Sunday, May 5

11:30 am  Lunch

1:00 pm  **Welcome and Conference Opening**  
*Dan Greenbaum, Health Effects Institute*

1:10 pm  **New Mobility: Changing Health?**  
Chairs: *David Foster, University of Wisconsin, Madison,* and HEI Research Committee; and *Frank Kelly, King’s College London, United Kingdom,* and HEI Review Committee

Mobility systems are undergoing a paradigm shift and have the potential to significantly change the way people travel. Rideshare businesses are expanding, and innovations and investments in electric and autonomous vehicles are increasing. In response, the relationship between transportation and air quality is also expected to change, but the actual path that change will take is not yet known. This session will explore the likely impact of emerging mobility trends on current and future air quality and health.

1:10  Introduction  
*Frank Kelly*

1:15  Global Overview of the Transportation Revolution  
*Dan Sperling, University of California, Davis*

1:45  Connection Between Changing Mobility and Infrastructure  
*Charlene Rohr, RAND, United Kingdom*

2:15  Effects of Technologies and Their Deployment on Air Pollution  
*Marianne Hatzopoulou, University of Toronto, Canada*

2:45  Potential Health Implications of New Mobility  
*Haneen Khreis, Texas A&M University*

3:15  Panel Discussion  
**Moderator: David Foster**  
Discussants: *Shannon Walker, City of Seattle Department of Transportation,*  
*Britta Gross, General Motors,*  
and the speakers

3:45 pm  Break

4:00 pm  **Poster Session 1**

6:00 pm  **Opening Reception, Dinner, and Awards Presentation**
Monday, May 6

7:00 am  Breakfast

8:00 am  Health Effects of Early-Life Exposure to Air Pollution
Chairs: Barbara Hoffmann, University of Düsseldorf, Germany, and HEI Research Committee; and David Savitz, Brown University and HEI Research Committee

Evidence for potential impacts of prenatal and early-life air pollution exposure on health is rapidly increasing, and some birth outcomes are currently being considered for inclusion in Global Burden of Disease estimates. This session will provide an overview of the state of knowledge on various birth and other childhood health outcomes, consider methodological issues unique to this topic, and discuss longer-term consequences of early-life exposures for adult health.

8:00  Introduction  
Barbara Hoffmann

8:10  Epidemiological Evidence for Adverse Birth Effects Associated with Prenatal Exposure to Air Pollution  
Marie Pedersen, University of Copenhagen, Denmark

8:35  Respiratory Effects and Asthma in Children  
Rosalind Wright, Icahn School of Medicine at Mount Sinai

9:00  Neurodevelopmental Effects  
Sharon Sagiv, University of California, Berkeley

9:25  Obesity and Type 2 Diabetes in Children  
Tanya Alderete, University of Colorado, Boulder

9:50  General Discussion

10:00 am  Break

10:30 am  Poster Session 2

12:15 pm  Lunch

1:15 pm  Global Health: Building Science for Informed Action
Chairs: Kiros Berhane, University of Southern California and HEI Review Committee; and Aaron Cohen, Health Effects Institute and Institute for Health Metrics and Evaluation, University of Washington, Seattle

In regions where air pollution levels are high, local data on exposures, sources, and related health effects are often limited. While current health burden estimates draw primarily from studies conducted in North America and Europe, efforts are underway to generate locally relevant air quality and health data in developing countries. This session will explore data, methods, and technology developments to characterize air pollution and its sources and health effects in these countries.

1:15  Introduction and Overview of HEI Global Health Program  
Katy Walker, Health Effects Institute

1:25  Harmonizing Disparate Global and Local Air Quality Data to Support Research and Communication  
Christa Hasenkopf, OpenAQ
1:45 New Developments and Opportunities in Global Satellite Technology for Air Pollution and Health Research  
*Bryan Duncan*, National Aeronautics and Space Administration

2:05 Improving Understanding of Concentration Response Functions in Countries with High Ambient Particulate Matter Exposure: China Cohort Studies of Air Pollution and Health  
*Haidong Kan*, Fudan University, Shanghai, China

*Lalit Dandona*, Public Health Foundation of India

2:45 General Discussion

3:15 pm Break

3:30 pm **Where There’s Wildfire, There’s Smoke**  
*Chairs: Jennifer Peel, Colorado State University and HEI Review Committee; and Allen Robinson, Carnegie Mellon University and HEI Research Committee*

Wildfire smoke is increasingly recognized as an important source of air pollution, and frequency and intensity of wildfires are likely to increase with climate change. Wildfires and wildfire smoke composition are complex and dynamic, making exposure characterization difficult. Increasing evidence links air pollution from wildfire smoke to adverse health effects, in particular respiratory morbidity. This session will explore perceptions and realities about wildfires and their global impacts.

3:30 Why Study the Health Effects of Wildfires?  
*Jennifer Peel*

3:50 Where There’s Wildfire, There’s Smoke: An Epidemiological Perspective  
*John Balmes*, University of California, San Francisco

4:10 Modeling, Monitoring, and Messaging Wildfire Smoke for Air Quality and Public Health  
*Sim Larkin*, U.S. Department of Agriculture, Forest Service

4:30 Hands-On Experience Mitigating Wildfire Impacts  
*Sarah Coefield*, Missoula City-County Health Department

4:50 U.S. EPA’s Research Perspectives on the Health Impacts of Wildfires and Wildfire Smoke  
*Alan Vette*, U.S. Environmental Protection Agency

5:10 General Discussion

5:30 pm Free Evening

(Program continues on next page)
Tuesday, May 7

7:00 am    Breakfast

8:30 am    How Low? Testing Health Effects at the Lowest Levels of Air Pollution
            Chairs: Amy Herring, Duke University and HEI Research Committee; and Sverre Vedal, University of Washington, Seattle

Although ambient air pollution levels are declining in high-income regions, epidemiological studies report associations with health effects at levels below current standards, raising questions about even lower standards. HEI is in the midst of funding three studies investigating the health effects of low-level exposure in very large populations in the United States, Canada, and Europe. This session will present the results currently available from those studies and their strengths and weaknesses identified by an independent HEI Review Panel, and discuss implications for future risk assessment and regulation.

8:30 What Are the Risk Assessment and Policy Decisions to Be Informed?
    Dan Greenbaum, Health Effects Institute

8:40 Introduction to HEI’s Program to Assess Health Effects of Long-Term Exposure to Low Levels of Ambient Air Pollution
    Hanna Boogaard, Health Effects Institute

8:50 Results from the European Analysis Using ESCAPE Cohorts and Various Large Administrative Data Sets
    Maciej Strak, Utrecht University, the Netherlands

9:10 MAPLE: Mortality–Air Pollution Associations in Low Exposure Environments in Canada
    Dan Crouse, University of New Brunswick, Canada

9:30 Results from the U.S. Study Using Medicare Data
    Qian Di, Harvard T.H. Chan School of Public Health

9:50 General Discussion

10:00 am    Break

10:30 Comments from the HEI Review Panel
    Sverre Vedal

10:45 The Current Knowledge on Adverse Effects of Low-Level Air Pollution: Have We Filled the Gap?
    Jon Samet, Colorado School of Public Health

11:00 General Discussion

11:30 am    Boxed Lunch

12:00 pm    The HEI Strategic Plan 2020–2025
            Chairs: Dan Greenbaum, Robert O’Keefe, and Rashid Shaikh; Health Effects Institute

The Institute’s draft blueprint for the future, the HEI Strategic Plan for 2020–2025, will be presented and discussed. Conference participants are encouraged to suggest and comment on upcoming policy decisions for which enhanced science will be needed and on priorities for HEI’s research programs and other activities during the next five years.

1:30 pm    Conference Adjourns