1-2023

Turnover, COVID-19, and Reasons for Leaving and Staying Within Governmental Public Health

Jonathan P. Leider

Gulzar H. Shah

Valerie A. Yeager

Jingjing Yin

Kusuma Madamala

Turnover, COVID-19, and Reasons for Leaving and Staying Within Governmental Public Health

Jonathon P. Leider, PhD; Gulzar H. Shah, PhD, MStat, MS; Valerie A. Yeager, DrPH, MPhil; Jingjing Yin, PhD, MA; Kusuma Madamala, PhD, MPH

ABSTRACT

Background and Objectives: Public health workforce recruitment and retention continue to challenge public health agencies. This study aims to describe the trends in intention to leave and retire and analyze factors associated with intentions to leave and intentions to stay.

Design: Using national-level data from the 2017 and 2021 Public Health Workforce Interests and Needs Surveys, bivariate analyses of intent to leave were conducted using a Rao-Scott adjusted chi-square and multivariate analysis using logistic regression models.

Results: In 2021, 20% of employees planned to retire and 30% were considering leaving. In contrast, 23% of employees planned to retire and 28% considered leaving in 2017. The factors associated with intentions to leave included job dissatisfaction, with adjusted odds ratio (AOR) of 3.8 (95% CI, 3.52-4.22) for individuals who were very dissatisfied or dissatisfied. Odds of intending to leave were significantly high for employees with pay dissatisfaction (AOR = 1.83; 95% CI, 1.59-2.11), those younger than 36 years (AOR = 1.58; 95% CI, 1.44-1.73) or 65+ years of age (AOR = 2.80; 95% CI, 2.36-3.33), those with a graduate degree (AOR = 1.14; 95% CI, 1.03-1.26), those hired for COVID-19 response (AOR = 1.74; 95% CI, 1.49-2.03), and for the BIPOC (Black, Indigenous, and people of color) (vs White) staff (AOR = 1.07; 95% CI, 1.01-1.15). The leading reasons for employees' intention to stay included benefits such as retirement, job stability, flexibility (eg, flex hours/telework), and satisfaction with one's supervisor.

Conclusions: Given the cost of employee recruitment, training, and retention of competent employees, government public health agencies need to address factors such as job satisfaction, job skill development, and other predictors of employee retention and turnover.

Implications: Public health agencies may consider activities for improving retention by prioritizing improvements in the work environment, job and pay satisfaction, and understanding the needs of subgroups of employees such as those in younger and older age groups, those with cultural differences, and those with skills that are highly sought-after by other industries.

KEY WORDS: intentions to leave, intentions to stay, job satisfaction, ongoing upskilling, pay satisfaction, public health workforce, retention

Robust public health infrastructure, including a competent workforce, is critical to support the changing public health enterprise. Rapidly evolving public health practice is accompanied by the growing demand that the public health workforce perform evidence-based, accountable, and high-quality public health services.[1] Accountable public health practice, aligned with the national standards of performance proposed by the Public Health Accreditation Board (PHAB) 2022 standards, requires a paradigm shift to Public Health 3.0.[2] Public health

Author Affiliations: *University of Minnesota School of Public Health (SPH) and SPH Center for Public Health Systems (CPHS), Minneapolis, Minnesota (Dr Leider); Departments of Health Policy and Community Health (Dr Shah) and Biostatistics, Epidemiology, and Environmental Health Sciences (Dr Yin), Jiann-Ping Hsu College of Public Health Georgia Southern University, Statesboro, Georgia; Department of Health Policy & Management, Indiana University Richard M. Fairbanks School of Public Health, Indianapolis, Indiana (Dr Yeager); and Oregon Health Authority, Public Health Division and Multnomah County Health Department, Portland, Oregon (Dr Madamala).*

The authors report no conflicts of interest.

Supplemental digital content is available for this article. Direct URL citations appear in the printed text and are provided in the HTML and PDF versions of this article on the journal's Web site (http://www.JPHMP.com).

Correspondence: *Gulzar H. Shah, PhD, MStat, MS, Department of Health Policy and Community Health, Jiann-Ping Hsu College of Public Health, Georgia Southern University, 501 Forest Dr, Hendricks Hall, Statesboro, GA 30460 (gshah@georgiasouthern.edu).*

DOI: 10.1097/PHH.0000000000001634

must aim to not only ensure population health for communities across the United States but also do so efficiently while mitigating health inequities and associated health disparities and address the emerging challenges from novel diseases and emerging threats.[2] Such emerging threats are exemplified by COVID-19[3] and its aftermath, including mental health issues[4] and risks of worsening health inequities.[5] While public health threats such as COVID-19 have drawn attention to inadequacies in public health infrastructure, they have also heightened awareness about the importance of the role of public health and led to an elevated interest in public health careers.[2,6-10] To prepare for and efficiently deal with emerging threats while meeting the expectations of higher standards for public health practice, both local health departments (LHDs) and state health agencies must engage in training and retaining the workforce. Accordingly, understanding workforce retention issues has become critically important.

Annual governmental public health employee turnover rates are high. Recent surveys of the governmental workforce have indicated that an increasing proportion of public health employees intend to leave the public health workforce in the near term.[11,12] Although the exact costs of turnovers may be difficult to estimate, they can be detrimental, given the ongoing challenges associated with recruitment, skill development, and training of new employees.[6,13,14] Studies of employee retention and turnover have identified a myriad of factors associated with employees' decision to stay or leave. Leider and colleagues[12] summarized factors associated with turnover (actual separation), including job dissatisfaction and pay dissatisfaction, as well as employee characteristics such as being younger than 36 years or older than 55 years, having a tenure of 5+ years, and being an executive (compared with nonsupervisors). Similarly, in a study focused on intentions to leave, Sellers and colleagues[15] found that dissatisfaction with job and pay, lower than agency median of organizational support and employee engagement, and higher than agency median of burnout were associated with higher odds of reporting an intention to leave. Recent studies of public sector employees have also found high turnover generally,[16,17] and similar predictors of turnover intentions including job satisfaction, pay satisfaction, professional development/promotion/ongoing skill development opportunities, loyalty to the organization, a sense of accomplishment/shared decision making/liking one's job, and length of tenure.[18]

Given the competition for skilled workers with public health expertise in the job market and ongoing recruitment challenges within governmental public health agencies, recruitment of employees to fill vacancies will be challenging.[19] Furthermore, loss of institutional knowledge due to turnovers and inadequate succession planning may pose additional challenges.[20,21] Therefore, incentivizing retention of the existing public health employees remains imperative. Strategies to incentivize retention will have to address the "push factors" (ie, reasons provided for wanting to leave) and promote the "pull factors" (ie, reasons employees report for wanting to stay). It is important to create data-driven evidence about the role of those factors in employees' decisions to leave and stay in the public health workforce. To our knowledge, this is the first study to examine public health employees' intentions to remain in their jobs and their correlates.

The current study contributes to the existing workforce retention and recruitment literature by describing the trends in intention to stay and leave and/or retire. It also examines factors associated with intentions to leave and intentions to stay using the most current national data from the Public Health Workforce Interests and Needs Survey (PH WINS) 2021. Findings will be of interest to health officials and directors and individuals leading workforce recruitment and retention initiatives.

Methods

Sample and data

This article utilizes data from the 2017 and 2021 PH WINS. PH WINS is an individual-oriented, nationally representative survey of public health practitioners across local and state health departments in the United States conducted every 3 years since 2014. In 2017 and 2021, respondents who indicated intent to leave or retire were asked about their reasons for leaving. In 2021, respondents who indicated the intent to stay were asked to provide their reasons for staying. These are the focal points of analysis in this article. The sampling design and fielding approach for PH WINS are detailed elsewhere.[22] In brief, respondents were invited to participate across both state health agencies and LHDs using a mix of certainty sampling and stratified probability-based sampling, with balanced repeated replication weights to account for complex sampling design and nonresponse. In 2021, a total of 137 447 staff members were invited and 44 732 responded (32% response rate). In 2017, a total of 92 946 were invited in the comparable analytic frame and 43 669 responded (47% response rate).

Variables of interest and analysis

The major domains of PH WINS include workplace perceptions (including intent to leave and job satisfaction), training needs, and demographics. In addition

to adding intent to stay and reasons for staying, 2 domains were added in 2021: Health Equity and COVID-19. This article compares intent to leave due to retirement or for reasons other than retirement among respondents in 2017 and 2021. This necessarily is an analysis, then, of staff who have not *yet* quit or retired or otherwise left their organization. Inferential comparisons are made between 2017 and 2021 using a Rao-Scott adjusted chi-square. The responses in 2017 and 2021 should be viewed as multiple cross-sectional and not longitudinal. In addition, logistic models were fit to examine correlates of intention to leave or retire. The covariates of interest included job satisfaction, pay satisfaction, gender, age, race/ethnicity, highest degree attained, tenure in organization, supervisory status, setting, and program area. In addition, confirmatory factor analysis of workplace perceptions yielded 3 factors, which were used in the model (worker engagement, organizational support, and supervisor satisfaction) in line with previous research. Finally, the model utilized a dummy variable interacting year and COVID-19 deployment. Results are shown for a combined model. Data were analyzed in Stata MP 17.1 (StataCorp LLC, College Station, Texas).

Results

Sample characteristics by PH WINS year are presented in Supplemental Digital Content Appendix Table 1 (available at http://links.lww.com/JPHMP/B66). No significant differences exist across the survey years 2017 and 2021 samples. However, as shown in Table 1, in 2017, 23% of staff indicated they were planning to retire compared with 20% in 2021 ($P < .001$); 28% were considering leaving (excluding retirements) in 2017 compared with 30% in 2021 ($P = .12$) and 42% in 2017 compared with 41% in 2021 were considering leaving or planning to retire ($P = .52$). While plans to either leave or retire were consistent across years, the subgroup proportions considering leaving were different, especially by supervisory status, age, and educational attainment. More specifically, among supervisors, managers, and executives, 26% of staff said they were considering leaving in 2017 compared with 33% in 2021 ($P = .002$).

Modest differences were observed in intent to leave for respondents by setting and reasons for leaving (Table 2; see Supplemental Digital Content Appendix Table 2, available at http://links.lww.com/JPHMP/B67, and Supplemental Digital Content Appendix Table 3, available at http://links.lww.com/JPHMP/B68), for example, among State Health Agency-Central Office (SHA-CO) respondents, 18% indicated lack of flexibility as a top reason for leaving compared with 23% of local respondents ($P < .001$); more substantive differences were observed by age and education. Thirty-nine percent of those considering leaving who were younger than 50 years indicated job dissatisfaction as a reason for leaving compared with 21% of those 50 years or older ($P < .001$). Pay was similarly of note for those younger than 50 years (59%), versus those 50 years and older (35%; $P < .001$), and burnout (younger than 50 years, 46%, vs 50 years and older, 33%; $P < .001$). Among those with a graduate degree who considered leaving, 35% indicated job satisfaction as a reason for leaving, 33% lack of opportunities for advancement, and 43% burnout. Among those with any COVID-19 deployment, 44% of those considering leaving cited stress compared with 34% of those without a COVID-19 deployment ($P < .001$); stress was a similarly frequently cited reason for leaving for those with any COVID-19 deployment (39%) versus those without deployment (32%; $P < .001$).

Similarly, Supplemental Digital Content Appendix Table 2 (available at http://links.lww.com/JPHMP/B67) presents the bivariate relationship between reasons for staying and key employee characteristics. Consistently, we found the largest differences among age groups: among those younger than 50 years, job stability (60%), supervisor satisfaction (50%), benefits (67%), and job flexibility (53%) were all highly cited reasons for staying. Among those respondents who indicated they were not considering leaving or retiring, modest differences were again observed for SHA-CO versus local, including around flexibility (56% vs 42%; $P < .001$) and satisfaction with one's supervisor (49% vs 43%; $P < .001$). Reasons for leaving and staying were assessed (Figure 1). The most prominent reasons for intention to leave include pay, lack of opportunities for advancement, work overload/burnout, and stress. The most prominent reasons staff report for intending to stay include benefits (eg, retirement), job stability, flexibility (eg, flex hours/telework), and satisfaction with one's supervisor.

Intention to leave or retire was characterized by the percentage of time respondents indicated they had spent on COVID-19 response (Figure 2). Overall, 30% of those spending less than 25% of their time on COVID-19 response indicated they were considering leaving compared with 39% of those who spent 75% to 99% of their time on COVID-19 deployment ($P < .001$). Among those who did not report COVID-19 deployment, 22% said they were planning to retire compared with 17% of those who reported spending 75% to 99% of their time on COVID-19 deployment ($P = .01$). A Cochrane-Armitage test for trend was

TABLE 1

Sample Characteristics by Intention to Leave, Retire, or Both Among State and Local Public Health Workers, 2017 and 2021

	Intention to Leave		Intention to Retire		Intention to Leave or Retire	
	2017	2021	2017	2021	2017	2021
Overall	23%	20%	28%	30%	42%	41%
Setting						
SHA-CO	34%	32%**	23%	21%**	47%	44%***
BCHC LHD	31%	33%*	20%	18%*	42%	42%
Other LHD/RHD	25%	28%	23%	21%**	39%	39%
Supervisory status						
Nonsupervisor	29%	30%	21%	19%**	41%	40%
Supervisor	26%	32%*	27%	22%**	43%	44%
Manager	26%	34%**	29%	27%	42%	48%
Executive	26%	31%*	35%	34%	48%	48%
Gender self-identification						
Male	70%	66%	75%	79%***	55%	55%
Female	28%	29%	22%	20%**	41%	40%
Some other way	42%	46%	14%	14%	45%	53%
Race						
White	28%	30%*	25%	22%***	42%	43%
BIPOC	29%	31%	19%	18%	41%	40%
Highest education						
No college	24%	22%**	26%	25%	39%	35%**
Associate's degree	27%	25%	24%	26%*	41%	39%
Bachelor's degree	29%	31%	22%	20%**	42%	42%
Master's degree	32%	35%	20%	16%***	44%	44%
Doctoral degree	30%	35%**	24%	23%	44%	47%
Age						
<36 y	32%	37%*	1%	1%	32%	37%
36-49 y	26%	28%	3%	3%	28%	30%
50-64 y	26%	26%	41%	40%	51%	49%**
65+ y	40%	44%	87%	84%	84%	77%**
Tenure in organization						
0-5 y	31%	31%	8%	8%	35%	36%
6-10 y	28%	33%	18%	15%	38%	41%
11-15 y	27%	29%	23%	24%	40%	41%
16-20 y	21%	27%	40%	36%	49%	47%
21+ y	30%	31%	61%	61%	63%	61%
Served in COVID-19 response (any role)						
No	NA	28%	NA	22%	NA	39%
Yes		31%		21%		42%
Hired specifically for COVID-19 response	NA	34%	NA	9%	NA	39%

Abbreviations: BCHC, Big Cities Health Coalition; BIPOC, Black, Indigenous, and people of color; LHD, local health department; NA, not available; RHD, regional health department; SHA-CO, State Health Agency-Central Office.

[a] *Difference between 2017 and 2021: ***P < .001, **P < .01, *P < .05.*

TABLE 2

Bivariate Analysis of Reasons for Leaving by Key Employee Characteristics, 2021[a]

		Setting		Any COVID-19 Deployment		Highest Degree Attained		Age <50 y	
	2021	State Health Agency	Local Health Department	No	Yes	Less Than Master's Degree	Master's or Doctoral Degree	No	Yes
Job satisfaction	32%	33%	31%*	30%	32%*	29%	35%***	21%	39%***
Lack of acknowledgement/recognition	28%	28%	28%	25%	29%**	26%	30%**	23%	31%***
Lack of flexibility (flex hours/telework)	21%	18%	23%***	21%	22%	18%	26%***	14%	26%***
Lack of opportunities for advancement	41%	42%	40%	39%	41%*	38%	44%***	28%	49%***
Lack of support	29%	30%	29%	27%	30%**	28%	32%***	24%	32%***
Lack of training	13%	15%	13%**	14%	13%	14%	13%	9%	16%***
Leadership changeover	16%	17%	16%	13%	17%***	15%	18%***	14%	18%***
Other opportunities outside agency	18%	17%	18%	16%	18%*	16%	20%***	10%	23%***
Pay	50%	49%	50%	51%	49%	51%	48%**	35%	59%***
Retirement	14%	14%	13%	17%	13%***	16%	11%***	34%	1%***
Satisfaction with your supervisor	19%	20%	19%	19%	19%	18%	20%**	16%	21%***
Stress	37%	35%	38%**	32%	39%***	37%	37%	30%	42%***
Weakening of benefits (eg, retirement contributions/pensions)	11%	13%	10%**	11%	11%	11%	11%	8%	13%***
Work overload/burnout	41%	41%	41%	34%	44%***	40%	43%**	33%	46%***

[a] *Differences statistically significant at ***P < .001, **P < .01, *P < .05.*

FIGURE 1 Proportion of Staffing Indicating Reasons for Considering Leaving Versus Reasons for Staying, 2021[a]
[a]Respondents were shown only reasons for leaving if they indicated they were considering leaving and, conversely, only reasons for staying if they did not indicate they were considering leaving.

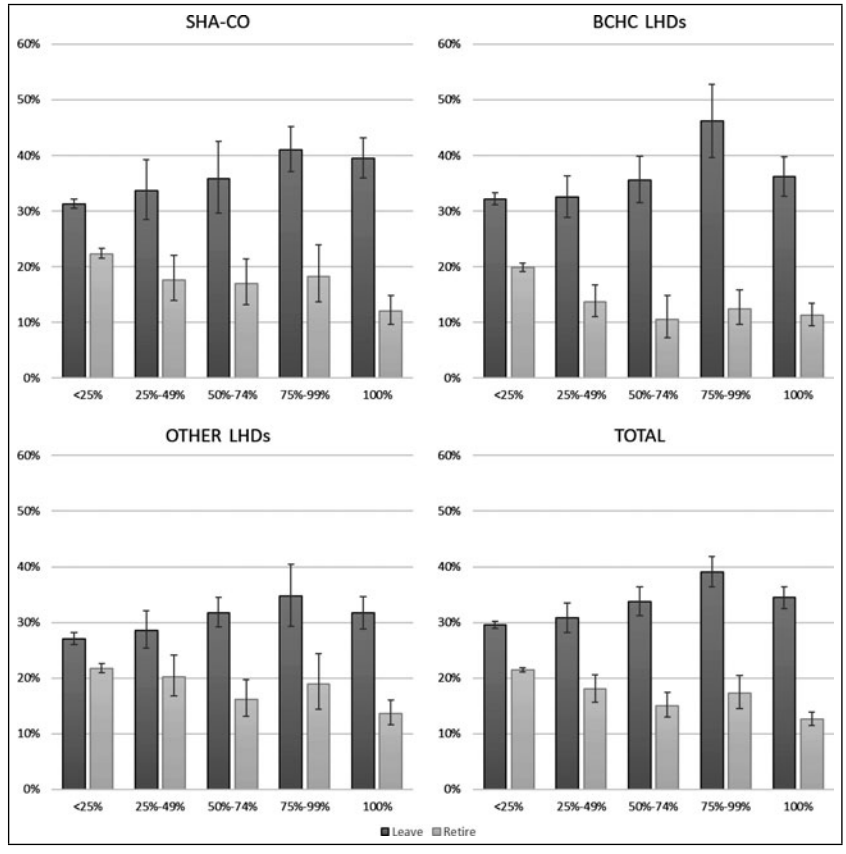

FIGURE 2 Intent to Leave and Retire, Associated With Percentage of Time Spent on COVID-19 Response, by Setting
Abbreviations: BCHC, Big Cities Health Coalition; LHD, local health department; SHA-CO, State Health Agency-Central Office.

statistically significant for considering leaving and planning to retire by relative amount of COVID-19 deployment ($P < .001$). A statistically significant departure from trend was identified among those considering leaving for those with 100% time spent on COVID-19 ($P = .001$) but not for considering retirement ($P = .36$).

A logistic regression model was fit with the dependent variable, leaving for reasons other than retirement (Table 3). Respondents dissatisfied or very dissatisfied with their job had an adjusted odds ratio (AOR) of 3.8 (95% CI, 3.52-4.22) of indicating they would consider leaving their job. Similarly, employees with pay dissatisfaction had an AOR of 1.83 (95% CI, 1.59-2.11). Compared with the reference group of ages 50 to 64 years, those younger than 36 years had an AOR of 1.58 (95% CI, 1.44-1.73) of considering leaving; those 65+years had an AOR of 2.80 (95% CI, 2.36-3.33). Those with a graduate degree had a somewhat higher AOR of indicating they were considering leaving their organization (1.14; 95% CI, 1.03-1.26). All else equal, BIPOC (Black, Indigenous, and people of color) staff had an AOR of 1.07 compared with White staff of considering leaving (AOR = 1.01-1.15). Compared with 2017 PH WINS respondents, those hired solely for COVID-19 response had an AOR of 1.74 for considering leaving (95% CI, 1.49-2.03), whereas respondents indicating no COVID-19 response or some COVID-19 response did not have a statistically significantly different likelihood of indicating they were considering leaving compared with 2017, all else equal.

Discussion

A generational reshuffling of the workforce is underway, and the public sector has not been spared.[16] For some time, the public sector broadly has been outcompeted for talent by the private sector, owing largely to flexibility and pay differentials and, more recently, the weakening of public sector benefits. By all accounts, COVID-19 has exacerbated these trends in the public sector and, perhaps, within public health in particular.[23,24] Public health agencies are expected to meet high bars, whether they are in ongoing COVID-19 response, the conceptual challenges of Public Health 3.0, or practically in the PHAB 2022 standards. Yet, meeting these challenges requires a workforce to do so. Efficient public health practice and administration require that threats to workforce retention be identified and then addressed. To generate empirical evidence about these threats and workforce retention issues, this study used data from the 2017 and 2021 PH WINS and examined intent to leave, corresponding reasons for leaving, and, in 2021, reasons for staying among the governmental public health workforce. This research also examined correlates of intention to leave or retire.

Comparing 2021 with 2017, findings indicate that there are not many notable changes in the characteristics of governmental public health employees who report the intention to leave and/or retire. Intention to leave is largely unchanged between 2017 and 2021, despite actual reported turnover in the media and elsewhere.[17,25] This suggests high intention to leave even after the turnovers that have occurred throughout COVID-19, meaning there is still substantial potential for turnover-associated risk among health departments nationwide. Among noteworthy changes directly measured in this study between these survey periods, however, is the workforce with a supervisory status indicating a higher intention to leave than those not in a supervisory role. These managers and supervisors are often the glue that holds units and departments together. Greater intention to leave among those in supervisory roles means that staff reporting to them may not be supported as well as the leaders to whom they report. National recommendations that managers/supervisors devote time to creating inclusive, engaging work environments that incentivize staff to stay and thrive cannot be attended to if supervisors themselves are leaving.[19]

Another important change between these survey periods is in the reasons that individuals provided for intending to leave and/or retire. More specifically, overload/burnout and stress have been added to pay and lack of opportunities for advancement as key reasons for intention to leave and/or retire. In addition, key findings indicate that, among 2021 respondents, the higher percentage of time an individual spent toward the COVID-19 response, the higher the likelihood of reporting intention to leave and/or retire. Of exception were the 8% of staff in the analytic sample who said they spent all of their time on COVID-19, which may be explained by those individuals not having competing responsibilities as those who spent less than 100% time on COVID-19 response. The true nature of the impact of COVID-19 on intent to leave may not be obvious, however. After adjusting for other covariates in the multivariate logistic regression, those hired for a COVID-19 response position had increased odds of reporting intent to leave for reasons other than retirement, all else equal. Work overload/ burnout, stress, and lack of opportunities for advancement were primary reasons for leaving more frequently among those who had COVID-19 deployment. Greater attention can be paid to onboarding individuals hired specifically for the COVID-19 response, given that roughly a third expressed an intention to leave. Intention to leave and/or

TABLE 3
Multivariate Relationship Between Intention to Leave and Employee Characteristics

	AOR	95% CI	*P*
Job satisfaction			
Neutral/Somewhat/Very satisfied	Ref		
Dissatisfied/Very dissatisfied	3.80	3.42-4.22	<.001
Pay satisfaction			
Neutral/Somewhat/Very satisfied	Ref		
Dissatisfied/Very dissatisfied	1.83	1.59-2.11	<.001
Supervisor support[a]	0.72	0.7-0.74	<.001
Organizational support[a]	0.63	0.61-0.66	<.001
Employee engagement[a]	0.78	0.75-0.81	<.001
Gender[b]			
Male	Ref		
Female	0.81	0.74-0.88	<.001
Age			
<36 y	1.58	1.44-1.73	<.001
36-39 y	Ref		
50-64 y	0.97	0.91-1.04	.37
65+ y	2.80	2.36-3.33	<.001
Highest degree			
Less than master's degree	Ref		
Master's or doctoral degree	1.14	1.03-1.26	.01
Tenure in organization			
<5 y	Ref		
5 y+	0.89	0.78-1.01	.08
Supervisory status			
Nonsupervisor	Ref		
Supervisor or higher	1.15	1.08-1.23	<.001
Race			
White	Ref		
BIPOC	1.07	1-1.15	.047
Setting			
State Health Agency	Ref		
Big City Health Coalition	0.96	0.9-1.02	.17
Other local health department	0.79	0.67-0.94	.007
Program area			
Administrative/clerical	Ref		
Clinical and laboratory	0.94	0.86-1.03	.18
Public health sciences	1.03	0.97-1.1	.33
Social services and all	0.96	0.77-1.19	.69
Other			
Covid-19 response involvement			
2017	Ref		
2021—Hired for COVID-19 response	1.74	1.49-2.03	<.001
2021—No COVID-19 response	0.92	0.84-1	.06
2021—Some COVID-19 response	1.07	0.95-1.2	.26
Constant	0.26	0.23-0.3	<.001

Abbreviations: AOR, adjusted odds ratio; BIPOC, Black, Indigenous, and people of color.

*[a]Factor variables. Differences statistically significant at ***P < .001, **P < .01, *P < .05.*

[b]Gender: Some other way—excluded because of small cell size.

retire is more common when individuals have simultaneous emergency response and routine public health activity roles.

Results from the multivariate model indicate that younger members of the governmental public health workforce, workers who have a higher level of education, and individuals who are BIPOC were significantly more likely to report intentions to leave their current jobs, which is consistent with trends elsewhere in the public sector.[16] The combination of these 3 groups indicating their intention to leave is particularly problematic and worrisome, given the need and ongoing efforts to recruit a younger, more diverse, and highly skilled workforce, especially as public health focuses on racism and upstream solutions to address social determinants of health.[26,27] Finally, the most frequent job classifications to express intent to leave were (1) policy analyst, (2) public health informatics specialist, (3) emergency preparedness/management worker, (4) public information specialist (ie, communications), (5) epidemiologist, and (6) disease intervention specialist/contact tracer. Each of these classifications plays an essential role not only in the ongoing COVID-19 response efforts but also in the provision of the Foundational Public Health Services.[28]

Despite that benefit packages (eg, retirement) have seen cuts over the last decade, benefits are one of the reasons governmental public health staff reported intending to stay. In addition, job stability and satisfaction with one's supervisor made the list of the most prominent reasons for staying. Work flexibility (eg, flex hours/telework), which has historically been less common within governmental public health prior to the COVID-19 response, was also a prominent reason provided for staying. Now that it is known that flex hours/telework are key factors in retention, finding ways to provide some amount of sustained work flexibility should be prioritized.

Limitations

There are a number of study strengths and limitations to note. First, this study uses data from the largest sample of governmental public health employees, to date, which included the highest proportion of LHD respondents to date. Among the limitations, however, is that it is unclear how much "churn" there has been in the workforce between the PH WINS data points. More specifically, it is unclear how many of the 2017 respondents departed their governmental public health position and how many employees were newly recruited between 2017 and 2021. Future studies are planned to explore this question. An additional limitation of note is that workforce safety/harassment was not included as an option on the survey question responses as a possible reason for intention to leave despite that it may have been a factor and is likely embedded as a reason for stress/burnout. Other limitations include that it is a multiple cross-sectional study of intent to leave among staff members who are still within the organization. It does not represent an examination of actual turnover.[12] Given the substantial turnover observed elsewhere in the public sector, this is an important lens through which readers should view this analysis. Previous research has shown intent to leave or retire does not represent a one-to-one conversion of staff leaving, but that a high percentage of staff considering leaving do so, and that a lower percentage of staff not considering leaving do so. Finally, potentially for nonresponse bias and lower response rates in 2021 relative to 2017 may be problematic, though balanced repeated replication weights were employed to account for these issues.[22]

Conclusions

Communities depend on a diverse, engaged, and skilled public health workforce. This study draws attention to the need to identify innovations and best

Implications for Policy & Practice

- Communities depend on a diverse, engaged, and skilled governmental public health workforce. Innovations and best practices for public health employee recruitment and retention are needed.
- Some public health skills are highly sought-after in other sectors, presenting a higher risk of loss of public health professionals with those skills doing foundational governmental public health work.
- Given the burnout and stress caused by COVID-19–related additional work, government public health agencies will benefit from assessment of ways to inform and implement strategies for promoting employee satisfaction with job, pay, and the workplace environment.
- Strategies to consider include salary adjustments and promotion opportunities to retain valuable employees, workload reductions, flexible/remote work policies, job rotations, and facilitating time off and backup support for time away.
- Work flexibility (eg, flex hours/telework) was identified as a prominent reason for staying. As such, finding ways to provide some amount of sustained work flexibility should be prioritized.
- It is imperative to support and mentor younger and BIPOC employees and increase the support of managers/supervisors.

practices for hiring and recruiting new employees into governmental public health. In addition, findings from this study added burnout and stress to the same list of reasons for reported intention to leave that we have known about since 2014.[29] It is imperative that we find ways to address burnout and stress within the workforce. Considerations include workload reductions, encouraging employee time off, job rotations, and the provision of backup support for when employees take time off. Some of these same recommendations were included in the Bipartisan Policy Center's 2021 "Public Health Forward: Modernizing the U.S. Public Health System." The call has been made, now is the time for action.[30]

References

1. Waterfield KC, Shah GH, Kimsey L, Mase W, Yin J. Public health employees' perceptions about the impact of emerging public health trends on their day-to-day work: effects of organizational climate and culture. *Int J Environ Res Public Health*. 2021;18(4):1703.
2. DeSalvo K, Parekh A, Hoagland GW, et al. Developing a financing system to support public health infrastructure [published correction appears in *Am J Public Health*. 2020;110(9):e15]. *Am J Public Health*. 2019;109(10):1358-1361.
3. Krisberg K. Long hours, scant resources: public health workers continue the fight: on the ground in the battle against COVID-19. *The Nation's Health*. 2020;50(7):1-11.
4. Barna M. Mental health workforce taxed during COVID-19 pandemic: worker shortage hinders access. *The Nation's Health*. 2022; 51(10):1-14.
5. Shah GH, Shankar P, Schwind JS, Sittaramane V. The detrimental impact of the COVID-19 crisis on health equity and social determinants of health. *J Public Health Manag Pract*. 2020;26(4):317-319.
6. Yeager VA, Balio CP, McCullough JM, et al. Funding public health: achievements and challenges in public health financing since the Institute of Medicine's 2012 report. *J Public Health Manag Pract*. 2022;28(1):E244-E255.
7. Powers MP. How will COVID-19 reshape the future of US public health? *The Nation's Health*. 2020;50(5):1-12.
8. Shah GH. Public health education and changing public health realities in the Public Health 3.0 era. *Am J Public Health*. 2021;111(3): 336-338.
9. Warnick A. Interest in public health degrees jumps in wake of pandemic: applications rise. *The Nation's Health*. 2021;51(6):1-12.
10. Krisberg K. Public health workforce in dire need of long-term investment: Biden proposes Public Health Job Corps. *The Nation's Health*. 2021;51(2):1-12.
11. Leider JP, Sellers K, Owens-Young J, et al. Determinants of workplace perceptions among federal, state, and local public health staff in the US, 2014 to 2017. *BMC Public Health*. 2021;21(1):1654.
12. Leider JP, Sellers K, Bogaert K, Liss-Levinson R, Castrucci BC. Voluntary separations and workforce planning: how intent to leave public health agencies manifests in actual departure in the United States. *J Public Health Manag Pract*. 2021;27(1):38-45.
13. Yeager VA, Balio CP, Chudgar RB, Hare Bork R, Beitsch LM. Estimating public health workforce efforts toward Foundational Public Health Services. *J Public Health Manag Pract*. 2022;28(4):393-398.
14. Mase WA, Hansen AR, Smallwood SW, et al. Disease intervention specialist education for the future: an analysis of public health curricula. *Public Health Rep*. 2018;133(6):738-748.
15. Sellers K, Leider JP, Lamprecht L, Liss-Levinson R, Castrucci BC. Using public health workforce surveillance data to prioritize retention efforts for younger staff. *Am J Prev Med*. 2020;59(4):562-569.
16. MissionSquare Retirement. Exodus of employees is increasing strain on public sector workforce according to New MissionSquare Research Institute study. https://www.icmarc.org/about-us/news-and-updates/media-inquiries/news-20220309-exodusofemployeesisincreasingstrainonpublic.html. Published March 10, 2022. Accessed April 19, 2022.
17. US Office of Personnel Management [OPM]. FedScope Separations Cubes, FY 2020-FY 2024. https://www.fedscope.opm.gov/ibmcognos/bi/?perspective=dashboard&pathRef=.public_folders%2FFSe%2B-%2BSeparations%2BDashboards%2FSeparations%2BTrend%2B%2528FY2020%2B-%2BFY%2B2024%2529&action=view&mode=dashboard. Published 2021. Accessed November 17, 2021.
18. Kang IG, Croft B, Bichelmeyer BA. Predictors of turnover intention in US federal government workforce: machine learning evidence that perceived comprehensive HR practices predict turnover intention. *Public Pers Manage*. 2021;50(4):538-558.
19. Parry AE, Kirk MD, Durrheim DN, Olowokure B, Colquhoun SM, Housen T. Shaping applied epidemiology workforce training to strengthen emergency response: a global survey of applied epidemiologists, 2019-2020. *Hum Resour Health*. 2021;19(1):58.
20. Harper E, Leider JP, Coronado F, Beck AJ. Succession planning in state health agencies in the United States: a brief report. *J Public Health Manag Pract*. 2018;24(5):473-478.
21. Leider JP, Coronado F, Beck AJ, Harper E. Reconciling supply and demand for state and local public health staff in an era of retiring baby boomers. *Am J Prev Med*. 2018;54(3):334-340.
22. Robins M, Leider JP, Schaffer K, Gambatese M, Allen E, Hare Bork H. PH WINS 2021 methodology report. *J Public Health Manag Pract*. 2023;29(suppl 1):S35-S44.
23. Ward JA, Stone EM, Mui P, Resnick B. Pandemic-related workplace violence and its impact on public health officials, March 2020-January 2021. *Am J Public Health*. 2022;112(5):736-746.
24. Hollowed out public health system faces cuts amid crisis. *Associated Press News*. August 24, 2020. https://apnews.com/article/e28724a125a127f650a9b6f48f7bb938. Accessed November 17, 2021.
25. US public health workers leaving "in droves" amid pandemic burnout. *The Guardian*. September 23, 2021. https://www.theguardian.com/us-news/2021/sep/23/us-public-health-workers-pandemic-burnout. Accessed November 17, 2021.
26. CDC Director declares racism a "serious public health threat." *NPR*. April 8, 2021. https://www.npr.org/2021/04/08/985524494/cdc-director-declares-racism-a-serious-public-health-threat. Accessed April 19, 2022.
27. Coronado F, Beck AJ, Shah G, Young JL, Sellers K, Leider JP. Understanding the dynamics of diversity in the public health workforce. *J Public Health Manag Pract*. 2020;26(4):389-392.
28. The Public Health National Center for Innovations. Revising the Foundational Public Health Services in 2022. https://phnci.org/transformation/fphs. Accessed April 19, 2022.
29. Pourshaban D, Basurto-Davila R, Shih M. Building and sustaining strong public health agencies: determinants of workforce turnover. *J Public Health Manag Pract*. 2015;21(suppl 6):S80-S90.
30. Bipartisan Policy Center. Public health forward: modernizing the U.S. public health system. https://bipartisanpolicy.org/download/?file=/wp-content/uploads/2021/12/BPC_Public-Health-Forward_R01_WEB.pdf. Published December 2021. Accessed April 19, 2022.