Directors Assessment of Workforce Needs Survey (DAWNS) Summary Report

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Overview

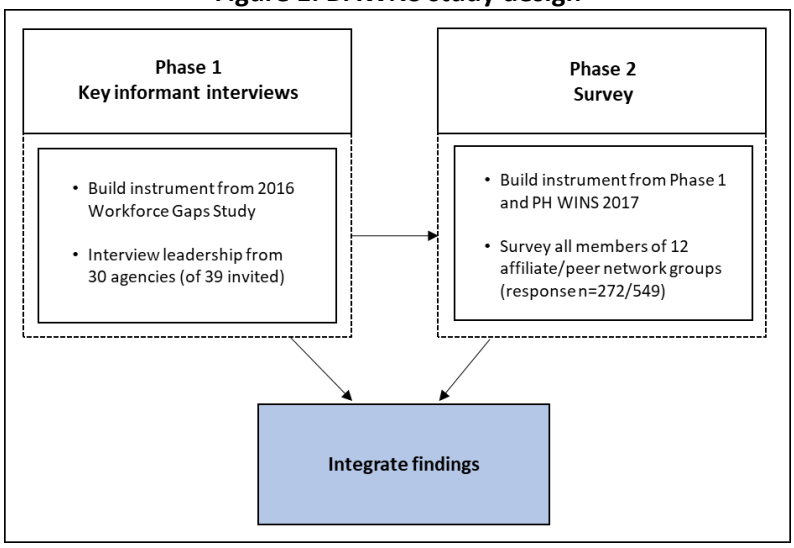
In 2017, the Association of State and Territorial Health Officials (ASTHO) fielded the Directors Assessment of Workforce Needs Survey (DAWNS) pilot study to understand state public health leadership perspectives topics such as barriers to staff recruitment, drivers of turnover, and workforce training needs. DAWNS builds on the results of the 2016 Workforce Gaps study[1] and complements ongoing workforce development research, including the Public Health Workforce Interests and Needs Survey (PH WINS)[2], which focuses on individual practitioner perspectives. DAWNS was designed to address three primary questions:

1. Leadership perception of training needs
2. Barriers to recruitment and retention
3. The value of formal public health education

Methods

DAWNS was conducted in two phases (Figure 1).

Figure 1. DAWNS study design



Phase 1 – Key informant interviews
Key informant interviews were conducted by phone with thirty-seven members of agency leadership across thirty SHAs to identify systematic gaps and ongoing development programs across their agency.

Phase 2 – Survey pilot
ASTHO recruited its peer networks and affiliated organizations to participate in the survey. Twelve affiliates and peer networks participated in the survey (Figure 2).

[1] Angela J. Beck, Jonathon P. Leider, Fatima Coronado, Elizabeth Harper, "State Health Agency and Local Health Department Workforce: Identifying Top Development Needs", American Journal of Public Health 107, no. 9 (September 1, 2017): pp. 1418-1424.
[2] Sellers K, Leider JP, Harper E, et al. The Public Health Workforce Interests and Needs Survey: the first national survey of state health agency employees. J Public Health Manag Pract. 2015;21:S13-S27.

Figure 2. Invited ASTHO Affiliates and Peer Networks

Affiliates	Peer Networks
• Association of Maternal and Child Health Programs (AMCHP) • Association of Public Health Laboratories (APHL) • Association of State Public Health Nutritionists (ASPHN) • Council of State and Territorial Epidemiologists (CSTE) • National Association of Chronic Disease Directors (NACDD) • Safe States Alliance	• Directors of Public Health Preparedness (DPHP) • Informatics Directors Peer Network (IDPN) • Public Health Lawyers • State Environmental Health Directors (SEHD) • State Legislative Liaisons • Tobacco Control Network (TCN)

Key Findings

Overall, 549 SHA leaders across twelve affiliates/peer networks received an invitation to participate in DAWNS; 272 individuals responded. The adjusted response rate was 49% after accounting for undeliverable emails.

1. The most significant barriers to recruitment, as reported by respondents, were low wages/salaries (75%), having sufficient funding to cover positions (59%), and competition from the private sector (56%).

2. Top skill gaps and training opportunities among staff overseen by respondents include:
    - Assessing the drivers in your environment
    - Using community assets and resources to improve community health
    - Supporting the application of quality improvement strategies for agency programs and services

3. Eighty-one percent of respondents have at least one graduate degree.

Table 1. Overview of DAWNS Respondents

Percent of Respondents, by Affiliate/Peer Network	
Association of Maternal and Child Health Programs (AMCHP)	9%
Association of Public Health Laboratories (APHL)	12%
Association of State Public Health Nutritionists (ASPHN)	4%
Council of State and Territorial Epidemiologists (CSTE)	10%
Directors of Public Health Preparedness (DPHP)	14%
Informatics Directors Peer Network (IDPN)	5%
National Association of Chronic Disease Directors (NACDD)	12%
Public Health Lawyers	1%
Safe States Alliance	9%
State Environmental Health Directors (SEHD)	10%
State Legislative Liaisons	3%
Tobacco Control Network (TCN)	11%

Gender		**In current position (years)**	
Male	39%	<5	47%
Female	61%	5-9	28%
		10-14	14%
		15+	11%

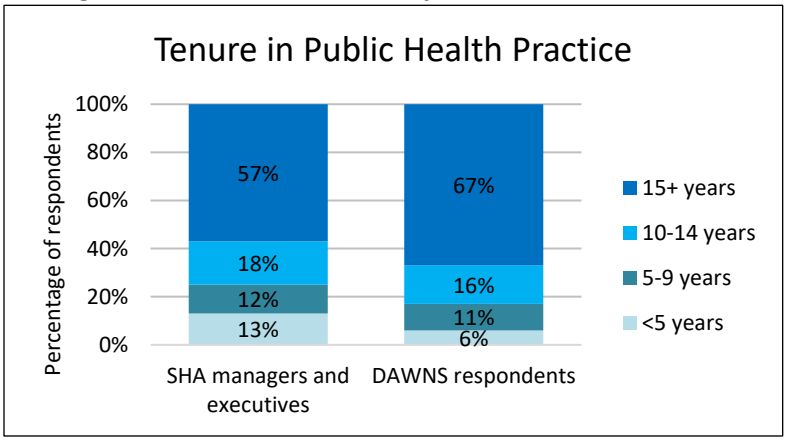
Race/Ethnicity		**In current agency (years)**	
American Indian or Alaskan Native	1%	<5	19%
Asian	5%	5-9	18%
Black/African American	7%	10-14	17%
Hispanic/Latino	3%	15+	46%
Native Hawaiian or other Pacific	3%		
Islander	2%		
Two or more races	79%		
White			
Age (years)		**In public health practice (years)**	
<30	0%	<5	6%
30-44	28%	5-9	11%
45-59	52%	10-14	16%
60+	20%	15+	67%

Educational attainment (highest degree)		**In public health management (years)**	
Bachelors	18%	<5	16%
Masters	49%	5-9	21%
Doctoral	32%	10-14	19%
None	1%	15+	44%

The average age of the public health workforce overall is 48 years old[1] and 39% of DAWNS respondents were under age 48. Respondents had served in their current position for 6.6 years on average (median = 5), in their current agency for 14 years on average (median = 13), in public health practice for 19 years on average (median = 19), and in management for 13 years on average (median = 12). Of the 12 respondent groups, the largest responding groups were DPHP, APHL, and NACDD (n=31, 27, and 26 respondents, respectively).

DAWNS respondents' tenure in public health practice was relatively representative of an SHA manager or executive's tenure in public health practice, as reported in PH WINS 2014[1]. Notably, a higher percentage of DAWNS respondents had been in public health practice for over 15 years (67% versus 57%).

Figure 3. Manager- and Executive-Level Respondents' Tenure in Public Health Practice



Staff Oversight

Respondents were asked to indicate how many staff they directly oversee (Table 2). On average, respondents oversaw 43 staff (median = 19). The group that oversaw the most was State Environmental Health Directors (median = 45) followed by Association of Public Health Laboratories (APHL) (median = 40). The group that oversaw the fewest staff on average was State Legislative Liaisons (mean = 5, median = 3).

Table 2. Number of staff overseen, by affiliate/peer network

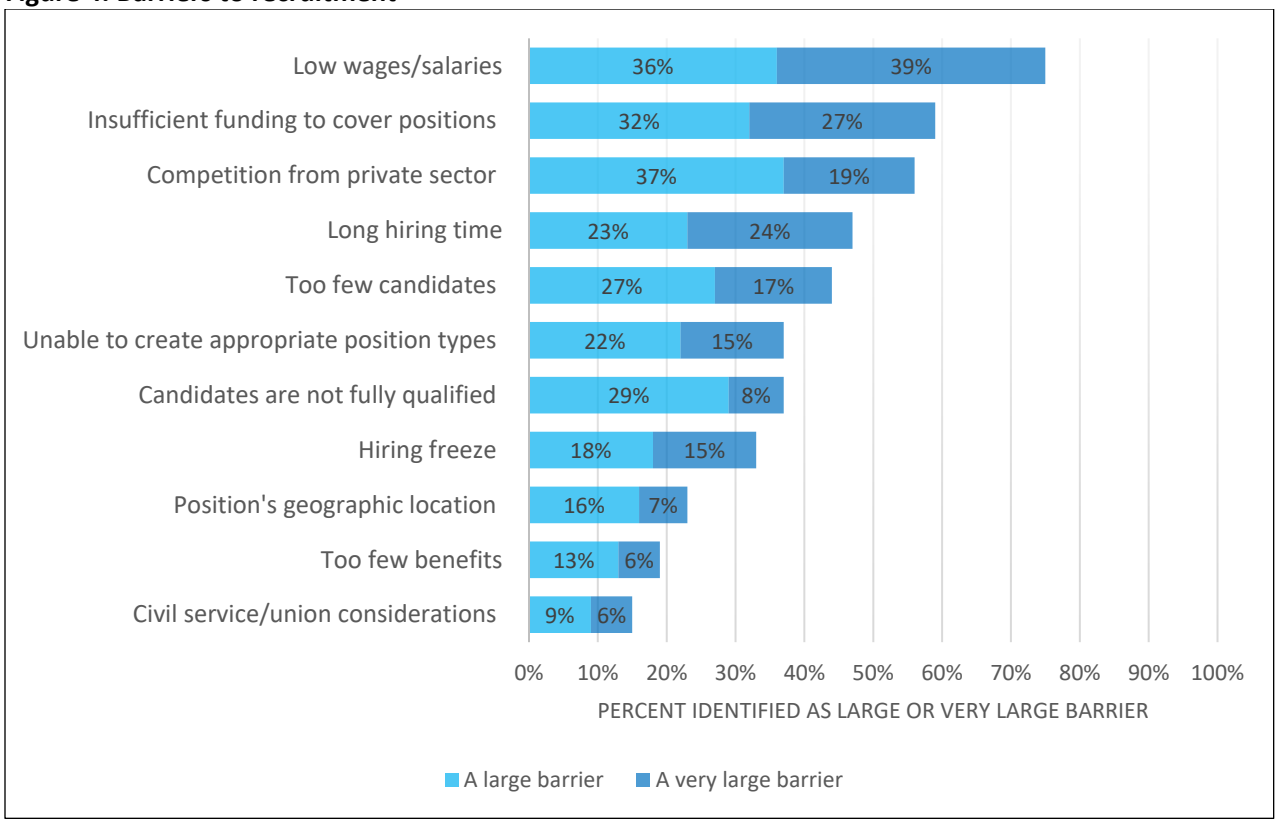
Affiliate/Peer Network	Mean	Median
Association of Maternal and Child Health Programs (AMCHP)	47	33
Association of Public Health Laboratories (APHL)	63	40
Association of State Public Health Nutritionists (ASPHN)	26	7
Council of State and Territorial Epidemiologists (CSTE)	56	32
Directors of Public Health Preparedness (DPHP)	39	19
Informatics Directors Peer Network (IDPN)	31	14
National Association of Chronic Disease Directors (NACDD)	42	21
Public Health Lawyers	137	10
Safe States Alliance	20	6
State Environmental Health Directors (SEHD)	79	45
State Legislative Liaisons	5	3
Tobacco Control Network (TCN)	10	6
Overall	**43**	**19**

Barriers to Recruitment

The most significant barriers to recruitment (Figure 4) were:

- Low wages/salaries (75%)
- Having sufficient funding to cover positions (59%)
- Competition from the private sector (56%)

Figure 4. Barriers to recruitment



Drivers of Turnover

The most commonly identified drivers of turnover (Figure 5) were pay (70%), lack of opportunities for advancement (68%), and other opportunities outside the agency (67%).

Key informant interview highlight

"Medical technologists in our lab, that's a spot where we have continual turnover. They're going to private laboratories. They're going to our laboratory that's next door at [a university]. It's across the board. Our epidemiologists, we've lost quite a few of those folks to our insurance companies."

Respondents were also asked which drivers of turnover their agency was adequately addressing (Table 3). Though pay, lack of opportunities for advancement, and other opportunities outside the agency were the most commonly identified drivers of turnover, few respondents answered that these three drivers were being adequately addressed by their agency, 9%, 14%, and 3%, respectively.

Figure 5. Drivers of turnover

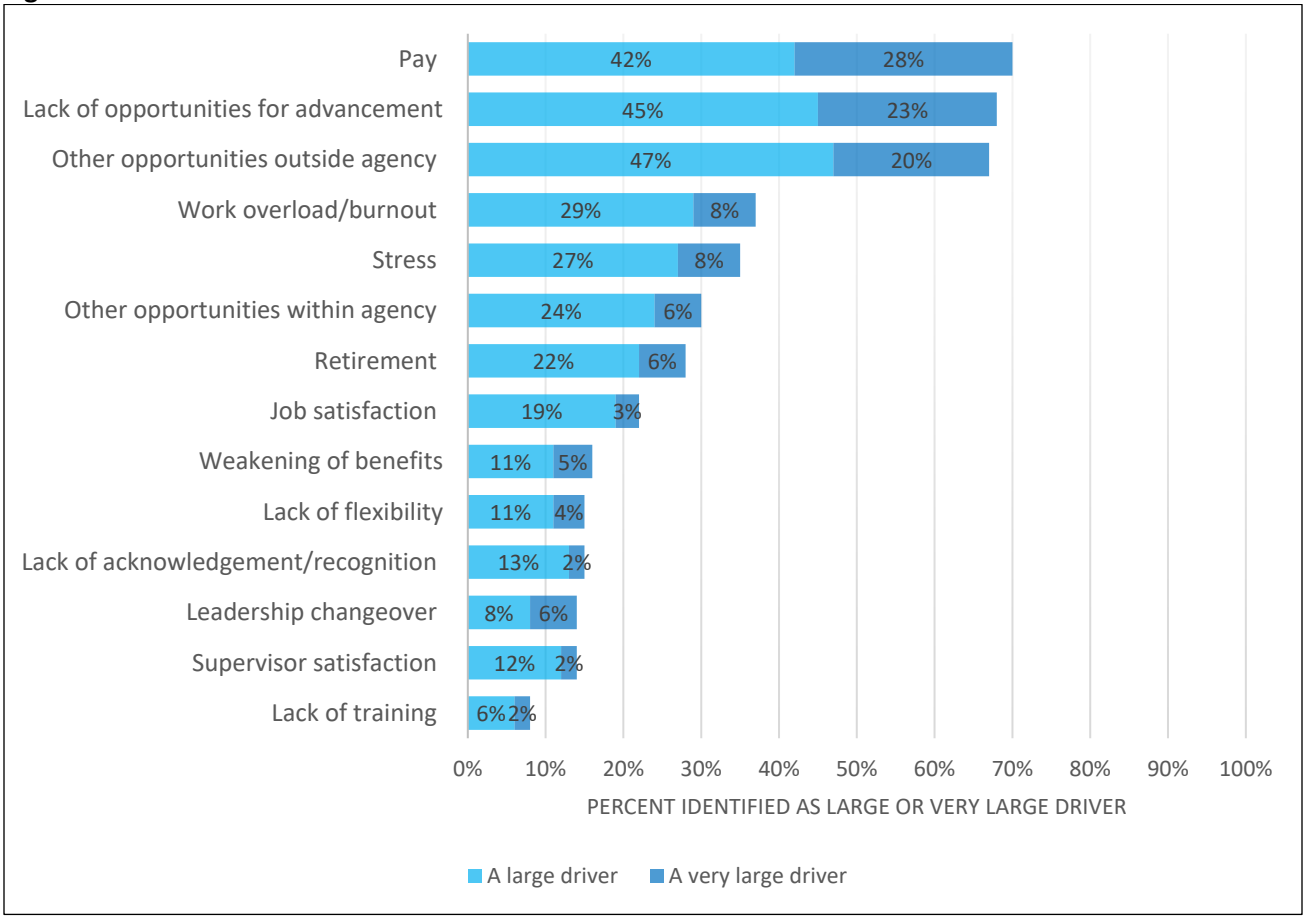


Table 3. Adequately addressing drivers of turnover

Driver of turnover	Percent adequately addressing driver of turnover
Lack of acknowledgement/recognition	36%
Lack of training	33%
Job satisfaction	31%
Supervisor satisfaction	23%
Lack of flexibility (flex hours/telework)	20%
Other opportunities within agency	17%
Stress	16%
Work overload/burnout	16%
Lack of opportunities for advancement	14%
Leadership changeover	13%
Retirement	12%
Pay	9%
Weakening of benefits (e.g., retirement contributions/pensions, health insurance)	4%
Other opportunities outside agency	3%

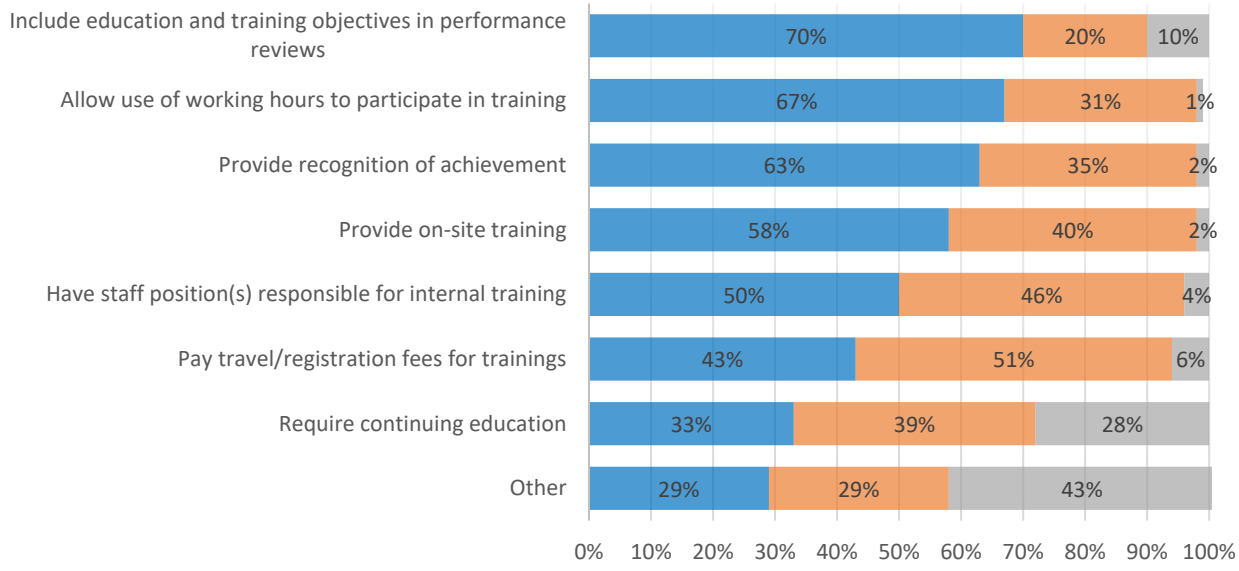
Culture of Learning

Respondents were asked about a number of activities related to the notion of a "culture of learning"[1], including the prevalence of the activities and the locus of decision-making authority to conduct the activities (Figure 6). Over half of respondents indicated that it was primarily their decision to include education and training objectives in performance reviews, to allow the use of working hours to participate in training, to provide recognition of achievement, and to provide onsite training. Requiring continuing education and paying for travel/registration fees for training were more frequently cited as primarily being agency or state-level decisions.

Key informant interview highlight

"We're looking to move forward with a more comprehensive training [program]. We've had some discussion about it, and I think that starts at the top down."

Figure 6. Decision locus for culture of learning-related activities



Training

Respondents were asked to identify the importance of seven key skills to the day-to-day work of their non-clerical, non-supervisory, professional public health staff and their staff's ability to perform those skills. More than 80% of respondents indicated that every skill was somewhat or very important in their staff's day-to-day work. The skills that the greatest proportion of respondents selected as somewhat or very important were: collect valid and reliable data for use in decision making (99% somewhat/very important) and communicate in a way that different audiences can understand (97% somewhat/very important).

Key informant interview highlight

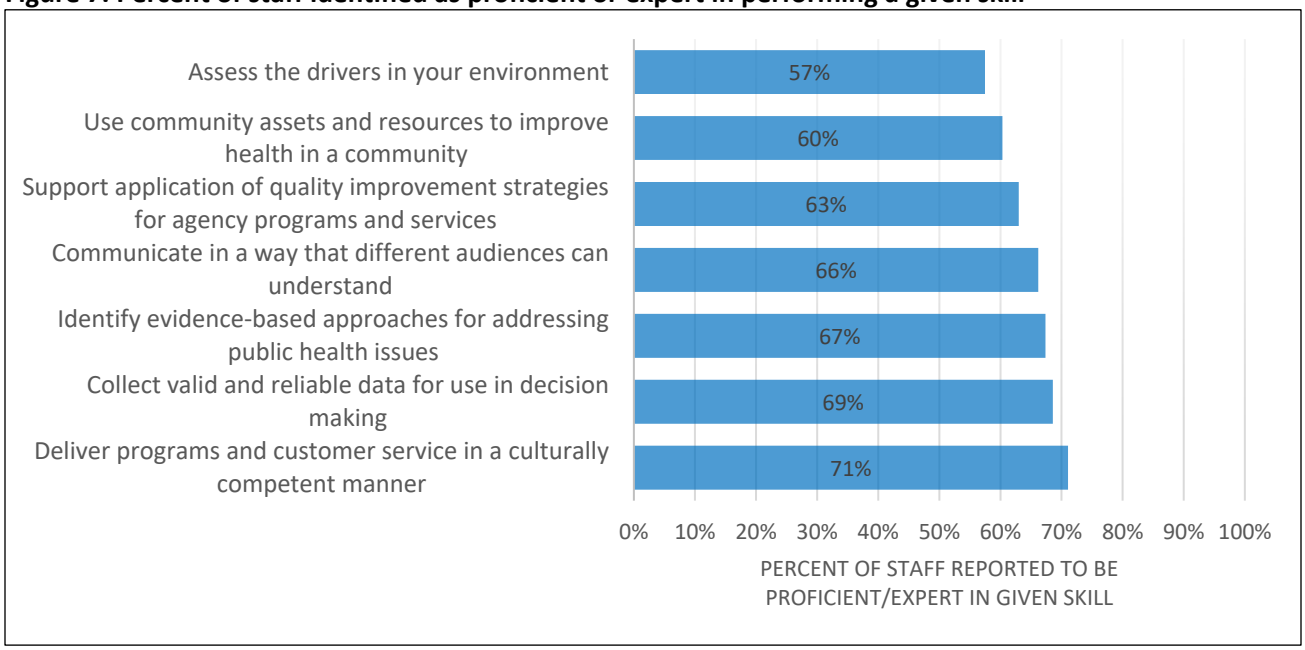
"We hire a lot of medical, technical individuals who are very skillful in their area of expertise, but may not have a lot of exposure to dealing with people from a management, administrative perspective."

While respondents from affiliate/peer network groups nearly universally indicated the select skills were somewhat or very important in their staff's day-to-day work, there was significant variation in the percent of respondents who felt their staff were proficient or expert in performing a given skill (Figure 7).

Approximately two-thirds of respondents indicated that their staff overall were proficient/expert in each skill, with significant variation by affiliate/peer network group. The overall top training needs, defined as skills of high importance in which staff have low proficiency, are:

- Assess the drivers in your environment
- Use community assets and resources to improve health in a community
- Support application of quality improvement strategies for agency programs and services

Figure 7. Percent of staff identified as proficient or expert in performing a given skill



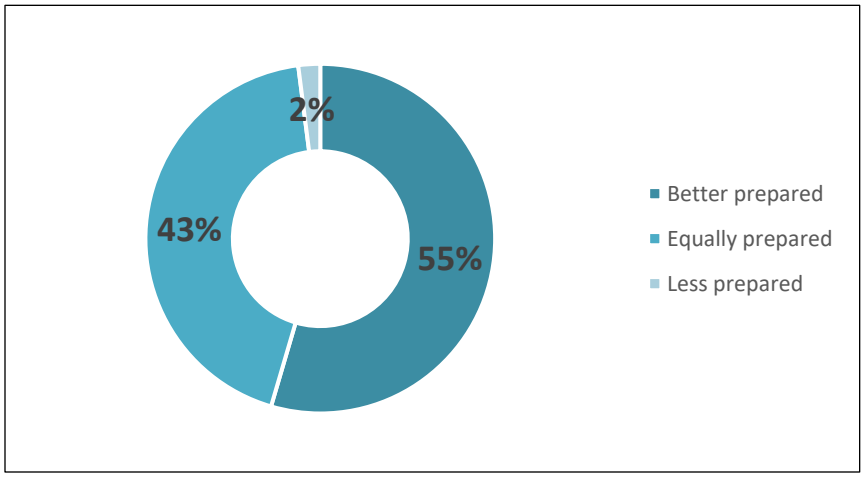
Respondents were also asked whether new supervisors were required to take supervisory training. Overall, 70% of respondents said new supervisors were required to take supervisor-related training for an average of 21 hours (median = 16).

Readiness

Respondents were asked about the readiness of their newly-hired, non-clerical, non-supervisory, professional public health staff. The survey question asked how many months it took, on average, for staff with different educational backgrounds to be able to function independently in their jobs. The average length of time for new hires to become independent was 10 months for those with a bachelors, 8 months for those with a public health masters, and 9 months for those with other master-level degrees.

Respondents also assessed the preparedness of new, non-clerical, non-supervisory, professional public health staff with a public health master's degree as compared to staff with other master's degrees. Over half (54%) responded that staff with a public health master's degree were better prepared than those with another master's degree, 43% said staff with a master's degree were equally prepared regardless of degree focus, and 2% said staff with a public health master's degree were less well-prepared coming onboard a new position in the agency (Figure 8).

Figure 8. Preparedness of new staff with public health master's degrees compared to non-public health master's degrees



Recommendations

1. **Prioritize succession planning and encourage leadership development.** Managers in health departments may consider opportunities for junior staff to have stretch assignments to support growth in current positions and prepare staff for future leadership positions.
2. **Work to close identified skill gaps**. Knowing the workforce's highest skill gaps, take efforts to reduce access barriers to learning and to tailor trainings to address key gaps.
3. **Take a holistic view of workforce interests and needs.** Integrate DAWNS findings with survey data from PH WINS 2017 to conduct a detailed inspection of workforce development needs from leadership/management and frontline staff perspectives.

Acknowledgements

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