## **CURRICULUM VITAE** Francesca Dominici

# PERSONAL DATA

Home address:	337 Warren Avenue	
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Business Address:	Department of Biostatistics	
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# **EDUCATION AND TRAINING**

PhD/1997	Statistics, University of Padua, Italy
Laurea (B.S)/1993	Statistics, University La Sapienza, Rome, Italy, 110/110 (cum laude)

# **PROFESSIONAL EXPERIENCE**

2007-present	Professor Department of Biostatistics, Johns Hopkins Bloomberg School of Public Health
2002-2007	Associate Professor Department of Biostatistics, Johns Hopkins Bloomberg School of Public Health
2001-present	Joint Appointment, Department of Epidemiology Johns Hopkins Bloomberg School of Public Health
1999-2002	Assistant Professor, Department of Biostatistics Johns Hopkins Bloomberg School of Public Health
1997-1999	Visiting Assistant Professor, Department of Biostatistics Johns Hopkins Bloomberg School of Public Health
1995-1997	Visiting Scholar, Institute of Statistics and Decision Sciences Duke University, North Carolina

## **PROFESSIONAL ACTIVITIES**

#### Society Memberships and Leadership

American Statistical Association International Biometric Society International Society for Environmental Epidemiology

International Biometric Society ENAR Spring Meeting, Washington, DC, Program Committee Member 2002

International Biometric Society ENAR Spring Meeting, Washington DC, Program Committee Member for the Junior Researcher Workshop 2002

International Biometric Society ENAR Spring Meeting, Washington DC, Chair of the Program Committee Member for the Junior Researcher Workshop 2002

## Participation on Advisory Panels

National Academy of Science Committee to Review ATSDR's Great Lakes Report, April 2008- August 2008

National Academy of Science Committee on Making Best Use of the Agent Orange Exposure Reconstruction Model, 2007-2008

National Academy of Science Committee on Gulf War and Health, 2005-2006

National Academy of Science Committee to assess potential health effects from exposures to PAVE PAWS low-level phased-array radiofrequency energy in Cape Cod, MA, 2002-2005

External Advisory Board, University of Washington Seattle, Department of Environmental and Occupational Health Sciences, MESA Air Pollution Study, PI Joel Kaufman, 2005-2015

External Review Committee of the NIH NICHD Division of Epidemiology, Statistics Prevention Research (DESPR), 2004

Advisory Board of the International Biometric Society, Eastern North American Region (ENAR), 2003-2005

Scientific Review Panel on Center for Environmental Statistics, EPA study section, 2001.

#### **Consultations**

Litigation of "Kerr et al versus Aereojet General Corporation" on a Neuroblastoma Incidence Analysis, Chino Hills California, 2005

National Academy of Science Committee on Research Priorities for Airborne Particulate Matter, 2002

Clean Air Act Advisory Board of the EPA, 2002

Pacific Business Group on Health: The 1998 Asthma Outcome Survey

Kaiser Permanente: Morbidity and Mortality Associated with Air Pollution Among Kaiser Permanente California Members, 1998

## Testimony

Maryland State Committee on House Economic Matters on Health Effects of Particulate Matter and Ozone, 2005

Maryland State Committee on Education, Health, and Environmental Affairs on Health Effects of Particulate Matter and Ozone, 2005

Litigation of "Kerr et al versus Aereojet General Corporation" on a Neuroblastoma Incidence Analysis, Chino Hills California, 2005

## Other/Invited Sessions to Scientific Meetings

American Statistical Association, Joint Statistical Meeting, Minneapolis, MN, Methods for Spatial Data, 2005

International Biometric Society ENAR Spring Meeting, Washington, DC, Statistical Methods for Estimating the Health Effects of Air Pollution, 2002

International Biometrics Society, San Francisco, CA, Influence of the Measurement Error in the Exposure-Health Relationship, 2000

American Statistical Association, Joint Statistical Meeting, Baltimore, MD, The Health Effects of Particulate Matter, 1999

## **EDITORIAL ACTIVITIES**

Editorial Board Activities

Editor of the American Journal of Epidemiology, Statistical Methodology Area, May 2002-April 2007

Associate Editor of the Journal of the Royal Statistical Society, December 2007 - present

## Peer Review Activities

American Journal of Epidemiology Biometrics Biostatistics Environmetrics Environmental Health Perspectives Epidemiology Journal of the American Statistical Association Journal of the Royal Statistical Society Journal of the American Medical Association New England Journal of Medicine Science Statistics in Medicine

## Ad Hoc Review of Proposals

Environmental Protection Agency Health Effects Institute, Boston, MA National Institute of Health (NIH) National Institute of Environmental Health Sciences (NIEHS) Retirement Research Foundation Book proposals for John Wiley & Sons, New York and Springer, New York

# HONORS AND AWARDS

## Honors

2007 Dean's Lecture, Bloomberg School of Public Health

Fellow of the Johns Hopkins Center of Excellence in Public Health Tracking, Centers for Disease Control, 2005

Fellow of the American Statistical Association, 2005

Keynote speaker at the Royal Statistical Society, London, UK, 2002

Invitation to address the Royal Statistical Society, London, UK, 2002

## Awards

Myrto Lefkopoulou Distinguished Lectureship Award, Department of Biostatistics, School of Public Health, Harvard University, 2007

Gertrude Cox Award, Washington DC Chapter of the American Statistical Association and RTI International, 2007

Mortimer Spiegelman Award, Statistics Section of the American Public Health Association, 2006

Walter A. Rosenblith New Investigator Award, Three-Year Fellowship The Health Effects Institute, Boston, Massachusetts, 1999-2002

Young Investigator Award, The American Statistical Association Section of Statistics in Epidemiology, for the best paper of the year, 2001

Student Award, ENAR International Biometric Society, 1998

Three-Year Fellowship and Award for Study and Research Abroad Department of Statistics, University of Padua, Italy, 1994-1997

# PUBLICATIONS

Journal Articles (signifies peer review)

**Dominici F**, Parmigiani G, Reckhow KH, Wolpert RL (1997) Combining Information from Related Regressions, *Journal of Agricultural, Biological, and Environmental Statistics*, 2(3):294-312.

**Dominici F** (1997) Testing Simultaneous Hypotheses in Pharmaceutical Trials: A Bayesian Approach, *Journal of Biopharmaceutical Statistics*, 8(2):283-297.

Zeger SL, **Dominici F**, Samet JM (1999) Harvesting--Resistant Estimates of Pollution Effects on Mortality, *Epidemiology*, 10(2):171-175.

**Dominici** F, Parmigiani G, Wolpert RL, Hasselblad V (1999) Meta-analysis of Migraine Headache Treatments: Combining Information from Heterogeneous Designs, *Journal of the American Statistical Association*, 94(445):16-28.

**Dominici F** (2000) Combining Contingency Tables with Missing Dimensions, *Biometrics*, 56(2):546-553.

**Dominici F,** Parmigiani G, Clyde MA (2000) Conjugate Analysis of Multivariate Normal Data with Incomplete Observations, *Canadian Journal of Statistics*, 28(3):533-550.

**Dominici F,** Zeger SL, Samet JM (2000) A Measurement Error Model for Time-Series Studies of Air Pollution and Mortality, *Biostatistics*, (2):157-175.

Zeger S, Thomas D, **Dominici F,** Cohen AJ, Schwartz J, Dockery D, Samet JM (2000) Measurement Error in Time-series Studies of Air Pollution: Concepts and Consequences, *Environmental Health Perspectives*, 108(5):419-426.

**Dominici F,** Samet JM, Zeger SL (2000) Combining Evidence on Air pollution and Daily Mortality from the Twenty Largest US Cities: A Hierarchical Modeling Strategy, *Royal Statistical Society, Series A*, with discussion, 163(3):263-302, read at the Royal Statistical Society, London, January 10, 2000.

Daniels M, **Dominici F,** Samet JM, Zeger SL (2000) Estimating PM<sub>10</sub>-Mortality Dose-Response Curves and Threshold Levels: An Analysis of Daily Time-Series For the 20 Largest US Cities, American Journal of Epidemiology, with discussion, 152(5): 397-412.

Samet JM, **Dominici F**, Curriero F, Coursac I, Zeger SL (2000) Particulate Air Pollution and Mortality in 20 U.S. Cities: 1987-1994, *New England Journal of Medicine*, with discussion, 343(24):1742-1757.

**Dominici F,** Parmigiani G (2001) Bayesian Semiparametric Dose-Response Models: An Application to Toxicology, *Biometrics*, 57(1):166-173.

**Dominici F** (2002) Air Pollution and Health: What Can We Learn From a Hierarchical Approach? Invited Commentary on: Air Pollution Effects on Daily Clinic Visits for Lower Respiratory Illness by Hwang and Chan, *American Journal of Epidemiology*, 155(1):11-15.

**Dominici F,** Daniels M, Zeger SL, Samet JM (2002) Air Pollution and Mortality: Estimating Regional and National Dose-Response Relationships, *Journal of the American Statistical Association*, 97(457):100-111.

Diette GB, Krishnan J, **Dominici F,** Haponik E, Skinner EA, Steinwachs D, Wu AW (2002) Asthma in the Elderly: Factors Associated with Hospitalization, *Archives of Internal Medicine*, 162:1123-1132.

**Dominici F,** McDermott A, Zeger SL, Samet JM (2002) On the Use of Generalized Additive Models in Time Series Studies of Air Pollution and Health, *American Journal of Epidemiology*, 156(3):193-203.

**Dominici** F, McDermott A, Zeger SL, Samet JM (2003) National Maps of the Effects of Particulate Matter on Mortality: Exploring Geographical Variation, *Environmental Health Perspectives*, 111(1):39-43.

Johnson E, **Dominici F,** Griswold M, Zeger SL (2003) Disease Cases and Their Medical Costs Attributable to Smoking: An Analysis of the National Medical Expenditure Survey, *Journal of Econometrics*, 112(1):135-151.

Samet JM, **Dominici F**, McDermott A, Zeger SL (2003) New Problems for an Old Design: Time-Series Analyses of Air Pollution and Health, *Epidemiology*, 14(1):11-12.

Burnett R, Dewanji A, **Dominici F,** Cohen A, Goldberg M, Krewski D (2003) On the Relationship Between Time Series Studies, Dynamic Population Studies, and Estimating Life Lost Due to Short-Term Exposure to Environmental Risks, *Environmental Health Perspectives*, 111:1170-1174.

**Dominici** F, McDermott A, Samet JM, Zeger SL (2003) Airborne Particulate Matter and Mortality: Time-Scale Effects in Four US Cities, *American Journal of Epidemiology* (with invited commentary), 157:1055-1065.

**Dominici F,** McDermott A, Samet JM, Zeger SL (2003) Response to Dr Smith: Timescale-Dependent Mortality Effects of Air Pollution, *American Journal of Epidemiology*,157:1071-1073.

**Dominici F,** and Burnett R (2003) Risk Models for Particulate Air Pollution, *Journal of Toxicology and Environmental Health*, 66:1879-1885.

**Dominici F,** Sheppard L, Clyde M (2003) Health Effects of Air Pollution: A Statistical Review, *International Statistical Review*, 71:243-276.

Daniels M, **Dominici F**, Zeger SL (2004) Underestimation of Standard Errors in Multi-Site Time Series Studies of Air Pollution and Health, *Epidemiology*, 15:57-62.

<u>Bell M</u>, Samet JM, **Dominici F** (2004) Time-Series Studies of Particulate Matter, *Annual Review of Public Health*, 25:247-280.

Jackson L, Correa A, Lees PSJ, **Dominici F**, Stewart P, Breysse PA, Matanoski G. (2004) Parental Lead Exposure and Total Anomalous Pulmonary Venous Return, *Birth Defects Research*, 70:185-193.

<u>Merialdi M</u>, Caulfield L, Zavaleta N, Figueroa A, Costigan KM, **Dominici F**, DiPietro J (2004) Randomized Controlled Trail of Prenatal Zinc Supplementation and Fetal Growth, *American Journal of Clinical Nutrition*, 79, 826-830.

<u>Merialdi M</u>, Caulfield L, Zavaleta N, Figueroa A, Costigan KM, **Dominici F**, DiPietro J (2004) Randomized Controlled Trail of Prenatal Zinc Supplementation and the Development of fetal heart rate patterns, *American Journal of Obstetrics and Gynecology*, 190:1106-1112.

**Dominici F,** Zanobetti A, Zeger SL, Schwartz J, Samet JM (2004) Hierarchical Bivariate Time-Series Models: A Combined Analysis of the Effects of Particulate Matter on Morbidity and Mortality, *Biostatistics*, 5, 341-360.

**Dominici F,** Cole S, Spiegelman D (2004) Methodological contributions to the American Journal of Epidemiology, *American Journal of Epidemiology*, 160:197-198.

Yurk RA, Diette GB, Skinner EA, **Dominici F,** Clark RD, Steinwachs DM, Wu A (2004) Predicting Patients Reported Asthma Outcomes for Adults in Managed Cares, *American Journal of Managed Care*, 11:322-328.

<u>Bell M</u>, Samet JM, McDermott A, Zeger SL, **Dominici F** (2004) Ozone and Mortality in 95 U.S. Urban Communities from 1987 to 2000, *Journal of the American Medical Association*, 292:2372-2378.

**Dominici F,** McDermott A, Hastie T (2004) Improved Semi-parametric Time Series Models of Air Pollution and Mortality, *Journal of the American Statistical Association*, 468:938-948.

Basu R, **Dominici F,** Samet JM (2005) Characterizing the Relationship Between Temperature and Cardio-Respiratory Mortality Among the Elderly U.S. Population, *Epidemiology*, 16:58-66.

<u>Huang IC</u>, Frangakis C, **Dominici F**, Diette GB, Wu A (2005) Application of a Propensity Score Approach for Risk Adjustment in Multiple Physician Group Profiling on Asthma Care, *Health Services and Research*, 40, 253-278.

<u>Huang IC</u>, **Dominici F**, Frangakis C, Diette GB, Damberg CL, Wu A (2005) Is risk-adjustor selection more important than statistical approach for provider profiling? Asthma as an example, *Medical Decision Making*, 25:20-35

<u>Huang IC</u>, Diette GB, **Dominici F**, Frangakis C, Wu A (2005) Variations of physician group profiling indicators, *American Journal of Managed Care*, 11:38-49.

Peng R, **Dominici F,** Pastor-Barriuso R, Zeger SL, Samet JM (2005) Seasonal Analyses of Air Pollution and Mortality in 100 U.S. cities, *American Journal of Epidemiology*, 161:585-594.

<u>Merialdi</u> M, Caulfield LE, Zavaleta N, Figueroa A, Costigan KA, **Dominici F**, DiPietro JA (2005) Randomized, Controlled Trial of Prenatal Zinc Supplementation and Fetal Bone Growth, *Obstet Gynecol Surv*, 60:13-15.

<u>Merialdi M</u>, Caulfield LE, Zavaleta N, Figueroa A, Costigan KA, **Dominici F**, DiPietro JA (2005) Fetal growth in Peru: Comparisons with international fetal size charts and implications for fetal grow assessment, *Ultrasound in Obstetrics and Gynecology*, 2:123-128.

**Dominici F,** Levy J, Louis TL (2005) Methodological Challenges and Contributions in Disaster Epidemiology, *Epidemiologic Review*, 27:1-4.

<u>Bell M</u>, **Dominici F**, Samet JM (2005) A Meta-Analysis of Time-Series Studies of Ozone and Mortality with Comparison to the National Morbidity Mortality Air Pollution Study, *Epidemiology* with discussion, 16:436-445.

Huang Y, **Dominici F,** Bell M (2005) Bayesian Hierarchical Distributed Lag Models for Summer Ozone Exposure and Cardio-Respiratory Mortality, *Environmetrics*, 16:547-562.

Fung KY, Krewski D, Burnett R, **Dominici F** (2005) Testing the Harvesting Hypothesis, *Journal of Toxicology and Environmental Health* 68:1137-1154.

<u>Eftim S</u>, **Dominici F** (2005) Multi-site Time-Series Studies versus Cohort Studies: Methods, Findings, and Policy Implications, *Journal of Toxicology and Environmental Health*, 68: 1191-1205.

**Dominici F,** McDermott A, Daniels M, Zeger SL, Samet JM (2005) Revised Analysis of the National Morbidity, Mortality and Air Pollution Study: Mortality Among Residents of 90 Cities, *Journal of Toxicology and Environmental Health*, 68:1071-1092.

**Dominici F,** Cope L, Naiman D, Zeger SL (2005) Smooth Quantile Ratio Estimation (SQUARE), *Biometrika*, 92:543-557.

<u>Choi L</u>, **Dominici F**, Zeger SL (2005) Estimating Treatment Efficacy Over Time: a Logistic Regression Model for Binary Longitudinal Outcomes, *Statistics in Medicine* 24:2789-2805.

**Dominici F,** Zeger SL (2005) Smooth Quantile Ratio Estimation with Regression: Estimating Medical Expenditures for Smoking Attributable Diseases, *Biostatistics*, 6:505-519.

**Dominici F,** Zeger SL, Parmigiani G, Katz J, Christian P (2006) Estimating Percentile-Specific Effects in Counterfactual Models: A Case Study of Micronutrient Supplementation, Birth Weight, and Infant Mortality, *Journal of the Royal Statistical Society, Series C*, 55:1-20.

Peng R, **Dominici F,** Louis T (2006) Model Choice in Multi-Site Time Series Studies of Air Pollution and Mortality, *Journal of the Royal Statistical Society, Series A* 169, Part 2:179-203.

Buja A, Mastrangelo G, Perissinotto E, Rausa G, Canova C, Grigoletto F, **Dominici F** (2006) Cancer incidence among female cabin attendants: A meta-analysis of published data, *Journal of Women's Health* 15:98-105.

Sapkota A, Halden R, **Dominici F,** Groopman J, Buckley T (2006) Evaluation of 1,3-Butadiene Biomarkers in Environmental Setting using Liquid Chromatography Isotope Dilution Tandem Mass Spectrometry, *Chemico-Biological Interactions* 160:70-79.

**Dominici F,** Peng D, Bell M, Pham M, McDermott A, Zeger SL, Samet JM (2006) Fine Particulates Air Pollution and Hospital Admission for Cardiovascular and Respiratory Diseases, *Journal of the American Medical Association*, March 8, 295:1127-1135.

Katz J, Christian P, **Dominici F,** Zeger SL (2006) Treatment Effects of Maternal Micronutrient Supplementation vary by Percentiles of the Birth Weight Distribution in rural Nepal, *Journal of Nutrition*, 136:1389-1394.

<u>Bell M</u>, Peng R, **Dominici F** (2006) The Exposure-Response Curve for Ozone and Risk of Mortality and the Adequacy of Current Ozone Regulations, *Environmental Health Perspectives*,114: 532-536.

Peng R, **Dominici F,** Zeger SL (2006) Reproducible Epidemiological Research, *American Journal of Epidemiology*, 163: 783-789.

Symons JM, Wang L, Guallar E, Howell E, **Dominici F,** Schwab M, Ange BA, Samet JM, Ondov J, Harrison D, Geyh A (2006) A Case-Crossover Study of Fine Particulate Matter Air Pollution and Congestive Heart Failure Hospitalization, *American Journal of Epidemiology*, 164: 421-433.

Thomas D, Jerrett M, Kuenzli N, Louis T, **Dominici F,** Zeger SL, Schwartz J, Burnett R, Krewski D, Bates D (2007) Bayesian Model Averaging in Time-Series Studies of Air Pollution and Mortality, *Journal of Toxicology and Environmental Health*, Part A, 70:1-5.

**Dominici F,** Zeger SL, Parmigiani G, Katz J, Christian P (2007) Does the effect of micronutrient supplementation on neonatal survival vary with respect to the percentiles of the birth weight distribution? *Bayesian Analysis* (with discussion), 2, 1-23.

<u>Bell M</u>, **Dominici** F, Ebisu K, Zeger SL, Samet JM (2007) Spatial and Temporal Variation in PM<sub>2.5</sub> Chemical Composition in the United States for Health Effects Studies (2000-2005). *Environmental Health Perspectives*, 115,989–995.

Janes H, **Dominici F,** Zeger SL (2007) Trends in Particulate Matter and Mortality in 113 U.S. Counties, 2000-2002: Evidence on the Long Term Effects of Air Pollution. *Epidemiology*, 18, 416-423 (with discussion).

Janes H, **Dominici F,** Zeger SL (2007) Partitioning Evidence of Association Between Air Pollution and Mortality. *Epidemiology*, 18, 427-428.

**Dominici F,** Peng RD, Zeger SL, White RH, Samet JM (2007) Particulate Air Pollution and Mortality in the United States: Have the Risks Changed from 1987 to 2000? *American Journal of Epidemiology*, 166,880-888, (with discussion).

**Dominici F,** Peng RD, Zeger SL, White RH, Samet JM (2007). Respond to "Heterogeneity of Particulate Matter Health Risks" *American Journal of Epidemiology*, 166,892-893.

Sung RK, **Dominici F**, Buckley TJ. (2007) The Influence of Vehicle Type on Mobile-Source Related Air Pollution in an Urban Parking Garage. *Environmental Research*, *105*, 291-299.

<u>Bell M</u>, Kim JY, **Dominici F**. (2007) Potential confounding of particulate matter on the shortterm association between ozone and mortality in multi-site time series studies. *Environmental Health Perspectives*, 115, 1591-5.

**Dominici F,** Peng R, Ebisu K, Zeger SL, Samet JM, Bell M. (2007) Does the effect of PM <sub>10</sub> on mortality depend on PM nickel and vanadium content? A re-analysis of the NMMAPS data, *Environmental Health Perspectives*,115,1701-3.

<u>Eftim S</u>, Janes H, McDermott A, Samet JM, **Dominici F**. (2008) A Comparative Analysis of the Chronic Effects of Fine Particulate Matter, *Epidemiology*, 19, 209-216.

**Dominici F**, Kramer S, Zambelli-Weiner (2008) A The role of epidemiology in the law: a toxic tort litigation case. *Law, Probability, and Risk*, 7, 15-34.

<u>Bell M</u>, **Dominici F** (2008) Effects Modification by Community Characteristics on the Short-Term Effects of Ozone on Mortality in 98 U.S. Communities, *American Journal of Epidemiology*, 167, 986 - 997.

Welty L, Zeger SL, **Dominici F.** (2008) Bayesian Distributed Lag Models: Estimating Effects of Particulate Matter Air Pollution on Daily Mortality, *Biometrics* (to appear).

<u>Locke JE</u>, Segev DL, **Dominici F**, Warren DS, Simpkins CE, Sonnenday CJ, Chivakula RR, Montgomery R. The Impact of Pulsatile Preservation on Clinical Outcomes in Kidney Transplantation, *American Journal of Transplantation*, (to appear).

Crainiceanu CM, **Dominici F**, Parmigiani G. (2008) Adjustment Uncertainty in Effect Estimation, *Biometrika*, 95: 635 - 651.

<u>Peng R</u>, Chang H, Bell M, McDermott A, Zeger SL, Samet JM, **Dominici** F. (2008) Coarse Particulate Matter Air Pollution and Hospital Admissions for Cardiovascular and Respiratory Diseases Among Medicare Patients, *Journal of American Medical Association* 299, 2172-2179.

**Dominici F**, Wang C, Crainiceanu CM, Parmigiani G. (2008) Model Selection and Health Effect Estimation in Environmental Epidemiology, *Epidemiology*, 19, 558-560.

<u>Venturini S</u>, **Dominici F**, Parmigiani G. (2008) Gamma Shape Mixtures for Heavy Tailed Distributions. *Annals of Applied Statistics*, 2, 756-776.

<u>Brooke SB</u>, Bruce AP, **Dominici F**, Makary M, Pronovost P. (2008) Reduction of in-hospital mortality among California Hospitals meeting Leapfrog quality standards for abdominal aortic aneurysm repair, *Journal of Vascular Surgery*, 47, 1155-1156.

Locke JE, Warren D, **Dominici F,** Cameron AM, Leffell MS, McRann D, Melancon JK, Segev DL, Simpkins CE, Singer AE, Zachary AA, Montgomery RA. (2008) Donor Ethnicity Influences Outcomes Following Deceased-Donor Kidney Transplantation in Black Recipients, *Journal of the American Society of Nephrology*, 10, 2011-9.

<u>Bell M</u>, Ebisu K, Peng RD, Walker J, Samet JM, Zeger SL, **Dominici F** (2008) Seasonal and regional short-term effects of fine particles on hospital admissions in 202 U.S. counties, 1999-2005, *American Journal of Epidemiology*, 168, 1301-1310.

<u>Peng R</u>, **Dominici F**, Welty L. (2009) A Bayesian Hierarchical Distributed Lag Model for Constrained Distributed Lag Functions: Estimating the Time Course of Hospitalization Associated with Air Pollution Exposure, *Journal of the Royal Statistical Society, Series C*, 58, 3-25.

<u>Zhou Y</u>, **Dominici F**, Louis T. Racial Disparities in Mortality Rates in a Sample of the U.S. Medicare Population, *Journal of the Royal Statistical Society, Series C* (under revision).

Zhou Y, **Dominici F**, Louis T. Smoothing Approaches for Exploring Ecological Bias, *Annals of Applied Statistics* (under revision)

Zeger SL, **Dominici** F, McDermott A, Samet JM Mortality in the Medicare Population and Chronic Exposure to Fine Particulate Matter, *Environmental Health Perspectives* (to appear).

Samoli E, Peng R, Ramsay T, Pipikou M, Touloumi G, **Dominici F**, Burnett R, Cohen A, Krewski D, Samet JM, Katsouyanni K. Acute Effects of Ambient Particulate Matter on Mortality in Europe and North America: Results from the APHENA Study, *Environmental Health Perspectives* (to appear).

**Dominici F,** Busch-Vishniac I, Landau B, Fried L (2008) Women in Academic Leadership Positions: Analysis of skills needed and root causes for under-representation, *Academe* (in press)

White R, Cote I, Zeise L, Fox M, **Dominici F**, Burke T, White P, Hattis D, Samet JM Issues and Approaches in Low Dose–Response Extrapolation for Environmental Health Risk Assessment, *Environmental Health Perspectives* (to appear).

<u>Bell M</u>, Ebisu K, Peng R, Samet JM **Dominici F** Hospital Admissions and Chemical Composition of Fine Particle Air Pollution, *American Journal of Respiratory and Critical Care Medicine* (under revision).

Bell M, Ebisu K, Peng R, **Dominici F** Air Conditioning Modifies Risk Estimates for Particulate Matter and Health: Results from United States Studies on Hospital Admissions and Mortality. *Epidemiology*, (to appear).

Johansson MA, **Dominici F**, Gregory EG Local and global effects of climate on dengue transmission in Puerto Rico. *PLoS Negleted Tropical Diseases* (to appear).

<u>Peng R</u>, Bell M, Geyh A, McDermott A, Zeger SL, Samet JM, **Dominici F**. Emergency Admissions for Cardiovascular and Respiratory Diseases and the Chemical Composition of Fine Particle Air Pollution. *Environmental Health Perspectives* (under revision).

## Submitted Articles

<u>Clattenburg L</u>, **Dominici F**, Pronovost P. Achieving the Leapfrog Group's ICU Physician Staffing Standard: Is ICU size a barrier?

<u>Wang C.</u> Parmigiani G, Crainiceanu CM, **Dominici F**. A Bayesian Approach to Effect Estimation Accounting for Adjustment Uncertainty.

<u>Brooke SB</u>, Bruce AP, **Dominici F**, Makary M, Pronovost P Impact of the Leapfrog Group Standard for Beta-Blocker Use on Mortality Following Aortic Aneurysm Repair: Bridging the Gap between Evidence and Practice.

Mazza A, **Dominici F,** Iannuzzi C, Iannuzzi L. The Waste Emergency, Dioxins and Mortality in Campania, Italy.

Janes H, Dominici F, Zeger SL On Quantifying the Magnitude of Confounding.

Segal JB, Clark JM, Shore AD, **Dominici F,** Magnuson T, Richards TM, Weiner JP, Bass E, Wu AE, Makary MA Prompt Reduction in Use of Medications for Comorbid Conditions after Bariatric Surgery.

<u>Bell M</u>, Peng R, Samet JM, **Dominici F** Emergency Hospital Admissions for Cardiovascular Diseases and Ambient Levels of Carbon Monoxide: Results for 126 U.S. Urban Counties, 1999-2005.

<u>Ramos-Bonilla J</u>, Breysse P, **Dominici F**, Tankersley C Ambient Air Pollution alters Heart Rate Regulation in Aged Mice.

<u>Tonorezos E</u>, **Dominici F**, Samet JM, Pham L, McDermott A, Diette G Does diabetes mellitus exacerbates the short-term effect of  $PM_{2.5}$  on hospitalization for chronic obstructive pulmonary disease? Evidence from 204 US counties (1999-2005).

<u>Taylor JA</u>, **Dominici F**, Sexton BJ, Agnew J, Morlock L, Miller M Associations among Work-Related Nurse Injury, Organizational Safety Climate, and Nursing Unit Characteristics.

<u>Myers J</u>, **Dominici F**, Morlock L Learning from Near Misses in Medication Error Reports: A Bayesian Approach (*Student Paper Award Winner, 2009 Eastern North American Region/International Biometric Society*)

<u>Chang H</u>, Peng R, **Dominici F**, Bayesian Model Averaging For Clustered Data: Imputing Missing Air Pollution Data (*Student Paper Award Winner, 2009 Eastern North American Region/International Biometric Society*).

Morlock LL, **Dominici F,** Myers JA, Shore AD, Pronovost PJ, Dy SM, Cousins DD. Testing the Causal Continuum Hypothesis with Medication Error Reports from the MEDMARX National Reporting System.

Pham J, Colantuoni E, **Dominici F**, Macrae C, Fletcher M, Shore A, Pronovost P. The Harm Susceptibility Model: A Method to Prioritize Risks Identified in Patient Safety Reporting Systems.

# Book

<u>Peng R.</u> **Dominici F**. (2008) Statistical Methods for Environmental Epidemiology with R: A Case Study in Air Pollution and Health, Springer, NY.

Books Chapters, Monographs, Peer-reviewed Reports

**Dominici F** (1994) Partial Sufficiency (in Italian), Laurea (MS) Dissertation, Publications of the Department of Statistics, Probability and Applied Statistics, Thesis Publication, University La Sapienza, Rome, Italy.

**Dominici F** (1994) Discriminant Analysis, Chapter 6 of Handbooks of the Summer School of Statistics, no 6, University L. Bocconi, Milan.

Committee to Assess Potential Health Effects from Exposures to PAVE PAWS Low-Level Phased-Array Radiofrequency Energy, National Research Council: An Assessment of Potential Health Effects from Exposure to PAVE PAWS Low-Level Phased-Array Radiofrequency Energy, (2005) The National Academies of Science, Washington DC. Samet JM, **Dominici F,** Zeger SL, Dockery D, Schwartz J (2000) The National Morbidity, Mortality, and Air Pollution Study Part I: Methods and Methodological Issues, Number 94, The Health Effects Institute, Cambridge, MA.

Samet JM, Zeger SL, **Dominici F,** Curriero F, Coursac I, Dockery D, Schwartz J, Zanobetti A (2000) The National Morbidity, Mortality, and Air Pollution Study Part II: Morbidity and Mortality from Air Pollution in the United States, Number 94, The Health Effects Institute, Cambridge, MA.

Diette GB, Skinner EA, **Dominici F,** Clarck R, Steinwachs DM, Wu AW (2000) The 1998 Asthma Outcome Survey, Phase I. The Pacific Business Group on Health and Health Net, San Francisco, CA.

**Dominici F,** McDermott A, Daniels M, Samet JM, Zeger SL (2003) A Special Report to the Health Effects Institute on the Revised Analyses of the NMMAPS II Data, The Health Effects Institute, Cambridge, MA.

Daniels M, **Dominici F,** Samet JM, Zeger SL (2004) The National Morbidity, Mortality, and Air Pollution Study Part III: Estimating PM<sub>10</sub>-Mortality Dose-Response Curves and Threshold Levels: An Analysis of Daily Time-Series for the 20 Largest US Cities, The Health Effects Institute, Cambridge, MA.

**Dominici F** (2004) Time Series Analysis of Air Pollution and Mortality: A Statistical Review. Final Report on the Walter A. Rosenblith New Investigator Award, The Health Effects Institute, Cambridge, MA.

## Books Chapters, Monographs, Peer-reviewed Reports (continued)

**Dominici F,** Zanobetti A, Zeger SL, Schwartz J, Samet JM (2005) The National Morbidity, Mortality, and Air Pollution Study Part IV: Hierarchical Bivariate Time Series Models: A Combined Analysis of the Effects of Particulate Matter on Morbidity and Mortality, The Health Effects Institute, Cambridge, MA.

Bell M, **Dominici F,** McDermott A, Zeger SL, Samet JM (2005) Multi-Site Time-Series Analysis of Ozone and Mortality in 95 U.S. Cities from 1987 to 2000: Results from the National Morbidity Mortality Air Pollution Study. Final Report to the Environmental Protection Agency.

Zeger SL, McDermott A, **Dominici F,** Peng R, Samet JM,(2005) Internet-based Health and Air Pollution Surveillance System (iHAPSS), The Health Effects Institute, Cambridge, MA.

University Committee on the Status of Women (2006) Vision 2020. Office of the Provost, Johns Hopkins University.

Committee on the Gulf War and Health: Review of the Medical Literature Relative to Gulf War Veteran's Health (2006), The National Academies of Science, Washington DC.

Committee on "The Utility of Proximity-Based Herbicide Exposure Assessment in Epidemiologic Studies of Vietnam Veterans." (2008), The National Academies of Science, Washington, DC.

## Chapters

**Dominici F,** Parmigiani G (2000) Combining Studies with Continuous and Dichotomous Responses: A Latent Variables Approach, in *Doing and Understanding Meta-analysis*, (Edited by Berry D.A. and Stangl D.), Marcel Dekker, NY.

Zeger SL, **Dominici F,** McDermott A, Samet JM (2004) Modeling the Health Effects of Environmental Exposures: Particulate Air Pollution and Mortality in Urban America, in *Monitoring the Health of Populations: Statistical Methods for Public Health Surveillance*, (Edited by Brookmeyer R. and Stroup D.), Oxford University Press

## Other

**Dominici F,** Samet JM, Zeger SL (1999) Particulate Air Pollution and Daily Mortality: Combining Time series Information from Eight US Cities, Proceedings of Statistics Canada Symposium 99, Combining Data from Different Sources, Ottawa, Canada.

**Dominici F,** Daniels M (2000) Hierarchical Non-Parametric Poisson Models in Environmental Epidemiology: Investigating the Association between Particulate Matter and Mortality, Proceedings of the Third Colloquium on Particulate Air Pollution and Human Health, Abstract 102, Inhalation Toxicology, Volume 12, Supplement 2.

Daniels M, **Dominici F,** Samet JM, Zeger SL (2001) Reply to the letter of Tobias A. and Saez M. on Estimating PM<sub>10</sub>-Mortality Dose-Response Curves and Threshold Levels: An Analysis of Daily Time-Series For the 20 Largest US Cities, *American Journal of Epidemiology*, Volume 153(10):10, 1027-10

Samet JM, **Dominici F,** Zeger SL (2002) Reply to the letter of Palmer P. and Seville D. on Toxicity of Fine Particles, *Epidemiology*, Volume 13:241-242.

Potter DEB, Lau DT, **Dominici F** (2002) Characteristics of Nursing Home Residents with Item Non Response in Their Prescribed Medicine Data: Analyzing the 1996 Medical Expenditure Panel Survey Nursing Home Component, Proceedings for the 2002 Joint Statistical Meeting of the American Statistical Association, August, New York, NY.

Fung K, Krewski D, Burnett R, **Dominici F.** Testing the Harvesting Hypothesis by Time Domain Analysis, Proceedings for the 2002 Colloquium of the Network for Environmental Risk Assessment and Management (NERAM-II), November, Baltimore MD.

**Dominici F** Peng D. Bell M. Pham M. McDermott A. Zeger S.L. Samet J.M. (2006) Reply to Letters by Drs Ricci and Thurston on the article: Particles, Air Pollution and Hospital Admission

for Cardiovascular and Respiratory Diseases, Journal of the American Medical Association (to appear)

## CURRICULUM VITAE Francesca Dominici PART II

## TEACHING

## Advisees

Pre-doctoral students in Biostatistics

Sorina Eftim, PhD candidate, 2003-2006, completed Sergio Venturini, PhD candidate, Visiting Scholar from Bocconi University, Italy (Awarded in 2008 as the best Italian PhD Thesis) Yijie Zhou, PhD candidate, 2004-2007, completed Howard Chang, PhD candidate, 2006-present (ENAR 2008 Student Travel Award) Jessica Myer, PhD candidate, 2007-present (ENAR 2008 Student Travel Award) Jennifer Feder, PhD candidate, 2008-present

## Post-doctoral fellows in Biostatistics

Roger Peng, PhD, 2003-2005, now Assistant Professor in the Department of Biostatistics Holly Janes, PhD, 2005-2007, now Assistant Professor at the Fred Hutchinson Cancer Center, University of Washington Seattle Sonja Greven, PhD, 2008-present Chris Barr, PhD 2008-present

## MHS students in Biostatistics

Juleen Lam, PhD student, 2006-present, Health Policy and Management

## Statistical Advisor of PhD students from Other Departments

Mario Merialdi, PhD International Health 2001 Rupa Basu, PhD Epidemiology 2002 I-Chan Huang, PhD Health Policy and Management 2003 Leila Jackson, PhD Epidemiology 2003 Leslie Cope, PhD Mathematical Sciences 2003 Morel Symons, PhD Epidemiology 2005 Sung Roul Kim, PhD Environmental Health Science 2006 Hari Nathan, MD, Clinical Research Scholar Programs, Department of Surgery, 2007 Suzanna Nazarian, MD, Clinical Research Scholar Programs, Department of Surgery, 2007

## MPH Students

Jayme Locke, MD, Resident, Department of Surgery, Johns Hopkins Hospital

#### (MPH Capstone Award Winner, 2006)

Lia Clattenburg, Student, School of Medicine, Johns Hopkins Hospital, 2006 Jose Rodriguez-Paz MD, Department of Anesthesiology, Johns Hopkins Hospital 2007 Robert Meguid MD, Department of Surgery, Johns Hopkins Hospital 2007 Jeff Schoenborn BS, Battelle Memorial Institute, Arlington VA 2008

#### Preliminary Oral Participation

Ching-Huang Lai, Environmental Health Sciences 1999 Rupa Basu, Epidemiology 1999 Denys Lau, Health Policy and Management 2000 Nilsa Ivette Loyo-Berrios, Epidemiology 2001 Amir Sapkota, Environmental Health Sciences 2002 Lisa Green, Health Policy and Management 2002 Sophia Kazakova, Health Policy and Management 2002 Morel Symons, Epidemiology 2002 Ana Navas Acien, Epidemiology 2003 Elisabeth Selvin, Epidemiology 2003 Sorina Eftim, Biostatistics 2003 Sung Kim, Environmental Health Science 2004 Nicole Cardello, Environmental Health Science 2004 Lisa Dubay, Health Policy and Management 2004 Mia Papas, Epidemiology 2004 David Howard, Epidemiology 2004 Kenny Shum, Biostatistics 2005 Yijie Zhou, Biostatistics 2005 Mikiyo Yamazaki, Population and Family Health Science 2006 Renee Gindi, Epidemiology 2007 Lydia Isaac, Health Policy and Management 2007 Howard Chang, Biostatistics 2007 Juan Ramos-Bonilla, Environmental Health Sciences 2007 Catherine Harbour, Health, Behavior and Society 2007 Jessica Myers, Biostatistics 2007 Lilly Engineer, Health Policy and Management 2007 Alex Ergo, International Health 2007 Hari Nathan, Clinical Investigation 2008 Anna Christensen, Population and Family Health Science 2008 Rebecca Kanter, International Health 2008 Juleen Lam, Health Policy and Management 2008

#### Final Oral Participation

Karlyn Heiner, ScM Biostatistics, 1998 Huey-Fang Sun, PhD Mental Hygiene 2000 Paul Muntner, PhD Epidemiology 2000 Rupa Basu, PhD Epidemiology 2001

Mario Merialdi, PhD International Health 2001 Denys Lau, PhD Health Policy and Management 2002 I-Chan Huang, PhD Health Policy and Management 2003 Leila Jackson, PhD Epidemiology 2003 Leslie Cope, PhD Mathematical Sciences 2003 Samuel Mills, PhD Population and Family Health Science 2004 Amir Sapkota, PhD Environmental Health Science 2005 Morel Symons, PhD Epidemiology 2005 Sung Roul Kim, PhD Environmental Health Science 2006 Yingkai Cheng, PhD Epidemiology 2006 Arantxa, Conchero, PhD Epidemiology 2007 Jennifer Taylor, PhD Health Policy and Management 2007 Yijie Zhou, PhD Biostatistics 2007 Nicole Cardello, PhD Environmental Health Science 2007 Michael Johansson, PhD, Molecular Biology and Immunology 2008 Lilly Engineer, PhD, Health Policy and Management 2008 Kenny Shum, PhD, Biostatistics 2008 Rydel Valdes Salgado, Epidemiology 2008

#### Classroom Instruction (enrollment)

1998-1999 1999-2000 2002-2003	140.763 140.763 140.763	Bayesian Methods Bayesian Methods Bayesian Methods
2001-2002	140.655	Longitudinal Data Analysis (39)
2002-2003	140.655	Longitudinal Data Analysis (52)
2003-2004	140.655	Longitudinal Data Analysis (63)
2004-2005	140.655	Longitudinal Data Analysis (73)
2005-2006	140.655	Longitudinal Data Analysis (71, <i>taught by Michael Griswold, because on maternity leave</i> )
2006-2007	140.655	Longitudinal Data Analysis (80)
2007-2008	140.655	Longitudinal Data Analysis (85)
2006-2007	140.656	Multi-Level Models in Public Health (50)
2007-2008	140.656	Multi-Level Models in Public Health (75)
2003	140.607	Multi-Level Models (summer institute)
2004	140.607	Multi-Level Models (summer institute)
2005	140.607	Multi-Level Models (summer institute)
2003-2004	223.671	Public Health Surveillance Methods and Applications (2 lectures)

#### Short courses

1998	The Health Effects Institute Annual Conference: The Scientific Basis and Statistical Method in Time-Series Studies of Daily Mortality (with Scott Zeger)
2002	Janssen Pharmaceutical Titusville NJ: Non-Linear Mixed Models in Pharmaceutical Research: A Case Study, (with Leena Choi, Scott Zeger)
2002	Department of Statistics, University of Padua, Italy, Semi- Parametric Regression in Time Series Studies of Air Pollution and Mortality
2004	Master in Epidemiology and Medical Statistics, University of Verona, Italy, Health Effects of Air Pollution: Study Designs, Statistical, Implications.
2005	Department of Statistics, University of Los Angeles, CA, Data Visualization and its Role in the Practice of Statistics. The Second Annual Undergraduate Summer Program in Statistics. (with Roger Peng)
2008	Institut d'Educació Contínua (IDEC) from Pompeu Fabra University, Barcelona, Spain. <i>Time Series Analysis of Air Pollution: How Risky is</i> <i>Breathing</i> .

## **RESEARCH GRANT PARTICIPATION AS PRINCIPAL INVESTIGATOR**

2000-2003: Air Pollution and Mortality in a National Sampling Frame, The Health Effects Institute (completed)

2003-2004: Ozone and Mortality in the US: A Bayesian Hierarchical Approach, Environmental Protection Agency (completed)

2005-2006: A National Approach for Estimating Thresholds in Public Health Surveillance: A Case Study of Ozone and Mortality, The Center of Disease and Control, (completed)

2003-2008: Statistical Methods for Environmental Epidemiology, R01-NIEHS, (funded)

2005-2007: Multi-level Models for Social and Behavioral Determinants of Disease Incidence and Prevalence, R01-supplement NIEHS (completed)

2005-2010: Johns Hopkins Research Center on Particulate Matter and Health, EPA Center Grant (funded)

2005-2010; Development of Methods and Estimation of the Risks to Human Health of PM and PM component, Environmental Protection Agency, PM Research Center, PI of Center and of the Biostatistics and Epidemiology Core, (funded)

2005-2010: Training Grant in Environmental Biostatistics, 2005-2010, NIEHS, Co-Director, (funded)

2007-2010: Statistical Methods for Estimating the Health Impact of the Air Quality Regulations, EPA, (funded)

2008-2013: Statistical Methods for Population Health Research on Environmental Mechanisms, NIH-R01, (under review)

2008-2012: An Evidence-Based Approach for Measuring, Achieving and Maintaining Gender-Neutrality in Biomedical Sciences, NIH-R01 (under review)

## ACADEMIC SERVICE

## Department

Executive Committee, 2004-present Faculty Search Committee, 2004, 2006, 2007 MHS Admission Committee, 2004-present Self-Study writing group member, 2007

## School

Committee on Health Informatics, 2006-present Committee on Affirmative Action, 2004-2007 Committee on Technology Transfer, 2002-2004 Chair of the Strategic Plan Committee on Technological Innovations for the School Strategic Plan Chaired by Dr Strobino, 2007-present

## University

University Committee on the Status of Women (UCSOW) on gender-based obstacles for Faculty, Students, and Staff, Chaired by Professor Linda Fried), 2002-2007 Chair of the UCSOW Subcommittee on Faculty, 2002-2007

## PRESENTATIONS

## Invited Addresses

The Health Effects Institute, Annual Conference, April 1998, Boston, MA, "Update on the National Morbidity, Mortality, and Air Pollution study (NMMAPS)."

The Health Effects Institute, Annual Conference, May 1999, San Diego, CA, "Update on the National Morbidity, Mortality, and Air Pollution Study."

American Statistical Association, Joint Statistical Meeting, August 1999, Baltimore, MD, "A National Urban Model for the Effects of Particulate Air Pollution on Mortality."

APHEA-NMMAPS meeting, Paris, France, July 1999, "NMMAPS: National Morbidity, Mortality Air Pollution Study."

The Health Effects Institute, Annual Conference, April 2000, Atlanta, GA, "National Morbidity, Mortality, and Air Pollution Study (NMMAPS): Analysis of the Largest 90 Cities."

International Biometric Conference, July 2000, Berkeley, CA, "A Measurement Error Model for Time-Series Study of Air Pollution and Mortality."

American Statistical Association, Joint Statistical Meeting, August 2000, Indianapolis, IN, "Statistical Models of Air Pollution Effects on Mortality in Urban America."

#### Invited Addresses (continued)

International Environmental Epidemiologic Conference, August 2000, Buffalo, NY, "A Measurement Error Model for Time-Series Study of Air Pollution and Mortality."

University of Ottawa, Ottawa, Canada, January 2001 Science and Policy Issues in Health Effects of Airborne Particulate Matter, "Risk models for Air Pollution."

Workshop in Tobacco Control, June 2001, Santa Fe, NM, "Tobacco Control: Statistical Issues in Combining Information."

The Congress of Epidemiology, June 2001, Toronto, Canada, "Hierarchical Models for

Multi-Series Data: Applications from the National Morbidity and Mortality Air Pollution Study."

The International Society for Clinical Biostatistics, August 2001, Stockholm, Sweden, "National Models for Estimating the Effects of Particulate Matter on Mortality in US Cities."

American Public Health Association 129th Annual Meeting, October 2001, Atlanta, GA, "National Models for Estimating the Effects of Particulate Matter on Mortality in US Cities."

International Biometric Society ENAR Spring Meeting, March 2002, Arlington, VA, "Bayesian Semi-Parametric Models for Analysis of Developmental Toxicology Data."

American Statistical Association, Joint Statistical Meeting, August 2002, New York, NY, "Health Effects Associated with Acute and Chronic Exposure to Air Pollution: Statistical Methods for Combining National Databases."

2002 Colloquium of the Network for Environmental Risk Assessment and Management (NERAM II), November, Baltimore MD, "Joint Analysis of Time Series and Cohort Studies."

The Health Effects Institute, Annual Meeting, May 2003, Boulder, CO, Mortality Impact of Air Pollution from Daily Time Series and Cohort Studies."

National Center for Atmospheric Research (NCAR) Workshop on Spatio-Temporal Modelling, June 2003, Boulder, CO, "Current Statistical Issues in Studies of Air Pollution and Health."

The International Conference on Environmental Statistics and Health, July 2003, Santiago de Campostela Spain, "Statistical Issues in Semi-Parametric Regression with Applications in Time Series Models of Air Pollution and Mortality."

## Invited Addresses (continued)

American Statistical Association, Joint Statistical Meeting, August 2003. San Francisco, CA "Improved Semi-Parametric Time Series Models of Air Pollution and Mortality."

The Health Effects Institute Annual Conference, May 2004, Boston, MA, "Confounding Adjustment in Time Series Studies of Air Pollution and Mortality."

The International Society of Environmental Epidemiology, Annual Conference, August 2004, New York, NY, "The National Medicare Cohort Study (1999-2002)."

The National Environmental Public Health Tracking Conference, April 2005, Atlanta, GA, "A Multi-Site Time Series Study of Fine Particles PM<sub>2.5</sub>) and Medicare Hospitalizations of Respiratory and Cardiovascular Diseases."

The Maryland Environmental Public Health Tracking Summer Conference, August 2005, Baltimore MD, "A Multi-Site Time Series Study of Fine Particles and COPD Hospitalizations: A Case Study for National Public Health Surveillance."

The International Biometric Society, ENAR Spring Meeting, March 2006, Tampa FL, "Smooth Quantile Ratio Estimation."

Public Health Informatics Symposium, Johns Hopkins Bloomberg School of Public Health, April 2006, Baltimore MD, "A National System for Population Health Research."

The American Thoracic Society International Annual Meeting, May 2006, San Diego CA, "Fine Particulate Air Pollution and Hospital Admissions for Cardiovascular and Respiratory Diseases."

The Air and Waste Management Association Annual Meeting, June 2006, New Orleans TN, "The Shape of the Exposure Response Curve in PM and Mortality."

The International Society of Environmental Epidemiology, September 2006, Paris, France, "Recent Developments in the National Morbidity Mortality Air Pollution Study."

The International Society of Environmental Epidemiology, September 2006, Paris, France, "Chronic and Acute Exposures to Fine Particulate Matter: National Cohort Studies of Morbidity and Mortality."

The Seventy Anniversary of the Department of Statistics, University La Sapienza in Rome, Italy, October 2006, "Statistics and Probability as the Engines of Science."

The American Statistical Association, Joint Statistical Meeting, August 2007, Salt Lake City, UT, "Estimating the Health Effects of the Size and Chemical Composition of Particulate Matter."

Workshop on Climate Change, the American Statistical Association, October 2007, Boulder, CO, "Human Health Effects of Climate Change."

## Participation at Scientific Meetings – Contributes Papers/Posters

The American Statistical Association, Joint Statistical Meeting, August 1995, Orlando, FL, "Testing Hypotheses in Clinical Trails using Likelihood Ratio Test and Bayes Factor."

Third Workshop on Bayesian Statistics in Science and Technology: Case Studies, October 1995, Carnegie Mellon University, Pittsburgh, PA, "Comparing Headache Treatments Based on Several Incomplete Studies."

International Biometric Society ENAR Spring Meeting, March 1996, Richmond, VA, "Combining Incomplete Information on Headache Treatments."

International Biometric Society ENAR Spring Meeting, March 1997, Memphis, TN, "Combining Contingency Tables with Missing Dimensions."

Case Studies in Bayesian Statistics, Workshop 4, September 1997, Carnegie Mellon University, Pittsburgh, PA, "Air Pollution and Daily Mortality: Combining Results from Multiple Locations by Hierarchical Modelling."

International Biometric Society ENAR Spring Meeting, Pittsburgh, PA March 1998, "Combining Contingency Tables with Missing Dimensions" (**Student Travel Award**). Sixth Valencia International Meeting on Bayesian Statistics, June 1998, Spain, "Combining Evidence on Air Pollution and Daily Mortality From the Largest 20 US cities: A Hierarchical Modeling Strategy.

American Statistical Association, Joint Statistical Meeting, August 1998, Dallas, TX, "Bayesian Semi Parametric Analysis of Developmental Toxicology Data."

International Biometric Society ENAR Spring Meeting, March 2000, Chicago, IL, "A Measurement Error Model for Time-Series Studies of Air Pollution and Mortality."

The Health Effects Institute, Annual Conference, April 2001, Washington DC, "National Morbidity, Mortality, and Air Pollution Study (NMMAPS)."

The International Society of Environmental Epidemiology, Annual Conference, August, 2004, New York, "National Morbidity, Mortality, and Air Pollution Study (NMMAPS)."

## Invited Seminars

Institute of Epidemiology, National Research Center for the Environment and Health (GSF), Munich, Germany, February, 1998, "Time Series Analysis in Epidemiology: on Short Term Effects of Ambient Air Quality on the Human Respiratory System."

Department of Biostatistics, Johns Hopkins University, Biostatistics Grand Rounds, Baltimore, MD, March, 1998, "Questions that Need to be Answered About Air Pollution/Mortality Association Using Time Series Analysis."

Department of Biostatistics, Harvard School of Public Health, Boston, MA, May 1998, "Combining Evidence on Air Pollution and Daily Mortality from the Largest 20 US Cities: A Hierarchical Modeling Strategy."

Department of Biostatistics, Johns Hopkins University, Baltimore, MD, October, 1998, "Effects of the Measurement Error in Air Pollution Studies: Hierarchical Models for Synthesizing Incomplete Evidence on the Personal Exposure-Ambient Concentration Relationship."

Department of Statistics, Iowa State University, Ames, IA, October 1998, "National Morbidity and Mortality Air Pollution Study: Statistical Challenges."

Institute of Statistics and Decision Sciences, Duke University, Durham, NC, October 1998, "National Morbidity Mortality Air Pollution Study: Statistical Challenges."

The National Research Center for Statistics and Environment, Department of Biostatistics, University of Washington, Seattle, WA, November 1998, "National Morbidity Mortality Air Pollution Study: Statistical Challenges." Department of Biostatistics, Harvard School of Public Health, Boston, MA, January 1999, "National Morbidity Mortality Air Pollution Study: Statistical Challenges."

Department of Biostatistics, Johns Hopkins University, Baltimore, MD, January 1999, "National Morbidity Mortality Air Pollution Study: Statistical Challenges."

Department of Biostatistics, University of California, Los Angeles, CA, January 1999, "National Morbidity Mortality Air Pollution Study: Statistical Challenges."

Department of Biostatistics and Epidemiology, University of Pennsylvania, Philadelphia PA, February 1999, "National Morbidity Mortality Air Pollution Study: Statistical Challenges."

Department of Biostatistics, University of North Carolina, Chapel Hill, NC, February 1999, "National Morbidity Mortality Air Pollution Study: Statistical Challenges."

Department of Statistics, Pennsylvania State University, State College, PA, February 1999, "National Morbidity Mortality Air Pollution Study: Statistical Challenges."

Department of Biostatistics, University of Michigan, Ann Arbor, MI, February 1999, "National Morbidity Mortality Air Pollution Study: Statistical Challenges."

National Institute of Environmental Health Science, Research Triangle Park, NC, February 1999, "National Morbidity Mortality Air Pollution Study: Statistical Challenges."

Royal Statistical Society, London, UK, January 1999, **Read paper**: "Combining Evidence on Air Pollution and Daily Mortality from the Largest 20 US cities: A Hierarchical Modeling Strategy."

Department of Biostatistics, MD Anderson Cancer Center, Houston, TX, July 2000, "Could Thousands of Early Deaths be Averted with a Standard for Cleaner Air?" Department of Biostatistics, University of Minnesota, Minneapolis, MN, October 2000, "A Measurement Error Model for Time-Series Study of Air Pollution and Mortality."

School of Medicine, Asthma and Allergy Medical Research Center, Johns Hopkins University, Baltimore, MD, November 2000, "Could Thousands of Early Deaths be Averted with a Standard for Cleaner Air?"

Department of Statistics, Texas A&M University, College Station, TX, November 2000,

Bureau of Transportation, Washington, DC, February 2001, "National Models to Estimate the Effects of Particulate Matter on Mortality."

Department of Biostatistics, Emory University, Atlanta, GA, April 2001, "National Models to Estimate the Effects of Particulate Matter on Mortality."

Department of Biostatistics, Johns Hopkins University, Baltimore, MD, May 2001, Smoothed Quantile Ratio Estimation (SQUARE): Smoking, Disease, and the Cost of Medical Expenditures in the US."

Department of Epidemiology, Johns Hopkins University, Baltimore, MD, September 2001, "Air Pollution, Epidemiology, and Policy."

Department of Biostatistics, Johns Hopkins University, Baltimore, MD, September 2001. Invited Discussant of the Biostatistics Ground Round, "To Weight or Not To Weight: Does One Need to Use Sampling Weights in Regression Analysis?"

Department of Biostatistics, Brown University, Providence, RI, November 2001, "Is There An Association Between Air Pollution and Mortality? An Analysis of the 90 Largest US cities (1987-1994)?"

Environmental Protection Agency, Clean Air Quality Criteria for Particulate Matter (CASAC) meeting, Research Triangle Park, NC, July 2002, "Sensitivity of Time Series Analyses to Model Specification: Update on NMMAPS Analyses."

The National Research Council, presentation to the panel of the National Academy of Science Committee to establish Research Priorities for Airborne Particulate Matter, Washington DC, July 2002, "Sensitivity of Time Series Analyses to Model Specification: Update on NMMAPS Analyses."

Department of Biostatistics, University of San Francisco, San Francisco CA, October 2002, "Estimating the Health Effects of Air Pollution: Statistical Challenges, Findings, and Policy Implications."

Department of Health Research and Policy, Stanford University, Palo Alto CA, October 2002, "Estimating the Health Effects of Air Pollution: Statistical Challenges, Findings, and Policy Implications."

Meeting of the Royal Statistical Society, **Invitation as a Key note speaker**, November 2002, London UK, "Health Effects of Air Pollution: Statistical Challenges, Findings, and Policy Implications."

Department of Statistics, University of Padua, Padua, Italy, November 2002, "Statistical Methods for Time Series Studies of Air Pollution and Health." (two-day short course).

Division of Biostatistics, National Cancer Institute (NCI), Rockville, MD, May 2003, "Health Effects of Air Pollution, Statistical Findings, Challenges, and Policy Implications." Division of Biostatistics, Yale University, New Haven CT, September 2003, "Health Effects of Air Pollution, Statistical Findings, Challenges, and Policy Implications."

Division of Epidemiology, Statistics & Prevention Research, National Institute of Child Health & Human Development (NICHD), National Institutes of Health (NIH), Rockville, MD, January 2004, "Health Effects of Air Pollution, Statistical Findings, Challenges, and Policy Implications."

Department of Biostatistics, University of Pittsburgh, Pittsburgh, PA, April 2004, "Statistical and Epidemiological Methods for Assessing the Short- and Long-term Effects of PM on Adult Mortality."

Department of Statistics and Applied Mathematics, University of Lancaster, Lancaster, UK June 2004, "Statistical and Epidemiological Methods for Assessing the Short- and Long-Term Effects of PM on Adult Mortality."

Department of Biostatistics, University of Washington, Seattle, WA October 2004, "Integrating National Databases for Air Pollution Health Risk Assessment."

Department of Biostatistics, Harvard School of Public Health, Boston MA September 2007,"How Risky is Breathing? Statistical Challenges in Air Pollution Risk Estimation".

Department of Biostatistics, School of Public Health, Columbia University, New York NY October 2007, "How Risky is Breathing? Statistical Challenges in Air Pollution Risk Estimation".

Siteman Cancer Center, University of Washington, Sant Louis (MO) January 2008,"How Risky is Breathing? Statistical Challenges in Air Pollution Risk Estimation".

Department of Statistics, Harvard University, Boston MA April 2008,"How Risky is Breathing? Statistical Challenges in Air Pollution Risk Estimation".

Department of Biostatistics, Harvard University, Boston MA December 2008, "Cleaning the Air, Preventing Medical Errors, and Eliminating Gender Inequity: Can Biostatistics Make a Difference?".