

**Integrating Public and Ecosystem Health Systems:
Challenges and Opportunities to Move
from Knowledge to Action**

Kathleen Rest, PhD, MPA

Boston University Institute for Global Sustainability

From Knowledge to Action: Calls to Close the Gap

NATIONAL ACADEMIES
Sciences
Engineering
Medicine

Integrating Public and Ecosystem Health Systems to Foster Resilience

A Workshop to Identify Research to
Bridge the Knowledge-To-Action Gap



Proceedings of a Workshop

A banner for the 2023 Annual Meeting. The top part features a grid of colorful hexagons with various scientific and medical terms: MEDICAL ENTOMOLOGY, HYGIENE, TROPICAL MEDICINE, GLOBAL HEALTH, TRAVELERS' HEALTH, VIROLOGY, CLINICAL, ZOOZOSES, PARASITOLOGY, and #TropMed23. Below the grid is a white box with the text "2023 Annual Meeting | October 18-22" and "FROM EVIDENCE to ACTION". At the bottom, it lists the location "HYATT REGENCY CHICAGO | CHICAGO, ILLINOIS USA" and provides website and social media information: "ajtmh.org astmh.org #TropMed23" with icons for Facebook, Twitter, LinkedIn, and YouTube. The banner is decorated with various white icons related to medicine and biology, such as a microscope, a stethoscope, a DNA helix, a globe, and a mosquito.

National Academies Workshop



- Interdisciplinary speakers and participants
- Knowledge exchange
- Discussion of barriers, challenges, and critical gaps in understanding and practice

Workshop Agenda and Format

Session 1: What has been learned about how to integrate public health and Nature into research, policy, and practice to foster resilience?

- Exploring how public health, nature, and their interconnections are valued
- Exploring challenges and gaps in current approaches and opportunities for moving from knowledge to action

Session 2: Advancing transdisciplinary, community-engaged scholarship to integrate public health and Nature and inform policy and practice

- Addressing knowledge gaps through new, emerging research
- Approaches for developing solutions
- Considerations for developing key elements of a research agenda

Breakout Discussions

Session 3: Bridging the knowledge-to-action gap: strategies to translate knowledge into policy and practice

- Crafting a research agenda that facilitates knowledge generation that informs action
- Overcoming existing barriers to knowledge development and moving to action

Looking to the future

Nature: Our Life Support System

- Air
- Water
- Soil
- Food: plants, animals
- Materials
- Pleasure, leisure, escape, comfort, recreation



Nature/Ecosystem Health Under Stress

- Climate change
- Biodiversity loss
- Pollution
- Environmental degradation
- Resource exploitation



Health Risks

- Disease, death, injury
- Mental & emotional problems
- Displacement
- Infrastructure damage
- Expertise and engagement of people in the public, private, non-profit, and academic sectors needed



Image from Freepik.com



Investments in Nature are investments in public health, disease prevention, and health promotion

Indigenous^{TK}
knowledges^{IK}
traditional^{ITEK}
ecological
knowledge

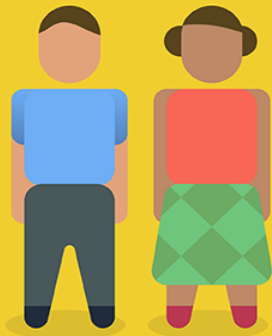
Valued equally to human health, the health and well-being of:

- Animals
- Plants
- Air
- Water
- Land

WHO IS MOST IMPACTED BY THE ENVIRONMENT

Environmental impacts on health are uneven across age and mostly affect the poor.

Low- and middle-income countries bear the greatest share of environmental disease.



Men

are slightly more affected due to occupational risks and injuries.

Women

bear higher exposures to traditional environmental risks such as smoke from cooking with solid fuels or carrying water.

Children under five and adults between 50 and 75 years old are most affected by the environment.



YEARLY

5.2 MILLION
Deaths in adults

between 50 and 75 years. The most common causes are noncommunicable diseases and injuries.

1.6 MILLION
Deaths in children

under five. The most prominent causes are lower respiratory infections and diarrhoeal diseases.



World Health
Organization

#EnvironmentalHealth

BARRIERS



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- Structural
- Institutional
- Cultural

- Lack of:
 - Incentives
 - Capacity
 - Resources
 - Decision tools

Good News!

- Conserving Nature: Broad public appeal
- Youth mobilizing, taking action
- Initiatives and success stories
- NBSAPs – National Biodiversity Strategies and Action Plans



Knowledge to Action

- Knowledge + Action = Power & Change
- Growing recognition of gap
- Ideas and opportunities for bridging the gap



Ideas and Opportunities

- Create /promote an inspirational vision
- Integrate social and cultural contexts into research and practice
 - intergenerational equity
 - distributional impacts/effects
- Prioritize the precautionary principle in policy making
- Build relationships, credibility with government officials
- Build/nurture partnerships with local communities
- Further engagement with the public health community
- Advance transdisciplinary, community-engaged scholarship
- Support and reward “boundary-crossing” in academia



NASEM Workshop

- The workshop was supported by the **Moore Foundation**.
- The proceedings – published on April 20, 2023 – summarize the workshop presentations and discussions.
- It is available to read online or download as PDF at no cost. <https://nap.nationalacademies.org/26896>



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