



Public Health Services Administration

Public Health Services Workforce Development Plan

Introduction

For decades, public health agencies, including those in Maryland, have struggled with challenges recruiting and retaining the right staff, at the right time, for the right positions. Constant fluctuations in federal funding streams, changes in state budgets and hiring requirements, limitations on staff numbers, and long and complex recruitment processes have hindered the ability to build a capable and qualified public health workforce. In addition, governmental public health agencies have faced chronic underfunding.¹

The COVID-19 pandemic, as well as other public health and societal challenges, exposed rifts and gaps in public health infrastructure across the country while deepening existing workforce staffing challenges. Simultaneously, the pandemic disrupted long-time workplace norms, brought challenges in separating work and personal life, and potentially led to increased dissatisfaction and disengagement.²

In an ever-changing public health landscape, the workforce plays a crucial role in an agency's ability to adapt and thrive during change. Investments in the public health workforce are investments in the health, well-being, and resilience of communities. These new and heightened workplace challenges require new and innovative workforce strategies and solutions that address not only the public health workforce but also the spectrum of workforce sectors, including behavioral health and clinical care, that intersect with public health. The purpose of this Workforce Development Plan is to clearly articulate workforce information, goals, objectives, and actions to reinvigorate and renew the workforce in the Public Health Services (PHS) Administration at the Maryland Department of Health (MDH).

¹ [The Impact of Chronic Underfunding on America's Public Health System: Trends, Risks, and Recommendations, 2020](#)

² [Gallup Employee Engagement Surveys](#)

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Public Health Structure and Governance in Maryland

MDH is led by the Secretary of Health, appointed by and reporting to the Governor of Maryland. Within MDH, PHS is led by the Deputy Secretary for Public Health Services, who reports to the Secretary of Health. PHS includes nine units, each under the leadership of a Director reporting directly to the Deputy Secretary for Public Health Services. PHS plays a crucial role in delivering essential public health services for all Maryland residents and enhancing the behavioral health and clinical workforces that work diligently to improve the health of Maryland residents. These services encompass a wide range of areas, such as infectious disease control, environmental health programs, maternal, child, and family health services, food safety, health care quality, preparedness and response activities, public health laboratory services, and vital records.

For workforce-related processes and situations, MDH works closely with the Maryland Department of Budget and Management. This state agency holds oversight for recruitment, hiring, employee classifications, pay, benefits, and other workforce-related state policies and processes.

At the local level, each of Maryland's 24 local jurisdictions has a local health department led by an appointed Health Officer. Health Officers are responsible for appointing staff and enforcing health laws and policies adopted by the state and local jurisdiction. Nominated by a local governing body and appointed by the Secretary of Health, Health Officers outside of Baltimore City (which has a Commissioner of Health locally nominated and approved) report directly to the Deputy Secretary for Public Health Services.

PHS Funding

The FY2024 PHS appropriation is \$777.8 million, excluding local health department core funds. This includes federal, state and special funds.

MDH is the recipient of many federal awards that fund the public health workforce and activities. Typically those funds are intended for specific uses and activities and must be used to hire employees with specific skill sets or for very specific public health subject areas. Most recently, MDH was the recipient of Strengthening U.S. Public Health Infrastructure, Workforce, and Data Systems, also known as the Public Health Infrastructure Grant (PHIG), which is a five-year grant from the Centers for Disease Control and Prevention (CDC) for critical public health infrastructure needs. PHIG provides more flexibility in what can be funded than previous CDC awards. MDH is also the recipient of the CDC Epidemiology and Laboratory Capacity for Prevention and Control of Emerging Infectious Diseases (ELC) and the CDC Crisis Response Cooperative Agreement: COVID-19 Public Health Workforce Supplemental Funding. All of these financial awards have been critical to making progress on public health workforce needs and priorities.

Additional state sponsored support for training, professional development, and staff wellness is also provided through the MDH Office of Human Resources and the Department of Budget and Management.

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Maryland's Population

Maryland is the 18th largest state, with a population exceeding 6.1 million.³ Geographically diverse, it ranges from sparsely populated coastal and mountainous regions to the densely populated I-95 corridor between Washington, D.C. and Baltimore. Maryland's aging population reflects a 41% increase from 2010 to 2021 in those aged 65 years and older.⁴ Maryland witnessed a decline in average life expectancy, dropping from 78.5 years in 2019 to 76.8 years in 2020, with significant variations across jurisdictions.⁵ In 2020, Baltimore City reported an average life expectancy of 71.8 years, contrasting starkly with Montgomery County's life expectancy of 84.2 years, which is the highest in Maryland.⁶ Additionally, in Maryland over one million adults live with disabilities, with this demographic experiencing disproportionate health issues compared to their counterparts.⁷

Racial And Ethnic Composition Of Maryland

Maryland is the fourth most diverse state in terms of racial and ethnic composition, exceeded only by Hawaii, California, and Nevada. Notably, it holds the distinction of being the most diverse state on the East Coast.⁸ At 47% non-Hispanic White, Maryland's 53% minority population makes it a "majority minority" state. The racial and ethnic breakdown of Maryland, based on July 2021 Census estimates, is: Non-Hispanic White (47%), Black or African American (29.1%), Hispanic or Latino (11.8%), Asian (6.8%), American Indian and Alaska Native (0.2%), Native Hawaiian and other Pacific Islander (0.0%), two or more races (4.4%). Additionally, 16.7% of Maryland's population in 2022 was foreign born and over 20% of residents at least five years of age speak a language other than English at home.⁹

Causes Of Death In Maryland

Heart disease, cancer, and stroke have consistently been the leading cause of death in Maryland for over a decade. COVID-19 was the third cause of death in 2020 and 2021. Other leading causes of death in Maryland are primarily chronic diseases (chronic lower respiratory diseases, diabetes, Alzheimer's, kidney diseases, and hypertension); with accidents, influenza and pneumonia, and septicemia also amongst the top causes of death.¹⁰ Mortality secondary to substance use remains a significant concern.

³ [US Census Bureau, "Population Estimate Tables, State Totals, File NST-EST2021-POP](#)

⁴ Maryland Department of Health Vital Statistics Administration

⁵ CDC National Center for Health Statistics

⁶ Vital Statistics Annual Report, 2021, Vital Statistics Administration, Maryland Department of Health

⁷ [CDC, Disability and Health U.S. State Profile Data](#)

⁸ [U.S. Census data](#)

⁹ [American Community Survey, Selected Social Characteristics, Table DP02](#)

¹⁰ [CDC Wonder](#)

Access To Healthcare In Maryland

As of 2021, about 7% of Maryland residents were without health insurance.^{11,12} Racial disparities regarding access to healthcare persist, particularly for Hispanic residents, 22% of whom were uninsured in 2021.¹³ According to the Behavioral Risk Factor Surveillance System, 8.8% of Maryland adults went without care due to cost in the past year.¹⁴

Public Health Services Vision and Mission

PHS affirms the importance of an intentional commitment to building a healthier Maryland for all those who live, work, and play throughout our state.

Vision: A future in which all Marylanders and their families enjoy optimal health and well-being.

Mission: To protect, promote and improve the health and well-being of all Marylanders and their families through the provision of public health leadership and community-based public health efforts, in partnership with local health departments, providers, community-based organizations, and public and private sector agencies, giving special attention to at-risk and vulnerable populations.

Values: Collaboration and Partnership; Science and Data-Driven; Equity, Integrity, Leadership, Innovation and Excellence

MDH Public Health Services Priorities

PHS is guided by the [2024-2027 Public Health Services Strategic Plan](#), which identifies five strategic priorities:

- **Priority 1:** Public Health Infrastructure, including Workforce
- **Priority 2:** Chronic Disease Prevention, with an Initial Focus on Diabetes
- **Priority 3:** Women's Health
- **Priority 4:** Reduce Overdose and Negative Health Outcomes Associated with Substance Use
- **Priority 5:** Violence Prevention

¹¹ [CDC NCHS](#)

¹² <https://www.census.gov/data/datasets/time-series/demo/sahie/estimates-acr.html>

¹³ [Kaiser Family Foundation](#)

¹⁴ [Commonwealth Fund State Data](#)



The PHS Strategic Plan and Workforce Development Plan were developed collaboratively and contain multiple aligned goals and objectives, including an emphasis on the importance of workforce development for public health infrastructure.

MDH Public Health Services Workforce

The FY2024 PHS appropriation includes 1,076 full-time, permanent positions and 184 contractual positions, for a total of 1,260 positions.

Of the filled positions in PHS in December 2023,¹⁵ 80.7% of employees are permanent, full time employees and 19.3% hold either a contractual or temporary employee status. The PHS workforce is overwhelmingly women (76.2%), with men making up 23.6% of the workforce; gender was not declared for two employees. The average age is 46 years old, with the largest group of employees (43%) between 45 and 65 years. Racial and ethnic demographics include African American/Black (45.2%), White/Caucasian (42.3%), Asian American (8.5%), and Latino/Hispanic (2.3%). Native American, Native Hawaiian, and other Pacific Islanders are represented by less than 1% of the PHS workforce. However, data is limited and does not allow for collection of two or more races. Race/ethnicity data was missing for about 1% of the workforce.

The average length of employment with MDH is eight years, and as of December 2023 the majority of PHS employees (55.7%) have been employed with MDH for five years or less.

Impact of the COVID-19 pandemic on the public health workforce

The impacts of the COVID-19 pandemic on the public health workforce will likely never be fully understood. The rapid response and abrupt shift to pandemic response in March 2020 required many workers to take on additional responsibilities with little notice or training, while continuing to fulfill their regular duties. Public health professionals found themselves working long days, nights, weekends, and holidays. Tragically, many public health and health care professionals died from COVID-19, or lost colleagues or loved ones. The toll on mental health was significant and these extraordinary demands led to an unfortunate loss of a substantial part of the public health workforce.

The 2021 Public Health Workforce Interests and Needs Survey (PH WINS), administered by the deBeaumont Foundation and the Association of State and Territorial Health Officials, asked respondents if they experienced certain post-traumatic stress disorder (PTSD) symptoms related to the COVID-19 pandemic. The question was adopted from the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) and those reporting 3 or more symptoms are considered to have probable PTSD.

¹⁵ De-identified demographic data of filled positions was provided by the Office of Human Resources from the Workday employee management system in December 2023

In Maryland, 25% of respondents reported experiencing three or more symptoms of PTSD, meeting the criteria for probable PTSD (Figure 1).

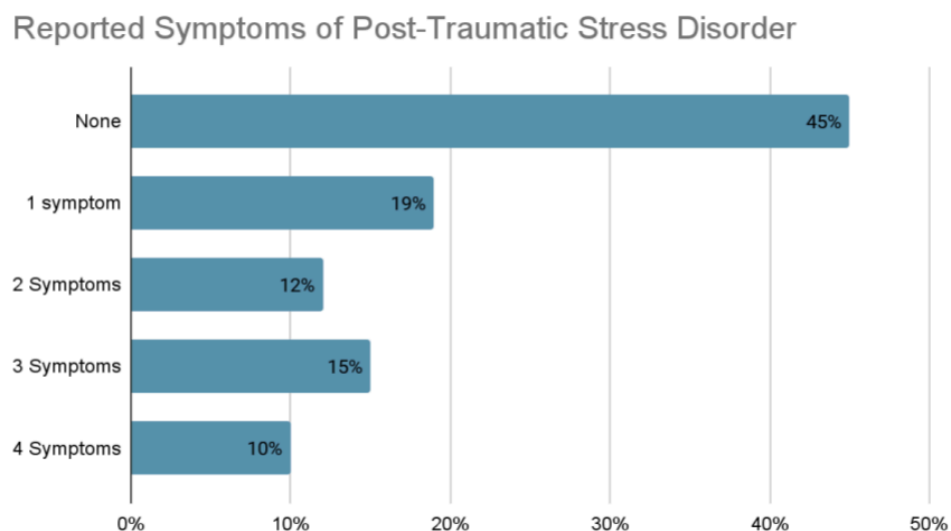


Figure 1. deBeaumont Foundation and Association of State and Territorial Health Officials, Public Health Workforce Interests and Needs Survey: 2021 Dashboard, October 11, 2023

Workplace harassment and violence

Compounding the stress, burnout, and long hours required for the pandemic response, governmental public health workers often went unrecognized, or worse, were harassed for working diligently to protect their communities. These factors often exacerbated underlying burnout, mental health, and job dissatisfaction concerns.¹⁶ Many public health leaders experienced repeated threats to their well-being and safety during the COVID-19 pandemic, which led over 20% to step down, retire, or leave the field entirely, according to a 2023 national study¹⁷.

Intent to leave

The 2021 PH WINS survey polled staff on their intent to stay or leave over the following year. 35% of MDH respondents indicated that they were planning to leave in the following year, which is more than the national average of 27%. In addition, 18% indicated a plan to retire in the following five years, which was significantly higher than the national average of 5%.

The top reasons cited for intending to leave were pay (60%), lack of advancement opportunities (48%), work overload (44%), organizational culture (38%), and stress (37%). The

¹⁶ [Ward et al., 2022. Pandemic-Related Workplace Violence and Its Impact on Public Health Officials. March 2020–January 2021. American Journal of Public Health. 112, 736–746](#)

¹⁷ Horney et al., 2023, Threats to public health workers, *Public Health in Practice*, Volume 6, 2023, 100435, ISSN 2666-5352, <https://doi.org/10.1016/j.puhip.2023.100435>.

top reasons cited for intending to stay were benefits (65%), job stability (58%), flexibility (46%), supervisory satisfaction (44%), and exciting work (42%).

A large exodus of existing workers is financially costly, as the cost to replace an employee is typically at least half of the employees' salary¹⁸; however, the non-monetary cost may be even larger, as long-time employees often "fill in the gaps" of formal policies, improve efficiencies of cumbersome processes, and break down silos across agencies and departments.

Workforce Competencies, Training Needs, and Gaps

Workforce development and training are part of a comprehensive strategy for maintaining a competent workforce and creating a culture of improvement. Fundamental to this work is identifying gaps in knowledge, skills, and abilities through the assessment of both organizational and individual needs, and addressing those gaps through targeted training and development.

PHS has completed a variety of skill and competency assessments to provide information on workforce gaps and needs and to help assess future needs in the changing internal and external environment. Recent skill and competency assessments include: 2021 PH WINS; the Epidemiology and Laboratory Capacity for Prevention and Control of Emerging Infectious Diseases (ELC) Workforce Assessment; a Culturally and Linguistically Appropriate Services (CLAS) Standards Self-Assessment; and a Needs Assessment on Advancing an Informatics-Savvy Public Health Workforce.

PHS uses these assessments, along with new and emerging public health concerns (e.g., declared public health emergencies), changes in legislation (e.g., cannabis legalization in Maryland), agency priorities (e.g., PHS Strategic Plan) and changes in Federal guidance and requirements (e.g., new programs or grants), to prioritize public health workforce goals, objectives, actions, and training plans.

2021 PH WINS Workforce Characteristics and Training Needs

2021 PH WINS provided information on staff proficiency in public health strategic skills. The survey also gathered information about educational attainment, supervisory status, and job roles. Data from the 2021 PH WINS indicates that Maryland's public health workforce is highly educated. Half of the responding employees reported having advanced degrees, compared to the national average of 37%. Additionally, 25% of Maryland respondents indicated having a specialized degree in public health, in comparison to the national average of 14%.

The 2021 PH WINS survey identified "training needs" as a skill item with high importance, but low proficiency. The top identified training needs were: a) budget and financial management (53%); systems and strategic thinking (43%); justice, equity, diversity, and inclusion (40%); community engagement (40%); and change management (36%). The least rated training

¹⁸ <https://www.gallup.com/workplace/247391/fixable-problem-costs-businesses-trillion.aspx>



needs were programmatic expertise (11%) and effective communication (15%). The identified training needs were similarly desired across supervisory levels. One notable difference included the rating of justice, equity, diversity, and inclusion - with 47% of supervisors, managers, and executives indicating this is a training need, but only 33% of non-supervisors indicating this is a training need.

Epidemiology and Laboratory Capacity for Prevention and Control of Emerging Infectious Diseases (ELC) Workforce Assessment

The ELC workforce assessment was developed by the CDC and the Council of State and Territorial Epidemiologists and structured around five domains (Leadership and Management, Laboratory, Bioinformatics, Epidemiology, and Health Information Systems). The domains draw from nationally recognized competency sets including the Core Competencies for Public Health Professionals and the Applied Competencies for Epidemiologists.

The Maryland ELC team assessment did not identify any critical training needs; however, several “medium” level training needs were identified, including bioinformatics; human resources; and policy development and strategic planning. This assessment emphasized the need for identifying, hiring, and retaining a qualified, well-trained and competent workforce to enable the achievement of key objectives.

Culturally and Linguistically Appropriate Services (CLAS) Standards Self-Assessment

MDH conducted a cross-agency cultural and linguistic competency assessment in February 2023 that included key personnel from the Office of Human Resources, Minority Health and Health Disparities, the Prevention and Health Promotion Administration, Maryland Primary Care Program, and the Office of the Deputy Secretary for Public Health Services. The assessment was based on the National Standards for Culturally and Linguistically Appropriate Services in Health and Health Care.¹⁹

The assessment results highlighted opportunities for improvement and provided recommended actions to strengthen the department's capabilities in delivering public health information and services to the diverse residents of the state. The assessment report included recommendations on training, and a recommendation on training the workforce in culturally and linguistically appropriate policies and practices on an ongoing basis. This was rated as “minimally met” as there were some ongoing activities in various program areas, but none that were department-wide. This assessment mirrors PH WINS data showcasing the importance of a culturally competent workforce. Additionally, the diversity of Maryland necessitates a workforce that understands the impact of health equity, and demonstrates cultural humility.

Needs Assessment on Advancing an Informatics-Savvy Public Health Workforce

¹⁹ [National Standards for Culturally and Linguistically Appropriate Services in Health and Health Care.](#)



PHS conducted a needs assessment in 2023 focused on informatics to inform future training opportunities and competency development by gaining a baseline understanding of MDH PHS workforce informatics knowledge, skill sets, and needs. Survey findings reiterated the need for professional development and training in public health informatics, with 77% of respondents indicating that they had completed no professional training in public health informatics, and 77% responding that they were interested in future informatics training provided by MDH. Respondents indicated particular interest in analytics and statistics, data visualization, database design, and coding.

Key Informant Interviews

Discussions on workforce needs and current and emerging training needs were conducted with leadership across MDH. From September 2023 through December 2023, the PHS Workforce Development Director met with PHS leadership and Directors of PHS units, human resource liaisons, the PHS strategic planning team, and the PHS Quality Improvement Program. These discussions reiterated workforce needs and challenges showcased in the other workforce assessments and analysis.

Summary

Recent competency assessments highlight training needs and competency gaps in the PHS workforce. Although the assessments use differing frameworks and terminology, several themes emerged across the workforce assessments. Those themes include: equity/cultural competencies, informatics and digital technologies, systems and strategic thinking, and budget and financial management.

Workforce Goals and Objectives

"Maryland's highly educated workforce, access to markets and capital, and world-class universities, government agencies, a major international airport and military bases make our state better positioned than any place in the world to compete in the new economy"²⁰ – Governor Wes Moore

Goal 1: Attract and recruit qualified candidates.

- **Objective 1:** Strengthen and formalize partnerships with academic institutions.
- **Objective 2:** Create or update job classification series that reflect current public health priorities and their applicability to different settings (Strategic Plan Goal 1; Objective 1.1).
- **Objective 3:** Develop a portfolio of pipeline opportunities that include training in place (Strategic Plan Goal 1; Objective 1.2).
- **Objective 4:** Reduce PHS vacancies.

²⁰ <https://wesmoore.com/wp-content/uploads/2022/03/Moore-Miller-Economic-Policy-One-Pager.pdf>

- **Objective 5:** Evaluate strategies and continued progress in recruiting, maintaining, and sustaining a competent and diverse workforce reflecting the population of Maryland.

Goal 2: Foster an organizational culture of belonging, where staff feel supported and are incentivized to pursue long careers in governmental public health.

- **Objective 1:** Develop an internal communication and employee engagement strategy to increase connection and breakdown silos.
- **Objective 2:** Improve employee satisfaction.
- **Objective 3:** Leverage quality improvement methods to increase efficiency and effectiveness of workforce-related processes.
- **Objective 4:** Establish a Workforce Development Committee to guide PHS workforce strategies and initiatives.
- **Objective 5:** Assess public health workforce capacity.

Goal 3: Create an environment of continuous learning.

- **Objective 1:** Design and implement a comprehensive competency assessment of all PHS staff.
- **Objective 2:** Create opportunities for employees to earn professional certificates from accredited institutes of higher education for professional growth.
- **Objective 3:** Develop workforce knowledge, skills, and abilities in identified priority areas.
- **Objective 4:** Offer training regarding cultural humility, implicit bias, and principles of health equity and social determinants of equity and health among the MDH workforce (Strategic Plan Goal 2; Objective 2.1).
- **Objective 5:** Increase skills and competence in health equity of the public health workforce (Strategic Plan Goal 2; Objective 2.2).
- **Objective 6:** Offer training to MDH and LHD employees that build and increase the foundational public health services and activities (e.g., quality improvement, performance management, etc.) (Strategic Goal 3; Objective 3.3).
- **Objective 5:** Develop Community Health Worker (CHW) speciality curricula to support workforce development through the training and upskilling of the CHW workforce (Strategic Plan Goal 1; Objective 1.4).

Evaluation and Monitoring

PHS will evaluate and continuously improve workforce programming and activities to meet current and future needs. The Workforce Development Plan will be reviewed and updated at least annually to align and realign with evolving agency priorities. The Workforce Development Plan was developed collaboratively with the PHS Strategic Plan and contains multiple aligned goals and objectives. Measures for these strategic plans will be tracked in the PHS Performance Management System. Registration for, participation in, and completion

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of training can be tracked in the Hub, operated and maintained by the MDH Office of Human Resources. Staff can upload completed certificates in the Hub to be included in their personnel file. Additionally, training plans and remote learning can be accessed and tracked through the MDH TRAIN portal.

Conclusion

Investing in the public health workforce is an investment in the health, well-being, and resilience of Maryland residents and communities. Workforce development fosters innovation, promotes equity, improves employee satisfaction, and ensures a more effective response to public health challenges.

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