



# EMERGING SCIENCE FOR ENVIRONMENTAL HEALTH DECISIONS

## MEETING AGENDA

### The Interplay Between Environmental Exposures and Mental Health Outcomes

FEBRUARY 2-3, 2021

THE NATIONAL ACADEMIES OF SCIENCES, ENGINEERING, AND MEDICINE

A Collaborative Virtual Workshop of  
The Standing Committee on the Use of Emerging Science For Environmental Health Decisions,  
The Forum on Mental Health and Substance Use Disorders,  
The Forum on Neuroscience and Nervous System Disorders, and  
The Board on Behavioral, Cognitive, and Sensory Sciences

*All Times Listed are in Eastern Time*

**THERE IS GROWING EVIDENCE THAT THE ENVIRONMENT** can play an important role in mental health, yet research into the effects of environmental stressors rarely focuses on behavioral and mental health outcomes. This virtual workshop will bring together experts in mental health and environmental health research to explore emerging research on the relationship, harmful or

beneficial, between environmental factors and mental health. The workshop will conclude with discussion on opportunities to better integrate mental and behavioral health into environmental health research and public health policy decisions.

#### PRE-WORKSHOP

Three video primers are now available to view, providing pertinent background information for the workshop's presentations and discussions. Workshop participants are strongly encouraged to watch the primers in advance of the workshop.

- Primer 1: Mental Health for Environmental Health Professionals—**Erika Manczak\***, University of Denver
- Primer 2: Environmental Health for Mental Health Professionals—**Melissa Perry\*†**, The George Washington University
- Primer 3: The Role of Genetics in Mental and Behavioral Health Disorders—**Daniel Geschwind**, University of California, Los Angeles

\*Member of the Workshop Organizing Committee

†Member of the Standing Committee on the Use of Emerging Science for Environmental Health Decisions

#### TUESDAY, FEBRUARY 2, 10:30 AM - 3:30 PM

10:30 Welcome and Opening Remarks

- **Christopher Rea**, National Academies of Sciences, Engineering, and Medicine
- **Allie Andrada**, National Academies of Sciences, Engineering, and Medicine
- **Rick Woychik**, National Institute of Environmental Health Sciences
- **Joshua Gordon**, National Institute of Mental Health

11:00 Toward a Mental Health Paradigm in Environmental Health Research and Decision Making—**Erika Manczak\***, University of Denver

11:15 Intersectional Perspective on the Breadth of Environmental Considerations in Mental Health Research and Public Health Practice—**Sandro Galea**, Boston University

### SESSION 1 EMERGING TRENDS AT THE INTERSECTION OF POLLUTION EXPOSURES AND MENTAL HEALTH

Moderator: **Patrick Ryan\***, Cincinnati Children's Hospital Medical Center

11:45 Interplay of Air Pollution Exposure and Mental Health—**Joanne Newbury**, University of Bristol

12:05 Interplay of Pesticide Exposure and Mental Health—**Virginia Rauh**, Columbia University

12:25 Break

1:00 Interplay of Metal Exposure and Mental Health—**Aaron Reuben\***, Duke University

1:20 Session 1 Panel Discussion  
- **Bruce Lanphear**, Simon Fraser University  
- **Jennifer Manly**, Columbia University Irving Medical Center  
- **Session 1 Speakers**

2:00 Break

### SESSION 2 EMERGING TRENDS AT THE INTERSECTION OF ENVIRONMENTAL DISRUPTIONS AND MENTAL HEALTH

Moderator: **Emily Freeman\***, Lundbeck Pharmaceuticals LLC

2:10 The Interplay of Climate Change and Mental Health—**Joshua Morganstein**, Uniformed Services University

2:30 Environmental Disruptions & Mental Health Disparities: Lesson Learned from the Flint Water Crisis—**C. Debra Furr-Holden**, Michigan State University College of Human Medicine

2:50 Session 2 Panel Discussion

- **Richard Kwok**, National Institute of Environmental Health Sciences  
- **Margaret (Maggie) Sugg**, Appalachian State University  
- **Farris Tuma**, National Institute of Mental Health  
- **Gregory Wellenius**, Boston University  
- **Session 2 Speakers**

3:30 Day 1 Closing Remarks—**Gary Miller\*\***, Columbia University

3:35 Adjourn Day 1

### WEDNESDAY, FEBRUARY 3, 10:30 AM - 2:15 PM

10:30 Welcome and Opening Remarks—**Laura Cabrera\***, Michigan State University

### SESSION 3 MENTAL HEALTH BENEFITS OF A HEALTHY ENVIRONMENT

Moderator: **Margarita Alegria\***, Massachusetts General Hospital

10:40 Structural Racism, Urban Nature, and Why Place Matters for Community Mental Health—**Eugenia C. South**, University of Pennsylvania Perelman School of Medicine

11:00 The Impact of Resiliency on Communities' Exposure to Environmental Disruptions and Disasters—**Maureen Lichtveld**, University of Pittsburgh

11:20 Session 3 Panel Discussion  
- **Dawn Morales**, National Institute of Mental Health  
- **Amber Pearson**, Michigan State University  
- **Amy M. Bohnert**, Loyola University Chicago  
- **Rebecca M.B. White**, Arizona State University  
- **Session 3 Speakers**

12:00 Break

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#### SESSION 4 REFLECTION ON EMERGING OPPORTUNITIES FOR THE PATH AHEAD

Moderator: **Gina Solomon**<sup>†</sup>, University of California, San Francisco

12:40 Synthesis of Themes into the Context of Decision-Making

- Opportunities to Advance Emerging Tools, Technologies—**Jonathan Hollander**, National Institute of Environmental Health Sciences
- Opportunities to Advance Convergence of Research Disciplines—**Sarah Lowe**, Yale School of Public Health
- Opportunities to Enhance Public Health Policy—**Gina Solomon**<sup>†</sup>, University of California, San Francisco

1:10 Session 4 Panel Discussion

- **Patrick Breyse**, Centers for Disease Control and Prevention
- **Daniel Geschwind**, University of California, Los Angeles
- **Alonzo Plough**, Robert Wood Johnson Foundation
- **Nora Volkow**, National Institute of Drug Abuse
- **Tina Bahadori**, The National Academies of Sciences, Engineering, Medicine

2:00 Closing Remarks—**Gary Miller**<sup>‡</sup>, Columbia University

2:15 Adjourn Workshop<sup>‡</sup>

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<sup>\*</sup>Member of the Workshop Organizing Committee

<sup>†</sup>Member of the Standing Committee on the Use of Emerging Science for Environmental Health Decisions

<sup>‡</sup>The Use of Emerging Science for Environmental Health Decisions Standing Committee Business Meeting is from 2:30-3:15. This meeting is open to committee members, federal government liaisons, and workshop organizers and participants.

#### Workshop Organizing Committee

This workshop was organized by the following experts: **Gina Solomon**<sup>†</sup> (chair), University of California, San Francisco; **Margarita Alegria**, Massachusetts General Hospital; **Laura Cabrera**, Michigan State University; **Emily Freeman**, Lundbeck Pharmaceuticals LLC; **Erika Manczak**, University of Denver; **Gary Miller**, Columbia University; **Aaron Reuben**, Duke University; **Patrick Ryan**, Cincinnati Children's Hospital Medical Center.

#### About the Standing Committee on the Use of Emerging Science for Environmental Health Decisions

The National Academies' Standing Committee on the Use of Emerging Science for Environmental Health Decisions (ESEHD) examines and discusses issues on the use of new science, tools, and research methodologies for environmental health decisions. The ESEHD committee is organized under the auspices of Board on Life Sciences and the Board on Environmental Studies and Toxicology of the National Academies of Sciences, Engineering, and Medicine, and sponsored by the National Institute of Environmental Health Sciences.