FORGING A PATH FORWARD:

Identifying Workforce Gaps and Coalition Strategies in Medical and Public Health Laboratories

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INTRODUCTION

The medical and public health laboratory workforce that underpins the U.S. healthcare system is currently experiencing a personnel shortage. According to the Bureau of Labor Statistics (BLS), employment of laboratory professionals is projected to grow 5 percent from 2023 to 2033[1]. About 24,200 openings are projected each year, on average, over the decade[1]. Many of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force, such as to retire[1]. Despite the expected increase in demand for lab professionals in the workforce, the National Accrediting Agency for Medical laboratory Sciences (NAACLS) Annual Survey of Program Results reports only 8,823 laboratory training program graduates in 2024[2], demonstrating the tangible dearth in meeting the projected laboratory workforce needs.

The Medical and Public Health Laboratory Workforce Coalition (MPHLW Coalition) – a federation of 28 member organizations supporting laboratory testing services and/or laboratory testing personnel – was convened in 2023 by the American Society for Clinical Pathology (ASCP). This Coalition was created to leverage the collective voice and acting power of the US medical and public health laboratory workforce in enacting policy and advocacy efforts, sharing best practices, and elevating the visibility of the laboratory profession to grow and strengthen this critical stakeholder in patient health.

Each MPHLW Coalition meeting serves as a strategic forum to showcase laboratory workforce initiatives led by its diverse membership and affiliated organizations. These sessions provide a structured platform for presenting both accomplishments and challenges, facilitating the exchange of best practices, and fostering collaborative opportunities across the Coalition. This sustained dialogue has catalyzed the development of several cross-cutting initiatives, including key nationally-recognized campaigns that underscore the critical role of laboratory professionals, a coordinated presence at a high-impact conference, and a range of joint efforts designed to enhance visibility, influence, and alignment within the field.

In this report, findings from two surveys deployed to members of the MPHLW Coalition are summarized. These surveys sought to perform a situational analysis on if and to what degree MPHLW Coalition members have implemented activities in service of the 9 recommendations set forth in ASCP's 2021 edition of the "Blueprint for Action" – a landmark guide in outlining focus areas for addressing laboratory workforce challenges in the US. The surveys also served to solicit feedback from members on any new needs or gaps identified since the "Blueprint for Action" was published; six new needs are described here. Data collected from the first survey was shared as a means for MPHLW Coalition members to assess their collective impact in addressing each recommendation and prioritize recommendations for future activities identified in the second survey.

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Implementing "Blueprint for Action" Recommendations

ASCP's laboratory workforce priorities over the last 5 years have been strategically driven by the "Blueprint for Action" (Blueprint) recommendations, recognized widely by other laboratory professional organizations as the guiding principles for addressing laboratory workforce challenges in the United States.

To assess what Blueprint recommendations have been addressed since its publication (in 2021) and identify new medical and public health laboratory needs, the ASCP deployed a two-part survey to MPHLW Coalition (Coalition) members in January/February 2025 with the following goals:

SURVEY 1	SURVEY 2
1. **Examine implementation of the recommendations** set forth in the "Blueprint for Action" (Blueprint) by MPHLW Coalition members	1. **Conduct a member self-assessment of how the collective MPHLW Coalition is doing** in addressing the Blueprint recommendations
2. **Identify challenges** experienced by MPHLW Coalition members when implementing Blueprint recommendations	2. **Rate which Blueprint recommendations should be prioritized** the highest for MPHLW Coalition activities
3. **Recognize new medical and public health laboratory gaps/needs** identified by MPHLW Coalition members	3. **Give example(s) of feasible and measurable activities** that should be conducted for the 3 highest priority recommendations

This report summarizes key findings from the surveys, including newly identified gaps and recommendations for activities.

Methods

The surveys were distributed electronically to designated contacts at all 28 member organizations of the MPHLW Coalition. In cases where multiple responses were submitted from a single organization, entries reflecting different perspectives were retained and analyzed independently. Additionally, some Coalition members disseminated the survey to affiliated partner organizations, also representing laboratory testing stakeholders, resulting in responses from individuals representing groups not formally part of the Coalition but closely associated with its active members. Aligned with the goals to examine the Coalition's efforts toward implementing recommendations from the Blueprint and identify potential challenges, Survey 1 asked the respondents to indicate which of the 3 aims and 9 recommendations their organization had addressed between 2021 and the time of survey deployment (January 2025). The survey also asked the respondents to describe any challenges that their organizations had encountered in their efforts to address the recommendations associated with each aim, as well as any new workforce-related gaps or needs that had emerged since the Blueprint was published.

Survey 2 asked the respondents to rate the extent that the Coalition's work had addressed each of the 9 recommendations from the Blueprint (i.e., whether they had been addressed fully, partially, or not at all) based on their review of the results from Survey 1, which had been compiled and shared prior to the deployment of Survey 2. Aligned with the goal of prioritizing the Coalition's subsequent activities, Survey 2 also asked the respondents to rank the 9 recommendations and suggest potential activities that could generate measurable outcomes for the top 3 recommendations that they had ranked as the highest priority.

Results

Survey 1 was completed by 28 respondents, including 19 members of the MPHLW Coalition, corresponding to a survey response rate of 67.9%. In addition, 8 responses were received from organizations not formally affiliated with the Coalition but connected through active Coalition members, and 1 response was submitted by a representative of an existing Coalition member. Survey 2 was completed by 10 members of the MPHLW Coalition, yielding a response rate of 35.7%. Of these respondents, 6 had also participated in Survey 1, allowing for limited longitudinal comparison across the two surveys.

Overall, the top three most implemented Blueprint Recommendations by the coalition were R3, support education programs and clinical training, 75.0%; R6, encourage professional development and promote job satisfaction, 71.4%; and R2, promote visibility of the medical laboratory occupations in high school, college campuses, and professional groups, 57.1%, **Figure 1**. Whereas the three least implemented recommendations were R5, refine recruitment strategies to find qualified laboratory professionals and R7, examine opportunities for on-the-job training, both at 32.1%; and R1, encourage interest in medical laboratory career education and training by exposing elementary and middle school students to the laboratory field, 25.0%, **Figure 1**.

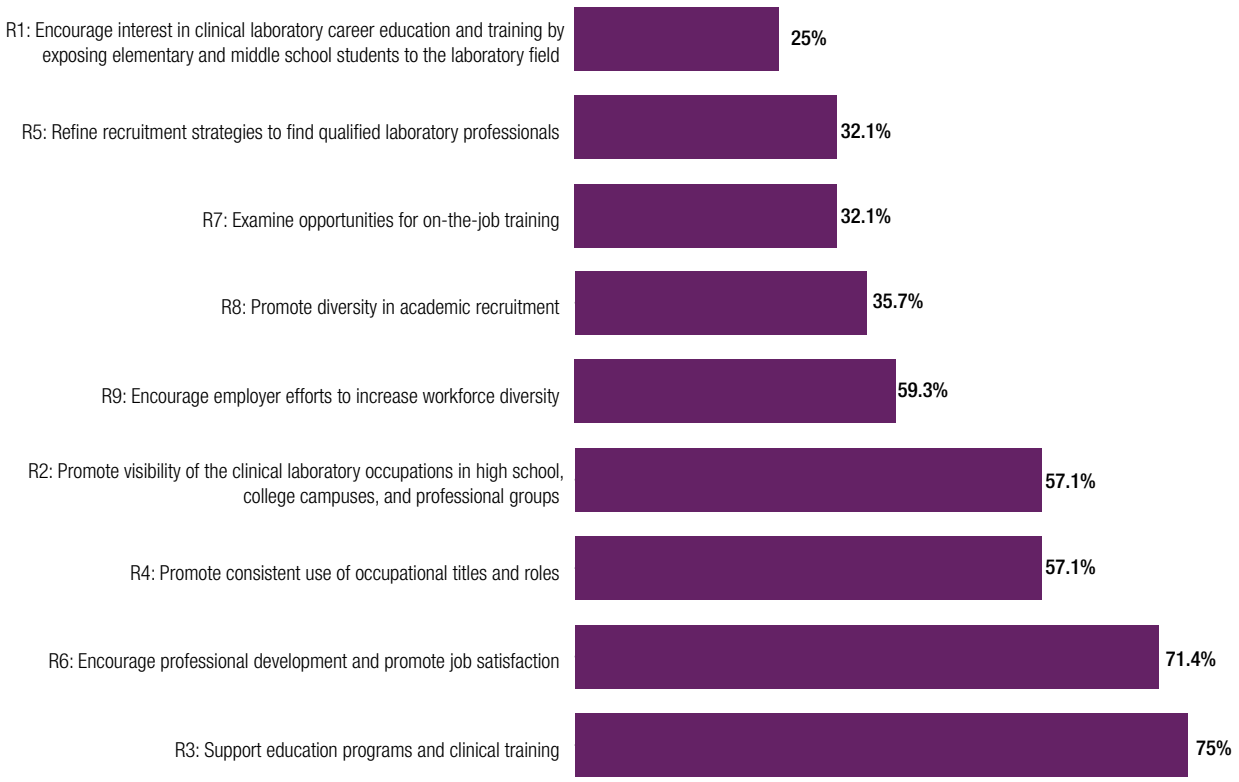

Figure 1. MPHLW Coalition member implementation of "Blueprint for Action" recommendations

AIM 1: INCREASE THE VISIBILITY OF MEDICAL LABORATORY OCCUPATIONS

The first aim proposed in the "Blueprint for Action" is to "increase the visibility of medical laboratory occupations" through the following 4 recommendations:

R1: Encourage interest in medical laboratory career education and training by exposing elementary and middle school students to the laboratory field.

R2: Promote visibility of medical laboratory occupations in high school, college campuses, and professional groups.

R3: Support education programs and clinical training.

R4: Promote consistent use of occupational titles and roles.

When asked "Has your organization's work addressed any of the recommendations from 'Aim 1: Increase the visibility of medical laboratory occupations'?", the largest percentage of respondents, 33.9%, reported Recommendation 3 (R3), as shown in Figure 2.

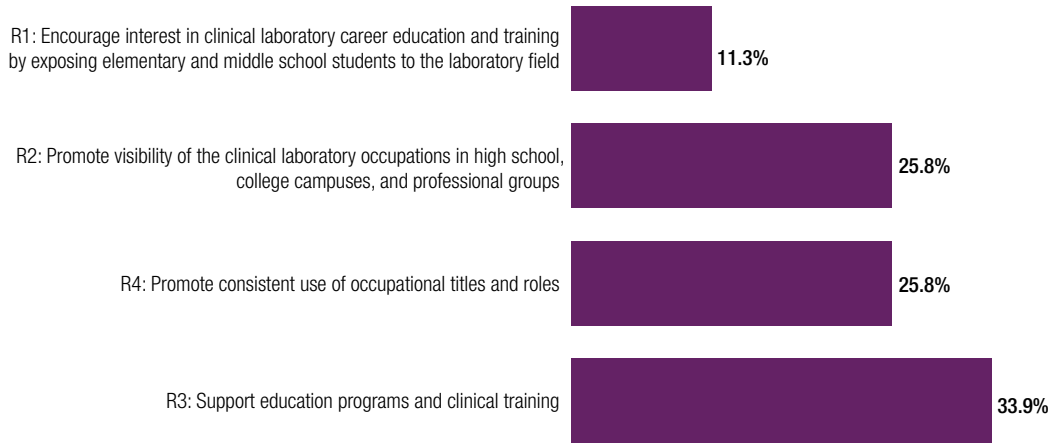

Figure 2. MPHLW Coalition Member Engagement in Aim 1 Recommendations

A subset of the reported activities in service of R3 include offering continuing education courses (e.g. offering PACE or ASCP CME/CMLE credit), developing training and onboarding resources (e.g. SBB or MLS programs, or the NSH Histology Training Program), serving as a clinical site for MLT/MLS students to complete blood bank rotations, or ASHI labs providing educational opportunities to MLS students. Members also reported collaborating between organizations (e.g. Labvocate, etc.) as a way to support implementation of this recommendation. Nearly 40% of the respondents communicated and emphasized the importance of careers in the medical laboratory to government institutions and educational institutions/organizations.

Activities in service of Recommendations 2 and 4 (R2 and R4) were each described by 25.8% of respondents. To "promote the visibility of medical laboratory occupations in high school, college campuses, and professional groups (R2)," MPHLW Coalition members used both sub-strategies identified in the Blueprint, including to: 1) design and distribute resources that show the different types of lab professions and opportunities in the field to these target audiences (51.9% engagement observed), and 2) promote awareness by networking with academic, employer, and professional clubs/societies (48.1% engagement observed). Using a combination of approaches including standardizing and clarifying the nomenclature used for roles/professions that comprise the medical laboratory workforce (55.6% engagement) and then directly promoting these nomenclature recommendations (40.7% engagement), MPHLW Coalition members were able to contribute to execution of R4 for the promotion of the consistent use of occupational titles and roles.

The weakest engagement on Aim 1 recommendations was observed for Recommendation 1 (R1), where only 11.3% of respondents acknowledged conducting work in this space since 2021. Specific examples of reported activities include annual hands-on career days during annual conventions, distribution of career day resources to members, developing new committees to focus on future-state needs of the laboratory workforce, creating new qualifications for the diagnostic health category of the workforce, and targeted partnerships with other organizations (e.g. NCHSE, STEAM, HOSA, IGNITE, INSPIRE) to synergize on initiatives to elementary and middle school students.

MPHLW Coalition members reported similar challenges in implementing activities for R1 and R2, focused on promoting the visibility of the medical laboratory field and occupations. These include a lack of: 1) staff support or time to conduct or participate in outreach or marketing programs, 2) centralized resources to easily implement outreach activities for K-12 students, 3) high-level support from executive leadership to expand visibility efforts, and 4) updated information on laboratory careers on platforms geared toward K-12 students or educators. While no specific challenges were reported for implementation of R3, members experienced difficulties enacting naming or nomenclature changes (in service of R4) in licensure states and within organization names (due to branding differences and recognition challenges), which were further compounded by often needing support from other parties to implement these changes.

AIM 2: EXPAND AND IMPROVE WORKFORCE RECRUITMENT AND RETENTION

The second aim proposed in the "Blueprint for Action" is to "expand and improve workforce recruitment and retention" through the following 3 recommendations:

R5: Refine recruitment strategies to find qualified laboratory professionals

R6: Encourage professional development and promote job satisfaction

R7: Examine opportunities for on-the-job training

When asked "Has your organization's work addressed any of the recommendations from 'Aim 2: Expand and improve workforce recruitment and retention'?", the greatest engagement was observed with activities in support of Recommendation 6 (R6), with 50% of respondents indicating activities conducted here.

Figure 3. MPHLW Coalition Member Engagement in Aim 2 Recommendations

MPHLW Coalition members reported the following specific activities in support of R6: providing scholarships for professional advancement, hiring laboratory professionals (e.g. histotechnicians) directly as staff in their organization, providing live and on-demand courses for professional development, promoting leadership aspects (including training) outside of the medical laboratory, hosting career center websites that provide resources for professional development, and sharing webinar/seminars on careers in other laboratory sectors (e.g. ADLM's "Careers in Industry" seminar series, ASCP's "Building Bridges Across the Laboratory Community" webinar series, etc.).

Member engagement in Recommendations 5 and 7 (R5 and R7, respectively) showed relatively low participation in these activities (22.5%, each) though specific activities for each recommendation were cited. A few reported activities in support of R5 to "refine recruitment strategies to find qualified laboratory professionals" include launching focused and targeted advertising, scholarship programs (e.g. ASCP's Dr. Alvin Ring Empowerment Scholarship for Laboratory Professionals, which offers medical education scholarships to a wide scope of applicants – from high school seniors looking to start laboratory careers to in-service lab professionals interested in advancement), and ASCLS's Association of Medical Laboratory Education Programs (AMLEP) (which provides peer-to-peer support and programming in the areas of student recruitment/enrollment management, clinical experiences, and program advocacy at the institutional-level).

MPHLW Coalition members also "explored opportunities for on-the-job training for the laboratory workforce" (R7) by offering incentives for advanced education, training interested individuals whenever possible, and developing structured onboarding and training programs for laboratory professionals (e.g. the NSH Histology Training Program which offers both self-paced didactic training as well as live education). ASCP Board of Certification (ASCP BOC) exam committees also regularly update exam eligibility language related to on-the-job experience to match best practices and expectations of the medical laboratory job market.

The challenges reported by MPHLW Coalition members in implementing recruitment strategies to find qualified lab professionals (R5) included lacking the capacity to directly hire or retain laboratory personnel, having insufficient support from executive leadership and/or budget limitations, inability to offer competitive compensation and benefits, and the seeming preferential prioritization of hiring and career advancement of certain laboratory personnel over others (e.g. observational reporting that medical laboratory science personnel were more heavily recruited, retained, and invested in for career development over anatomic pathology staff, etc.). The ability to encourage professional development and promote job satisfaction (R6) was further limited by workforce shortages impacting job satisfaction/well-being and a lack of proactive management engagement in this initiative. Finally, training needs in "soft skills" were identified (including professionalism, communication skills, and etiquette) which impacted the ability to successfully implement on-the-job training.

AIM 3: CONTINUALLY INCREASE THE DIVERSITY AND INCLUSION OF THE MEDICAL LABORATORY WORKFORCE

The third aim proposed in the "Blueprint for Action" is to "Continually increase the diversity and inclusion of the medical laboratory workforce" through the following 2 recommendations:

R8: Promote diversity in academic recruitment

R9: Encourage employer efforts to increase workforce diversity

When asked "Has your organization's work addressed any of the recommendations from 'Aim 3: Continually increase the diversity and inclusion of the medical laboratory workforce'?", greater than one third of respondents indicated engagement in these Recommendations 8 (R8, 35.7%) and 9 (R9, 39.3%), respectively.

Figure 4. MPHLW Coalition Member Engagement in Aim 3 Recommendations

Although limited feedback was provided, one MPHLW Coalition member cited direct engagement with university deans of allied health training programs to help define/refine future needs of the medical laboratory workforce. Nearly half (46.7%) of respondents engaging in R8 identified groups, agencies, and other organizations that support students from underserved communities and formed partnerships to promote laboratory careers.

Regarding implementation of employer engagement to increase workforce diversity (R9), MPHLW Coalition members acknowledged maintaining and encouraging a culture of openness and inclusivity to hire anyone willing to learn (if they meet basic requirements) as well as developing educational programming on identifying opportunities to increase systemic inclusion within the workforce. The majority (75%) of respondents engaged in R9 activities self-reported their organization participating in increasing awareness of the importance of diversity and inclusion in the laboratory.

The recognized challenges of implementing Aim 3 recommendations included getting qualified candidates for laboratory positions (in general), executive orders prohibiting implementation of DEI programs or trainings at federal facilities or with federal funding and facing difficulties raising awareness of the importance of diversity and inclusivity for the laboratory workforce into organizational culture and discussions.

IDENTIFYING NEW GAPS IN SUPPORT OF THE MEDICAL AND PUBLIC HEALTH LABORATORY WORKFORCE

Recognizing that the landscape of the medical and public health laboratory workforce is constantly evolving, MPHLW Coalition members were asked, "With respect to the US medical and public health laboratory workforce, are there any new gaps/needs your organization identified since the Blueprint was published?" This question resulted in mixed results with 50% indicating that no new gaps/needs were identified, while the other 50% were split equally between recognizing new needs (Yes, 25%) and being unsure of whether there were new needs (Not sure, 25%). The following 6 needs were identified by MPHLW Coalition member organizations:

1
There is a workforce advocacy need to push more for **structured nomenclature on a national level**.

2
There is a **training need for training/ instruction on communication skills** that will assist a lab professional in: 1) collaborating with others, and 2) communicating in writing.

3
Accelerated use of AI/ML in image analysis, the use of digital pathology, and the use of histotechnicians in molecular science **should be addressed in the education and career pathways for histotechnicians**, by updating "Practice & Policy Environment Changes" previously outlaid in the Blueprint.

4
Higher elevation of advocacy is required specifically for **AP staffing shortages** (HT, HTLs, Pathologists, PAs) and the perception that AP staffing needs are not recognized or valued to the same extent as CP staffing needs.

5
In order to execute wide-reaching recruitment to the next-generation of laboratory professionals, outreach should be conducted to **educational platforms**, with **updated laboratory career information and recruitment materials**.

6
There is a need for more concerted **support to hire immigrants** (with appropriate education, training, and experience) to alleviate the US laboratory workforce shortage.

MPHLW COALITION CONSENSUS ON PRIORITIZATION OF BLUEPRINT RECOMMENDATIONS

In the second survey deployed, MPHLW Coalition members were asked to: 1) appraise how the MPHLW Coalition was collectively doing with regards to addressing Blueprint recommendations, 2) rate which recommendations should be prioritized specifically for the MPHLW Coalition's synchronized activities, and 3) provide examples of feasible and measurable activities for the highest priority areas.

Figure 5 shows the degree to which respondents indicated each recommendation was successfully addressed by the collective actions of the MPHLW Coalition, with R2-R5 recognized as having significant progress made (i.e. >50% of respondents characterized it as being significantly or fully addressed) and R7-8 recognized as having the least amount of progress made (>50% respondents characterized it as being not to minimally addressed).

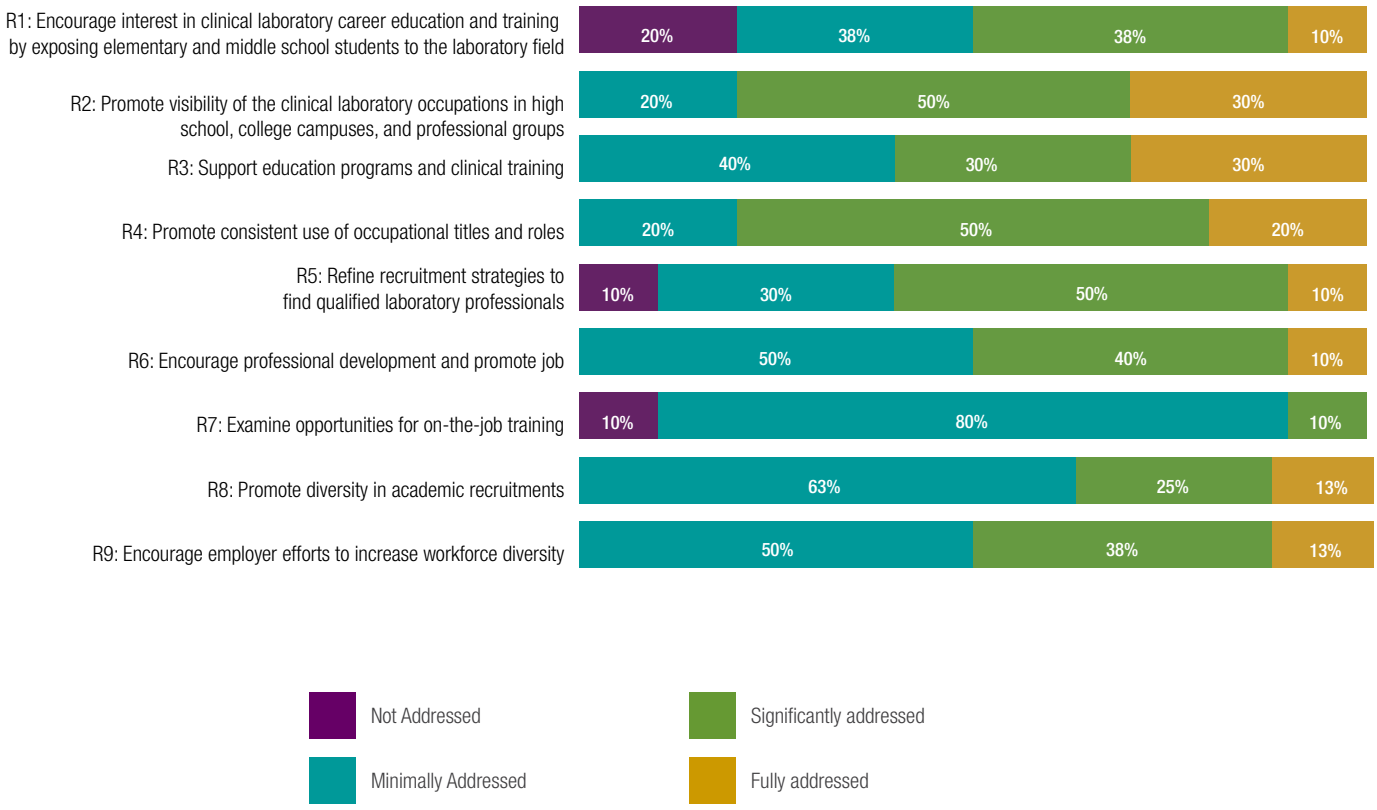

Figure 5. To what extent has the MPHLW Coalition collectively addressed each recommendation from the Blueprint?

With respect to prioritization of the recommendations for the greater MPHLW Coalition, **Table 1** shows the ranked order by mean score (where 1 represents the highest perceived priority for MPHLW Coalition activities, and 9 represents the lowest perceived priority for MPHLW Coalition activities). The top 3 most highly prioritized Blueprint Recommendations were: 1) promoting visibility of the medical laboratory occupations in high school, college campuses, and professional groups (R2, mean score of 2.3), 2) supporting education programs and clinical training (R3, mean score of 2.7), and 3) encouraging professional development and promoting job satisfaction (R6, mean score of 4.1). Encouraging employer efforts to increase workforce diversity (R9) was the lowest prioritized recommendation according to respondents, with a mean score of 8.2.

Recommendation	Mean Score	Min Score	Max Score	Standard Deviation
R2: Promote visibility of medical laboratory occupations in high school, college campuses, and professional groups	2.3	1	5	1.3454
R3: Support education programs and clinical training	2.7	1	5	1.3454
R6: Encourage professional development and promote job satisfaction	4.1	2	6	1.4457
R5: Refine recruitment strategies to find qualified laboratory professionals	4.4	1	9	2.2000
R1: Encourage interest in medical laboratory career education and training by exposing elementary and middle school students to the laboratory field	4.8	1	9	2.6758
R4: Promote consistent use of occupational titles and roles	4.8	1	8	2.5612
R7: Examine opportunities for on-the-job training	6.7	1	9	1.0050
R8: Promote diversity in academic recruitment	7	4	8	1.5492
R9: Encourage employer efforts to increase workforce diversity	8.2	6	9	1.5492

Table 1. Blueprint Recommendations by Ranked Order of Priority by the MPHLW Coalition

In all cases, the top 3 Blueprint Recommendations were also characterized as demonstrating significant progress (i.e. 50-80% of respondents perceived them as being significantly to fully addressed status). Taken together, this indicates that while they represent areas where activities have been conducted by MPHLW Coalition partners, coordinated and strengthened engagement by the MPHLW Coalition is still viewed as being critical. By contrast, the two lowest prioritized recommendations (R8-9), were ones which 50-63% of respondents characterized as being only minimally addressed; however, they are perceived to be low-priority items at this time. Two respondents of Survey 2 did not provide feedback on perceived progress related to Recommendations 8-9.

IDENTIFYING ACTIVITIES FOR MPHLW COALITION ENGAGEMENT

For each member's top 3 ranked priority recommendations, they were asked to provide specific examples of feasible and measurable activities. Activity ideas were submitted for R1-6 only, with R7-9 lacking prioritization or feedback.

In the case of R2, voted the highest prioritized recommendation for collective focus of the MPHLW Coalition, suggested activities were focused in three main areas: 1) engagement with science teachers and school counselors, 2) laboratory outreach activities & opportunities, and 3) leveraging social media. **Table 2** summarizes the specific activities suggested for each sub-topic in service of promoting visibility of the medical laboratory occupations in highs school, college campuses, and professional groups (R2).

Science Teachers & School Counselor	Laboratory Outreach Activities & Opportunities	Leveraging Social Media
Create and maintain **database for teacher and counselor associations** – key information on their membership, events	"Work-the-landscape" of the relevant networks with clear messaging to the community of laboratory professionals, emphasizing that this is a **shared responsibility**	Higher-level videos on laboratory career pathways on **TikTok**
Collate resources from MPHLW Coalition and send representatives to meetings/ conferences (HOSA, ASCA, ASCLS, ASCP, etc.) to **share approved information with attendees to pass on to their students**	Look for opportunities to provide **summer internships** to high school or college students	Promote lab careers through **social media targeting of this age of student**
Design and execute **outreach to high school guidance** counselors and college. career centers. E.g. Collective MPHLW Coalition (ASM, ASCP, and COLA) presence at ASCA Conference 2025 (See Outreach section in Discussion)	Promote opportunities for **job shadowing, internships, lab tours, activities at a laboratory.** E.g. APHL's Public Health Laboratory Internship Program	Create **videos** of the lab field, life in the lab, lab roles and push it out through **social media to create a social media marketing campaign** Present stories, clinical lab career, opportunities, benefits, patient impact stories, etc.
Package **case study exercises that science teachers can use** to stimulate interest in lab science Conduct **pre- vs. post-engagement surveys** to assess if exercise made an impact in considering a career in lab science	Participate in **school fairs, tudent-facing conferences** (HOSA, ASCA, etc.)	
	Engage connections **with local schools**, make **videos/ presentations** to present at schools, **hands-on activities, create a guide/toolbox of activities and examples** to support labs and educators. E.g. ASCLS's Career Recruitment Toolkit, APHL's STEM Recruitment Toolkit, and ASCP's Lo-Fi Laboratory Engagement Guidebook	

Supporting education programs and clinical training (R3) was voted the second highest prioritized recommendation, and specific activities recommended by MPHLW Coalition members primarily fell into 3 groups of sub-activities: 1) providing clinical educator support, 2) supporting clinical education programs, and 3) legislative actions. **Table 3** below summarizes activity suggestions provided by members of the MPHWL Coalition.

Medical Laboratory Educator Support	Clinical Education Program Support	Legislative Actions
Create **SOPs for medical laboratory educators**	Perform **needs assessment survey for medical laboratory training program**s to better understand their perceived needs	Advocate and fight for legislation that's affecting the profession
	Collaborate with lab science programs to **host informative reception for prospective students** Measure who attends vs. who applies and is accepted into program Seek industry sponsor to cover event costs (e.g. food, etc.)	Offer **grants and scholarships to laboratories and academic institutions to expand clinical training** for students
	Provide education in the space of **population health, public health, informatics, and value-based care**	Advocate for students with **529 plans to be permitted to use these funds for laboratory programs** that are not recognized by the U.S. Department of Education (e.g.,Council for Higher Education Accreditation, CHEA, recognized)
		Find ways to allow students in programmatic accredited agencies/organizations to take out **student loans**

Blueprint Recommendation 6 (R6) was voted the third highest prioritized focus area – to encourage professional development and promote job satisfaction. Specific activities in service of this recommendation were focused on making career growth for laboratory professionals more fun and implementing professional development and job satisfaction opportunities in ways that were more actionable. Summarized activities for R6 are provided in **Table 4** below.

Make Career Growth Fun	Actionable Implementation of Professional Development and Job Satisfaction Opportunities
Professional societies should focus more on **attracting young professionals** (while maintaining current members)	**Create a plan** for how frequently (overworked) **staff can make time for professional development** within their workday
Annual meetings should be **tailored to fun, entertainment-related activities, rather than just "learning."** Leverage opportunities to network. Choose locations where young professionals can bring their families. Some meetings also offer childcare services to increase inclusivity.	Brainstorm ways to **promote job satisfaction** beyond what is currently used
Webinar or podcast series featuring lab science professionals who have advanced to unique and rewarding careers Promote the series to lab scientists looking to advance their careers. E.g. ADLM's Careers in Industry series, ASCP's Building Bridges webinar series	Conduct surveys among laboratory professionals on ways to improve job satisfaction. ASCP studies on wellness, burnout, job satisfaction
	Consider ways to promote laboratory professions as attractive careers by creating metrics for professional development and promotion. Inclusive of supervisor and leadership training, opportunities exist here (e.g. "Leading Laboratories" Initiative, etc.)

With respect to the other 6 recommendations that were not considered among the top 3 priority areas, the following included some of the activity suggestions provided by MPHLW Coalition members: Tik Tok videos for elementary and middle schoolers (R1), promoting school-based programs (e.g. STEAM, IGNITE, INSPIRE; R1), coordinating with MPHLW Coalition organization journals and departments to promote consistent use of nomenclature across published materials and advocacy articles (R4), launching awareness campaigns to adopt standardized occupational titles (R4), partnering with academic institutions to incorporate standardized occupational titles into lab science curriculum (R4), working with certifying bodies and state regulatory boards to standardize licensure titles (R4), developing practical approaches to recruitment (like focusing on time-to-degree, salary differences between clinical and non-clinical jobs, student loan debt reduction) and advantages of pursuing a medical laboratory science degree over a 4-year undergraduate science degree (R5), creating career awareness toolkits explaining lab professions, career paths, and salary expectations (R5), and partnering with STEM programs and career job fairs (R5).

Discussion

The medical and public health laboratory workforce looks to unite over universal shortages, underpinned by multi-faceted issues such as inadequate recruitment of the next generation of laboratory professionals due to the lack of visibility of laboratory career pathways, inability to retain and advance in-service laboratory professionals, insufficient compensation, and planned retirement. It is more critical than ever to align concerted efforts across organizations and institutions supporting the medical and public health laboratory workforce to leverage its collective agency in advocating on behalf of the needs of those working in the field.

Outreach. Although survey response rates varied (67.9% for survey 1; 35.7% for survey 2), survey data consistently supported the prioritization of Recommendation 2 (R2; Promote visibility of the medical laboratory occupations in high school, college campuses, professional groups). Not only was R2 the highest priority focus area (with the top ranked position across all recommendations) but outreach to educational platforms with updated laboratory recruitment materials (in support of this recommendation) was identified by the MPHLW Coalition as a newly emerged gap affecting the laboratory workforce.

Following an open call to all MPHLW Coalition members, a group of representatives from member organizations ASM, COLA, and ASCP collectively exhibited at the American School Counselors Association (ASCA) Conference (July 2025). This meeting attracted over 4000 high school counselors, educators, and administrators across the US. Working together to synergize resources and talking points, Coalition representatives promoted the laboratory profession to an estimated 200+ attendees interested in direct engagement from laboratory ambassadors able to provide on-site education to their student populations. This activity demonstrates the outstanding potential of leveraging the collective voice of laboratory scientists through MPHLW Coalition activities and should be used as a model for future outreach activities.

Advocacy. Strengthening federal legislative advocacy in service of the laboratory workforce was also seen as a strong priority across MPHLW Coalition feedback. These advocacy efforts spanned a range of focus areas including: 1) promoting direct hiring of international laboratory scientists (immigrating to the US), 2) supporting mechanisms that financially alleviate the burden of laboratory science education (e.g. scholarships, grants, using 529 contributions toward lab programs, federal loans open to students in programmatic accredited agencies, etc.), and 3) pushing for more structured nomenclature of laboratory occupational titles on a national level (i.e. mitigating differences with licensure states, elevating the profession overall, and supporting equitable compensation and benchmarking for laboratory professionals).

Retention and diversity. As a collective, data show that more focus on retention and diversity strategies is still needed. According to the 2022 ASCP Vacancy Survey, "there is an urgent need to focus not only on recruitment, but equally as important, retention of laboratory professionals[3]." Current studies have shown that diverse teams are 87% better at making decisions, and companies that have a highly inclusive culture have 2.3x more cash flow per employee. This data demonstrates the implicit value and return on investment (ROI) that diversified workforces contribute to operational efficiencies[4]. Additionally, positive outcomes on financial stability and growth (increased productivity and increase in marketing opportunities) and community (improved cultural awareness and positive reputation) are demonstrated by having a diverse workforce[5].

Although these two areas may present greater complexity given institutional constraints, there are free topical resources available to laboratory professionals via resources from the MPHLW Coalition and the ASCP's Support of the CDC OneLab™ Initiative websites. This report should be reviewed and made actionable by members of the MPHLW Coalition. Additionally, federal representatives may benefit from consideration of this information to advocate on behalf of this invaluable stakeholder group at the heart of patient diagnosis and treatment.

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