Public Health Laboratory Recruitment and Retention Toolkit

Salary and Benefit Increase Guidelines and Resources

2023

APHL ASSOCIATION OF PUBLIC HEALTH LABORATORIES®

INTRODUCTION AND PURPOSE

Background

As illustrated on APHL's Public Health Laboratory (PHL) Salary Comparison Dashboard and demonstrated with the APHL Workforce Profiles, PHL personnel generally have lower salaries when compared to laboratorians from similar fields and job families across the US. The lower salaries can be directly related to both PHL recruitment and retention challenges and have been shown to be a top driver of staff leaving the organization. This guide has been developed to assist PHLs with a variety of resources and information necessary to increase PHL personnel salaries and to provide additional compensation and incentives to assist with improving staff recruitment and retention. Each topic below will contain resources and additional information that each PHL may draw upon for their recruitment, retention and salary increase efforts within their own jurisdictional systems.

Methods

Beginning in 2022, APHL has revamped the PHL workforce profile survey to collect data on the characterization of the workforce. The workforce profile considers several factors:

- Employment Information
- Education/Training/Certifications
- Recruitment and Retention
- Satisfaction
- Job Satisfaction
- Demographic Information

On a regular basis, APHL surveys individuals from state, territorial and local public health laboratories. An anonymous electronic survey, with all questions optional, is sent out using convenience sampling. Results from these surveys and other sources are incorporated within this guide and are intended to help contribute to the continued discussion across the membership about recruitment and retention strategies, including increasing PHL salaries.

CONTENTS

RECRUITMENT RESOURCES

PHLs need highly trained and experienced professionals and paraprofessionals at every level of the complex environment in which they operate. The PHL community is challenged to find creative yet practical solutions it can implement to attract, support and sustain the next generation of laboratory professionals. Collective PHL funding (grants, testing revenue, etc.) must support training at the undergraduate, graduate and post-graduate levels and the PHL system must be responsible to support training and establishing pipelines of new employees. Compensation needs to be competitive with the private sector and provide for career advancement. Paid fellowship and internship opportunities are a critical asset to give early-career professionals field exposure but are only one avenue to help this challenge which varies from state to state. Short-term investments to plug the current gap are insufficient—a long-term, sustained investment within the public health laboratory workforce is vital to ensure they can meet and sustain their core mission.[1]

In this competitive market, it's essential to optimize and target a PHL's recruitment strategy for new hires as well as retention strategies for retaining existing staff based on what employees really want and need in a job. Focusing on and providing additional emphasis on non-monetary benefits will also support these strategies. The continuous long-term erosion of funding for core public health infrastructure has dramatically impacted workforce shortages within PHLs. Laboratory science, however, continues to grow in complexity and coupled with the rapid advances in technology, such as within the discipline of bioinformatics, has elevated educational requirements and competencies. Recruitment pipelines are also burdened by administrative hurdles in laboratory hiring processes and job classifications, as well as a salary gap between the public health laboratory workforce and the private sector. These major factors, among others, result in strong competition for fewer individuals.

Top 5 Recruitment Factors

According to the 2022 APHL Laboratory Workforce Profile Survey:

- **Appropriate Work / Life Balance**
- **Job Security**
- **Safe / Secure Work Environment**
- **Benefits**
- **Competitive Salary**

PHLs should utilize common and key outlets for advertising and promoting job openings, such as Indeed, LinkedIn, social media or Glassdoor, in addition to relying on professional relationships and other colleagues to help share employment opportunities. Information about what goes into a PHL's advertisements and outreach materials for how our work makes a difference for our communities, such as including the PHL's mission statements and values should be made available to assist with speaking points. It is strongly recommended that PHLs promote the benefit packages they offer to clearly define total compensation and to include retirement systems.

Share details of benefits – including:

- Medical, dental and vision insurance
- Generous vacation and sick accrual beginning upon hire
- Numerous paid holidays
- Paid parental/family leave
- Multiple savings plans, optional 401k and 457 plans
- Basic life insurance for employee and family
- Wellness programs
- Ongoing training opportunities
- Tuition support for continuing education

And more!

1 APHL (2021), Understanding the Recruitment and Retention Needs of the Next Generation

Examples

Some innovative PHL recruitment and promotional materials previously developed and shared in the APHL Member Resource Center include:

- **K-12 Outreach Program Outline**
  Developed by the Michigan Department of Public Health and Bureau of Laboratories and intended to be used as a model for an outreach program designed to introduce laboratory science to young students and supplement the laboratory science educational experience received in the school environment.

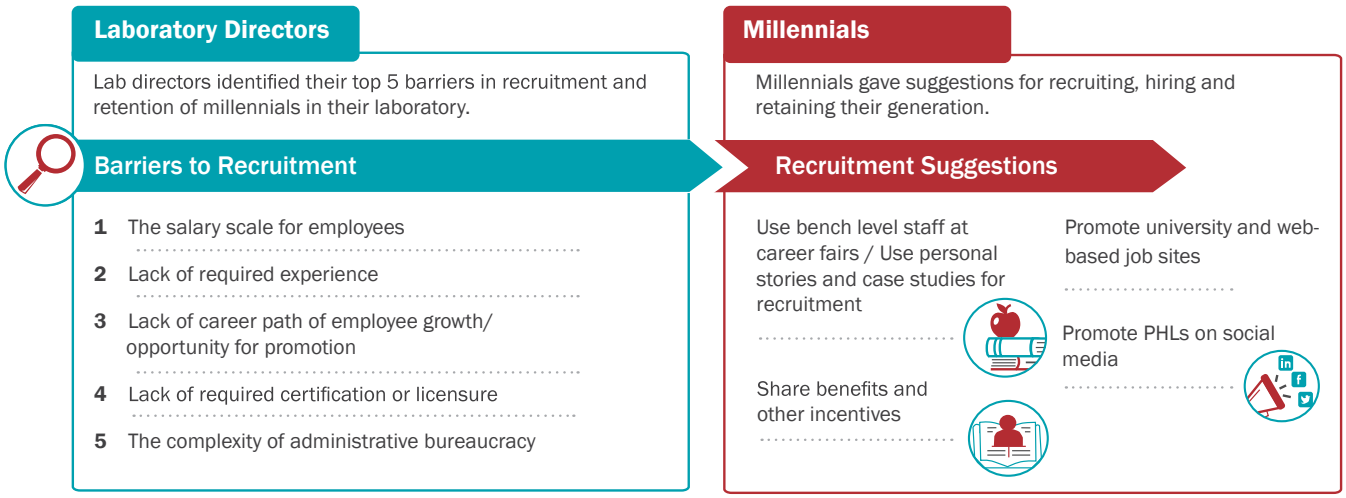
- **Guide to Careers in Environmental and Public Health Laboratory Science**
  Developed by the State Hygienic Laboratory at the University of Iowa and is intended to provide a visual representation of the potential career paths for students and others early in their careers.

- **Careers in Laboratory Science Brochure**
  Developed by City of Milwaukee Health Department and is intended to illustrate the career pathways into laboratory science and focuses on both the 'Laboratory Science Technical Track' and the 'Laboratory Administration Track.'

- **Education Pathways to a Career in Public Health Laboratory Science Brochure**
  Developed by City of Milwaukee Health Department and is intended to illustrate the educational pathways to a career in PHL science.

- **Public Health Laboratory Awareness Toolkit**
  APHL's Emerging Leader Cohort 4 created the Public Health Laboratory Awareness Toolkit or PHLAT, to educate the community about public health laboratory services, reinforce the value of these services to legislators and recruit new people into the field. The tools within have been developed for PHLs to use and adapt to their own needs and include press release templates, open house guides, a PHL Wikipedia template, social media guide and other promotional products.

According to the 2021 APHL publication, Understanding the Recruitment and Retention Needs of the Next Generation:



APHL has developed several resources including national summary reports to identify and support PHL recruitment needs:

- Understanding the Recruitment and Retention Needs of the Next Generation
- 2022 Laboratory Workforce Profile Survey: Who to Recruit in the Next 4 Years
- March 2021: Public Health Laboratory Workforce Needs
- 2022 Laboratory Workforce Profile Survey: What Matters to New Hires
- Public Health Laboratory Awareness Toolkit (aphl.org)
- APHL's Emerging Leader Cohort 4 created the Public Health Laboratory Awareness Toolkit or PHLAT, to educate the community about public health laboratory services, reinforce the value of these services to legislators and recruit new people into the field. The tools within have been developed for PHLs to use and adapt to their own needs.

Position Descriptions

PHLs must develop position descriptions (PDs) to align with intended work, requirements, and responsibilities, as well as the PHLs mission and values. PHLs should also consider revising existing PDs as well as writing future PDs to better accommodate potential salary increases (e.g., merit or competency-based systems) and alignment with career development opportunities. PDs could support an individual's on-going need for education and experiential learning as a path to career development using the *Competency Guidelines for Public Health Laboratory Professionals (CDC and APHL MMWR May 15, 2015)* to develop position descriptions can assist with defining levels of competence for each position.

Examples of Recruitment Guides with Position Descriptions:

- Biosafety Officers
- Bioinformatics
- Quality Manager

Key points for how to revise a position description:

- With support and buy in from laboratory leadership, such as Division or Department Directors, PHLs should work with key partners (HR office, unions, etc.) early in the process.
- Align current and expected work with items listed in position descriptions.
- Align PD work descriptions from the MMWR PHL Competency Assessment Guidelines to have measurable metrics.

SALARY INCREASE RESOURCES

Comparative Salary Surveys

Data and information to make a case for compensation increases should be presented in an easy-to-interpret format, including the use of data visualizations such as tables and charts. It is important to show the disparity, including the current gap between new hires and existing staff salaries. Key findings and data should be included in the presentation, as well as the negative impact of compensation inequities. Comparisons should be made at a local, regional and national level, as well as between similar laboratory fields, such as clinical or commercial laboratories, or other related areas (e.g., agriculture, environmental, veterinary, forensics, etc.). Additional considerations can include factors such as:

- Current compensation layout and internal salary ranges
- Retention issues
  - Turnover rates
  - Competitive job offer information
- Recruitment difficulties
  - Number of candidates who refused offers based on salary
  - Salary negotiations from new hires
  - On-boarding and training costs for new employees
- Comparative data
  - Comparison of competitor salary specifications and certifications
  - Salary and career ladders of other geographically close laboratories (in-state and within region)
  - Compensation at nearby hospitals and reference laboratories
  - Overtime and shift differential data from clinical laboratories and other competitors
  - Similar positions between laboratories and program areas

Data drives action!

Collect comprehensive data early in the process to build your case for change.

TIP

According to the *Public Health Laboratory Experiences Addressing Workforce Compensation Gaps Report*[16] PHL leaders expressed that the entire compensation process, from initial increase proposal to the approval of compensation increase, took a minimum of one year to collect all data and information and begin having conversations with decision makers. Limitations and constraints can vary greatly depending on state and local policies. Many partnering state agencies can help with providing a market rate analysis that may support the PHL salary increase efforts (e.g., Departments of Labor, Education, Environmental Quality, Agriculture, etc.). Some states have been able to conduct strategic planning for workforce needs and have published data online. This data can include information about turnover rates by classification and by agency which could help with telling a story to articulate the PHL needs.

Laboratories and APHL Regional Consortiums should also consider hiring a consulting agency when appropriate to assist with the collection or presentation of summary comparison data. In summary, PHL leaders noted that:

- Obtaining competitor salaries and job descriptions was difficult. Additionally, there have been reported challenges comparing state positions (e.g., Microbiologists) between departments (e.g., Health, Environmental, Homeland Security, Agriculture, etc.) making it more difficult to compare and adjust pay scales.
- The Delaware PHL has been able to use "Selective Market Variation (SMV)" which is a process used to increase the salary range for job classifications where severe market competition makes it difficult for the state to recruit and retain qualified employees. For more information about SMV and how Delaware has been able to utilize this process, please visit:
  - 2018-Revised-Merit-Rules-MR-19-Definitions.pdf (delaware.gov)
  - State of Delaware - Delaware Employment Link

- Discrepancies arose when evaluating comparable positions/salaries/benefits due to the intricacies of laboratory staffing. It is unusual to find a state where the PHL job classification is unique; instead, the PHL job classification (e.g., PHL Microbiologist 1, 2, 3, etc.) is usually tied to other job family classifications (e.g., Department of Agriculture and General Scientist 1, 2, 3, etc.).
- There can be a disconnect between HR and PHL leadership when HR may not have a good understanding of the PHL itself and the unique positions they employ.
- Decision packages for general funding could only be submitted once a year in most agencies.
- Unforeseeable issues arose with state funding, such as budget or funding limitations which may be established by state legislatures or boards of health.

PHLs can collectively benefit from the work of some individual PHLs and local or regional efforts to conduct salary comparison justification studies, such as with the APHL Regional Consortium. Comparative salary surveys provide essential information to the PHL for use within their own jurisdictional systems to justify the recommendation for salary increases. For example, in 2018, APHL and the Mid-Atlantic Consortium were able to conduct a *Public Health, Environmental & Agricultural Laboratory Workforce Development & Compensation Survey*. One result that was able to come from the study was the Final Decision Package report for Virginia. Other key points from their collective efforts include the following examples:

Key points for funding include:

- PHLs can often utilize grant funding or other financial sources to obtain a consultant in order to develop and conduct a comparative survey between their own PHL and comparable labs in the area and nationally.
- PHLs should consider a salary increase comparison survey within their strategic plans and be able to set aside funding over multiple years.

Key points for developing your own PHL comparison survey:

- Compare metrics from your own PHL to comparable local (e.g., city, county, etc.), state and/or national governmental labs.
- Compare metrics from your own PHL to comparable private and/or commercial labs (e.g., clinical hospitals, food testing labs, environmental labs, analytical chemistry labs, commercial reference labs, etc.).
- Provide consideration for hazard pay justification. PHLs work with hazardous material (hazmat) and PHL personnel are considered hazmat employees at least with the Department of Transportation (DOT) for their need to receive, handle and ship Division 6.2 Infectious Substances. PHL staff may be classified by other groups such as the Occupational Health and Safety Administration (OSHA) for their work with hazardous bloodborne pathogens and other potentially infectious materials (OPIM). Many PHLs are operational seven days a week in order to conduct essential service testing like newborn screening, and most PHLs will have on-call staff available 24 hours a day, seven days a week for emergency preparedness and response testing for critical samples such as suspicious threat letters with associated credible threats, and other biological, chemical or radiological threat agent samples requiring immediate testing services.
- PHLs and PHL work is characterized by FEMA as Critical Infrastructure in the ESF-8 (Emergency Support Function) Healthcare Sector (Function 8) structure by the essential services PHLs provide (e.g., Newborn screening testing, Laboratory Response Network (LRN) Emergency Preparedness testing, etc.). phe.gov/Preparedness/planning/mscc/handbook/chapter7/Pages/emergency.aspx

Key points for comparison survey metric considerations:

- Number of personnel (FTEs, Limited Duration positions, volunteers, interns, students, fellows, temporary positions, etc.)
- Classification and structure of PHL positions (e.g., Scientist level 1, 2, 3, Division Chief, Unit Supervisor, etc.)
- CLIA and CMS designations for analytical vs. non-analytical positions and related definitions and required qualifications for key positions (e.g., Laboratory Director of a High Complexity testing laboratory, or a Technical Specialist, etc.). www.cdc.gov/clia/php/about/
- Hours of operations
- Sample testing volume
- Type of samples tested
- Number and complexity of tests offered
- Salary ranges
- Note if overtime and/or comp time is offered
- Summary of all benefits, including whether pension plans and health insurance may be included and used to account for part of the salary differential
- Career development and continuing education opportunities
- Career ladder progression steps

APHL's PHL Salary Comparison Dashboard

APHL has developed and made available, a Public Health Laboratory Salary Comparison Dashboard! The dashboard uses data generated from the APHL 2022 Workforce Profiles survey based on 1,464 individual laboratorian responses collected across APHL's membership. The dashboard provides interactive tables and maps, with benchmarking data to support leaders, policy and decision-makers to advocate for competitive and equitable salaries for public health laboratorians. This directly impacts PHLs' ability to recruit and retain essential workforce. Some important information regarding the data:

- The data explicitly contains only PHL employee salary and does not include other compensation such as overtime or hazard pay, or other financial benefits.
- The dashboard uses descriptive statistics (minimum, mean, median and max) to compute and cluster salary data.
- The Administrative Staff job class is excluded due to a lack of comparison data from Medical Laboratory Observer (MLO) and ASCP studies.

Human Resources

With the support of laboratory leadership, it is essential to work with the jurisdiction's human resources (HR) office as early as possible to be aware of any restrictions or challenges, and to have their support and guidance throughout processes such as revising position descriptions, collaborating on salary increase initiatives, etc.

PHLs need the shared support between HR and departmental leadership, and the PHL needs to make laboratory compensation a department/agency level issue. If a PHL cannot convince their own department/agency leadership that compensation is a problem that needs attention and that they need to address, the PHL will have difficulty getting the full support of HR or approval to go before the legislature. It is therefore critical to make sure PHL needs are a high priority for the PHL's department/agency.

Salary comparison data is helpful, but it needs to be accompanied with agency buy in and support, as well as a multi-faceted approach to ensure the achievement of increasing salaries. Multifaceted approaches can include examples such as the creation of career ladders, instituting cross-training programs, providing stretch goal assignments, and promoting a healthy work-life balance.

Develop a relationship with your human resources department so they understand how the public health laboratory is different from other health agencies.

TIP

When compensation packages may be open to revision, there should be consideration for having a compensation package that can reward existing staff based on merit while also trying to increase salaries for new hires simultaneously to avoid potential 'salary compression' problems. Salary compression refers to hiring new staff at higher pay levels than existing staff which can lead to short term pain, resentment or alienation of existing staff, and higher vacancy rates.

Unions

PHLs in some jurisdictions may have unions to work with as part of the process for increasing PHL salaries. A recent study by APHL has indicated that PHL staff in unionized states receive a higher salary than their non-unionized colleagues in other locations. This may be because unions provide a stronger negotiating base. When applicable, union contracts and bargaining agreements need to take into consideration the unique work environments and needs of the laboratory. Key messages to decision makers can include the significant challenges with the recruitment of qualified candidates, loss of time invested in recruiting and training laboratory personnel who then chose to leave the PHL for higher salary jobs, and the inability to sustain critical public health laboratory services. PHLs need to advocate for what their needs are (compensation increases) and understand it is a continuous cycle of pulling data and statistics to support the position to increase salaries.

Legislature

Legislative interactions may be best coordinated at the department level. PHL directors should express to department leadership the desire to interact with legislators. Often, this can be done in conjunction with other public health partners to demonstrate the value of the laboratory in the broader public health enterprise. Invite legislators to the laboratory for a tour to provide a better visual understanding of the importance and technical nature of PHL work and staff.

PHL professionals view their work through a systems lens, supporting the 10 Essential Public Health Services. From investigation and monitoring to regulations and policy, to training, applied research and partnerships, PHLs are a key component to assuring not only population health, but also health equity. While infrastructure such as facilities, equipment, reagents and supplies are critical, the foundation of all PHL services rely on a qualified professional and paraprofessional workforce. The complexity of administrative processes at state and local governments and the reliance on federal funding for laboratory operations leaves little flexibility for recruitment and retention of a qualified workforce. With continual loss of funding and increased demand for limited resources, PHLs need new tools to demonstrate their impact on disease prevention and control within the greater public health system.

If the PHL can get agency champions to attend PHL tours with legislators, their participation can add value and enhance the message of the PHLs work and mission. Champions and partners can help provide accolades and insightful acknowledgments of the PHL staff and laboratory capabilities and can discuss how critical the PHL services are in driving public health actions and data driven decisions.

TIP

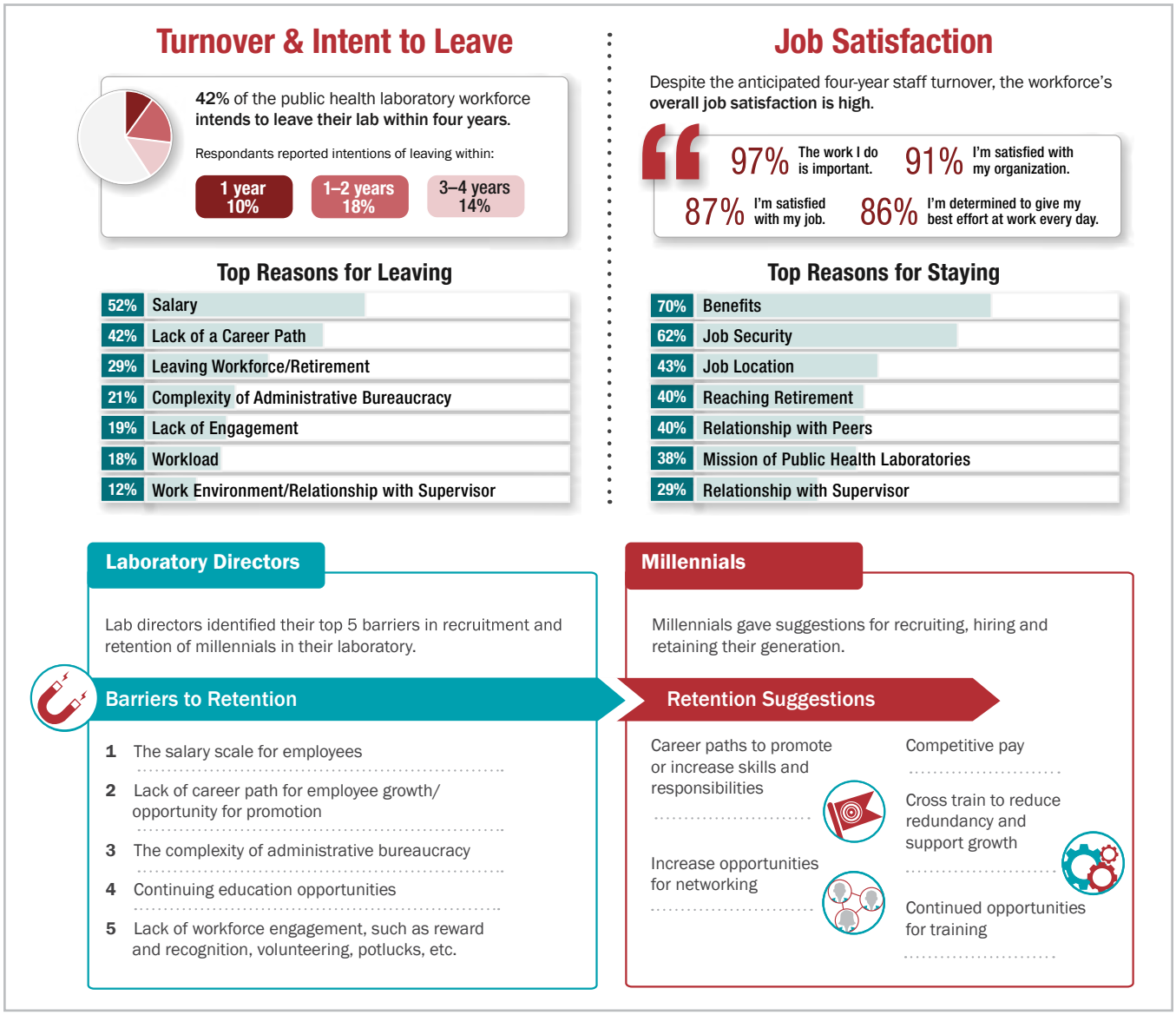
Key messages to decision makers should include the significant challenges with the recruitment of qualified candidates, loss of time invested in recruiting and training laboratory personnel who then chose to leave the PHL for higher salary jobs, and the inability to sustain critical public health laboratory services. Continuing with the efforts the vision of the PHL begins with will likely evolve over time, even if the jurisdiction may have an FTE cap (limit on the number of full-time employees). PHL staff and partners should conduct research and gather as much data as possible to support PHL requests and demonstrate the consequences of losing PHL staff. Advocating for what the PHL needs are (e.g., compensation increases) is a continuous cycle of pulling data and statistics to support the laboratory needs.

To help with communication efforts and showing the relevance and significance of PHL work, APHL has developed a PHL Impact Tool to show the impact from an infectious disease outbreak (Salmonella) which can be used and incorporated as speaking points: Public Health Laboratory Impact Tool (aphl.org)

Other topics and considerations that can impact salary justifications:

- PHLs have unique and special requirements for the work environment and staff.
- PHLs often have on-call staff or duty officers who need to respond 24/7.
- PHLs work with hazardous chemicals and highly infectious diseases and this work should be considered for emergency response and hazard pay differentials.
- PHL staff are considered subject matter experts (SMEs) and often have to provide expert testimony in support of laboratory results and outbreak investigations.
- PHL staff need to have continuing education in order to maintain licensure and certification.

RETENTION RESOURCES



Top Five Retention Factors

According to the 2022 APHL Laboratory Workforce Profile Survey:

1. **Appropriate Work / Life Balance**
2. **Benefits**
3. **Competitive Salary**
4. **Job Security**
5. **Safe / Secure Work Environment**

APHL has developed several toolkits and other resources to help identify and meet the PHL retention needs, including:

- 2022 Laboratory Workforce Profile Survey: Intent to Leave and Job Satisfaction
- 2022 Laboratory Workforce Profile Survey: What Matters Most to New Hires
- APHL Lab Transitions Toolkit
- APHL-Knowledge-Retention-Toolkit.xlsx
- Team Building Toolkit (aphl.org) Incentive Programs

Incentive Programs

In addition to salary increases, PHLs should highlight other incentives they can provide as retention strategies, such as:

- Designated parking spaces or free parking
- Break areas and break times
- Types and frequencies of lab-wide parties or events
- Recognition programs
- Tuition reimbursement
- Employee benefit packages
- Flexible scheduling
- Hiring bonuses (e.g., up to $5000) to attract new employees (one time offer and can be paid out over the first year)
- Spot bonuses (e.g., from $250-1000) for staff who are recognized as going above and beyond
- Meritorious leave
- Retention bonus (e.g., 5% of base salary per year) can be provided to retain key staff / positions

Career Ladders

PHLs should consider providing an outline of possible career growth, such as showing the progression and upward mobility of a position (e.g., moving from a "Scientist 1" to a "Scientist 2", etc.). Informing Individuals in certain positions/position levels that they may be required to meet certain testing competencies over a time period to become eligible for an automatic promotion into a progression position (e.g., "Scientist 1 → Scientist 2"). PHLs should also note that upward mobility is performance based.

PHLs can develop career ladders by strategically reclassifying positions downward. This example can be achieved by breaking up the current laboratory testing processes based on complexity to create different skilled groups so there would in turn be more work available for entry level and early career level positions. This method can also help support potential mentorship opportunities.

APHL has developed the PHL competency toolbox to further assist with career ladder development.

Career Development

A well-trained laboratory workforce is critical to ensuring that PHLs have the capacity to provide the essential services to protect the public's health. Opportunities for continuing education through laboratory trainings, exercises, workshops and webinars help ensure the PHL workforce is educated on the most recent laboratory developments and increases the capacity of qualified personnel available to work in the laboratory. Further, by investing in professional development, laboratory personnel will gain insight into career paths and opportunities for advancement. Some key considerations include:

- Does the PHL sponsor or reimburse staff to obtain certifications or other continuing education (e.g., obtaining an advanced degree, etc.)
- What level of educational support is provided (e.g., tuition reimbursement, time off to attend classes, etc.)
- What career development opportunities may be available (e.g., certification reimbursement, professional organization memberships, paid attendance for trainings and travel, etc.)

Cohort 3 from APHL's Emerging Leader Program developed the Electronic Laboratory Employee Enrichment Toolkit (e-LEET), designed to improve retention in PHLs. It features tools for succession planning, establishing a mentoring program, implementing exit interviews, professional development opportunities, and much more. The Electronic Lab Employee Enrichment Toolkit (aphl.org) includes resources for:

- New Employee Orientation
- Mentoring and Supervising
- Check-In Procedure
- Core Competency Checklists
- Performance Evaluation

Student Loan Forgiveness Program

PHLs should communicate and share resources with staff about student loan forgiveness programs to those who may qualify. PHLs should also consider whether they may be able to provide a student loan forgiveness program with the support of their broader health department. The PSLF (Public Service Loan Forgiveness) Program forgives the remaining balance on direct loans if there has been the equivalent of 120 qualifying monthly payments under an accepted repayment plan, and while working full-time for an eligible employer.

- Public Service Loan Forgiveness | Federal Student Aid
- Public Service Loan Forgiveness (PSLF) Help Tool | Federal Student Aid
- Public Service Loan Forgiveness – The White House
- Public-service-loan-forgiveness-employment-certification-borrower-letter.pdf (studentaid.gov)
- Education Department Announces Permanent Improvements to the Public Service Loan Forgiveness Program and One-time payment Count Adjustment to Bring Borrowers Closer to Forgiveness | U.S. Department of Education
- www.mohela.com/pslf

Additional Resources

In addition to your State Board of Education and State Board of Labor, the following resources will provide support for PHL salary increase efforts:

- QSA-2021-Next-Gen-Recruitment.pdf (aphl.org)
- QSA-2021-PHL-Workforce-Needs.pdf (aphl.org)
- All-Hazards 2021 Survey Report (aphl.org)
- PHL Salary Comparison Dashboard (aphl.org)
- Recruitment – PHL Workforce Survey 2022 (aphl.org)
- New Hires – PHL Workforce Survey 2022 (aphl.org)
- Retention – PHL Workforce Survey 2022 (aphl.org)
- 2022 APHL Laboratory Workforce Profiles Survey Toplines V.11.22.pdf
- Making a Living in Governmental Public Health: Variation in... : Journal of Public Health Management and Practice (lww.com)
- Does Money Matter: Earnings Patterns Among a National Sample: Journal of Public Health Management and Practice (lww.com)
- Major Laboratory Initiatives (aphl.org)
- L-SIP User Guide (aphl.org)
- PHL Workforce Profiles (aphl.org)
- CDC – 10 Essential Public Health Services – Public Health Infrastructure Center
- Public Health Laboratory Experiences Addressing Workforce Compensation Gaps (aphl.org)
- A Practical Guide to Board Examination and Lab Leadership Resources (aphl.org)
- CDC and APHL MMWR, Competency Guidelines for Public Health Laboratory Professionals (May 2015)

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