in larger workforce shortages among several professional groups.[10] These trends make a compelling case for strengthening and expanding the EHCW. In addition to an insufficient supply of EHCW members in particular occupations, there are concerns about the geographic maldistribution of the EHCW.[10] Furthermore, this workforce

includes many low-income individuals[21,22] and many whose current positions provide limited opportunities for advancement. Strengthening this workforce would benefit the workers and address issues of access to health care.

We identified four overarching challenges to expanding and strengthening the EHCW to address workforce gaps:

- **training:** Broadly speaking, the supply of EHCW candidates with appropriate training and skills is insufficient to meet the growing need.[23] In addition, EHCW members have different levels of preparation for their roles, and there is inadequate standardization of training and job requirements relative to that in other areas of the health care workforce. Beyond expanding training programs for the EHCW, there might be opportunities to expand the scope of competency-based curricula to ensure that training meets the needs of employers and patients.[24]
- **recruitment:** EHCW roles are not always considered fulfilling, well compensated, or well supported.[25-27] For instance, national statistics indicate that EHCW members have low incomes relative to the national average across all occupations, although these figures vary by occupation.[20,28] These shortcomings might reduce interest among those applying for EHCW roles and might drive up vacancy rates.[23] Moreover, EHCW positions often have varying licensure and certification requirements, unclear scopes of practice, and limited support and supervision. All of these factors can make EHCW positions unattractive to new candidates and might undermine existing workers' ability to seek work across employers or state lines.[29]
- **retention:** Turnover among EHCW members tends to be high, in part because entry-level health care workers might perceive little opportunity for career advancement and skill development.[30,31] The likelihood of turnover might be compounded by low salaries,[32] limited benefits packages, inflexible or inconsistent schedules, and demanding work environments. High turnover also can place stress on peers and managers who are responsible for repeatedly orienting and training new hires.[33,34]
- **systems:** In addition to the above challenges, we identified system issues that create obstacles to the advancement of, opportunity for, and optimal use of entry-level health care workers, including suboptimal workforce distribution, financing, and technology. These systemic issues shape training, recruitment, and retention efforts.

Strategies to Strengthen the EHCW

To answer our second research question, we identified a variety of policies, programs, and activities aimed at addressing the four identified challenges:

- **training:** One set of programs was designed to expand workforce roles through training; for example, by broadening training curricula or by offering continuing education to members of the existing EHCW. A second set of programs aimed to expand training opportunities to more individuals; for example, by offering more-flexible and more-accessible curricula, expanding recruitment for training, and increasing institutional capacity for training. A third segment of programs focused on strengthening training quality (for example, by reforming curricula, establishing core competencies,

standardizing training content, or offering apprenticeships along with classroom-based pedagogy).

- **recruitment:** We identified two types of programs to address recruitment problems. First, programs have expanded job opportunities by diversifying the racial and ethnic composition of the hiring pool, establishing partnerships between employers and academic institutions, offering financial and nonfinancial incentives for prospective employees, and expanding recruitment venues. Second, to ensure that qualified candidates are matched to appropriate jobs, programs have clarified job qualifications for hiring, used evidence-based screening practices, and established internships with the potential for job placement if those internships go well.
- **retention:** We identified two sets of programs addressing difficulties with retention. One type of program created career pathways for the EHCW, including formal career ladders leading to changes in job titles and on-the-job support for new skills development. A second set of programs created a workplace environment that encourages retention through, for example, performance recognition programs, supportive supervision, and flexible work hours.
- **systems:** Systemic efforts to address EHCW challenges throughout the pipeline included (1) targeted training and recruitment for geographic areas in greatest need of providers and enhanced compensation to incentivize redistribution; (2) workforce empowerment through encouraging the participation of unions, establishing the growth of cooperatives and alternative business models, and strengthening local coalitions; and (3) financial mechanisms to support the EHCW (e.g., through wage and reimbursement policies and cost savings that result from greater involvement of the EHCW). Several larger health systems are in the process of implementing data analytic platforms to optimize the distribution and career pathways of EHCW members and piloting new workforce cadres that support care in the community and at home.

We provide specific examples of each of these kinds of programs in the main body of this report.

Policy Opportunities

Through our work on this project, we identified a variety of potential opportunities that entities could consider undertaking to enhance the role of the EHCW in the United States. These opportunities pertain to encouraging the adoption of best practices and the use of promising technologies, fostering learning through collaborative models, and identifying and funding research priorities. We briefly summarize these opportunities in the following sections and discuss them in greater depth in Chapter 15: Conclusions.

Scale Innovative Efforts

Even when programs had evidence behind them, the strategies implemented to strengthen the EHCW often lacked sustained support. However, we also found several important exceptions. For example, the Florida Community Health Worker Coalition has achieved scale by bringing colleges and universities, government agencies, health organizations, and employees together

around a focused set of objectives for almost a decade, which represents a sustained effort. In another example, Alaska's Community Health Aide Program (CHAP) has conducted evaluations that demonstrate its success,[35,36] and CHAP is being adopted more broadly by the Indian Health Service (see the CHAP case study in Appendix A). To increase the frequency of these sorts of implementation successes, potential opportunities for consideration include

- identifying successful models supported by evidence. As detailed in the following sections, evaluation is needed to identify successful models of care, which should be the focus of accelerated adoption.
- supporting public-private partnerships. Given the degree of innovation in the private sector to address workforce needs, public-private partnerships might be particularly relevant frameworks for scaling models of care that have shown success on a smaller scale in research and academic settings.
- identifying how existing sources of multisectoral funding can be applied to the EHCW. Some of the innovative programs we identified emerged from local creativity rather than because the mechanism that funded it was intended to address EHCW needs (for example, as highlighted in one of our case studies, home care cooperatives funded by resources that are not specifically intended for health care). Individuals that are closest to the needs of local markets and community members often are in the best position to facilitate the vision and structure of programmatic efforts in their community and they may want to consider, where appropriate, how existing sources could be used to test and implement new models of care that incorporate the EHCW.

Evaluate New Models of Care

Where evidence is lacking but innovation is evident, more-rigorous program evaluation could be encouraged. This includes evaluating effective configurations of care, including how entry-level health care workers can be used most efficiently[37] and how their contributions to health care delivery can be maximized.[38] Likewise, and as noted later in the report (see Chapter 4), evaluations of EHCW training initiatives and standardized training curricula are relatively weak in the empirical literature and represent additional areas for inquiry.

Foster Learning

We found that localities tend to have unique EHCW needs and challenges, which require local solutions that could draw on lessons learned from other communities. For example, one key informant from an integrated health system in Michigan said that the state's transitioning manufacturing economy was an opportunity to leverage job training initiatives: The system harnessed a government-supported "Michigan Works" program to bring together educators and employers to sponsor training and jobs placement for new medical assistants. In another discussion, we learned that parts of Washington that have large elderly populations have endorsed home health cooperatives as a business model to advance long-term care and a public-private partnership has helped support this effort.

An entity with convening authority could play a role in supporting such local efforts by gathering leaders of these efforts from around the country—e.g., employers, educators, employee associations, and other stakeholders—to identify opportunities for additional or replicated investments. Conversations could be structured around key topics to allow officials to hear firsthand about various challenges, such as those faced by employers in obtaining appropriately skilled workers, and to identify opportunities to facilitate local solutions that draw on lessons learned in other communities.

Address Gaps in Research

Although much research has been conducted on the EHCW, including critical work by Health Resources and Services Administration–funded Health Workforce Research Centers cited throughout this report, significant gaps remain in the research agenda on EHCW issues. Examples of specific research questions that could benefit from further research include the following:

- What is the current and projected supply and demand for specific EHCW groups, such as home health aides and CHWs, and is it updated on a routine basis?
- How can open jobs be best filled, and how can those who need jobs be best matched to appropriate job opportunities?
- What are the evolving roles that EHCW members are playing in facility- and community-based settings? Have competency-based curricula been adapted accordingly?
- What are the relative costs and benefits of EHCW roles, both current and expanded, including potential cost savings and population health gains achieved?
- What are the effects of scope-of-practice laws on the EHCW and on the populations that the EHCW serves?
- What is the role of alternative payment models in shaping the roles played by EHCW members?

Findings of such research could be disseminated through various mechanisms, including learning collaboratives, as we discussed earlier.

Expand the Use of Technology

Technology can support the expansion of workforce practice and training in rural and remote areas of the United States and make trainings more accessible and standardized. For example, the U.S. Department of Agriculture has developed a downloadable, computer-based curriculum to train peer counselors on best practices that include supporting new mothers' breastfeeding goals, with participation demonstrating improvements in breastfeeding initiation and duration.[39] Technology presents special opportunities in long-term care settings, such as assistive technology for cognitive or functional disabilities, and in behavioral health, by allowing access to providers while offering differing levels of privacy or anonymity.[40-42] Access to and fluency with technology can and should facilitate learning opportunities. Specific steps to promote technology adoption include

- **supporting the expansion of broadband access:** Access to online curricula for prospective EHCW members would be enhanced by greater broadband internet availability across the United States, particularly in rural communities. Fewer than 60 percent of rural Americans have broadband internet at home, compared with 70 percent of suburban Americans.[43]
- **supporting telehealth infrastructure and reimbursement:** Telemedicine relies on a trained person onsite to enable remote providers to assess patients or provide treatments. EHCW members could serve in this onsite role. In addition, telemedicine infrastructure can enable EHCW members to work remotely or can expand the roles they can fill.
- **supporting remote training:** The internet and associated technologies allow for remote education, which can be used for training the EHCW. Although in-person training has advantages, a blended approach using some remote education could address logistical barriers to continuing education.
- **supporting training in technology, including electronic health records (EHRs):** EHCW performance increasingly depends on technological literacy, including understanding and interacting with widespread EHRs, such as Epic. Training in technology, even if not directly related to patient-facing duties, would enable the EHCW to communicate with other members of the health care workforce, access client information, and share their contributions in a formally documented way.

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Abbreviations

ACA	Patient Protection and Affordable Care Act
ACG	Appalachian Consulting Group
ACO	accountable care organization
ANTHC	Alaska Native Tribal Health Consortium
ASPE	Assistant Secretary for Planning and Evaluation
BACH	Baltimore Alliance for Careers in Healthcare
BHA	behavioral health aide
BHP	behavioral health practitioner
BHWET	Behavioral Health Workforce Education and Training Program
BLS	U.S. Bureau of Labor Statistics
BSN	Bachelor of Science in Nursing
CCP	Care Connections Project
CCSA	care connections senior aide
CDC	Centers for Disease Control and Prevention
CHA	community health aide
CHAP	Community Health Aide Program
CHCA	Cooperative Home Care Associates
CHP	community health practitioner
CHR	community health representative
CHW	community health worker
CMMI	Center for Medicare & Medicaid Innovation
CMS	Centers for Medicare and Medicaid Services
CNA	certified nursing assistant
COPE	Community Outreach and Patient Empowerment
CUNY	City University of New York
DA	dental assistant

DH	dental hygienist
DHA	dental health aide
DHAT	dental health aide therapist
DOL	U.S. Department of Labor
EBSP	Evidence-Based Selection Process
ECCLI	Extended Care Career Ladder Initiative
ECH	Employee and Community Health
EHCW	entry-level health care workforce
EHR	electronic health record
ER	emergency room
ESL	English as a second language
FCHWC	Florida Community Health Worker Coalition
FQHC	federally qualified health center
GS	General Schedule
H2P	Health Professions Pathways
HCA	home care aide
HCW	home care worker
HHA	home health aide
HIT	health information technology
HPOG	Health Profession Opportunity Grants
HRSA	Health Resources and Services Administration
IHS	Indian Health Service
IMPaCT	Individualized Management for Patient-Centered Targets
IOM	Institute of Medicine
KP	Kaiser Permanente
LPN	licensed practical nurse
LTC	long-term care
LVN	licensed vocational nurse
MA	medical assistant

MARAP	Medical Assistant Registered Apprenticeship Program
MCO	managed care organization
MRAHPTP	Montana Rural Allied Health Professions Training Program
NGO	nongovernmental organization
NP	nurse practitioner
NWCDC	Northwest Cooperative Development Center
NYP	New York–Presbyterian Hospital
ORR	observe, report, and record
PACIO	Post-Acute Care Interoperability
PACT	Patient-Aligned Care Team
PCA	personal care aide
PCH	Pathways Community HUB
PCMH	Patient-Centered Medical Home
PCS	Personal Care Services
PHCAST	Personal and Home Care Aide State Training
RAS	Recovery Assessment Scale
RCT	randomized controlled trial
RN	registered nurse
SAT	Scholastic Aptitude Test
SEIU	Service Employees International Union
SEIU-UHW	Service Employees International Union–United Healthcare Workers
SNAP	Supplemental Nutrition Assistance Program
TA	technical assistance
TAACCCT	Trade Adjustment Assistance Community College and Career Training
TCN	Transitions Clinic Network
TEF	Training and Employment Fund
UPMC	University of Pittsburgh Medical Center
USDA	U.S. Department of Agriculture

VA	U.S. Department of Veterans Affairs
VHA	Veterans Health Administration

Part 1. Background, Methods, Data, and Framework
(Chapters 1–3)

1. Introduction

The United States is facing an impending shortage of health care workers. Enhancing the entry-level health care workforce (EHCW) could help address this shortage. This report identifies promising strategies—including innovative policies, programs, and initiatives—for enlarging and strengthening this workforce and assesses the evidence base for the effectiveness of these efforts.

The EHCW

The EHCW is a heterogeneous group that includes licensed practical nurses (LPNs), home health aides (HHAs), community health workers (CHWs), peer workers, and numerous other professional groups. We are defining *entry-level* to encompass professions considered an entry point into the health care workforce and that might be a springboard for further professional development. More specifically, EHCW positions might be considered to meet three conditions: they (1) do not require a bachelor's degree or higher degree; (2) require minimal prior work experience; and (3) are in the health care industry and directly support care provision. (See the section on terminology at the end of this chapter for more information about the term.)

EHCW members constitute a significant proportion of the overall health care workforce: In an analysis of the American Community Survey from 2000 to 2011, the Brookings Institution found that health care workers without a bachelor's degree or more-advanced degrees account for nearly one-half of the total health care workforce in the nation's 100 largest metropolitan areas.[3]

According to the U.S. Bureau of Labor Statistics (BLS), as of 2014, median annual earnings among EHCW members varied significantly, from roughly $20,000 to $25,000 among those with a high school diploma to $50,000 or more among those with an associate's degree.[20] Across all health care support occupations in the BLS, the 2018 median annual wage was $29,740, which is lower than the median annual wage for all occupations in the economy.[20] Many individuals in the EHCW have incomes that are low enough to qualify for public benefits, such as Medicaid or the Supplemental Nutrition Assistance Program (SNAP). An estimated 24 percent of home care workers (HCWs) and 17 percent of nursing assistants live in households below the federal poverty line, compared with 9 percent of all U.S. workers.[21,22]

The EHCW and Changing U.S. Health Care Needs

Bolstering and expanding the roles of the EHCW can help meet evolving U.S. health care needs. This is particularly important today in the context of an aging population,[12,13] the growing burden of chronic health conditions,[14] and sizable gaps in the health care service delivery

workforce. Reports have forecasted shortages of primary care physicians and specialists in communities throughout the United States,[44-46] particularly in rural areas and among specific populations, such as racial and ethnic minorities.[47] One way to address these expected shortages is to broaden the scope of work among EHCW members to enable providers to work at the top of their license and training.[1,2,48] Doing so would support team-based care that is consistent with the Patient-Centered Medical Home (PCMH) model, through which clients have their needs met at facilities and within their communities by a diverse array of service providers, including HHAs, CHWs, nurses, and peer specialists.[15-17] In addition, the development of career pathways for EHCW members would offer vocational and financial opportunities in one of the largest and still growing sectors of the U.S. economy.[18,19] However, the United States faces significant challenges in maximizing the potential of the EHCW. There are barriers to worker training, recruitment, and retention. Cumulatively, these challenges represent obstacles to enhancing the quality, equity, and efficiency of the U.S. health care system.

The EHCW Supply and Demand Mismatch and Barriers to Entry

The size of (and demand for) the EHCW—which is measured in the number of jobs available, both vacant and filled—is growing rapidly.[20] According to the BLS, employment in health care occupations is projected to grow by 18 percent from 2016 to 2026 (compared with 7 percent for all occupations), adding about 2.4 million new jobs.[20] For certain positions, the projected percentage change in employment is far greater: Growth in personal care aides (PCAs) is projected to be 41 percent, in medical assistants (MAs) is projected to be 29 percent, and in dental assistants (DAs) is projected to be 19 percent—cumulatively accounting for more than half of all new positions (1.3 million) to the health care labor market.[49-51] This contrasts with more-modest expected growth for physicians (13 percent) and nurses (12 percent), representing roughly 400,000 new positions over the same period.[52,53] Physicians particularly take a long time to train (more than a decade) and increasingly work part-time, which are reasons that physicians represent a decreasing share of this expanding health workforce.[54]

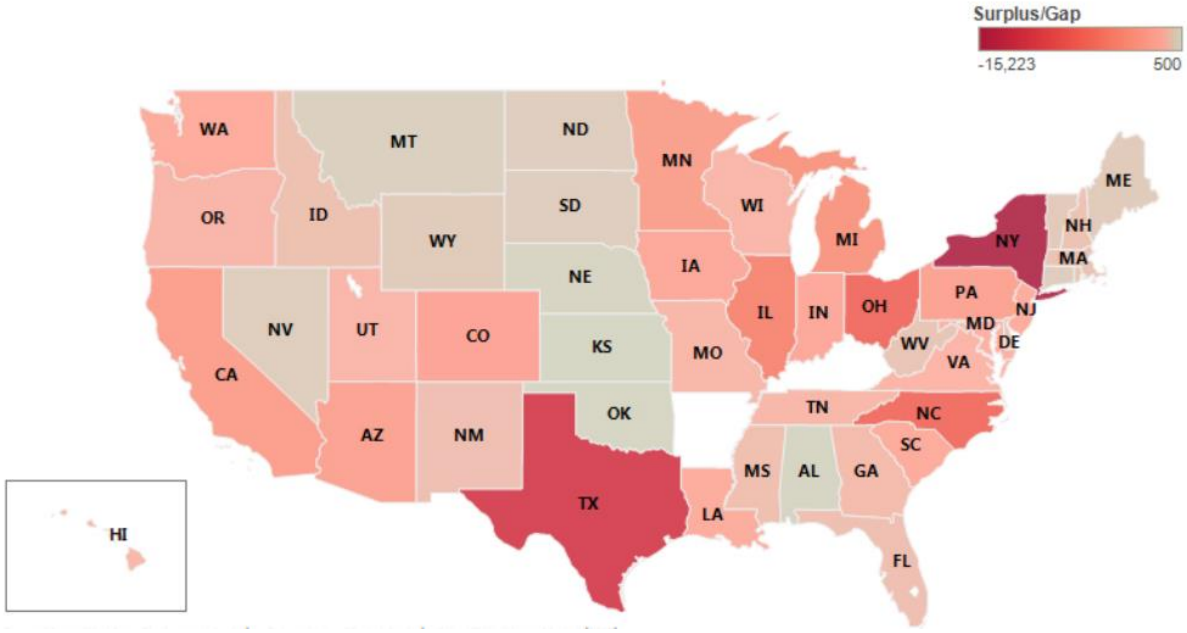
However, numerous EHCW workforce gaps are projected, and demand for these professions is estimated to outstrip supply. For example, by 2025, there will be an estimated shortfall of 446,000 HHAs (see Figure 1.1) and 95,000 nursing assistants.[10] This is further reflected in high vacancy rates, time-to-fill durations, and turnover rates among members of the EHCW.[4] By way of illustration, a 2017 health workforce survey in Missouri found a vacancy rate close to 10 percent.[55] A national survey conducted in 2019 of more than 3,000 hospitals found a 32-percent turnover rate among certified nursing assistants (CNAs).[56] That compares with 22 percent across all professions in the U.S. companies.[57] This increased demand poses an opportunity to employ a population looking for employment or for better-paying, more-stable employment.

In addition to an insufficient supply of EHCW members in particular occupations, there are concerns about the geographic *maldistribution* of EHCW, which is linked with other larger system barriers, including long travel distances to the nearest health care provider, low insurance

reimbursement rates, and lengthy wait times, as well as with non–health system issues, such as the affordability of housing. To illustrate the maldistribution of entry-level health care workers, 2017 data from Texas show that the licensed vocational nurse (LVN) vacancy rate ranged from 3.1 percent in East Texas to about 16 percent in the Panhandle region, and the vacancy rate ranged from 2.9 percent in East Texas to 18.6 percent in West Texas for HHAs and nursing aides.[58]

An additional barrier to entry is familiarity: Many physicians and nurses might not know what entry-level workers do and what training they have and, therefore, they might not know how to employ them effectively.[59]

Figure 1.1. Home Health Aides: Projected State Workforce Gaps by 2025



SOURCE: Mercer Strategy and Analytics, External Labor Market Analysis of the U.S. Healthcare Market.[60] Used with permission.

Motivation for This Project: Challenges and Opportunities

On one hand, the mismatch between EHCW supply and demand represents a formidable challenge for the U.S. health care system. On the other hand, there is an opportunity for stakeholders to design and implement policies and programs that address the underlying factors that contribute to this mismatch. Increasing workforce development resources for EHCW members has the potential to realize multiple goals, including expanding access to care, enhancing worker economic opportunity, reducing health care costs, and improving health care outcomes. There is untapped potential for new positions for entry-level workers that could fill a growing need that responds to the shifting U.S. demand.[61]

Improving opportunities for career advancement among entry-level workers across various sectors, including health care, is a priority of the federal government, as demonstrated by the American Apprenticeship Act of 2017,[62] which provided funding to states for tuition assistance programs and defrayed the cost of instruction in apprenticeship programs.[14] In 2019, the Pathways to Health Careers Act (H.R. 3398) was passed in the U.S. House of Representatives, although it has not become law as of the time of this writing. It renews the Health Profession Opportunity Grants (HPOG) program, which we describe in more detail later, and suggests increasing support for the EHCW.[63]

The U.S. health care system is poised to confront this EHCW employment challenge. Health care is one of the largest and fastest-developing industries in the United States, and the sector is undergoing a transition from traditional fee-for-service payment to value-based models of care delivery.[64] Within these new payment environments, health care will be delivered most effectively and efficiently by a diverse health care workforce that is able to function in interdisciplinary teams and that has appropriate skills and training.[65]

Furthermore, health systems are increasingly emphasizing value-based care by creating PCMHs,[66] emphasizing prevention, and delivering care within the community rather than inside the walls of clinics and hospitals,[23] which lends greater weight to the roles of care coordinators, peer specialists, and CHWs.[67] Recent legislation at the state and local levels might further influence the shape of the EHCW, including through minimum wage reform;[68] licensing; policies that enhance aspects of worker well-being, such as occupational safety;[69] and policies on such issues as service reimbursement levels, payment models, and immigration.[70]

Study Objectives

The Assistant Secretary for Planning and Evaluation (ASPE) contracted with the RAND Corporation to examine existing efforts—including innovative programs, policies, and initiatives—that might offer insight into potential solutions to the impending EHCW shortage. This study addresses the following research questions:

1. What is known from the academic and gray literature (and on the ground) about **challenges facing the EHCW** in its efforts to support the wider health care workforce and address patient needs?
2. What **innovative strategies are being used** to strengthen the role of the EHCW? What lessons can be learned and generalized from these strategies?
3. What are the **potential public policy opportunities** to further strengthen the EHCW, potential barriers to their implementation, and examples of where such barriers have been addressed?

In the main findings chapters of this report, we provide answers to each of these questions. In the conclusions chapter, we organize the policy opportunities that are derived from the findings throughout the report to form a potential policy agenda that can address the challenges in training, recruitment, and retention that underpin the EHCW shortage.

A Note on Terminology

The term *entry-level health care workforce* has limitations as a designation for the variety of roles in which members serve and that many individuals might consider permanent. However, the term is widely used by news sources, universities that train professionals, and hiring agencies.[71,72] Alternative terms, such as *allied health professional*, also have shortcomings. Title 42 of the U.S. Code of Federal Regulations defines *allied health professional* as someone who holds a certificate, post-baccalaureate training, or an associate's, bachelor's, master's, or doctoral degree in health care who "shares in the responsibility for the delivery of health care services or related services."[73] Organizations have raised issues with this term,[37] asserting that it is not well defined and encompasses an overly expansive variety of occupations and degrees.

To enhance the precision of the term *EHCW*, we have selected a focused set of occupations within this umbrella that often are the first steps of a potential career pathway. These are presented at the beginning of the next chapter.

2. Methods and Data

We used two methodological approaches to identify and assess the quality of programs and policies to strengthen and expand the EHCW. First, we conducted an environmental scan of the academic and gray literature to identify relevant policies, programs, and initiatives in this space and the evidence base underpinning them. Second, we conducted a series of key informant discussions with leading experts on health care workforce issues, including researchers in academia, government officials, and heads of talent acquisition departments in large health care organizations. We used a subset of these discussions to develop closer looks at specific successful programs in the public and private sectors. These case studies can be found in Appendix A.

Environmental Scan

Our goal was to identify innovative EHCW programs, policies, and initiatives using internet searches, literature searches, and key informant conversations. We did not conduct a systematic review of the literature. Instead, we implemented a focused search, employing an iterative process that was intended to identify prominent programs.

Search strategy. We surveyed academic and gray literature identified through Google Search and Google Scholar. Specifically, we implemented a Boolean search procedure based on keywords under three domains: job categories or occupations of interest (domain 1), terminology indicative of gaps in labor supply and quality (domain 2), and terminology connoting solutions to these gaps (domain 3). Table 2.1 provides an overview of terms selected. The Boolean search queries combined all terms within domains using “or” statements and linked across domains 1 through 3 using “and” statements.

With respect to occupations of interest, we restricted our search to those health care workforce positions that require training below the baccalaureate level (pre-baccalaureate) and offer some form of direct patient care, services, or care coordination, as noted in Chapter 1. For our search, we included

1. nurses, including LPNs, LVNs, and registered nurses (RNs) without a Bachelor of Science in nursing (BSN)
2. MAs
3. DAs and dental hygienists (DHs)
4. health aides and other direct care workforce members, including CNAs, HHAs, PCAs, HCWs, and psychiatric aides
5. CHWs, including community health representatives (CHRs), community health aides (CHAs), and health outreach workers

6. peer specialists, including peer counselors, peer navigators, peer educators, and health educators
7. other health professionals with a specialist focus, including substance use disorder counselors and social workers in behavioral health.[i]

In conjunction with the systematic Google Scholar search, research team members also conducted a formal academic literature search of four databases—PubMed, Embase, PsycInfo, and Business Search Complete—from 2009 to 2019, using the same Boolean search procedure. We also inspected bibliographies of relevant articles identified from this process for additional search content.

[i] Although social workers usually hold a master's degree, there was interest in exploring the challenges for these roles as well, particularly around behavioral health. In this report, we clearly delineate which occupations are being addressed.

Table 2.1. Sample List of Search Terms

Domain 1: Occupation	Domain 2: Supply Gap	Domain 3: Resolution
Licensed practical nurse	Shortage	Train*
LPN	Gap	Educat*
Licensed vocational nurse	Supply	Certificat*
LVN	Workforce	Recruit*
Medical assistant	Burden	Task shift
Dental assistant	Access	Incentive
Dental hygienist	Distribution	Repayment
Health aide	Turnover	Compensat*
Home health aide	Burnout	Benefit
Home health worker	Demand	Opportunit*
Nursing aide	Need	Program
Nursing assistant		Policy
Psychiatric aide		Policies
Community health worker		Legislation
Community health representative		Regulation
CHW		Licens*
Health educator		Hir*
Peer counselor		Employ*
Peer educator		Ladder
Peer navigator		Curricul*
Health outreach worker		Promot*
Substance use disorder counselor		
Substance abuse counselor		
Social worker[a]		

NOTE: Search terms with an asterisk connote truncation for the Boolean search procedure.
[a] Social workers generally hold masters degrees. They were included in our search to ensure that we identified members in the behavioral health sector.

Policy and program selection. We limited our search to content available in English, with a focus on programs, policies, and initiatives (hereafter referred to collectively as *programs*) implemented in the United States over the past ten years. Although the academic search was specifically restricted from January 1, 2009, to March 1, 2019, we incorporated content from the gray literature from earlier dates where the policy or program was deemed novel and relevant. We evaluated each program based on four criteria: (1) relevance, in terms of serving the occupations of interest; (2) content that focused on strengthening the workforce through training, recruitment, and retention efforts, as well as broader policies; (3) significance, with respect to scope and/or scale, meaning that programs with broader reach and that serve more people were prioritized; and (4) importance, with respect to novelty and innovation (i.e., the program demonstrates creative thought in its design, method, or intent). Based on these criteria, research team members independently assigned programs a classification of highly relevant, relevant, or not relevant. Members of the research team reviewed each other's assignments on a weekly basis to ensure consistency in grading across programs.

Data abstraction. Programs meeting the threshold of highly relevant or relevant were subject to data abstraction. For each program, the following information (where available) was abstracted: program title and description, Uniform Resource Locator (URL), relevance, implementing institution, applicable occupations, program location, program start and end dates (if applicable), program activities, program objectives, funder, level of investment, and whether an evaluation of the program was conducted. For each entry, a second research team member was tasked with reviewing abstracted data, with reference to the original URL or Portable Document Format (PDF) to ensure accuracy and completeness.

Data synthesis. We synthesized content according to program activities (i.e., training, recruitment, and retention). These activities align with the overall EHCW objectives of (1) expanding the numbers and scope of the EHCW (through training), (2) linking more individuals to economic opportunities in the EHCW (through recruitment), and (3) creating financially sustainable and fulfilling careers through career pathways and a positive work environment (through retention efforts). We also identified a broader general category that encompasses issues concerning the distribution, empowerment, and funding of the EHCW outside the training, retention, and recruitment continuum.[74]

To make programs more accessible for readers, we developed an interactive data platform, accompanied by data visualizations that allow the user to sort and filter programs and publications based on the occupations they cover, the year they were published, and more. An interactive map of the United States allows viewers to quickly identify locations associated with programs and select individual states for further inspection.[74] The tool, which we created in Tableau 2019.4,[75] allows viewers to identify policies and programs based on various features, including those outlined earlier.

Descriptive Results from the Environmental Scan

Through a review of academic literature, gray literature, and web searches, we identified 228 programs, policies, and initiatives (hereafter referred to as *programs*) on strengthening the EHCW. One hundred seventy-eight were related to training, 112 to recruitment, 118 to retention, and 54 were related to more-general systems. Programs could (and often did) address multiple objectives. Table 2.2 provides a breakdown of programs over the most recent ten-year period reviewed.

Table 2.2. Programs Identified by Year and by Occupation, 2009–2019

Year	CHWs	HHAs	MAs	Dental Health	Nurses	Peer Support	Other
2009	2	1	1	3	3	1	4
2010	2	8	1	3	1	3	2
2011	3	5	2	1	2	0	3
2012	4	0	0	0	2	2	1
2013	5	1	0	0	0	0	2
2014	5	3	3	2	1	1	3
2015	4	1	1	2	1	2	2
2016	2	2	2	1	1	2	2
2017	3	3	3	0	2	2	3
2018	4	8	4	2	2	1	6
2019	1	0	0	0	0	1	2
Total	35	32	17	14	15	15	30

NOTE: 2019 recorded lower numbers because data collection ended in April 2019. Several identified programs did not record a start date and therefore were not incorporated into this table.

Programs spanned more than 150 organizations in all states—including local and federal government entities, academic institutions, nonprofit and for-profit organizations, and public-private partnerships. Of the 148 programs with a documented start date, 97 (66 percent) were initiated between 2009 and 2019. In addition to programs, we identified 114 manuscripts, policy reports, and white papers within the gray literature that provided valuable content and resources.

We reviewed 1,636 articles from the results of searches across four academic databases. Of these, 159 discussed approaches for strengthening the EHCW or examined root causes of the workforce shortage. Of these 159, 21 described a specific program, policy, or initiative and were incorporated into the program inventory. Table 2.2 presents an overview of the number of programs identified, broken down by occupation, from both the gray and academic literature over the past ten years. We see, among other indications, that the number of identified programs has trended upward over time, particularly for such occupations as HHAs and MAs. For more information about programs and policies affecting the EHCW, and for lists of the academic and grey literature used in this report, see the workforce data website.[74]

We organized the programs based on their main objectives and associated occupations. Table 2.3 provides an overall characterization of the number of programs in each objective; for example, we identified more programs for expanded training opportunities for CHWs and fewer programs for skills development for social workers.

Table 2.3. Occupations and Objectives of Identified Programs

	Objectives											
Cadre	**T: Expand Training Opportunities**	**T: Expand Workforce Roles**	**T: Strengthen Training Quality**	**REC: Expand Job Opportunities**	**REC: Strengthen Candidate Quality**	**RET: Build Sustainable Workforce**	**RET: Create Career Pathways**	**RET: Develop Skills**	**HSS: Expand and Empower Workforce**	**HSS: Recognize Financial Value of EHCW**	**HSS: Improve Workforce Distribution**	**Total**
CHWs	43	19	43	26	20	26	24	26	3	14	4	87
Dental health	16	9	12	7	4	1	4	2	8	2	6	33
HHAs	33	31	22	32	18	22	20	19	5	3	3	65
MAs	19	11	14	11	12	3	13	5	2	0	0	34
Nurses	28	4	14	16	8	9	11	7	5	2	4	46
Peer support	19	11	22	10	11	5	7	5	3	2	3	33
Social worker	4	2	7	3	5	0	0	1	0	0	1	10
SUD counselor	4	2	7	4	4	0	0	0	0	0	0	8
Other	33	10	25	26	12	13	10	7	9	4	10	69
Total	114	66	99	81	52	54	57	58	18	22	17	228

SOURCE: Data were abstracted from the workforce inventory and were collected by members of the research team.[74] Programs can support multiple programmatic objectives and multiple occupations.
NOTES: HSS: health system strengthening. REC = recruitment. RET = retention. SUD = substance use disorder. T = training.

Key Informant Discussions

Key informant selection. We selected key informants based on three criteria: topical expertise, background experience, and institutional role. More specifically, we sought individuals with recognized expertise in health care workforce issues, with a specific orientation toward entry-level workforce members. Moreover, for individuals serving in institutional settings, we aimed to speak with those at a managerial or directorship level who possessed a broad overview of operations and experience addressing workforce-related challenges. We also spoke to some members of the EHCW for our case studies (see Appendix A).

We identified an initial set of candidate informants by reviewing lead and senior authors on peer-reviewed and policy reports captured in the environmental scan, along with lead implementers of the programs and policies that we identified. We then employed a snowball sampling technique, whereby we solicited additional key informants from those initially identified, asking them to offer names of individuals with whom they were acquainted and who they believed would offer valuable insights on the topic. To ensure that we selected a diverse pool of candidates in terms of content expertise and institutional roles, we created a sampling frame from which individuals were drawn into categories across multiple domains, including occupation focus (nursing, home health, office-based care, community-based care), institutional setting (government, academia, health care delivery, nongovernmental organizations [NGOs]), position or role (executive, researcher, advocate), and key topic areas (behavioral health, long-term care [LTC], primary care). Throughout the key informant identification process, we ensured that each domain was represented by asking key informants to identify other individuals who fit into each of these domains.

Procedures. Key informants were contacted by email, and subsequently by phone, from February to July 2019. Individuals were invited to participate in a 60-minute discussion to share their perspectives on EHCW challenges and innovative solutions. The email also identified the sponsor and the research orientation of this work. The research plan was reviewed by RAND's Human Subjects Protections Committee and RAND's institutional review board and was deemed exempt from further review.

Discussions took place on a private conference line with a dial-in access code. Invitees included research team members from RAND, staff at ASPE, and the key informant. In a few instances, multiple experts were included in a single conversation (e.g., when they were members of the same organization or had overlapping topical expertise in a content area of interest). All participants on the call were asked to introduce themselves, after which key informants provided oral consent for the discussion to proceed. Discussions were recorded with permission for notetaking purposes and stored on an encrypted, password-protected server to which only RAND team members had access.

Discussion protocol. Discussions were oriented around a discussion guide that was approved by RAND's institutional review board. Questions followed a semistructured format, allowing key informants to address content in topic areas specific to their expertise and experience, and were customized to key informant expertise and institutions. Major themes covered over the course of the discussion included organizational goals and objectives at the individual's institution, perceived EHCW-related challenges, perceived EHCW-related solutions to those challenges, and overall assessment of the EHCW landscape and where it was headed. Key informants also were asked about relevant published and unpublished resources, and snowball sampling was used to identify other potential key informants.

Using the findings from the environmental scan, outcomes from discussions with ASPE staff, and a careful list of programs for closer exploration, we selected 45 key informants to invite for a discussion; 25 responded affirmatively and participated. Through snowball sampling with the first cohort, we identified an additional pool of 32 candidates, of whom 16 ultimately participated.

In terms of composition, six discussions (15 percent) were conducted with members of government entities involved in EHCW issues, 12 (29 percent) were conducted with experts in different academic areas, four (10 percent) were conducted with leaders at nonprofit organizations, seven (17 percent) were conducted with representatives from advocacy organizations, one (2 percent) was conducted with a spokesperson from a private company, and 11 (27 percent) were conducted with executives and administrators at various types of health care delivery organizations. We provide further detail on the composition of this key informant list in Appendix B.

Case Studies

We pursued in-depth examinations of innovative programs that were intended to expand and strengthen the EHCW. In these case studies, or close analyses of a specific program, we identified program goals and activities, barriers to success, and key takeaway messages that were informed by the perspectives of program implementers. We identified ten programs to be explored in case studies (see Table 2.4) with input from ASPE and informed by the environmental scan. Programs were selected in part because they represented diversity in location, profession, and type of intervention or program. The main goal in our selection process was to ensure that each case would reflect an innovative approach to addressing a different challenge facing the EHCW, with a specific focus on addressing LTC and behavioral health. Whenever possible, we identified key informants at each organization who complemented the published literature and publicly available information on a program.

The discussion guides for case studies focused on individuals' specific knowledge of the policy or program with which they were associated. Case study discussion questions were structured according to the following themes: (1) motivation for inclusion, (2) brief history, (3) distinctive features, (4) challenges encountered, and (5) lessons learned. The ten case study

descriptions and rationale for inclusion appear in Table 2.4, and the full case studies can be found in Appendix A.

Table 2.4. Case Study Descriptions

Program	Relevant Occupations	Distinctive Features and Rationale for Inclusion
Alaska's Community Health Aide Program (CHAP)	CHAs, community health practitioners (CHPs)	This is a unique program that offers flexible training and career progression to employees who come from the communities that they serve.
Peer specialists in the Veterans Health Administration (VHA)	Peer specialists	The VHA is a leader in integrating peer specialists into substance use disorder programs.
Kaiser Permanente (KP), Southern California	CHWs, MAs, other entry-level health professionals	KP Southern California is part of KP, an integrated health care system, and takes many approaches to developing its entry-level workforce, including building relationships with schools, running their own training institution, and conducting extensive internal hiring.
Health Professions Pathways (H2P) Consortium	LVNs and LPNs, nursing aides, CHWs, MAs, DAs, nursing assistants, other entry-level health professionals	This consortium of nine community colleges in five states aims to share and implement best practices to improve training in the health professions. Initiatives include partnerships with health care facilities to create flexible medical assisting programs for incumbent workers and streamlined curricula for LVNs seeking an associate's degree.
Care Connections Project (CCP)	HCWs	The CCP was designed to test an advanced role for experienced HCWs and enhance skills for entry-level HCWs, with a goal of strengthening care transitions for consumers.
Individualized Management for Patient-Centered Targets (IMPaCT)	CHWs	IMPaCT's CHW model was designed to address such challenges as staff turnover, poor integration, and infrastructure. The Penn Center for Community Health Workers also conducts its own research on the IMPaCT model, and it provides technical assistance to help organizations create and sustain their own CHW programs.
Service Employees International Union (SEIU) Multi-Employer Training Funds	LPNs and LVNs, MAs, dental hygienists	The SEIU implements programs, such as the Training and Employment Funds, to ensure that EHCW members have cutting-edge resources to expand their skills.
Advancing peer support in integrated care settings: The Hogg Foundation's work in three community health centers in Texas	Peer specialists	The Hogg Foundation awarded $300,000 to each of three Texas community-based health centers to advance peer support in the delivery of integrated health care, with a focus on mental health services.
Peninsula Homecare Cooperative for health aides	HCWs	In this Washington state rural home care agency, the workers are the owners, meaning that they have a stake in the company's success, share company profits, and determine how it is run.
Mercy Health System in West Michigan	MAs	This large integrated health system has collaborated with community colleges and other employers to implement an apprenticeship program for MAs.

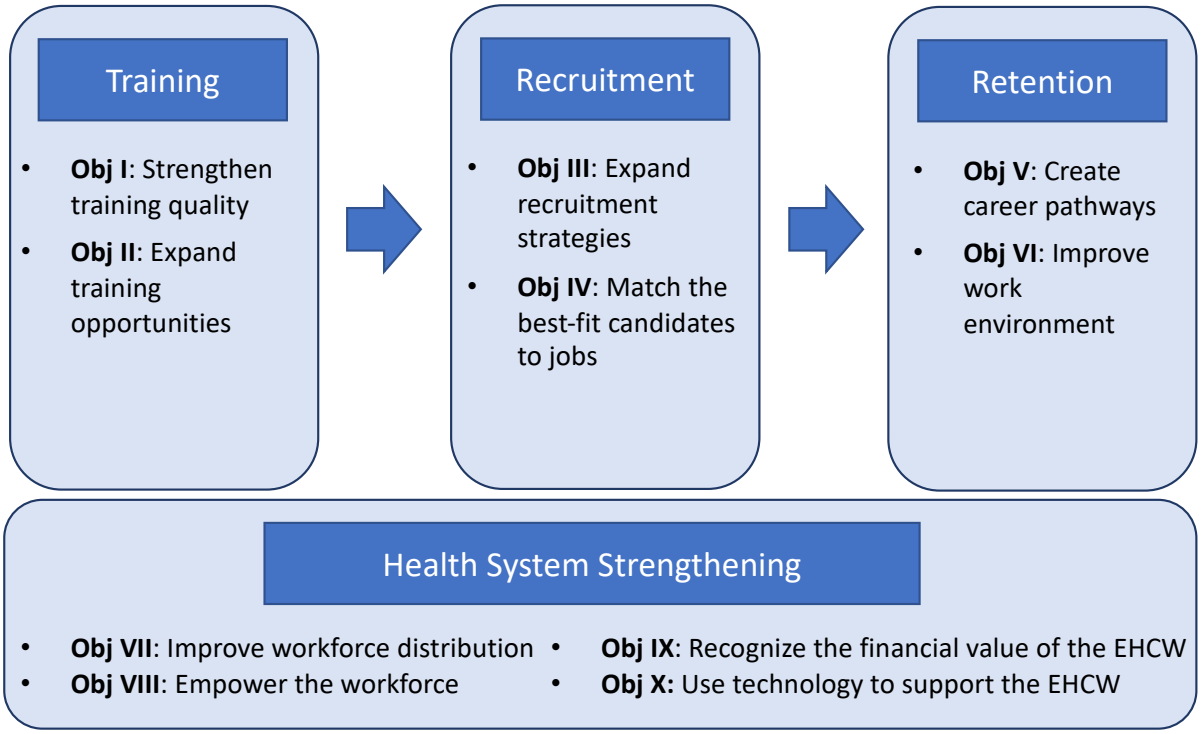
Limitations

Several limitations to our approach exist. First, our review was thorough but not exhaustive: Search engines produced hundreds of pages of returns, and we limited ourselves to the first ten pages of each search, prioritizing returns based on relevance to the topic at hand. Second, our search was parameterized based on a fixed set of terms, implying that we might have overlooked programs that did not include language corresponding to these terms. Third, we were unable to contact some individuals for case studies. Therefore, our conclusions are limited to what we heard from a small sample of organizations serving the EHCW.

3. Framework

The challenges facing the EHCW are multifaceted.[70] Using the programs we identified in the environmental scan, the literature we identified through the literature search, and conversations with key informants, we derived an overarching framework organized around ten program objectives, which we describe in more detail in this chapter. These objectives were grouped under four overarching workforce challenges. We use these four challenges—training, recruitment, retention, and health system strengthening—as an organizing principle for presenting findings (see Figure 3.1).

Figure 3.1. Conceptual Framework for EHCW Strengthening



NOTE: Obj = objective.

EHCW Program Objectives

We determined the objectives of EHCW programs using a grounded theory approach in which we identified and grouped programs, policies, and additional evidence into themes that emerged from the data, aggregated from the environmental scan and qualitative discussions.

Using content analysis, an approach for synthesizing qualitative data,[76] we refined our analysis of the program objectives and related activities as we reviewed more information. For each program, we gathered and analyzed four kinds of evidence: (1) the rationale for the type of program; (2) examples of programs within each program type; (3) evidence from the literature that indicates the effectiveness of the program, including evaluations, when available; and (4) expert opinion from key informant discussions and advocacy groups. Limited evidence was found regarding programs in behavioral health and the challenges facing this workforce. We derived action steps based on the programs that possessed the strongest evidence, along with indications of feasibility for scale-up in terms of resource requirements. We identified ten objectives from the programs we identified, which we describe in more detail in the following sections.

Training

Training is the first step in the EHCW pipeline. We conceptualize training to include formal education in a classroom setting and less-formal on-the-job training that more closely resembles an apprenticeship or mentorship model. We also consider new kinds of roles and positions that workers can fill as they develop new skills.

- **Objective I. Strengthen training quality:** Training quality can be improved by upgrading curricula, standardizing training, increasing training duration and intensity, implementing patient-focused training, and developing apprenticeship-based training programs. Quality also can be enhanced by expanding training to additional content areas that appropriately equip individuals with new skills for broader scopes of practice, particularly in conjunction with licensing and certification requirements.
- **Objective II. Expand training opportunities:** Training opportunities can be expanded by lowering financial, logistical, cultural, and language barriers to EHCW training and by broadening existing programs and establishing new partnerships and programs to increase capacity for training opportunities and open jobs to new applicants.

Recruitment

Recruitment is the next stage of the EHCW pipeline. Recruitment means identifying individuals who are well trained from a diverse array of backgrounds and life experiences and guiding them to EHCW opportunities that are good fits for their skills.

- **Objective III. Expand recruitment strategies:** Numerous activities can increase the awareness and attractiveness of job opportunities to individuals from a diverse array of backgrounds. These activities include expanding recruitment outreach to a more-diverse group of potential employees in new venues, providing financial and nonfinancial incentives, and establishing partnerships for recruitment.
- **Objective IV. Match the best-fit candidates to jobs:** Successful recruitment ensures that recruits have the skills to fill open positions and that they are ready to thrive in their new roles. This can be accomplished through the refinement of job qualifications,

recruitment standards, and selection techniques; promotion from within institutions based on observed performance; and tests of readiness through internships.

Retention

Job retention is the third stage of the pipeline. Addressing retention problems can reduce costly leakage in the EHCW which can result from burnout, low wages and benefits, competition with other industries, and underrecognition of contributions. Providing skills development and career ladders for employees is critical to successful retention.

- **Objective V. Create career pathways:** A career ladder or pathway is a clear opportunity for steps to job promotion leading to higher levels of pay, responsibility, or authority, but these opportunities often are lacking for the EHCW. Career pathways for EHCW members should ensure that talented individuals have the opportunity for promotion, greater responsibility, and improved wages over time. Mechanisms to achieve this goal include developing programs that lead to career growth and subsidizing educational opportunities outside employment that lead to career progression after initial training. Individuals who acquire new skills and stackable credentials (i.e., a sequence of credentials that can be accumulated over time for advancement along a career pathway but that are not necessarily designed for a specific degree) also might receive formal recognition through promotion in title and/or a wage increase. New skills can increase job satisfaction and give new opportunities to high-performing workers. Although career pathways could result in turnover within a specific job role, individuals might decide to continue progressing in their careers with the same employer, or, at the very least, continue to contribute to filling gaps in the overall health care workforce.
- **Objective VI. Improve work environment:** Efforts can be made to create positive work environments in a variety of ways; for example, through performance recognition, work flexibility and predictability, safeguards against burnout, education for other members of the care delivery team in advance of recruitment regarding the unique contributions of the EHCW, and competitive compensation and benefits that increase with experience.

Health System Strengthening

This category represents programs, initiatives, policies, and legislation that are structural and meant to alter the underlying landscape in which the EHCW pipeline operates. These often are government-led initiatives at the state or federal levels, or sometimes are public-private partnerships that bring together multiple actors to make comprehensive, systemic reforms. Scope-of-practice and licensing and certification issues, which we discussed earlier in the training section, are also relevant here.

- **Objective VII. Improve workforce distribution:** Improved distribution of the EHCW refers to legislation, programs, partnerships, and forms of regulation that aim to address the existing maldistribution of the workforce—for example, the scarcity of EHCW members in rural, low-income, and minority communities.
- **Objective VIII. Empower the workforce:** There are several paths to achieving an expanded and empowered workforce—meaning the degree of power EHCW members

have to represent their own interests—such as legislation and regulations; programs and partnerships; and bottom-up efforts from the community of workers, such as cooperatives, coalitions, and unions.

- **Objective IX. Recognize the financial value of the EHCW:** We explore the varied mechanisms by which EHCW members are paid for their work, including wage policy, payment and reimbursement models supported by the public and private sectors, and efforts to evaluate cost savings associated with leveraging the EHCW.
- **Objective X. Use technology to support the EHCW:** Technology is increasingly being used in health care and, in many cases, it can reduce the burden on, expand the role of, and empower the EHCW. We explore tools that can be used to support the EHCW.

The following ten chapters address each of these objectives. These chapters identify innovative approaches, specific activities, and potential policy implications for each of these objectives. In Chapter 14, we discuss research needs, and in Chapter 15, we identify policy opportunities to further these objectives.

Part 2. Training and Development
(Chapters 4–5)

4. Objective I: Strengthen Training Quality

Successful training provides a starting point for EHCW members to begin careers with the competencies necessary to thrive in their work environments and serve health systems well.[77,78] Effective training has the potential to improve job satisfaction and retention.[79] Given increasing population health care needs and the ongoing workforce shortages in the United States,[80] effective training also implies *broadening* and *strengthening* the competencies of the EHCW to better respond to health care trends, such as increased home-based care[81] and treatment for high-prevalence conditions, such as diabetes.[82] Training can be both formal and informal, and both types of training play important roles in career development. In this chapter, we focus on educational training, on-the-job training through more-formal mechanisms, and less-formal opportunities.

Current training efforts vary considerably in terms of their quality, especially for nonlicensed roles. For example, home care aides (HCAs) have little supervision and, in the absence of national guidelines, training efforts are highly heterogeneous; research indicates that these individuals frequently receive little to no training.[83,84] PCA training is particularly lacking relative to that of HHAs and CNAs, according to the University of California, San Francisco Health Workforce Research Center. Members of the center remarked that "there exists wide variation in minimum training requirements between states and between programs within states."[85] Nurses often are allowed to delegate tasks to direct care workers that they oversee, but those workers have little training and the nurses themselves have no management training.[84]

There are several ways to improve the quality of training and potentially expand workforce roles through training; specifically, by (1) improving and broadening curricula; (2) standardizing training, licensure, and certification requirements; (3) developing apprenticeship-based training programs; and (4) providing continuing education to existing members of the EHCW. In this chapter, we also note the proliferation of for-profit training organizations (according to information provided to us by an anonymous key informant in a phone conversation on June 24, 2019).

Improved and Broadened Curricula

Several key informants raised the issue of training quality, although there was insubstantial evidence concerning the quality of existing training programs. Ensuring the quality of curricula, which we define as the learning experiences planned and implemented by educational providers,[86] entails designing the structure and content of training to effectively convey knowledge and skills to students. A competency-based curriculum for a profession with clearly

defined competencies aims to impart the knowledge, skills, and attitudes that define a profession, while assessments measure the performance of those competencies.[87]

Most EHCW training curricula are developed and offered by community colleges and technical institutes.[88-91] In the community college context, professional curricula are determined by committees, often with oversight from a state community college board. Curriculum content therefore largely reflects the competencies perceived at a local level to have the greatest value for entry into the profession. Therefore, there is a potentially fruitful connection between community colleges and health care delivery organizations, the needs of which the curricula are intended to meet. This connection could create a built-in incentive to broaden curricula to respond to the increasingly diverse needs of these employers. For some on-the-job training that attempts to broaden the competencies of the existing workforce, content is determined at the discretion of employers, typically with an emphasis on specific skills that employers need.

Broadening the competencies incorporated into EHCW training curricula achieves several goals. First, it allows prospective employees to prepare for a variety of tasks that might be required of them. Against the backdrop of evolving and increasingly complex health system needs, the roles and responsibilities of EHCW members have expanded. For example, MAs in primary care settings might function as health coaches, medical scribes, language translators for patient-provider interactions, health navigators, panel managers, health screeners, referral coordinators, and supervisors of other entry-level health care workers.[92,93] To accommodate these expanded roles, curricula should incorporate relevant workplace competencies, taking into account laws that might limit expanded scopes of practice.[94-96]

Second, a broadened scope increases the autonomy of EHCW members by enabling them to assume more-advanced functions in their work environments. For example, the Win a Step Up program—a 33-hour workforce development curriculum and initiative for nursing assistants in North Carolina—has trained nursing assistants to assume supportive leadership roles, which has resulted in higher retention rates among participants.[97,98] Expanded training of the EHCW has the further benefit of promoting task-sharing responsibilities within team-based provider settings, thereby allowing primary care providers to allocate a greater proportion of their time to consultation with clients. Third, to the extent that training content is modular, expanded training creates opportunities for workforce specialization. This approach has been instituted in a variety of community colleges and universities—such as the certificate programs at the University of Illinois[99] and Northampton Community College[100]—where students can select a course track that provides educational content intended to equip them to serve specific populations or for certain settings.

Expanded training curricula have contributed to the broadening of EHCW roles throughout the United States. These efforts include initiatives instituted at individual health centers and community colleges,[101] along with regional- and state-level efforts. For example, through support from the Health Resources and Services Administration (HRSA), the High Plains Community Health Center—a federally qualified health center (FQHC) in Colorado—has cross-trained

medical assistants to take on office roles, including such positions as health coach, patient navigator, and CHW.[102] This has increased productivity from an average of 1.8 patients per provider hour to 2.7 patients per provider hour and has led to increased revenue while facilitating improved patient outcomes.[102] Different providers (e.g., medical doctors [MDs], nurse practitioners [NPs], physician assistants) experienced differing levels of productivity. Regional and national efforts have also shown promise,[103] including the Loving Support Peer Counseling program, which the U.S. Department of Agriculture (USDA) has implemented in selected state Women, Infants, and Children (WIC) agencies. This program has trained peer counselors on best practices for breastfeeding, resulting in higher breastfeeding rates and longer breastfeeding durations among new mothers who are recipients of the program.[104,105] Training initiatives are taking place throughout the United States to expand the scope of the EHCW, and the collective body of evidence suggests that such efforts can lead to improved patient outcomes, cost savings, and greater efficiencies in care provision.[106-111]

Once a core set of competencies has been identified, the curricula can use different forms of pedagogy. For example, adult-centered learning methods and field experiences—in which students actively learn skills and competencies, as opposed to passively listening to lectures and reading text—can enrich these core competencies.[112,113] Apprenticeship models that build on competencies gained through curricular training are discussed later in this chapter.

One example of a program that combines a competency-based curriculum with other curriculum quality improvement strategies is Personal and Home Care Aide State Training (PHCAST). Although states adapted what was the Paraprofessional Healthcare Institute's (now PHI's) *Providing Personal Care Services to Elders and People with Disabilities* core-competency curriculum to meet individual state requirements,[114] each of the grantees covered ten core competencies, from health care support skills to self-care skills for the aide.[115] Importantly, several curricula incorporated modules focused on job readiness and customer service in addition to the core competencies. Grantees also incorporated other methods of improving curriculum quality, such as lab-based learning, practical assessments, academic counseling, and principles of adult learning theory and learner-centered instruction.[116] Outcomes suggest that this multitude of methods strengthened training quality at least to some extent: Four of the grantee states that assessed knowledge scores reported an average increase of between 11 and 28 percent.[115] Supervisors found that PHCAST aides required less assistance once they were on the job, believed that those aides were more likely to remain on the job, and observed that they were well positioned to advance along career pathways. The evaluation of this program, however, did not disentangle the impact of other training and recruitment programs and policies, such as child care assistance and the recruitment of qualified individuals, implemented alongside the core competency–based curriculum and other curriculum improvement activities.[115]

Another example of a competency-based curriculum was created for Navajo Nation CHRs by a New Mexico–based nonprofit organization called Community Outreach and Patient Empowerment (COPE). COPE's curriculum covers health education, behavior change, and self-

care, and it also uses competency assessments. An interview-based study found that 80 percent of CHRs felt strongly positive that the COPE model training was useful.[117] Such evaluations suggest that curriculum quality improvement mechanisms can be valuable tools to improve training quality.

Key informants expressed enthusiasm for the implementation of competency-based core curricula. In a phone conversation on July 10, 2019, one H2P Consortium stakeholder expressed admiration for a program in Kentucky that facilitates the adaptation of the H2P core curriculum for health professions throughout its community college system. Stakeholders also identified other ways to improve curricular quality. One individual from PHI shared in a phone conversation on May 28, 2019, that they incorporate role-playing and demonstration in their curriculum. Another key informant, from Alaska's CHAP, noted in a phone conversation on June 20, 2019, that training quality depends on how tailored the curriculum is for community health assistants. To reduce the quantity of learning required by trainees, they included only training content that was "urgent" or "emergent" in the curriculum.

At the same time, several key informants remarked that expanding roles for the EHCW was an important goal, although the link of new roles to increased training often was implicit rather than explicit. For example, one individual with knowledge of a large, integrated health system observed in a phone conversation on May 3, 2019, that the system had made organizational efforts to embed CHWs in primary care and to leverage this integration by training CHWs in specific competencies, such as diabetes self-management techniques, motivational interviewing, and problem-solving therapy. In a similar fashion, a key informant in the U.S. Department of Veterans Affairs (VA) noted that peer specialists are trained to assume new roles in the primary care setting, such as supporting whole-person care, which includes connecting patients with supportive housing programs, vocational services programs, intensive case management, and rehabilitation services. Referencing this expansion of scope through training, this person remarked in a phone conversation on June 7, 2019, that "peer support is growing, expanding, becoming more specialized, and it is Medicaid billable in 45+ states."

Training Requirements

The standardization of training requirements has two purposes: to ensure that all trainees have a minimally adequate set of competencies that facilitate workforce readiness and to establish the groundwork for certification and licensure, which permits trainees to move more easily across state lines and between employers.[118-120] Standardization also helps ensure quality training, although the evidence for this is limited,[121-123] and it is not clear who should be responsible or at what level standardization should occur. Roadmaps to restructure curricula so that they are better tailored to workforce functions, as described earlier, often go hand-in-hand with some standardization; recommendations for the EHCW emphasize regional standardization.[124]

Indeed, training standards for certain EHCW positions, such as direct care workers, CHWs, and peers—where they exist—vary considerably across states.[125,126] Some states have no standardized training for certain occupations. For example, according to a May 3, 2019, phone conversation with one key informant, only 37 states have educational standards for peer specialists. Only six states require the 120 hours of training for HHAs that is recommended by the National Academy of Medicine, and the federal requirement for HHAs in the Medicare program is 75 hours of training.[127] When they are in place, training standards also tend to be inadequate, according to one key informant, who said in a phone conversation on June 24, 2019, that there is "no sense of sector-based efforts. Education providers say they reach out to employers; employers say it's not their job to educate. But it kind of is. And on-the-job training is inadequate across the board." This lack of standards makes it difficult for employers to assess competency and hinders hiring. Furthermore, no single group is responsible for standardization. Such an effort could be led by state licensing agencies or professional societies as in other specialties, such as the curriculum competencies in nursing detailed by the American Association of Colleges of Nursing for baccalaureate and graduate-degree programs.[128]

Although organizations and experts endorse the importance of standardization, the evidence base on the specific impacts of standardization for the EHCW is limited and is largely derived from nonempirical studies or expert opinion. One more-rigorous example comes from the implementation of the Personal and Home Care Aide State Training demonstration program supported by HRSA.[129] Within this demonstration program, Michigan's Building Training, Building Quality program created a Model Personal Care Services (PCS) curriculum comprising 77 hours and 22 modules of adult learner–centered training.[130] The curriculum was successfully implemented in four separate regions of the state and it conducted an evaluation using a pre-/post-test design. The program demonstrated that the PCS curriculum led to a 25-percent increase in correct responses on core knowledge content areas, with almost all participants reporting that they believed that they had mastered new skills (91 percent) and felt better able to support clients in maintaining or improving self-care (94 percent).[130,131]

One occupation for which there is relatively more evidence is CHWs. A study published in 2009 by the Massachusetts Department of Public Health conducted a literature review, held focus groups, and conducted surveys to develop recommendations for the state's future CHW workforce development efforts. CHWs, CHW employers, CHW funders, and providers agreed that certification could maximize CHW contributions by creating a standardized knowledge base.[132] Another study assessed the impact of the state certification of CHWs on primary care team climate and found little effect.[133] A third study, relying largely on qualitative interviews, concluded that CHW certification at the state level provides the potential for enhanced recognition of work and earnings, along with feelings of personal fulfillment among members of the profession.[134] More empirical data are needed.

Alaska's CHAP initiative represents an example of how the standardization of training curricula has led to expansions in scope of practice—in this case for CHAs. When CHAP was

initiated in the 1950s, the training of CHAs focused on skills for addressing specific health issues affecting rural Alaskans, including tuberculosis and high infant mortality.[135] Since then, a process for routinely updating the statewide standardized curriculum has expanded the list of competencies to include a much broader set of skills.[136] CHAs at the highest level of certification—with the title of CHPs—support certain primary care and emergency medical service needs in 170 rural Alaskan villages. Evaluations of CHAP document success in achieving positive health outcomes for rural communities where CHAs are located,[137] and the model is planned for scale-up in tribal regions of the lower 48 states by the Indian Health Service (IHS).[138,139]

We found a variety of additional efforts to standardize curricula—in states from New York[140] and California[141] to Iowa[116] and Minnesota.[142] These efforts are most needed for EHCW positions where standardization is lacking, such as for direct care workers[143] and CHWs.[144] Several of these efforts reported process evaluations and, more rarely, impact evaluations.[145] Where evidence for curricular standardization exists, it is generally positive, particularly in conjunction with efforts to formalize roles of specific types of EHCW members.

Licensing and Certification Requirements

Licensing is a process overseen by the government, usually at the state level in the United States, conferring the right to work in a given occupation. *Certification* is not regulated by the government; it acknowledges acquired skills above those legally required to work in a given occupation. This is a similar concept to physician specialization. These processes offer avenues for educational institutions, employers, state agencies, and provider associations to establish the knowledge and competencies needed for individuals to work in a given occupation and to solidify the formality of particular roles within a health system.[146,147] Licensure and certification bodies can take several actions to increase the standardization of training requirements. For example, bodies can set minimum hours of practice to ensure that individuals have relevant experience and can require license and certification renewal at regular intervals to ensure that individuals are staying abreast of current information in their fields and are maintaining proficiencies.[148] In addition, licenses and certificates help establish a set of expectations for employers with regard to the competencies of new hires.[147] Some EHCW professions have nongovernmental national bodies, such as for nursing assistants and nurses, that provide licensure or accreditation of training institutions.[149-151] Others, such as home health aides and CHWs, do not have such bodies. Lack of national organizations is partly a product of the way that these positions have organically emerged in the United States to meet local needs.[146,152]

An unrealized attempt to move toward national certification standards was reflected in the Patient Protection and Affordable Care Act's (ACA's) Title V (Subtitle D, Sec. 5302), which included support for demonstration projects to expand certification programs for personal and home care aides throughout the United States, including guidelines with respect to training

duration, trainer-to-student ratios, trainer qualifications, content of written certification exams, and continuing education requirements.[153] No funds were appropriated for this program, and it was never implemented. States have taken their own actions toward adding certification categories.

Additional grassroots efforts can be found with respect to other types of positions. For instance, 13 states have voluntary certification programs and 11 states are examining statewide certification.[154] The 11 states include nine with official training and certification programs, with Minnesota representing an example in which CHW training programs were standardized throughout the state.[155] Meanwhile, the Michigan Community Health Worker Alliance—comprising health care organizations, insurers, professional associations, and foundations—has worked to advance CHW certification and core competency standards since 2012.[156] This has included the development of a Michigan CHW alliance certification registry,[157] a statewide database of CHWs who have achieved core competencies.

Information about the specific impacts of certification and licensure efforts on wages, retention, and patient outcomes is limited. One conclusion from the literature is that licensure at the national level (whether through a single body or through a shared standard or interstate compact) appears to lead to greater mobility of licensed providers,[158] which theoretically could drive workers toward high-need communities if there were appropriate incentives. However, significant variability in licensing persists across states.[159,160]

Variability in licensure across states was reflected in key informant discussions, where, for example, one workforce expert remarked in a phone discussion on June 24, 2019, "In some states [health aides] can do very complex stuff but in some states . . . you cannot even put eye drops in somebody's eyes for dry eye." Whether positive outcomes are observed as a function of licensing and certification also might reflect the rigor of the certification process itself. For instance, one key informant who was discussing peer specialist roles stated in a phone conversation on May 3, 2019, that "Certification training that peer specialists get varies by state, but it is usually a one- or two-week course. Usually, on-the-job training and good ongoing supervision is also needed for peer specialists to continue to build their skills." Greater consistency of standards across states that respond to the amount of training required for satisfactory job performance could address both sources of variation.

Standardization of the Curriculum

Stakeholders have expressed support for the standardization of training. PHI, a nonprofit that works with direct care workers "to transform eldercare and disability services,"[161] recommends that the federal government adopt training standards for PCAs and that state governments increase the number of HHA training hours to 120 to meet the National Academy of Medicine's recommendation.

Standardization is relevant to a variety of worker types. For example, Medicare has a standardized number of HHA training hours through requirements set for participation.[162,163] At a 2018 summit at the University of California, San Francisco, on how the community-based health care workforce can meet the needs of seriously ill patients, experts recommended that competency-based training requirements be made uniform across the country.[164] In separate phone conversations on May 28, 2019, and June 13, 2019, key informants recounted the challenges posed to workers who would not be able to easily move across states. Similarly, the nonprofit organization COPE is helping the Navajo Nation implement a CHW certification program by working with a tribal liaison within New Mexico's Office of CHWs. According to a phone conversation with a key informant on April 18, 2019, COPE recently ensured that New Mexico would approve CHRs trained in other states to work in New Mexico.

Apprenticeships with Credit from Educational Institutions

Apprenticeships are an "earn and learn" model of training that enable entry-level students to gain hands-on experience and become proficient in their skills while earning an income.[165] The U.S. Department of Labor has supported apprenticeships through its Registered Apprenticeship program as a "way to train long-term care workers and address some of the workforce issues including recruitment and retention, training a quality workforce and improving quality of patient care."[166] The Department of Labor states that the apprenticeship model has the potential to increase skill levels without high costs, create jobs with higher wages, and reduce the work burden on nurses and doctors.[166]

We found little peer-reviewed literature evaluating the impact of apprenticeships for entry-level health care workers, although the few peer-reviewed evaluations we found are positive, such as those of mental health providers in low-resource countries.[167] In other fields and industries, apprenticeships have been shown to decrease youth unemployment and increase wages,[168] although they are used less often in the United States than in other countries.[169] Stone and Harahan highlight the Department of Labor's Long-Term Care Regional Apprenticeship Program as a way to improve the supply of people entering the field.[84] Similarly, in 2010, ASPE reviewed the Long-Term Care Registered Apprenticeship Program, of which the largest subset of apprenticeships were for CNAs. Although limited outcome data were available, the sponsors reported that the apprenticeships produced a more-skilled workforce.[170] However, the program was limited by a lack of qualified candidates and a lack of sustainability.[170] Other local initiatives have also shown modest indications of success, such as a State of New Jersey partnership with Rutgers University to implement a CHW apprenticeship. The New Jersey Department of Labor and participating employers supported 50 percent of CHW salaries for the first six months, with the health systems providing the remaining funding.[171]

Experts and stakeholders agreed that the apprenticeship strategy holds the potential to improve the quality of training. According to Shana Welch, executive director of talent

acquisition and workforce programs at an integrated managed care organization (MCO) in West Michigan, "With the medical apprenticeship program, not only were we filling the need to develop a pipeline of talent because we had a shortage in our region, but it was also important to us to make sure we were reaching into our own colleagues, giving our entry-level colleagues an opportunity to get on a career track to more of a middle-wage job." Researchers at the Health Workforce Research Center at the University of California, San Francisco, conducted conversations with key informants and concluded that registered apprenticeships allow employers to tailor training to workforce needs and different learning styles. Additionally, apprenticeships provide "practical experience, mentorship, and formal academic learning as an important value add."[172]

Experts argued for more apprenticeships, better financing, and expanded eligible opportunities, for example, by expanding the definition of a *registration agency* in the National Apprenticeship Act. As one key informant explained in a phone conversation on May 23, 2019, there is a need to "think on a larger scale on how to massively increase skilled labor," and "apprenticeship is one solution. It can touch a lot of people and it doesn't require massive public investment, and then private industry can take over." Funding opportunities exist for expanding eligibility through the Federal Work-Study program and through the allocation of funds from state departments of labor in addition to federal funding.[165,173]

Continuing Education for EHCW Members

Continuing education, also called *professional development*, represents a common strategy for meeting the needs of employers, with many institutional initiatives taking place throughout the United States.[174] From an employee perspective, professional development offers a way for individuals to learn new skills, diversify their daily routine, and earn higher wages. Often, additional training can offer a formal pathway for career progression—for example, community college programs can provide an expedited path from LPN to BSN nursing roles.[175] In other instances, professional development might take the form of retraining, providing the opportunity for members of an existing professional group to transition to a new role entirely.

There are several large-scale public-sector initiatives designed to support a wider distribution of much-needed entry-level health care workers through continuing education and retraining. For example, a Navajo Nation collaboration with the New Mexico Dental Association supports continuing education for CHRs to serve as community dental health coordinators, addressing a large demand for oral health services.[176] In New York, a $245 million incentive package (funded through Medicaid) trains CNAs for the long-term health care sector, responding to the needs of an aging population in the state.[177,178] Other interventions have been spearheaded by private-sector health care organizations looking to fill a gap in their workforces. As part of the Medical Assistant Registered Apprenticeship Program (MARAP) in West Michigan,[179] local health systems in need of MAs have partnered with community colleges to train individuals in these

positions—including by retraining staff currently serving in other roles. Partnerships with educational institutions have established career pathways in other contexts. For example, Fitchburg State University and Worcester State University in Massachusetts have partnered with vocational technical schools to create an LPN-to-RN curriculum that allows enrollees to apply credits from their LPN programs and clinical work, in addition to a mentorship component, for receipt of a BSN.[180] This model has been applied to other occupations, such as DAs, where a national certification board—the Dental Assisting National Board—has a formal pathway for progressing to the level of certified dental assistant with expanded functions.[181]

Evaluations of these training initiatives are relatively absent in the literature. One exception to this is curricular evaluations of LPN-to-RN programs, which have been evaluated from qualitative and developmental perspectives.[182-184] These evaluations are more common because such programs have been functioning since the 1980s,[185] and, perhaps, because academic institutions—where these programs are based—are more apt to publish results than the private sector. The evaluations found that participants expressed satisfaction with the program[184] but also had unreasonable expectations about the program's benefits.[182] A second exception is the IMPaCT model for the standardized training of CHWs, in conjunction with the Penn Center for Community Health Workers:[186] The program features modular training with accompanying manuals and culminates in certification, and more than a dozen articles have indicated the overall effectiveness of this model among trainees in terms of improving patient outcomes, such as chronic disease control.[187]

There is also evidence that on-the-job and continuing training predicts job satisfaction in LTC settings: Workers who perceive better on-the-job training, characterized by the usefulness of continuing education and job orientation, report higher job satisfaction.[25] A model of this is the Baltimore Career Ladder project—a partnership among the workforce development organization, Baltimore Alliance for Careers in Healthcare (BACH), and local hospitals—which provided on-the-job skill-building opportunities with the goal of advancing worker skills and earning potential. Three HPOG-funded programs have developed similar work-based training for a small number of CNAs with the goal of increasing pay and skills.[78*] However, there is limited evidence about the best format or the effects of continuing education for these workers.

More-thorough evaluations of publicly supported initiatives, including those described earlier, could help clarify the benefits of such programs for providers, patients, and employers. To this end, many public-sector training initiatives, such as those supported by Medicaid Section 1115 waivers, have an evaluation requirement and are currently in process.[188]

Training Duration

One potential way to strengthen training would be to increase the duration of training. However, there is no agreement about optimal training length. For example, for MAs, training

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[*] Text updated in March 2021 to clearly indicate that the Baltimore Career Ladder is not an HPOG-funded program.

length can vary greatly.[93] Although some programs touted the increased duration of their trainings, others focused on mitigating barriers to training by decreasing its length. Duration of training varies from program to program, state to state, and occupation to occupation. For example, a report on HPOG training programs for CNAs notes that "movement along [the] career pathway [from CNA to LPN/LVN and other health care occupations] can be challenging. It requires time and financial commitment to longer periods of education and higher academic skills than for a CNA position."[78] The HPOG program has funded numerous grantees, and some have offered academic credit for CNA training toward nursing training, while others offered short-term trainings to become certified medication technicians, medication aides, electrocardiogram technicians, and phlebotomists to augment CNA salary and expertise without as much of an investment of time. We discuss stackable credentials further in Chapter 8.

Some experts recommended specific training durations and increasing the amount of training in certain topics to at least a minimum standard. Although setting minimum requirements is important, some trainees need more than this minimum time to achieve competency. For example, in the Dental Health Aide Program, which is modeled after CHAP, trainees are required to complete a preceptorship after successful completion of an approved educational program. Although each preceptorship has minimum requirements in terms of procedures and/or hours, the supervisor assesses competency and has the authority to "extend the length of the preceptorship as he or she sees necessary."[148] One argument against extended training was made by a key informant in a phone conversation on June 24, 2019: Long and expensive training programs might teach things that trainees do not need to know, could be expensive, and might keep trainees away from their communities, which, in the case of CHWs, is the source of their expertise.

Training for Patient-Centered Care

The National Academy of Medicine recommends that the ability to provide patient-centered care be a core competency across all health professions.[87] It specifically recommends that health professions trainees should have "frequent and reinforcing experiences with learners in the other health professions" to prepare them to deliver effective team-based care to patients, and it further states that these experiences should "be less hospital based and instead based more in the community to align with the needs of patients."[65] This competency, as defined by an expert panel convened in 2003, includes the ability to "identify, respect, and care about patients' differences, values, preferences, and expressed needs; relieve pain and suffering; coordinate continuous care; [and] listen to, clearly inform, communicate with, and educate patients."[87] Even when members of the EHCW are well trained and focused on patient-centered care, particularly among CHWs, the current reimbursement system and scope-of-practice laws limit the ability of many of these workers to play a strong role in patient care. These challenges are discussed elsewhere but are relevant to providing patient-centered care.

Innovative examples of patient-centered care training include La Clínica del Pueblo's program for CHWs in Washington, D.C., which offers onsite training in Spanish for CHWs to work with recent Spanish-speaking immigrants. The program complements in-house training by bringing in experts from other institutions to provide training on such topics as diabetes and hypertension, improving trainees' ability to discuss clinical issues with patients.[189] The Bronx Healthcare Learning Collaborative for entry-level health professionals in New York offers training on care coordination, patient-centered care, and linguistic and cultural competency for MAs, care managers, LPNs, CHWs, patient care technicians, RNs, social workers, and mental health counselors to increase the availability of workers to support quality care for a Spanish-speaking Latino population in New York City. The curriculum for the training programs was developed by the 1199 Service Employees International Union–United Healthcare Workers (SEIU-UHW) East, employers, and the 1199SEIU Training and Employment Funds, with the goal of supporting new models of health care delivery.[190] Another innovative example is an effort to address mental illnesses after Hurricane Katrina, in which 400 staff members, including CHWs, were trained in collaborative care for depression. Preliminary findings from this effort suggested that "CHW participation in post-disaster mental health outreach may bolster community resilience by increasing interagency collaboration, building trust, and alleviating mental health–associated stigma."[191]

In addition, experts have suggested that interpersonal communication skills—which are important for team-based care and patient-centered care—should be a focus of training.[164,192] At a 2018 conference on preparing the workforce to provide care to people with serious illnesses in community settings, experts and stakeholders observed that there were no standards for communication skills training in clinical education, but that there were "successful models that [could] be leveraged to increase training capacity, both for those in pre-professional education and in continuing education."[164] Summit attendees and other experts also specifically recommended culturally competent training.[164,193]

For-Profit Training Organizations

Certification and licensure ostensibly are designed to protect patients and consumers by ensuring that health care workers meet minimum standards of professional competence. However, certification requirements can be a double-edged sword: They can also be a barrier to entry,[194,195] and, according to key informants, can lead to misaligned motivations. For example, certifying organizations might not be motivated to ensure training quality and are instead rewarded by volume. The most-egregious examples are predatory training organizations, which charge high fees for training that could be acquired elsewhere at a lower price and possibly with higher quality or that offer training and/or certifications that are not recognized or in demand within the industry. As states work to encourage certification (for example, of CHWs), predatory training programs might take advantage of those obligations without benefiting students or patients.

As one key informant commented in a phone conversation on June 24, 2019, "One area that needs more public attention is the role of for-profit education programs, and their quality or lack thereof." This person noted that the cost of those programs is very high relative to the potential wages that their graduates will earn, and they described growth in proprietary education programs in ethical terms: The business model relies on identifying people from low-income backgrounds who have restricted educational access and getting them into this for-profit program when they often cannot find jobs afterwards. An example of this is in California, where the number of respiratory therapy graduates doubled from 1999 to 2009; 70 percent of this gain was attributable to for-profit programs.[196] There is also continuing concern about the oversupply of certain entry-level graduates in some geographic areas, while hospitals in other areas have vacancies because of maldistribution of both trainees and training centers. Thus, although the total number of graduates might be greater than the number of jobs, the workers are not in the same place as the work. This leads to wasted resources on training, unemployment, and workers leaving the industry.

Quality of training is a major issue as well: Some educators and employers have expressed concern that, for example, "entry-level respiratory therapists were not sufficiently prepared for work duties."[196] Studies support this: A recent analysis of the performance of nursing programs based on ownership status found that for-profit status was a statistically significant predictor of *lower* first-time pass rates on the standardized nursing exam, specifically focusing on LPNs, Associate's Degree in Nursing degree holders, and BSN degree holders.[197]

Participants at an IOM workshop, titled *Allied Health Workforce and Services*, noted the problem of predatory training programs as well, stating that "Proprietary schools sometimes prey on the students who are most ambitious and least sophisticated, and the professional lives of these students can be put in jeopardy because of a lack of effective policy."[37] The workshop participants suggested that private capital needs to be available within a regulatory framework that makes sense and does not take advantage of this population.[37]

Policy options include better oversight by—and of—accrediting bodies and, where possible, penalties for offending institutions by, for example, withholding access to federal loan money. The U.S. Department of Education did this when ITT Technical Institute was in violation: It barred ITT from enrolling new students who depended on federal aid and required ITT to warn current students that accreditation was in jeopardy. ITT shut down as a result.[198] The government also could require institutions to disclose basic information, such as pass rates and loan default rates, although this relies on students knowing how to access that information.

Policy Opportunities

The activities identified in this chapter are interrelated training strategies that prioritize job readiness. After taking stock of programs and policies, as well as recommendations by stakeholders, we outline the following potential opportunities for stakeholders to consider that could help strengthen EHCW training:

- **Considering standardization of training, licensure, and certification.** The EHCW—and particularly direct care workers, peer specialists, and CHWs—might benefit from efforts to develop core sets of competencies and align standards for such competencies across states, as defined through national certification or licensure. There has been a trend in this direction over time,[199] accompanied by calls to action from experts. However, progress has been slow, and more evaluative data are necessary to see whether effects are positive and mirror effects in other industries. Multiple experts—including a key informant in a phone conversation on May 16, 2019—who expressed a desire for stronger and more-uniform training standards also recommended studies on what models are worthy of being scaled up, similar to IMPaCT.[162,164] Along these lines, implementation science evaluations could consider studying individual implementation activities, such as a competency-based curriculum, in isolation from other features. The existing literature predominately evaluates programs that incorporate various types of training, recruitment, and retention activities, which could be successful or unsuccessful for several reasons pertaining to specific activities.
- **Increasing local investment in training.** In addition to coordination for training standards, local funding and organizing are required. We found that funding efforts yielding high-quality and sustained results relied on local coalitions that brought together educators, employers, professional associations, and government entities. These often were grassroots efforts and were motivated by the needs of health care organizations[102,200] or local public health concerns.[135,145,201] Funders wishing to support training efforts might want to engage with local stakeholders to listen to their concerns and develop a flexible sponsorship program. These examples suggest the importance of activities at the local level, although many of these examples were at the state level. Furthermore, evidence indicates that, when efforts focus on establishing local coalitions, the longevity of initiatives is sustained beyond initial funding periods.[202]
- **Valuing hands-on training.** According to a phone conversation with a key informant on June 24, 2019, and according to the published literature, apprenticeships[173] are one method for focusing training on a select set of skills that support readiness among the EHCW.[172] Curricula can also leverage field experiences and lab training to better prepare students for job duties.[203]
- **Scaling successes around training**. The IHS is supporting the expansion of the Alaska CHAP model, facilitated by flexible scope of practice within tribal areas.[139] We did not encounter many models of success that were widely replicated elsewhere, apart from IMPaCT. Such models as Michigan's Building Training, Building Quality[130] and PHCAST in North Carolina[204] also offer promising potential for adoption. One way to support funding for replication would be to establish formalized venues where workforce experts share their successes and evaluation results with funders, who, in turn, would provide bridge funds to test replication of the model elsewhere.
- **Protecting entry-level health care workers and trainees from predatory training and credentialing practices.** Government can protect students from predatory institutions and unfair practices with better oversight, reporting requirements, and increased penalties.

5. Objective II: Expand Training Opportunities

In this chapter, we focus on expanding opportunities for prospective EHCW members to access training. Prospective EHCW workforce members often face substantial financial and logistical barriers to training.[23] These barriers might be especially pronounced for those who live in rural or otherwise underserved communities.[205] Fewer training programs might be available to these individuals, and they might be unable to afford the costs of training or have less time to participate. They also might lack information about available training and training resources. Significant structural barriers also exist related to the capacity of training programs to grow and expand.

Many organizations have pursued a variety of activities that are intended to increase the opportunities through which individuals can receive training. These activities include making training more flexible and accessible, expanding training through collaborative partnerships, expanding recruitment efforts, providing resources directly to individuals to participate in training, and expanding the capacity of training programs.

Flexible and Accessible Training via Technology

One important approach to reducing barriers to training is to make training more flexible and accessible via technology. Potential and current EHCW trainees often come from low-income communities. They might have ongoing family and work responsibilities, and they might live in regions that do not have direct access to formal training and educational institutions.[23] These barriers often make it difficult for current and potential members of the EHCW to participate in brick-and-mortar programs that are offered on set schedules. One approach to making training programs more flexible and accessible is to use distance education and other e-learning mechanisms.[206-208] These technologies allow individuals to complete training on their own time and without leaving their communities (given internet access and time), and might be cost-effective compared with more-traditional education programs.[206]

One program that is intended to make training more flexible and accessible for the EHCW is the PHCAST program. PHCAST was a three-year demonstration initiative funded through the ACA for fiscal years 2010 through 2012. Programs in six states (California, Iowa, Maine, Massachusetts, Michigan, and North Carolina) were given a total of $5 million annually for three years to deliver training that provided required certification for personal and home care aides.[115] To expand access to this training program, PHCAST was delivered online through a web portal that provided access to the training materials, although the Maine program also used an in-person classroom format. The program allowed students to work at a flexible pace through at least 50

contact hours, in most cases offering core and specialty training within LTC facilities and ultimately training 220 individuals.[115]

Many EHCW experts remarked on the importance of providing flexible and accessible training to a variety of individuals. However, there are also downsides to technology-based programs, including access for those who lack the technology, lack of face-to-face interaction when it is used, and the inability to teach certain skills without physical interaction. Therefore, many of the key informants we spoke with found it important to combine online and onsite training. In a discussion on June 20, 2019, one key informant stressed the importance of these blended programs, calling them "primarily distance-available with what we call low-residency programs; so [students] may come in intermittently for face-to-face sessions."

Other ways to expand access to training, such as through stackable credentials, are addressed in Chapter 8.

Collaborative Partnerships for Training

Work-based learning models that help frontline staff gain competencies through a combination of onsite, hands-on, and in-class learning often are best delivered when employers, educational institutions, and other community institutions work together. Partner institutions can analyze workforce data to identify gaps, determine the needed skills, recruit candidates, and provide training in coordination to produce the most effective workforce.[209] Employers are especially important participants in such partnerships because they are the most knowledgeable about workforce needs and challenges.[209,210] However, although employers are knowledgeable regarding specific workforce needs and require well-trained EHCW members, they often lack the resources or skills to deliver training on their own. Other community-based organizations, especially community colleges, are best equipped to identify and recruit potential EHCW members and provide them with the classroom portion of the training. Some organizations even ask for feedback from the health care organizations they serve. For example, Shana Welch of Mercy Health and Saint Joseph Mercy Health System said "Community colleges want us to be at the table. They want us to be reviewing their curriculum; they want us to be part of their teaching team. . . . We could go back and say, for example, that your medical assistants don't know how to draw blood. They are asking for feedback, and we are providing it." However, partnerships can be difficult to initiate and cultivate, requiring extensive time and commitment to make them work.

One innovative program focuses on developing multilevel partnerships to improve training of the EHCW. The H2P Consortium, which brings together nine community colleges in Illinois, Kentucky, Minnesota, Ohio, and Texas, aims to share and implement best practices to improve training for LVNs and LPNs, nursing aides, CHWs, MAs, DAs, nursing assistants, and other health care professionals. Across the different states, initiatives include partnerships with health

care facilities to create flexible MA programs for incumbent workers and streamlined curricula made available in a learning resources collection online.[211]

Another example of such a program is BACH, which is a nonprofit corporation founded in 2005 that works with local partners to train residents of Baltimore, Maryland, to enter the EHCW. BACH lists dozens of partner organizations across the community, including 11 health care organizations (e.g., The Johns Hopkins Hospital), five government agencies (e.g., Maryland's Governor's Workforce Investment Board), and 20 educational institutions and nonprofits (e.g., Baltimore City Community College). The program offers several training opportunities. BACH works directly with health care institutions to provide tools to facilitate career counseling to entry-level workers at each health care institution. This coaching model has worked with more than 400 entry-level health care workers at six health systems and two LTC facilities.

Discussions with experts revealed the importance of partnerships to meet regional needs for the EHCW. One respondent noted that these efforts must be region-wide to address regional problems that cannot be addressed by a single entity. In a conversation on July 18, 2019, one respondent in Western Michigan noted that "There is no way I could have done this myself and I would have gone crazy if I had tried. Do this as a sustainable partnership." They also noted that broad partnerships are key to the success of the program, adding that "The secret in the sauce is the trifecta of relationships: our Workforce Board (government entity), community colleges (educational partners), and champion or lead employers." This public-private model holds great promise for supporting this workforce, especially when including educational institutions.

A specific example of where partnerships could make a meaningful difference relates to making clinical settings available for training after coursework is complete. In a phone conversation on June 11, 2019, one key informant at a large health system discussed the challenges of providing clinical rotations for EHCW members. This respondent explained that "a big obstacle for entry-level health care is clinical training. Colleges shared that they want to increase capacity but are limited by companies willing to allow clinical rotations. Operational leaders shared that there is no funding for clinical rotations so many consider it a resource drain." Partnerships to enable clinical training are critical for these workers, as are the needed resources to fund those clinical positions.

Faced with the challenge that funding is often short-term, some partnerships and coalitions are more successful at continuing than others. Local efforts with broad coalitions are most likely to succeed. According to one analysis of community coalitions after federal funding has ended, "characteristics associated with sustainability include coalition leadership, membership diversity, coalition structure, vision guiding action, and resources."[202] This is true for coalitions around training and for those around recruitment and retention.

Expanded Recruitment for Training

Another approach to reducing barriers to participation in training the EHCW is to broaden recruiting into training programs. For example, many programs recruit within low-income communities, which gives health care providers a supply of potential entry-level health care workers and develops the workforce in underserved communities.[212] Efforts to begin engaging younger individuals, such as high school students, are part of this strategy.[208,213,214] Such efforts channel younger people toward health care professions and expand health occupation programs in high schools.

Several programs have focused on expanding the recruitment base for EHCW training. For example, Phipps Neighborhoods is a nonprofit organization in New York City that helps children, youth, and families in low-income communities rise above poverty. It focuses on reducing barriers to self-sufficiency by providing training and educational programs throughout the city. In its Career Network: Healthcare program, Phipps Neighborhoods works with Montefiore Health System and Hostos Community College to provide health care exposure and instruction to individuals from low-income neighborhoods.[212] The program includes 13 weeks of sector-based career exploration and training. In 2016, the health care program graduated 88 students, a 75-percent completion rate. The completion rate for the 223 students in ten cohorts over time was 72 percent.[215] Students graduating from this program had salaries that were 25 percent higher than the median income for that age group in their neighborhoods.

The San Marcos High School Health Careers Academy in California is a three-year program that provides students with the opportunity to learn about the health care industry with practical, hands-on experience while in high school. The students take several health care–related courses, including medical terminology, biology, and kinesiology. Those completing the program are prepared to enter the EHCW or seek further education. Students who pursue the nursing track can graduate as nurse's aides, and the program can be a launching point for further education as a nurse.[216] As of 2016, the academy had graduated 422 students, of which 244 had graduated as CNAs.[214]

Financial and Nonfinancial Resources for Trainees

One of the greatest barriers to expanding training for the EHCW is the costs that individuals incur for participating in training programs. Costs are significant and can be both direct and indirect.[23] Primary direct financial costs include tuition paid to the training institution; equipment, such as computers; and the certification and licensing fees that must be paid when training is completed. There are several approaches to reducing the costs of EHCW training.[217] These approaches can include scholarships, tuition repayment, and directly providing supplies. Often, these resources are made contingent on providing service to a sponsoring institution, such as a hospital, or, in the case of government-sponsored scholarships and loan repayment programs, service in an area of high need. Indirect costs of program participation include

foregone wages and the costs of such items as transportation or childcare. Some programs cover indirect costs through paid internships and traineeships or direct reimbursement for trainee-accrued costs, such as counseling.

One particular federally funded program that has focused on providing direct and indirect financial support to trainees is the Behavioral Health Education Center of Nebraska behavioral health paraprofessionals program. This program is the result of a $1.1 million grant from HRSA, and it provides full tuition for 70 students each year to become CHWs and provisionally licensed addiction counselors. Students must commit to working in rural or medically underserved areas of Nebraska.[218]

Tuition assistance, as well as other forms of financial support, also has been cited as a key strategy for retaining entry-level health care workers.[219,220] The VA provides financial benefits and incentives for its nursing staff, including LPNs and nursing assistants. Specifically, VA medical centers provide an Employee Incentive Scholarship Program that provides funds for nurses—including LPNs and nursing assistants—who are pursuing further education. The program also supports the VA National Education for Employees Program, which provides scholarship and replacement salaries for those in an approved full-time program.[27,221] Another program at the VA is the Education Debt Reduction Program, which reimburses qualifying education loan debt for staff, including nurses, in hard-to-recruit positions. In one VA medical center, of the six nurses that began the program since 2010, five completed the five-year service agreement and remained VA employees.[27] Another VA medical center reported that 23 nurses completed the Employee Incentive Scholarship Program between 2006 and 2015, and, by the end of the program, 21 of those nurses remained employees at the medical center.[27]

Additionally, the American Federation of State, County, and Municipal Employees union 1199C operates the Training and Upgrading Fund in Pennsylvania. The fund supports a wide variety of education and training programs across the state in health care industries, including a training program with 120 employers focused on reducing turnover through a coaching model. In 2017, the training fund served more than 3,500 members and 1,600 community members. One important program within the Training and Upgrading Fund is the health care apprentice program, which provides training in various EHCW careers, including behavioral health and direct support specialists, home health aides, nursing aides, CHWs, advanced MAs and addiction counselors.[222,223] These apprenticeships are aimed at low- and middle-income individuals from 18 to 24 years of age. At the end of the program, students receive 24 college credits, which can be important, given the time investment. In 2017, the Training and Upgrading Fund facilitated 16 apprenticeships; all were placed in full-time positions.[222]

A related, nonfinancial benefit is housing and transportation. The Montana Rural Allied Health Professions Training Program (MRAHPTP) is supported by a grant that enables rural training opportunities for health professions students in Montana. The program covers housing and transportation costs during the students' clinical rotations if the rotations are completed at a

rural training site. The program's overall goal is to provide these students with rural, community-based clinical training rotations and eventual employment with a rural health care provider.[208]

Key informants regularly cited the importance of financial and nonfinancial support for training, especially direct financial support, such as for tuitions and salaries. In a phone conversation on July 12, 2019, one respondent noted that students, especially those from low-income communities, cannot forgo a year of salary to pursue education: "We know that people need benefits and wages to be able to continue and advance . . . for the most part, workers need—if you have family and people you need to support, you cannot go without your benefits and you cannot go without your paycheck."

We also heard from key informants about existing disparities in access to education as an important related consideration. In a phone conversation on July 10, 2019, one key informant told us that "[people of color] are not starting on equal ground to compete and . . . we compound that if we place them in a year-long program that they might not be able to afford, even before they are competing." This person pointed to the importance of financial aid to create better opportunities for students of color.

Increased Capacity for Training

Finally, to improve access to training for EHCW members, there must be increased training capacity. Lack of capacity for training affects a wide swath of health care professions. The best-known educational capacity issues are highlighted in the nursing literature. Of particular concern is the aging of nursing school faculty. The American Association of Critical Care Nurses estimates that there are more than 1,500 faculty vacancies, and more faculty reach retirement age each year.[224] The growth in nursing programs further strains nursing faculty. Relatively less is known about capacity needs for other EHCW occupations. In some cases, programs at community colleges turn away qualified applicants because of lack of faculty and other resources, such as clinical sites and classroom resources.[225]

Several national and regional programs have been developed to expand the capacity of EHCW training across the United States. For example, Massachusetts has invested resources in training CHWs, recovery coaches, and peer specialists, along with their supervisors, as part of the Massachusetts Delivery System Reform Incentive Payment Program, its 1115 Demonstration waiver.[226] This is part of a bigger program that funds accountable care organizations (ACOs) and community partners directly, but there is a dedicated funding stream for this training because of the impact on enrolled individuals. Specifically, as noted in a 2019 report on the effects of behavioral health workforce innovations on CHWs and peers in Massachusetts and New York, "CHWs and peer specialists have a unique ability to engage and help improve the health of MassHealth enrollees who are most likely to be disconnected from health care, and they expect to increase the size of this workforce."[226] Although MassHealth does not reimburse for these services directly, the ACOs can choose to hire trained workers using program funding.

Another capacity-building program is the Appalachian Consulting Group (ACG) Catalysts for Recovery program for peer specialists in the United States. ACG, which evolved from a certified peer specialist curriculum created in Georgia in 1999, has trained peer specialists in 35 states. ACG also has a program to expand the capacity to train peer specialists, known as the Peer Specialist Core Recovery Curriculum Train-the-Trainer. ACG has developed the curriculum to train current peer specialists to be trainers in future peer specialist training programs.[227] This training can be used to rapidly scale peer support training capacity.[228] This program is operating where peer specialists already exist, but it is not able to facilitate the introduction of peer specialists where none exist.

Policy Opportunities

There can be substantial challenges to providing access to training for EHCW members. Programs across the United States have experimented with efforts to address these barriers. Some opportunities to expand training drawn from programs we reviewed include the following:

- **Increasing the role of remote or blended training.** Many potential entry-level health care workers cannot access brick-and-mortar training opportunities within normal business hours. Programs identified in the literature search and in discussions with key informants suggested the importance of training programs, especially for CHWs and peer specialists, that were offered remotely through online or blended learning.[115] Stakeholders could encourage the development of curricula that can be delivered in multiple formats or convert course curricula that are currently designed for face-to-face delivery to blended or online formats.
- **Targeting younger prospective members of the EHCW and those from low-income communities.** EHCW programs might want to consider recruiting younger candidates from low-income communities. Often, entry-level health care workers enter the field later in life, when they have many responsibilities that make it difficult to commit to training. Furthermore, these jobs are important means by which members of low-income communities can obtain stable employment. Specifically, programs that engage high school students in low-income communities can be an important way to foster interest in entry-level health care work and begin preparation as part of a standard secondary education.[213,216]
- **Examining capacity requirements and increase capacity where needed.** Much has been published about the shortages of nursing faculty, but relatively less has been written about other disciplines, such as CHWs and MAs, which limits the ability to capacity-plan within these training fields.
- **Promoting public-private partnerships for program and curriculum development.** Partnerships between varied public and private institutions are key for promoting training programs that meet the needs of employers, those who ultimately will hire entry-level health care workers. Partner institutions can work together to determine the actual skills needed by employers and to develop and deliver training programs that provide the skills and competencies that meet those employer needs.

Part 3. Recruitment
(Chapters 6–7)

6. Objective III: Expand Recruitment Strategies

In this chapter, we focus on recruitment-related topics. Expanding the pool of prospective workforce members through recruitment is a key strategy for addressing the impending workforce shortage. At a systems level, the goal is to improve the match between supply and demand—that is, to ensure that there are enough workers fill job openings and that these jobs are both fulfilling and contributive to improved population health. Employers, community partners, workforce entities, and other stakeholders undertake many different activities to serve the dual purpose of expanding opportunity for greater numbers of workers and increasing successful hiring for employers. Two ways to increase the number of prospective candidates are: (1) to reach out to a broader and more diverse pool of potential applicants and (2) to recruit members of specific populations that are suitable for such positions and might otherwise encounter challenges obtaining employment (e.g., veterans, people with disabilities, people who have been dislocated because of mass layoff or natural disasters).

Broadened Hiring Pool Composition

The composition of the EHCW is not representative of the diverse U.S. patient populations served, and efforts to attract and recruit underrepresented groups represent one strategy to address this imbalance. Within health care overall, African American and Latino workers are more likely than white and Asian American workers to work in low-wage jobs or occupations that require less formal education, and people of color make up one-third of the health care workforce, similar to the United States population.[229] For example, racial and ethnic minorities are proportionally underrepresented within the nursing workforce,[230] as are men.[231] As of 2019, among all hospital workers, inclusive of MAs, lab technicians, and numerous other positions, there is 75 percent female representation, 72 percent white representation, and only 16 percent African American and 11 percent Hispanic representation.[232] Against this backdrop, it is important that diversity be enhanced throughout the EHCW and the larger workforce.

To cite one example, at the Medical Assistant Registered Apprenticeship Program in West Michigan, which we discuss elsewhere (see the Mercy Health case study in Appendix A), racial and ethnic minorities were underrepresented compared with their regional benchmarks. Mercy Health used a variety of different strategies to recruit a more diverse workforce into its entry-level positions, specifically targeting people of color.[233] According to a phone conversation with a key informant on May 13, 2019, Mercy Health sees this as its social responsibility, and it prioritizes local hires in addition to racial diversity. The same person noted that, during its first year, the program struggled to recruit diverse applicants, so the talent-management leadership modified its approach to create a community sourcing team to recruit more intentionally through

community-based partners. The revised recruitment strategy was a success, and as a result of the diverse population recruited through this MA program, the hospital was able to increase the diversity of MAs from 18 percent to 36 percent people of color.

Targeted Recruitment

Recruiting low-income people into the EHCW—as well as those with less formal education (e.g., young male veterans[234])—can offer a potential path out of poverty and its consequences.[235] Targeted recruitment and concerted efforts at inclusion might increase employment for underrepresented groups.[236,237] If they are successful, such strategies have the potential to ameliorate disparities in unemployment and poverty and facilitate professional advancement. We defined *targeted recruitment* to include outreach programs and policies that seek to identify individuals with some common characteristic.

There were several different programs in the gray and academic literature that employed targeted recruitment strategies for specific populations. Some programs focus generally on low-income individuals or those who have been unemployed for an extended period. The Career Network Health Care Program, funded by the J.P. Morgan Chase Foundation, aims to place low-income individuals into education and training programs that will lead to useful credentials and long-term professional success in such jobs as HHAs, CNAs, LPNs, patient care technicians, or other kinds of aides and assistants.[212] Turnaround Tuesday is a program operated by nonprofit Baltimoreans United in Leadership Development—a "non-partisan, interfaith, multiracial community power organization"[238] in Baltimore, Maryland, that works to improve housing, education, and economic opportunity for Baltimoreans. Another program, the Home Care Aide Workforce Initiative in New York, developed a novel recruitment and adult-centered training model for HHAs,[140] with targeted efforts in low-income communities and tools to screen best-suited applicants prior to enrollment. PHI, a partner organization, worked with the City University of New York and guided the three participating home care agencies in conducting a 17-day training, which included hands-on simulation, peer mentorship, coaching support, and employer input. By virtue of receiving tailored recruitment and training efforts with employment-focused skills, those who participated in the program stayed in their new roles for a longer period.[239]

Turnaround Tuesday works with community partners to create partnerships between employers and community-based organizations to promote jobs for people who are reentering the workforce after incarceration or long periods of unemployment.[240] Another program that recruits formerly incarcerated individuals is the Transitions Clinic Network (TCN), which was implemented across the country to help clinics provide effective health care services to chronically ill people recently released from prison.[241] The TCN trains formerly incarcerated individuals to become CHWs, and it has been supported by private foundations and the Center for Medicare and Medicaid Innovation (CMMI).[242] A study from 2007 to 2009 in San Francisco,

California, demonstrated that TCN training had a positive impact. Individuals who were randomly assigned to receive care at the TCN had one-half as many emergency room visits compared with others who were recently released from prison.[242]

Targeted recruitment discussion themes tended to vary by occupation. According to a phone conversation with key informants in LTC on July 17, 2019 , several experts advocated for bringing young people into the EHCW, given that many older workers are aging out of the workforce in the next several decades. According to another key informant conversation on July 16, 2019, middle age is the typical point at which new workers enter into the LTC workforce, and with rising demand, there is a need to be more deliberate with future recruitment strategies. Interests shaping targeted recruitment also might vary by employer. We heard from a key informant at KP on May 20, 2019, that the recruitment of veterans is important, and it is working with community-based agencies to recruit veterans to its facilities. KP has several other initiatives for targeted recruitment, including Project Search, for introducing people with developmental disabilities into the workforce, and High-Impact Hiring, in which KP is targeting different communities of people that are facing barriers to entry into the workforce. The key informant also noted that KP talent management holds recruitment programs in middle and high schools, including summer youth programs that allow 17- and 18-year-olds to be exposed to different positions, with the goal of recruiting youth into EHCW positions at KP.

Collaborative Partnerships for Recruitment

Collaborative partnerships can expand recruitment opportunities by facilitating economies of scale that make it possible to recruit in ways that individual employers might not otherwise have been able to manage. Workforce boards; community-based organizations; education and training programs and institutions; and city, state, or regional institutions are all examples of potential workforce partners. Collaboration is important on several levels. Partnerships might seek to influence workforce policy, establish new recruitment programs, share resources and information, or engage in other efforts. Collaboration can facilitate stronger connections between employers and prospective employees,[243] and many health care employers perceive economic advantages to participating in collaborative partnerships, which can affect workforce issues in a broader way.[209]

Programs aimed at recruiting certain kinds of workers commonly partnered with a primary institution to provide those services. For example, the Community Health Worker Initiatives operates a program called Community Access to Resources and Education New Mexico for CHWs in which a network of MCOs partner with FQHCs to employ CHWs.[244,245] Because training is a necessary prerequisite to many entry-level positions, many partnerships feature an educational institution as the primary partner. For example, the Quality Home Care Workforce Pilot Program in New York, run by PHI, a nonprofit in New York City, connects New Yorkers with jobs as HHAs by offering an enhanced training model and an assessment by a consultant to

look at scheduling and supervisory practices.[140] The program partners with employers to smooth the path from training to employee.

Other programs use partnerships to facilitate recruitment as a component of a larger strategy for developing career pathways and supporting workforce development. For example, the Adult Community Health Worker Program for CHWs in New York City trains CHWs through a partnership between New York–Presbyterian Hospital (NYP) and four community-based organizations. CHWs are trained and managed jointly by NYP and the organizations: NYP pays for the CHWs' salaries, benefits, office space, and daily stipends, while organizations recruit the CHWs from the local community. NYP also has a CHW Committee that allows CHWs to provide the hospital with input on community priorities.[245]

Another form of partnership for workforce recruitment is a joint multiemployer and union partnership. Unions and employers share leadership of such partnerships to create education, training, and expanded advancement opportunities for eligible incumbent workers. Union leaders who are familiar with the activities of SEIU training labor-management funds (which is one example of such partnerships) shared that the local unions fund education and training programs with employment potential in mind—they implement only training programs that ensure that members will be able to find jobs after investing the time and energy required. According to a phone discussion with key informants on July 9, 2019, these assurances are built into the collective bargaining agreements between employers and unions. Some large health care institutions have their own unique partnerships with training and educational institutions for the purpose of recruitment. As one executive at a large health system told us in a phone discussion on May 20, 2019, "We have several partnerships with local colleges, nursing schools, [and] universities." The health system partners with vocational technical schools for certification of diagnostic imaging clerks, MAs, and LVNs, and it has a variety of partnerships that vary regionally depending on need, all of which improves the prospect that trainees will easily find job opportunities after completing training. In speaking with a key informant about LTC on July 16, 2019, we learned about a community summit held on the caregiver shortage crisis that was useful for recruitment. Moving forward, officials and participants from this summit will meet as an organized workforce collaborative on the issue of aging and the caregiver shortage crisis; the key informant believes that this type of arrangement will be particularly helpful for "figuring out who the [key] players are [in workforce development]."

Several programs also sought to address recruitment earlier in the pipeline through training and education. For example, in January 2020, KP, a large integrated health system, and SEIU-UHW West announced a joint venture called Futuro Health,[246] a "nonprofit organization dedicated to growing the largest network of certified health care workers."[247] It plans to train 10,000 new health care workers in the next four years with an affordable education-to-work plan, starting in California and eventually spreading across the country.[247] Arlene Peasnall, senior vice president and interim chief human resources officer for KP, emphasized both the recruiting and retention goals of the program in the initiative's press release: "In addition to attracting new

talent to the health care industry, it will help existing workers advance in well-paying, fulfilling careers."[247]

Financial Incentives for Recruits

Financial incentives include higher salaries, relocation or signing bonuses, and such benefits as tuition reimbursement and loan forgiveness. Evidence regarding the effectiveness of financial incentives on entry-level workforce recruitment is nuanced,[248,249] and indicates that effectiveness might be contingent on the size and duration of the incentives offered.[84,108] For instance, wage-related incentives (which we discuss in Chapter 12) continue into the future and are different from one-time bonuses.

We identified several programs that use financial incentives for recruitment. Most commonly, these incentives are hiring bonuses. The Mission Health recruitment and retention initiatives for CNAs and RNs in North Carolina include bonuses for nurses depending on employment commitment, a partnership with a community college to create scholarships for CNA candidates associated with the organization, the development of an RN liaison position to help with recruiting, and the hiring of a vice president focused solely on problems nursing staff face at Mission Health.[250] Other employers have raised salaries or plan to do so: The University of Pittsburgh Medical Center (UPMC) reported that it plans to raise the minimum wages of all urban nonunion employees to $15 per hour by January 2021.

We heard from several key informants about the importance of financial incentives for recruitment. In speaking with key informants familiar with the Peninsula Homecare Cooperative on July 17, 2019, we learned of another type of financial incentive: partial share in business ownership for HCWs. In addition to being co-owners of the company, workers provide input on agency policies and operations. Leaders there explained that co-ownership is a recruitment incentive and that HCWs are recruited with another financial benefit: the promise of reimbursement for training expenses once they become members of the cooperative. The experts also noted the challenge of incentivizing workers financially to take a position as an entry-level health care worker. Specifically, competition from other industries with higher wages makes many financial incentives less compelling. This is particularly true for many EHCW roles that might be more challenging relative to fast food jobs and other entry-level work. In a May 16, 2019, phone discussion, one expert explained that "My experience is that implementing 'best practice' training programs will not resolve the issues of recruitment and retention in this sector unless a competitive minimum wage and wage progression as workers acquire additional skills are implemented."

Job benefits, such as health insurance, life insurance, and retirement benefits, also can be used as a recruiting tool. We found little evidence of benefits being used to recruit for the EHCW, but one study found great variability in benefits given to LPNs and RNs and found that employers try to enhance benefits in the context of a shortage to retain employees.[251] In a phone

discussion on May 8, 2019, one of our key informants highlighted a lack of benefits as a key part of the challenge this workforce faces, along with low pay.

Nonfinancial Incentives

Nonwage forms of compensation also might be significant tools for recruitment. The availability of affordable child care and transportation have been shown to influence the decision to enroll in educational and training programs,[229] and these factors could play a role in shaping decisions prospective workers make about employment. Broadly speaking, recruitment incentives include personal and vacation days, comprehensive health insurance, overnight accommodations and other supports for commuters, shuttle service or transportation subsidies, parking, onsite childcare, training, and gym access.

We identified several nonsalary incentives for recruitment pertaining to housing and transportation. For example, the free accommodation incentive for nurses at West Virginia University of Medicine offers a free place to stay for nurses (e.g., LPNs) commuting long distances to recruit them to Morgantown, West Virginia.[252] Recruitment can be facilitated using training benefits as well, particularly if such benefits are accompanied by a guaranteed job placement. The partners patient care associate training program for CNAs at Partners HealthCare in Boston, Massachusetts, provides free training and dual nursing assistant and HHA certificates and job placement in the Spaulding Rehabilitation Network in Boston. The program pays for exam fees for the state CNA exam, which must be completed within 30 days of program completion.[253]

Publicly sponsored job centers, including the American Job Centers System coordinated by the U.S. Department of Labor, can also provide services to increase recruitment. For example, in Missouri, job centers provide education and training, career advising, and continuing support to individuals in the health care workforce as part of their services connecting individuals with jobs.[243] Despite several examples of nonfinancial incentives for workforce recruitment in our review of the gray and academic literature, there were no evaluation findings for any of the policies or programs we identified.

Discussions with experts in LTC suggested the need for affordable housing and the impact of housing affordability as a major limitation on recruitment in certain areas. According to a phone conversation with key informants on July 17, 2019, if HCWs cannot live affordably in a given area, there will be a corresponding shortage of caregivers there. Although affordability is distinct from financial incentives, it has a similar impact insofar as it limits individuals' disposable income—sometimes to such an extent that job retention is undermined.

In some cases, the appeal of a particular workplace serves as its own incentive. As one VA peer specialist told us over the phone on June 7, 2019, "There were a lot of things about [working at the VA] that appealed to me. Number one was the fact that it was for the VA

working with veterans." By virtue of its mission as a source of treatment for veterans, the VA can use brand recognition for recruitment.

Expanded Recruitment Venues

It is standard practice to recruit workers externally through online job sites and social media, both of which connect prospective employers with a broader talent pool[254] and are less expensive than traditional methods.[255] For dental workers in particular, advertisements in local journals and recruiting from local dental societies are common recruitment strategies.[256] Other common strategies include career fairs, third-party hiring management firms, and internal recruitment advertising to incumbent workers. Expanded recruitment venues build on these strategies.

The initiative to train CHRs and DAs as community dental health coordinators in New Mexico recruited students, about half of whom were Navajo CHRs, to undergo yearlong community dental health coordinator training at Central New Mexico Community College.[176] This initiative was part of the American Dental Association's larger community dental health coordinator certification program, which has been implemented through training programs across the country and has produced about 305 community dental health coordinators.[176]

Although electronic recruitment offers great potential, we learned in a May 20, 2019, phone conversation with one expert that there can be downsides to using electronic systems for recruitment and hiring. In the past, if a person sent a resume in for a position, a hiring team might hold onto it until the appropriate position became available. Now that these systems are automated, the personal element of that process is lost and otherwise qualified candidates might be overlooked.

Kippi Waters, founding member of the Peninsula Homecare Cooperative, told us that "The majority [of our employees] have come to us from other agencies by word of mouth." Recruitment is more challenging in rural areas, where shortages of entry-level health care workers are exacerbated by the unwillingness of urban workers to relocate. Rural, geographically isolated areas are also less well served by job websites because of their limited access to broadband and because of the websites' concentration on positions and job seekers in or near urban centers.

Immigrants

A 2019 *Health Affairs* article on the health care workforce estimated that immigrants, both naturalized citizens and legal noncitizens, are overrepresented among the direct care workforce,[257] both because they cannot translate their experience in other countries into jobs in the United States and because U.S.-born citizens are not willing to do these jobs. This analysis of immigrants working in the U.S. health care system found that the system is dependent on the work of more than "three million immigrants, who account for 18.2 percent of all health care workers," which is greater than immigrants' 15.5-percent representation in the population more

generally.[257] Legal noncitizen immigrants, who made up only 5.2 percent of the total population, made up 9 percent of direct care workers (meaning nurses, HHAs, and PCAs), and naturalized citizens, who made up only 6.8 percent of the total population, accounted for another 13.9 percent of direct care workers.[257] In addition, undocumented immigrants are estimated to make up 4.3 percent of direct care workers.[257]

An analysis of foreign-born health care workers from 2013 found similar numbers and noted racism and discrimination in the workplace against foreign-born direct care workers.[258] Related work finds that "nursing homes and home care agencies have experienced increased difficulty recruiting among immigrant communities and that immigrant workers are expressing grave fears about losing their jobs or being deported,"[145] with researchers expressing concern that the environment will be a barrier to the recruitment of workers. Given the increased demand, policy opportunities for consideration include facilitating direct care workers' entry into the United States, potentially by expanding the purview of existing visa programs to include this needed workforce. Such a program would need to include oversight to make sure that visas are used correctly and to ensure that there is no abuse of workers who rely on their employer for income (and for a visa). Without such oversight, they would be left with limited or no recourse to protest mistreatment.[258]

Policy Opportunities

There is much to be done to address the challenges and scale up the successes associated with recruitment activities designed to expand job opportunity. We identified the following policy opportunities in this area:

- **Developing recruiting partnerships that include health care employers; educational institutions, such as community colleges; and local workforce planning boards.**[24] Partnerships between employers and training institutions help ensure congruence between training and job needs, and they facilitate the successful hiring of individuals into EHCW jobs, particularly when employers play a strong leadership role.[24,209] The economies of scale achieved through partnerships help spark change at the system level that is more lasting and more responsive to workforce needs.[209] However, many community-based agencies, private employers, and educational institutions do not have experience collaborating with health care workforce partners, and coordination support might be needed to establish and maintain successful partnerships.[24] Partnerships can help focus resources in areas with the greatest need and the least ability to recruit needed workers.
- **Providing incentives for recruitment.** Better research is needed about the most-effective kinds of incentives, but a lack of benefits and low wages are known to be particular challenges for this workforce.
- **Focusing on all aspects of the career pipeline, from training and education to retention.** Education and training determine the size and composition of the EHCW and are inextricably linked to recruitment.[77]

- **Supporting those entering the workforce.** Consider ways to provide training, visas, and stability for vulnerable populations who serve in these roles, particularly immigrants in direct care.

7. Objective IV: Match the Best-Fit Candidates to Jobs

A key aspect of recruitment is identifying individuals who are well trained (and from a diverse array of backgrounds and life experiences), and channeling them into EHCW opportunities that are a good fit. Successful recruitment ensures that identified job candidates are ready to thrive in their roles. Skill mismatches are more of an issue for job dissatisfaction than educational mismatches[259] and cannot be made up for by increased salaries.[260]

Slotting the right candidates into the right jobs can be accomplished through clear job qualifications, evidence-based screening techniques, and hands-on internships that lead to jobs. Although recruitment can precede training, we specifically address steps in matching trained candidates to jobs by clarifying job qualifications, screening candidates to avoid bias, matching candidates to jobs that suit their personal characteristics, and using internships for recruitment.

Clarified Job Qualifications to Improve Matching with Candidates

To attract appropriate and able candidates, job qualifications have to be clear. As one key informant put it during a phone conversation on May 16, 2019, "Certification requirements are integral to training and clarification of worker scope of practice. However, there are no national certification requirements for home health aides, so there are no national training standards, and there are no standard job descriptions. This also affects worker upward mobility and career path."

Sometimes, clear qualifications are introduced into law, such as Minnesota Statute 256B.0625, which permits CHWs to be reimbursed by Medicaid for the provision of care coordination and patient education services. It allows payment for both certified CHWs and for those without certification but with at least five years of experience (working under supervision).[261] The PHCAST Demonstration Program, which was established under the ACA in California, Iowa, Maine, Massachusetts, Michigan, and North Carolina, supported efforts to provide competency-based training for personal and home care aide certification, which is another way to clarify qualifications and ensure that candidates possess certain competencies.[115]

Lack of clarity in job qualifications and descriptions can be a barrier to hiring quality workers. This is particularly true for new job roles, such as peer specialists. As another key informant told us over the phone on June 13, 2019, "I talk a lot about competencies, how we developed our competencies and [peer support] career ladder, how we wrote job descriptions. Peer support is not familiar to everybody and they still see [the peer counselors] as [other] patients instead of . . . as a profession that has unique and valuable skills so we try to help people define it."

A key informant from one large integrated system, UPMC, noted in December 2019 that sometimes listed requirements are not really needed. “We started to look at job descriptions in our management roles and found they had these bachelor’s degree requirements and found they weren’t necessary and [were] prohibitive and we removed those.” Changing these requirements opens up opportunities for more workers.

Evidence-Based Screening

Evidence-based screening, or using objective tests and standardized interview questions rather than intuition, is recommended by many to “help remove unconscious bias in the interview process.”[19] Bias can lead to favoring certain candidates in hiring,[262] sometimes of those who are less qualified. To implement unbiased screening, employers need to identify the skills and competencies needed for specific roles, assess candidate skills and competencies with objective tests and standardized interview questions, and decide how screening results will inform hiring decisions.[19] Without clear job descriptions, qualifications, or hiring criteria, hiring practices could be unfair and employers might miss out on high-quality workers.

Standardized job descriptions and qualifications and evidence-based screening are related. Standardized and systematic hiring practices also buffer against bias that comes from usual practices, such as hiring people who are similar to the recruiter.[263] One key informant told us in a phone conversation on May 13, 2019, that their role is “to ensure they have innovative best practices addressing core talent acquisition—identifying, sourcing, and attracting talent—and ensuring they have an effective pipeline of talent to meet in-demand jobs for today and in the future. Within that, at the foundation of workforce is our evidence-based selection process on the talent acquisition process.”

This approach has helped Mercy Health in West Michigan both to improve first-year retention and increase the diversity of their staff. As Shana Welch of Mercy Health and Saint Joseph Mercy Health System, members of Trinity Health, told us, “Mercy now does this system-wide. We have eight regions and through the leadership of our [vice president] of diversity and inclusion at Trinity Health, every region has to train all of their leaders on implicit bias. That practice started in the Michigan region and has been scaled.” Additionally, Mercy Health and Saint Joseph Mercy Health System have implemented an evidence-based selection process for recruiting and hiring. Welch reported that, since that implementation, they were recruiting a higher percentage of African American individuals—moving from 18 percent to 36 percent—and credited this approach with also improving quality: “[We are] ensuring our process is fair, removing as much unconscious bias as we can so we can ensure we are bringing the very best people into the organization.” Mercy’s evidence-based selection process has used objective tests for specific skills and standardized interview questions to assess competencies for new candidates for both entry-level and other health professionals, leading to reduced time-to-fill jobs from 37 to 31 days and reducing one-year turnover from 25 percent to 19 percent. The idea

behind these efforts—beyond simply reducing turnover—is that reaching "diverse, highly competent, compassionate talent is essential" for excellence in health care, and that evidence-based selection processes lead to better patient outcomes and patient satisfaction.[264]

Internships with Job Placement

In addition to apprenticeships, which we discussed in Chapter 4, internships provide in-person training (although they often occur after training is complete) and can provide a testing ground to help match candidates with jobs. Internships are generally not considered part of employment, but can lead to jobs, while an apprenticeship is itself a job. Some internships are paid, while others are not; some offer formal educational credit. All give job experience that can help qualify someone for a position. Internships also can address issues of incomplete training, employee confidence and independence, and employer confidence, and they can lead to better job retention.

For example, the Connecticut State Health and Life Sciences Career Initiative, which was funded by a $12.1 million U.S. Department of Labor Trade Adjustment Assistance Community College and Career Training grant, set a goal of creating 360 internships and 2,000 jobs because "It is well established that students with internship experience have more success in finding and retaining jobs."[265] Other programs provide internship training to create a pool from which they can recruit, such as the Health Care Training and Employment Program for Entry-Level Health Professionals at Partners HealthCare in Boston, Massachusetts, which provides members of the community with free training, clinical internships, and employment opportunities.[266] In a phone conversation on July 18, 2019, one key informant identified internships as a way to increase exposure to more-diverse potential candidates, which leads to a more-diverse workforce.

Policy Opportunities

In earlier chapters, we found evidence that training improves the quality of candidates and employees. In this chapter, we identified activities that can improve the quality of candidates who are recruited, including ways to identify and attract better candidates. The following considerations emerged from these findings:

- **Pursuing evidence-based practices for hiring.** These practices can improve the quality of hires by increasing diversity and reducing bias that could favor lower-quality candidates or overlook qualified ones. Most people have unconscious biases that affect their assessments of others;[267] tools designed for interviewing or evaluation can decrease such bias.
- **Clarifying job descriptions.** To improve the match between jobs and candidates, and to improve quality, job satisfaction, and retention, employers might want to consider developing clearer job descriptions, which might enhance their ability to attract qualified candidates.

- **Developing internships.** Internships provide an opportunity to evaluate whether a candidate is the right fit for a job and might increase diversity in the workforce by increasing opportunities to access jobs.

Part 4. Retention
(Chapters 8–9)

8. Objective V: Create Career Pathways

Retaining entry-level health care workers in the health care industry is critical to addressing the current health care worker shortage in the United States.[80] When workers do not have the opportunity to learn new skills and advance in their careers, they are more inclined to leave their jobs.[268] This ultimately hurts the employer and the health care system as a whole, both financially and in terms of quality of care.[268] Ideally, turnover for specific jobs should not be high because this takes a toll on employees and employers in terms of investment of time and money (turnover in the direct care workforce was estimated to cost the government $2.5 billion per year in 2004[269]). Some turnover is positive, of course. Successful professional development brings advancement to new job titles, which is a boon for workers and the employers whose employees remain within their system. Similarly, some employees might decide over time that they want to switch careers or need to follow the career of a spouse to a new location.

There are various strategies that the private and public sectors can implement to prevent excessive turnover of EHCW employees. In this chapter, we focus on creating career ladders, offering tuition assistance (along with pay and benefits, as discussed earlier), and offering skills development and opportunities for new roles.

Career Ladders

A *career ladder* is an opportunity for job promotion, leading to higher levels of pay, responsibility, or authority. The problem of inadequate career ladders in the EHCW has been well documented, for example, for nursing aides, MAs, and direct care workers,[30,270,271] for whom professional growth opportunities often are not available. In the proceedings of a 2011 workshop at the National Academies titled *Allied Health Workforce and Services*, a university administrator concluded that "career ladders in the allied health professions tend not to be available."[37] For these and other entry-level health care jobs, there is no opportunity for promotion without leaving work because more-skilled, higher-paying jobs require advanced training and skill sets. Even where formal training might not be required, there might not be opportunities to informally learn new skills that are required by a higher-level job.[272]

For employees, career ladders can lead to improved job satisfaction, fewer challenges when trying to advance to a new occupation, and higher pay and job security.[195] For employers, career ladders can address high turnover, maintain institutional knowledge, decrease the likelihood of dealing with issues of worker shortages or the inability to find workers with the appropriate skills, and build a diverse and culturally competent workforce,[209] although it is not clear for all jobs what the specific career ladder can or should look like. Given the low pay, frequently poor working conditions, and absence of opportunities to advance within their careers that entry-level

health care workers experience, employers, and particularly LTC employers, often find themselves competing with jobs in other service industries, which might offer higher pay and better work environments.[110] Where career ladders do exist, they are not clearly defined for certain occupations[195] and can be complicated by overly broad options for advancement—thus, sometimes the preferred term is a lattice rather than a ladder because of the many options and complexities facing these workers at each step.[209,273]

Researchers looking at organizational expectations versus employee expectations found that many existing career development programs offer little in the way of long-term gain for workers, despite being framed by employers as opportunities for upward mobility.[274] For example, career programs that "consistently helped workers to gain upward social mobility were nursing credential programs, which enabled low-level workers to move into licensed nursing positions," as opposed to departmental career ladders, which were limited in scope and lead to very small wage increases.[274] The concept of a career lattice evokes not a singular path upward but instead a multifaceted set of skills and advancements that allows people to move across occupations and work settings as well as up, giving employees increased flexibility (although decreasing concrete direction).

Opportunities for advancement and movement are limited among the EHCW,[30,270,271] although we found several promising examples of programs addressing this deficit. Unite Here Health Center in New York created a career ladder for MAs, developing a training with didactic and clinical curriculum for them to take on expanded patient education roles and creating the opportunity for advancement as health coaches and floor coordinators.[275] As MAs progress within the career ladder, they are given pay raises at each step.[275] Other efforts to promote career ladders include the provision of stackable credentials, a concept highlighted in the H2P Consortium program. *Stackable credentials* are a sequence of achievements—e.g., certificates, degrees, or licenses—that can be accumulated over time and applied toward future certificates or degree programs across different roles. The consortium, which facilitated partnerships among health care organizations, educational institutions, and community-based organizations, sought to transform health care education within community colleges across five states. A 2015 evaluation of the consortium found that "nearly one out of every ten students who earned a credential earned more than one, supporting the assumption that the stackable credential strategy improved credential attainment rates for H2P participants."[276]

Some health care organizations have developed specific tracks to allow their employees to advance in their careers and gain skills as they progress, such as CHAP (see Appendix A), which serves Native and American Indian populations in Alaska. This program, which trains selected community members to become CHAs in rural communities, provides five levels of progressive certification that range from CHA Level I to CHP, with each level requiring 120 to 160 hours of training. It is recommended that CHAs wait at least six months between levels to practice and solidify new skills. CHAs not only receive further training and acquire more responsibilities as

they advance through the track but they also are better compensated. The entire process of basic training can be completed in about two years, although for some it takes longer.[277]

Similarly, UPMC has developed its own advanced positions, which it calls lead roles—e.g., a lead MA. This allows individuals to advance to a quasi-supervisory role with more responsibility, allowing them to gain managerial experience but not hire-and-fire capabilities. According to correspondence with a key informant in December 2019, the leadership at this large health care system has found that this intermediate position is successful at helping people move into management and especially increases opportunities for people of color.

Another example from an integrated health care system is Geisinger's School at Work program.[278] At Geisinger, the program is coordinated by the Human Resources Organizational Development and Training Department "to assist employees in taking the next step in their career," according to a November 29, 2019, email from a Geisinger executive. "Program topics include communication skills; grammar, reading, [and] writing; patient safety and satisfaction; medical terminology; and tactics for success and career advancement." This staff education program is not unique to Geisinger; other health care organizations have similar models to position employees for further training.[279]

BACH, which we discussed in Chapter 5, is a nonprofit organization that was established in 2005 in Baltimore, Maryland, with the goal of ending specific EHCW shortages in the region.[213] BACH has partnered with more than 80 educational institutions, health care employers, federal agencies, foundations, and other community-based agencies to train MAs and CNAs in Maryland and connect them with employers with a focus on "introducing programs that advance incumbent employees through career ladders and custom-designed, work-based education."[280]

Health care organizations, nonprofit organizations, and educational institutions can work together to create career ladders that include education, training, and job mobility within the health care workforce. Both the gray literature and key informant discussions supported partnerships as a key method of establishing career ladders for the EHCW. For example, registered apprenticeships are one method of expanding career ladders because registered apprenticeship programs promote both upward mobility and career advancement.[172] Joint Labor Management Partnerships similarly encourage long-term collaboration between employers and local unions in a manner that is mutually beneficial.[281-283] Community colleges are potential partners in efforts to create sustainable career pathways and workforce development programs for the EHCW.[284,285]

Evaluations of career ladder programs have been rare, but some organizations have incorporated an evaluation component into their programs. For example, the Extended Care Career Ladder Initiative (ECCLI) was a grant program that funded 11 nursing homes and home health agencies in Massachusetts to create career ladders for CNAs and HHAs. A qualitative evaluation involving 102 interviews, 40 focus groups, and 19 site visits found that "the opportunity for education and career advancement improves frontline workers' feelings of self-confidence and respect."[271] Although our academic literature search returned very few rigorous

evaluations of the outcomes of career ladder programs, gray literature that documents the need for such programs is abundant and often advocates for widespread implementation of career ladders. A recent examination of a New Orleans Career Pathways program looked at implementation and effectiveness in addition to cost-benefit outcomes and found very positive outcomes including wage growth, job satisfaction, and return on investment for the 25 percent of the study group in the health care pathway.[286]

Key informants varied in their perspectives about the availability of career ladders for EHCW members. Although several individuals acknowledged a lack of career ladders, some key stakeholders cited examples of career ladder programs within their own organizations. Multiple key informants noted the utility of establishing partnerships with universities and NGOs to provide education as part of career ladder programs. For instance, one key informant, Rebecca Hanson, executive director of the SEIU-UHW Joint Employer Education Fund, discussed her organization's approach to career advancement and the need for partnerships as follows:

> [The objective] was to really address career advancement and create actual job ladders beyond continuing education and skills development. We have validated this by working with employers, workers, and unions to understand what their specific needs are and how they align with job ladders. We validate this through focus groups and surveys of membership and understand their interests and needs and how they want to receive their training (e.g., online, hybrid). And thinking about what kinds of partnerships it takes with education, labor, and management to build sustainable career path programs.

In a July 31, 2019, phone discussion, another key informant echoed the findings of the ECCLI evaluation, noting that the adoption of career ladders is essential for recognizing the value of workers, which can also play a role in worker retention. They said that

> There are very few rungs in the career ladders available, particularly for HCWs, and moving up to an LPN or other nursing profession is not realistic for the majority of people in this workforce, but we know that entry-level workers can do more than they're currently doing and they deserve more value than the system affords them. . . . We actually have to build that rung in that career ladder and create an advanced role with different sets of responsibilities and pay scale to prove that those are valuable positions and other payers should be investing in those types of roles.

One innovative effort from an integrated health system used the large amount of data available to them to explore the career paths of their employees. In 2019, a key informant from this organization described a new human resources system that will allow them to use automation and machine learning "to highlight for our employees what the different career pathways are. . . . We have close to 2,000 people who transfer between jobs on an annual basis, and the system will learn about those transfers. We will be able to highlight how folks are able to envision their career path and what their career could potentially be."

These insights from key informants highlight the generally positive effects that career ladder programs can have on both employees who want to advance and the employer.

Support for Ongoing Training for Skill Development

In health care organizations that provide employees with financial support for ongoing skill development, employees' perceptions that upward mobility is possible can improve retention and job satisfaction.[274] For example, Dill and colleagues found that an employee's perceived mobility within an organization is positively associated with overall job satisfaction and intentions to stay with a current employer.[287]

Tuition assistance and other financial benefits offered by an employer can be catalysts for skill development and career advancement. For low-wage EHCW members, tuition can be a barrier,[288] and taking time off from work for further training might be an even greater one. Programs that allow training while an employee is working or even those that provide payment for training attempt to address this challenge. For example, in the program described in the Kaiser Permanente case study (see Appendix A), the employer pays a trainee holding the position of sterile processing aide until 1,000 hours of training have been achieved and the individual is certified as a sterile processing technician (at a higher salary).

When workers advance, attrition might be a concern to employers—given that employees can take their newly acquired skills elsewhere for new opportunities[289]—but it is also possible that, with thoughtful planning, the employee's current health care organization can internally promote individuals, especially if training is coordinated with advancement opportunities.[287,290] Alternatively, organizations can modify their training assistance programs by including stipulations that require workers to stay at the organization for a certain amount of time, as the VA does.

There is a modest amount of evidence that tuition assistance and other financial support programs promote worker retention in health care in general, with experts repeatedly citing tuition assistance and loan reimbursement as ideal methods for strengthening retention.[24,291] For example, the IOM's 2008 report on building the health care workforce specifies scholarships and loans for education as a key retention tool, with loan repayment and financial incentives being the most successful at retaining physicians in rural areas of need. However, no such research is available regarding the EHCW.[110] In a phone discussion on May 8, 2019, various experts alluded to the need for this type of assistance, including one key informant who noted the high educational cost:

> How much tuition [is] being paid for people to go to technical schools, community colleges, let alone four-year colleges? We don't have a very good handle on the debt piece of it and so when people are faced with a training program for one year that's for a medical assistant job that may be $10,000—that is a huge debt load that one might be taking on. To think about how one might complete a four-year degree that can be quite burdensome. Ultimately you have to step out of workforce in order to do that.

Role Expansion Through Skill Development

Role expansion can be achieved through skill development.[98] Skill development programs can expand the scope and competencies of existing roles by teaching skills necessary to perform at a higher level within one's role, which is sometimes referred to as *upskilling*.[292] These types of programs can also prepare individuals to transition from one job category to another.

Many health care organizations have created internal programs for skill development and paths for EHCW members to transition into new roles. For example, Project LVN LEAD, based in California, developed leadership and management skills among LVNs to support their growth as supervisors in nursing homes.[293] For HHAs, PHI's Care Connections project in New York created a higher-paid advanced HHA role in home health care agencies, through which aides underwent three months of classroom and on-the-job training.[294,295] This role, called the senior aide role, did not extend HHAs' scope of practice, but it was designed to give aides further responsibility in the form of taking observations and feeding this information back to the care team. In another example, a day-long program, known as Advanced Training on Nursing Home Resident Needs, builds skills among nursing assistants to identify a problem specific to their facilities, design an intervention to address that problem, and propose outcome measures to assess the success of the intervention.[296] In a final example, a physician group in Illinois tied the completion of clinical projects—in such areas as process improvement—to pay increases for MAs.[297] The idea behind this is to reward MAs for each rung they climb on their career ladder.

There have been a limited number of formal evaluations of skill development programs for EHCW members, but emerging evidence suggests that expanding roles can reduce turnover. One example of a multifaceted program that successfully addressed nursing assistant turnover is the Win a Step Up program in North Carolina nursing homes. This ongoing workforce development intervention seeks to address issues of retention and job satisfaction. During the operational phase, nursing assistants had the opportunity to complete a 33-hour curriculum "focusing on clinical and interpersonal topics, such as infection control, being part of a team, and dementia care."[98] The program required a formal commitment by the workers, including a contract stating that they would stay in the job for three months. In return, the employer committed to provide a retention bonus and/or a wage increase of at least $0.25 per hour to the direct care workers who completed the program.[98] An evaluation of this program found that "nursing facilities that participated in the Win a Step Up intervention were significantly more likely to have below-average turnover—that is, a turnover rate below the mean yearly rate of 107 percent[ii]—in the year that they participated in the intervention."[98] Such programs expand EHCW roles and position employees for further advancement in the field without requiring them to forego an income.

[ii] Turnover can exceed 100 percent in the event that the typical position is turned over more than once during the period of analysis.

Key informants noted that EHCW members within their own health care organizations have expressed interest in expanding their skills. For example, Shana Welch of Mercy Health and Saint Joseph Mercy Health System remarked that

> A few years ago, all medical assistants needed to become registered or certified in order to access health records. At that time, we started to see a shift in the importance they play on the team, and we started to see a shift in broadening their scope. In cases where the MAs are then stretched to work "at the top of their certification," that is when they start to get the appetite for more. They say, "Wow, I really want to go on to nursing," or "I think I want to become a [physician assistant]."

There are also programs that create new roles for existing workforce members. For example, Geisinger Health recently created a community health assistant role, which is similar to a community health worker but focuses on visiting people in their homes, akin to an HHA. The role requires a high school diploma and an eight-week training program. Although there is no specific career ladder for these employees, the new role allows other staff to focus on a more narrow set of tasks, including allowing case managers to spend more time engaged in their clinical work.[298] One example of legislation around new roles is in New York, where the state legislature ratified the Nurse Practice Act in 2016, recognizing the category of advanced home health aide, such that those certified are permitted to perform such tasks as administering medications and injecting insulin.[201,299] This was enacted, in part, to respond to an increasing need to support older adults and those with disabilities to live independently in their homes.[300]

Policy Opportunities

Career pathways for entry-level health care workers ensure that talented individuals have the opportunity for promotion, greater responsibility, and improved wages over time. Mechanisms to achieve this goal include programs that lead to a career ladder and subsidies for educational opportunities outside employment that lead to career progression. The programs and literature outlined in this chapter demonstrate the diverse ways in which employers can facilitate the adoption of these elements in their own organizations. We identified the following approaches for expanding these types of efforts:

- **Creating career pathways that facilitate job security and upward mobility.** Employers can work with educational and training institutions to accomplish this. Health care employers can support EHCW members by removing financial barriers to continuing education through tuition assistance, loan reimbursement, and scholarships. This can improve retention.[98] Federal and state governments could provide incentives, either financial or resource-based, to various stakeholders to encourage the creation of career ladders. Federal and state governments could also update and further disseminate toolkits, such as the Career Pathways Toolkit from the U.S. Department of Labor.[301]
- **Expanding research on career ladders and stackable credentials**. More analysis is needed to determine what constitutes successful career ladders—i.e., pathways that

provide opportunities for retention and advancement. Part of this work relates to considering credentials that can be accumulated for advancement over time and across fields—a lattice approach rather than a linear ladder model.

- **Using training to support career mobility.** Time off from work or tuition support to develop new skills allow for career advancement with the same employer.
- **Expanding roles for current workers.** Roles for workers can be expanded by reassessing the scope of responsibilities for EHCW members**.** Employers can provide career advancement opportunities for their workers, allowing them to gain skills while in their current positions that translate into increased wages and greater recognition.

9. Objective VI: Improve Work Environment

Employee retention goes beyond financial and nonfinancial incentives, career ladders, and skill development. To create a sustainable workforce, workers need a caring and supportive environment that encourages employees to remain with an employer. This aspect of workforce sustainability can be bolstered by several different actions, including performance recognition, work flexibility, work predictability, safeguards against burnout, and adequate compensation and benefits. Given the historically low levels of retention and recognition among entry-level health care workers in general, efforts in this area might have particular impacts on this workforce, for example in direct care,[302,303] in nursing,[304] and in community health workers,[305] for whom job satisfaction and support at work has been closely linked to retention.

Performance Recognition

Performance recognition can take the form of employer recognition and reward programs, programs to encourage peer-to-peer recognition, and informal communication by managers that workers are performing well. Promotions and pay increases or bonuses commensurate with performance also provide a critical means of recognition. Employer recognition of worker performance can build trust.[306] Workers who feel valued and appreciated may be more likely to remain with their employer. This also might improve patient care and increase the likelihood of advancement along the career pathways discussed in Chapter 8. The more self-confident workers are, the more likely they are to perform well at work.[306-308] Increased satisfaction associated with performance recognition might indirectly aid future recruitment efforts. Many workers learn about jobs through word of mouth, and satisfied employees could help recruit high-quality candidates.

Several programs feature recognition of worker performance as an activity designed to increase retention and improve job satisfaction. The retention specialist program for CNAs in New York and Connecticut was designed to reduce turnover among direct-care workers by employing a staff development model in recognition of performance. The program, which was implemented by Cornell University as part of Better Jobs Better Care, trained one staff member in each participating nursing home to serve as a retention specialist with the expertise and support to address low job satisfaction and resulting turnover. The retention specialists were charged with evaluating needs and resources, customizing a CNA retention strategy, and evaluating outcomes for CNAs. Average CNA turnover decreased by 10 percent, CNAs rated the quality of their workplace as higher, and CNAs reported that their workplace attempted to "keep good employees."[309] Although the program was successful, it is unclear which aspects of the program were responsible for improved retention.

Some programs use patient recognition of worker performance. The Care to Share program for entry-level and other health professionals in Maine enables patients to directly record positive messages about their experience onto a hospital server. The messages are later shared at staff meetings.[310] Another program at Vident Medical Center in North Carolina employs a storytelling strategy that involves sharing patient and provider stories through annual "Experience in Care" videos. Vidant also published "Connections," an anthology of 66 caregiver stories demonstrating the power of patient and family-centered care.[311]

One key informant pointed out that an absence of performance-based pay raises can negatively affect workplace morale. This person, who is in talent acquisition at a large health system, shared in a May 20, 2019, phone discussion that some hiring managers perceive automatic annual pay raises to be problematic for workers who might feel less motivated to improve performance without a financial incentive to do so. However, another key informant with knowledge of training programs for CHWs and CHRs told us in a phone discussion on April 18, 2019, that payment-based incentives are only part of the equation and that perceptions among colleagues regarding the value that these individuals bring to their organizations also affects retention.

Despite the promising anecdotal reports of performance recognition, we did not find conclusive evidence of a positive effect of performance recognition activities on EHCW retention in the literature. However, there is circumstantial evidence to suggest that performance recognition and employee retention are connected in other sectors.[312,313] More research is needed in this space to empirically identify return on investment for recognition programs for EHCW contributions.

Positive Work Environment and Supportive Supervision

The literature suggests that a positive work environment is characterized by trust, worker engagement, and worker productivity.[314] A healthy workplace is one in which employees are empowered to work productively and treat one another with respect.[315] Positive work environments might be just as easily characterized by what they are not. Several key informants spoke with us about threats to positive work environments for peer specialists in health care settings. According to phone conversations with key informants on May 3, 2019, May 17, 2019, June 7, 2019, and May 13, 2019, a lack of regular supervision, inappropriate delegation of work to peer workers, and lack of respect from colleagues, can all contribute to a negative work environment.

As one key informant told us over the phone on May 3, 2019, supervision of peer specialists tends to be provided more closely when the person is first hired, but it diminishes over time as clinics become busy and supervision hours are supplanted by other pressing needs. Another key informant with expertise on peer specialists told us in a phone conversation on May 13, 2019, that where peer support is inadequately implemented, peer specialists might be treated poorly by

some members of the care team who do not understand the role, and this makes supervision and workplace supports particularly critical to the creation of a healthy work environment for them.

A key informant with knowledge of CHAs told us in a phone conversation on June 20, 2019, that CHPs who have received more education and training are better equipped to handle the clinical challenges they encounter, and this makes for a more positive and satisfying work experience. Another person with expertise in CHWs and CHRs pointed out over the phone on April 18, 2019, that the recognition of CHRs by providers who understand the CHR role on the care team can help create a more positive work environment. According to this person, as peers, CHRs "feel collectively stronger as a team" when their colleagues know and appreciate what they do to provide patient care.

Several key informants emphasized the importance of championing certain types of workers. One key informant told us in a phone conversation on June 25, 2019, that many physicians and other clinicians do not understand or accept the CHW role, and it is the job of the supervisor or manager to communicate the importance of CHWs to the care team and to ensure that members know how to function productively in care teams with CHWs.

The use of professional coaches to help workers navigate workplace roles and relationships can also facilitate a more positive work environment. As one key informant told us in a June 11, 2019, phone discussion, professional coaches can help employees address such issues as transportation to work to ensure that workers are well positioned for success. One expert remarked in a phone conversation on June 25, 2019, that supervisors of CHWs need to provide support and guidance on documentation, delineation of roles and responsibilities, and ways to stay safe while working in the field.

According to our literature review, activities to improve the work environment for the EHCW appear to have a positive impact on retention; however, the creation of a more positive work environment is difficult to systematically and quantitatively document, particularly given variation in occupations and work settings. In some cases, familiarity with the roles and competencies of the EHCW is lacking.[59] Programs that encourage other health care workers to respect and collaborate with entry-level workers appear promising and should be explored through more-rigorous evaluation.

Burnout

Burnout appears to be a growing problem in health care, not only among physicians and those with advanced training in health care but also among the EHCW. For example, burnout has been demonstrated as an issue for nurse care managers, MAs, LPNs, and administrative clerks.[316] Clinical responsibilities can be emotionally taxing, and the experience of compassion fatigue or vicarious trauma can make work difficult. As one key informant with experience as a peer specialist told us in a phone discussion on June 7, 2019, weathering challenges associated with client grief, loss, and illness is challenging. Workers in helping professions must practice self-

care and professional resiliency to ensure that they are able to manage stress, process loss, and remain healthy through their ongoing work with clients.

The LTC workforce is particularly vulnerable to burnout, although it has not been studied as much as other fields, such as nursing.[317] Sources of burnout can include documentation burdens for credentialing and for clinical work in some EHCW settings, long hours, high risk of injury in some positions, difficulty with control over jobs and clients, poor communication and workflow, and patient morbidity and mortality.[318-320] Stakeholders identified administrative burdens as a key contributor to low morale and high turnover.[165]

Addressing burnout can improve retention. Burnout is a predictor of turnover or intent to leave,[317] and reduced turnover can improve the work environment for all workers. Finding meaning in one's work is both a means of mitigating burnout and an outcome that can improve overall workplace morale.[321] Stakeholders identified administrative and paperwork burdens in particular as a key contributor to low morale and high turnover.[165]

Several key informants spoke about antidotes to burnout. One key point is the need to provide entry-level health care workers with ongoing support. As one key informant with expertise on CHWs and CHRs told us in a phone conversation on April 18, 2019, it is important to support CHWs as frontline providers, particularly their mental health and well-being. Supervision and thoughtful management can be a means of preventing burnout. As another key informant with knowledge of CHW programs told us in a phone conversation on June 25, 2019, supervisors can help CHWs manage patient caseloads and keep work responsibilities within a predictable and reasonable range. Managers can meet regularly with CHWs to discuss patient cases and challenges, working with them to make adjustments as needed to anticipate and address worker needs. Supervision was also cited by a key informant in a phone conversation on May 17, 2019, as critical to the support of peer specialists.

Numerous programs centered on enhancing job satisfaction and reducing inadequate supervision, which contributes to burnout. One program that was particularly innovative was the community-based cosupervisory CHW Model of Mayo Employee and Community Health (ECH) primary care practice.[322] Because burnout and stress are often associated with inadequate support, CHWs were cosupervised by community-based nonprofit organizations and the ECH clinic, which contributed to smoother workflows (supporting the idea that supervision can help with burnout). Another program that stood out was the previously discussed retention specialist program, which created a specialized position for a staff member with dedicated time and resources to address factors leading to turnover among CNAs in nursing homes, such as work environment (e.g., communication, career ladders, mentoring) and overall resources and training (e.g., financial well-being, healthy lifestyles, parenting, transportation).[309]

According to a June 7, 2019, phone conversation with one key informant with expertise as a peer specialist, professional resiliency issues are a common reason for turnover among peers. This person suggested that better training for professional resiliency self-care and strategies for processing grief and loss, partnered with attention to initial screening for personality type, could

encourage better professional resilience. According to this key informant, seeing clients make progress in healing and recovery is a deeply rewarding aspect of the job for many peer workers, and developing skills to manage the challenges associated with this clinical work can help sustain peers in their work. More generally, finding meaning in one's work is both a means of mitigating burnout and an outcome that can improve overall workplace morale.[321] By sharing strategies and resources for processing loss and practicing self-care in professional settings, as well as by finding meaning in one's work, peer supervisors and managers can help prevent burnout among workers.

Technology, although it has the potential to lead to efficiencies, has made paperwork more burdensome in some settings, where what used to be an oral order has become multiple clicks in the electronic health record (EHR).[323] The solution might be auto-filling known fields, using templates and macros, linking similar orders under a single order set, and finding other efficiencies. Telemedicine or remote consultation to prevent unnecessary office visits, e-consults to allow providers to get advice from experts without referring a patient elsewhere, and home monitors to track chronic conditions (which decreases the need for home visits) all have the potential to increase efficiency. Well-designed tools and systems, including those with interoperability and well-functioning communication systems, can reduce burnout, according to a 2019 National Academies report on clinicians.[324] For office staff specifically, simplifying and unifying communication systems and using secure text messaging instead of phone calls to reduce no-shows are additional examples of how technology can reduce burden.[325]

Despite the promising elements of programs designed to prevent and address worker burnout, we did not identify evidence that these efforts were definitively associated with improved retention of entry-level health care workers.

Work Flexibility and Predictability

Work flexibility refers to the ability to take time off, receive coverage for illness or childcare, and generally be able to choose a schedule that works with personal commitments. Direct care workers often face nonstandard work schedules, such as shift work outside of normal workday hours or on weekends, that are associated with lower job retention rates.[326] Workers who are assigned to non-daytime shift work and weekends have lower retention rates in their jobs.[326] Among nurses in public health agencies, the promise of a flexible work schedule is a strong recruitment factor,[26] although schedules significantly depend on the occupation and population being served: Many entry-level workers have erratic and unpredictable schedules where they do not know how many hours they will be able to work a given week.

Workplace flexibility has been less frequently targeted by workforce programs for entry-level health care workers, although it was a component of at least one of the innovative programs we identified. The Open Door, Inc. program for human immunodeficiency virus– (HIV-) positive peer navigators in Pittsburgh, Pennsylvania, offers them paid time-off incentives to

attend medical and social support appointments to manage their disease and learn positive coping skills.[327]

In the peer-reviewed literature, we found limited evidence that flexibility is important to the retention of entry-level workers. One study of RNs, LPNs, and nursing aides found that organizational culture affected retention for all classes: More-flexible organizational culture specifically was associated with the satisfaction and retention of LPNs in this study.[328]

Several key informants spoke with us about workplace predictability and flexibility during our discussions. In a phone conversation on May 3, 2019, we heard that unpredictable schedules are a particular challenge for HCWs, who have their work hours—and therefore, their wages—reduced unpredictably, making it difficult to manage monthly expenses for transportation and basic needs. We heard that this lack of scheduling certainty and lack of guaranteed hours has implications for retention. HCWs will choose to work in other industries with more-regular hours if they cannot afford the unpredictability of shortened work hours.

Another key informant with knowledge of CHAs told us in a phone conversation on June 20, 2019, that work flexibility is also a challenge for upward mobility in an entry-level role. For CHAs looking to progress from the entry-level positions into more-advanced CHA roles, the training can be difficult to complete if it conflicts with family commitments. If training is a prerequisite to advancement for workers, then the scheduling of such training programs is an important consideration for retention and upward mobility. Although it makes intuitive sense that work flexibility facilitates retention, and although there is some research to that effect,[329] more research specifically with the EHCW is needed to determine the nature of the relationship among several factor; specifically, workers' control over their work schedule, turnover, performance, and satisfaction.

Policy Opportunities

There are several policy opportunities to scale successes associated with retention activities, including with respect to improved workplace support and experience, along with performance recognition and work flexibility. Specific opportunities include the following:

- **Promoting positive work environments and supporting research on impact and best practices around care settings.** Some programs might improve the EHCW work environment, but effectiveness has not been well documented. Further study is needed to determine which aspects of these programs are key to enhancing EHCW retention. Low-wage and frontline workers are underrepresented in industrial-organizational research, which tends to focus on white-collar and managerial workers.[330] EHCW-specific research would be helpful to determine which established workforce findings are generalizable to EHCW occupations.
- **Increasing the flexibility and predictability of EHCW occupations.** It is important for workers to know how much they will be able to work in a given time frame for planning and budgeting, and it is stressful and potentially infeasible to accommodate last-minute shifts, in light of childcare and other obligations. Increasing the predictability of hours

and income, as well as flexibility when needed, can contribute to job satisfaction, and, as a result, can improve retention.

- **Maximizing staffing expertise.** Staff should be engaged and challenged to fully use the training they have received. Functioning at the top of one's license or certification allows individuals to feel stretched, which is beneficial in supportive environments. Tracking whether staff feel challenged and motivated to use their skills through surveys or during performance reviews is one way to generate an internal feedback loop that leads to reformed practices.

Part 5. Health System Strengthening
(Chapters 10–14)

10. Objective VII: Improve Workforce Distribution

Improved distribution of the EHCW refers to efforts, such as legislation, programs, partnerships, and forms of regulation, that aim to address the existing maldistribution of the EHCW—for example, the low numbers of entry-level health care workers in rural, low-income, and minority communities. Ways to improve distribution include targeted training, recruitment, and compensation. Telehealth, which can also be used to increase access and address maldistribution, is considered in Chapter 13, where we discuss technology more broadly.

Target Training and Recruitment to Areas of Need

One way to address maldistribution is to focus training and recruitment efforts in locations and for populations where the mismatch between supply and demand is particularly pronounced, especially for specific job categories. Policymakers and program managers can leverage labor market data to identify shortages and provide appropriate motivation and incentives to steer job seekers toward underserved communities and populations. For example, in a phone discussion on June 20, 2019, one key informant told us that "We use labor market data to identify where shortages are, which allows us to do career counseling with workers who are interested. We help them steer toward occupations where they are likely to get hired where there is a shortage in the field."

Research on training availability can also be used to guide targeted training and recruitment efforts. In a presentation to the IOM at a workshop titled *Allied Health Workforce and Services*, a group of researchers mapped community colleges to find areas that lacked access to one of 18 "rural-relevant allied health occupations."[37] These were positions that can be filled by candidates with training at a community college.[iii] The researchers found that large areas of the United States, especially in the Midwest and West, had no community college programs for these occupations. They also found that only 78 percent of rural populations in the country are within a 60-minute drive of a community college with an allied health occupation training program. When sorting programs by occupation, they found that more rural populations (55 percent) were within a 60-minute drive of a program for MAs, but only 35 percent were within that distance of a DH program.[37] Identifying these kinds of gaps is essential for education program planning.

[iii] Specifically, these occupations are DA, DH, health information and medical records technician, MA, occupational therapist assistant, pharmacy technician or assistant, physical therapist assistant, veterinary technician or assistant, cardiovascular technologist, electrocardiograph technician, emergency medical technician or paramedic, nuclear medical technologist, radiation therapist, respiratory care therapist, surgical technologist, diagnostic sonographer or ultrasound technician, radiographer, and clinical or medical laboratory technician.

According to the lead researcher on this project, "We need data to begin getting the right people at the right places at the right times."[37]

States have created programs to focus training opportunities for entry-level health care workers in rural areas. The MRAHPTP, for example, enables rural training opportunities for EHCW students in the state. Housing and transportation costs are covered during the students' clinical rotations if the rotations are done at a rural training site. The program's overall goal is to provide these students with rural, community-based clinical training rotations and eventual employment with a rural health care provider.[208] The Workforce Investment Program for LTC workers in New York was authorized by the Medicaid Redesign Team Waiver Amendment under New York's 1115 Demonstration Program and allocates $245 million to initiatives that recruit and retain health care workers in Long Term Care Workforce Investment Organizations in the state. The program has a broad goal of supporting the critical long-term health care workforce infrastructure but will also undertake other initiatives, such as developing plans to place LTC workers in medically underserved areas.[331]

There is evidence that such programs work. For example, the HRSA-funded Behavioral Health Workforce Education and Training Program (BHWET) aims to expand direct mental health service access in underserved areas. This program improves behavioral health outcomes in underserved communities by supporting the expansion of internship and field placement training experiences for behavioral health workers and peer paraprofessionals. Results so far demonstrate success: One year after program completion, 47 percent of graduates were working in a medically underserved community or rural area and roughly 60 percent were working with children or transitional-aged youth—a vulnerable population at risk of developing behavioral health problems that the program aims to address.[332]

Other policies can support better distribution. For example, the 2014 Workforce Innovation and Opportunity Act authorized funds for federal grants to states for public employment service programs to expand access to worker training, education, and support services. It also aims to help employers find workers.[333] This work is mostly done through state and local organizations and is very relevant for the EHCW.[334] When the funding is used in mismatched areas, it can help address the challenges this workforce faces.

Use Compensation to Improve Distribution

A commonly tested approach to improving geographic distribution is loan repayment or other kinds of financial compensation. Financial incentive programs have placed significant numbers of health workers in underserved areas.[335] A 2017 report by the National Conference of State Legislatures on improving access to care in rural and underserved communities identified several compensation strategies to address maldistribution at the state level, including pathway programs, scholarships, and loan repayment programs.[334] However, the majority of these loan repayment programs support only physicians and others with advanced training.

Housing is a benefit that was suggested both by some key informants (noting in a phone conversation on , that workers at many agencies often lack stable housing) as well as some research studies, including a 2017 report that found that "among the 203 metro areas studied, home health aides [were] able to afford to rent only a modest two-bedroom apartment in one metro area: Mansfield, Ohio."[336]

Although in an ideal world, market forces would lead employers to pay employees a living wage, this is not always the case—including for members of the EHCW.[84] For example, despite the lower cost of living in rural parts of the United States, many individuals become wedded to their local communities, making the financial pull insufficient to overcome maldistribution.[84]

Policy Opportunities

Despite many examples of programs addressing maldistribution, there is a shortage of research on what kinds of interventions work. The following actions could be considered:

- **Leveraging market data to steer job seekers toward high-need settings.** Better data are needed for employers to maximize the use of targeted training and hiring, including data that track whether individuals trained and hired in rural settings ultimately stay in these communities or move elsewhere. Conversely, economic data from job postings could be used to determine the threshold difference in market salary at which job seekers are sufficiently enticed to relocate to underserved settings. Likewise, techniques in advertising, such as A-B testing, could help determine the type of messaging that is effective in appealing to job seekers who might consider this sort of career.
- **Increasing financial incentives.** Financial incentives show promise for distributing primary care health care providers, including some nonphysician roles, such as DHs, to rural areas and retaining them there. Expanding the application of these financial incentives could be one strategy for enticing providers into underserved communities.
- **Exploring nonfinancial incentives.** Nonfinancial incentives have also been shown to affect distribution, although with limited evidence specifically for the EHCW. Access to affordable housing might be a key element in recruiting entry-level workers, particularly direct care workers.

11. Objective VIII: Empower the Workforce

Empowerment is a fuzzy term. However, it is an important concept when considering mechanisms to strengthen and expand the EHCW. In the EHCW context, we are referring to the degree of power EHCW members have to represent their own interests.[337] *Empowerment* in this sense, particularly in the form of unions, can improve wages and working conditions, provide greater workforce protections, and provide EHCW members with a say in their roles and responsibilities—ultimately leading to more-fulfilling experiences. We discuss empowerment from three vantage points: unions, cooperatives, and coalitions.

Role of Unions

The U.S. health sector, particularly with regard to the EHCW, is one of the most unionized industries in the country. For example, National Nurses United (NNU) has 185,000 nurse members across all 50 states,[338] while the SEIU represents more than 1.9 million members, including HHAs, nursing assistants, and lab technicians.[339]

The role of unions can be seen in a variety of recent examples. In July 2019, an SEIU chapter in Oregon settled a multiyear contract dispute for 24,000 state employees—including HCWs—that generated a 10 to 15 percent annual wage increase and no rise in health insurance costs.[340] Similar increases have occurred in states like Washington.[341] In another example, the NNU ratified a five-year contract in 2018 that prevented KP from reducing the wages of 19,000 nurses and that increased nurse staffing hires as KP transitioned to a new EHR system.[342] A third example comes from the National Union of Healthcare Workers, which won a case in 2017 to rehire and provide backpay for five nursing home care workers who were illegally fired after the individuals planned to assemble in opposition to workforce and patient safety conditions.[343] In examples such as these, the collective assembly of the EHCW to represent their interests through unions has led to financial and health benefits and workplace protections.

The role of unions is less clear in increasing workplace satisfaction. For example, a 2011 study found that unionized RNs reported less job satisfaction compared with nonunionized RNs.[344] However, it is possible that dissatisfaction was the reason employees joined unions in the first place.[345] Evidence indicates that union members are less likely to quit their jobs compared with non-members, which might be partially attributable to financial and other benefits secured by unions.[345] However, more research is needed that is specific to individual EHCW occupations.

Discussions with EHCW experts highlighted the role of unions in informing practical decisions. For example, in a phone conversation on June 11, 2019, one key informant at a large health system remarked about engaging unions: “We are always assessing what patients are

expecting . . . changes in the marketplace, having conversations with unions' underlying staff." In a phone discussion on July 9, 2019, another key informant, in discussing recruitment efforts, said, "The union is our third partner in this," noting that the union works with the employer to identify and recruit workers to go into programs: "If the union takes shared responsibility for skill enhancement, the employer and union will work together."

Role of Cooperatives

A *cooperative* is a firm that is owned, controlled, and operated by its employees.[346] In a cooperative, individuals function as an autonomous collective with mutually shared economic and vocational goals. Compared with a top-down management structure, in a cooperative model, a large share of the decisionmaking is democratic. The cooperative model is relatively rare in the United States compared with European countries, such as the United Kingdom. However, approximately 1 billion people worldwide are members of cooperatives,[347] and cooperatives have several potential benefits for participating members. First, by shaping the direction and organization of the company, members might have a stronger sense of ownership and self-efficacy, which promotes job satisfaction.[348] Second, and relatedly, pay might be more evenly distributed among members of the workforce, leading to higher wages among entry-level workers.[349] Third, compared with other business models, cooperatives tend to be more resilient and therefore promote job stability. For example, a 2007 study found that the five-year survival rate of cooperatives in the United States is 90 percent, compared with 3–5 percent for traditional businesses.[348]

There are few cooperatives in the U.S. health sector. However, home care represents an area in which the cooperative model has recently grown. For example, Cooperative Home Care Associates (CHCA) is a nationally recognized, worker-owned home care agency of more than 2,000 individuals that offers a free, four-week HHA training program in English and Spanish, with graduates receiving certification as HHAs and personal care assistants and guaranteed employment at CHCA.[350] CHCA successfully trains more than 600 low-income and unemployed women each year, primarily in the Bronx.[351] In another example, a partnership launched in 2017 between the American Association of Retired Persons (AARP) and Capital Impact Partners has sponsored a national effort to scale worker-owned home care cooperatives throughout the United States, with the aim of using this model to empower women aged 50 and older who have experienced economic inequality and job insecurity, a population that represents a majority of the home care workforce.[352] The partnership extends opportunities for training, competitive wages, and career advancement for participants. One beneficiary of the program, Peninsula Homecare Cooperative, has been in operation for three years; we discuss it in depth in Appendix A. A national steering committee set several targets for the AARP and Capital Impact project, including: (1) to reach 10 percent of unemployed women aged 50 and over with caregiving skills and (2) to ensure that 75 percent of business revenues return to worker owners.[353]

Cooperative models among EHCW occupations apart from the home care sector are less common but extend into the areas of nursing, peer support, and mental health counseling.[354,355] Cooperative models also exist—on a much larger scale—on the consumer side in the form of cooperative health organizations.[356] However, cooperatives face barriers to entry, such as lack of access to capital[357] and difficulties developing and maintaining an organization that uses a decentralized management framework.[358] The cooperative model was raised in two qualitative discussions with experts. The first discussion, with Kippi Waters, founding member of the Peninsula Homecare Cooperative in Washington state, illustrated the benefits of cooperative membership. Waters stated that "We had about 24 percent turnover in 2018, but I think the national average is 70–80 percent." Offering additional perspective on the benefits to cooperative members, she remarked that "Sometimes people just don't show up. But when you're an owner, you show up . . . they take this seriously." The other key informant with knowledge of home care cooperatives had a similarly positive outlook, noting in a phone conversation on July 17, 2019, that there are roughly a dozen home care cooperatives operating in the United States, and that there is critical mass on the ground that includes support from the USDA.

Role of Coalitions

Coalitions, much like unions and cooperatives, are tools of empowerment for entry-level health care workers. Coalitions are temporary partnerships to achieve a common goal.[359] In contrast with other forms of partnership, in which organizations align with a shared mission and purpose, coalitions represent entities with divergent missions and purposes that assemble temporarily based on a specific, mutually held objective.[359] In the context of the EHCW, coalitions tend to be public-private partnerships that bring together entry-level health care workers, insurance companies, providers, government agencies, and political representatives that might—at times—have asymmetric priorities but agree on the urgency of a particular policy matter. In this environment, EHCW members have a unique degree of leverage in that they have equal footing alongside other actors with strong decisionmaking authority.

A prime example of an effective coalition is the Florida Community Health Worker Coalition (FCHWC).[360] This coalition has sought to advance the development of the CHW profession in Florida across multiple domains—including training and career development—by convening presidents of educational institutions, directors of state government agencies, executives at health organizations, and more than 500 members of the CHW workforce around shared objectives.[360] To ensure alignment of stakeholders and assess progress, FCHWC has hosted a Florida CHW Summit each fall and spring for nine years. There are subgroup committees and a board of directors. Deliverables include a CHW census, a certification process and standard state curriculum, a workforce strategies plan and mentorship project, and a compendium of practice-based research.[361] A second example is the Washington Healthcare Worker Training Coalition, which was an alliance between Washington state's Workforce Training and Education

Coordinating Board, local union chapters comprising EHCW members, community colleges, workforce councils, and health systems to train 550 low-wage EHCW members into higher-paying, high-demand professions.[362] It was completed in 2013. In this instance, the objective of the coalition was to support acute care needs in hospital settings. As articulated by a key informant with knowledge of the coalition in a phone conversation on July 9, 2019, the grant allowed them "to connect long-term care workers and tie it to a career path that leads to even higher pay in an acute care hospital setting."

Formal evaluations of coalitions are infrequent, in part because the broad scope and scale of activities are not amenable to evaluation. However, there are instances of tracking progress toward coalition objectives. In the FCHWC example, objectives have been updated and tracked on an annual basis in alignment with a broader mission. In the Washington example, the coalition ended after 550 trainees completed participation and job placement. More broadly speaking, there is some evidence from the literature that the success and sustainability of coalitions depend on the degree of local buy-in, as measured, for example, by the number of engaged entities and the degree of leadership exhibited.[363] For instance, an analysis of the Health Communities Access Program, which strengthened local safety nets through financial support of 260 coalitions across 45 states, found that more than two-thirds of coalitions were sustained after federal funding concluded, and that those most likely to succeed had a larger and more-diverse body of members and strong leadership, as exhibited by the formation of a board of directors or executive committee.[202]

Policy Opportunities

Mechanisms that promote EHCW empowerment—such as unions, cooperatives, and coalitions—might offer strategies to address worker vulnerabilities to job pressures created by such factors as low wages and lack of job security. We offer the following policy considerations:

- **Bringing unions to the table in efforts to empower the EHCW.** Unions are tightly woven into the fabric of the U.S. health care system. As a direct advocate for the needs and concerns of EHCW members, unions can be crucial members of coalitions and partnerships seeking to address EHCW challenges.
- **Replicating cooperative models**. There is evidence from other sectors that cooperative models have greater long-term stability than other models of practice. The few examples of cooperatives for the ECHW support replicating these models in the home health care sector. Evaluating whether cooperatives lead to improved retention, wages, and job satisfaction among members, in addition to positive patient outcomes, can determine whether broader scale-up is well advised. Barriers, such as limited access to capital for starting cooperatives, could be overcome through federal subsidies or reduced loan rates.
- **Creating coalitions to address EHCW challenges.** Coalitions, especially at the state and community levels, might level the playing field such that all stakeholders have a voice in shaping coalition objectives and mission.

12. Objective IX: Recognize the Financial Value of the EHCW

In earlier chapters, we discussed incentives that affect individual decisions to enter the EHCW and work environment issues that affect retention. In this chapter, we discuss broader issues that transcend each of these topics and address issues regarding how the health care system values the EHCW and how individual providers incorporate these employees into their workplaces. We focus on policies that shape the development of the EHCW and recognize their value. These policies include wages, reimbursement, research on cost savings and return on investment, and challenges with unpaid work.

Wages

Entry-level health care workers typically receive low wages,[364] particularly in long-term and home-based care, where, according to a phone conversation with a key informant on June 20, 2019, many jobs pay minimum wage and workers cannot secure full-time work. Access to health insurance is also limited because of part-time status, informal arrangements, and contract status, although Medicaid expansion has increased coverage rates for hundreds of thousands in this workforce.[365,366] According to a phone conversation with a key informant on May 17, 2019, entry-level workers in community-based clinics and nonprofit organizations also receive lower wages because community agencies have fewer resources for worker salaries and benefits. According to phone conversations with several key informants on May 3, 2019, May 16, 2019, and May 13, 2019, the degree to which certain occupations are valued by health care institutions can also shape salaries: A lower perception of workforce contribution can translate into lower wages.

It is difficult to track EHCW wages, particularly in home-based care, where individuals might be paid out of pocket in cash for services, according to a April 23, 2019 phone conversation with a key informant. Moreover, public databases on employment and income, such as the American Community Survey and Current Population Survey, do not successfully capture wages from multiple employers. Individual wages are reported either in aggregate or for an individual's primary occupation. Against this backdrop, determining trends in wages and wage growth can be challenging. However, the available evidence points to relatively stagnant wages. For instance, wages in the home care sector have barely changed during the past decade, increasing less than fifty cents per hour, from $10.66 in 2007 to $11.03 in 2017,[21] which is consistent with low-wage worker roles in other sectors.[367] Low wages have a dual impact: First, they suppress level of entry into a profession,[368] and second, they contribute to turnover by pushing workers to search for jobs with higher levels of compensation.[369] Low wages also have other harmful effects on health and family.[370,371]

More broadly, low wages for EHCW members are associated with costs to federal benefit programs such as SNAP (i.e., food stamps), Temporary Assistance for Needy Families (TANF), housing assistance, and Medicaid. At least 25 percent of PCAs and nursing aides, psychiatric aides, and HHAs are estimated to receive SNAP benefits, based on 2015 American Community Survey data,[372] and more than one-third of HCWs have Medicaid, Medicare, or another public health insurance option, according to 2016 American Community Survey data.[21]

Two programs that reported committing operating budget funds to improve EHCW wages are the Christus Spohn Health System CHW program and the San Francisco Department of Public Health CHW employment track. At Christus Spohn Health System in Corpus Christi, Texas, the employer reported paying CHWs full-time salaries to staff the emergency department and inpatient units using resources especially committed as part of the operating budget, with support from leadership for this earmark.[373,374] In the city of San Francisco, California, the CHW employment track is a career ladder program through which CHWs can advance to supervisory and specialized positions and receive salaries according to an increasing pay scale.[373,374] The city budget has been permanently modified to allow CHW positions to range from I to IV, with each successive level associated with higher pay.[375]

We spoke with several key informants about wages among peer specialists at the VA. According to a phone conversation with one key informant on May 13, 2019, peer specialists at the VA have upward mobility through advancement within the General Schedule (GS) pay scale for federal workers. According to one knowledgeable key informant, peer specialists receive pay at levels GS-6 (ranging from $33,567 to 43,638 in 2020, not including locality pay adjustments) through GS-9 (ranging from $45,627 to $59,316 in 2020, not including locality pay adjustments), with GS-6 being the most common level. Another expert on the peer specialist role in the VA system reported in a phone discussion on June 7, 2019, that the VA is the largest and highest-paying employer of peer specialists in the United States. They mentioned that receiving a comparably high wage as a peer specialist is far more difficult in community-based agencies. Moreover, they noted that community-based peer specialists often need to pay for their own training and continuing education.

Wage Policy

We identified policies in various stages of consideration or enactment that would increase wages among certain occupations, often for home health workers. One example is Illinois's Community Care Homemaker Wages Bill of 2018, which raised wages for home care workers by increasing the overall rate paid to the social service agencies.[376,377] Another initiative, the Universal Home Care Program, was on the ballot in November 2018 in Maine but did not pass. This policy aimed to increase the salaries and improve the training of home care workers with funding from a proposed payroll and nonwage income tax.[378,379] At the federal level, the U.S. Department of Labor mandated that, beginning in 2015, home care workers are eligible for

overtime and minimum wage protections in accordance with the Fair Labor Standards Act.[380,381] There have been reports that enforcement has been ineffective, and some advocates have pushed against capping work hours.[365] In general, efforts to influence wage policies and related labor laws for members of the EHCW have been hard-fought, incremental, and fragmented.[365,382-386]

Some sources in the literature raised the issues of financial sustainability in connection with equitable delivery of health care, and some of our key informants echoed this.[387] For example, in a phone discussion on July 31, 2019, one key informant remarked, "How do we use change to impact quality of care and jobs and equity in the delivery of care and access to livable wages? I think there's opportunity to think about how programs serve that focus." Another, discussing the peer specialist position in a phone discussion on May 13, 2019, stated, "If it's a job that you want people to stay in, you do have to create a good living wage and a career ladder."

Focusing on mechanisms to make the labor market for EHCW members more competitive might provide a productive pathway to results. One team of researchers identified policy levers to support this objective with regard to LTC, but their recommendations are applicable to all EHCW occupations:[84] (1) raising wages such that worker compensation is in line with wages paid to workers in other settings, and (2) expanding Medicaid wage pass-throughs, which are state-level allocations of funds provided through Medicaid reimbursement for the express purpose of increasing compensation for direct care workers.

Reimbursement Policy

Reimbursement for health care services is at a transition point. Organizations that provide health care services traditionally have received most payments on a fee-for-service basis, which incentivizes organizations to prioritize volume over the value of care.[388] Reimbursement is increasingly shifting to a value-based model, which rewards the health care organizations based on the value of the care delivered rather than the quantity of services provided.[389]

Currently, members of the EHCW are paid in different ways. For example, HHAs are paid via a fragmented system, sometimes directly and sometimes through an agency. Medicaid benefits vary from state to state, with wages set by the state's Medicaid program.[404] Medicare's fee-for-service payments are organized around episodes of care rather than direct payments,[390] and in other cases, aides are paid by families directly. CHWs, peer specialists, and MAs are commonly salaried and paid through health centers, but the health centers in which they work are usually paid on a fee-for-service basis, meaning that entry-level health care workers can only indirectly enhance health center revenues by making higher-level workers more productive for billable services. This payment scheme makes it hard to assess the effectiveness of increased payments for this cohort. However, as payment shifts to value-based models, the role of the EHCW in reducing costs becomes clearer. For example, with risk-adjusted capitation, organizations are paid a fixed amount to care for an individual with a health condition over a set time interval.[391] In this value-based model, the organization is incentivized to provide high-

quality community-based care that relies on competent and well-equipped entry-level health care workers because this is a less expensive alternative to complex, facility-based care that might be required if health conditions are allowed to worsen.

CMMI is a division of CMS that tests innovative health care payment and service delivery models. CMMI funds demonstration programs to explore how to achieve high-quality care at lower cost because CMS oversees two of the largest health insurance systems in the United States and is responsible for two sets of high utilizers: the disabled and the elderly. For example, Comprehensive Primary Care Plus, a demonstration model funded by CMMI, is a national, advanced primary care medical home model through which roughly 2,900 primary care practices track performance and receive payments based on access and continuity of care, care management, comprehensiveness and coordination, patient and caregiver engagement, and population health. Compensation is risk-adjusted for each practice to account for intensity of care management services required, based on treatment population.[392] Comprehensive Primary Care Plus includes a standard set of reimbursements for a variety of health services provided by the EHCW, including home health care, transitional care management, and skilled nursing facility care.[393] However, evidence from the first annual evaluation in 2019 indicated no uptick in the volume of EHCW-related services.[394]

ACOs that leverage provider networks to coordinate care of Medicare patients—and theoretically achieve cost savings—have an incentive to rely on EHCW roles, such as MAs, to perform such activities as patient visit reminders and referral coordination, but the impact of ACOs on EHCW members has not been examined in significant detail. Collectively, these payment policies and pilot programs have had only modest implications for the EHCW. However, a fuller transition to a value-based model of health care delivery could have a more sizable and transformative impact on the EHCW.

Key informants alluded to federal legislation that has shifted the landscape for EHCW members. According to our literature review, broadened reimbursement policies reflected in the ACA could lead to greater utilization of EHCW members.[395] A key informant from the VA explained in a phone discussion on June 13, 2019, that changes in provider classification for peer support staff have allowed providers—first at the VA, but then in the private sector—to bill for peer support: "National Uniform Codes define which careers exist which define roles and [Centers for Medicare and Medicaid Services (CMS)] services, and there was no code for peer specialists. . . . In turn, this helped the private sector because now they had a provider classification so that CMS could pay for peer support."

There is also movement toward a policy change in the way CMS reimburses some types of in-home care. CMS offered direct reimbursement for nonmedical in-home care as a supplemental benefit for Medicare Advantage plans for the first time in 2019, but only 3 percent of plans offered such a service in 2019 because of little time to plan.[396]

Demonstrating Cost Savings

Another way in which entry-level health care workers can demonstrate value is by pointing to cost savings—relative to the cost of higher-paid health care providers—as the result of their involvement in care. Several studies have detailed the potential for cost savings. In an FQHC in Colorado, for example, MAs were trained to assume the roles of health coach, patient navigator, and CHW. This increased MA productivity by 50 percent, generating an additional $500,000 per year in revenue.[102] Researchers at Cornell University designed a 20-percent full-time equivalent retention specialist role to address CNA turnover at nursing homes. The result was an average reduction in turnover of 10 percent,[309] which should theoretically result in significant cost savings, although the extent of such savings was not quantified in the study.[397]

A systematic review of the potential cost savings of using CHWs reviewed 34 primary research studies, including 16 randomized controlled trials (RCTs).[398] CHW interventions had variable effects but resulted in average cost savings on the order of thousands of dollars per patient. For example, a study that used CHWs to facilitate asthma management of African American children in Chicago resulted in cost savings of more than $2,500 per participant, with an average program return on investment of $5.58 per dollar spent.[399]

Better information about which interventions with which job roles are cost-effective, and in what contexts, might persuade health systems and providers to scale the use of the EHCW and prompt insurance companies to reimburse for these services. A key informant noted in a phone conversation on June 13, 2019, that as more studies are published regarding the benefits of peer specialists, more discussion about reimbursement has followed.

Unpaid Roles

Although we have focused on the paid workforce, there are many uncompensated caregivers, often family members, who provide direct support to elderly or sick relatives. According to the Family Caregiver Alliance, these caregivers also coordinate care within the medical system, play an active role in condition monitoring, and often serve as advocates for high-quality care.[400] Family caregivers and other informal care providers are essentially part-time workers. The cost of this unpaid work was estimated at $470 billion in 2013; it exceeded the value of paid home care and total Medicaid spending, and "nearly matched the value of the sales of the world's largest company, Wal-Mart ($477 billion)" that year.[400]

As important as this informal caregiver workforce is, we lack a clear understanding of its size and the extent of its labor efforts; size estimates, for instance, range from 3.5 to 65.7 million.[400,401] Recent policies have aimed to support this unseen workforce, such as the Recognize, Assist, Include, Support, and Engage Family Caregivers Act.[402] This law provided a mandate for the Secretary of the U.S. Department of Health and Human Services to develop, maintain, and update a strategy to recognize and support family caregivers, although to date no funds have been authorized for this activity.

Policy Opportunities

There are several ways to better recognize the value of the EHCW, including remunerating them and better demonstrating their value. We identified the following policy opportunities in this area:

- **Increasing wages for the EHCW.** More than half of paid HCWs rely on a form of public support, and average wages for many EHCW members are close to federal poverty levels. Higher wages would draw more individuals to EHCW professions.
- **Piloting cost-savings evaluations.** Pilot programs to strengthen the EHCW, sponsored by HRSA and others, routinely contain an evaluation component. Requiring these evaluations to include cost-benefit and cost-effectiveness analyses could provide evidence of the financial case for such programs in both the public and private sectors.
- **Considering ways to leverage the EHCW to support transitions toward value-based payments.** The role of the EHCW is circumscribed in settings where there is a financial incentive to provide complex, physician-based services within health facilities. CMMI and other entities are continuing to transition to value-based care through alternative payment models, but further experimentation and evaluation are needed. As organizations shift to value-based payment models, there might be new opportunities for the EHCW to demonstrate the value that this workforce adds.

13. Objective X: Use Technology to Support the EHCW

Across the key objectives detailed in the past nine chapters, technology has been a recurring theme. It supports many of the activities detailed earlier, such as training, which we discussed in Chapter 4. In this regard, the CHAP model in Alaska—which we discuss further in Appendix A—represents a paradigm success case: Trainees in remote communities are able to electronically engage with learning materials in real time and asynchronously, and this is bolstered by in-person meetings and practicum experiences that occur intermittently.

In this chapter, we describe some of the new technologies that, if they are effectively used to support and enhance the EHCW role, could improve patient health. The ways technology can contribute in the health care setting are extremely diverse, including improved quality, increased access to care and information, better and more accurate record storage and access, and use of online jobs boards.[206] LTC settings lag in the use of technology compared with other settings and therefore are especially ripe for new digital interventions.[403,404]

Telehealth and Teleconsultation

Telehealth can improve access in underserved and rural communities[405] by reducing wait times, decreasing transportation requirements, and improving access to specialty care.[334] Specifically, live video is a way for health care providers to provide access to people in rural or otherwise underserved areas using technology. However, telehealth often requires a trained person to be onsite with the patient to set up the technology and sometimes to do more-clinical work, such as assessing the patient on behalf of the remote provider. This technology can also enable remote consults or advice from more-expert clinicians, whether the local person is an entry-level health care worker or another kind of provider. For example, as of 2014, the chain pharmacy CVS is using LVNs to staff its MinuteClinics in rural locations; those LVNs are connected to NPs at a distant MinuteClinic who are responsible for the diagnosis and treatment plan. The LVN enables the remote NP to see the patient's ears and throat and listen to the patient's heartbeat via devices that transmit live video and images.[406]

Use of telehealth for behavioral health has been increasing and has been shown to be as effective as in-person treatment in some cases.[407-409] Behavioral health poses a particular opportunity for telehealth because so much of it is based on conversation and prescribing rather than a physical examination. At the same time, there are sometimes downsides to not having face-to-face interaction. As one key informant told us in a phone discussion on June 13, 2019, "There's always continuing discussions about how to do telehealth well for behavioral health in particular." Current barriers to telehealth include cost, infrastructure, and reimbursement; addressing these barriers will increase access in general but could make it easier for EHCW

members, such as peer specialists, to address behavioral health services gaps in particular, given the fact that most behavioral health care does not require direct physical interaction. Currently, where billing codes do exist to support telehealth, members of the EHCW generally are not eligible to use them because of the type of service offered or their occupational classification.[410]

Devices

Researchers have identified several ways in which technology can help the home care workforce;[411] specifically, with training and skills development, communication and coordination, and workforce management. A fourth category is augmenting direct assistance using technology. This is an emerging field and is limited by client knowledge and understanding of technology, issues of privacy and reliability, and lack of evidence of impact, but there is potential for home monitoring, remote tracking, and new devices that can help reduce the need for some in-person services. Devices often are used by patients or their caregivers, but they need trained personnel to set them up and interpret the results. This can be a role for members of the EHCW; for example, by training patients on device use, monitoring results, and downloading and submitting data from the devices for interpretation by other experts.

Payment models are newly supportive, and several billing codes have emerged to support remote monitoring. Easier access to reimbursement likely will also drive increased use.[412] There are many benefits to home monitoring, such as allowing health care workers to monitor more patients or save trips solely conducted to collect measurements, enabling more-frequent monitoring, and empowering patients by allowing them to better track and report their own symptoms. However, not everyone has access to these tools.[413-416] As one analysis in *Health Affairs* concluded, "In sum, the availability of assistive technologies to help home care workers support their clients is limited by inadequate investment in research and development (with translational research in home care settings especially needed, to identify the conditions and competencies that are required for their safe implementation), and access is unevenly distributed by population, region, and other factors."[411]

EHCW members are also using increasingly complex technology as part of their jobs, including radiology technicians, who use complex imaging machines, and MAs, who routinely use digital blood pressure cuffs, thermometers, and scales. However, they are far removed from the device makers. As noted at a workshop at the National Academy of Medicine, "Many if not most of the allied health professions are driven and defined by technology,"[37] which suggests that these professionals could get involved with manufacturers in the design of the tool they use (although this report includes health professionals with bachelor's or master's degrees as well).

One workforce expert noted the promising potential for technology to have an impact in direct care, but this enthusiasm came with a caveat. Technology can improve communication and enable documentation of observations, such as taking a picture of a bedsore, for example, and sending the picture to a clinician for immediate assessment. This expert noted in a phone

conversation on May 28, 2019, that "We do believe there's opportunity for technology to have a positive impact. It's a matter of finding the sweet spot that would be sustainable for the system. The challenge with the technology piece is cost." Other experts, in a report on behavioral health in Nebraska, note that the major cost issue is reimbursement to cover not just the technology but the startup costs and time, suggesting that even small grants could help adoption of telemental health services.[417]

Coordination and Communication

Across the United States, health care organizations are working to modernize their technological systems, including by improving their EHR systems and the interoperability between (and often within) institutions. These tools, however, are not always designed with the EHCW in mind, meaning that there are not ways for workers to log in or enter information that would be helpful to the team. To promote coordination of care, the EHCW could be trained and contribute to the interspecialty communication that takes place via the EHR system. In a 2012 survey conducted by researchers at the University of Washington, two-thirds of respondents at clinical practices stated that they were seeking further EHR or health information technology (HIT) training for their staff, with nearly one-third noting that access to baccalaureate or higher-level training was a barrier to EHR and HIT use.[89]

Many LTC settings do not have EHR systems, and there are few ways to connect with services in the social assistance sector electronically, which is one of the roles of EHCW members. Where there are electronic tools, they do not usually integrate well or effectively share client information, including the integration of behavioral health records with primary care records.

Limits to Technology: Access and Training

There are also limits to technology. Sufficient internet access is essential but is lacking in many rural parts of the United States, where one-quarter of the population says access to the internet is a major issue for their community.[43] As noted in a report from the University of Washington on the HIT needs of rural primary care practices, "Accessing the Web/Internet challenged nearly a quarter of practices in isolated rural areas, and nearly a fifth in small rural areas. Finding relevant vendors/consultants and qualified staff were greater barriers in small and isolated rural areas than in large rural areas."[89]

Even where there is internet access, a portion of the population lacks the devices or the education to use it, and these barriers are also related to socioeconomic status. For example, in a study as part of the IMPaCT efforts (see the full case study in Appendix A), organizers wanted to use a smartphone-based glucometer to track blood sugar for a diabetic population. It did not work, according to the coauthor and founder of IMPaCT, because of the digital divide experienced by the population that comes from high-poverty zip codes: According to a 2019

article, “We act like everybody has the same tools. They don’t. . . . People don’t have smartphones. And even if they have the device they may not have the data.”[418] Addressing these inequalities is much more challenging than simply providing the devices or tools.

Another report out of Montana noted a similar challenge. When workers do not have information technology skills, it not only poses issues related to doing one’s job; it can even make it hard to get one. According to the report, “Lack of adequate [information technology] skills also presents a challenge to employers. One employer stated that prospective employees can’t complete an online job application.”[208] Some employers address this problem for employees. KP has a program to promote “digital fluency” through free online courses for staff to learn to use computers, mobile devices, and data, and it even lends employees computers to take the courses if they do not have them (see the case study in Appendix A).[419] Other employers feature technology prominently as part of training.

Policy Opportunities

We identified the following policy opportunity for this objective:

- **Encouraging technology adoption and standards for interoperability.** As members of the EHCW expand their roles, their engagement in communication and documentation becomes increasingly important. Workers should be trained in technology, and particularly in the use of EHRs. Telemedicine from remote practitioners is unlikely to address the shortage of rural providers, but telemedicine tools can be used to fill gaps in care coordination, especially in cases where EHCW members are visiting patients at home, in the community, and in underserved areas. Ongoing work to standardize interoperability and data transfer into post-acute care settings—through such coalitions as the Post-Acute Care Interoperability (PACIO) Project[420]—will enable greater participation of the EHCW in reviewing and exchanging patient information. More research is also needed on how monitoring and tracking devices can support better patient outcomes.

14. Research Needs

There is extensive research on entry-level workers in health care, some of which is funded by HRSA's Health Workforce Research Centers.[70,421] However, many key informants and our review of the literature identified areas where there is a critical need for more data and evaluation work.

More Data, More Coordination

Several key informants noted that national data on EHCW supply and demand from the Bureau of Labor Statistics have limitations. They also pointed to the problem that states are not gathering important EHCW-related data. (Multiple key informants noted this in phone conversations in spring 2019.) According to a phone conversation with a key informant on June 24, 2019, "CHWs, coaches, [and] navigators are completely invisible or impossible to distinguish in data because there are no codes in the data." They continued, "Even in states that certify professions (e.g., peer providers for behavioral health or HHAs), there rarely is any additional data associated with that." Another key informant identified data as a problem for analysis or projections for this workforce in a phone conversation on April 23, 2019: "From my vantage point, one of the biggest gaps is data. . . . If there's no data to power the study, there's no way to get those projections out." The National Academies had come to this conclusion in 2011 after a workshop titled *Allied Health Workforce and Services*, citing experts: "Despite all these sources of data, the information available is not sufficient to meet many policy objectives. . . . Differences in data collection hamper comparisons across professions, area, and time."[37] Key informants reported on the need for the modernization of various forms of documentation associated with EHCW career paths, including the modernization of licensing bureaus to better connect across bureaus and allow better tracking for workforce planning.

Part of the reason for the lack of data is that there are no certifying agencies at national or state levels for certain professions—in part because these professions do not require certification. However, as noted earlier in this report, challenges with identifying job classifications stem from inconsistencies in understanding about the base competencies associated with different types of EHCW positions, which in turn causes challenges in establishing the standardization of training and certification. Where there is certification, states sometimes have information about recertification, age, and gender, but, according to a phone conversation with a key informant on June 24, 2019, they rarely have information about race or ethnicity, the kinds of settings in which individuals are working, or even if they are still actively at work because certifications can lapse. A few states were noted for short but robust surveys that are linked to licensure: North Carolina and Indiana, for example, collect information about demographics, language proficiency, work

setting, and degree of work commitment through surveys administered at the time of licensing or license renewal. However, despite recommendations from HRSA on minimum data set elements with relatively standardized terminology, the data are not available because there is no way to enforce these standards. The complexity of the system contributes to this: One key informant noted in a phone conversation on June 24, 2019, that California alone has multiple different agencies involved in home care licensing, including home health agency licensing, HHA certification, CNA certification, and PCA optional registration. Other data sources include establishment surveys and funding sources, such as the Perkins Data Explorer,[422] but each has limited purview. Key informants noted that, when data are available, the quality is often limited.

According to a phone discussion with a key informant on May 8, 2019, another challenge is nomenclature around job titles, which varies, making it hard even when there is information to compare between states. As noted earlier, another gap in knowledge relates to the unpaid workforce. Behavioral health is particularly lacking in information because it is often siloed from other medical care and because there is a wide variety of providers, including social services, that are beyond the purview of health care. In a phone conversation on June 13, 2019, one key informant said that "Some sort of 'registry' or a regular national data collection on the behavioral health workforce would be helpful in doing all the subsequent work," noting that the information needed goes beyond single roles:

> The idea that we continue to limit ourselves to provider-population ratios to decide how many people we need for really complex problems is not going to get us very far in the long run. Some type of model that looks at teams, the issues that you are trying to solve, who . . . the providers [are] that are educated, skilled and trained to address those problems and what's the mix of teams that you need to be effective there.

Federal agencies are required to use the Standard Occupational Classification System, but if there is not a code for an occupation, positions might be merged under a single term, with entry-level health care occupations grouped into the same codes. The opposite challenge also exists: Making changes to BLS is a public process, and some titles are introduced because of public demand, even though they are very similar to existing entries, according to a phone discussion with one key informant on April 23, 2019. Revision and standardization of occupation codes could improve tracking.

Improvements at the state level would help: A recent report called for significant updates to California's health workforce data system "to understand and address growing care gaps."[423] The report called for a more centralized point of data collection and more-comprehensive data sets for all health occupations. The Health Workforce Technical Assistance Center at the State University of New York at Albany inventories the information that states are collecting on the health workforce.[424,425] Better data at the state level would lead to better federal data.

All of this, however, would be only a first step in improving data collection. As one key informant noted in a phone conversation on June 13, 2019, many factors need to be considered

beyond the number of providers. As new delivery and payment methods are considered, more details about capacity and resources will be needed. Specific research questions are identified in Chapter 15.

Addressing Gaps in Research

Many key informants noted the need for more research in specific areas, such as scope-of-practice laws, new roles, and new team configurations. Some organizations have cataloged scope-of-practice laws, such as at the Scope of Practice Policy website,[426] but research on the impact of these laws is surely needed. Ideal team configuration is also an urgent research issue; one key informant called this topic a "wild west" in a phone conversation on June 24, 2019, observing rapid changes in team configuration but noting that "there is not a lot of research on what those models are, what they do, [or] what their impacts are." This key informant also noted a need for more information about regulations on scope of practice and the potential impact on patient safety of using new roles to provide certain kinds of care. Others noted the lack of research around CHWs and peer support staff and what practices have the best evidence, along with a lack of information about what training will actually improve health outcomes. Many reports also identified gaps in knowledge and identified areas of highest need, but priorities varied by location and author.[84,427-429]

Policy Opportunities

Better information systems would be required to collect better data. These data, in turn, could provide critical insights into existing and anticipated health workforce needs, allowing policies and programs to respond to this information. We identified the following policy opportunities:

- **Collecting more and better data.** Several recommendations from the University of California, San Francisco, report, *Envisioning an Ideal Health Workforce Data System for California*, can be applied more broadly, such as improving data collection on workforce supply and demand and on the education pipeline; expanding data collection to include jobs, wages, turnover rates, race or ethnicity, and languages spoken; and conducting surveys for all health profession education programs.[430] There also should be a way for the public to access this information, whether through email requests or direct online queries.
- **Developing a research agenda to strengthen the field.** Data are lacking on patient outcomes related to the EHCW, and what data do exist are predominantly self-reported. According to a phone conversation with a key informant on May 28, 2019, patient outcome data are needed to demonstrate the impact of investment on this workforce. More information is also needed on cost, scope-of-practice laws, and the impact of team-based models. Some of this work is already being done, but additional funding would enable research to examine these issues more broadly.

Part 6. Conclusions
(Chapter 15)

15. Conclusions

In this report, we have sought to achieve three objectives, the first two of which are (1) describing what is known about gaps in the health care workforce, the supply and demand mismatch of service provision, and the challenges facing the EHCW; and (2) identifying and cataloging innovative strategies that have been tested to strengthen the EHCW. We now turn to the third objective: outlining potential policy opportunities to address identified challenges. At the end of each of the previous chapters, we presented potential policy opportunities by objective, and we now synthesize these into five overarching policy approaches, presented in Table 15.1. We also offer detailed reflections on each opportunity.

Table 15.1. Policy Options, by Category

Opportunity	Approach	Potential Activities and Outcomes
I. Scale innovative efforts	Researchers could identify pathways to diffuse and scale promising models.	• Supported innovation and scale-up of most-promising models • Accelerated timeline for implementation of evidence-based models of care • Sharing lessons in a learning collaborative model
II. Evaluate new models of care	Research could attempt to evaluate the specific contributions of EHCW members to strengthen performance in new delivery system models.	• Researchers and implementers could identify methodologies to specifically evaluate the contribution of EHCW members for improved value in care delivery • Opportunities to test expanded or new roles for the EHCW • Greater evidence to demonstrate what types of integration work
III. Convene stakeholders to foster learning	An agency or institution with convening authority could assemble stakeholders at national, regional, and state levels as a resource for state coordinating groups.	• Ongoing coordination among employers, training programs, researchers, and others to better identify and support health care delivery needs with a workforce that is prepared to meet these needs • Information-sharing for problem-solving and efficient dissemination of new ideas • Cross-agency, cross-disciplinary, public-private coordination
IV. Address gaps in research	Research can be supported by a wide variety of entities.	• Identify important gaps in research and opportunities to fill research gaps • Support pilot studies with rigorous research methodologies that address specific gaps in research • Develop a knowledge base on the effectiveness and cost savings of potential programs and policies
V. Expand the use of technology	Public and private efforts can educate, standardize, and promote technology	• Access to patient clinical information and resources • Improved communication, tracking, and standardization • Broadened dissemination of best practices • Expanded access to training on, and adoption of, technology to strengthen the capacity of EHCW members to address a broader array of tasks

I. Scale Innovative Efforts

Financial support for programs and their evaluations varied considerably across the programs we identified. In some cases, projects were funded internally by employers to solve their own workforce needs. In other instances, external funders provided investments that varied significantly in terms of size, scope, and duration. The most successful models we identified drew from a source of funding that allowed implementers to establish a model, demonstrate impact, and (in the best scenarios) scale across domains or locations.

However, investments with a long view toward demonstrated impact and scalability were uncommon, as outlined in Chapters 4–14 and as indexed in the workforce data website.[74] Thus, it seems particularly useful to outline a short list of models that have been found to be successful on various metrics to bring attention to what appears to be working, in the event that other stakeholders want to consider opportunities for replication. To that end, we briefly note five programs in Table 15.2, three of which we discuss in more detail in Appendix A, for their unique approaches that might be generalizable elsewhere.

Table 15.2. Successful Innovative Programs

Program Name	Key Features	Measures of Success
Alaska's CHAP Location: Alaska	• Comprehensive program for recruiting, training, and retaining health providers in remote communities • Culturally competent and community-based • Training is highly flexible to accommodate trainee schedules, and participation is subsidized at a local level	• Longevity • Expansion (model exported to Ohio) • Review of more than 250,000 patient encounters published[35]
SEIU Multi-Employer Training Funds Location: national	• Partnerships between employers and union • Systematic approach to career advancement, including addressing skills, wage support, counseling, and health care	• Evaluations show the impact of training programs on retention and grade point averages[281]
PHCAST Training Program Location: six states	• Competency-based training model to develop certification for personal and home care aides • Federal support (ACA) through 2014 • Focused recruitment on unemployed individuals in low-income communities	• Evaluation found that "Training programs and certification for [personal and home care aides] appear to enhance workers' job satisfaction and career stability."[115]
Peninsula Homecare Cooperative Location: Washington	• A cooperative business model for home health care • Cooperative models have the potential to increase workers' sense of autonomy, improve wages, and offer more job resiliency • Evaluations of the cooperative model in home health care are lacking	• Business model has proved to be successful and sustainable[431]
BHWET program Location: national	• Funded by HRSA to expand direct mental health services in underserved areas • Requirement for reporting outcomes • Large spread; high rates of intention to work in rural areas	• Evaluation so far suggests success in terms of those working in the field[332]

NOTE: Three of these examples are covered in more detail in Appendix A. PHCAST is described in Chapter 4, Chapter 5, and Chapter 7.[115,143] BHWET is described in Chapter 10; more information can be found from HRSA and the American Psychological Association.[432,433]

Multisectoral Innovation Funding

Some of the innovative programs we identified came about because of local creativity, not because the mechanism that funded it was intended to address EHCW needs. For example, funding for the Peninsula Homecare Cooperative (see Appendix A) came from a loan from the Northwest Cooperative Development Center and from support from the USDA. Prior to Peninsula's request for funds, these funders would not necessarily have had reason to anticipate that their resources would be used for a home care cooperative. However, this model has proved to be successful. Another example of a broad funding mechanism that gave flexibility to grantees

to develop creative, on-the-ground solutions is the Robert Wood Johnson Foundation's Aligning Forces for Quality program, which aimed to improve "the quality, equality and value of regional health care markets." Implementation strategies differed at the local level.[434] A federal funder also could provide targeted funding through a broad request for proposal to encourage creative research or efforts to strengthen the EHCW.

When money is invested in communities, they can use those funds to address their specific needs. With appropriate support and oversight, communities often have the competencies to identify and solve difficult problems. Funding vehicles, such as grants, can be designed to target larger goals, such as the promotion of members of the EHCW to more-advanced jobs, but the institutions that receive funding could be granted more flexibility in choosing their strategic approach and theory of change. This is a framework that comports with results-based financing. In addition, funders could provide support to help local efforts, such as technical support and coordination with relevant community-based organizations. Ideally, funders also award projects based on their design for sustainability. We identified numerous programs that appeared to be successful, but implementation ended when grant funding ceased. Funders therefore might want to consider building sustainability goals into their funding mechanisms.

Matching funds, where federal funds are matched to state and local government investments or private-sector investments, encourage greater stakeholder buy-in as a way to promote accountability and success.[24] This is particularly relevant in the context of LTC, where Medicaid plays a large funding role. For instance, the Balancing Incentive Program provides financial incentives to states to increase access to noninstitutional long-term services and supports, which could bolster the workforce in this space.[24]

Replication of early successes can prove very challenging. With a few notable exceptions,[139] we did not encounter models that were widely replicated. As noted earlier, one way to support replication would be to establish formalized venues where workforce experts share their successes with funders, and funders in turn offer bridge funds to test replication of the model elsewhere. Innovative financing frameworks, such as social impact bonds, might be a way to motivate private-sector engagement in this space.

II. Evaluate New Models of Care

Entry-level health care workers in fee-for-service models are occasionally employed as a cost-saving mechanism, substituting for more-expensive individuals that have more training and specialization. Often, EHCW members are poorly integrated into existing models of care, either because reimbursement for their services does not exist or because cost savings have not been demonstrated. As models of care delivery become more team-based and as financial incentives continue to shift toward rewarding outcomes rather than service volume, cost management and care coordination dynamics might change. In this context, the role of EHCW members could

become more central, as EHCW members are trained in and tasked with coordination of care and patient education.

Experts expressed the idea that new models and configurations of care should be evaluated, including how EHCW members can be leveraged more effectively.[37] For workforce planning purposes, employers, training programs, and policymakers might benefit from a clearer understanding of the roles and responsibilities of EHCW members within different care configurations and how to maximize their potential.[38] CMMI has been a leader in this space, funding pilots programs that evaluate alternative care delivery models and payment structures with an eye toward workforce composition, efficiency, and cost savings.

One principal question in evaluating new models of care is whether and to what extent members of the EHCW should serve in certain types of direct clinical roles. In several case studies, such as Alaska's CHAP model, EHCW members are trained to engage in clinical activities, such as measuring vital signs, assisting in medication management, and providing patient clinical education, and these responsibilities can grow with experience. There is also room for individuals to assume greater clinical roles over time. However, phone discussions with several key informants on June 24, 2019 and May 28, 2019, indicated that other EHCW members are restricted from performing even the most rudimentary clinical functions, such as assisting the elderly and disabled with the administration of medicines or eyedrops. This is because of state-level scope-of-practice laws and institutional guidelines that attempt to mitigate liabilities or that might be based on institutional perceptions of the level of training required to perform a given clinical responsibility.[435] Variations in scope-of-practice laws for EHCW members involved in behavioral health have been organized and documented by the Behavioral Health Workforce Research Center at the University of Michigan.[436] Additional research could inform how the responsibilities of EHCW members could be assessed and broadened once they are found to be safe, effective, and cost-saving in specific settings.

III. Convene Stakeholders to Foster Learning

Although we identified programs and policies to expand and strengthen the EHCW at the local, state, and federal levels, these efforts were often fragmented and uncoordinated. This reflects the array of interests among diverse stakeholders: workers, employers, academics, unions, and other groups. As noted earlier, coalition-building has been critical in making various efforts in this space successful. Convening EHCW stakeholders to focus on action-oriented objectives could provide a concrete and low-cost way of soliciting input on major issues in need of traction.

There have been efforts to establish national convening bodies on this topic, such as the National Health Care Workforce Commission, which was authorized as part of the ACA and charged to develop a national health care workforce strategy. However, the commission was never funded and therefore has been unable to proceed.[437] Similarly, an Interagency Working

Group on career pathways was established after coordination efforts began on the topic between the U.S. Departments of Education, Health and Human Services, and Labor. The group aimed to "promote the use of career pathways to assist youth and adults in acquiring valuable skills and industry-recognized credentials through better alignment with employers of education, training and employment, and human and social services."[438] In 2016, 13 U.S. government agencies wrote a letter of commitment "affirming the importance of aligning workforce and education systems to support career pathways."[439,440] The U.S. Department of Labor also funded a career pathways toolkit in 2016, spearheaded by the working group.[438] However, according to correspondence with a key informant on August 30, 2019, the group is neither mandated nor funded.

Convening health care organizations, training programs, members of the EHCW, researchers, and public policy officials to discuss opportunities to strengthen the EHCW could help identify how best to support regional and local efforts to address needs related to this segment of the health care workforce. This type of activity could address the following topics:

- identifying current and anticipated skill sets needed by employers and relevant job classifications, along with approaches to effectively train future employees in various job classifications in these skill sets
- documenting cross-state certification and licensing challenges and possibilities for greater standardization
- identifying opportunities to develop career pathways
- clarifying where there are gaps in evidence that could be addressed to inform EHCW training and utilization
- coordinating with states, providing technical assistance, toolkits, and support as they work to spread innovative practices.

IV. Address Gaps in Research

There is a lack of information about patient health benefits and the institutional cost savings associated with the employment of different types of EHCW members. Overly broad and inconsistent job titles, inconsistent data sources, poor evaluation designs, and inadequate cost data make it challenging for researchers and policymakers to accurately identify the utility of EHCW members in different contexts.

Higher-quality, publicly available data are necessary at national, state, and regional levels because they could characterize the current capacity of the EHCW and forecast ongoing supply and demand. This information would be helpful to guide planning decisions, establish a baseline, and monitor the success of future workforce initiatives.[243] Legislative action—at the national and state levels—represents one potential means of standardizing occupational categories and training requirements to make data collection easier, more reliable, and more useful for workforce planning.[77]

More data are likewise relevant for measuring the impact of EHCW engagement on patient outcomes and spending. According to a phone conversation with a key informant on May 28, 2019, without patient outcome and spending data, it is difficult to demonstrate the impact of investments on this workforce. An entity within the government or a third-party contractor could be assigned to study the effects of EHCW occupations on patient outcomes after appropriate metrics are agreed on and codified (see Appendix C). Some of the effort for this work could draw on existing health workforce centers across the country and their expertise in forecasting, microsimulation, and other relevant analytic techniques,[421] and through the National Center for Health Workforce Analysis.[441]

In Table 15.3, we present key research questions that could inform a future research agenda. These questions are based on challenges identified over the course of our review, as outlined in Chapters 4–14. For each research question, we describe how the findings could lead to specific activities that would shape the EHCW. Specific measures for these research questions can be found in Appendix C.

Table 15.3. Research Needed and Implications

Research Question	What Is Needed to Answer the Question	Potential Activities in Light of Findings
1. What is the current and projected supply and demand for EHCW groups by role, by geographic location, and worksite location?	Standardized data assessment by states and better national data collection	Revisions to occupation categories in Bureau of Labor Statistics, American Community Survey, Centers for Disease Control and Prevention, Medical Expenditure Panel Survey, and other data-collecting organizations; better research on maldistribution; activities to address unmet need
2. What are the skill sets needed, by worker type?	Survey information from health care employers and prospective clients at the local and state levels	More investment in resources and curricula development to expand needed skill sets
3. What are the costs or cost savings associated with training and employing more entry-level health care workers?	Evaluation of the cost savings associated with task shifting and expanded roles	Business model restructuring for practices; reimbursement changes by insurance companies
4. What are the effects of scope-of-practice laws? What is the impact of certification for those positions that do not require licensure?	Catalog of scope-of-practice laws and certification throughout the United States, according to profession; exploration of the relationship between scope, pay, quality, and costs (building on existing work)	Ways in which to optimize scope-of-practice laws and certification to model after states that have the most-effective policies
5. How can innovative team-based models be adopted, and what is their impact? What factors contribute to effective configurations of employees in these models?	Pilot models of team-based care that leverage the EHCW and catalog such efforts; effects on the delivery system with rigorous evaluations	Best practices for the use of the EHCW in practices, hospitals, and community-based settings throughout the United States
6. What are evidence-based and reproducible methods to improve recruitment and reduce turnover?	Process and impact evaluations of efforts to improve recruitment and retention	An evidence base for which techniques are most effective for maintaining a vibrant workforce; incentives to adopt these approaches

V. Expand the Use of Technology

It appears that entry-level jobs will increasingly depend on technological systems as they support the provision of high-quality care. Our findings identified several possible activities regarding technology that would support the EHCW, but any technological solutions to support this workforce would require training for workers to use new technology and, of course, access to the technology in the first place. These are challenges in their own right.

Opportunities for engagement with technology for the EHCW can be divided into three categories: (1) those that support the system overall, (2) those that support the job of the provider or EHCW, and (3) those that support the patient or client.

System Solutions

- **Supporting broadband.** To allow technology to be used, broadband access must be available. When we consider home care services as part of this effort, internet to the home represents a considerable barrier, with less than 60 percent of rural Americans having broadband internet at home (compared with 70 percent of suburban dwellers).[43]
- **Digitizing certification.** Supporting efforts to digitize certification, whether through a national system or by supporting states that do so, would enable easier national information-gathering, interstate licensure compacts, and reduced burden on workers.
- **Adopting standards and making data interoperable.** Efforts should continue to be made toward standards adoption and data-sharing beyond the acute care settings to LTC and home health, which was started by CMS through the PACIO Project, a new effort to coordinate post-acute care transitions.[420]

Provider-Facing Solutions

- **Supporting telemedicine infrastructure.** Telemedicine sometimes relies on a trained person onsite to enable the remote provider to assess a patient or provide treatment. Telemedicine infrastructure could also enable EHCW members, in some cases, to work remotely themselves. All of this relies on a physical infrastructure for remote communication and video, along with a means to pay for acquiring and maintaining systems.
- **Supporting remote training.** The internet and associated technologies can allow for remote training of the EHCW. In-person training has its advantages, but a mixed or blended approach using some remote education can address time, travel, and costs associated with training or continuing education. This relies on broadband access and curricula designed for this approach.
- **Supporting training in technology and use of EHRs.** A specific focus of training for members of the EHCW could include technology training, which some employers and training programs have embraced. This education, even if it is not directly related to their patient-facing duties, will enable members of the EHCW to communicate with other members of the health care workforce, access more information and training, and share their important contributions in a formally documented way.

Patient-Facing Solutions

- **Overseeing medical monitoring and communication devices.** Devices can help patients monitor their own needs, help them assess when they need to see a doctor, and gather data to share with providers. However, these devices need oversight for quality and evaluation for efficacy and they rely on trained personnel to support and interpret the data. EHCW members could play a key role in training patients on use, monitoring measurements, and collecting data from devices.
- **Ensuring EHR interoperability and patient portals.** Patients' engagement with EHRs and their own medical histories could promote education and provider-patient communication. This includes EHCW members in communication with patients through such platforms; for example, in the context of home health.

Other Considerations

Standardization and Certification

Most certification and licensure of EHCW positions occurs at the state level. At the same time, there are models of standardization of national credentials when boards represent third-party certifiers, as in the case for physicians or dentists. As noted earlier, the ACA's Title V (Subtitle D, Sec. 5302)[153] was intended to support demonstration projects to expand certification programs for personal and home care aides throughout the United States, potentially supporting a step toward national certification. However, no funds have been appropriated for this purpose. This could be a potential model for future efforts to standardize certification as the federal government looks for ways to simplify the complicated network of existing credentials.

Wages

As we described in Chapter 13, wages are a recurring challenge for the EHCW. Increased wages have the potential to reduce turnover and stimulate workforce growth and recruitment. Additional research on the relationship between worker pay and patient health outcomes might be warranted to inform the relative value that better-paid entry-level health care workers bring to employers. According to a phone conversation with a key informant on May 16, 2019, if evidence shows that increased salaries are associated with improved care and better patient outcomes, there might be greater impetus for increased pay. Moreover, if a greater share of reimbursement were tied to patient outcomes, there might be stronger incentives to employ members of the EHCW, and competition for these individuals' services could also have the net effect of raising wages.

Concluding Thoughts

There are several activities that could be pursued in the public and private sectors to strengthen the EHCW. One message we heard from key informants was the importance of convening and coordinating a variety of key stakeholders. This was perceived to be a means to promote innovation through sharing insights and perspectives on employer, employee, and training program needs; identifying research priorities; and encouraging the adoption of new technologies. In Table 15.4, we outline several of these potential policy opportunities and map these to the objectives described in earlier chapters.

Table 15.4. Matrix of Objectives and Policy Opportunities

Policy Opportunities		Convene Stakeholders	Evaluate New Models	Fund and Scale Successful Models	Improve Data and Research	Deploy Technology
I.	Strengthen training quality	Yes	No	Yes	No	Yes
II.	Expand training opportunities	Yes	No	Yes	No	Yes
III.	Expand recruitment strategies	Yes	No	No	Yes	Yes
IV.	Match the best-fit candidates to jobs	Yes	Yes	No	No	Yes
V.	Create career pathways	Yes	Yes	No	No	No
VI.	Improve work environment	Yes	No	No	Yes	Yes
VII.	Improve workforce distribution	No	Yes	Yes	Yes	Yes
VIII.	Empower the workforce	Yes	No	Yes	No	No
IX.	Recognize the financial value of the EHCW	Yes	Yes	Yes	No	No
X.	Use technology to support the EHCW	Yes	Yes	Yes	Yes	Yes

As reflected on our workforce data website,[74] there is no shortage of innovations taking place around the country—particularly among employers and in the context of public-private partnerships and coalitions that have formed at the local and state levels. What appears to be lacking is alignment on a focused set of short- and long-term objectives, including the development of an evidence base from which employers, insurers, and educators can draw to understand the benefits, costs, and trade-offs of investing in the EHCW. Whether this alignment can and should take place nationally might need to be assessed on a case-by-case basis for particular occupations and issues, but the evidence we have reviewed points to several actionable starting points.

Appendix A. Case Studies

Case studies were intended to give a closer look at the history of innovative programs supporting the entry-level health care workforce (EHCW), including the motivations for founding the programs, the challenges the programs encountered, and lessons learned. The programs listed in this appendix were selected in coordination with the Office of the Assistant Secretary for Planning and Evaluation and were informed by the broad view of the landscape we gained through our environmental scan. We gathered the information for these case studies, as described in Chapter 2, from published literature, other publicly available data, and discussions with people involved in the programs. As with other key informant discussions, participants are named with their permission.

Alaska's Community Health Aide Program

> With geographic isolation in Alaska, it's easy to understand why we do this. . . . But there are just-as-isolated communities in Seattle or any other major metropolitan area. Health care providers are much better if they're community-based and culturally appropriate.
>
> –Dr. Robert Onders, medical director, Alaska Native Tribal Health Consortium

Background

Ninety-six percent of Alaska's land area—representing 39 percent of the state's population—is designated a federal Health Professional Shortage Area by the Health Resources and Services Administration (HRSA).[137] Because rural communities often are inaccessible by road, people in Alaska Native communities have relied on an innovative model of health care training and delivery: the Community Health Aide Program (CHAP).

We focus on CHAP because it represents a unique and comprehensive framework for training, recruiting, and expanding the scope of practice among members of the EHCW in a way that responds to community needs in rural and remote settings. CHAP is managed by the 30 tribal health organizations in the Alaska Area Native Health Service and represents a health service delivery network of more than 550 community health aides (CHAs) and community health practitioners (CHPs), more than 50 dental health aides (DHAs) and dental health aide therapists (DHATs), and more than 50 behavioral health aides (BHAs) and behavioral health practitioners (BHPs) across more than 170 rural Alaska villages.[135]

As a model of delivery, CHAP emphasizes culturally competent, community-based care in a team-based approach. CHAs—the medical providers—are selected by members of their communities to receive training on clinical competencies that respond to local needs. Following completion of their training, CHAs at CHA level I are equipped to engage in problem-specific

medical history taking, assess vital signs and symptoms, and interpret basic laboratory test results under medical supervision. CHAs can progress through additional levels of certification and associated competencies (CHA I to CHA IV) and ultimately become CHPs, who execute a variety of primary care clinical tasks without direct supervision. A retrospective analysis found that these providers provide care to those in remote Alaskan communities "whose residents would otherwise be without consistent medical care" and also found that it "could serve as a health-care delivery model for other remote communities with health care access challenges."[35] In recent years, the Indian Health Service (IHS) announced plans to explore an expansion of the CHAP model beyond Alaska to establish a national CHAP and CHA certification board within IHS.[139]

To understand the evolution of this program and highlight key features of CHAP that might be applied beyond Alaska, we spoke with the medical director of community and health systems improvement at the Alaska Native Tribal Health Consortium (ANTHC). We also reviewed all relevant literature on CHAP and offshoots of the program. ANTHC provides training for CHAs and ensures that the curriculum for training and the steps for career progression evolve to meet population health needs.

Brief History of the Program

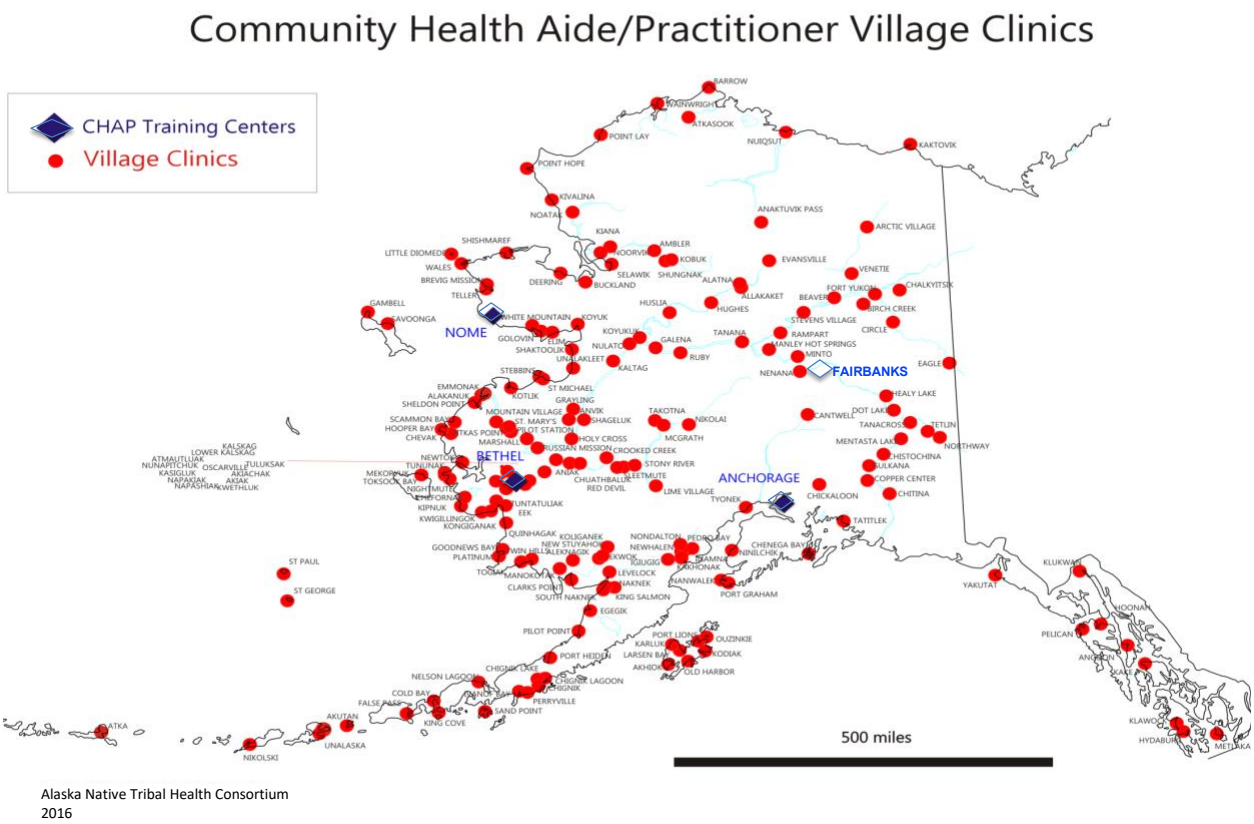
CHAP began in Alaska in the 1950s as a response to tuberculosis, high infant mortality rates, and other health concerns confronting rural Alaskans. In 1968, CHAP was formally recognized and funded by Congress.[442] Since then, this small group of trainees that began providing a targeted scope of services to community members in rural parts of the state has expanded dramatically.

By the 1990s, CHAP was providing health services from preventive to emergency care to more than 45,000 Alaskans (see Figure A.1).[443] As of 2019, this model reached more than 175,000 Alaska Native and American Indian people and offered an even wider array of services than it did in the 1990s through several tiers of certification with expanded roles and responsibilities. In the past decade, there have been several notable outgrowths of CHAP, including the development of DHA/DHAT[444] and BHA/BHP programs.[445] All of these programs replicate the overarching CHAP model of training and stress the delivery of culturally competent, community-based care. Evidence indicates that DHATs, the most advanced of the DHA roles, achieve a standard of care—within their limited scope of activities—that is commensurate with dental school graduates in other parts of the United States[446,447] and that BHAs serve critical roles in a variety of contexts, including caring for Alaska Native cancer survivors.[448]

On June 1, 2016, IHS released a policy statement regarding the creation of a national CHAP, stating that it supports the expansion of CHAP throughout Indian country, including the creation of a national certification board.[449] As of 2019, IHS has taken several decisive steps in this direction, including issuing for comment a draft policy that would lead to the formalization and

scale-up of CHAP.[139] Adoption and adaptation of CHAP in the broader IHS context has been a focal point of the CHAP Tribal Advisory Committee and is reflected in the redesign and rebudget of Title I and Title V of the Indian Self-Determination and Education Assistance Act of 1975. Meanwhile, more-generalized formulations of CHAP for underrepresented groups have been adapted for several additional settings, including central Ohio,[450] which we highlight later in this case study.

Figure A.1. Alaska Village Clinics and Training Centers Participating in CHAP, 2016



SOURCE: Alaska Division of Public Health, *Alaska 2015–2016 Primary Care Needs Assessment*, p. I-14.[137] Updated as of 2016. Used with permission.

Unique Features of the Program

Several features of CHAP have contributed to its success and plans for expanded adoption throughout the United States. We highlight a few of these features in this section.

Community-based. At its core, CHAP represents a model of care in which CHAs are members of the community, are selected by members of the community, and serve the community. The selection process is overseen by a village tribal council or local tribal health organization, which identifies candidates with positive community rapport who are interested and capable (based on their education and background experience). This ensures that participants

not only reflect the communities from which they come but also return to those communities to provide culturally competent care. Often, those selected have an interest in health care but have not received formalized postsecondary education. In discussing the CHAP model, a physician with whom we spoke on June 20, 2019, reflected that "the current [U.S.] health care model values technical competency and education over community connectedness and cultural appropriateness, whereas I think the technical skills are much easier to train."

According to the physician, the fact that individuals are nominated from within their communities and selected by local tribal health organizations helps safeguard against the possibility of a significant time gap between one CHA retiring and another beginning because communities are active participants in the recruitment process. The same physician also noted that trainees are from a diverse array of Alaska Native communities and have the ability to shape the curriculum by conveying the community's needs and requesting that those needs be integrated into trainings. Formal mechanisms for ensuring that these needs are integrated include surveys and examinations of billing codes to inspect what CHAs are encountering in their communities.

Flexible training. The delivery of the CHA/CHP training curriculum is designed to account for the life experiences of prospective CHAs. For example, many live in remote and rural areas and have difficulty receiving training for extended periods. One curriculum option allows for an abbreviated (four-week) in-person training made up of a two-week didactic and a two-week clinical component so that CHAs do not have to be away from their families for a long period. Travel and housing are subsidized over those four weeks. Alternatively, trainees can select a longer (eight weeks or more) asynchronous distance-training option using Moodle, an open-source learning content-management system that trainees access in their village clinics. Moodle allows users to take the training at their own pace and connect with a clinical trainer who can help answer questions and review trainee performance on assignments. Once this phase is completed, individuals engage in a two-week in-person clinical program.

Recently, program administrators have created a more intensive, blended curriculum for CHA I and CHA II that covers emergency care and primary care. This represents a single distance learning module made up of five courses conducted over 16 weeks, with a week-long clinical component between each course that can take place where trainees are located. According to the physician with whom we spoke over the phone on June 20, 2019, in all instances, the curriculum has responded to feedback from participants and has relied on the increasing availability of broadband.

Career progression. CHAs have the ability to advance through five levels of certification, from CHA I to CHA IV and then, ultimately, they can become CHPs. Participation in this progression is fully subsidized by the state and aligns with a salary progression from $15 to $35 per hour. According to our phone discussion on June 20, 2019, CHAs at level I are required to communicate directly with a supervising physician during all activities; they can perform patient assessments but cannot conduct exams. Compared with community health workers (CHWs) in

other parts of the country, CHAs execute a broader array of clinical responsibilities, from clinic-management activities to direct patient care following specific patient care plans. Over the course of additional training, CHAs are given a field placement in which their performance is monitored by a licensed physician using clinical evaluation forms. With each additional level of certification completed, CHAs can execute new clinical protocols independent of medical supervision. At the highest level—CHP—they can function with a status akin to that of a primary care provider, including by providing emergency, acute, chronic, and preventative care through patient consultations. However, these individuals cannot prescribe medications. An overview of all authorized CHA and CHP clinical protocols can be found in CHAP's *Standards and Procedures* document.[136]

This model of advancement provides a clear pathway for CHAs to receive further education, achieve increasing levels of autonomy, and obtain higher income levels. According to our June 20, 2019, phone discussion with a physician, over the long run, this model has the potential to link to accredited graduate degrees that translate into supervision roles. Career progression helps safeguard against burnout and turnover by providing new opportunities for professional development.

Program Challenges and How They Were Addressed

- According to a June 20, 2019, phone conversation with a physician involved in CHAP, there is a higher degree of turnover (roughly 25 percent) among CHA level I and CHA level II positions relative to those at higher levels. This individual noted that CHA trainees have the opportunity to care for patients at the earliest stage of training and therefore quickly recognize that the job might not be a good fit prior to further training. In this sense, early drop-outs can conserve resources. Among those who do not drop out, a nontrivial portion of CHA I and CHA II providers remain at these levels for a long time rather than advancing to higher levels. One way to minimize this, as highlighted by the key informant, is to create an expectation that individuals will progress, so long as it fits with individuals' preferences and schedules—an expectation that has been more-firmly established among BHAs and DHAs. This expectation has been supplemented with remote teletraining and online training options that reduce the need for individuals to travel.
- A second challenge has been logistical difficulties with training and accreditation, specifically in terms of coordinating training with the awarding of an associate's degree, and—through additional training—a bachelor's and/or master's degree. For newer programs, such as the BHA and DHA programs, training is aligned more closely with a contiguous two-year associate's degree curriculum. For CHAP, this is an area that needs further development; the training organization (ANTHC) aims to develop pathways in the next several years.
- Lastly, although roughly 95 percent of CHAs are Alaska Natives, only 5 percent of CHA supervisors are Alaska Natives, according to our June 20, 2019, key informant discussion. This speaks to the need for a link between the CHA progression model and accreditation by universities, which would allow CHAs to transition more fluidly to other

medical roles, such as nurse practitioners (NPs) and medical doctors (MDs), that supervise CHAs.

Box 1: The Community Health Access Project Pathways Community HUB in Ohio

Formation. The Community Health Access Project Pathways Community HUB (PCH) in Richland County, Ohio, was founded in 1999 by two physicians who had worked in Alaska in conjunction with CHAP. Building on CHAP's principles of community-based and culturally competent care, Ohio's PCH is nationally certified[451]—i.e., it is a networking center for local agencies to deploy culturally connected community care coordinators, such as CHWs and social workers—and serves communities throughout central Ohio.

Implementation. The Community Health Access Project PCH coordinates care among local agencies to support the needs of individuals most at risk for adverse outcomes by training CHWs and others to identify and screen for more than140 risk factors that are mapped onto evidence-based care pathways, including pathways that support individuals' behavioral health, housing security, nutritional, and sustainable employment needs. According to a phone discussion with key informants on July 2, 2019, CHWs and other providers affiliated with local service agencies under the Community Health Access Project PCH umbrella are provided with additional financial compensation based on their clients' completion of activities and steps within the established evidence-based care pathways. The training model, akin to its Alaska counterpart, focuses heavily on cultural competency and community rootedness.

Compared with the CHAP Alaska model, service providers in the Ohio Community Health Access Project PCH model are less medically focused; instead, they provide and document a holistic assessment of social, behavioral, and medical risks. The broader model of PCHs extends across counties in Ohio and is intended to address social determinants that could be root causes of medical conditions. The level of care provided in the Ohio model is also comparatively limited. However, both models rely on community-based health workers to execute a standardized set of protocols under a well-organized supervision structure. Therefore, the Community Health Access Project PCH is evidence that Alaska's CHAP has provided an adaptable model for success in other settings, such as Ohio.

Successes. Over the past several years, the Community Health Access Project PCH has developed a risk-reduction research initiative framework through which health providers and administrators can refine an inventory of medical, social, and behavioral risk factors for identifying adverse outcomes; determine their relative weights; and specify whether these weights are additive or multiplicative.[452] In the context of high-risk pregnancy, for instance, focusing on minimizing risk factors through the Community Health Access Project PCH has led to a reduction of more than 50 percent in low-birth-weight babies among Community Health Access Project clients compared with non–Community Health Access Project clients.[453]

Next Steps. According to our discussion with key informants on July 2, 2019, one of the challenges for the Community Health Access Project PCH in Ohio is reflected in the research framework outlined earlier: specifically, establishing the evidence base necessary to identify the relative risks for adverse outcomes associated with the risk factors for which CHWs are

intervening. In the coming years, the Community Health Access Project PCH aims to use the data aggregated through its electronic health record (EHR) system to begin answering these questions and informing priorities for various pathways over time.

Takeaways from Key Informants

- **Program success is connected to community foundation.** According to a June 20, 2019, phone conversation with a physician involved in CHAP, the model has thrived for more than 50 years in large part because it is rooted in the community. From this individual's view, if the model is going to succeed in the lower 48 states—and in IHS-served regions in particular—it needs to maintain its emphasis on being rooted in and empowering the community.
- **Programs should consider community needs and practical logistics.** As noted by one key informant in a phone conversation on June 20, 2019, training flexibility and curricular adaptations are incorporated not only to address local community needs but also to ensure that a wide variety of individuals have the opportunity to enter the health care workforce. CHAP has designed its training to accommodate numerous logistical challenges—offering remote training, abbreviated training sessions, modular training components, and subsidized housing and transportation. According to the same key informant, this flexibility is not merely a bonus feature; it enables local community members to participate fully.
- **New roles are needed to allow for progression and differentiate expertise.** This program created levels of CHAs and made it possible for them to advance to CHP roles, creating structure, possibility for advancement, and clearer roles.

Peer Specialists in the Veterans Health Administration

> I understand how trauma can affect people and often lead to mental illness, and my passion is helping those who have been down similar paths as myself. That was my main driving force [for becoming a peer specialist].
>
> –Frederick G. Nardei, Jr., certified forensic peer specialist, Veterans Affairs Pittsburgh Health System

Background

Peer specialists are one category of the peer support workforce.[iv,454] In the Veterans Health Administration (VHA), peer specialists are employees in recovery from mental illnesses and substance use disorders who work with other veterans to engage them in treatment. Combat veterans sometimes report that they feel most comfortable receiving support services from a peer specialist who also has experienced combat.[454] As recovery role models, peer specialists provide

[iv] The Substance Abuse and Mental Health Services Administration divides the types of support provided by peers into four categories: (1) emotional (e.g., peer-led support groups or mentoring), (2) informational (e.g., classes in parenting or job readiness), (3) instrumental or concrete (e.g., childcare or transportation), and (4) affiliational (e.g., facilitating contacts and building community through sports league participation and other substance-free socialization opportunities).

support services to peers with similar behavioral health challenges by "sharing their own recovery stories, providing encouragement, instilling a sense of hope, and teaching skills to veterans."[455] With appropriate training, peer specialists can facilitate wellness recovery action plan groups and/or illness management and recovery groups, which aim to help veterans with serious mental illnesses develop and achieve their goals and manage their conditions more effectively. Although the definition of *peer* can mean different things in different contexts, across various types of peer support programs, peers must have lived experience with a psychiatric disorder and/or substance use disorder, but this does not necessarily mean that they have received behavioral health treatment. Furthermore, they cannot work in the same program in which they are receiving services.

Outside the VHA system, many variations on the theme of peer support providers exist; in Table A.1, we provide an illustrative list of different position titles and role definitions.

Table A.1. Selected Peer Support Job Titles and Definitions, Both Inside and Outside the VHA

Position Title	Description
Peer specialist	Peer specialists are peers who have completed training and have met the certification standards of their states to provide peer support services.
Certified mental health peer wellness coach or whole health and resiliency peer specialist	Similar to certified peer specialists, who work in a whole health environment, peer wellness coaches support people to identify and meet their individualized wellness and healthy lifestyle goals.
Addiction recovery coach or mentor	Personal guides, mentors, and role models help individuals seeking to achieve or sustain long-term recovery from addiction, regardless of their pathways to recovery. Recovery coaches serve as connectors to recovery support services, such as housing, employment, and other professional and nonprofessional services. Recovery coaches are not sponsors or counselors.
Peer bridger	Peer bridgers help individuals with long and/or recurrent involvement in a variety of institutional settings (such as psychiatric hospitals, detox centers, adult and nursing homes, and jails and prisons) make successful transitions to community living and reduce recidivism in those settings.
Peer navigator	Peer navigators advocate for and link individuals to services and supports.
Peer crisis support worker	Peer crisis support is provided as timely support to people in psychiatric crisis in a variety of settings, including phone-based peer support lines, peer crisis respite centers (i.e., residential alternatives to emergency rooms), and as home peer companions.
Peer advocate	Trained peer advocates help ensure a practice of reasonable accommodation; support consumer self-determination in shared decisionmaking processes with providers; and assist individuals in accessing services and enforcing their human, civil, and legal rights in the mental health system.
Recovery ally	Recovery allies provide case management, resource brokering, and coaching to help individuals develop and attain their recovery goals.

Position Title	Description
Recovery and/or wellness center staff	These staff facilitate community or site-based programs in which people develop networks of natural supports, pursue and protect their rights, and set and attain personal goals.
Peer-run employment support or coaching services	Peer coaches support individuals to find the resources to get out of poverty and participate in their communities through successful transitions to meaningful work.
Self-directed care broker or coach	These individuals assist people in becoming aware of the broad variety of goods and services that can aid them in their recovery.
Forensic peer specialist	Forensic peer specialists are individuals living with psychiatric and/or addiction-related conditions who have histories of incarceration. They receive special training to work in jails, prisons, and jail diversion programs to assist people in avoiding future incarceration and in connecting to their communities.
Certified family support specialist	Family peer supporters help build resiliency in caregivers and youth.
Veteran peer specialist and peer support technician	Veteran peer specialists support other veterans with psychiatric disorders or addictions to successfully engage in their treatment. These specialists are the focus of this case study.
U.S. Department of Veterans Affairs (VA) community integration specialist	These specialists are veterans who support homeless veterans with psychiatric disorders or addictions.
Firestarters	Firestarters are Native American peer leaders who are responsible for building local recovery communities.
Promotoras, or bilingual peer specialists	This peer-to-peer support method offers a culturally competent and cost-effective way to reduce mental health stress in Spanish -speaking communities.

SOURCE: Adapted from the *Peer Services Toolkit: A Guide to Advancing and Implementing Peer-Run Behavioral Health Services*, p. 16.[454]

Within the VHA system, peer specialists can serve in a variety of roles. They facilitate education and support groups; work as peer bridgers for individuals transitioning from hospitals or jails into the community; work one-on-one with clients as role models, mentors, coaches, and advocates; and can help clients with goal-setting or action plans and developing documents, such as psychiatric advance directives and wellness recovery action plans. Finally, they help peers connect (or reconnect) with their communities and facilitate access to formal and informal resources for continued recovery support. Peer specialist providers work with clients in many different settings, such as in general mental health clinics, Psychosocial Residential Rehabilitation Treatment Program day centers; inpatient settings; the U.S. Department of Housing and Urban Development–Veterans Affairs Supportive Housing program, which is for veterans who do not have stable housing; Mental Health Intensive Case Management community treatment settings; and, most recently, primary care settings on Patient-Aligned Care Teams (PACTs).

It is helpful to define what is in or out of scope for VHA peer specialist providers. The delineation of roles and boundaries is particularly important for this entry-level role, which serves as a liaison between clinical staff and veterans using health care services from the VHA. The VHA Peer Specialist Toolkit describes what is in and out of scope for their peer specialists.

For example, peer specialists *do*

- facilitate peer support groups
- share their own recovery stories
- advocate for veteran consumers
- act as role models of recovery
- provide crisis support
- communicate with clinical staff
- act as a liaison between staff and veterans
- work on a variety of clinical teams
- provide outreach and education to VA facility staff and veterans about peer support services.

Peer specialists *do not*

- provide psychotherapy
- do other people's jobs or fulfill other people's roles in the facility
- collude with veteran consumers against clinical staff
- cross boundaries
- support veteran consumers in their self-destructive or illegal behaviors
- criticize clinical staff in front of veteran consumers.[455]

Research on the effectiveness of peer support in general has shown numerous benefits, which contributed to peer support being recognized by the Centers for Medicare and Medicaid Services as an evidence-based practice in 2007. Over time, the number of states that allow Medicaid reimbursement for peer support services has grown, from eight in 2008 to 39 in 2018.[456] Clients consistently report high levels of satisfaction with receiving peer support, and the literature in non-VHA settings shows that peer support is associated with less inpatient use,[457] more time and engagement with the community, better treatment engagement, greater satisfaction with life and quality of life, more hope, improved social functioning, and fewer health care–related problems or needs.[455,458-464] VHA-specific research is still in an early stage, but current findings are similar to those for non-VHA settings. Peer support activated veterans' involvement with their care; supplemented other treatments; increased access to care; and helped veterans consider meaningful life roles, realize their purpose, and reintegrate into their communities.[465] One key informant noted in a phone conversation on May 3, 2019, that it is the relationship between the supporter and the receiver of support that is the key. There must be a trusting and safe relationship, and although there are many benefits[454] to having a peer specialist engage with a client to help them participate in other services, there also is an observed benefit to having an ongoing relationship with the same client.

Brief History of the Program

The development of this program is part of a larger peer support movement. This role grew out of a recognition that the health care system could be doing a better job of treating individuals with behavioral health conditions, including by conveying the hope and expectation that people can transition successfully to recovery and have fulfilling jobs and healthy relationships. In addition, this role gave both peer specialists and patients a sense of empowerment, acknowledging that it takes support to help get to a better place in life. In short, "peers demonstrate on a daily basis that recovery is achievable."[466]

Prior to the establishment of the formalized peer specialist position in the VHA, peer support groups existed throughout the organization. These groups were aimed at sharing lessons learned about how to survive, take medications, have healthy relationships, and more. However, a key informant commented in a phone conversation on May 3, 2019, that attendance in these groups was lower than expected. Individuals would attend at first but would quickly drop out, or people would think that it was not worth the effort to travel long distances to attend. To address these problems, the VHA created a different kind of peer support that was more proactive and brought the support to the patients rather than having the patients seek it out.

This program also grew out of a broader policy context.[466] In 2003, under the George W. Bush administration, the President's New Freedom Commission on Mental Health called for the transformation of mental health services to create a patient-centered, recovery-oriented system of care. VHA Mental Health developed a strategic plan to implement the objectives of this commission and formed the Psychosocial Rehabilitation and Recovery Services section to lead the transformation. VHA funded peer specialist staff positions nationally in 2005, and the first cohort was hired in 2006. New classification standards were released in 2012, and the positions of peer specialist apprentices (General Schedule [GS] level 5) and peer specialists (GS levels 6–9) were finalized. In 2012, an Executive order by then-President Barack Obama directed the VHA to hire 800 peer specialists (as they are now known) for mental health care, a target that was exceeded by the following year.[467] One key informant estimated that, prior to this Executive order, there were approximately 250 individuals in this role. In 2015, another Executive order directed the creation of 25 pilot sites to provide peer support in primary care.[468] As of 2019, there are more than 1,000 peer specialists throughout the VA system. The VHA now requires the availability of peer specialist providers within mental health treatment.[469-471]

Unique Features of the Program

Because it is operated by the VHA, the peer specialist program has several unique features. One feature is that there are official peer specialist position descriptions that are tied to particular GS levels (5–9)[472] and geographic locations, with wage rates available online, similar to any other federal government career staff position. GS 5 providers serve as apprentices until they complete certification training, which is paid for by the VA (the VA accepts state certifications if

the peer support provider has completed those requirements instead). Once certified, they can work at GS levels 6–9. Another unique feature is that the need for peer specialist services must be documented in the veteran's plan of care; the plan must specify how such services are to be delivered, in what context, for how long, and with what goals. Finally, there is a requirement for a minimum number of peer support providers per VA medical facility, and there have been efforts to match staffing levels with the degree of need in a Veterans Integrated Service Network's particular catchment area.

Local recovery coordinators—psychologists and social workers who work in VA medical centers—are primarily responsible for hiring, training, and supervising peer specialists. The job application and interview process for peer support positions has been shown to have some complexities.[473] A key informant noted on June 13, 2019, that there is sometimes hesitance within human resources departments to hire someone with a mental illness, and that there are legal requirements that prohibit prospective employers from inquiring directly about a history of physical or mental illness, although this is inferred, given that the individual is applying for a job that clearly requires lived experience. Great care must be taken with announcing recruitment; publishing the necessary knowledge, skills, and abilities for the role; and asking particular interview questions that adhere to general hiring policies. For all of these reasons, job descriptions must be worded carefully and appropriately, and the VHA and organizations outside the VHA have found it useful to create and share with one another sample job descriptions for peer support positions.[454] According to key informants we consulted on May 13, 2019, a lack of clarity around the job description has been a major barrier to implementation and retention of these providers. In response, there have been concerted efforts to define a set of expected competencies. The VHA's *Psychosocial Rehabilitation and Recovery Services: Peer Support* handbook[474] lists ten domains of competency that must be demonstrated by the end of the first year of employment, either by passing the VHA peer support technician competency test or by obtaining certification as a peer provider from a state or agency.[v]

The training and certification process often aims to cover this array of competencies in a short period (perhaps 40 hours over one or two weeks) and can feel quite compressed. Key informants commented on June 7, 2019, that this training might not be sufficient to completely prepare the peer specialist provider for the role, particularly around the area of professional resiliency (i.e., reducing the risk of burnout), but it is intended to provide a framework on which the trainee can layer their own experience. Furthermore, peer specialist providers must participate in a certain number of hours of continuing education per year (recently, 12 to 15 hours, although this requirement has changed over time) within these domains.

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[v] These competencies are (1) recovery principles, (2) peer support principles, (3) cultural competence, (4) communication skills, (5) group facilitation skills, (6) managing stigma, (7) comprehending the illness, (8) recovery tools, (9) professional development and workplace skills, and (10) managing crisis and emergency situations.

Successfully integrating peer specialist providers into the care of clients with behavioral health diagnoses is quite complex.[475,476] The VA Peer Specialist Toolkit recommends employing the four steps of the Simpson Transfer Model:[477] the first step is to introduce the idea and prepare clinical teams to adopt peer support in their settings; the second is to identify a facility champion or coordinator for peer support with dedicated time to devote to managing the program; third is to obtain stakeholder input on, and document ideas around, the potential contribution of peer specialist providers; and the final critical step is to plan for how many peer specialist providers are needed. This final step also involves planning for how the peer specialist providers will be trained and supervised; how challenges with personal disclosures, confidentiality, boundaries, and dual roles will be handled;[vi] what their context-specific goals and job duties will be; and how to integrate them into care teams.

The guidelines for the supervision of peer specialist providers are clear: New hires are closely supervised, with one hour of face-to-face supervision by nonpeers on a weekly basis during a probation period and monthly supervision thereafter. In reality, the key informants acknowledged in a phone conversation on May 3, 2019, that regular supervision is a real challenge, given how busy clinic staff are. Thus, supervision occurs to varying degrees in different locations. All peer specialist documentation in the medical record and all patient care–related documentation must be cosigned[474] by a licensed independent practitioner until the peer specialist reaches GS 8 or above. Peer specialists do not have primary administrative responsibility for any patients and are not the clinician of record; instead, their services supplement the professional behavioral health services the client receives.

Key informants noted in May 2019 that the rate of turnover is thought to be comparable with the moderate turnover found in similar entry-level health care positions. Possible contributors to turnover include low morale, low job satisfaction, a perception of lack of respect, low pay, vague job descriptions, lack of supervision, and impractical evaluation methods.[455] According to the key informants, as with other health technician and case management positions, there is a somewhat bimodal distribution to the characteristics of peers who left and the reasons why peers left their positions. Some leave fairly early because the job was not a good fit, their symptoms worsened and prevented them from performing their role, or they were not adequately prepared for the professional environment. In contrast, however, others thrived and went back to school to become social workers or to take on other advanced roles. The same key informants commented that, for the most part, peer specialists tend to remain in their positions, which the informants viewed as a relatively stable and permanent job.

These key informants provided several examples of how career advancement could occur,[478] such as by pursuing additional training to become a certified psychiatric rehab practitioner, wellness recovery action plan facilitator, or wellness coach; attending and presenting at

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[vi] The concept of *dual roles* refers to a situation in which a peer specialist has a relationship with a client outside the peer-to-peer interaction in the health care setting, which can create challenges with confidentiality and boundaries.

conferences or workshops, which can help the individual become better known in the peer support community and support the case for promotion; attending trainings for particular group facilitation techniques; serving on medical center committees or local or national task forces; supervising and managing other peer providers; providing training to others; and being involved in special projects or quality improvement initiatives. However, although a multitude of professional development opportunities exist in theory, it can be difficult for peer specialist providers to take advantage of them. This is because some sites—and some supervisors—are more invested than others in encouraging peer specialist providers to pursue these opportunities, making the scheduling adjustments required, and providing the financial support that is necessary for participation. As a result, according to our phone conversation with a key informant on May 3, 2019, it is estimated that the majority of peer specialist providers tend to remain at GS 6 and GS 7.

Program Challenges and How They Were Addressed

The VHA behavioral health program has made progress in addressing several of the challenges it faced during the early years of implementation. These challenges include:[473,475]

- an ongoing lack of clarity about peer specialist providers' duties and role confusion (The experts we spoke with noted that a lack of role clarity is the single biggest implementation challenge to overcome for peer support to succeed.)
- inadequate supervision and support, including administrative support
- potential exclusion from treatment team meetings
- the perception that this is a volunteer rather than paid position
- perceived lack of a career path
- a lack of funding for program implementation
- negative attitudes about peer specialists among their colleagues.

Another challenge that merits discussion, and that is not specific to the VHA, is the tension between professionalizing peer support positions and preserving the essence of being a true peer. As Salzer and colleagues note,[479] the standards that define a peer support position will continue to be debated because standardization raises such dilemmas as whether these individuals are professionals or laypersons, the value of academic versus experiential knowledge, and the tension between traditional mental health service delivery approaches and approaches based on the ethos of self-help and mutual aid. As one peer support toolkit puts it, "Peers encompass the full range of professional skills and still bring something completely unique to the table, the essence of lived experience."[454]

Key informants noted that there has been the need to overcome negative attitudes and misconceptions toward peer specialists by nonpeer staff and other stakeholders. These misconceptions include that peer specialist providers cannot fulfill valuable roles, will relapse, will not be able to handle the administrative demands of the job or document correctly, or will cause harm to clients that is difficult to undo. Overall, key informants felt that, with time and

through experience, the program has made significant progress in demonstrating the benefits of peer support in behavioral health care in the VHA, changing attitudes toward integrating these providers into care teams, and addressing the stigma and resulting hesitation around employing individuals with mental health and/or substance use disorders. Exposure to peer support providers and the unique roles they play in behavioral health has been a powerful force to shift attitudes and destigmatize mental illness and substance use disorders.[473] As this role begins to be implemented in primary care settings on PACTs, the positive experiences in behavioral health are serving as a foundation on which to build and a source of lessons learned.

Key informants described successful implementation strategies that helped overcome many of the challenges described in the literature and that they have observed. Approaching the idea of training as designed for both the peer support provider (who is preparing to join a team) and the other members of the care team has proven effective in the settings in which professional service providers have been receptive and able to attend. In addition, paying careful attention to the planning stages of the Simpson Model has facilitated implementation, so that individuals are hired with a well-documented plan for training, supervision, career advancement, integration into the clinical workflow, and job scope. Finally, local champions and leadership support for the program play a role in how well the program functions.

Potential future directions for the peer specialists in the VHA are promising.[466] Key informants described creating pilot programs that integrate peer specialists into primary care; expanding their role to include more community outreach activities; integrating peer specialists into other sites of care where behavioral health services are needed, such as emergency departments; and increasing research, program evaluation, and quality improvement efforts. Furthermore, an increased emphasis on population health care management by peer specialists could include organizing and delivering community interventions that reduce trauma and promote good health.[454]

Takeaways from Key Informants

- **First and foremost, the structure of the VHA peer specialist program is unique.** There are significant structural differences between VHA and non-VHA peer support programs; specifically, wages are higher in the VHA, there is a standardized career ladder, and there is more built-in support for career advancement and opportunities for skill development. These features might be related to the fact that the VHA is a large national system with highly standardized job descriptions, pay structures, career advancement criteria, and centralized support for the peer specialist role. Key informants universally noted the uniqueness of the VHA system, but also articulated several lessons that can be applied elsewhere, regardless of the setting.
- **Implementation is key.** It is important to lay the groundwork for the successful implementation of peer support programs, both broadly and specifically, to prepare local settings and care teams for the arrival and smooth integration of the peer specialists themselves. The Simpson Transfer Model discussed earlier provides steps for introducing this innovation into the clinical setting. Offering training and clear education to the team

that is receiving the peer specialist provider should be done in parallel with training the provider to fulfill the role. An example was given of a peer specialist arriving on Monday and the team being alerted on the previous Friday, which did not allow for adequate preparation for integrating the individual into the team.

- **Role clarification is important.** The peer role can be nebulous, so it is important to clarify the role as much as possible, both in advance and on an ongoing basis if scope creep begins to occur (e.g., peer specialist providers being asked to perform tasks that are not appropriate for their positions).
- **Programs have been tailored to local contexts.** As with any large initiative, it is more accurate to say that, instead of a single VHA peer support program, there are really more than 130 different peer support programs operating within a variety of local contexts and that have their own strengths and challenges. This can make program management challenging, but it also highlights the need for both uniform standards and built-in flexibility to address local needs.
- **Support for professional development is needed.** For peer specialists to thrive, they require explicit support in their professional development and a champion, both for their well-being and professional growth and for the program as a whole.

Advancing Peer Support in Integrated Care Settings: The Hogg Foundation for Mental Health's Work in Three Community Health Centers in Texas

> We needed to embed a planning period to be defined for any new project we were launching, particularly multi-year, because the things we do are really paradigm shifts. Not a one-year thing and you're out. You don't change systems and organizational cultures in one year.
>
> –Rick Ybarra, senior program officer, the Hogg Foundation for Mental Health

Background

The mission of the Hogg Foundation for Mental Health, which is based at the University of Texas at Austin, is to "transform how communities promote mental health in everyday life."[480] The foundation has a long history of working in peer support. In 2010, it funded the original program, Via Hope, in Texas to train and certify peer specialists.[vii] In 2015, it awarded $300,000 over a four-year period (2016–2019) to three Texas community health centers (two of which are federally qualified health canters [FQHCs]; one is an FQHC look-alike[viii]) to advance peer support in the delivery of integrated health care to populations that were predominantly Hispanic.[481] In this context, *integrated health care* refers to the systematic coordination of primary care, mental health services, and substance use treatment: in other words, integrated

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[vii] At the time of this writing, Via Hope was responsible only for training; a different body was in charge of peer specialist certification.

[viii] *FQHC look-alikes* are community-based health centers that meet the requirements of the HRSA Health Center Program but do not receive Health Center program funding. They provide primary care in underserved areas, offer a sliding fee scale for services, and have a governing board that includes users of their services.

physical and behavioral health care. The funding supported the hiring of certified peer specialists to address the behavioral health needs of the patients at these health centers. In addition, given the high prevalence of co-occurring mental and physical health conditions, peer specialists received some basic health education as part of their onboarding process to be able to provide support around co-occurring physical health conditions, such as diabetes and hypertension.

The three grantees were the Gulf Coast Health Center, based in Port Arthur; Hope Family Health Center, in McAllen; and Project Vida Health Center. Project Vida Health Center has two sites in El Paso: Casa Vida Recovery Alliance, which is focused on substance use disorders, and Family Services, which is focused on mental health. Following a substantial planning period at each site, each health center grantee hired two certified peer specialists to help deliver team-based care guided by recovery-oriented principles.

Brief History of the Program

Recognizing that safety-net providers do not typically provide peer support services, the Hogg Foundation supported the 2015 pilot program that was designed to answer the questions of whether peer support could be imported successfully into safety-net health centers and whether it could be truly integrated into team-based care. Peer support was already accepted and, in many instances, was embraced among mental health provider organizations. The Hogg Foundation wanted to bring peer specialists into the primary care context.

Unique Features of the Program

One of the grantees, in collaboration with the Hogg Foundation, developed a list of guiding principles for peer support.[482] These principles are

- solidarity
- synergy
- sharing with safety and trust
- companionship
- hopefulness
- focus on strengths and potential
- being yourself
- respect.

During the project, Via Hope served as the certifying body for Texas peer specialists and was responsible for establishing role descriptions, job criteria, and core competencies. The Hogg Foundation's ongoing relationship with this organization facilitated recruitment for the peer specialist positions supported by the foundation grant. Individuals who wanted to become certified peer specialists in Texas had to be trained through Via Hope, which kept a database of all certified peer specialists who had completed the training. This meant that recruitment for the two positions per health center was very centralized. The grant program worked with Via Hope to identify potential peer specialists who were located in geographic proximity to the three

grantee health centers and reached out to the health centers to identify people who would be a good fit for the roles. These dual strategies generated a lot of interest and enthusiasm. In July 2019 phone conversations, staff at the Hogg Foundation commented that it was an amazing experience for them and for people with mental health diagnoses, who were used to having doors shut when seeking employment, to see, for the first time, an advertisement for an organization that was looking to hire someone specifically because of their experience with mental illness or substance abuse.

Other facilitators of successful recruitment and hiring included the attention that was paid to making these positions desirable, such as by providing professional development funding so that employees could attend conferences and build skills. In addition, the leadership (all the way up to the chief executive officers of each site) was supportive of the initiative. According to a July 18, 2019, phone discussion with one key informant, leaders spoke to medical staff in meetings prior to the program launch about their beliefs that the peer specialist program would be a "game changer."

Another core component of the program was an extensive planning phase. The grantees spent the first year of the project preparing to launch the new program. It required an organizational culture shift because working with peer specialists was not something with which the health centers had prior experience. According to a May 2019 discussion with a key informant, there was initial uncertainty about the value peer specialists would provide and confusion about what their role would be. One key element of the planning phase was helping the health centers embrace a recovery mindset rather than simply one of symptom management for patients with behavioral health diagnoses. The organizations needed to understand that recovery is about wellness and well-being rather than the absence of symptoms and they needed to act on that understanding. Consultants with expertise in peer support and recovery were hired to provide technical assistance (TA) to each of the three sites about the role of peer specialists—e.g., what they are and are not, the criteria for becoming a peer specialist, how they work, what their limitations are (i.e., they are not care providers). This TA was critical for the organizations to understand before integrating the peer specialists into their cultures and workflows. After this year-long planning phase, peer specialists were hired and remained in their positions for years 2, 3, and 4 of the program. Anecdotally, there was minimal turnover among participating peer specialists, and most of the turnover that did occur was related to external circumstances (e.g., displacement resulting from the severe hurricanes that affected Texas).

One key feature of the program is the cultural context and setting within which it operates. As mentioned earlier, the patient population is primarily Hispanic, and these health centers operate in very resource-limited communities where there are few opportunities for stable employment, such as that provided by the peer specialist position.

Another feature of the program is that it has undergone a comprehensive, rigorous, and objective third-party evaluation run by researchers in the Department of Sociology at Texas State University. The evaluators sought input from multiple perspectives, including from peer

specialists and other staff, which provided an opportunity for these entry-level workers to contribute their important viewpoints on what worked well and what worked less well. It also provided the staff and peer specialists the opportunity to contribute to generalizable knowledge in the field of peer support. In addition, peer specialists provided patient case studies to garner a more in-depth understanding of how peer support was conducted and what its impact on patients was. Although results from that evaluation are in the process of being disseminated more widely through the peer-reviewed literature, preliminary findings include the following:[ix]

- Peer specialists responded quickly to clients in need, mitigating the effects of month-long wait times for mental health care by providing immediate support.
- Peer specialists filled gaps in care teams by providing services to clients that they might otherwise not have received, helping coordinate and manage patient care.
- Peer specialists demonstrated an ability to support clients in unique ways, leveraging their lived experience with mental and behavioral health conditions and demonstrating recovery in ways in which other clinicians are unable.
- Peer specialists learned to collect and manage outcome data, including the Patient Health Questionnaire-9 (PHQ-9) (a depression screening tool) and Recovery Assessment Scale (RAS) scores. In many cases, peer specialists adopted measurement-based care principles, using the PHQ-9 and RAS scores to inform the nature and frequency of supports they provided to clients. Several peer specialists reported that the scores could be used to help predict client relapse.
- Although the health centers in this project started in different places with respect to their familiarity with and attitudes toward peer support services, the peer specialists demonstrated their value such that all health centers found ways to continue funding the positions after the end of the grant.
- Peer specialists seemed to enjoy professional credibility and staff trust from the outset of the project, particularly in the behavioral health treatment setting; by the end of the project, the credibility and staff trust of peer specialists increased in other settings as well.
- Among clients with high RAS scores at baseline, scores remained high. For clients with low RAS scores at the start of the study, there were statistically significant improvements over time.

Overall, the evaluation showed that peer specialists served critical roles in integrated treatment settings, responding quickly and flexibly to meet client needs and facilitating improved care coordination and continuity. According to a July 26, 2019, phone discussion with a key informant, these findings also demonstrate that peer specialists are qualified to support clients by giving them hope, modeling recovery, and standing in solidarity with clients as advocates and champions. Additional research is required to determine the efficacy of peer specialist interventions in other treatment settings.

[ix] These findings are not yet published. They were kindly provided by Toni Terling Watt, a professor at Texas State University.

Program Challenges and How They Were Addressed

Similar to the VA peer support program, the rollout of the program did not go completely smoothly. There was resistance among some staff members at the health centers who had to adjust and learn how to work with peer specialists. Part of the challenge was the perception by some psychologists and social workers that peer specialists were a threat to their professional identities. Some existing staff were unfamiliar with the concept of recovery, which emphasizes that clients are active agents of change in transforming the limitations associated with illness or trauma into new opportunities.[483,484] Hope is critical to this transformation, and peer specialists give clients hope by demonstrating their own experience of living a satisfying, meaningful life with mental illness.[485,486]

Another challenge was sustainability. Because this was a grant-funded, time-limited pilot program, the issue of sustainability was a salient one as the program drew to a successful close. There was a decrease in the percentage of grant-supported salary in the final year of the program, with the health centers expected to make up the rest. The leadership of all three health centers committed to funding these positions by restructuring different positions within their organizations and reallocating resources. According to a July 26, 2019, phone discussion with a key informant, the evaluation confirmed that all three health centers have located a funding source to sustain the positions in the period immediately following the conclusion of the program.

Going forward, the Hogg Foundation, in collaboration with the three grantee entities, intends to share lessons learned from the implementation of the peer specialist program in the community health center setting, particularly by drawing on the results of the evaluation. The foundation also intends to build on the program's successes so that it responds to the specific evolving needs of the health centers and continues to offer opportunities for professional growth for the peer specialists themselves. The Hogg Foundation envisions disseminating the findings through peer-reviewed publications, conference presentations, and the foundation's website and press releases.

Takeaways from Key Informants

- **Planning is critical.** Extensive planning and preparation are necessary to smoothly integrate peer specialists into clinical workflows and fully realize their potential. Much was learned from the initial rollout.
- **Centralization at the state level facilitates efficient recruitment and hiring of peer specialists.** With all training and certification going through a single organization, it was easy to track trainees and positions.
- **Training and support are important.** With appropriate training and support, the scope of the peer support position can be broadened to include not only behavioral health but also physical health and how these positions interact.
- **Team members need to be prepared to work with peer specialists.** Preparing the other team members who will be interacting with peer specialists to fully understand their role

and the value they bring to the team is important in introducing this position to team-based care.

- **Evaluation can support sustainability.** An evaluation of this pilot program helped it become a model that was sustained by the safety-net clinics themselves after the grant funding ended. The evidence is building for peer specialists as an important role in recovery and treatment.

Kaiser Permanente's Training and Recruitment Efforts in Southern California

> My team really focuses on creating a career pathway for people into health care and clinical support roles.
>
> –Donald Bradburn, director of workforce planning and development at Kaiser Permanente Southern California

Background

Kaiser Permanente (KP) is among the largest nonprofit integrated health care systems and nonprofit health plans in the United States. Based in California, KP has more than 12.3 million health plan members nationally.[487] It is made up of a health plan (Kaiser Foundation Health Plan, Inc., with eight regional subunits), a hospital system (Kaiser Foundation Hospitals and its subsidiaries), and medical groups of physicians (the Permanente Medical Groups). The Kaiser Foundation has roughly 23,000 physicians and clinicians and more than 217,000 employees (see Table A.2).[488] This integrated and high-tech system and its highly unionized workforce strive to develop and incorporate entry-level workers to support their goals. KP was founded as an insurance program for workers for Henry J. Kaiser's building projects in the 1930s and 1940s. In 1945, after World War II, the Permanente Health Plan officially opened to the public; by 1955, enrollment surpassed 300,000 members in Northern California. (In 1953, its name changed from "Permanente" to "Kaiser" for the health plan and hospitals, while the medical group kept the "Permanente."[489])

Table A.2. Kaiser Foundation Overview

Foundation Element	Membership
Kaiser Foundation Health Plan membership, by region	—
Northern California	4,389,705
Southern California	4,613,881
Colorado	647,602
Georgia	319,999
Hawaii	254,039
Midatlantic states (Virginia; Maryland; Washington, D.C.)	760,962
Northwest (Oregon, parts of Washington state)	624,708
Washington	704,027
Medical facilities and physicians	—
Hospitals	39
Medical offices	697
Physicians (as of December 31, 2018)	22,914
Nurses (as of December 31, 2018)	59,127
Employees (technical, administrative, and clerical)	217,712

SOURCE: Adapted from KP, "Fast Facts," webpage.[487]
NOTE: Estimates are approximate. Data are from March 2019.

KP is one of the largest unionized health care workforces in the United States and one of the largest models of integrated care.[490] To understand how an integrated system addresses the challenges around workforce retention and support, we focus this case study on KP Southern California. According to phone conversations with key informants in May and June 2019, given its large size ($79.7 billion operating revenue in 2018)[487] and extensive geographic reach, KP does only some things at a national scale; many efforts are more regional. The focus of this case study is on novel efforts in Southern California around recruitment and training, and especially how the Southern California Workforce Planning and Development staff work to create career pathways for the many entry-level workers in this region.

KP Southern California's Efforts

KP has a large number of employees and is therefore constantly training, hiring, and supporting its workforce. There are several relationships between KP and other organizations, including local and national contracts with internship programs and pharmacy schools. For example, KP has relationships with specific nursing schools and community colleges. Most of these are local efforts through specific medical centers. As one KP talent acquisition manager told us in a phone discussion on May 20, 2019, "We do a lot with community outreach. We like to do business and cultivate relationships with the community where that medical center functions."

KP has been moving to formalize and expand many of these relationships. Donald Bradburn, the director of workforce planning and development at KP Southern California, described the three-pronged approach undertaken by KP to develop this workforce as (1) developing relationships with training programs; (2) including communities in recruitment, which also can address retention because individuals are committed to their own communities; and (3) creating formal career pathways. These themes have appeared in other case studies.

Part of the motivation for supporting its workforce is KP's size. It is often easier to train and hire from within because people already know the system. According to a phone conversation with KP staff on May 20, 2019, "40 percent of the thousands of our new hires every year are external; the majority—over 60 percent—are internal." Entry-level clinical positions are first listed internally and are opened to the general public only after it proves impossible to fill them internally.

Unique Features of the Program

Within the three-pronged approach undertaken by KP Southern California are several specific programmatic efforts. For the first prong, developing relationships with training programs, there are both formal and informal pieces. As Bradburn explained,

> The work we do is engaging with local schools, universities, colleges, going over their curricul[a], giving feedback to them on things that might be gaps that we would like to see addressed, informing them about future trends and shifts in [the] workplace of certain activities [with a focus on clinical support roles].

In this way, workers can be better equipped for jobs, and employers, such as KP, do not have to conduct extra training for new hires.

The second effort involves including communities in recruitment by establishing partnerships with workforce centers, regional occupational centers, and nonprofits that are working on workforce placement to connect to both training institutions and to people in the community. For example, according to a phone conversation with a key informant on June 11, 2019, one KP site in Riverside had a turnover rate of 67 percent per year for housekeeping staff. Because this role includes more requirements than typical housekeeping, such as sanitizing rooms and frontline infection control, it requires training; therefore, the turnover was very costly to the organization. To address this issue, KP developed a partnership with Goodwill, which had been working in underserved communities and with those with barriers to employment. Goodwill sends qualified candidates to KP for jobs in environmental services, food and nutrition services, and now the turnover is exceptionally low. A licensed vocational nurse role was recently added to this workforce pipeline by the Riverside Medical Center.[491] According to a Goodwill director, the higher retention that has resulted can be attributed to employment readiness workshops, soft-skills training, connections to services for housing and transportation, and efforts to match candidates with the skills KP needs when recruiting.[491]

The third approach, creating career pathways for professional development, is novel in its expanse and impact. KP and its unionized staff participate in two Taft-Hartley Act educational trust funds: (1) the Ben Hudnall Memorial Trust[492] and (2) the Service Employees International Union–United Healthcare Workers (SEIU-UHW) West and Joint Employer Education Fund.[493] Both have the same objective: to help the workforce remain competitive and provide skills for advancement.[494] The money is stored in a joint trustee labor-management fund overseen by KP and the unions and is used to create training and career advising programs.[492] One training program, which is set to launch soon, will identify environmental service workers and food service workers and enable them to go to school, maintain employment, and progress from a nonclinical career to a clinical pathway. As an example, according to a phone discussion with a key informant on June 11, 2019, if an individual wants to become a sterile processing technician, they receive new specialized training in cleaning, sanitation, and waste disposal through a formal apprenticeship (a program for which KP has received formal recognition by the U.S. Department of Labor [DOL] and the California Department of Apprenticeship Standards). According to this key informant, once participants complete a didactic portion of the training, they are promoted to sterile processing aides and continue to receive 1,000 hours of on-the-job training with a preceptor. After that, they receive certification as sterile processing technicians. There is a substantive wage difference ($5 more per hour, on average) from their previous environmental service jobs, and they receive pay during training. As a sterile processing trainee, a worker must complete 400 hours of on-the-job training and would receive approximately $1 more per hour, on average, on the pathway to becoming a sterile processing technician (Level 1). Individuals can become surgical technicians as a next step in this technical career path. The trust funds are limited to staff who currently work at KP and, thus, have contributed, but these staff members can use the trust funds as often as they want as long as they are working for KP. However, according to the key informant, the SEIU-UHW West and Joint Employer Education Fund is actively pursuing grant funding to expand these programs to nonincumbent workers.

KP has a related program to train certified anesthesia technologists in collaboration with Pasadena City College.[495] The program is paid for by Kaiser Community Benefit dollars, which are grants dedicated to supporting local organizations (rather than paid for through the trust funds, which focus on workers). The program targets anyone, not just current employees. Despite these differences, according to a phone conversation with a key informant on June 11, 2019, the program is similarly tuition-free and enables movement toward a new job level. The anesthesia program came directly from a need: Doctors in the KP anesthesiology department required staff with this skill set, and the training provides a direct pipeline to employment. This funding is a kind of community benefit grant,[496] serving the community and creating employees that KP wants to hire. According to the same key informant, KP also is working on an advancement program for certified nursing assistants, with a goal of moving them into a home health aide role. The development of home health aides to fill vacancies throughout Southern California is among KP's highest priorities from an employment standpoint.

KP Southern California has worked with various community partners to develop relationships to support its workforce. One partner is the Center for a Competitive Workforce, a "data-driven research collaboration between business and education leaders in the Los Angeles Basin," which provides regional economic outlook reports that give KP information about labor market supply and demand.[497] The center also aims to support education and workforce development programs across the Los Angeles region. Another partner is the California Future Health Workforce Commission, a statewide group of senior leaders across multiple sectors, including health, education, employment, labor, and government. The commission is funded by several California-based health philanthropies, and KP staff members have served on this comission.[498] KP staff also serve in the Los Angeles County Economic Development Corporation, which "works with business, education and government to collectively advance opportunity and prosperity for all the residents of the greater Los Angeles region."[499]

Program Challenges and How They Were Addressed

The changing landscape of job needs. KP needs and job descriptions sometimes change rapidly, and hiring and certifying organizations can have trouble keeping up. For example, more patients are being sent home earlier or cared for through forms of home health, meaning that the acuity of hospital patients is higher and they need more-specialized treatment from the existing workforce; according to a phone conversation with a key informant on June 11, 2019, workers are not always trained to handle such specialized treatment. This has quality-of-care implications for patients and poses continuing challenges for workers who do not have access to training for the new requirements. Although there are no solutions yet, awareness of this challenge leads to interest in finding ways of addressing it.

National scope but regional innovation. KP is a national organization. Thus, programs that are successful can theoretically be spread across the country. However, much of the innovation occurs at a local level, and many of the partnerships formed by KP Southern California are region-specific. Although there is interest in spreading successful practices and making them available for those in other regions, what we describe here is specific to the Southern California region. In a phone discussion on June 11, 2019, our key informant noted that, even when desired, there are limitations to spreading programs in such a large organization as KP because of various federal and state guidelines regarding licensing and certifications, meaning that programs might not be easily exportable to another state.

Regulation and licensing. Staff at KP are limited by external licensing regulations and internal policy governing minimum hiring requirements and union demands. Externally, licensing regulations are managed by multiple organizations with no coordination across them. Therefore, it is not easy to support entry-level staff who are moving from state to state, or from one technical position to another.

Union considerations. Management-level staff members described KP as pro-union, and KP employees are members of numerous clinical and nonclinical local unions. Although the wages

and 3-percent automatic annual raise for union positions are considered vital by many workers, some hiring managers within KP view union positions as problematic for workers who are not motivated to improve their performance. Unions also might make it harder for KP management to fire an ineffective employee. In addition, despite many positive relationships with unions and joint efforts at recruiting, KP has clashed with its unions at times. Most recently, this occurred during a threat of a strike by SEIU-UHW, which represents 55,000 KP workers across California.[500] Another structural limitation is that, because of the way the positions are listed and hired, most entry-level positions are "per diem and on-call" and might or might not come with benefits, depending on union representation. The process for filling job openings is outlined in the applicable union contracts, which typically require a time-limited internal posting for union staff. If no unionized per diem, on-call, or full-time staff apply for an opening, the position is posted to the general public.

Future Directions

In a phone discussion on June 11, 2019, a key informant noted the following future plans:

- KP has plans for addressing the future needs of its entry-level workforce. One plan is to cross-train its staff. For example, although training in radiology is highly specific, KP is working to certify staff in radiology roles for multiple modalities.
- KP also is working to promote digital fluency for all staff, given the increasing role of technology in health care delivery at every level. For example, KP offers online courses for staff to learn to use computers, mobile devices, and data through the Ben Hudnall Memorial Trust program and lends employees computers for the courses if they do not have them.[419]
- KP is working on expanding its workforce not just in Southern California, for example, through partnerships with the state government, including the California Future Health Workforce Commission. It also is beginning to engage high school career technical education programs to create a talent pipeline of students that might not be interested in or cannot afford a four-year university but could benefit from an entry-level health care career, with a focus on high schools in underserved communities.

Takeaways from Key Informants

- **Local efforts are helpful for success, even within big systems.** This national health system has not yet standardized a model to cultivate the community relationships that lead to a robust workforce. Instead, much of this work continues to occur at a local level through persistent rapport-building and problem-solving with individual partners.
- **Sponsored training supports a workforce that cannot otherwise get training.** KP's success in its employees' pathway development comes, in part, from the fact that its staff can train for higher-level jobs at no cost or while continuing to work. In general, KP's utilization of internal candidates (who make up more than 60 percent of all hires) is remarkable compared with that of other businesses, which generally hire less than 30 percent of employees internally.[501,502] Future work should consider examining its model in more detail.

- **Partnerships can bring mutual benefit.** KP's partnerships with local organizations benefit both the workforce community and KP itself. In addition to providing better training and more jobs, those partnerships decrease turnover within KP, which saves the organization the cost of training new personnel.
- **Modernization of licensing agencies might be helpful.** In a phone discussion on June 11, 2019, key informants emphasized the challenge of different licenses and license authorities for each entry-level position, even where there is overlap, such as for different kinds of radiology technicians. They also noted that, for many licensing agencies, record-keeping and renewals are on paper and that there is no way to transfer credentials from state to state. Multistate health systems, such as KP, face the challenge of navigating different regulatory systems with limited interstate reciprocity for licensure and certification. Interstate licensure compacts and other modernization to encourage more-standardized requirements across states might benefit workers and health care system employers alike.

Care Connections Project in New York City

> The argument for investing in home care workers is structured around improvements in quality of care and reduced health care spending. At its core is this idea that speaking to home care workers' impact on those metrics may be the most effective way to convince payers to invest in fair wages and better jobs.
>
> –Angelina Del Rio Drake, chief operating officer, PHI

Background

The United States is experiencing a rapidly increasing need for long-term care services, given a growing elderly population and increasing patient acuity.[503] Accordingly, home care workers (HCWs), who provide personal and basic clinical support to older and disabled individuals, represent the fastest-growing occupation in health care.[504] However, HCWs have poor training standards, low pay (the median national wage is $11.03 per hour without benefits), and little room for advancement.[21,292] Accordingly, home care agencies experienced a turnover rate of 82 percent in 2018.[505] PHI is an organization aimed at improving long-term care services and the quality of direct-care jobs through policy, training, and consulting for the purposes of enhancing, recognizing, and demonstrating the value of HCWs in long-term care and driving investment by payers in the home care workforce,. In pursuit of this mission, PHI implemented the Care Connections Project (CCP) in New York City.[506] At its core, CCP engaged two strategies. According to a phone conversation with key informants on July 31, 2019, one strategy involved *upskilling*, or providing supplementary training to HCWs to improve their competency in key skills needed in their existing responsibilities.[292] The second strategy involved training experienced HCWs to advance into an expanded role (but still within the scope of practice for home health aides) that was salaried and had benefits. This expanded role is called a care connections senior aide (CCSA). These two strategies are described in greater detail in the following sections.

Brief History of the Program

In 2014, the New York State Department of Health issued a request for applications for the Balancing Incentive Program to fund strategies that reduce barriers in providing community-based long-term supports and services for Medicaid beneficiaries.[507] PHI and its managed care plan partner, Independence Care System, had conducted a small exploration of an advanced HCW role and decided to apply for Balancing Incentive Program funding to formalize the role and to integrate Coleman and colleagues' Four Pillars model of improving care transitions.[508] PHI was notified of the award in late July 2014 and the demonstration began in August 2014, leaving PHI with only a few weeks to prepare for implementation, which (according to a phone conversation with key informants on July 31, 2019) would have implications for the initiative, as we describe in the "Program Challenges" section. The program was implemented across three home care agencies within the Independence Care System network: Cooperative Homecare Associates, Jewish Association Serving the Aging, and Sunnyside Community Services.[506] After the demonstration ended in March 2016, the three home care agencies decided to retain five of the eight CCSAs in their roles, sustained by reimbursement from the managed care plan. According to the same key informant, since then, two of the retained CCSAs have left their home care agencies.

Unique Features of the Program

In CCP, the twin strategies of upskilling and implementing an advanced role for HCWs were largely interrelated. PHI trained 14 experienced HCWs for more than 200 hours on chronic diseases, mentorship, and enhanced communication skills (e.g., observe, report, and record [ORR] skills) to advance them to the role of CCSAs (eight of whom were full-time). PHI also trained three registered nurses (RNs) as clinical managers to oversee the CCSAs.[292,506,509] For the project, the eight full-time CCSAs were deployed to client homes, where they provided support and upskilling for entry-level HCWs, who were responsible for 1,439 Independence Care System clients in total.[506] According to a phone conversation with a key informant on July 31, 2019, prior to the CCSAs, the HCWs were supervised directly by RNs.

After clients transitioned from the hospital to the home care environment, CCSAs would meet with entry-level HCWs and visit with clients and caregivers to train them on symptoms of deterioration and support the client's medication and physician visit adherence. According to the key informant, in addition to general check-ins, CCSAs would mediate interpersonal conflicts between entry-level HCWs and clients and attend to any persistent complaints that entry-level HCWs felt they could not address. Although CCSAs were not trained to notice social determinants of health, PHI found that CCSAs would observe and convey those details as well (e.g., poor access to food, insect infestations). Although they were still paid a low wage, CCSAs were salaried and saw, on average, a 60-percent increase in pay: New York City home health aides and personal care aides earn a base wage of $10 per hour without benefits (averaging 35

hours per week, or $18,200 per year), and CCSAs make $28,00 per year in addition to benefits.[292,509]

The new arrangement improved communication flow in two ways: (1) by simplifying communication channels for entry-level HCWs when they had to report changes in a client's condition and (2) by integrating CCSAs into interdisciplinary care teams so that they could provide a more up-to-date and detailed context for care-planning decisions. For the entry-level HCWs, the CCSAs served as an immediate point of contact. Previously, when a patient underwent a change in condition, the responsible HCW had to convey that information through a phone call, which was then transferred through various agencies, and it could take a few days before the HCW heard back. By that time, the patient's condition could have worsened and the HCW might have taken the patient to the emergency room. With this new program, the HCW could call the CCSA immediately, who, in turn, could provide advice or convey details to the RN manager if the problem went beyond their ability, thereby preventing delays in triage. The second way in which communication was improved was that CCSAs were part of interdisciplinary care teams. Thus, they could share their own observations and those from entry-level HCWs directly with other caregivers to inform care planning at the point at which decisions were being made.[292,509]

In evaluating the program, PHI found an 8-percent drop in the rate of emergency room (ER) visits from March 2015 to March 2016 compared with 2014. PHI also found that it reduced strain among the HCWs.[292,509] However, the evaluation faced challenges: It used self-reported outcomes and lacked control groups for comparison (see the next section for further discussion). Anecdotally, entry-level workers reported feeling more valued, supported, and effective.[509] Additionally, the eight CCSAs were retained postdemonstration because the managed care plan saw value in paying for them even without grant funding.[509]

A small component of the project (which covered 157 high-risk clients of 1,439 total) tested the use of a tablet-based software program for entry-level HCWs to convey changes in a client's condition to clinical supervisors.[509] In this telehealth intervention, HCWs were trained to answer yes-or-no questions during each regular shift that would generate a color-coded alert based on the urgency of a change in a client's condition for the clinical manager to address as needed.[509] According to a phone conversation with a key informant on July 31, 2019, the telehealth intervention was deemed to be less successful compared with the larger CCP interventions.

Program Challenges and How They Were Addressed

CCP encountered multiple challenges that prevented it from contributing optimally to PHI's overarching goal of creating a strong business case for payer investment.

Timeline. One primary challenge was the project timeline: The project began within weeks of notification of the award, which prevented optimal planning and implementation across various project components, including the telehealth intervention and evaluation, as we describe in more detail later.

Data challenges. RNs collected data on clients using the Universal Assessment System for New York about every six months. To evaluate CCP, PHI compared relevant outcomes—specifically, ER visits and hospital readmissions—from the final year of the project with those from 2014, the most recent calendar year prior to the project.[509] Baseline outcomes were self-reported and likely of insufficient accuracy. Some of the data challenges were because of the rapid startup of the program; PHI recognized the need for collecting better data and improved the data-collection process during the final year of the project by having clinical managers and CCSAs reach out to clients for more-frequent updates. However, this new process still complicated comparisons with 2014 data, and the challenge of accessing acute care data—which were not made available—remained. Additionally, there was no control group: Caregiver strain was measured among a sample of 194 individuals who were family or informal caregivers of CCP-participating clients and was compared between December 2015 and March 2015, demonstrating a 7-percent net increase in satisfaction, but without any non-CCP caregivers for comparison.[509] CCP also did not report on any changes in retention.

Telehealth intervention. Many clients did not accept the telehealth installation because of concerns about being monitored, even though they were assured that the tablet would be locked for purposes other than the intervention. Internet access and opportunities to charge tablets were practical barriers, and devices would stop working during automatic updates. Also, the software provider did not supply support staff, and the managed care provider's support staff was not equipped to provide the tech support needed. This raised the cost of maintaining the telehealth intervention, and the agencies did not retain it postdemonstration. It might have been preferable for HCWs to have used smartphones instead of installed tablets because smartphones would represent less of a daily interference in the homes of concerned clients; however, several obstacles stood in the way. Some HCWs did not have smartphones or data plans, and there had been instances of HCWs being assigned phones in the past for other purposes and accidently losing or forgetting to return them. The short period between award and implementation also made a smartphone-based intervention difficult to develop and roll out. These difficulties are reflective of the larger challenge: According to a phone conversation with a key informant on July 31, 2019, home care lags behind other areas of health services in telehealth development.

Future Directions

PHI is further developing CCP in two ways. First, it is implementing a similar project in Michigan. Second, it is using the CCP experience to fundraise for more projects to build the evidence base on HCWs' advanced roles, with the idea that evidence will entice payers to invest in the program. With Trinity Health System in Michigan, PHI is creating a transition specialist role that will be similar to the CCSA role. Transition specialists will focus on clients leaving the hospital for a nursing home instead of a home care environment. According to a phone conversation with a key informant on July 31, 2019, PHI is designing the evaluation component for this project after learning from the challenges faced with CCP.

PHI also has recently secured a yearlong planning grant to develop another pilot to build the evidence base for the advanced aide role. Depending on the amount of funding PHI might receive for implementation, its current plans for this pilot differ from CCP in several ways. PHI hopes to train six aides for the advanced role, covering about 300 clients. Aides will be formally trained to observe social determinants of health. As in the planned Michigan project, PHI aims to implement a stronger evaluation component. Given more time to plan the project, PHI is working with an expert at New York University Langone's Department of Population Health to design the evaluation and it hopes to use a third-party evaluator. PHI aims to implement a more robust data-collection process for ER visits and avoidable hospital admissions (potentially by accessing acute care data and/or collecting self-reported data more regularly) and plans to have a control group. Additionally, PHI aims to capture changes in job satisfaction, retention, and knowledge and confidence after training more clearly. According to the key informant, PHI also plans to measure the delay for entering a nursing home.

Takeaways from Key Informants

- **Combining upskilling and career ladders can be fruitful.** Upskilling and implementing a career ladder for HCWs are interlocking strategies that can be pursued together to improve satisfaction among both entry-level and experienced HCWs.
- **Communication channels are key to address client needs as they arise.** PHI reported that the most crucial element in the intervention was streamlining and clarifying the communication channel for HCWs. Where there once was an obscure, multiple-day process for communicating occurrences in the home, CCP instituted a clear and quick workflow to triage calls. It is important to underscore that the telehealth intervention was not required to transform the communication channels. This lesson is particularly relevant because home care is underresourced.
- **HCWs have critical information to share for care-planning purposes.** Many of the HCWs who participated in CCP had never been asked for information on a patient's condition prior to the project. Asking HCWs for input—and developing worker skills to address their observations through CCSA outreach and ORR skill development—represents a radical change in care delivery and might unearth new information on symptoms and problems in care, such as unfilled prescriptions, that inform care planning.

The Individualized Management for Patient-Centered Targets Model in Philadelphia, Pennsylvania

> CHWs are a very broad umbrella category for a workforce. . . . There is a lot of nuance in the details, and specific models need to be evaluated using rigorous science in the same way that we would evaluate a drug or a medical device.
>
> –Dr. Shreya Kangovi, founding executive director, Penn Center for Community Health Workers

Background

Individualized Management for Patient-Centered Targets (IMPaCT) is a scalable CHW care model designed by and for low-socioeconomic-status patients at high risk of poor health outcomes.[510] The model adheres to a flexible, evidence-based protocol for the recruitment, hiring, training, and management of CHWs, who are health professionals with a unique knowledge of the values, needs, strengths, and services of their local communities. Working as a bridge between communities and the clinical settings in which they work, IMPaCT CHWs use a standardized disease-agnostic protocol to work with patients to create and pursue patient-identified goals in collaboration with their clinical providers.[511] Although they are based in health care settings (i.e., hospitals and other outpatient practices), IMPaCT CHWs work primarily in the field with patients, including attending social services appointments, advocating for secure housing, and providing companionship by doing such things as going grocery shopping or playing basketball with a patient in their neighborhood. CHWs help guide patients to appropriate clinicians and lead weekly patient support groups to establish social networks among patients who can support each other in the long term. In addition, CHWs use a smartphone-based app to document their visits with patients while on the go. Through these various components, the IMPaCT model has demonstrated success in reducing hospitalizations and improving self-reported mental health for patients.

Interest in implementing CHW programs across the United States has been increasing, particularly with the move toward value-based payment models and integrated, team-based approaches to addressing social determinants of health. Over time, CHWs have worked in their communities as *promotoras de salud*, lay health advisers, CHAs, and under many other names and occupational identities to apply their knowledge of patient populations, cultures, and available community resources. Although the role of CHWs is not new, they are being used in new ways. For example, CHWs increasingly are brought on to care teams and are included in decisions about appropriate use of services.[512] By employing individuals who might have similar life experiences to those of patients, health care organizations anticipate that patients will improve not only their health outcomes but also the social circumstances affecting their quality of life. This is because CHWs are uniquely positioned to build trust with patients, offer practical guidance, and provide nonjudgmental support. However, many health care organizations in the United States have yet to develop successful, sustainable CHW programs that help patients deal with social issues that occur outside the hospital or clinic.[513] Historically, CHW programs have been largely unstructured or developed without clear standards and role delineation. Furthermore, the lack of evidence on CHW program implementation has made these types of programs challenging to scale up because it has been unclear how to do so effectively.[514]

Originally developed in 2013 at the Penn Center for Community Health Workers in Philadelphia, Pennsylvania, IMPaCT has been adapted for patients across diseases and settings by 35 organizations across 18 different states.[418,511] The center has directly served more than

10,000 patients in Philadelphia to date.[186] IMPaCT has been implemented successfully in a variety of different treatment settings, including the VA, FQHCs, and inpatient and outpatient care settings. The Penn Center for Community Health Workers also provides TA to other organizations to help them launch and sustain CHW programs modeled on IMPaCT.[186] According to a phone conversation with a key informant on June 25, 2019, more than 1,000 organizations have accessed the IMPaCT manuals on the center's website. Support for the center comes from the University of Pennsylvania Health System in the form of funding and other resources: The chair of medicine first assisted with securing a $65,000 grant to hire two part-time CHWs for the pilot study.[515] The research team also secured $60,000 in extramural grant funding for the first randomized controlled trial (RCT).[515] Funding also comes from National Institutes of Health and Patient-Centered Outcomes Research Institute (PCORI) grants (including a three-year, $1.4 million award in early 2019); additional revenue comes from partners who pay for TA for their local implementations.[418,516]

The Penn Center for Community Health Workers grew from six to 40 full-time employees from 2013 to 2014, in part because of an investment by the University of Pennsylvania, which acknowledged the return on investment demonstrated by the center. The University of Pennsylvania has now embedded CHWs in every general medicine clinic throughout the Penn Medicine health system.[515] It has also recently published evidence that the program saves money: Every dollar invested in the intervention returned $2.47 within the same fiscal year, meaning that much in savings for every dollar paid to the program by an average Medicaid payer.[517]

Brief History of the Program

Recognizing the need to address upstream determinants of health, IMPaCT founder Shreya Kangovi took a community-based approach to developing the program. Not only does the IMPaCT model attend to many of the unmet social needs that often affect an individual's health and well-being, it also provides a blueprint for the sustainability and replicability of a CHW program, which has been difficult for others to achieve. Kangovi partnered with community members and disparities researchers at the University of Pennsylvania to better understand the needs of patients utilizing Philadelphia's health care system. Her team conducted interviews with more than 1,500 low-income patients, asking such questions as "What makes it difficult for you to stay healthy?" These types of questions ultimately helped shape the delivery of the IMPaCT model. In addition to engaging the community, Kangovi reviewed relevant literature and carried out key informant interviews, both domestically and globally, with leaders of CHW programs and funders who opted out of investing to understand why they were not interested in funding these types of programs. Funding and political support did not appear to be the main obstacles for many CHW programs; rather, five implementation-related components were the primary challenges (which we discuss further below).

IMPaCT was developed after careful study of CHW models and implementation science, and Kangovi is careful to credit forerunners in the field even as she builds IMPaCT into its own

unique evidence-based program. IMPaCT uses concepts central to Sarah and Mark Redding's Community Health Access Project,[450,518] adapting the model to allow for greater flexibility in patient goal-setting and planning.[510] IMPaCT also builds on work by MacGregor et al.[513,519] IMPaCT was developed using qualitative participatory action research, which engages stakeholders and people that have firsthand knowledge of an issue (i.e., social determinants of health) to inform patient- and population-centered program design.[513]

Using findings from discussions, relevant literature, and prior work, the IMPaCT model aims to address identified obstacles and change them into the following core guiding principles: (1) specialized hiring; (2) standardized training, work practice, and supervision; (3) clinical integration; (4) patient-centered; and (5) scientifically proven.[186] For the first principle, specialized hiring, Kangovi and her team developed hiring algorithms for interviews based on organizational psychology that are designed to identify natural helpers (i.e., people with empathy, active listeners, and those who are willing to help others). According to a phone discussion with a key informant on June 25, 2019, identifying and hiring the right individuals is critical for addressing the issue of turnover and ensuring quality of care for patients. Using this strategy, the IMPaCT model in Philadelphia has experienced an annual turnover rate of 1.7 percent compared with other programs, which see rates as high as 77 percent.[520] The second key to success is a standardized infrastructure. According to the key informant, this entails having work practice manuals and training at all levels for CHWs, as well as training for supervisors and directors. According to Kangovi, the third principle (clinical integration) involves "striking a balance between maintaining the grassroots community-based nature of CHWs while also integrating them with the formal health care system." The fourth principle highlights the fact that CHW programs should be flexible and not disease-specific because many patients have multiple health conditions. An upstream focus allows for this flexibility and prevents CHWs from becoming overly clinical in nature when they are not trained for that role. CHWs focus on navigation, support, and other kinds of help rather than having laypeople provide clinical health education. Because this model is not specific to one disease, it might be more flexible and scalable. According to a phone discussion with a key informant on June 25, 2019, the fifth principle acknowledges that studies of other CHW programs often are poorly designed and can be limiting in terms of providing useful data, in contrast to the IMPaCT model, which has RCTs that support its approach. These core principles are described in detail on the IMPaCT website and in its training materials.[186]

Unique Features of the Program

Standardized recruitment and training. According to a phone discussion with a key informant on June 25, 2019, IMPaCT is unique in its approach to CHW training and recruitment, both of which are key to successful program implementation. The CHW recruitment protocol was developed using the same qualitative participatory action research methodology used to create the IMPaCT intervention protocols and it emphasizes hiring empathic, active listeners.[510]

Many CHWs who are recruited to participate in IMPaCT initially were not seeking out a CHW role; they are often part-time employees in other industries, active volunteers in their communities, and not necessarily perusing online job boards. With this in mind, IMPaCT uses a community-based recruitment strategy, advertising the program through community groups, churches, and neighborhood alliances (according to a June 25, 2019, phone discussion with a key informant). Program-hiring guidelines, which include a series of interview questions, are used to ensure that IMPaCT CHWs have the traits that were identified by patients as most critical: a nonjudgmental attitude and good listening skills.[514] Once hired, CHWs complete a month-long college-accredited training course featuring motivational interviewing.[510] This program is followed by a period of on-the-job training with a senior CHW that continues until new trainees demonstrate competence and adherence to the IMPaCT model.[521]

Manualized protocol. IMPaCT is an evidence-based manualized intervention, meaning that there is a clear set of standard operating procedures for CHWs to use on the job, detailed in a manual that other organizations can use as well.[510] The IMPaCT protocol defines the work to be conducted with patients over the course of one to six months (depending on patient characteristics) and there are three stages of the program: (1) goal setting, (2) goal support, and (3) connection with long-term support.[510] Once a patient has been identified as eligible for the IMPaCT program, they might work with their primary care provider to set a health goal collaboratively. Providers use program-provided visual decision aids to select a health condition of focus and identify a specific measurable goal appropriate to that health condition (see Figure A.2).[521] The patient then meets with their CHW, who uses a semistructured interview guide to get to know the patient's life story and understand any unmet social or behavioral needs. CHWs ask each patient about what they think they need to reach their health goal and use this as the basis for creating individualized action plans or road maps. These road maps summarize a goal, identify the resources needed, and develop a step-by-step plan to achieve it during the standard period of intensive support.[510,521] According to a June 25, 2019, phone discussion with a key informant, patients typically graduate from the program after a prespecified period, but for some high-needs patients, this period can be extended. Dissemination tools include a website with illustrative documentary videos, the technical consultation service noted earlier, and the many publications that have come out of the program.

Figure A.2. Collaborative IMPaCT Decision Aid

My Health Goals		
I want to focus on my:	**Working on this condition means doing things like:**	**By 6 months from now I will:**
[] Smoking _____ _____	♦ Write down all the reasons why you want to quit ♦ Set a quit date ♦ Tell your friends, family, and coworkers that you plan to quit, and ask for their help ♦ Use stop-smoking gum, pills, patch, nasal spray, or lozenge. ♦ Get rid of cigarettes from your home, car, and work	Quit Smoking
[]Blood Pressure _____ _____	♦ Eat less salt (avoid canned foods and eat out less) ♦ Talk to your doctor about starting blood pressure medication or be stricter about taking your meds ♦ Lose weight ♦ Exercise at least 30 minutes a day ♦ Go on the DASH Diet (lots of fruits and vegetables, less meat)	Get my Systolic Blood Pressure to _____ OR ☐ Maintain *If < 130mmHg*
[]Diabetes _____ _____	♦ Exercise for at least 150 minutes a week ♦ Talk with your doctor about medications or insulin treatment or be stricter about taking your meds ♦ Meet with a nutritionist	Get my Hemoglobin A1C to _____ OR ☐ Maintain *If < 7.0%*
[]Weight _____ _____	♦ Meet with a nutritionist and plan a low cal diet ♦ Keep a food diary ♦ Start a program like Weight Watchers ♦ Decrease your "Screen Time" ♦ Start a weight-loss contest with friends and coworkers ♦ Exercise for at least 30-60 minutes per day ♦ Weight loss surgery	Get my Weight to _____ OR ☐ Maintain *If > 20lbs*

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SOURCE: Kangovi et al., 2017, p. 120.[521] Used with permission from Penn Center for Community Health Workers.

Supervision and support. A core component of the IMPaCT model—supervision—serves a variety of purposes. Social workers or masters-level public health professionals, whose responsibilities include integrating teams in a variety of different settings, supervise CHWs. At the center, Penn Medicine continues to fund these positions through grants. The supervisor's role

involves integrating CHWs into clinical teams in a variety of settings. These settings can range from a primary care practice to a sickle cell practice, with one or two CHWs working in each. According to a June 25, 2019, phone discussion with a key informant, among other duties, the supervisor ensures that the clinical team in those settings understands and accepts the CHW role so that the CHWs are incorporated appropriately into the care team. Each supervisor manages a team of three to six CHWs and works with them to support their patients. They conduct chart audits and work with CHWs to manage caseloads. CHWs and supervisors discuss any problems that arise and updates on patient goals and then troubleshoot to ensure that patients graduate from the program in a timely manner.[521] CHWs also review patient action plans with their supervisors, who can provide feedback and input.[521] The key informant noted that supervisors also work with CHWs to determine their professional goals.

According to a June 25, 2019, phone discussion with a key informant, the CHW supervisor is a full-time role at IMPaCT, in contrast to other programs, which might have an RN supervisor available to CHWs for only a small portion of the workday; furthermore, the RN supervisor might not be familiar with the CHW role. According to another key informant (who we also spoke with on June 25, 2019), supervisors have the opportunity to undertake their own projects, such as improving the reporting system or working on an element of health system integration. Although it is difficult to measure, the support provided by supervisors likely affects the retention of CHWs. According to this key informant, the Penn Center for Community Health Workers strives to

> make sure supervisors are hired because they are passionate about CHWs. [Being a CHW] can be a difficult job. CHWs can be exposed to traumatic experiences that their patients are going through and a lot of our CHWs have a lot of things in their own lives that they've overcome or are working through that are difficult. You need people and a program that are going to support people so that they show up for their patients and [do] not burn out.

Having an advocate and a resource with whom to help solve problems and discuss challenges can lessen the heavy burden that often falls on workers who engage directly with patients.

Data tracking. IMPaCT CHWs use electronic messaging in EHR systems to share information with physicians about patients' goals and action plans through cloud-based software called HOMEBASE.[522] This software can also be used in a smartphone app that supports data collection and reporting for CHWs while in the field. According to a June 25, 2019, phone discussion with a key informant, although HOMEBASE does have features that integrate with the EHR, this has not been the app's focus. The HOMEBASE app is able to pull data from the EHR at the University of Pennsylvania Health System and has the capability to generate a to-do list automatically for each of the CHWs' patients when they document their notes. This allows CHWs to stay organized and manage their caseloads. In addition, the app automatically generates dashboards that allow for tracking of CHW performance on key metrics over time for supervisors. Although this app is currently used by the University of Pennsylvania's Health

System and has been tailored to use in the VA, it had not yet been developed for the first two RCTs of IMPaCT at the time of this writing.[523]

Evaluation. Three RCTs have demonstrated the effectiveness of the IMPaCT intervention. The first RCT found that patients who participated in IMPaCT during the transition from inpatient treatment had better posthospital primary care access, improved postdischarge communication, improved mental health and patient activation, and reduced recurrent readmission compared with those not in the program.[510] The second RCT was conducted in an outpatient hospital setting and demonstrated reduced hospitalization, improved self-rated mental health, and improved quality of care among patients with multiple chronic conditions seen in two outpatient internal medicine clinics.[511] The most recent RCT was a multicenter trial of IMPaCT in three primary care facilities—an outpatient VA clinic, an FQHC, and an academic family practice. Patients with multiple chronic conditions who met with IMPaCT CHWs for six months in this multicenter RCT reported higher quality of care, spent fewer total days in the hospital at six and nine months, and had lower odds of repeat hospitalizations.[523] As we discussed earlier, the program has also demonstrated financial returns on investment.[517]

Teaching service program. IMPaCT CHWs are valued for more than just their contributions to team-based patient care. Since 2013, IMPaCT CHWs have been partnering with medical students through a rotation program at the Perelman School of Medicine and the Penn Center for Community Health Workers.[524] The purpose of the program is to train medical students in social determinants of health and in the importance of practicing medicine with cultural humility.[524] The rotation is elective and available to third- and fourth-year medical students to complete as a two-to-four-week rotation, which includes shadowing CHWs in the field and meeting for weekly group discussions about the implications of disability, cross-cultural communication, policies that have disparate impacts on individuals from different racial and ethnic backgrounds, and means-tested social service programs.[524]

Dissemination. Stakeholder engagement is the first step in disseminating the IMPaCT model to other sites, according to Kangovi. According to a June 25, 2019, phone discussion with a key informant, external organizations will often reach out to the Penn Center for Community Health Workers for paid consultation about CHW programs because it has established itself as a national center of excellence. When working with a new site that is interested in developing a CHW program, the Penn Center for Community Health Workers sends a leadership team, including a CHW, to meet with a small group of stakeholders to discuss their goals and devise a plan for what they want to do. This group discusses the types of problems that need to be solved and how a CHW program could be structured to address these issues. Together, the IMPaCT team and site representatives consider such questions as, “Which outcome metrics do you want to see move in your community in the next couple of years?” “What are the areas that are most affected by these problems?” and “What are some of the underlying ethnographic issues within the community?” According to a June 25, 2019, phone discussion with a different key informant, this first stage, which is called the blueprint process, draws on the core components of

effectiveness in IMPaCT and allows for flexibility for local influences. The Penn Center for Community Health Workers team provides the local team with a high-level, 50-page blueprint for their CHW program that outlines the detailed plan and overall goals. Finally, IMPaCT assists with the implementation of the actual program. IMPaCT helps hire and train CHWs and launches and builds the data infrastructure that the site will be using for its program. According to the key informant, as the program progresses, the Penn Center for Community Health Workers team remains available to help with troubleshooting, evaluation, and scalability.

Program Challenges and How They Were Addressed

- **Clinical integration.** CHWs face various challenges when dealing with other providers or clinical staff within health care organizations, given the lack of standardization and definition of their roles. There is the potential for CHWs' roles to be misunderstood or underappreciated, and clinicians might assign inappropriate tasks to them, such as scheduling calls. IMPaCT CHWs are meant to be an equal part of the care team rather than viewed as workers at the bottom of the chain of command. According to a June 25, 2019, phone discussion with a key informant, the IMPaCT model seeks to get to the heart of this issue by requiring CHW supervisors to advocate for CHWs. According to a different key informant, in addition to having a clear reporting structure, IMPaCT CHWs have delineated roles such that other clinicians know that they should not delegate work to them. RCTs also have helped establish legitimacy for the IMPaCT CHW model, which could change the way CHWs are perceived by other members of the care team.
- **Career advancement.** When one of the program's CHWs observed in 2018 that there were no opportunities for upward mobility for the staff who had been with the program for two to five years, the center responded by creating a professional development initiative called Career Paths. This initiative provides IMPaCT CHWs with a standardized means of pursuing promotion—and increased pay, based on tenure and performance—to two new positions: lead CHW and senior CHW. The Career Paths initiative also established three specialized career tracks within the CHW role: (1) community, (2) project, and (3) leadership. The leadership track was intended to provide a mechanism by which CHWs could take on additional responsibility and eventually supervise other CHWs, although, according to a key informant, this track has not been popular. Although there has been variable uptake in these career track options, there are now new opportunities for CHWs to expand their knowledge and skills within the field.
- **New recruitment strategies.** Before the coronavirus disease 2019 (COVID-19) pandemic began in the United States in spring 2020, unemployment rates were at record lows,[525] but with unemployment now significantly increased, the IMPaCT model may have more interested candidates. With the growth in paraprofessional and entry-level roles, especially by for-profit home care agencies with larger budgets that provide benefits, there was some increased competition among potential workers for open positions. According to a June 25, 2019, key informant discussion, although IMPaCT's original hiring algorithms can continue to be used to bring in the right people, the center recognizes that new approaches to recruitment must be developed.

Takeaways from Key Informants

- **Scalability should be built into a model from the outset.** Scalability has been a high-priority outcome for the IMPaCT model since its inception. According to a June 25, 2019, key informant discussion, it is imperative to "build in a pivot that will allow for adaptability." This strategy allowed the IMPaCT model to identify the aspects that could be adapted to different settings and for various populations early on, thus allowing for the widespread adoption of the program in a variety of health care organizations.
- **Having the right people is important.** Recruitment of the right people is a key piece of the IMPaCT model for both CHWs and supervisors. CHWs and supervisors alike must be resilient, given the intense nature of the care they provide to patients. Supervisors also must be passionate about working with CHWs because they will need to provide constant support for CHWs and solutions for difficult situations. According to the key informant, without individuals who are well suited for the CHW and supervisor roles, burnout and turnover become much more common.
- **Evidence can be gathered for interventions around the workforce, and demonstrated impact can enable a program to get support and spread.** The IMPaCT project has shown that rigorous evaluation can accompany innovative interventions using entry-level workers, particularly if those interventions are designed with evaluation in mind.
- **Return on investment.** Calculating the return on investment of the original IMPaCT program has been key to the program's success. Outcomes data from the original RCT on IMPaCT were used to calculate a return on investment; this calculation found a return of $1.80 for Penn Medicine health system.[515] This return prompted the Penn Health System to adopt IMPaCT as a systemwide population health management tool in 2013.[515] From 2013 to 2014, CHWs were integrated into every general medicine hospital service in Penn Medicine's two largest hospitals and every academic Penn Medicine primary care practice in Philadelphia.[515] As of 2016, for each dollar invested in the program, there has been a return on investment of $2.47.[515,517]
- **Institutional support.** The University of Pennsylvania Health System has been a consistent supporter of IMPaCT, which it uses systemwide for population health management. Support from the home institution has been important to IMPaCT, along with the funding it provided; further funding secured through grants has enabled further expansion.

Health Professions Pathways Consortium

> [Health Professions Pathways colleges] aspired to have more impact. That really unified them, and I think created a more collaborative kind of environment.
>
> –Dr. Debra Bragg, director, Community College Research Initiatives, University of Washington (former director, Office of Community College Research and Leadership)

Background

The Health Professions Pathways (H2P) Consortium was formed in 2011 through a four-year, $19.6 million grant from the DOL Trade Adjustment Assistance Community College and

Career Training (TAACCCT) program. Its goal was to galvanize a national movement to improve health workforce education and training through curriculum reform, engagement with industry stakeholders, and the implementation and evaluation of innovative practices.[526] Led by Cincinnati State Technical and Community College, the consortium comprised nine community college co-grantees in five states (see Table A.3) and six partner organizations (see Table).[527] The adoption of a career pathways framework and a competence-based core curriculum were critical aspects of the collaborative,[527] as was the use of holistic career and employment advising.[528]

Table A.3. Co-Grantee Colleges in the Health Professions Pathways Consortium

Co-Grantee College	System	Location
Anoka-Ramsey Community College	Minnesota State Colleges and Universities system	Coon Rapids, Minn.
Ashland Community and Technical College	Kentucky Community and Technical College System	Ashland, Ky.
Cincinnati State Technical and Community College	N/A	Cincinnati, Ohio
El Centro College	Dallas County Community College District	Dallas, Tex.
Jefferson Community and Technical College	Kentucky Community and Technical College System	Louisville, Ky.
Malcolm X College	City Colleges of Chicago	Chicago, Ill.
Owens Community College	N/A	Toledo, Ohio
Pine Technical and Community College	Minnesota State Colleges and Universities system	Pine City, Minn.
Texarkana College	N/A	Texarkana, Tex.

Table A.4. Partner Organizations in the Health Professions Pathways Consortium

Partner Organization	Role in H2P
Health Professions Network	Core curriculum implementation[527]
iSeek Solutions	Virtual career network implementation[527]
National Network of Health Career Programs in Two Year Colleges	Core curriculum implementation[527]
National Association of Workforce Boards	Technical advising on workforce system and training programs for incumbent workers[527]
Office of Community College Research and Leadership	Third-party grant evaluation[529]
Teaching Institute for Excellence in STEM	TA on core curriculum[527]

TAACCCT funding came at the right time for H2P leaders, who, according to a conversation with a key informant on April 4, 2019, were deeply committed to curriculum reform. The purpose of TAACCCT grants was to provide training to workers who had been displaced by

international trade,[530] although other workers were included as program beneficiaries. TAACCCT grants were created to fund the development and replication of evidence-based programs to support workers in acquiring the necessary skills and credentials for high-wage employment.[530,531] According to a April 18, 2019, phone conversation with a key informant, with this goal as its mission statement, H2P colleges agreed to create and update programs of study that were consistent with one or more of the following strategies:

- online needs assessment and career advising[527]
- contextualized developmental education,[532] or math, writing, and comprehension courses that are tailored to contain content that is specific to a health care program of study[285]
- competency-based core curriculum that is aligned with career pathways and informed by industry requirements[527]
- industry-recognized stackable credentials—i.e., educational certificates, industry certifications, educational degrees, and professional licenses that are valued by employers and can be attained over time (The goal of stackable credentials is to shorten the time to completion so that individuals can move back into the workforce more quickly.[528] Earlier credentials serve as building blocks such that workers can pick up where they left off once they are able to return to school or training.[533] In the long term, stackable credentials are meant to facilitate flexibility and upward mobility into higher-paying jobs.[534])
- holistic student supports, such as career and employment advising[528]
- training for incumbent workers—i.e., individuals already working in health care—to prepare them for more-advanced positions[532]
- enhanced use of data across systems.[527,532]

Although grantee colleges could implement any combination of these strategies in designing their programming, they agreed to adopt a core curriculum (which we describe below) and establish at least one new health profession credential or certificate.[532] The TA on core curriculum that was provided to H2P colleges allowed for flexibility in implementation to accommodate the needs and demands of states, regions, employers, and communities.[532]

Postsecondary education is becoming a prerequisite to gaining living-wage employment.[284] Enrollment in degree-granting postsecondary educational institutions increased by 37 percent from 2000 to 2010—with an increase of 29 percent at two-year institutions[x]—and, despite a recent decline, enrollment in community colleges is projected to increase again over the next ten years.[284,535,536] Historically, federal funds in workforce development have been used to create short-term training programs of six months or less, and these initiatives typically have not required collaboration among colleges.[284,537] Career pathways in allied health[xi] are not always clear,[538-540] particularly for new and emerging positions, and the low wages of many allied health

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[x] Total fall enrollment in degree-granting postsecondary institutions increased by 42 percent at four-year institutions from 2000 to 2010.

[xi] *Allied health* is a term that is inconsistently applied to a diverse group of health care workers. Cadres of workers that often are excluded from allied health include physicians and nurses; dentists and pharmacists; and nurse practitioners, midwives, physician assistants, social workers, and mental health counselors.

positions make the existence of a clear and reliable path to upward mobility more important. Associate's degrees and certificates in allied health are associated with higher earnings, which is one option for advancement for entry-level workers.[195] Students who complete terminal degrees in allied health at community colleges have among the highest rates of returns in earnings compared with other investments in education or training.[195]

Brief History of the Program

The TAACCCT program was created by the American Recovery and Reinvestment Act of 2009[541] and supported by the Health Care and Education Reconciliation Act of 2010,[530,542] which allocated additional funds for the program.[543] In many ways, the TAACCCT program was a continuation of a 2005–2009 DOL program that provided grant funding to community colleges to train workers in high-demand industries: the Community-Based Job Training Grant Program.[544,545] TAACCCT grants were designed to fund community colleges and other institutions of higher education over multiple years, and institutions were encouraged to apply individually or as consortia of two or more.[531]

Two factors motivated and precipitated the creation of H2P. The first was the success of the Health Careers Collaborative of Greater Cincinnati—a partnership initiative of employers, training providers, and community-based organizations dedicated to strengthening the Cincinnati area health care workforce through training and career support for workers and the unemployed.[546] According to a key informant discussion on April 18, 2019, the second factor was the health care core curriculum being implemented at H2P co-grantee El Centro College. The success of the Health Careers Collaborative of Greater Cincinnati captured the attention of leadership at Kentucky colleges. The idea of a core curriculum for allied health professions was first recommended by the Pew Health Professions Commission in 1995[547,548] and implemented at El Centro College beginning in 1998.[549,550] According to our key informant discussion, long-standing relationships among Cincinnati State Technical and Community College, El Centro College, and Jefferson Community and Technical College had established the imperative for information-sharing and increased collaboration; when the TAACCCT program was introduced, they found a funding source.

Consistent with the early goals of the TAACCCT program, H2P aimed to strengthen and standardize career pathways for allied health occupations and shorten the amount of time required to complete training.[532] The H2P Consortium was designed to be scalable, in large part to achieve the mission of spurring a national movement to reform allied health professions education and training. Strategies were selected based on available evidence,[551] and H2P leadership allowed for flexibility of implementation to facilitate the adoption of H2P initiatives in different settings. Other strategies identified by the TAACCCT funding announcement that were incorporated into H2P include the redesign of developmental education; the use of online and technology-enabled learning; and an emphasis on enhanced data collection, analysis, and data sharing across systems.[527,532] An evaluation found "compelling evidence that the reforms

that H2P colleges implemented made a positive impact on the attainment rates of healthcare students."[529]

Unique Features of the Program

Competency-based core curriculum. The purpose of the H2P core curriculum was to establish a shared educational foundation for different allied health fields. According to a key informant discussion on April 18, 2019, it also functioned to help students better understand the different workforce opportunities in the allied health professions. Co-grantees adopted the DOL Allied Health Competency Model[552] implemented by El Centro College and committed to developing one core curriculum course each.[527] The curricula developed at co-grantee colleges ranged from one or two courses at Texarkana College and Pine Technical and Community College to six or seven courses at El Centro College and Ashland Community and Technical College.[529] Several H2P co-grantees planned, but had not yet implemented, competency-based core curricula by the end of the funding period.[529] Consortium members met in person on a monthly basis for core curriculum community of practice meetings to track progress and share successes and challenges.[527]

In an effort to ensure the sustainability and scaling of best practices for curriculum reform, in-person core curriculum summit meetings were held in Minneapolis, Minnesota, as an opportunity for consortium members to meet with policymakers and other key stakeholders, including employers, funders, and technical educators.[527] Through their relationships with H2P partners, H2P leaders were invited to participate in the Community College Transformative Change Initiative to develop a plan for scaling the core curriculum. In 2013, the H2P Consortium committed to expanding its health care core curriculum—inclusive of stackable credentials (which we describe below)—to 100 additional community colleges by 2017 via the Clinton Global Initiative.[553] At the conclusion of the grant, the Health Professions Network, the National Network of Health Career Programs in Two Year Colleges, and H2P began working to update DOL's National Model for Competency Based Core Curriculum.[527]

The core curriculum was approved for statewide adoption at 17 community colleges in the Kentucky Community and Technical College System.[527] H2P also collaborated with HealthForce Minnesota and the Minnesota System of State Colleges and Universities to create a core curriculum for high school or college students that featured a training offered through the Anoka-Ramsey Community College workforce development scholarships.[551] H2P also helped a round-three TAACCCT recipient, the Los Angeles Healthcare Competencies to Careers Consortium, adopt the H2P core curriculum with the support and assistance of H2P leadership.[551] In 2016, the White House announced a Health Career Pathways Initiative that works with seven communities and builds on the work of the H2P Consortium.[554]

Stackable credentials. These types of credentials are interim credentials embedded in larger programs of study that can be accumulated over time,[285] allowing students to earn both the credentials they need for employment and the credits they can apply toward future study if they

return to school.[285,526] According to the key informant, many H2P member colleges had stackable credentials before the start of the consortium, but the credentials varied in terms of how easily students could move from one program to another for career advancement. Another important aspect of stackable credentials was the tailoring of *developmental education courses*, or courses designed for students with less of a foundation in math, writing, or reading. *Contextualized developmental learning*, or the tailoring of adult developmental education courses to a technical field—such as health care—is meant to prepare students for academic success through remedial coursework while providing credit for foundational courses in a program of study. The courses had the additional advantage of giving students an early sense of their interest in the allied health field to allow for the potential to switch to a different program of study more efficiently—i.e., before expending too much time or money on a given preprofessional program.

The flexibility of H2P implementation meant that colleges could pursue further development of these credentials and courses in whatever manner made most sense in the context of their existing programs and populations. According to the key informant discussion, many colleges chose to amend their existing licensed practical nurse (LPN) and licensed vocational nurse (LVN) programs to make them more user-friendly for individuals approaching the program with different work experience. For students with backgrounds in nursing, these changes were likely imperceptible; for individuals with non-nursing work experience, the programs were designed to be more approachable from different points of entry.

Online assessment and advising. In some cases, through the Virtual Career Network,[555] and in other cases, through existing tools and resources, the H2P colleges offered enhanced academic and career advising to students enrolled in H2P programming. These advising services were designed to improve recruitment and enhance the supports available to students.[532] Student advising and supports were implemented successfully by all nine of the co-grantee colleges in the H2P Consortium,[285] and all H2P students met with a success coach or adviser.[527] Prior learning assessment was another important offering. Students would meet with a counselor to learn which, if any, of their past courses might be counted toward a future certificate or degree program. Such arrangements were designed to support student retention[527] and shorten the amount of time required to complete a certificate or degree program. H2P colleges reported improved student retention rates for those who participated in H2P career counseling and academic advising, averaging 88 percent across the consortium compared with 72.7 percent among students not participating in H2P at one H2P Consortium member instituituion.[527]

Use of data to inform implementation. Although it was not a requirement of round one TAACCCT grants, the H2P Consortium elected to hire an outside evaluator to design and manage data collection.[285] H2P used the Pathways to Results model of continuous improvement developed by the external evaluator, the Office of Community College Research and Leadership. The purpose of Pathways to Results was to inform implementation by monitoring outcomes data for various programs and initiatives with an emphasis on equity.[529] H2P leaders consulted with

evaluators throughout the grant to make decisions about curriculum changes and retention strategies in an attempt to ameliorate disparities in student outcomes.[285]

Program Challenges and How They Were Addressed

- **Variation in state-level requirements.** The development and adoption of a common health care core curriculum was both the catalyst for H2P and a major implementation challenge. The H2P Consortium spanned multiple states and, according to a key informant discussion on April 18, 2019, the team quickly realized that there were different governing systems and requirements that would necessitate flexibility in implementation in Kentucky as compared with in Texas. According to the key informant, to address the differences, H2P adapted the Texas curriculum developed at El Centro College—which involved preprogram work and additional courses—into a freestanding credential that was understood as a "first step in a health care career" for Kentucky. At the time, the foundational program had three courses that were designed to help students understand their career options and basic terminology and to provide a means of exploring career interests and job prospects. In this way, the consortium interacted with incumbent workers in area health care facilities in Texas and Kentucky, with the shared outcome of creating exposure and a broad first step for anyone in the community who was interested in moving into a health care career.
- **The interdisciplinary nature of curriculum reform.** According to a phone discussion with a key informant on April 4, 2019, several of the H2P strategies that pertained to the development of a core curriculum, such as the use of contextualized developmental education courses, required the approval of other decisionmakers (e.g., employers, community partners, licensing bodies) who were outside the H2P Consortium. Competency-based models for developing curricula that support career pathways are complex and affect many different stakeholders and decisionmakers (e.g., faculty, administration) in an educational institution.[285] Foundational courses, such as math and science, are applicable to students in many different disciplines, and the process of contextualizing these courses to allied health care requires coordination with faculty and administrators in the various departments that host allied health training programs in H2P co-grantee colleges, making this strategy difficult to implement.[529]
- **Availability of funding.** Students enrolled in H2P programming had a higher-than-usual retention rate (88 percent) at H2P co-grantee colleges, which evaluators attributed to the supports that students received through their relationships with career success coaches.[527] H2P co-grantee college leadership expressed the belief that TAACCCT dollars were well spent on this holistic advising (i.e., the use of academic advisers, career coaches, and retention specialists). However, the majority of H2P colleges did not elect to retain those positions after the end of the grant funding.[529] Evaluators hypothesized that community colleges did not have the funds to support these positions without external support, observing that, in several cases, the co-grantee colleges were pursuing funding through other federal programs in an attempt to fund career adviser or retention specialist positions.[529] When they did secure additional short-term funding through state or federal grant programs after the conclusion of H2P, several colleges elected to prioritize funding to reinstate retention specialist positions.[529] The last round of TAACCCT grants ended in September 2018.[545] Such bills as the Community College to Career Fund Act[556] have

been introduced to establish successor programs. No such bills were enacted in the last Congress, and although the Community College to Career Fund Act has been reintroduced, it seems unlikely that it will be enacted.[545,557]

- **Racial disparities.** Community colleges have been gateways to four-year colleges and universities for students who traditionally have been underserved by and underrepresented at such institutions.[558] Successful matriculation through education and training programs and into higher-wage employment is facilitated by previous exposure to opportunities that are not available equally to all students; this can contribute to racial and ethnic stratification in education and employment outcomes.[558] Students of color were less likely than White students to complete longer-term programs, even as they completed short certificates at equal rates: Of those students who participated in H2P, 16.9 percent of Black students and 16.4 percent of Latino students earned a certificate or associate's degree, compared with 27.9 percent of White students.[526] Despite an overall increase in the proportion of students enrolled in associate's degree programs, Black and Latino students were still significantly underrepresented in associate's degree programs.[543] Many short-term credentials were determined to have limited market value[526] based on calculations by H2P colleges of trainee gains in earning potential, suggesting that stackable credentials could reinforce racial stratification unless the racial disparities in completing longer-term programs are addressed.

Takeaways from Key Informants

- **Communities of practice can facilitate learning.**[554] Regular, sustained communication among co-grantee colleges facilitated the sharing of information and best practices. The learning that took place as a result of participation in the consortium is more transferable to other community colleges[529] by virtue of having been developed by many institutions across multiple states. Co-grantee colleges made an effort to understand the values, goals, and unique implementation of consortium strategies at partner colleges and shared ideas and information in support of their shared objectives.[554] Materials created through the H2P Consortium were shared with the public through SkillsCommons.org,[559] an online library created by the TAACCCT program.[560]
- **Flexible implementation can help support success.** H2P evaluators believed that the variability of implementation of the H2P Consortium strategies was a strength. According to a key informant discussion on April 18, 2019, the greater the variation, and the more ways in which one could implement a successful strategy, the better chances are that others will be successful in adapting that strategy to their own unique contexts. They also told us that community colleges are so different that there is no one strategy suited to all contexts. That said, the need for flexible implementation can make it difficult to build evidence in support of broader reform.[554]
- **Systems change requires the commitment of leadership.**[285] Thoughtful leadership was critical to the success of the H2P Consortium. H2P used *distributed leadership*—the sharing of leadership practices for efficiency or to encourage a more democratic process[561]—to implement H2P strategies in different settings. In some cases, leadership was shared through including numerous stakeholders in the design and implementation process. In other cases, grants were used to distribute responsibility and decisionmaking authority to H2P partners, such as health care employers. For example, according to a key informant discussion on April 18, 2019, the program at Jefferson Community and

Technical College featured a partnership with employer Norton Healthcare, and in this way, the H2P Consortium was a business–community college partner with these two entities. Jefferson Community and Technical College was lauded for this partnership.[529] Particularly for initiatives that require systems-level change, trusted leaders are critical—they must articulate the importance of reforms, bring together key stakeholders, and define a process for adopting new practices.[285]

- **Trusting relationships are key to a successful collaboration.**[285] Trust and reciprocity are critical to the success of educational consortia, and collaboration is increasingly a requirement of workforce-development initiatives.[284] According to a phone discussion with a key informant on April 4, 2019, H2P community colleges had numerous long-standing relationships with employers, particularly at the local and regional levels, prior to the start of the consortium. According to our key informant discussion on April 18, 2019, leveraging their existing professional networks, which spanned five states and nine colleges, helped H2P members build networks in their communities as quickly as they could, reaching out to leaders in hospitals, nursing homes, health professions, and education software companies. H2P co-grantee colleges reported a total of 246 relationships with local and regional partners in support of the consortium, of which 60 relationships were newly formed as a result of TAACCCT funding.[554] Students who participated in H2P gained an estimated $1,400–$1,700[xii] in average quarterly earnings postschooling.[276] Career pathways reform requires input and partnerships from stakeholders, both internal and external to community colleges.[285]

Service Employees International Union Multi-Employer Training Funds

> If you're a medical assistant, there is no reason why you shouldn't be able to take some of your learning in anatomy and physiology and other things and apply that to a degree program. But that is not happening. It does happen in pockets, but it's not happening at scale.
>
> –Sandi Vito, executive director, 1199 Service Employees International Union (SEIU) Training and Education Fund

Background

SEIU is an international labor union representing nearly 2 million workers in North America in health care, public services, and property services. There are more than 150 local and regional SEIUs, each with its own governance structure and constituent members.[562] Union members might be employed by any number of employers in a given region, and where the union has a presence, the local union negotiates on behalf of its members with their constituent employers to form collective-bargaining agreements that determine the wages, benefits, and workplace conditions for its workers.

In addition to advocating on behalf of members, union support for education, certification, skills training, and career advising is relatively common. One mechanism for this is a jointly

[xii] Estimates varied slightly depending on the method of calculation at different H2P Consortium institutions.

governed labor-management partnership, or a joint workforce development initiative, between a union and its partner employers. Established through collective-bargaining agreements and funded by employer-paid contributions, labor-management training partnerships build training and education programs to support worker advancement and retention.[282] Several local SEIUs have labor-management training partnerships.

The advantages of these partnerships are numerous, both for employers and workers. For employers, joint labor-management training and education partnerships encourage worker retention and increase the availability of trained workers for open positions.[281] Partnership funding and the processes for determining training priorities based on existing workforce gaps are decided through collective bargaining such that the shared governance structure is decided by a contract.[283] Workers benefit from the increased availability of funding and opportunities that result from the partnership.[281] Health care employers in a region are brought together in partnership by way of their shared relationships with a given health care union.[282]

This case study focuses on two large SEIU labor-management joint training partnerships: (1) 1199SEIU UHW East's Training and Employment Fund (TEF) and (2) the SEIU UHW West and Joint Employer Education Fund (colloquially known as "the Education Fund"). Together, they are referred to as "The Funds."

Brief History of the Program

1199SEIU is the largest health care union in the United States. It first organized workers in some of New York City's most prominent hospitals. Its joint labor-management partnership, TEF, constitutes the largest such fund in the United States.[563] TEF grew out of the first multi-employer training partnership in health care, the Training and Upgrading Fund, which was established in 1969 by a partnership between 1199SEIU and the League of Voluntary Hospitals and Homes in New York City.[281]

TEF has since expanded to provide benefits for more than 250,000 health care workers and 450 employers across the East Coast (in New York; Massachusetts; New Jersey; Maryland; Washington, D.C.; and Florida). Each year, approximately 40,000 health care workers receive fund benefits.[564] TEF has served as a model for the development of similar partnerships across the country; one such partnership is the Education Fund.[565] The Education Fund was negotiated by SEIU UHW West in 2004 and provides benefits to 105,000 health care workers; five other SEIU local unions across the West Coast; and 17 employers, including KP, its largest employer-partner.[566-568]

To share knowledge and tools and foster collaboration among local SEIUs and employers involved in joint labor-management partnerships, SEIU and TEF created the Healthcare Career Advancement Program, which is a national organization that provides health care education and workforce development tools.[281,569] This coalition has expanded to cover approximately 1,000 employers and 600,000 health care workers across 16 states and Washington, D.C.[564]

Evaluations of these programs show a positive impact of training programs on retention and grade point averages.[281]

Unique Features of the Program

The Funds provide educational and job placement services (see Table) to serve two main functions: (1) retaining health care workers through career advancement and (2) enabling employers to recruit the workforce they require. According to phone conversations with key informants on July 9, 2019, and July 31, 2019, TEF also runs the Labor Management Project, which facilitates labor and management partnerships to improve patient care quality.[568] Several characteristics enable The Funds to provide these services, including employer contributions and priority setting.

Employer contributions and grant funding. The Funds are Taft-Hartley 501(c)(9) trusts that are supported by employer contributions. Typically, employer contributions amount to between 0.5 percent and 1 percent of wages and are paid to the bargaining units represented. A study of SEIU joint labor-management partnerships based on key informant discussions concluded that contributions of this size from multiple employers add up to a well-resourced workforce-development effort that affords economies of scale, not only in the provision of its services but also in the pursuit of grant funding.[281]

Priority setting and resource matching. TEF uses labor market data, surveys of employers, biannual meetings with employers, ad hoc focus groups with employers, and conversations with hospital leaders to set priorities for how to spend funds and match existing resources to employer needs. According to a phone conversation with a key informant on July 9, 2019, the union also works with employers to recruit workers for relevant TEF programs. We learned from another key informant discussion on July 31, 2019, that the Education Fund similarly engages with employers and conducts surveys and focus groups with workers to understand their specific career goals and preferences for program design.

Career and academic counseling. According to phone conversations with key informants on July 9, 2019, and July 31, 2019, The Funds provide career and academic counseling to members up front so that they are well aware of the requirements of career-advancement programs and can make informed decisions about future career paths.[570]

Table A.5. 1199SEIU TEF and SEIU UHW Joint Employer Education Fund Programs

Initiative Type	1199SEIU TEF	The Education Fund
Career counseling	• Career exploration, skills and interest assessments, job search preparation, overviews of financial aid and benefits of The Funds	• Similar scope to TEF
Courses and tutorials on career skills	• Courses on EHRs, computer basics, care coordination • Foreign language skills (see, e.g., Bronx Healthcare Learning Collaborative)[190]	• Courses on computer basics, Microsoft Office, communication skills • Specific version for KP employees
Preparatory courses for college	• City University of New York (CUNY) and LPN nursing school entrance exam prep, English and math prep	• Online courses on such subjects as introductory biology and anatomy
Professional development	• Certification and licensing exam prep courses, reimbursement for certification programs • Fund-sponsored seminars for continuing education units (CEUs); reimbursement for CEU conferences, workshops, and programs; online courses for CEUs[571]	• Reimbursement for licensure and certification (certification classes offered for medical assistants [MAs]) • Reimbursement for CEU courses and certifications at conferences[571] • Employer-arranged classes for groups of interested employees to earn certifications
Tuition and nonfinancial assistance for training programs	• Tuition assistance for degree programs • LPN program: tuition assistance, counseling, academic support to LPN students • Basil Paterson Scholarship: tuition and cash stipend to HCWs[572]	• Advance Your Career: reimbursement for tuition, fees, textbooks, and certification exams
Apprenticeships	• Registered apprenticeship programs	• Registered apprenticeship programs • Pre-apprenticeship programs
Adult basic education	• High school equivalency prep, digital literacy, English as a second language (ESL)	• General Education Development (GED) test preparation, digital literacy, ESL
Citizenship preparation	• ESL, civics and history prep, interview and test prep, legal counseling	• Citizenship exam prep
Assistance during reduction-in-force transitions	• Job Security Fund: Short-term skills training and job search support in case of layoffs (in addition to supplemental unemployment pay and health care benefits)	• Job-to-Job Program: training and support, including reimbursement for training during reduction-in-force transitions
Prerequisite support	• Health Careers College Core Curriculum Program enables members to take prerequisites (e.g., biology, chemistry, English) required for a variety of degrees in allied health[572]	• Financial support, counseling, tutoring in completing college readiness, prerequisite, and general education classes at community colleges • Version for KP employees in Northern California includes health care training beyond prerequisites
Stipend programs	• Service Payback Education Program: in addition to tuition assistance, salary stipend and health care benefits to cover the release time provided by the employer to help full-time students	• Only for KP employees: wage replacement for up to 16 hours per pay period (and $10,000 total per student) for students undergoing training for certain positions (e.g., LVN/LPN)
Bronx Healthcare Learning Collaborative	• Helps Spanish-speaking health care workers pass CUNY entrance exam, provides Spanish classes, courses in patient-centered care, and cultural competency[190]	• Not applicable (unique to TEF)

SOURCES: 1199SEIU TEF;[190,572,573] 1199SEIU Funds Labor Management Project;[574] and SEIU UHW-West and Joint Employer Education Fund.[567,570,571]

Cohort approach. Several programs that The Funds offer use the cohort approach. The cohort is a group of worker-students that enter and graduate from a program together. For example, TEF's Health Careers College Core Curriculum uses the cohort approach to allow workers to take prerequisite classes that can count toward the completion of allied health degrees. According to phone conversations with key informants on July 31, 2019, the Education Fund runs a cohort-based MA-to-LPN bridge program that has been going on for five years to provide employers with a steady supply of LPNs. A different key informant told us on July 9, 2019, that this approach enables mutual support among students and also enables the union to organize more easily and/or provide peer learning groups, tutoring, and counseling. Our key informants noted that this approach also enables The Funds to contract directly with partners to provide classes at convenient locations and times, such as in the mornings and evenings.[281] This flexibility and additional support improves the retention of students in educational programs and placement rates.

Educational partnerships and scale. The Funds maintain partnerships with numerous educational institutions. According to our key informants, partnerships are formalized through contracts (for example, The Funds buy seats in training programs and courses) and are maintained through well-developed and informal relationships between staff and educational partners. A TEF key informant mentioned in a discussion on July 9, 2019, that, given its close relationship with employers and its scale, TEF can influence educational partners to change curricula to align more with industry standards.

Program Challenges and How They Were Addressed

TEF is facing challenges that are not inherent to its program; rather, they are a feature of the educational and labor environment. Low wages, poor working conditions, and lack of standardized training are common for home health aides, for example. It also can be difficult for them to find full-time work. According to discussions with key informants on May 16, 2019, and July 9, 2019, these factors make it difficult to recruit and retain home health aides, despite joint labor-management partnership efforts. Another challenge is the lack of focus in higher education on serving adult learners, working learners, and immigrants. At TEF's urging, CUNY—TEF's largest educational partner—revised its admission policy to omit from consideration scores on the Regents exam, a high-stakes New York state test taken at the completion of high school. However, this revision applied only to traditional students—not adult learners, working learners, or immigrants. 1199SEIU's workers are less likely to have Regents exam scores, Scholastic Aptitude Test (SAT) scores, or adequate high school grades, thus inhibiting access to higher education. According to a key informant with whom we spoke on July 9, 2019, there is no system in place for accrediting workers' frontline experience toward degree programs.

Key informants from the Education Fund cited additional challenges in a phone call on July 31, 2019: Specifically, they stated that extensive career ladder programs for entry-level health care workers are not present at scale and labor-management partnerships like theirs are among

the first to create such programs. Another challenge is finding high-quality educational institutions; the Education Fund is still seeking appropriate partners for some initiatives.

Future Directions

In the future, TEF will focus on continuing to innovate on career pathways in partnership with higher education. One specific initiative would involve working to secure credit for frontline experience toward degree completion. TEF also will turn toward developing new training programs and improving care processes focused on addressing social determinants of health through its Labor Management Project. According to a key informant discussion on July 9, 2019, because of shortages in many health care occupations, the third focus for TEF is using grant money and sources of funding other than the employer-contributed funds to pay for the recruitment of the unemployed or part-time employees from other industries.

The Education Fund plans to iterate on its pre-apprenticeship program pilot, which trains mainly nonclinical workers in prerequisites for apprenticeship programs. In the earlier pilot, the pre-apprenticeship program was not directly affiliated with a registered apprenticeship program and was offered on a part-time basis (two days per week and four hours per day, for a total of 128 hours). According to a discussion with key informants on July 31, 2019, in its next version, the Education Fund plans to implement a full-time model that directly links workers to a registered apprenticeship program.

Takeaways from Key Informants

- **Joint labor-management funds enable targeted, long-term–focused workforce-development initiatives.** Most employers, apart from such large-scale employers as KP, plan for workforce needs in the relatively near future. According to a key informant we spoke with on July 12, 2019, unions, on the other hand, are focused on career advancement for their members. Another key informant told us on July 9, 2019, that the negotiated partnerships with employers allow for a greater focus on longer-term workforce goals that could be more mutually beneficial. It is unclear whether workforce-development efforts that solicit input from labor and management but are not jointly governed yield a similar focus.
- **Capitalizing on scale is crucial to joint labor-management funds' success.** Joint labor-management funds take advantage of their large-scale funding, influence, and membership to shape the development of training in partnership with educational service providers and to provide access to an array of training and support services that would otherwise be too expensive for individual employers to provide. These funds are able to group together cohorts of workers with different employers who are interested in advancing in their careers, allowing for more-economical provision of classes tailored for adult and working learners, in addition to supportive academic services and flexibly scheduled classes.[575]
- **A systematic approach facilitates career advancement.** The Funds' education programs and support services are comprehensive and work in concert: They address multiple factors that are important to advancing members' careers, such as language

skills, wage support, and counseling, in addition to access to health care training programs. According to phone conversations with key informants on July 9, 2019, and July 31, 2019, these programs connect members to jobs by providing placement services. This systematic approach can serve as a model for other types of workforce development initiatives. However, the extent to which the provision of comprehensive services might be facilitated by the partnership between labor and management is unclear.

Peninsula Homecare Cooperative for Health Aides

> It's a big project, it really is, but it's something that has to be looked at because the caregiver shortage crisis across the country is dire.
>
> –Kippi Waters, cofounder, Peninsula Homecare Cooperative

Background

Peninsula Homecare Cooperative, which was founded in 2016, is a worker-owned home care agency that focuses on senior and end-of-life care. Peninsula Homecare Cooperative—or the cooperative—has two missions. The first is to provide quality home care to meet the needs of private-pay seniors in its service area. The second is to provide seniors with services from caregivers who feel valued, are well compensated, and have a dedicated stake in the future progress of the agency. Located in Port Townsend, Washington, the cooperative currently employs 18 members, each of whom has an equal stake in the company. Cooperative members are caregivers—also termed personal care aides or HCWs—who provide a variety of services for older adults, including bathing and grooming, shopping with clients, and providing companionship. Within the first year of its existence, Peninsula Homecare Cooperative was able to provide more than 1,000 hours of care and was expected to double that amount in its second year and beyond.[576]

There are many cooperatives in the Port Townsend area, so the cooperative model was not new to residents. However, Peninsula Homecare Cooperative is the first state-licensed and caregiver-owned home care agency on the Olympic Peninsula.[577] As with other cooperatives, the main tenet of the Peninsula Homecare Cooperative is that it is democratically controlled by its employees. With a five-member board, Peninsula Homecare Cooperative members "collectively decide on policy that ensures the highest quality care for [their] clients, and fair and sustainable employment practices for [their] caregivers."[577] According to key informants we spoke with over the phone on July 17, 2019, the growth of Peninsula Homecare Cooperative was aided by the town's small size and the ability of word to travel fast about its services. Although the cooperative has maintained a strong presence in the Port Townsend community since its inception, its journey has been paved with both successes and challenges.

This case study was selected because of its focus on HCWs and because of the innovative implementation of the cooperative model to this type of position.

Brief History of the Program

Port Townsend, with 9,500 residents, is the only city in a 2,000-square-mile area. Port Townsend is located in Jefferson County, where one in three residents is aged 65 or older—more than twice the proportion for Washington state or the United States as a whole.[431] Thus, HCWs are in high demand. Kippi Waters, who founded Peninsula Homecare Cooperative, knew the challenges faced by these workers because she was a private caregiver. Prior to founding the cooperative, Waters had been an employee of an agency because she was only able to receive reimbursement for her services if she worked in an agency. She shared that she feels strongly about the mission of the cooperative, in part because of her belief that "something falls apart when the emphasis is on making money rather than the quality of care . . . ." This concept sparked some of the motivation behind the creation of a home care cooperative in Port Townsend.

With support from the Northwest Cooperative Development Center (NWCDC)[578]—which is funded by the U.S. Department of Agriculture (USDA), and modeling its efforts after another home care cooperative in nearby Bellingham—Waters and her colleagues founded Peninsula Homecare Cooperative. NWCDC helped them develop model bylaws and articles of incorporation, and assisted with other tasks involved in starting a worker-owned business. After opening its doors, the fledgling organization needed financing for salaries, office space, and other costs. This was provided through a start-up loan from a local investment opportunity network. Their presentation was so well-received that they received funding the same night. Thus, the pace of the whole project was fast: The decision to open the cooperative was made in April 2015 and the doors opened nine months later. According to Waters, they were profitable by their third quarter and paid off the start-up loan in 18 months. There was a convergence of different factors that allowed for the successful launch of the cooperative, including the needs of the aging population at the time it began and the community's identity as a wealthy retirement community with liberal views. The cooperative continues to receive TA through the USDA funding that is distributed to local organizations by the Cooperative Development Foundation in Washington, D.C. Their TA provider is an organization called the ICA Group. They also have benefited from a joint program funded by the American Association of Retired Persons (AARP) Foundation and managed by Capital Impact Partners from 2016 to 2018. That program pays the cost of state certification for program participants older than 50 years who seek to become certified home care aides, given that the $500 fee is often a barrier to entry for low-wage workers.[352,579] Although the attributes of the local community raise issues of generalizability, organizations such as NWCDC and others support the establishment of cooperatives in diverse settings around the country.

Unique Features of the Program

Peninsula Homecare Cooperative is similar to other home care agencies in terms of the services it provides. Launched in 2015 at an organizing meeting, it opened for business in February 2016, only ten months later. Like other home care agencies, they provide personal, home, and respite care to seniors in eastern Jefferson County, Washington. The main difference is that it is worker-owned, with 18 member-owners. Training for providers is the same as for other HCWs and is administered through courses and state-regulated tests. In Washington, caregivers are required to take a 75-hour course and pass a state test to become licensed. Prospective caregivers have the opportunity to complete a regional online program that provides 55 hours of coursework coupled with two additional days of skills labs. The cooperative does not pay for training up front, but it does reimburse the cost of training for those who become members of the cooperative. In its first year of operations, 2017, revenues were $600,000, and they have grown since. The cooperative is governed by a five-member board elected by the membership. Only caregivers are eligible for cooperative membership.[431]

Because of the high demand for caregivers in the Port Townsend area, the caregiver shortage is still acutely felt. Waters described a large advertising effort for workers, emphasizing that because of the remote location, efforts have to be focused and local rather than conducted through big job sites. There has been increased interest in the cooperative since a November 2018 conference brought more attention to the organization. However, Waters also noted that there have been many applicants who are not qualified or who apply but do not intend or desire to be HCWs, so despite a large effort on outreach and recruitment, the majority of successful hires have come from other home health agencies or by word of mouth. A known issue in caregiving is the aging of the workforce, but Peninsula has begun hiring many more young people. According to Waters, when the cooperative was first established, almost everyone was in their forties or fifties, but they have started bringing in a younger generation; there are now four or five workers in their twenties.

Ownership. Because every caregiver is also an owner, key informants noted that the approach to work is different. They have observed that owners have more responsibility and are more committed. The converse is true, too: Those who are not committed to the job do not fit well as owners. According to Waters, “Sometimes people just don’t show up for their shifts. But when you’re an owner you show up. You take this seriously.”

Communication and teamwork. Peninsula ensures that multiple people are scheduled to take care of the same person so that one person is not solely responsible for any given individual, unlike at other agencies, where a single worker might be responsible for a given client. This ensures that problems are identified even if one person misses clues. Peninsula uses a combined system of email, texting, and notes in its scheduling database to share information about clients and their needs; key informants mentioned that in a regular agency, notification around problems might go somewhere central and there could be delays in responding.

Mentorship. The caregivers meet monthly to provide each other with emotional support, including processing client deaths that might have occurred. They also have formalized mentoring through shadowing to ensure that new caregivers feel comfortable with their tasks and that quality of care is high.

Job satisfaction. Some programs focus on career ladders, but Peninsula is particularly focused instead on job satisfaction. Although it might not have a traditional vertical career ladder, there is an opportunity for movement horizontally within the organization. Waters recognized that it is not particularly advantageous for the cooperative to invest in caregivers who want to go on to become nurses. Although she might consider developing career ladders for HCWs in the future, Waters is concentrating on ensuring that workers have a lot of variety in their work and are being challenged in positive ways, thus providing a career that helps workers remain focused and happy.

Turnover. Turnover at the cooperative was 24 percent in 2018 compared with a national average of 70 to 80 percent, according to Waters. Some employees retire or move out of the area, and some have to be fired (which can be done, even for owners). Even so, the overall retention rate is significantly higher than the norm for this profession.

As noted elsewhere in this report, the national home care workforce is not paid highly (a median hourly wage of $10, and a median annual wage of $22,000 if working full-time), and those wages have fallen by 5 percent over the past decade.[579] In addition, nationally, most of these workers are part-time and do not receive benefits.[579] HCWs are almost all women and are mostly minorities, potentially exacerbating inequality. Peninsula Homecare Cooperative, in contrast, has a starting wage of $15 per hour, which is 46 percent above the national average.[580] With profit-sharing each month, this wage rises to $22 per hour. Peninsula has lower turnover rates, has better scheduling, and provides a better-quality job compared with other home care agencies—which is sometimes referred to as the "cooperative advantage"—although bigger agencies sometimes offer better benefits, such as health insurance, than the small cooperative can, according to a conversation with key informants on July 17, 2019.

Program Challenges and How They Were Addressed

- **Recruitment of caregivers.** Similar to other home care agencies, Peninsula Homecare Cooperative continues to face challenges with recruitment. In a town with such a high proportion of aging adults (one-quarter of the residents are over 65[581]), demand for caregivers is climbing. At the same time, it is becoming increasingly difficult to recruit enough caregivers to fill the need. Livability for young, low-wage workers in Port Townsend is a growing challenge because of a lack of affordable housing and a high cost of living. Although there is no silver bullet to attract people to these positions, the cooperative is considering different ways to diversify its reimbursement streams and grow its revenue. Housing concerns are substantial enough that local experts are considering strategies for affordable housing for caregivers. In addition, branching out into various fields, such as palliative or respite care, can allow HCWs to receive

reimbursement from public payers as opposed to relying solely on wages paid by their agency, which receives reimbursement from private-pay patients. According to a conversation with key informants on July 17, 2019, given that Medicaid often sets the standard for reimbursement rates, employing caregivers in these other types of care might increase the likelihood of being paid a livable wage and, thus, could attract more people to the profession.

- **Trade-offs for wages and benefits.** Although the cooperative is able to provide higher-than-average wages because there is no overhead and it is worker-owned, it is unable to provide its members with other benefits, such as health insurance, which is a key reason caregivers might decide to work for other agencies. The undervaluing of HCWs in the United States is a key concern. As one key informant told us in a phone conversation on July 17, 2019, "When the wage for a home care worker is the same amount as [for] a barista at Starbucks, we have a serious problem about our moral imperative." According to Waters, "rebranding caregiving" is an essential step in moving the field forward, and cooperative members have already begun this movement by organizing events, such as a summit on elder care.
- **Limited resources.** Although operating in a small, rural town has been a benefit in terms of allowing the cooperative to thrive, limited resources continue to be an obstacle. According to a discussion with a key informant on July 16, 2019, compared with small businesses in urban areas, Peninsula Homecare Cooperative does not have access to resources, such as seminars, trainings, and other educational opportunities, that could benefit many of the cooperative members.

Takeaways from Key Informants

- **Giving workers a voice is important.** Key informants reported that there is often a hierarchy in an organization's structure that inhibits employees' voices from fully being heard. But members of the cooperative strive to ensure that democracy is maintained within their organization. They are constantly working toward determining what democracy actually means, what it should look like, and how it should be operationalized in their workplace.
- **It is important for small cooperatives to build a strong board of directors.** In addition to long-term support from external stakeholders, having a strong board of directors is critical. In the home care cooperative space, it is possible that someone can be a great caregiver but might not have the necessary experience to be on the board of directors. According to a conversation with key informants on July 17, 2019, directors must be able to not only carry out fiduciary duties and administrative activities but also oversee managers. Taking on the role of director is more demanding than the typical roles and responsibilities of the caregiver; it warrants further training as well.
- **Sustained external support is essential to this model.** Peninsula Homecare Cooperative has thrived in its first three years, in part because of the financial and technical support it has received from various organizations, including nontraditional health care sources. Because of funding from the USDA and Local Investing Opportunity Network, the cooperative was able to get off the ground. The TA provided by the NWCDC and the Cooperative Development Foundation has strengthened the cooperative as it has grown. Representatives who helped launch the cooperative with whom we spoke on July 17, 2019, also have cited having a local champion (Kippi Waters) and enlisting experts (from

the NWCDC and the Cooperative Development Foundation) as crucial pieces in building the cooperative.

- **The cooperative can have a major impact on its members and on the broader community.** One of the by-products of the establishment of the Peninsula Homecare Cooperative is the empowerment of its members. As worker-owners, cooperative members have developed local leadership skills that have propelled them into civic activism. According to a conversation with key informants on July 17, 2019, they have become leaders in their own organization and also have taken on more civic responsibility in their communities. Furthermore, a survey that was administered to HCWs in 2018 found that being in the cooperative reduced their reliance on public subsidies.

Mercy Health System in West Michigan

> Get your community involved. Don't do it yourself. Tap the resource that you have in your community, and do this as a *sustainable partnership*.
>
> –Shana Welch, executive director of talent acquisition, Mercy Health

Background

Mercy Health is a not-for-profit, integrated managed care organization based in West Michigan and a constituent member of the Catholic Trinity Health System, the nation's second-largest Catholic health system. Mercy Health, as an integrated system, comprises more than 60 physician practices, treatment facilities, and urgent care facilities, as well as five hospital campuses. Mercy Health employs roughly 1,300 medical staff physicians and 7,200 additional personnel.[582]

This case study focuses on Mercy Health's talent acquisition program because it has modeled innovative practices in EHCW job creation and career development following the Great Recession—notably, it has done so in a part of the United States that was hit hardest by the economic downturn. Based in West Michigan, the communities served by the Mercy Health system have relied heavily on manufacturing, producing items from boots to aircraft components. Therefore, these communities have experienced declining economic activity since the early 2000s.[583] In response, Mercy Health has paired with West Michigan Works![179] and Talent 2025,[233] representing collective partnerships among employers and educators to create qualified workforce members to address current and future workforce needs in the health sector.

Through such initiatives, Mercy Health's Talent Acquisition and Workforce Programs Department has positioned itself to foster a robust EHCW and has been recognized as a national leader in this space through its Medical Assistant Registered Apprenticeship Program (MARAP) and its Evidence-Based Selection Process (EBSP). This program was selected because (1) it is implemented within a large health care system that has many factors to weigh in its hiring and staff support; (2) it focuses on MAs, a position that is not the main focus of any other case study,

but is important when considering entry-level workers; and (3) it has an apprenticeship program that is of interest and is promising for the ECHW.

Brief History of the Program

Mercy Health was formed in 2011 as a merger of Saint Mary's Health Care of Grand Rapids; Mercy Health Partners of Muskegon; and, later, Mercy Hospitals in Cadillac and Grayling, Michigan. According to a key informant, with whom we spoke on July 18, 2019, this reorganization of the health care landscape required the Talent Acquisition and Workforce Programs Department to swiftly ramp up operations to more than 50 employees and broaden the base of its hiring pool accordingly. Over the past eight years, Mercy Health has implemented several innovative efforts to improve the training and recruitment of prospective EHCW employees, from apprenticeships and EBSPs to specific workforce diversity, equity, and inclusion initiatives. This has involved a hands-on workforce board steering committee to drive such initiatives as the MARAP and the EBSP, which we describe in the following section.

Programs Within Mercy Health

Medical Assistant Registered Apprenticeship Program. MARAP represents a partnership among four health care employers (Mercy Health, Cherry Health, Spectrum Health, and Hackley Community Care) and two local community colleges, with the objective of creating well-equipped MAs through a continuous 12-month training program. Over the course of the year, students attend tuition-free classes at Grand Rapids or Muskegon Community College, serve as paid employees of Mercy Health or of another employer, and receive on-the-job training and incrementally greater responsibilities as they complete their coursework. Following completion of the program, students receive a Medical Assistant Certificate of Completion and a certificate of completion of apprenticeship from DOL.[584]

Coursework takes place two days per week, and tuition is covered. The cost to participating individuals is typically less than $8,000 for all learning materials across the 12 months.[200] Meanwhile, students are able to work 20–30 hours per week at a starting wage of $11.25 per hour, which increases with each completed quarter of coursework and includes full health insurance and retirement savings benefits. Following program enrollment, apprentices commit to employment at Mercy Health or another employer for at least one year after graduation.[582]

To date, Mercy Health has trained roughly 60 MAs through MARAP of 100 total graduates from the program. The organization regards the program as a thorough success. Key informants reported that MAs trained through the program had higher retention rates than other MAs at Mercy Health and that Mercy Health has been able to expand the model to other employment areas, such as scribe processing and clinical documentation. Moreover, Mercy Health has been able to offer MARAP and related programs to those already in the organization. Executive director Shana Welch reflected,

> I always try to find a win, win, win. How many wins can we get out of one strategy? With the medical apprenticeship program, not only were we filling the need to develop a pipeline of talent because we had a shortage in our region, but it was also important to us to make sure we were reaching our own colleagues, giving our entry-level colleagues an opportunity to get on a career track to more of a middle-wage job.

Because of the success of MARAP, Mercy Health was approached by the Kellogg Foundation—which focuses on helping vulnerable individuals achieve success in society—to develop an even more robust hiring and talent-promotion program. According to a phone conversation with a key informant on July 18, 2019, the new program, dubbed "Rise Up," aims to recruit 300 individuals from the local communities that Mercy Health serves into the health system as employees, plus an additional 150 incumbent workers who will be provided with the education and training to assume new roles within Mercy Health.

Evidence-Based Selection Process. To ensure that Mercy Health is recruiting the best candidates for job vacancies, the Talent Acquisition Department has implemented the EBSP, which includes a suite of materials, such as formal assessment tools, 360-degree references, structured interviews, and a compensatory rating system. This system is particularly critical for entry-level health care workers because they represent the majority of the 1,200 employees in the system. Moreover, EHCW members are the most likely to represent lower-income individuals, including minorities, who might be subject to implicit racial bias. As such, EBSP training exercises included educating managers and hospital leadership on the role of implicit racial bias and conducting refresher awareness sessions. According to a member of the talent acquisition team at Mercy Health who we spoke with on July 18, 2019, the approach to hiring has led them to identify the best-qualified individuals, resulting in a doubling of diverse hires in terms of racial and ethnic background from 18 percent to more than 36 percent.[264] The key informant also noted that since the program's implementation, the overarching Trinity Health System has adopted and scaled the effort nationally.

In addition to identifying the best candidates at the stage of screening and interviews, Mercy Health has engaged in active search efforts to find underrepresented hires in its own community. This has included the creation of a sourcing team that is dedicated to recruitment efforts in the communities Mercy Health serves. One feature of these efforts constitutes monthly hiring events at two service centers in areas that are diverse and underserved. We learned from our discussions that the sourcing team also has developed a diversity guide to inform its outreach efforts. Community-sourcing efforts now take place on a statewide level.

Lastly, to provide an evidence-based component for hiring and promotion *within* Mercy Health, the organization has built a career development center where current employees can learn about their strengths, express their interests, and find new opportunities to which they are best matched. Most positions at Mercy Health come with tuition assistance as a benefit for continuous education; additional training for novel, in-demand jobs is emphasized strongly. Together, Mercy Health's MARAP, EBSP, and other innovations have led to local and national recognition,

including as Mercy Health being named the 2017 employer of the year by Michigan Works!, the statewide system of which West Michigan Works! is a part.

Program Challenges and How They Were Addressed

- At an early stage of MARAP, one challenge identified by the executive director of talent acquisition was that the program was not serving a diverse pool of candidates in terms of race, ethnicity, or socioeconomic status. Instead, it was serving a narrower demographic of individuals who learned about the program and had the flexibility to participate. In years 2 and 3 of MARAP, this was addressed by strengthening local partnerships, including with West Michigan Works! to draw from a broader base of individuals, and a nonprofit organization called The Source,[585] which helps remove barriers to participation, such as childcare and transportation needs.
- Because MARAP relies on a partnership among employers, educators, and community-based organizations, there is a significant degree of coordination that needs to take place among individuals running the program. This is particularly the case for participants who might be falling behind by missing sessions or requiring additional time to meet competency standards at work or in the classroom. To tackle this issue, program members have developed routine huddle calls between employers and educators—and, when necessary, with MAs themselves—to talk through ongoing challenges.
- In terms of the EBSP, one of the challenges at an early point in the rollout of materials was ensuring that leadership was on board with the transition. This was the point at which the executive director of talent acquisition decided to scale training on implicit racial bias to more than 1,200 individuals.

Takeaways from Key Informants

- **Founders reported that there is a replicable formula for instituting an initiative like MARAP.** Key informants said that the program needs (1) clear leadership, such as through the assembly of a steering committee or a workforce board; (2) the participation of a community college; and (3) champion employers who will back up these efforts. Through the leadership of Shana Welch and others, Mercy Health has been able to extend its reach within Trinity to develop a National Workforce Development Council that includes six other states.
- **It is critical to engage with community-based organizations in recruitment and training efforts.** Efforts done in isolation will be more likely to fail because the scope and scale are too significant to be undertaken alone. The involvement of local organizations extends resources, ensures sustainability, and draws from complementary sources of expertise.
- **It is important to see challenges as opportunities.** There will always be new difficulties that emerge when trying to work in a large health system that supports thousands of EHCW members. Addressing challenges head-on as opportunities for improvement allows staff to seek victories rather than focusing on “putting out fires.”

Appendix B. Key Informant List

In Table B.1, we provide a list of our key informants' titles, institutions, and sectors.

Table B.1. Overview of Key Informants

Title	Institution	Sector
Senior behavioral scientist; center director	Nonprofit research organization	Academia
Center director; professor	University-based research center	Academia
Senior deputy director of center	University-based research center	Academia
Center director; professor	University-based research center	Academia
Center director	University-based research center	Academia
Executive director; professor	University-based practice and research center	Academia
Project manager	University-based practice and research center	Academia
Director of policy	University-based practice and research center	Academia
Assistant director	University research office	Academia
Director of research group	University-based research center	Academia
Program officer	University-based practice and research center	Academia
Professor	State university	Academia
Staff member	Health care labor union	Advocacy
Organization president	Health worker advocacy organization	Advocacy
Chief operating officer	Health worker advocacy organization	Advocacy
Executive director	Health care labor management fund	Advocacy
Advocate	Health worker advocacy organization	Advocacy
Executive director	Health care labor management fund	Advocacy
Department director	Health care labor management fund	Advocacy
Special assistant	Federal government agency	Government
Center director	Federal government agency	Government
Deputy administrator	Major federal department	Government
Division director	Major federal department	Government
Division director	Major federal department	Government
Unit chief	Major federal department	Government
Department director	National health care delivery organization	Governmental: Health care delivery
Fellowship director	National health care delivery organization	Governmental: Health care delivery
Peer specialist	National health care delivery organization	Governmental: Health care delivery
Medical director	Nonprofit health organization	Nonprofit
Executive director	Nonprofit cooperative development organization	Nonprofit
Specialist	Nonprofit cooperative development organization	Nonprofit
Program director	Health care labor management organization	Nonprofit
Executive director; professor	Nonprofit health organization	Nonprofit: Health care delivery
Investigator	Regional nonprofit health plan	Nonprofit: Health care delivery
Human resources manager	Regional nonprofit health plan	Nonprofit: Health care delivery
Department director	Regional nonprofit health plan	Nonprofit: Health care delivery
Quality director	National health care delivery program	Nonprofit: Health care delivery
Executive director	National health care delivery program	Nonprofit: Health care delivery
Vice president, human resources	Regional nonprofit health plan	Nonprofit: Health care delivery
Senior researcher	National nonprofit health plan	Nonprofit: Health care delivery

Title	Institution	Sector
Executive director of behavioral health	National nonprofit health plan	Nonprofit: Health care delivery
Senior vice president and chief human resources officer	Regional nonprofit health plan	Nonprofit: Health care delivery
Director of strategic initiatives	Private funding institution	Private entities
Department director	Regional integrated managed health care organization	Private: Health care delivery
Cooperative director	Home care cooperative	Private: Health care delivery

Appendix C. Process and Outcome Indicators for EHCW Research

In addition to the research identified in the conclusions chapter, we list a series of key process and outcome performance indicators that could be prioritized by the U.S. Department of Health and Human Services and the research community for tracking the performance of programs intended to expand and strengthen the EHCW. Having a standard set of indicators for research studies could provide a useful compass for implementers, help focus the evidence base in priority areas, allow for a common language to relate findings, and offer an inventory that funders could emphasize when reviewing proposals. For the indicators, we used a framework outlined by the Centers for Disease Control and Prevention (CDC) for the public health workforce but it is applicable for the EHCW as well. The CDC identifies the following five priorities to build the capacity of the public health workforce:[586]

- **Data for decisions:** The CDC describes collecting "needed data about workforce gaps and training needs to inform decisions about public health workforce development." We also include provider experience and career path trajectories as types of information needed.
- **Cross-cutting competencies:** We include patient outcomes here because those are measurable outcomes that should have detectable changes. As the CDC notes, there are cross-cutting skills that should complement discipline-specific skills.
- **Quality standards for training:** This pertains to the application of established education and training standards to align investments with high-quality products.
- **Training decision tools and access:** This includes accessing training and defining training needs.
- **Funding integration:** Workforce development should be integrated into funding requirements; we include cost outcome measures in this category as well.

These priorities are translated into strategies and outcomes. We use this framework to categorize relevant measures for whether an intervention has been effective at developing the workforce (see Table C.1). This is not a complete list; we highlight some important measures that have not been sufficiently collected or reported in the existing literature.

Table C.1. Potential Measures for Success of Workforce Development

Measure Type	Domain	Goal That This Measure Could Support
Health care worker self-reported job satisfaction	Experience	Data for decisions
Health care worker self-reported respect	Experience	Data for decisions
Health care worker self-reported autonomy	Experience	Data for decisions
Health care worker self-reported opportunity for career growth	Experience	Data for decisions
Health care worker self-reported financial security	Experience	Data for decisions
Health care worker turnover rate	Experience	Data for decisions
Health care worker promotion rate	Experience	Data for decisions
Overall cost of care, with clarification of source of information and cost to whom (claims data from private insurance and Medicaid in addition to Medicare, for example)	Cost	Funding integration
Provider recruitment and training expenditure	Cost	Funding integration
Health system, hospital, or agency payroll data (some already available for Medicare; private health insurance and Medicaid)	Cost	Funding integration
Cost savings as a function of new staff and programs	Cost	Funding integration
Patient outcomes (e.g., systolic blood pressure)	Quality	Cross-cutting competencies
Population-level outcomes	Quality	Cross-cutting competencies
Patient-reported communication quality	Quality	Cross-cutting competencies
Patient- reported satisfaction with care	Quality	Cross-cutting competencies
Patient wait time	Quality	Cross-cutting competencies
Patient self-reported access to care, including wait times, distance to closest care, and co-pay as barrier	Quality	Cross-cutting competencies
Workforce competencies	Capacity	Quality standards for training
Knowledge of workforce	Capacity	Quality standards for training
Standardization of training	Training	Cross-cutting competencies
Rate of training completion	Training	Data for decisions, cross-cutting competencies

NOTE: This table is based on the CDC framework described above.[586]

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