HHS Public Access

Author manuscript

J Public Health Manag Pract. Author manuscript; available in PMC 2018 September 01.

Published in final edited form as:

J Public Health Manag Pract. 2017 ; 23(5): 430–433. doi:10.1097/PHH.0000000000000506.

CDC's Public Health Associate Program: Serving the Field Today While Creating the Workforce of Tomorrow

Heather Duncan, MPH and **John Auerbach, MBA**

Office for State, Tribal, Local and Territorial Support, Centers for Disease Control and Prevention, Atlanta, Georgia

For the past several years, there has been a growing concern about the status and future of the public health workforce in America. Among the major concerns are the aging workforce, the lack of diversity in the workforce, and the changing nature of the work itself.

The average age of a state health agency worker today is 48 years, and approximately 38% of workers are planning on, or considering, leaving governmental public health before 2020.[1,2] The racial/ethnic demographics of the public health workforce do not reflect the diversity of the public it serves: approximately 70% of the current state health agency workforce identifies as non-Hispanic white,[1] yet the US population is less than 62% white.[3] Finally, the nature of the work is changing. With the passage of the Affordable Care Act, government public health agencies at the local, state, and national levels are now less likely than ever before to offer direct services such as immunization and infectious disease treatment. There also are new tasks emerging, and with them, new skills are needed. For example, public health officials are now more likely to interact with the health care and non–health-related sectors. And there is an elevated focus on complex, nontraditional data sources and communication opportunities that require an understanding of social media, Internet communication, and data aggregation. The need to address these workforce issues has been highlighted by government and private organizations alike, and experts have written reports and articles encouraging action.[4–8]

It is in the midst of these discussions that the Centers for Disease Control and Prevention (CDC), under the leadership of Director Tom Frieden, has taken bold action to improve the strength of the future public health workforce—creating the Public Health Associate Program (PHAP) to add several hundred young and diverse employees to the workforce. Many of these new workers have just the characteristics and skills that are desperately needed in the field. This commentary and 2 evaluation articles in this issue highlight the lessons learned from this ambitious initiative called PHAP.

Correspondence: Heather Duncan, MPH, Office for State, Tribal, Local and Territorial Support, Centers for Disease Control and Prevention, 1825 Century Center Blvd, Room 1101, Atlanta, GA 30329 (hld0@cdc.gov).

The authors declare no conflicts of interest.

Background

When Dr Frieden became director in 2009, CDC had only a small, 3-year-old, pilot Apprentice Program in place. This program, which sent 10 recent college graduates to local public health departments in Florida in 2007, was paused in 2009. In 2010, it was replaced with PHAP, which had ambitious goals— to create a national program, to rapidly increase the number of public health associates, and to prepare the new associates to fill essential roles in the public health workforce.

The basics of the program are straightforward. Local, state, tribal, and territorial health departments and nongovernmental public health organizations identify high-priority work assignments and apply to CDC to serve as host sites for the program. Recent college graduates apply to be placed in these sites for a 2-year period; CDC then evaluates, interviews, hires, and places the associates at agencies across the country, offering them training and support from a distance, along with local mentoring and supervision at their assigned agency. The expectation is that at the end of the 2 years, most associates will be hired by health departments, nongovernmental public health organizations, or federal public health agencies to fill critical workforce gaps.

Associates are assigned and locate to host sites at a minimal financial cost to the government: CDC hires and pays the associates' salaries and benefits and any travel expenses for required CDC training. In turn, the host site provides supervision, mentoring, work space, and reimbursement for any local travel.

Program Composition and Placement

Since its inception, PHAP has grown exponentially— from 65 associates in 2010 to 208 by 2015, with approximately 185 more associates on their way for 2016—which will bring the total number of active associates to at least 385.

The locations and types of agencies hosting associates also have grown significantly, with corresponding growth in the numbers of both host site and associate candidate applications received. In 2016, CDC received 450 host site applications, along with 3471 associate applications to fill approximately 185 positions. To support this growth and address the workforce-related needs of the host sites, CDC increased the number of PHAP program staff at CDC and established systematic program evaluation to ensure continuous quality improvement. As the class size grew, the program also expanded to include development of a comprehensive learning strategy and curriculum to meet current and future workforce knowledge and skill needs; systematic stakeholder engagement; facilitation of postprogram job opportunities at health agencies; development of new information and data systems; and expansion of supervisory responsibilities for dual host site and CDC supervision.

But program expansion had to be undertaken thoughtfully, and it required a good understanding of the applicant pool. For example, PHAP recruits and trains millennials primarily—94% of the class recruits hired in 2015 were in their 20s or 30s—so program staff had to understand what drives them. The millennial generation grew up with technology and is very familiar with social media. The generation tends to find and use data

in nontraditional ways and has infused the workforce with energy and new ideas and perspectives. In addition, the PHAP workforce is diverse: Of the associates hired in 2015 who provided their race and ethnicity, 36% identified as black or African American, 11% as Asian, 5% as 2 or more races, 0.5% as American Indian or Alaska Native, and 0.5% as other; 14% identified as Hispanic or Latino. In fiscal year 2015, the CDC workforce was 30% black or African American, 7% Asian, 3% 2 or more races, and 0.35% American Indian/Alaska Native; 3% identified as Hispanic or Latino. State health agency staff identified as 13% black or African American, 5% Asian, 5% 2 or more races, and 1% American Indian or Alaska Native; 7% identified as Hispanic or Latino (CDC Office of Equal Employment Opportunity Hiring Data, 2015).[2]

Educational Components

As a service-learning program for early career, recent graduates, PHAP is a frontline, on-the-job training program. The associates are hired to handle critical public health assignments that let them learn essential and crosscutting skills. As a training program, there is also a curriculum to ensure that associates develop key skills and achieve the program's learning outcomes through formal learning that helps accelerate their professional growth. The competency-based curriculum is designed to develop public health generalists, not specialists, with about 90% of the curriculum centered on work activities and experiences at the host site and the remainder focused on formal learning, including on-demand training and social and collaborative learning. The curriculum includes crosscutting skill development for early career professionals in 9 essential competencies: analysis and assessment; public health science; program planning, management, and improvement; public health policy and law; professionalism; communication; cultural competency; community dimensions of public health; and financial planning and management. The skills and knowledge obtained and refined during PHAP are transferrable across public health programs, which make PHAP graduates marketable for a variety of jobs across all types of public health agencies.

Two of the curriculum's learning outcomes are writing an abstract and delivering an oral presentation. To ensure all associates complete an abstract—and subsequently a presentation based on that abstract—the program developed a way for associates to submit abstracts and give presentations during 2 in-person formal learning events required for every associate. As a result, associates have developed quality abstracts and been selected for oral presentations on a wide variety of topics, such as monitoring travelers during the Ebola virus infection response, implementing a smoke-free workplace policy, and applying a new HIV testing algorithm at the program level.

PHAP is unique in that it offers mentorship by a CDC professional for career and professional guidance and coaching, in addition to guidance provided by federal and host site supervisors. Associates have access to CDC and local subject matter experts early in their public health careers. And PHAP provides opportunities for CDC and host site staff to mentor the next generation of public health professionals.

Workforce Surge Capacity

An unexpected benefit of PHAP to the public health community at large—as well as a unique learning opportunity for some associates—has been the contributions of associates during public health emergencies. Since 2014, PHAP has provided emergency response workforce surge capacity for CDC and state and local health departments. Associates have been deployed by CDC for both the Ebola and Zika virus infection responses, serving in emergency operation centers in communications, task tracking, and data collection and analysis. They have provided important “boots on the ground” support to federal, state, and local agencies by tracking travelers, staffing call centers, developing communications, conducting data entry and analysis, and more. For example, associates were assigned to state health offices to track travelers from East Africa during the Ebola virus infection response and later to Puerto Rico to assist with data entry and analysis for the pregnancy registry during the Zika virus infection response.

Leveraging Technology

PHAP’s rapid and significant growth necessitated the use of innovative approaches to gain operational efficiencies. For example, as the program grew, it was no longer practical for CDC employees to travel across the country to conduct interviews with associate applicants. Instead, the program started doing interviews by phone. But when those proved insufficient to assess the applicants’ qualities, the program invested significant time and resources into researching and evaluating video interview options. In 2016, of 535 interviews, 93% (497) were completed using Skype.

A key to PHAP’s success is the recruitment and selection of associate candidates who best fit the program. To ensure that fit, PHAP developed a behavioral interview questionnaire to select candidates who demonstrated the following essential skills: critical thinking and adaptability, analytic problem solving, conflict resolution, communication, decision making, awareness of organizational climate, and cultural competence. And by using video technology, interviewers are able to assess nonverbal communication styles and professionalism in addition to these skills.

Evaluation

In 2014, a team was established to design and implement a systematic evaluation of PHAP that informs continuous program improvement while demonstrating early evidence of program effectiveness and impact. Early evaluation findings are promising (for detailed results, see CDC, “Early Evaluation Findings From a Federally Funded Training Program: The Public Health Associate Program” and “Service Learning in Public Health: Exploring the Benefit to Host Agencies,” 2016). PHAP leaders are using these evaluation findings to improve program design and delivery and to exceed the accountability and transparency expectations expected of a federal program.

Conclusion

We have learned that—as with any impactful public health program—an effective, high-quality workforce development and training program requires vision, leadership, management, staff support, and resources well beyond the costs associated with paying for the program participants. *It is challenging to grow a program quickly while maintaining and improving its quality. Resources are required to do this, and there are competing priorities for resources at every organization*. Funding for workforce development has decreased in recent years, making it difficult for organizations that deliver training and placement services to prepare and place workers for jobs available today while also training workers for employers' future needs. Significant funding is needed to recruit, train, and supervise associates *in* the program and support a career path for graduates *of* the program.

We also need more data. Although research tells us we need to grow and develop the public health workforce *overall*, the literature on the particular need for early career generalists remains thin. An updated needs assessment would help us balance the amount of resources needed on the front end (ie, how many associates to recruit, hire, and train) and the amount needed to support career paths at every organizational level of the public health system. One clear indicator of the quality of their individual work and PHAP overall is that many associates have been recognized with federal, state, and local awards for their work at their respective host sites. To ensure that PHAP continues to contribute to the future public health workforce, CDC supports effective performance management through real-time monitoring, rigorous evaluation, and program improvement. These can be achieved by evaluating the curriculum and continuously adjusting it as public health landscape changes, assessing how PHAP adds value to host agencies, strengthening program capacity to support quality host sites, assessing the capabilities and capacity of the public health system as a result of the program, and expanding and improving information systems to gain additional efficiencies.

Associates have received critical, practical public health experience and training while providing valuable service to host agencies across the United States. Because of PHAP, public health agencies have access to a diverse and continuous pipeline of early career public health professionals. To date, PHAP has hired 753 associates, and we expect this total will rise to nearly 1000 associates as the new cohort arrives in October 2016 (Table). PHAP is meeting its purpose of contributing to the public health workforce, with the vast majority of associates (79% of the graduating PHAP 2013 class) staying in public health/health care after completing the program.

PHAP is an example of a federal agency responding to a significant need with a significant investment. If the public health system—from the local to the state to the federal level—is to meet the new and challenging health needs of the population, PHAP needs to survive and thrive. And other organizations will benefit from a highly skilled public health workforce. Perhaps, they could even learn from and use the experiences from PHAP to expand their own educational and professional opportunities. The future of public health may depend upon it.

References

1. Jarris PE, Sellars K. A strong public health workforce for today and tomorrow. J Public Health Manag Pract. 2015; 21(6 suppl):S3–S4. [PubMed: 26422491]
2. de Beaumont Foundation, Association of State and Territorial Health Officials. Information to action: the workforce data of public health WINS. ASTHO Public Health Workforce Interests and Needs Survey Web site. http://www.astho.org/phwins/National-Summary-Report-of-Workforce-Data. Accessed 10, 2016
3. QuickFacts United States. United States Census Bureau Web site. https://www.census.gov/quickfacts/table/PST045215/00. Accessed August 10, 2016
4. Lazer D, Kennedy R, King G, Vespignani A. The parable of Google flu: traps in big data analysis. Science. 2014; 343(6176):1203–1205. [PubMed: 24626916]
5. Hripcsak G, Bloomrosen M, FlatelyBrennan P, et al. Health data use, stewardship, and governance: ongoing gaps and challenges: a report from AMIA's 2012 Health Policy Meeting. J Am Med Inform Assoc. 2014; 21:204–211. [PubMed: 24169275]
6. Merchant RM, Elmer S, Lurie N. Integrating social media into emergency-preparedness efforts. N Engl J Med. 2011; 365(4):289–291. [PubMed: 21793742]
7. Capurro D, Cole K, Echavarría MI, Joe J, Neogi T, Turner AM. The use of social networking sites for public health practice and research: a systematic review. J Med Internet Res. 2014; 16(3):e79. [PubMed: 24642014]
8. Khan AS, Fleischauer A, Casani J, Groseclose SL. The next public health revolution: public health information fusion and social networks. Am J Public Health. 2010; 100(7):1237–1242. [PubMed: 20530760]

TABLE

Number of Associates Hired by Calendar Year

Calendar Year	Number Hired
2007	10
2008	27
2009	0
2010	65
2011	64
2012	100
2013	134
2014	145
2015	208
2016	185[a]
Total	938

[a]Anticipated number to be hired as of October 2016.