



# The State of the Epidemiology Workforce

## Introduction

Epidemiologists play a vital role in public health, investigating patterns and causes of disease and injury and working to reduce the risk and occurrence of negative health outcomes (U.S. Bureau of Labor Statistics, 2024). Despite their critical role, limited national data are available to understand the unique experiences, backgrounds, and perspectives of applied epidemiologists or those epidemiologists working in state and local health departments.

To address this gap, the 2024 Public Health Workforce Interests and Needs Survey (PH WINS), in collaboration with the Council of State and Territorial Epidemiologists, included a question set specific to epidemiologists. This group includes individuals who identified their job classification as “Epidemiologist” and their program area as “Epidemiology Surveillance”. PH WINS is the only nationally representative source of self-reported information on the state and local government public health workforce. Conducted by the de Beaumont Foundation and the Association of State and Territorial Health Officials (ASTHO) from September 2024 to January 2025, the 2024 survey collected responses from nearly 60,000 state and local government public health staff, including nearly 5,500 epidemiologists who answered additional questions on their training, pathways into the field, and current work experience.

This brief provides a focused look at the applied epidemiology workforce – who they are, how they entered the field, and what’s shaping their experiences in the workplace.



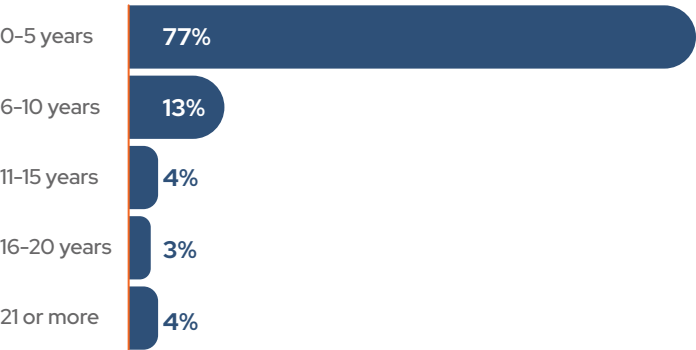
The Public Health Workforce Interests and Needs Survey (PH WINS) supports the government public health workforce by measuring strengths and gaps to inform future investments in funding, training, recruitment, and retention. Conducted in 2014, 2017, 2021, and 2024, PH WINS is the only nationally representative source of data about the government public health workforce.

## Key Findings

### Most epidemiologists are middle-aged and new to their roles.

Most epidemiologists are middle-aged, with 46% between the ages of 35 and 55. In terms of experience, 40% have worked in public health for more than a decade, while 36% have five years or less in the field. Most were relatively new to their current roles: 77% had held their current position for five years or less, and 58% had been at their current agency for five years or less. This combination of mid-career age and shorter job tenure suggests a workforce with significant experience in public health, but also a high level of internal movement or recent transition.

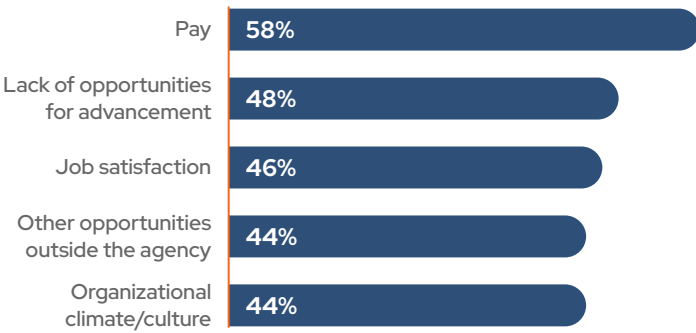
Tenure in Current Position



### Nearly 3 in 10 plan to leave their agency within the year.

Among epidemiologists, 27% reported plans to leave their agency in the next year. Staff planning to leave their agency within the next year reported a range of next steps. Many said they intend to pursue another job in government public health (37%) or transition into a non-government role in the field (26%). Additionally, 22% anticipated leaving public health entirely. Concerns around compensation, growth, and work environment remain strong drivers of potential turnover – including departures from the field entirely.

Top 5 Reasons Epidemiologists Intend to Leave Their Agency

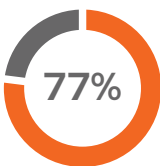


### Burnout is common: 77% of epidemiologists report symptoms.

Among epidemiologists planning to leave their agency within the next year, 37% cited work overload and burnout as reasons for leaving. PH WINS 2024 defines burnout as physical, mental, and behavioral exhaustion caused by excessive stress, particularly in the workplace.

These experiences may reflect broader workplace pressures. More than one in four epidemiologists (26%) reported being unable to complete their work within regular hours, and 37% said they frequently take on responsibilities beyond their job descriptions.

In addition, nearly one-third (32%) disagreed or strongly disagreed that their agency implements policies and practices that support their mental well-being.



More than three-quarters (77%) of epidemiologists reported experiencing one or more symptoms of burnout.



## Satisfaction is high; experience and education motivated entry to field.

Epidemiologists reported high levels of satisfaction across key aspects of their work, including their work unit (89%), supervisor (86%), job (86%), benefits (79%), and organization (73%). However, satisfaction with pay was notably lower (57%).

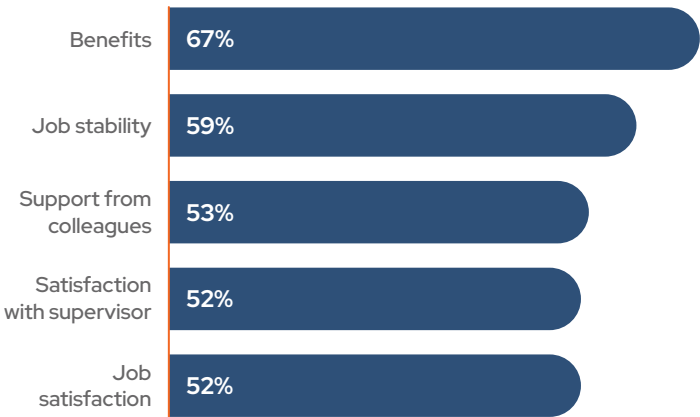
Motivations for entering the field varied; respondents most frequently cited professional experience (43%), followed by graduate-level coursework (39%) and undergraduate education (28%). Most epidemiologists held a master’s degree (53%), and 13% held a doctorate. Over half (57%) reported receiving a public health degree.

## Stability and support are key to retention.

Reasons for staying in current roles reflect consistent organizational strengths. Most epidemiologists (71%) said they are not considering leaving their organization in the next year. Benefits, such as health insurance and retirement contributions, were the most cited reason for staying (67%), followed by job stability (59%), and support from colleagues (53%).

While some epidemiologists are considering a departure, many are staying because of supportive environments and consistent organizational strengths.

Top 5 Reasons Epidemiologists are Staying in their Agency



## Conclusion

The epidemiology workforce supports many of the foundational activities that keep public health systems running, from tracking disease patterns to guiding emergency response. While many in this workforce are middle-aged career professionals with years of public health experience, these data show that recent transitions, burnout, and limited advancement opportunities are contributing to high rates of planned departure – including exits from the field entirely.

The 2024 PH WINS results provide critical insight into the backgrounds, motivations, and experiences of epidemiologists across the country. With these findings, public health agencies can take informed steps to strengthen workforce retention, reduce turnover, and plan for succession in essential epidemiologic functions.

To support and sustain this workforce, agencies may benefit from strategies that address burnout, promote flexible work

arrangements, and create clear pathways for career growth. Motivations like professional experience and graduate education point to opportunities to support emerging professionals earlier in their public health journey.

Importantly, these data also show strong foundations for the future of public health agencies. Most epidemiologists reported satisfaction with their job (86%), supervisors (86%), and benefits (79%). Seventy-one percent said they plan to stay in their current roles – a signal that despite challenges, many remain committed to public service when the right supports are in place.

Looking ahead, investing in the development and retention of epidemiologists will be critical to maintaining a responsive, resilient, and data-driven public health system. As threats continue to evolve, this workforce will remain central to protecting the health and well-being of communities nationwide.

## Methodology

The Public Health Workforce Interests and Needs Survey (PH WINS) was developed by the de Beaumont Foundation and the Association of State and Territorial Health Officials (ASTHO) to understand the interests and needs of the state and local government public health workforce in the United States, and was fielded in 2014, 2017, 2021, and 2024.

The 2024 survey was distributed online to 159,627 state and local government public health workers, representing 48 state health agencies and 1,178 local health departments of varying sizes across 48 states. In total, 219 large local health departments (staff size > 25 and serving a population > 250,000), 424 medium local health departments (staff size > 25 and serving a population of 25,000 to 250,000), and 535 small local health departments (staff size < 25 or serving a population < 25,000) participated in the survey. Through partnerships with the 10 Regional Public Health Training Centers, the Big Cities Health Coalition, and the State Associations of County and City Health Officials in North Dakota, Montana, and New Jersey, the PH WINS sample size of local health departments more than quadrupled from 2021 to 2024. The survey was completed by 56,959 employees, for a 37% response rate of eligible employees<sup>1</sup>.

For more information, visit [www.phwins.org](http://www.phwins.org).

<sup>1</sup> Employees whose emails bounced or failed, or those who left the agency during the administration of the survey, were deemed ineligible (n=6,075).

## Next for PH WINS

Complete results from PH WINS 2024, including redesigned dashboards with dynamic data visualization, will be released in July 2025. Other topics covered in the survey include:

- Demographics of the workforce by age, ethnicity, sex, tenure, education, and more
- Workforce characteristics such as supervisory status, program area, and job type
- Training needs and strengths based on the recommended **Strategic Skills** for Public Health
- Guidance for recruiting and retaining a skilled and effective workforce
- Strategic insights for developing skilled managers in government public health

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