2021 SUMMARY REPORT:
Epidemiology/Surveillance Workforce
ACKNOWLEDGEMENT & CITATION

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 to understand the interests and needs of the state and local governmental public health workforce in the United States, and was fielded in 2014, 2017, and 2021. For more information, visit www.phwins.org.

ABOUT THIS REPORT

This report summarizes key findings about the epidemiology/surveillance workforce from the 2021 Public Health Workforce Interests and Needs Survey (PH WINS).

• Key findings are organized by the main sections of PH WINS 2021:
  • Demographics
  • Workforce Characteristics
  • Staying & Leaving
  • Training Needs
  • Engagement & Satisfaction
  • Well-being
WHAT IS PH WINS?

Public Health Workforce Interests and Needs Survey

• PH WINS, a partnership between the de Beaumont Foundation and the Association of State and Territorial Health Officials (ASTHO), was fielded in 2014, 2017, and 2021.

• First and only nationally representative source of data about the governmental public health workforce.

• Supports the governmental public health workforce in understanding their strengths and gaps and informs future investments in workforce development efforts.
**2021 METHODS**

- PH WINS 2021 was distributed via web survey to **137,446 state and local governmental public health workers**:
  - 47 state health agencies
  - 29 big city health departments
  - 259 local health departments
- The PH WINS 2021 instrument had five domains: workplace environment, COVID-19 response, training needs, addressing public health issues, and demographics.
- One important change in 2021: non-permanent employees of centralized state health agencies were included in the nationally representative data set.
WORKFORCE DEFINITION

Workforce groups are defined by a combination of responses to PH WINS questions on program area, job classification, education, and certifications.

The epidemiology/surveillance workforce include PH WINS respondents who selected the following job classification(s) or program area(s):

- Job classification: epidemiologist
- Program area: epidemiology surveillance

*PH WINS respondents were asked to report all program areas in which they currently serve. Workforce groups that are defined using program area include employees who work for the defining program area and may include employees who also work for additional program areas.
NATIONAL PARTICIPATION

- Nationally, the survey was completed by 44,732 individuals, for a 35% response rate.
- Response rates varied by frame:
  - SHA: 34%
  - Big Cities: 28%
  - Other locals: 52%
    - Locals in Regions V and X*: 56%

*HHS Regions V and X participated in the PH WINS for All pilot programming, recruiting all locals in those regions, regardless of size, to participate in PH WINS.
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The epidemiology/surveillance workforce accounts for 8% of the national governmental public health workforce.
2021 KEY FINDINGS: DEMOGRAPHICS

• PH WINS respondents self-reported demographic (personal) characteristics like their gender, race/ethnicity, and age.

• Respondents also self-reported the highest level of education attained and whether they have a specialized degree in public health.
DEMOGRAPHICS

• 76% of the epidemiology/surveillance workforce self-identifies as a woman.

• 61% of the epidemiology/surveillance workforce self-identifies as White.
• **More than half** of the epidemiology/surveillance workforce is between the ages of 31 and 50 years.

### AGE COLLAPSED

**EPI/SURVEILLANCE: ALL EMPLOYEES**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percent of Employees (2021)</th>
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<tbody>
<tr>
<td>&lt;31 years of age</td>
<td>25%</td>
</tr>
<tr>
<td>31-50 years of age</td>
<td>53%</td>
</tr>
<tr>
<td>51+ years of age</td>
<td>22%</td>
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</table>
EDUCATIONAL ATTAINMENT

- 76% of the epidemiology/surveillance workforce has an advanced degree.
  - 60% has a Master’s degree.
  - 16% has a Doctoral degree.
- 57% has a specialized degree in public health.
2021 KEY FINDINGS: WORKFORCE CHARACTERISTICS

• PH WINS respondents were asked a series of questions related specifically to their job and the work they do, including:
  • Supervisory status
  • Job role
  • Primary program area
  • Tenure in public health overall, at their agency, and in their current job.

• Respondents also reported full-time/part-time status and salary information.
SUPERVISORY STATUS/JOB ROLE

- 63% of epidemiology/surveillance staff work in a non-supervisory role.
- 83% of staff work in a public health sciences job role, which includes program staff, epidemiologists, and contact tracers, among others.
The epidemiology/surveillance workforce is mainly distributed across two primary program areas:

- Communicable Disease
- Assessment

*PH WINS respondents were asked to report all program areas in which they currently serve. This graph represents only the primary program area - the area in which a respondent spent the most time serving.
**TENURE AT AGENCY**

- 57% of the epidemiology/surveillance workforce in 2021 had served at their agency **for 5 years or less**.
- 10% had served 21 or more years.

### AGENCY TENURE

**EPI/SURVEILLANCE: ALL EMPLOYEES**

<table>
<thead>
<tr>
<th>Tenure in Agency</th>
<th>Percent of Employees (2021)</th>
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<tbody>
<tr>
<td>0-5 years in agency</td>
<td>57%</td>
</tr>
<tr>
<td>6-10 years in agency</td>
<td>16%</td>
</tr>
<tr>
<td>11-15 years in agency</td>
<td>8%</td>
</tr>
<tr>
<td>16-20 years in agency</td>
<td>9%</td>
</tr>
<tr>
<td>21 or above in agency</td>
<td>10%</td>
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</tbody>
</table>
2021 KEY FINDINGS: STAYING & LEAVING

• PH WINS respondents were asked a series of questions related to their intent to leave or stay at their agency and whether the COVID-19 pandemic affected their decision.

• Respondents were also asked to select reasons why they intend to stay or leave.
**INTENT TO LEAVE/STAY**

- 34% of epidemiology/surveillance employees **are considering leaving** their organization within the next year.

- 37% reported that the COVID-19 pandemic impacted their decision to stay or leave.
  - Among those who intend to leave, 51% said the pandemic impacted their decision (*data not shown*).

### INTENT TO LEAVE

**EPI/SURVEILLANCE: ALL EMPLOYEES**

<table>
<thead>
<tr>
<th></th>
<th>0%</th>
<th>25%</th>
<th>50%</th>
<th>75%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaving in one year</td>
<td>34%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retiring in five years</td>
<td>13%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staying</td>
<td>64%</td>
<td></td>
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</table>

### IMPACT OF COVID ON STAYING & LEAVING

**EPI/SURVEILLANCE: ALL EMPLOYEES**

<table>
<thead>
<tr>
<th></th>
<th>0%</th>
<th>25%</th>
<th>50%</th>
<th>75%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staying, now leaving</td>
<td>16%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staying, want to stay more</td>
<td>6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leaving, now staying</td>
<td>6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leaving, want to leave more</td>
<td>9%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No impact</td>
<td>63%</td>
<td></td>
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REASONS FOR LEAVING/STAYING

• Understanding employees’ reasons for leaving is critical for improving recruitment and retention.

• Top reasons for leaving among epidemiology/surveillance staff who intend to leave include:
  • Work overload/burnout (reported by 46%)
  • Stress (reported by 42%)
2021 KEY FINDINGS: TRAINING NEEDS

• PH WINS respondents were asked to rate the day-to-day importance of and their own proficiency with 25-26 skill items, tailored for their supervisory level.

• Skills were collapsed into 10 strategic skill categories.

• A training need is a skill item reported as having high importance, but low proficiency.

• Identifying training needs can help support strategies to produce T-employees, or those who have depth in technical skills and breadth in strategic skills.

**FIGURE 2.**

The Public Health T:
Complementing Specialized Skills with a Cohesive Cross-Cutting Skill Framework

Note: T-shaped employees have depth in specialized skills related to a specific program or topic area (e.g., communicable disease control, environmental public health, etc.) and breadth in cross-cutting skills that include the Strategic Skills and Core Competencies.

The top 5 areas of training needs across all supervisory levels are:

- Budget and financial management
- Systems and strategic thinking
- Change management
- Community engagement
- Justice, equity, diversity, and inclusion
The top 5 areas of training needs among non-supervisors are:

- Budget and financial management
- Change management
- Systems and strategic thinking
- Community engagement
- Policy engagement
Training needs among supervisors, managers, & executives are:

- Budget and financial management
- Systems and strategic thinking
- Community engagement
- Justice, equity, diversity, & inclusion
- Policy engagement
2021 KEY FINDINGS: ENGAGEMENT & SATISFACTION

PH WINS respondents were asked to rate their agreement with several statements related to:

- Job, organizational, and pay satisfaction
- Perceptions about their workplace
- Perceptions about their supervisors
- Perceptions about their organization
The epidemiology/surveillance workforce is largely satisfied with their job (78%) and organization (65%).

More than half (52%) are satisfied with their pay.
PERCEPTIONS ABOUT ORGANIZATION

- The epidemiology/surveillance workforce’s overall perceptions of their organizations are positive.

- However, there is room for improvement:
  - 51% agree that creativity and innovation are rewarded.
  - Less than half of the workforce agrees that leadership staff and employees communicate well.
• The 2021 PH WINS survey included questions specifically about employees’ mental and emotional well-being.
WELL-BEING

- 30% of epidemiology/surveillance staff rate their mental health as either “poor” or “fair.”

OVERALL MENTAL & EMOTIONAL WELL-BEING
EPI/SURVEILLANCE: ALL EMPLOYEES

<table>
<thead>
<tr>
<th>Estimation</th>
<th>Percent of Employees (2021)</th>
</tr>
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<tbody>
<tr>
<td>Poor</td>
<td>0%  25%  50%  75%  100%</td>
</tr>
<tr>
<td>Fair</td>
<td>23%</td>
</tr>
<tr>
<td>Good</td>
<td>32%</td>
</tr>
<tr>
<td>Very good</td>
<td>27%</td>
</tr>
<tr>
<td>Excellent</td>
<td>11%</td>
</tr>
</tbody>
</table>
2021 KEY FINDINGS: HEALTH EQUITY CONCEPTS

The 2021 PH WINS survey asked respondents to rate their level of awareness of and confidence in applying five health equity concepts:

- Health Equity
- Social Determinants of Equity
- Social Determinants of Health
- Structural Racism
- Environmental Justice
HEALTH EQUITY CONCEPTS: HEALTH EQUITY

- **88%** of the epidemiology/surveillance workforce rated their awareness of Health Equity as a **lot**.

- **59%** of the epidemiology/surveillance workforce is very confident in applying the concept of Health Equity to their work.
HEALTH EQUITY CONCEPTS:
SOCIAL DETERMINANTS OF EQUITY

• 54% of the epidemiology/surveillance workforce rated their awareness of Social Determinants of Equity as a lot.

• 36% of the epidemiology/surveillance workforce is very confident in applying the concept of Social Determinants of Equity to their work.
HEALTH EQUITY CONCEPTS: SOCIAL DETERMINANTS OF HEALTH

- **87%** of the epidemiology/surveillance workforce rated their **awareness** of Social Determinants of Health as a **lot**.

- **64%** of the epidemiology/surveillance workforce is **very confident** in applying the concept of Social Determinants of Health to their work.
HEALTH EQUITY CONCEPTS: STRUCTURAL RACISM

- **68%** of the epidemiology/surveillance workforce rated their awareness of Structural Racism as **a lot**.

- **38%** of the epidemiology/surveillance workforce is **very confident** in applying the concept of Structural Racism to their work.
HEALTH EQUITY CONCEPTS: ENVIRONMENTAL JUSTICE

• **56%** of the epidemiology/surveillance workforce rated their **awareness** of Environmental Justice as **a lot**.

• **32%** of the epidemiology/surveillance workforce is **very confident** in applying the concept of Environmental Justice to their work.
Looking for more data and graphs?
- This report represents only a small portion of the data that are available from the 2021 PH WINS.
- Go to the national PH WINS Dashboard to view more data, download graph images, and more. You can find the dashboard at www.phwins.org/national.

Want to learn more about the survey?
- Go to https://debeaumont.org/phwins/2021-findings/ for more information about PH WINS 2021, including key findings, links to publications and survey methods.

Have questions?
- Contact the PH WINS team at: phwins@debeaumont.org