

NATIONAL
ACADEMIES

Sciences
Engineering
Medicine

Communities, Climate Change, and Health Equity – State-Level Implementation

A Virtual Workshop Series from the
Environmental Health Matters Initiative

May 24, 2022 12:00pm-3:00pm ET

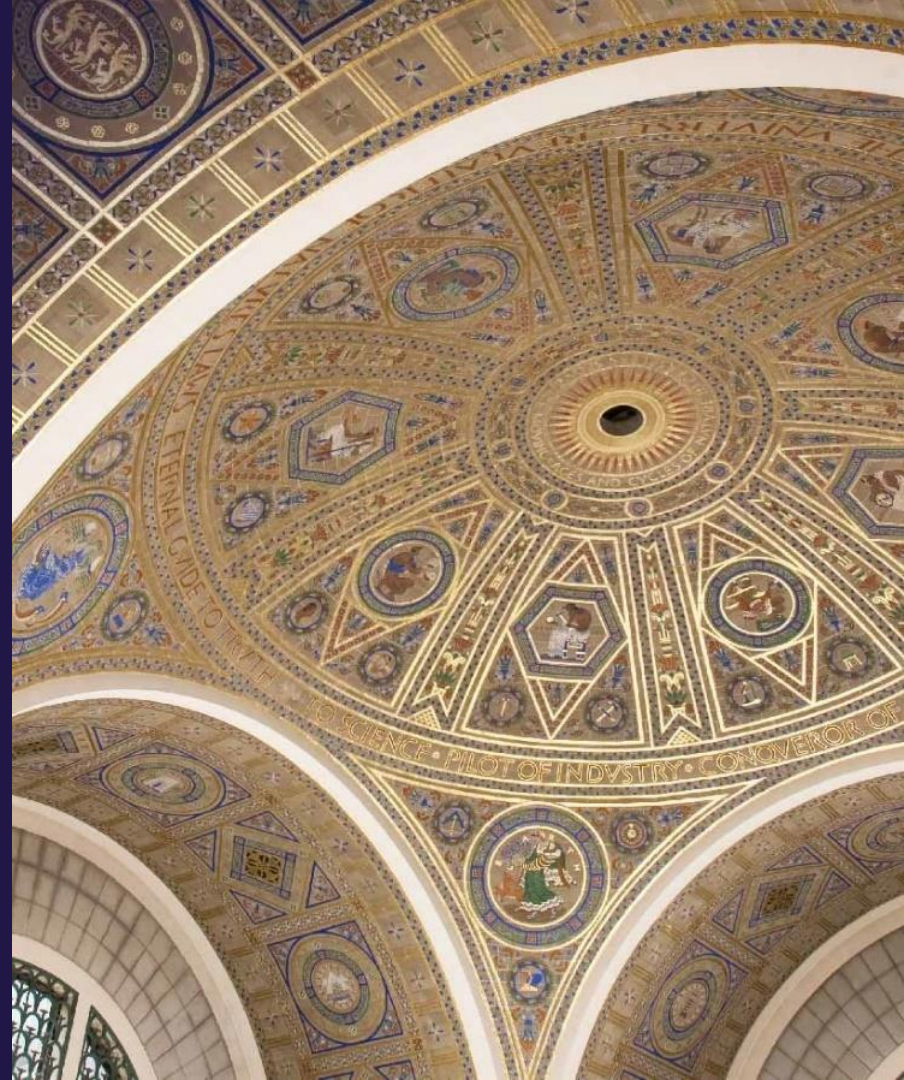
May 26, 2022 12:00pm-3:00pm ET



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.



THE ENVIRONMENTAL HEALTH MATTERS INITIATIVE

The EHMI pulls expertise from all divisions across the Academies

Division of
Engineering and
Physical Sciences

Division on Earth
and Life Studies

Division of
Behavioral and
Social Sciences and
Education

Policy and
Global Affairs

Health and
Medicine Division

Federal Facilities and
Buildings

from the Board on
Infrastructure and the
Constructed Environment

Aerosol Science

from the Board on
Atmospheric Science and
Climate

Social and
Behavioral Learning
from the Board on
Environmental
Change and Society

Resiliency and
Science Policy

from the Resilient
America Roundtable

Infectious Disease and
Medicine

from the Board on
Global Health and the
Forum on Microbial
Threats

Environmental Ethics,
Engineering, and Indoor
Air

from the National
Academy of Engineering

Virology

from the Board on Life
Sciences

Transportation
Research Board

Gulf Research Program

Transportation
and Health
From divisions
across the
Transportation
Research Board

Health, Resilience, and
Community
Engagement in the Gulf
from the Gulf Health
and Resilience Board

Public and Population
Health

from the Board on
Population Health

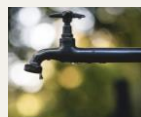
Past Workshops

Participants from 35 U.S. states and 11 countries



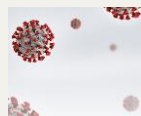
PFAS EXPOSURE
SEPTEMBER 2019

- 180 in-person & 660 webcast participants



WATER INFRASTRUCTURE
NOVEMBER 2019

- 160 in-person & 460 webcast participants



**AIRBORNE TRANSMISSION
OF COVID-19**
AUGUST 2020

- 15,000 participants, virtual only



**POLLUTION FROM
AGRICULTURE**
JANUARY 2021

- 1,488 participants, virtual only



**MOBILITY AND
TRANSPORTATION**
JULY 2021

- 1,600 participants, virtual only



**CLIMATE CHANGE AND
HEALTH EQUITY**
OCTOBER 2021

- 1,300 participants, virtual only

Workshop Outputs

Proceedings-in-Brief



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.



2020

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

The use of perfluoroalkyl and polyfluoroalkyl 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

Filters

36 results

[Clear All](#)

By Keyword

Possible Actor(s)

+

Topic

+

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), a program of the National Academies of Sciences, Engineering, and Medicine to facilitate multisector, multidisciplinary exchanges around complex environmental health 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.⁷ 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 infrastructure.

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

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](#)

Workshop Planning Committee

- Jeanne Herb, Rutgers University (Chair)
- Brad Colman, The Climate Corporation
- Natasha K. DeJarnett, University of Louisville
- Deborah K. Gaddy, Clean Water Action
- Carolyn J. Hanson, Environmental Council of the States
- Linda Helland, California Department of Public Health, Office of Health Equity
- Abraham G. Kulungara, Association of State and Territorial Health Officials
- Ana Mascareñas, Independent Consultant
- Matt McKillop, Trust for America's Health
- Jackie Qataliña Schaeffer, Alaska Native Tribal Health Consortium

EHMI Steering Committee

- Martha E. Rudolph (Co-Chair), Colorado Department of Public Health and Environment (retired)
- Jonathan M. Samet (Co-Chair), Colorado School of Public Health
- Darrell Boverhof, The Dow Chemical Company
- 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, Beautycounter
- Devon C. Payne-Sturges, University of Maryland
- Amy Pruden, Virginia Tech

Steering Committee



EHMI Liaisons

- Francie Abramson, Target
- John Balbus, HHS Office of Climate Change and Health Equity
- Linda Birnbaum, NIH/National Institute for Environmental Health Sciences
- Patrick Breysse, Centers for Disease Control and Prevention
- David Dyjack, National Environmental Health Association
- Zach Freeze, Walmart
- Richard Fuller, Pure Earth
- Carlos Gonzalez, National Institute of Standards and Technology
- Maureen Gwinn, Environmental Protection Agency
- Ansje Miller, Health and Environmental Funders Network
- Gary Minsavage, Exxon-Mobil Corporation
- Surili Patel, The Metropolitan Group
- Geoffrey S. Plumlee, U.S. Geological Survey
- Katherine Robb, American Public Health Association
- Karl Rockne, National Science Foundation
- John Seibert, Department of Defense
- Robert Skoglund, Covestro
- Joel Tickner, Green Chemistry and Commerce Council (GC3)
- Juli Trtnanj, National Oceanic and Atmospheric Administration
- Jalonne White-Newsome, Council on Environmental Quality