Communities, Climate Change, and Health Equity – A New Vision

A Virtual Workshop Series from the Environmental Health Matters Initiative

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October 12 from 11:00 AM–4:00 PM (ET)
and
October 14 from 12:00–4:00 PM (ET)

Overview of the Environmental Health Matters Initiative

Jonathan M. Samet, MD, MS
Dean and Professor
Colorado School of Public Health

Martha Rudolph, JD
Former Director
Colorado Department of Public Health & Environment

About Us

From the air we breathe to the water we drink, our health is defined by our natural environment. Environmental health is the science that focuses on reducing harmful environmental exposures in air, water, soil and food to protect human health and well-being, as well as provide all communities with healthier environments.

We convene government, industry, and academic leaders to share insights on how to solve our most pressing environmental health challenges.

Our goal is for participants to leave our workshops better informed, connected, and equipped to make meaningful, positive change in their sectors.

WICKED PROBLEMS

Environmental health challenges are:

- Difficult to define
- Complex
- Without a clear solution or end point
- Globally relevant
- Complex
- Impacted by many interacting factors

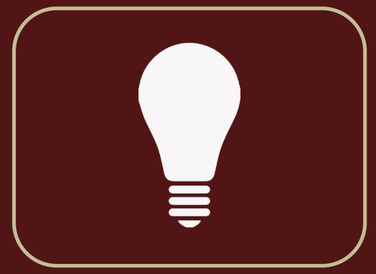
The EHMI Provides . . .

CONNECTION

The unique ability to convene experts from a wide array of science, engineering, and health disciplines.

CREDIBILITY

A long organizational history of working in the environmental health field.



STEWARDSHIP

Leadership from an experienced program develop team and advisory committees with experts from government, business, and academia.

NEUTRALITY

A neutral, nonpartisan space where stakeholders can share insights.

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THE EHMI PULLS EXPERTISE FROM ALL DIVISIONS AT THE ACADEMIES

- Division of Behavioral and Social Sciences and Education
  - Social and Behavioral Learning
    - from the Board on Environmental Change and Society
- Transportation Research Board
  - Transportation and Health
    - From divisions across the Transportation Research Board
- Division on Earth and Life Studies
  - Aerosol Science
    - from the Board on Atmospheric Science and Climate
  - Virology
    - from the Board on Life Sciences
  - Environmental Science, Exposure Assessment, Risk Assessment, and Indoor Air
    - from the Board on Environmental Studies and Toxicology
- Policy and Global Affairs
  - Resiliency and Science Policy
    - from the Resilient America Roundtable
- Health and Medicine Division
  - Infectious Disease and Medicine
    - from the Board on Global Health and the Forum on Microbial Threats
  - Public and Population Health
    - from the Board on Population Health
- Gulf Research Program
  - Health, Resilience, and Community Engagement in the Gulf
    - from the Gulf Health and Resilience Board
- Division of Engineering and Physical Sciences
  - Federal Facilities and Buildings
    - from the Board on Infrastructure and the Constructed Environment
  - Environmental Ethics, Engineering, and Indoor Air
    - from the National Academy of Engineering

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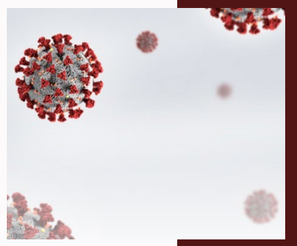
Past Workshops

Participants from 35 U.S. states and 11 countries



PFAS EXPOSURE
SEPT. 2019

180 in-person and 660 webcast participants

WATER INFRASTRUCTURE
NOV. 2019

160 in-person and 460 webcast participants

AIRBORNE TRANSMISSION OF COVID-19
AUG. 2020

15,000 participants, virtual only

POLLUTION FROM AGRICULTURE
JAN. 2021

1,488 participants, virtual only

MOBILITY AND TRANSPORTATION
JUL. 2021

1,600 participants, virtual only

Workshop Outputs

Proceedings-in-Brief


Proceedings of a Workshop
IN BRIEF
October 2020
AIRBORNE TRANSMISSION OF SARS-CoV-2
Proceedings of a Workshop—in Brief
The National Academies of
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2020

Airborne Transmission of SARS-CoV-2: Proceedings of a Workshop—in Brief

With the rapidly evolving coronavirus disease 2019 (COVID-19) pandemic, researchers are racing to find answers to critical questions about the virus that causes the disease severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Understanding how the virus is transmitted is among the most important questions, as it will inform efforts to stop its spread. For example, can the virus be transmitted via speech and exhaled breath? How long can aerosols containing the virus linger in the air? How far can these aerosols travel? Is the amount of virus in these aerosols enough to cause infection? These questions and more were the subject of an August 26–27, 2020, National Academies of Sciences, Engineering, and Medicine virtual workshop that convened experts in aerosol science and atmospheric chemistry, building engineering, epidemiology, environmental health, infectious disease, pulmonary medicine, public health, and virology to explore the evidence on airborne transmission of SARS-CoV-2. This publication summarizes the presentations and discussions from the workshop.


Proceedings of a Workshop
IN BRIEF
August 2020
Understanding, Controlling, and Preventing Exposure to PFAS
Proceedings of a Workshop—in Brief
The National Academies of
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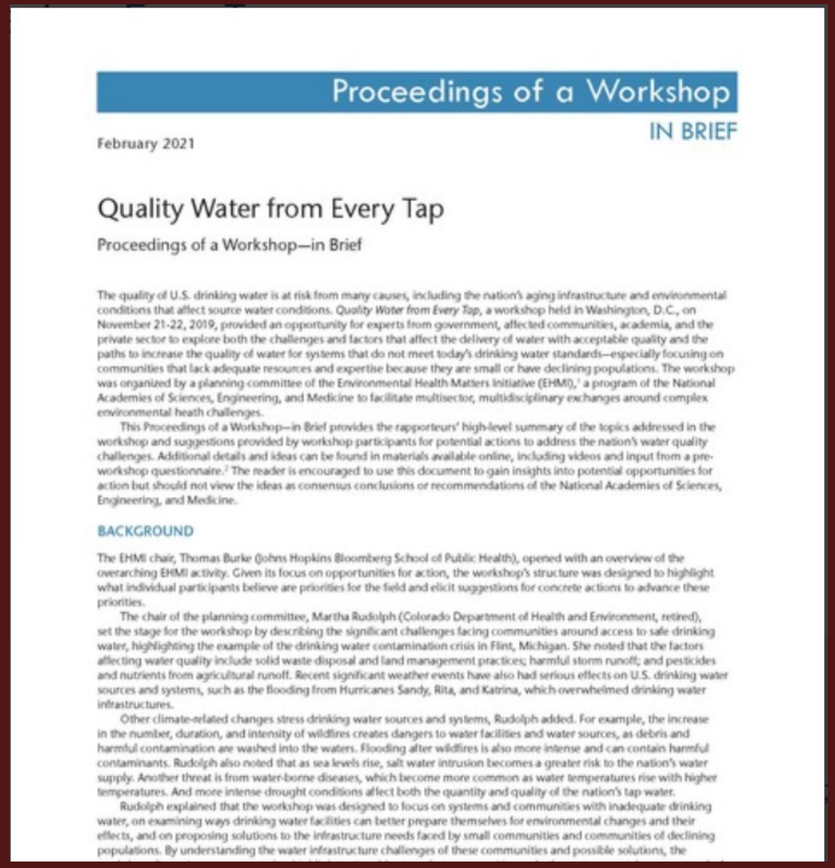
2020

Understanding, Controlling, and Preventing Exposure to PFAS: Proceedings of a Workshop–in Brief

The use of perfluoroalkyl and polyfluroalkyl substances (PFAS) - fluorinated organic compounds that appear in such materials as firefighting foams, cleaning products, and coatings to treat carpeting, packaging, and cookware - has led to widespread environmental contamination. The first workshop of the Environmental Health Matters Initiative explored human exposure to PFAS, discussed options for controlling PFAS exposures, and considered innovative approaches for preventing PFAS exposures. The ultimate goal of the event was to highlight what various sectors can do to advance our understanding of the extent of human exposure to PFAS and to reduce or prevent PFAS exposure. This publication highlights the presentation and discussion of the workshop.

Digital Guide


Proceedings of a Workshop
IN BRIEF
February 2021

Quality Water from Every Tap

Proceedings of a Workshop—in Brief

The quality of U.S. drinking water is at risk from many causes, including the nation's aging infrastructure and environmental conditions that affect source water conditions. *Quality Water from Every Tap*, a workshop held in Washington, D.C., on November 21-22, 2019, provided an opportunity for experts from government, affected communities, academia, and the private sector to explore both the challenges and factors that affect the delivery of water with acceptable quality and the paths to increase the quality of water for systems that do not meet today's drinking water standards—especially focusing on communities that lack adequate resources and expertise because they are small or have declining populations. The workshop was organized by a planning committee of the Environmental Health Matters Initiative (EHMI),[1] a program of the National Academies of Sciences, Engineering, and Medicine to facilitate multisector, multidisciplinary exchanges around complex environmental heath challenges.

This Proceedings of a Workshop—in Brief provides the rapporteurs' high-level summary of the topics addressed in the workshop and suggestions provided by workshop participants for potential actions to address the nation's water quality challenges. Additional details and ideas can be found in materials available online, including videos and input from a pre-workshop questionnaire.[2] The reader is encouraged to use this document to gain insights into potential opportunities for action but should not view the ideas as consensus conclusions or recommendations of the National Academies of Sciences, Engineering, and Medicine.

BACKGROUND

The EHMI chair, Thomas Burke (Johns Hopkins Bloomberg School of Public Health), opened with an overview of the overarching EHMI activity. Given its focus on opportunities for action, the workshop's structure was designed to highlight what individual participants believe are priorities for the field and elicit suggestions for concrete actions to advance these priorities.

The chair of the planning committee, Martha Rudolph (Colorado Department of Health and Environment, retired), set the stage for the workshop by describing the significant challenges facing communities around access to safe drinking water, highlighting the example of the drinking water contamination crisis in Flint, Michigan. She noted that the factors affecting water quality include solid waste disposal and land management practices; harmful storm runoff; and pesticides and nutrients from agricultural runoff. Recent significant weather events have also had serious effects on U.S. drinking water sources and systems, such as the flooding from Hurricanes Sandy, Rita, and Katrina, which overwhelmed drinking water infrastructures.

Other climate-related changes stress drinking water sources and systems, Rudolph added. For example, the increase in the number, duration, and intensity of wildfires creates dangers to water facilities and water sources, as debris and harmful contamination are washed into the waters. Flooding after wildfires is also more intense and can contain harmful contaminants. Rudolph also noted that as sea levels rise, salt water intrusion becomes a greater risk to the nation's water supply. Another threat is from water-borne diseases, which become more common as water temperatures rise with higher temperatures. And more intense drought conditions affect both the quantity and quality of the nation's tap water.

Rudolph explained that the workshop was designed to focus on systems and communities with inadequate drinking water, on examining ways drinking water facilities can better prepare themselves for environmental changes and their effects, and on proposing solutions to the infrastructure needs faced by small communities and communities of declining populations. By understanding the water infrastructure challenges of these communities and possible solutions, the


Filters
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By Keyword
Keyword Filter
SUBMIT
Possible Actor(s)
Topic
MECHANISMS FOR LIMITING PFAS
Assess markets and incentives for green manufacturing
Possible actor(s): Economists, Government
Learn more about Mechanisms for Limiting PFAS
TRACING SOURCES AND ROUTES OF EXPOSURE
Characterize how compounds interact, how long PFAS persist in various media, and how it moves
Possible actor(s): Researchers
Learn more about Tracing Sources and Routes of Exposure

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- Jamie Donatuto, Swinomish Indian Tribal Community
- Adrienne L. Hollis, Hollis Environmental Consulting
- Tisha Joseph Holmes, Florida State University
- Philip R.S. Johnson, The Heinz Endowments
- Rebecca E. Morss, National Center for Atmospheric Research
- Bakeyah S. Nelson, Climate Imperative, Energy Innovation
- Linda Rudolph, Public Health Institute
- Peggy M. Shepard, WE ACT for Environmental Justice
- Sacoby M. Wilson, University of Maryland

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- Thomas A. Burke, Johns Hopkins University
- George P. Daston, Procter & Gamble Company
- Ana V. Diez Roux, Drexel University
- Estella Geraghty, Esri
- Lynn R. Goldman, The George Washington University
- Daniel Greenbaum, Health Effects Institute
- Gavin Huntley-Fenner, Huntley-Fenner Advisors
- Philip R.S. Johnson, Heinz Foundation
- Beth Karlin, See Change Institute
- Jennifer McPartland, Environmental Defense Fund
- Devon C. Payne-Sturges, University of Maryland
- Amy Pruden, Virginia Tech

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- Joel Tickner, Green Chemistry and Commerce Council (GC3)
- Juli Trtanj, National Oceanic and Atmospheric Administration
- Jalonne White-Newsome, Empowering a Green Environment and Economy