

****DRAFT REPORT****

Harnessing Innovation: Artificial Intelligence for Public Health

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

EXECUTIVE SUMMARY

This section will be written after the draft report is approved and finalized by the ASPPH AI task force.

INTRODUCTION

AI AS A TRANSFORMATIVE FORCE IN PUBLIC HEALTH

Artificial Intelligence (AI) is no longer a future consideration for public health; it is a present reality that is already fundamentally shaping how health data are analyzed, how risks are predicted, how resources are allocated, and how decisions are made. These changes are occurring at a pace that often outpaces the capacity of our established systems, policies, and workforces to respond. Over the last century, public health has navigated profound changes, from building sanitation systems and expanding vaccinations to modernizing data collection, and each advancement has brought both promise and risk. AI is no different in its dual nature, but the speed of its advancement and the scale of its potential consequences are unprecedented.

The real question before the academic public health community is not whether AI will influence the field, but whether public health leaders will help shape the continual development, governance, and application of generative AI, agentic AI, and artificial general intelligence (AGI). If used responsibly, AI can strengthen disease surveillance, improve emergency preparedness, accelerate research, and help identify life-saving patterns. 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.

WHY FRAGMENTED ADOPTION CREATES RISK

Currently, the adoption of AI across academic public health institutions is characterized by fragmentation. Without a coordinated, values-driven strategy, the field risks creating silos of innovation that lack essential ethical guardrails and population-level perspectives. AI

systems are neither neutral nor inevitable; they reflect the values, assumptions, and priorities of those who design and govern them.

If public health hesitates, other sectors will fill the gap, potentially without the ethical and responsible frameworks, equity commitments, or population-level perspectives that define the field. This could lead to AI-driven decisions made about communities without their involvement or consent. A coordinated approach is necessary to ensure that AI acts as a tool for individual and institutional success while maintaining the agility to respond to rapid technological convergence.

ASPPH'S ROLE IN SHAPING COORDINATED, ETHICAL INTEGRATION

The Association of Schools and Programs of Public Health (ASPPH) has a unique responsibility to lead this integration. Academic public health plays an essential role in shaping the workforce, the evidence base, and the policies that protect communities. Schools and programs of public health train professionals who work at the intersection of data, policy, and systems; these graduates must be prepared to evaluate AI tools and ensure that innovation serves the public good.

Recognizing both the promise and the risk, ASPPH launched the [AI for Public Health initiative](#) to help the community meet this moment with intention. This initiative is built on the belief that AI should strengthen public health's mission, not redefine it from the outside. By aligning recommendations with global standards, ASPPH aims to ensure that AI enhances fundamental ideals such as equity, transparency, and accountability.

OVERVIEW OF OUR FOUR FOCUS AREAS

The ASPPH AI Task Force has identified four interconnected pillars essential to institutional readiness:

1. **Education:** Focusing on curriculum, competencies, and preparing graduates for a technology-enabled workforce.
2. **Teaching and Learning:** Addressing the ethical and effective use of AI in classrooms to enhance student engagement without compromising integrity.
3. **Practice and Research:** Exploring how AI can strengthen surveillance, discovery, and applied practice while maintaining public trust and community engagement.
4. **Policy, Regulatory, and Architectural Frameworks:** Establishing governance structures and safeguards to ensure transparency and alignment with public health values.

INTENTIONALLY DIVERSE PERSPECTIVES

The Task Force was composed of a [multidisciplinary group of professionals](#) across the public health spectrum, including faculty, staff, and practitioners in epidemiology, health policy, data science, biostatistics, community engagement, as well as healthcare and technology industries. This diversity was critical to bridging the gap between theoretical promise and organizational reality.

DATA GATHERING TO ASSESS CURRENT LANDSCAPE AND WORKFORCE NEEDS

The recommendations in this report are grounded in two foundational research projects:

- **Project 1: Investigating the Use of Generative AI Policies among ASPPH Member Schools and Programs of Public Health:** A systematic investigation of generative AI policies among 155 ASPPH member schools and programs. The methodology involved extracting data from member websites and using a consensus coding approach based on the University of Wisconsin-Madison's policy criteria to distinguish between formal "policies" and general "guidelines".
- **Project 2: Using job analysis techniques to understand training needs for the use of AI in Public Health (AI Job Task Analysis (JTA):** A study identifying the specific skills and qualifications employers seek in candidates for AI roles in public health. Researchers screened 227 unique job postings from Indeed and Glassdoor, extracting variables such as industry type, software skills, and salary ranges to facilitate a structured analysis.

ITERATIVE AND TRANSPARENT SUBGROUP IDEATION

To refine the recommendations, the Task Force established four subgroups focused on the core pillars. These groups met initially twice a month, then weekly or as needed, to identify specific needs and iterate on frameworks. This process ensured that this final report is a synthesis of agreed-upon recommendations from subject matter experts.

COMMUNITY LISTENING AND PARTNER FEEDBACK

The Task Force held town halls and listening sessions to gather "on-the-ground" concerns from faculty, students, and other stakeholders. These sessions highlighted critical issues like faculty workload and the "irresistible" nature of AI in academic work. Additionally, feedback was integrated from technology vendors and public health partners to ensure practical applicability in various academic and practice environments.

FOCUS AREA ONE: EDUCATION: CURRICULUM, COMPETENCIES, AND WORKFORCE PREPARATION

Artificial Intelligence is rapidly reshaping the expectations placed on public health graduates, influencing how data are analyzed, how risks are predicted, and how decisions are made across the 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 Task Force emphasizes that AI readiness must extend beyond technical skill development to include ethical reasoning, bias recognition, and the ability to communicate uncertainty, ensuring that future public health leaders can guide AI integration in ways that strengthen equity and community trust.

AI AS A CORE PUBLIC HEALTH COMPETENCY

The Task Force asserts that AI literacy must become a fundamental part of public health professionalism, alongside traditional skills like epidemiology and biostatistics. While technology-focused competencies are not currently mandated by the [Council on Education for Public Health](#) (CEPH), the ASPPH Task Force strongly believes they are necessary for the modern workforce. ASPPH has already submitted proposed criteria revisions to the Education Advisory Committee and urged CEPH to reconsider its stance to ensure that data literacy, machine learning fundamentals, and digital ethics are recognized as curricular standards.

PREPAREDNESS OF STUDENTS AND GRADUATES

Graduates are increasingly expected to enter their first roles with a "toolbox" of techniques to solve tangible problems. This toolbox should include proficiency in surveillance methods, data provenance, and the identification of biased patterns in training data. Students who choose quantitative concentrations like biostatistics or epidemiology can often integrate AI skills with minimal additional curricular modification, but others may require foundational coursework in machine learning algorithms and large language models (LLMs).

SIGNALS FROM EMPLOYERS AND WORKFORCE DEMAND

Data from the AI Job Task Analysis (JTA) provides a clear evidence base for these educational needs in academic public health:

- **Hiring Industries:** Healthcare providers are the leading recruiters (28%), followed by digital health and health tech companies (18%), and academic institutions (15%).
- **Software and Programming Skills:** Software skills are the most sought-after (70%), with a specific technical "stack" emerging as the gold standard.

Table 1 - Software skills requirements across job categories

Language	Frequency of Mention	Key Applications
<ul style="list-style-type: none"> • Python 	<ul style="list-style-type: none"> • 30% 	<ul style="list-style-type: none"> • Machine learning, predictive modeling, data science
<ul style="list-style-type: none"> • SQL 	<ul style="list-style-type: none"> • 21% 	<ul style="list-style-type: none"> • Database management, data retrieval
<ul style="list-style-type: none"> • R 	<ul style="list-style-type: none"> • 20% 	<ul style="list-style-type: none"> • Statistical analysis, bioinformatics
<ul style="list-style-type: none"> • SAS 	<ul style="list-style-type: none"> • 10% 	<ul style="list-style-type: none"> • Clinical research, longitudinal data analysis

- **Management and Leadership:** Interestingly, Management positions alone account for 26% of AI job postings, with an additional 11% in Executive Management. This suggests a growing demand for "AI-literate leaders" who can manage the integration of these tools.
- **Compensation Trends:** Salary data reveals a high market value for these skills. Executive Management roles command a median salary of \$244,884, while general Management and IT roles have median salaries of \$165,000 and \$145,774, respectively.

FACULTY AND INSTITUTIONAL CAPACITY CONSTRAINTS

A critical bottleneck identified is faculty preparedness. Ensuring faculty can teach AI effectively is an immediate priority, as many are being asked to teach tools that did not exist during their own training. Institutions must invest in faculty upskilling through workshops on AI literacy, ethics, and applied teaching methods. Furthermore, changing federal funding landscapes may require faculty to take on new roles in developing AI-leveraged educational programs to find sustainable funding sources.

CONTINUING EDUCATION AND ALUMNI ENGAGEMENT

Education must extend beyond the formal graduation of current students. There is a need for consistent alumni engagement and employment tracking to ensure that graduates

remain successful in an evolving landscape. ASPPH recommends developing continuing education offerings for practitioners to help the existing workforce align with the rapid convergence of technologies.

STRATEGIC DIRECTIONS FOR EDUCATION AND ACCREDITATION

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

FOCUS AREA TWO: TEACHING & LEARNING: ETHICAL, RESPONSIBLE, AND EFFECTIVE USE OF AI IN THE CLASSROOM

The integration of AI into the pedagogical landscape of public health represents one of the most immediate and profound shifts in higher education history. As schools and programs navigate this transition, the overarching goal must be to advance training opportunities that are not only innovative but also grounded in the responsible and ethical application of technology. This focus area addresses the dual imperative of utilizing AI to enhance student engagement and learning outcomes while establishing the necessary guardrails to protect academic integrity and equity.

HUMAN ELEMENT, ETHICS, AND RESPONSIBILITY IN TEACHING

At the core of the Task Force's recommendations is the principle that AI must augment, but never replace, human judgment, expertise, and compassion. Public health is a field defined by human-to-human relationships, and this fundamental truth must shape the classroom experience. Faculty members bear primary responsibility for fostering an ethical environment for AI adoption, prioritizing safety, transparency, accountability, and equity across all technological applications.

A critical component of this responsibility is "privacy risk transparency". Instructors are encouraged to remind students to exercise caution when interacting with external AI applications to avoid unintentionally sharing intellectual property, confidential research data, or protected personal information. Ultimately, the onus for the quality and integrity of

AI-generated output rests with the individual user, a concept that must be reinforced through institutional policy and classroom instruction.

FACULTY PREPAREDNESS AND INSTRUCTIONAL SUPPORT

The rapid evolution of AI has created a significant "bottleneck" in institutional capacity: faculty preparedness. Many educators find themselves teaching students to use tools that are changing faster than traditional professional development cycles can keep pace. To bridge this gap, the Task Force recommends that ASPPH and its member institutions invest heavily in faculty resources and training.

Instructional support should move beyond basic tool awareness to help faculty conceptualize AI's potential as a supporting role in the teaching process. For example, AI-driven feedback assistants can help faculty provide rubric-aligned, constructive feedback to students more efficiently, allowing them to focus on deeper mentorship and complex problem-solving. This "partnered" approach to instruction allows faculty to focus on high-level critical thinking, which is an area where human judgment remains of outsized importance.

STUDENT PREPAREDNESS AND AI LITERACY

For students, exposure to AI tools must be paired with critical reflection and the development of a robust "technical literacy". This goes beyond simply knowing how to use a chatbot; it requires "prompt engineering" skills and learning how to ask the right questions to elicit high-quality, relevant results from AI systems.

AI literacy training should be intentionally integrated into existing public health curricula. This training must include:

- **Effective Prompting:** Teaching students to move from simple analysis to sophisticated inquiry.
- **Bias and Limitation Recognition:** Helping students reflect on the potential for AI to produce inaccurate outputs (hallucinations) or perpetuate systemic inequities present in its training data.
- **Responsible Acknowledgment:** Training students on responsible citation and attribution of AI-originated content within the framework of university and program policies.

INSTRUCTIONAL INNOVATION AND APPLIED LEARNING

The Task Force has identified several "promising practices" that use AI to transform the learning experience from a one-size-fits-all model into a custom, adaptive environment.

- **Personalized and Adaptive Learning Paths.** Adaptive learning systems, such as [Pearson+](#) and [McGraw Hill Connect](#), use AI to monitor individual student performance and deliver tailored content, real-time feedback, and targeted outreach. These platforms adjust for pacing and complexity, supporting the mastery of foundational public health concepts while accommodating various learning styles.
- **Simulation and Gamification** Simulation technology represents a powerful bridge between the classroom and real-world practice. These tools allow students to practice medical tasks, clinical decision-making, and communication skills in risk-free, computer-based environments.
- **Case-Based Learning:** AI-driven simulations can be adapted to mirror specific challenges faced in practice settings, such as navigating community resistance or addressing the "missing voices" in public health data.

RISKS, GUARDRAILS, AND ACADEMIC INTEGRITY

The Investigating the Use of Generative AI Policies among ASPPH Member Schools and Programs of Public Health project revealed that 83.3% of current member institution policies focus on pedagogical guidance and classroom use. However, because the promise of using AI to complete coursework is often "irresistible," institutions must fundamentally rethink their deliverables.

Tiered Usage Policies: The Task Force recommends that institutions provide clear "strata" of AI use for instructors to adopt in their syllabi. These typically include:

1. **Complete Prohibition:** No AI use allowed for any part of the assessment.
2. **Restricted Use:** AI is permitted for specific tasks (e.g., brainstorming, outlining) with explicit citation.
3. **Unrestricted Use:** AI is encouraged as a collaborator throughout the process, provided its use is disclosed.

Non-Outsourceable Assessments: To protect academic integrity, educators should prioritize evaluation methods that cannot be easily outsourced to AI. These include:

- **Oral Communications:** Presentations and podcasts that require real-time synthesis and defense of ideas.
- **In-Person Performance:** Handwritten assignments in class (e.g., "blue books") and interactive discussions.

- **Scaffolded Projects:** Breaking large assignments into stages that require human review and the documentation of human thought processes.

STRATEGIC DIRECTIONS FOR ASPPH AND MEMBER INSTITUTIONS

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.

FOCUS AREA THREE: PRACTICE & RESEARCH: APPLYING AI IN PUBLIC HEALTH SYSTEMS AND KNOWLEDGE GENERATION

The gap between the theoretical promise of Artificial Intelligence and its practical adoption remains a primary challenge for the public health sector. While 84% of healthcare organizations are already actively using AI and Machine Learning technologies, public health organizations lag significantly behind. This disconnect stems not from a lack of potential, but from fundamental tensions between technical capabilities and organizational realities, between data outputs and community trust, and between established algorithms and the "missing voices" often absent from the data.

Artificial Intelligence also has broader implications for the social determinants of health. While AI offers new tools to identify risk patterns and allocate resources more effectively, it may also introduce unintended consequences, including environmental costs associated with computing infrastructure, shifts in labor markets, unequal access to technological resources, and the risk of misuse by malicious actors or poorly designed systems. ASPPH recognizes that these dynamics require ongoing evaluation to ensure that AI adoption supports, rather than undermines, health equity and community well-being.

HUMAN-CENTERED AI IN PRACTICE AND RESEARCH

Public health is fundamentally built on human-to-human relationships, and that is a reality that AI cannot replace. The Task Force advocates for a "human-centered" approach in which AI is viewed as a supportive tool for decision-makers rather than a replacement for

human judgment. This perspective is essential because AI will never build community relationships; instead, it must enhance professionals' ability to navigate complex human systems where trust and community voices matter more than sheer algorithmic accuracy.

CURRENT AND EMERGING USE CASES

AI technology is beginning to streamline several key public health functions, shifting from traditional data analysis toward more interactive inquiry and exploration:

- **Disease Surveillance and Data Analytics:** AI can contend with expanding data volumes to identify patterns and predict epidemic outbreaks more rapidly than purely human-driven systems.
- **Operational Efficiency:** GenAI can reduce administrative burdens for community health workers by optimizing supply chain efficiencies and automating routine coding and documentation tasks.
- **Research Translation:** AI tools are increasingly used to accelerate discovery by improving the speed and quality of researching and summarizing large amounts of written evidence.

PREPAREDNESS OF THE PUBLIC HEALTH WORKFORCE

There is a profound "lack of knowledge" within public health agencies regarding current AI capabilities. Preparation for an AI-enabled workforce requires moving beyond technical implementation toward developing a critical mindset that sees AI as a tool for exploration rather than an ultimate solution.

TRUST, COMMUNITY ENGAGEMENT, AND UNINTENDED CONSEQUENCES

The "[Flood Prediction Case](#)" from University City serves as a pivotal cautionary tale for the field. In this project, an AI model was developed with a high likelihood of predicting future flood events in areas of the City of University City, a suburb of Missouri, that have never been flooded in the past. However, the technical success meant little because the community had concerns, including identifying some parts of the community as flood-prone, which could plummet property values, lead insurance companies to decline coverage, and possibly create community stigma.

This case demonstrates that technical accuracy is insufficient without community buy-in. Trust building requires early and continuous engagement, transparency about technological limitations, and addressing potential unintended consequences upfront.

EQUITY, BIAS, AND MISSING VOICES IN DATA

AI "doesn't know what it doesn't know". Because AI systems pull from existing data, they often reflect and perpetuate the structural inequities and biases of the world in which that data was collected.

- **The Equity Imperative:** The communities most in need of public health interventions are often the ones least represented in the data AI uses.
- **Actionable Steps:** We must teach professionals to conduct a "missing voices analysis" to identify whose data is missing and actively seek unrepresented perspectives during the design of AI systems.

OPEN SCIENCE, REPRODUCIBILITY, AND RESEARCH INTEGRITY

Public health must lead in defining "what good looks like" for AI-driven research. Encouraging open, reproducible science is essential to foster trust among the research community and the public.

- **Transparency Standards:** Sharing code, datasets, and evaluation metrics is non-negotiable for responsible discovery.
- **Benchmarking:** Initiatives like OpenAI's "[HealthBench](#)" are vital for raising the bar for accountability and transparency in AI research.

"THE BRIDGE PROFESSIONAL"

One of the Task Force's most critical recommendations is the creation of a new role: "The Bridge Professional". This individual is a strategic thinker who possesses sufficient technical understanding without necessarily being a programmer and excels at communicating across technical, C-suite, and community domains. They serve as the essential translator, navigating strategic considerations and regulatory compliance while understanding how the technology works on the "backend".

BARRIERS TO ADOPTION AND SCALING

Several significant barriers prevent public health from reaching its AI potential:

- **Confidentiality and Political Pressure:** Several states have already prohibited health departments from using AI due to fears of data breaches and political backlash.
- **Legal Liability:** Concerns about who is accountable when AI-driven decisions cause harm remain a major hurdle.

- **The Hallucination Problem:** Public health relies on high-stakes accuracy, but AI models still struggle with "hallucinating" facts and research publications that do not exist.

STRATEGIC DIRECTIONS FOR PRACTICE AND RESEARCH

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 partners, not afterthoughts, from day one of any AI project.
- **Mandate Diversity in Data:** Ensure that dataset curation prioritizes demographic and social-determinant diversity before model validation.

FOCUS AREA FOUR: POLICY, REGULATORY & ARCHITECTURAL FRAMEWORKS: GOVERNING AI FOR TRUST, ACCOUNTABILITY, AND SUSTAINABILITY

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. Effective policy provides the foundation for trust and accountability, ensuring that innovation does not come at the expense of equity or privacy. This focus area examines the critical need for a unified approach to AI governance across ASPPH member institutions.

ETHICAL RESPONSIBILITY AND PUBLIC ACCOUNTABILITY

Public health academia provides a unique and essential arena for developing ethical AI governance. Because the field is fundamentally committed to health equity and community-based participatory research, its approach to AI must enhance, rather than compromise, the ideals of transparency and trust. Institutions have a public accountability to ensure that the algorithms they deploy or teach are not black boxes but are instead explainable and aligned with the mission to protect population well-being. Leadership in this space requires more than just technical rules; it necessitates a values-driven framework where human-centered ethics remain at the forefront.

CURRENT POLICY LANDSCAPE ACROSS ASPPH MEMBERS

As detailed in the *Investigating the Use of Generative AI Policies among ASPPH Member Schools and Programs of Public Health* project, a comprehensive audit of 155 ASPPH member schools and programs conducted in late 2025 revealed a significant deficit in formal institutional guidance. At the time of the review, only 18 member institutions (approximately 11.6%) had established formal, publicly available AI policies.

Table 2 - Content Analysis

Area of Focus	Prevalence in Existing Policies	Key Focus
Usage Policy / Pedagogical Guidance	83.3%	Defining tiers of AI use in the classroom, such as complete prohibition, restricted use, or unrestricted use.
Academic Integrity / Misconduct	77.8%	Defining AI misuse as a form of plagiarism and instructing students to seek prior permission from faculty.
Data Privacy / Security Guidelines	50.0%	Governing what information can be entered into tools to prevent the exposure of sensitive or student-identifiable data.
Software Access Guidance	38.9%	Outlining processes for acquiring and approving new AI tools for faculty, staff, and students.
Ethical Considerations	27.8%	Citing risks such as algorithmic bias, inaccuracies in output, and potential infringement of intellectual property rights.

Area of Focus	Prevalence in Existing Policies	Key Focus
Legal Policy Compliance	22.2%	Aligning with federal and state laws, including HIPAA, FERPA, and federal funding agency rules (e.g., NIH).
AI Detection / Disciplinary Action	22.2%	Mandating the use of detection software and establishing centralized academic misconduct procedures.

PREPAREDNESS GAPS IN GOVERNANCE AND OVERSIGHT

The current landscape of AI integration in public health academia is characterized by fragmentation. Most existing guidance is focused narrowly on the classroom, specifically on preventing plagiarism and managing academic integrity. Significant gaps remain in addressing broader institutional risks:

- **Inconsistent Definitions:** There is a lack of universal standards regarding what constitutes AI "misuse" versus "innovation," leading to ambiguity for students and faculty.
- **Missing Stakeholders:** Policies frequently focus on students and faculty while neglecting the specific needs of staff, administrators, and community partners.
- **Narrow Ethical Scope:** Issues of algorithmic bias, ownership of AI-generated intellectual property, and long-term learning implications are often addressed only superficially.

REGULATORY UNCERTAINTY AND RISK

Institutions are navigating a complex and shifting regulatory environment that often lacks federal clarity. This uncertainty creates a "Privacy Paradox" in which organizations want the benefits of AI but fear the legal and political repercussions of data breaches.

- **Federal and State Compliance:** Policies must navigate established frameworks like HIPAA and FERPA, as well as emerging state-level mandates. For example, some states have prohibited public health departments from using specific AI applications on government devices due to security concerns.

- **Intellectual Property (IP) Rights:** There is a high risk of losing IP rights if confidential research data or trade secrets are fed into external generative AI models.
- **Political Backlash:** In multiple states, legislators have restricted the use of AI in government agencies out of concern for confidential information breaches.

ARCHITECTURAL FRAMEWORKS AND AI MANAGEMENT SYSTEMS

To ensure accountability and sustainability, ASPPH recommends adopting structured AI Management Systems (AIMS). A leading framework is the [ISO/IEC 42001](#), which provides a comprehensive approach to managing AI within an organization.

Key architectural strategies include:

- **Tiered Data Classification:** Developing a modular framework, such as a 4-tier system (Public, Internal, Confidential, and Highly Restricted), to dictate which data can be used with specific AI tools.
- **In-House Models:** To mitigate privacy risks, some organizations are moving toward building self-contained, in-house models that avoid external platforms entirely.
- **Incident Reporting:** Establishing formal protocols for tracking bias audits, hallucinations, and incident reporting to combat misinformation and ensure continuous improvement.

ALIGNMENT WITH GLOBAL STANDARDS

Public health institutions should not reinvent the wheel but should ground their policies in proven, effective global frameworks:

- **NIST (National Institute of Standards and Technology):** For technical risk management and cybersecurity.
- **WHO (World Health Organization):** For ethical standards in health and digital governance.
- **OECD (Organisation for Economic Co-operation and Development):** For human-rights-based approaches to digital innovation.

CROSS-SECTOR PARTNERSHIPS AND COLLABORATION

Addressing the opportunities and risks associated with AI requires collaboration that extends beyond the academic public health community. Partnerships with technology organizations, government agencies, public health practice institutions, and nonprofit

coalitions can help ensure that AI tools are developed and applied in ways that align with public health values. These collaborations provide opportunities to share technical expertise, develop practical use cases, and strengthen workforce readiness while maintaining transparency and ethical oversight. ASPPH encourages cross-sector partnerships that advance responsible innovation while safeguarding community trust and public accountability.

STRATEGIC DIRECTIONS FOR ASPPH-WIDE GUIDANCE

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 stakeholders, e.g., students, faculty, and the public.

THE ASPPH TASK FORCE'S 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.

TEACHING & LEARNING

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

- **Promote 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. 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.

EDUCATION

Goal: 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 offerings and training modules in AI for public health graduates and alumni to help the existing workforce align with rapid technological shifts.
- **Incentivize 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.

PRACTICE & RESEARCH

Goal: 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:** 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 & ARCHITECTURE

Goal: 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 AI 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 ITS review.

CONCLUSION

AI AS A LONG-TERM PUBLIC HEALTH SYSTEMS SHIFT

Artificial Intelligence (AI) is not a passing trend or a temporary technological fad; it represents a fundamental, long-term shift in the infrastructure of global public health. The integration of AI into our systems, from predictive modeling to community health engagement, is as significant as the development of modern sanitation or the expansion of vaccinations in the previous century. We must view AI as a systems change that requires a holistic approach, moving beyond simple tool adoption to cultivating a workforce and a policy environment that can navigate the rapid convergence of technology and human health. Public health professionals must remain at the center of these systems, ensuring that technology augments rather than replaces human expertise, compassion, and accountability.

THE COST OF INACTION OR POORLY GOVERNED ACTION

The cost of inaction—or worse, action that lacks ethical and population-level perspectives—is extraordinarily high. If the public health community hesitates to lead in this space, others may fill the void, potentially those who do not share our foundational commitments to equity, transparency, and service. Poorly governed AI has the potential to reinforce existing biases, widen health disparities, and make high-stakes decisions about communities without their involvement or consent. Without deliberate design and governance, we risk eroding the very trust that is essential for effective public health interventions.

ASPPH'S LEADERSHIP ROLE GOING FORWARD

This is a moment that demands leadership, not hesitation. ASPPH is committed to serving as a central catalyst for this transformation, ensuring that academic public health remains at the table to shape how AI is developed, governed, and applied. Our leadership role

involves setting clear standards, asking the "hard questions" about data provenance and accountability, and fostering a coordinated approach that prevents fragmented adoption across the network.

The success of this strategic framework depends on a collective commitment from faculty, students, practitioners, and policymakers. By leading with its core values of service, integrity, and evidence, ASPPH will ensure that AI becomes a powerful collaborator in the pursuit of a healthier and more equitable future for everyone, everywhere.

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