

► PRESIDENT'S MESSAGE



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Is AI the Writing Wave of the Future?

I was intrigued by all the discussions on the use of AI in reducing the burden of work and its use as a tool for the future. As such, I asked ChatGPT to write a cited article titled “Supporting Environmental Public Health: A Practitioner’s Perspective.” The following is what was generated.

Supporting Environmental Public Health: A Practitioner’s Perspective

Introduction

Environmental public health is a cornerstone of modern population health practice. As communities face increasing pressures from climate change, pollution, urbanization, and resource scarcity, practitioners are charged with bridging science, policy, and community engagement to protect and promote health. The practitioner’s role extends beyond surveillance and regulation; it includes advocacy, partnership building, risk communication, and the integration of equity into all decision-making. This article outlines key strategies for supporting environmental public health from a practitioner’s perspective, grounded in current public health frameworks and field-based experience.

1. Strengthening Environmental Health Surveillance Systems

Robust environmental health surveillance is fundamental to identifying hazards, tracking exposures, and assessing health outcomes. Practitioners rely on systems such as air and water quality monitoring, biomonitoring programs, and built environment assessments to

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guide interventions. Surveillance also enables timely detection of environmental emergencies—chemical spills, heat waves, or vector-borne disease outbreaks.

Practitioners advocate for the integration of traditional surveillance with community-sourced data and new technologies, including remote sensing and low-cost sensor networks (Brook et al., 2017). These tools help fill data gaps in underserved areas and increase community awareness of local environmental conditions.

2. Advancing Environmental Justice and Health Equity

Environmental risks are disproportionately borne by marginalized communities, including low-income populations and communities of color. Practitioners play a critical role in identifying inequities, elevating community voices, and ensuring that policy decisions do not perpetuate harm.

Applying an equity lens involves:

- Conducting cumulative impact assessments
- Using disaggregated environmental exposure data
- Engaging communities in co-designing interventions

Frameworks such as the Justice40 initiative and the World Health Organization (WHO,

2014) Health in All Policies approach illustrate how policy can be aligned with equity goals. Practitioners also facilitate culturally competent communication to ensure that interventions are accessible and meaningful.

3. Building Cross-Sector Partnerships

Environmental health challenges are complex and often fall outside the direct control of health departments. Therefore, practitioners collaborate with urban planners, transportation officials, environmental agencies, housing authorities, schools, and community-based organizations.

Successful partnerships rely on:

- Shared goals and accountability
- Clear data sharing agreements
- Mutual understanding of priorities

Cross-sector collaboration is vital in areas such as climate adaptation planning, green infrastructure development, healthy housing, and lead exposure prevention (Corburn, 2017). Practitioners serve as conveners who translate scientific evidence into actionable policy for diverse partners.

4. Communicating Environmental Health Risks

Practitioners must navigate the challenges of communicating uncertainty, complex scientific information, and potential risks to the public. Effective communication requires clarity, cultural sensitivity, transparency, and trust building.

Risk communication best practices include:

- Using plain language
- Providing actionable steps for risk reduction

- Engaging trusted messengers such as local leaders

Examples such as community-led prevention campaigns and wildfire smoke advisories demonstrate the need for tailored communication strategies that address both immediate risks and long-term environmental health impacts (U.S. Environmental Protection Agency, 2025).

5. Implementing Climate Resilience Strategies

Climate change is one of the greatest threats to environmental public health, increasing the risks of heat-related illness, vectorborne disease, extreme weather, and air pollution. Practitioners support resilience by integrating climate considerations into public health planning and community preparedness.

Key practitioner-driven strategies include:

- Developing local climate and health adaptation plans
- Expanding heat-health warning systems
- Mapping climate-vulnerable populations
- Supporting nature-based solutions to reduce environmental hazards

Research shows that local adaptation planning significantly improves community readiness and reduces climate-related health impacts (Reis et al., 2015).

6. Strengthening Policy and Regulatory Frameworks

Practitioners contribute to policy development through scientific review, partner engagement, and advocacy. Policies regulating air and water quality, hazardous waste, pesticides, and land use all stem from strong environmental public health principles.

Practitioners can:

- Provide testimony and evidence during policy hearings
- Conduct health impact assessments (HIAs)
- Support enforcement of existing environmental regulations
- Advise on emerging threats such as per- and polyfluoroalkyl substances (PFAS) contamination or microplastics

Health impact assessments, in particular, help policymakers evaluate the health consequences of decisions across sectors and promote healthier built environments (National Research Council, 2011).

Conclusion

Supporting environmental public health requires a multifaceted, collaborative, and equity-driven approach. Practitioners are uniquely positioned to integrate data, policy, community needs, and scientific expertise to protect populations from environmental hazards. Through strengthened surveillance, cross-sector partnerships, risk communication, climate adaptation, and policy engagement, practitioners can build healthier, more resilient, and more equitable communities.

References

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So what do you think? Does it accurately describe environmental health and its role? I must admit, I saved myself a lot of time on research and even trying to decide on a topic to share with you by experimenting with AI for this column.

AI can be a remarkable tool for use in the future, but there are multiple concerns about the originality of work, plagiarism, and academic fraud. We must be aware of what it can do and how it should be used. AI-generated content should not be claimed as original work, but instead should be cited as AI-generated, with mention of the AI program used.

Lastly, as the festive season approaches and the year comes to an end, I want to take this opportunity to wish all of you and your families a happy whatever you celebrate and a wonderful and successful New Year. 🌸



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Editor's Note: As the use of AI grows within the scientific publication community and in our daily work, we recommend that organizations create policies for how to use AI. NEHA staff are guided by an AI policy that encourages its use and provides guidelines and considerations for that use. For the *Journal*, we have started to ask that authors disclose, if applicable, how they used AI for their content. Further, with all AI content, we highly recommend that you fact-check all information and references used. We also recommend the use of internal style guides to ensure that the content adheres to your organization's guidelines for grammar, punctuation, and inclusive language. In the case of this AI-generated article, all references had incorrect or incomplete information and required careful fact-checking and editing.

Did You Know?

All of us at NEHA wish you a season of joy, peace, and meaningful connection. Thank you for your continued strength and dedication to environmental health. Happy holidays!