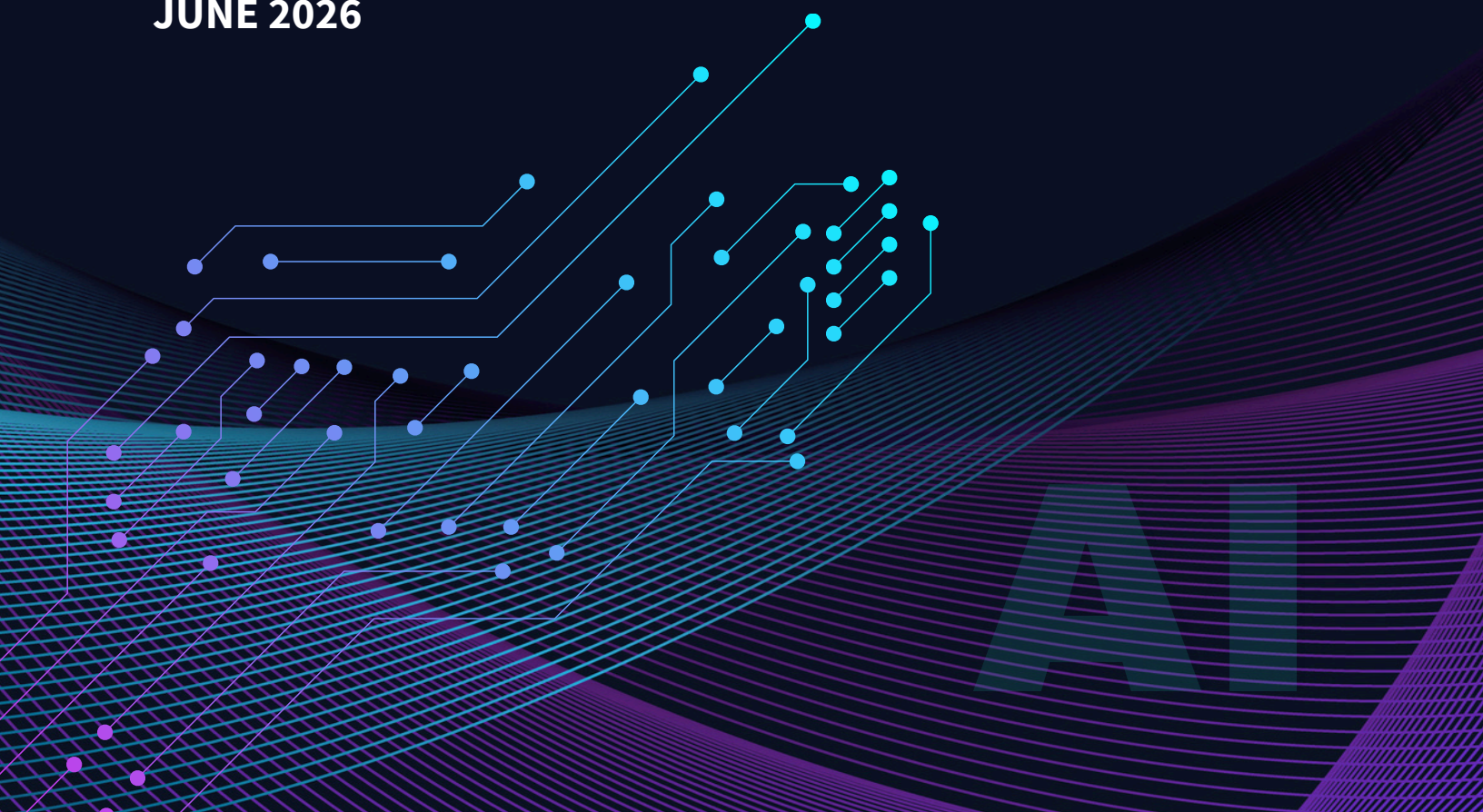
ASPPH ASSOCIATION OF SCHOOLS & PROGRAMS OF PUBLIC HEALTH

ASPPH ARTIFICIAL INTELLIGENCE FRAMEWORK:

HARNESSING INNOVATION FOR ACADEMIC PUBLIC HEALTH

EXECUTIVE SUMMARY

JUNE 2026



MESSAGE FROM ASPPH PRESIDENT AND CEO

Artificial Intelligence is not simply another technological advancement. It represents a defining moment in the evolution of public health—one that will reshape how we educate future leaders, generate knowledge, improve decision-making, and advance the health and well-being of populations worldwide.

With this transformation comes both extraordinary opportunity and profound responsibility. The choices we make today will determine whether AI becomes a force that advances equity, strengthens trust, and expands human potential, or one that deepens existing disparities. Academic public health must therefore lead—not merely adapt—to ensure that ethics, evidence, transparency, and a steadfast commitment to the public good guide innovation.

It is with great pride that ASPPH presents this framework as a resource for our member schools and programs, as well as for public health educators, researchers, practitioners, and policymakers worldwide. Grounded in the principles of equity, accountability, human-centered design, and responsible stewardship, this framework offers a pathway for integrating AI across the academic public health enterprise while ensuring that human judgment, compassion, and public trust remain at its core.

This work reflects the collective vision and dedication of leaders across our field who recognize that the future of public health will be shaped not only by technological innovation but also by the values that guide its application. On behalf of the Association of Schools and Programs of Public Health (ASPPH), I extend my deepest gratitude to the members of the ASPPH Task Force for the Responsible and Ethical Use of Artificial Intelligence in Public Health Research, Practice, and Education. Their expertise, commitment, and collaborative spirit made this framework possible. I am especially grateful to Dr. Ashish Joshi, Chair of the Task Force, whose leadership, insight, and unwavering dedication helped bring this important vision to life.

As we look ahead, we must embrace a future in which technology amplifies—not replaces—human wisdom, creativity, and purpose. We hope this framework serves as a catalyst for bold innovation, meaningful collaboration, and transformative leadership across the globe. Together, we have an opportunity to shape an AI-enabled future that strengthens public health, advances equity, and improves health outcomes for all.

The future of public health is not something we are waiting to inherit. It is something we are building today.

Warmly,

Laura Magaña, PhD
President and Chief Executive Officer
Association of Schools and Programs of Public Health

MESSAGE FROM THE CHAIR

We are living in a world where technological acceleration and adoption are evolving at an unprecedented pace. Public Health needs to respond to the rapid advancement of artificial intelligence (AI) and its influence on public health teaching, learning, research, policy, and practice. AI in public health can transform this process by automating data analysis, quickly identifying potential outbreaks, and issuing timely warnings. AI tools and technologies can optimize resource allocation and play an increasingly important part in public health communication.

Public health must harness the power of AI to meet the health challenges of the 21st century.

Although AI's potential in public health is considerable, there are notable challenges to its widespread adoption. One of the most important considerations is developing AI systems with an equity lens that adequately represents diverse populations. AI models are often prone to bias, and it is crucial that data privacy is maintained when implementing AI in public health.

For academic public health, this moment presents both extraordinary opportunity and profound risk.

The Association of Schools and Programs of Public Health (ASPPH) has initiated efforts to explore the responsible and ethical use of AI within public health education, research, and practice, reflecting growing recognition of the technology's potential impact on the field.

The ASPPH AI task force was established with an aim to position academic public health as an active leader in shaping ethical adoption of AI, with the goal of strengthening healthcare systems and responding to public health threats. The task force consisted of a multidisciplinary group of professionals, including faculty, staff, and practitioners in epidemiology, health policy, data science, biostatistics, community engagement, as well as healthcare and technology industries.

Over the last year, we held town halls and listening sessions to gather "on-the-ground" feedback from faculty, students, administrators and other stakeholders. Additional consultation on the application of AI in Public Health was obtained across various platforms, including webinars, conferences and other public forums.

This mix of perspectives helped ensure the framework was grounded in academic expertise and practical for real-world use.

The taskforce identified four focus areas essential to institutional readiness including Public Health Education (focusing on curriculum, competencies, and preparing graduates for a technology-enabled workforce), Teaching and Learning (addressing the ethical and effective use of AI in classrooms to enhance student engagement without compromising integrity), Practice and Research (exploring how AI can strengthen surveillance, discovery, and applied practice while maintaining public trust and community engagement) and Policy, Regulatory and Architectural frameworks (establishing governance structures and safeguards to ensure transparency and alignment with public health values).

MESSAGE FROM THE CHAIR (CONTINUED)

In addition to the consultative sessions over the last year, we aggregated and published evidence around the current state of AI usage not only in schools and programs of public health but universities at large. Both the qualitative and quantitative results indicate that the current environment of AI use governance is centered around student and faculty use in the classroom, with an emphasis on effective integration, enforcement of academic integrity, and assurance of ethical use through multiple scopes.

The review identified six areas of focus around AI, including its usage policy/pedagogical guidance, academic integrity/misconduct guidance, data privacy/security guidelines, software access guidance, ethical considerations, legal policy compliance, and AI detection/disciplinary action guidance.

To ensure ethical and responsible use of AI in public health, we need to prepare students with the necessary AI skills, knowledge, and competencies that can quickly adapt to these rapidly changing environments of AI practices. We also summarized the first job task analysis of publicly available public health jobs requiring AI skills. Our findings identified employer demand for AI roles in public health and the need to align public health education, workforce development, and public health certification with evolving AI-related skill requirements to build a sustainable and future-ready public health workforce.

This work has gained significant momentum and it is imperative that ASPPH and member schools and programs prioritize investment in AI-powered simulations, develop updated education for faculty through dedicated workshops and courses focusing on AI literacy, ethics and applied teaching methods, foster technical literacy and ethical awareness by providing students with exposure to AI tools, followed by critical reflection on their use and limitations and prioritize safety, transparency, accountability and equity in the selection and evaluation of all AI tools included in the public health curriculum.

Today, public health requires reimagination, innovative out-of-the-box thinking, multisector collaborations and partnerships towards shaping what responsible and ethical use of AI can do in public health.

It is a moment for academic public health leadership to keep pace with technological change and be forward-looking. It is important that we continue to be at the forefront of this rapidly evolving role of AI in Public Health and build cross-institutional, cross-sector partnerships that will allow us to share AI-related best practices, knowledge, tools and technologies that are safe, equitable, responsible and ethical, to build a resilient public health system.

Ashish Joshi, PhD, MBBS, MPH
Dean and Distinguished University Professor
University of Memphis School of Public Health

ASPPH ARTIFICIAL INTELLIGENCE FRAMEWORK:

HARNESSING INNOVATION FOR ACADEMIC PUBLIC HEALTH

EXECUTIVE SUMMARY

Artificial intelligence (AI) is no longer a speculative technology on the horizon. It is already reshaping how institutions analyze data, make decisions, communicate information, conduct research, and prepare the future workforce. For academic public health, this moment presents both extraordinary opportunity and profound risk.

Like sanitation infrastructure, vaccination, and modern epidemiologic surveillance before it, AI represents a systems-level shift with the potential to fundamentally alter public health practice. But unlike prior technological transitions, the pace, scale, and uncertainty surrounding AI are unprecedented. The public health community is confronting a rapidly evolving landscape in which AI is being adopted faster than governance structures, educational models, and workforce readiness efforts can keep pace.

Yet without a coordinated strategy across institutions, other sectors will shape how AI is developed and deployed in ways that may not align with public health's foundational commitments to equity, transparency, prevention, and community trust.

If used responsibly, AI can strengthen disease surveillance, improve emergency preparedness, accelerate research and discovery, communicate more effectively and help identify life-saving patterns through integrated clinical-, genomic-, and SDoH-informed care. Conversely, if used without care or without public health expertise at the table, it risks reinforcing historical bias, widening existing inequities and eroding community trust.

The Taskforce for the Responsible and Ethical Use of Artificial Intelligence in Public Health Research, Practice and Education

The Association of Schools and Programs of Public Health (ASPPH) established the Task Force to position academic public health as an active leader in shaping ethical adoption of AI with goal of strengthening healthcare systems and responding to public health threats.

Composed of a multidisciplinary group of professionals, the Task Force includes faculty, staff, and practitioners in epidemiology, health policy, data science, biostatistics, community engagement, as well as healthcare and technology industries. This mix of perspectives helped ensure the framework was grounded in academic expertise and practical for real-world use.

The Task Force also conducted two research projects examining the use of AI among member schools and programs and identifying the skills and qualifications employers are looking for in candidates for AI roles in public health. The Task Force held town halls and listening sessions to gather “on-the-ground" concerns from faculty, students and other vested partners.

The ASPPH AI Task Force identified four focus areas essential to institutional readiness:

EDUCATION:
Focusing on curriculum, competencies, and preparing graduates for a technology-enabled workforce.

TEACHING AND LEARNING:
Addressing the ethical and effective use of AI in classrooms to enhance student engagement without compromising integrity.

PRACTICE AND RESEARCH:
Exploring how AI can strengthen surveillance, discovery, and applied practice while maintaining public trust and community engagement.

POLICY, REGULATORY, AND ARCHITECTURAL FRAMEWORKS:
Establishing governance structures and safeguards to ensure transparency and alignment with public health values.

FOCUS AREAS

EDUCATION

Curriculum, Competencies, and Workforce: Preparing the AI-Enabled Public Health Workforce

This focus area addresses the urgent need to modernize curricula and competency expectations to make AI literacy a foundational component of public health professionalism. The workforce increasingly expects graduates to understand not only traditional epidemiologic and analytic methods, but also AI-adjacent skills including data provenance, machine learning fundamentals, model limitations, ethical risk assessment, and digital communication.

Academic programs must broaden workforce preparation beyond narrow technical training. Students should graduate able to evaluate AI tools, understand uncertainty, recognize missing data, interrogate bias, and communicate risks.

STRATEGIC DIRECTIONS

To secure the profession's future, academic public health must prioritize formalizing technological standards in core training:

- **Competency Integration:** This strategy involves embedding competencies in data provenance, machine learning fundamentals and digital ethics into national accreditation frameworks to ensure a consistent baseline of literacy for all graduates.
- **Certification Standards:** By integrating these requirements into professional certifications, such as the Certified in Public Health (CPH) exam, institutions can better guide students toward the high-demand technical skills essential for modern employment.
- **Practice Linkages:** Success in this evolution requires establishing formal pathways for practice partners to share real-world AI challenges, ensuring that educational standards remain dynamic and responsive to the practical needs of the workforce.

TEACHING AND LEARNING

Ethical, Responsible, and Effective Use of AI in the Classroom

This focus area is about using AI to improve student engagement and learning while also establishing safeguards to ensure academic integrity and fairness. Students already use AI for brainstorming, drafting, summarizing, coding assistance, and study support. In many contexts, the temptation to outsource coursework is significant, particularly where expectations are unclear. Faculty should be able to clearly define acceptable use, whether through complete prohibition, restricted use, or transparent collaborative use.

STRATEGIC DIRECTIONS

To ensure the long-term success of AI integration in teaching and learning, the task force proposes several strategic directions:

- **Invest in Emerging Technology:** Prioritize funding for AI-powered simulations and gamified tools that personalize instruction.
- **Establish Feedback Loops:** Create formal pathways for practice partners to share their evolving AI use cases, ensuring that classroom training remains aligned with real-world workforce demand.
- **Develop Continuous Education:** Offer specialized AI training for current public health practitioners and alumni to help the existing workforce keep pace with technological change.

PRACTICE AND RESEARCH

Applying AI in Public Health Systems and Knowledge Generation

This focus area is about fostering a new class of public health professionals and a research environment characterized by transparency and community trust. AI offers meaningful opportunities to strengthen public health practices and research when used appropriately. Disease surveillance systems can identify patterns across large datasets faster than traditional approaches, and predictive analytics can improve emergency preparedness and resource allocation.

Public health must adopt a human-centered model of AI implementation. AI should function as a decision-support tool, not an autonomous decision-maker. Conversations about AI often focus on applications, but long-term public health capability depends on infrastructure.

This framework appropriately warns against evaluating AI initiatives based on novelty alone. Public health should measure success by translational impact: Does AI accelerate evidence generation? Improve participation? Strengthen population reach? Thoughtful responses to these questions and more are fundamental to successful AI implementation.

STRATEGIC DIRECTIONS

To overcome these barriers, the task force proposes several immediate strategic directions:

- **Formalize the "Bridge Professional":** Develop specialized certificate requirements and curriculum tracks to train this new class of worker.
- **Phased Implementation:** Practice organizations should start with small, internal, low-risk pilot projects to build capacity and demonstrate safeguards.
- **Community-Based Participatory Design:** Community partners must be engaged preliminarily, not as afterthoughts, at the start of any AI initiative. (See ASPPH Framing the Future 2030, Fostering Community Partnerships report: https://bit.ly/FTF_Partnerships.)
- **Mandate Diversity in Data:** Ensure that dataset curation prioritizes demographic and social-determinant diversity before model validation.

POLICY, REGULATORY AND ARCHITECTURAL FRAMEWORKS

Governing AI for Trust, Accountability, and Sustainability

This focus area is about establishing a scalable, resilient, and ethical governance framework across ASPPH member institutions. Fragmented AI adoption without governance creates systemic risk. Many existing policies only focus on classroom plagiarism or acceptable student use while neglecting broader concerns such as research integrity, privacy, procurement, institutional accountability, workforce guidance, and community transparency.

As AI becomes more deeply embedded in the operations of higher education, research, and public health practice, the establishment of robust governance structures is no longer optional.

STRATEGIC DIRECTIONS

The task force proposes that ASPPH serve as a central coordinator for institutional policy development. Strategic directions include:

- **Developing a Modular Policy Template:** Providing a customizable "ASPPH-wide" AI policy that member schools can adapt to their specific legal and institutional contexts.
- **Emphasizing Community Engagement:** Moving beyond the classroom to ensure that policies address data rights and trust-building for community partners.
- **Fostering Transparency:** Requiring clear communication regarding the purpose and limitations of AI tools to inform all vested partners, e.g., students, faculty and the public.

STRATEGIC RECOMMENDATIONS

The following strategic recommendations are the culmination of the task force's work, providing a tiered roadmap for the Association of Schools and Programs of Public Health (ASPPH), its member institutions and the broader public health community. These recommendations are designed to move the field from the current state of fragmented AI adoption to a future characterized by coordinated, ethical and evidence-based leadership.

EDUCATION

Align public health competencies and curriculum with the evolving demands of the AI-enabled workforce.

- **Advocate for Competency Integration:** ASPPH will continue to urge accreditation agencies, such as the Council on Education for Public Health (CEPH), to embed AI-related competencies — including data literacy, machine learning fundamentals, digital ethics and AI communication — into the foundational MPH knowledge requirements.
- **Modernize Certification Standards:** Recommend that relevant professional certifications, such as the Certified in Public Health (CPH) exam, begin requiring AI-related content to ensure graduates meet a verified level of competency for the technology-enabled workforce.
- **Close the Classroom-to-Practice Gap:** Establish formal channels to share emerging AI use cases between public health academic programs and practice settings to ensure curricula remain current and aligned with workforce demands.
- **Expand Continuing Education:** Develop specialized continuing education, lifelong learning offerings and training modules in AI for public health graduates and alumni to help the existing workforce align with rapid technological shifts.
- **Encourage Applied AI Skills:** Schools and programs should encourage students to use their integrated learning experiences (e.g., capstones or theses) to highlight relevant AI skills by applying them to solve tangible public health problems.

TEACHING AND LEARNING

Advance training opportunities that promote student engagement while maintaining academic integrity and the human-centered nature of public health education.

- **Promote Responsible and Ethical AI Adoption:** Institutions must prioritize safety, transparency, accountability and equity in the selection and evaluation of all AI tools included in the public health curriculum.
- **Invest in Innovative Learning Technologies:** ASPPH and member schools and programs should prioritize investment in AI-powered simulations, gamified tools and adaptive learning platforms to provide immersive and personalized instruction that prepares students for practice readiness.
- **Strengthen Faculty Preparedness:** Develop updated education for faculty through dedicated workshops and courses focusing on AI literacy, ethics and applied teaching methods. AI literacy expectations for students must not exceed faculty capacity to teach them. Faculty must be equipped to conceptualize AI's potential supporting roles while transparently communicating its risks and ethical limitations to students.
- **Integrate AI Literacy into Curricula:** Formal training on AI use should be intentionally integrated into existing public health curricula, with a specific focus on prompt engineering alongside traditional analytics.
- **Ensure Student Preparedness:** Foster technical literacy and ethical awareness by providing students with exposure to AI tools, followed by critical reflection on their use and limitations.

PRACTICE AND RESEARCH

Foster a new class of public health professionals and a research environment characterized by transparency and community trust.

- **Formalize the "Bridge Professional":** Academic programs should develop a new role and corresponding curriculum for the strategic thinker with sufficient technical understanding and implementation skills to communicate effectively across technical, C-suite and community realms.
- **Prioritize Human-Centered AI:** Ensure that AI remains a tool for human decision-makers rather than a replacement for human judgment, particularly in high-stakes areas like relationship building and final decision-making.
- **Commit to Open Science Principles:** Public health research must lead in defining "what good looks like" by sharing code, datasets and evaluation metrics. This is essential for fostering trust, accelerating discovery and mitigating risks of algorithmic bias.
- **Address Inequity Through "Missing Voices Analysis":** Mandate the use of missing voices analysis to identify underrepresented groups in public health datasets, ensuring demographic and social-determinant diversity is centered in model validation.
- **Support Innovation in Health Promotion and Disease and Injury Prevention:** Contribute to the collaborative development of tools and applications that utilize AI to promote health and optimize service delivery for frontline public health workers.

POLICY, REGULATORY AND ARCHITECTURE

Establish a scalable, resilient and ethical governance framework for AI adoption across the ASPPH network.

- **Develop an ASPPH-Wide AI Policy:** Create a modular policy template focusing on the responsible, ethical and innovative use of AI across education, research and administration, with a strong emphasis on privacy and community engagement frameworks.
- **Ensure Community Trust Through Transparency:** Implement plain-language communication strategies to inform community partners about the purpose and limitations of AI, ensuring they are partners rather than afterthoughts in the adoption process.
- **Adopt Global Standards and Governance Systems:** Align institutional guidelines with proven, effective frameworks such as the ISO/IEC 42001 Artificial intelligence management system and standards set by NIST, WHO and the OECD.
- **Implement Rigorous Oversight Mechanisms:** Develop policies for consistent bias tracking, incident reporting and the identification of misinformation and disinformation generated by AI systems.
- **Establish Clear Disciplinary and Approval Processes:** Create centralized academic misconduct and software procurement processes to ensure that AI use and acquisition undergo appropriate departmental and information technology services (ITS) review.

A Leadership Moment for Academic Public Health

This framework presents AI not as a technology challenge, but as a leadership challenge. Academic public health has navigated transformative moments before. It has adapted to epidemiological revolutions, biomedical innovation, data modernization, and major shifts in population health practice. AI demands a similarly strategic response. ASPPH's role is not merely to help member institutions keep pace with technological change; it is to help ensure that public health remains one of the sectors shaping what responsible AI becomes.

READ THE FULL FRAMEWORK REPORT

aspph.org/ai-framework-report

ASPPH

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