



Network for Environmental Risk  
Assessment and Management

## NERAM COLLOQUIUM 2002

### Interpreting Epidemiological Studies of Acute & Long Term Exposure to Particulate Matter for Policy Development

November 21-22, 2002  
The Admiral Fell Inn, Baltimore Maryland  
888 South Broadway

*Center for Risk Sciences and Public Policy, Johns Hopkins University, Baltimore, MD*

#### Objective:

The first Colloquium in the series "Health and Air Quality 2001" served as a forum for sharing Canadian and U.S. regulatory perspectives on PM standard development, reviewing the policy-relevant findings of the re-analysis of the Harvard Six City Study and the American Cancer Society study of particulate air pollution and mortality, and identifying key scientific research needs for policy making.

The re-analysis of cohort and time series studies provides a foundation for the evaluation of health effects from long-term and short-term exposure to airborne particulate matter. While analytic methods for the evaluation of data from epidemiological studies are relatively well established, there is considerable need for further development. The second Colloquium will serve as a forum for discussing alternative existing methodological approaches and exploring innovative methods for estimating the effects of airborne particulate matter on public health. The Colloquium will provide important insight into contentious issues in the interpretation of the associations between air quality and public health and implications for policy decisions. The Colloquium will benchmark the current and near term expectations for research results to guide policy development for reducing health impacts of particulate matter air pollution.

#### NOVEMBER 21, 2002

##### I. OPENING SESSION (Admiral 1 & Bridge Room)

- 8:30 Introduction & Welcome *Jonathan Samet, Johns Hopkins University*  
*John Shortreed, NERAM*
- 8:45 Summary of Colloquium 2001 *Daniel Krewski, McLaughlin Centre for Population*  
*Health Risk Assessment, University of Ottawa*

##### II. IDENTIFICATION OF KEY POLICY NEEDS Chair: *Tom Burke, Johns Hopkins University*

- 9:00 Policy Needs Panel *Michal Krzyzanowski, WHO European Centre for Environment and Health*  
*John Vandenberg, US EPA*  
*Dave Stieb, Health Canada*

- 9:30 PM Committee Perspective *Jonathan Samet, Johns Hopkins University*

- 9:45 Discussion

10:00 – 10:15 BREAK

##### III. MULTI-CITY ACUTE TIME SERIES STUDIES Chair: *Aaron Cohen, Health Effects Institute*

- 10:15 Analysis of the 100 U.S. Cities Time Series Study on the Possible Adverse Health Effects of Particulate Matter  
*Scott Zeger, Johns Hopkins University*
- 10:55 Analysis of European APHEA Studies *Klea Katsouyanni, University of Athens Medical School*

11:35 Discussion **Michal Krzyzanowski**, WHO European Centre for Environment and Health  
**Rick Burnett**, Health Canada/University of Ottawa

Open Discussion from Floor

12:00 – 13:00 LUNCH

#### IV. COHORT STUDIES OF LONG TERM EXPOSURE TO PARTICULATE MATTER

Chair: **Jonathan Samet**, Johns Hopkins University

13:00 Updated Analysis of American Cancer Society Cohort and Harvard Six Cities Studies  
**Arden Pope**, Brigham Young University

13:20 Future Directions in Cohort Studies **Bert Brunekreef**, Utrecht University

13:40 Discussant **Jonathan Samet**, Johns Hopkins University

14:15-14:30 BREAK

#### V. ANALYTIC ISSUES IN TIME SERIES AND COHORT STUDIES

Chair: **Ross Anderson**, UK St. George's Medical School

14:30 Emerging Issues in Air Pollution Time Series Analysis **Mark Goldberg**, McGill University

14:45 Assessment of Measurement Error in Epidemiological Studies of Air Pollution  
**Lianne Sheppard**, University of Washington

15:15 Harvesting and Reduction of Life Expectancy Based on Time Series and Cohort Studies  
**Dan Krewski**, University of Ottawa

15:45 Discussion **Duncan Thomas**, University of Southern California  
**Ari Rabl**, Ecole des Mines, Paris  
**Dan Stram**, University of Southern California

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### NOVEMBER 22, 2002

#### VI. UNIFYING ANALYTIC APPROACHES AND FUTURE DIRECTIONS

Chair: **Dan Krewski**, Institute for Population Health

9:00 Joint Analysis of Time Series and Cohort Studies **Francesca Dominici**, Johns Hopkins University

9:30 Spatial Analysis of Cohort Studies **Mike Jerrett**, McMaster University

10:00 GIS Approaches **David Briggs**, Imperial College

10:30 – 10:45 BREAK

10:45 Discussion **Rick Burnett**, Health Canada  
**Nino Künzli**, University of Southern California

12:00 – 13:15 LUNCH **NERAM Colloquium 2003** Planning Committee Report on Policy Themes

#### VII. POPULATION HEALTH IMPACTS OF URBAN AIR POLLUTION

Chair: **Michal Krzyzanowski**, WHO European Centre for Environment and Health

13:15 Risk Measures to Estimate Public Health Burden **Dave Stieb**, Health Canada

14:00 Global Burden of Diseases Due to Air Pollution **Ross Anderson**, UK St. George's Medical School

14:45 Plenary Discussion

15:45 CLOSING REMARKS **Jon Samet**, Johns Hopkins University