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CURRICULUM VITAE

Francesca Dominici

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EDUCATION AND TRAINING

Master/2009 Public Health, Honorary Degree, Harvard School of Public Health
PhD/1997 Statistics, University of Padua, Italy
Laurea (B.S)/1993 Statistics, University La Sapienza, Rome, Italy, *110/110 (cum laude)*

PROFESSIONAL EXPERIENCE

04/2011-Present Associate Dean of Information Technology
Harvard School of Public Health
Harvard University

09/2009-Present Professor
Department of Biostatistics
Harvard School of Public Health
Harvard University

2007-08/2009 Professor
Department of Biostatistics
Johns Hopkins Bloomberg School of Public Health
Johns Hopkins University

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 Science
 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, Institute of Medicine Committee to Review the Federal
Response to the Health Effects Associated with the Gulf of Mexico Oil Spill, September
2010- April 2011

National Academy of Science, Institute of Medicine Committee on Long-Term Health
Consequences of Exposure to Burn Pits in Iraq and Afghanistan, February 2010-April
2011

National Academy of Science, Institute of Medicine Committee on Secondhand Smoke
Exposure and Acute Coronary Events, January 2009-August 2009

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

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

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

National Academy of Science Committee, Institute of Medicine 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

EDITORIAL ACTIVITIES

Editorial Board Activities

Senior Editor, Chapman & Hall/CRC
Texts in Statistical Science Series

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

Series Editor: Chapman & Hall/CRC Texts in Statistical Science Series

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

Keynote Speaker at Environmental Health Day, hosted by the Department of Biostatistics at University of Michigan, 2011

Dean's Lecture, Bloomberg School of Public Health, 2007

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

Diversity Recognition Award, Johns Hopkins University, 2009

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)

Underlined are former students or post-doctoral fellows

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 PM₁₀-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 and 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.

Bell M, 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.

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

Merialdi M, Caulfield L, Zavaleta N, Figueroa A, Costigan KM, **Dominici F**, DiPietro J (2004) Randomized Controlled Trial 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 Care, *American Journal of Managed Care*, 11:322-328.

Bell M, 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.

Huang IC, 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.

Huang IC, **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

Huang IC, 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.

Merialdi 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.

Merialdi M, 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.

Bell M, **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.

Eftim S, **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.

Choi L, **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 and 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.

Bell M, 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.

Bell M, **Dominici F**, Ebisu K, Zeger SL, Samet JM (2007) Spatial and Temporal Variation in PM_{2.5} 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.

Bell M, Kim JY, **Dominici F**. (2007) Potential confounding of particulate matter on the short-term 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 PM₁₀ on mortality depend on PM nickel and vanadium content? A re-analysis of the NMMAPS data, *Environmental Health Perspectives*, 115:1701-3.

Locke JE, Segev DL, Warren DS, **Dominici F**, Simpkins CE, Montgomery RA. (2007) Outcomes of Kidneys from Donors After Cardiac Death: Implications for Allocation and Preservation, *American Journal of Transplantation*, 7(7):1797–1807.

Locke JE, Warren DS, **Dominici F**, Cameron AM, Leffell MS, McRann DA, Melancon JK, Segev DL, Simpkins CE, Singer AL, Zachary AA, Montgomery RA, (2008) Donor Ethnicity Influences Outcomes following Deceased-Donor Kidney Transplantation, *American Journal of Transplantation*, 19(10):2011-2019.

Dominici F, Kramer S, Zambelli-Weiner (2008) The Role of Epidemiology in the Law: A Toxic Tort Litigation Case. *Law, Probability, and Risk*, 7:15-34.

Bell M and **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.

- Crainiceanu CM, **Dominici F**, Parmigiani G. (2008) Adjustment Uncertainty in Effect Estimation, *Biometrika*, 95:635-651.
- Peng R, 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.
- Venturini S, **Dominici F**, Parmigiani G (2008) Gamma Shape Mixtures for Heavy Tailed Distributions. *Annals of Applied Statistics*, 2, 756-776.
- Brooke SB, 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.
- Bell M, 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 .
- Eftim SE, Samet JM, Janes H, McDermott A, **Dominici F** (2008) Fine Particulate Matter and Mortality: A Comparison of the Six Cities and American Cancer Society Cohorts With a Medicare Cohort, *Epidemiology*, 19:209-216.
- Zeger SL, **Dominici F**, McDermott A, Samet JM (2008) Mortality in the Medicare Population and Chronic Exposure to Fine Particulate Matter, *Environmental Health Perspectives* 116:1614-1619 .
- Samoli E, Peng R, Ramsay T, Pipikou M, Touloumi G, **Dominici F**, Burnett R, Cohen A, Krewski D, Samet JM, Katsouyanni K. (2008) Acute Effects of Ambient Particulate Matter on Mortality in Europe and North America: Results from the APHENA Study, *Environmental Health Perspectives*, 116(11):1480-6.
- Welty LJ, Peng RD, Zeger SL, **Dominici F** (2009). Bayesian distributed lag models: Estimating effects of particulate matter air pollution on daily mortality, *Biometrics*, 65: 282-291.
- Peng R, **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.

Johansson MA, **Dominici F**, Gregory (2009) EG Local and global effects of climate on dengue transmission in Puerto Rico. *PLoS Neglected Tropical Diseases*, 3(2):e382, published 17 Feb 2009.

Bell M, Ebisu K, Peng R, Samet JM **Dominici F** (2009) Hospital Admissions and Chemical Composition of Fine Particle Air Pollution, *American Journal of Respiratory and Critical Care Medicine*, 179:1–6.

Barr C and **Dominici F**, (2009) Discussion of the paper by Craigmile et al Hierarchical Model Building, Fitting, and Checking: A Behind-the-Scene look at a Bayesian Analysis of Exposure Pathways *Bayesian Analysis*, 04:37-40.

Dominici F, Fried L, Zeger S.L, (2009) So Few Women Leaders: Look for the Root Causes. *Academe*, July-August 2009.

Bell M, Peng R, Samet JM, **Dominici F** (2009) Emergency Hospital Admissions for Cardiovascular Diseases and Ambient Levels of Carbon Monoxide: Results for 126 U.S. Urban Counties, 1999-2005. *Circulation*, 120: 949 - 955.

Bell M, Ebisu K, Peng R, **Dominici F** (2009) Adverse Health Effects of Particulate Matter: Modification by Air Conditioning, *Epidemiology*, 20:682-686.

Peng RD, Bell ML, Geyh AS, McDermott A, Zeger SL, Samet JM, **Dominici F** (2009). Emergency admissions for cardiovascular and respiratory diseases and the chemical composition of fine particle air pollution, *Environmental Health Perspectives*, 117 (6):957–963.

Sung K, Wipfli H, Navas-Acien A, **Dominici F**, Avila Rang E, Onicescu G, Breysse P, Samet J (2009) Determinants of Hair Nicotine Concentrations in Nonsmoking Women and Children: A Multicountry Study of Secondhand Smoke Exposure in Homes, *Cancer Epidemiology Biomarkers and Prevention*, 18: 3407-3414.

Caffo B, Peng R, **Dominici F**. (2009) Parallel MCMC for Analyzing Distributed Lag Models With Systematic Missing Data for an Application in Environmental Epidemiology. *The Handbook of Markov Chain Monte Carlo* edited by Steve Brooks, Andrew Gelman, Galin Jones and Xiao-Li Meng.

White R, Cote I, Zeise L, Fox M, **Dominici F**, Burke T, White P, Hattis D, Samet JM (2009) Issues and Approaches in Low Dose–Response Extrapolation for Environmental Health Risk Assessment, *Environmental Health Perspectives*, 117(2):283-7.

Segal JB, Clark JM, Shore AD, **Dominici F**, Magnuson T, Richards TM, Weiner JP, Bass E, Wu AE, Makary MA (2009) Prompt Reduction in Use of Medications for Comorbid Conditions after Bariatric Surgery, *Obesity Surgery* 19(12):1646-56.

Brooke SB, **Dominici F**, Makary M, Pronovost P. (2009) Use of Beta-blockers During Aortic Aneurysm Repair: Bridging the Gap Between Evidence and Effective Practice, *Health Affairs* (Millwood). Jul-Aug; 28(4):1199-209.

Zhou Y, **Dominici F**, Louis T. (2010) Racial Disparities in Mortality Rates in a Sample of the U.S. Medicare Population, *Journal of the Royal Statistical Society, Series C*, 59:319-339.

Barr C, **Dominici F** (2010) Cap and trade legislation: Additional Benefits from Air Pollution Mitigation, *Journal of American Medical Association*, 303: 69 -70.

Zhou Y, **Dominici F**, Louis T. (2010) Smoothing Approaches for Exploring Ecological Bias, *Annals of Applied Statistics*, 4:1451-1475.

Pham JC, Colantuoni E, **Dominici F**, Shore A, Macrae C, Scobie S, Fletcher M, Cleary K, Goeschel C, Pronovost P (2010) The Harm Susceptibility Model: A Method to Prioritize Risks Identified in Patient Safety Reporting Systems, *Quality and Safety in Healthcare*, Published Online First: 28 April 2010 doi:10.1136/qshc.2009.035444.

Makary MA, Clarke JM, Shore AD, Magnuson T, Richards T, Bass E, **Dominici F**, Gilson MM, Weiner JP, Wu A, Segal J, (2010) Medication Utilization and Annual Healthcare Costs in Patients with Type 2 Diabetes Mellitus Before and After Bariatric Surgery, *Archives of Surgery*, 145(8):726-731.

Ramos-Bonilla J, Breysse PN, **Dominici F**, Geyh A, Tankersley C, (2010) Ambient Air Pollution Alters Heart Rate Regulation in Aged Mice, *Inhalation Toxicology*, 22(4):330-339.

Dominici F, Peng R, Barr C, Bell M (2010) Protecting Human Health from Air Pollution: Shifting from a Single Pollutant to a Multi-pollutant Approach, *Epidemiology (with discussion)*, 21:187-194.

Burke A E, Bennett W, Jamshidi R, Gilson MM, Clark JM, Segal J, Shore A, Magnuson T, **Dominici F**, Wu A, Makary M A (2010) Reduced Incidence of Gestational Diabetes with Diabetes, *Journal of the American College of Surgeons*, 211(2):169-175.

Janes H, **Dominici F**, Zeger SL (2010) On Quantifying the Magnitude of Confounding, *Biostatistics*, 11(3): 572-82.

Rava M, White R, **Dominici F** (2010) Does Attainment Status For The PM₁₀ National Air Ambient Quality Standard Change the Trend in Ambient Levels of Particulate Matter? *Air Quality, Atmosphere and Health*, 4(2):133-143, DOI: 10.1007/s11869-010-0086-3.

Peng R, Feder J, Tebaldi C, Bell M, **Dominici F** (2011) Towards a Quantitative Estimate of Future Heat Wave Mortality under Global Climate Change, *Environmental Health Perspectives*, 119:701- 706 (doi:10.1289/ehp.1002430)

Greven S, **Dominici F**, Zeger S (2011): An Approach to the Estimation of Chronic Air Pollution

Effects Using Spatio-Temporal Information. *Journal of the American Statistical Association*, 106(494): 396–406.

Chang H, Peng R, **Dominici F** A (2011) Model Approach for Estimating the Acute Health Effects of Coarse Particulate Matter Accounting for Exposure Measurement Error, *Biostatistics*, 12 (4):637-652

Bobb JF, **Dominici F**, Peng R (2011) A Bayesian Model Averaging Approach for Estimating the Relative Risk of Mortality Associated with Heat Waves in 105 U.S. Cities, *Biometrics*, 67(4): 1605–1616.

Taylor JF **Dominici F**, Agnew J, Gerwin D, Morlock L, Miller M, (2011) Safety Climate, Occupational Injury, and Patient Safety in Nursing Units, *BMJ Quality & Safety* Online First, published on 19 October 2011 as 10.1136/bmjqs-2011-000082.

Wang C, Parmigiani G, **Dominici F**. (2011) Bayesian effect estimation accounting for adjustment uncertainty *Biometrics* (in press).

Levy J, Dou Y, Diez D, Barr C, **Dominici F**. (2011) Differential toxicity of fine particulate matter constituents: Bridging epidemiologic and risk assessment perspectives, *American Journal of Epidemiology* (in press)

Yeh R W, Normand S L, Wang Y, Barr C D, **Dominici F**. (2011) A contemporary geographic comparison of trends in incidence, treatment and outcomes of acute myocardial infarction in the U.S. elderly: 2000 – 2008, *Circular Cardiovascular Outcomes* (in press).

Dionisio KL, Howie SRC, **Dominici F**, Fornace KM, Spengler JD, S Donkor, Chimah O, Ideh RC, Ebruke B, Adegbola RA, Ezzati M. (2011) The exposure of infants and children to carbon monoxide from biomass fuels in The Gambia: a measurement and modeling study. *Journal of Exposure Science and Environmental Epidemiology* (in press).

Zigler C, Wang Y, **Dominici F** (2011) Estimating Causal Effects of Air Quality Regulations Using Principal Stratification for Spatially-Correlated Multivariate Intermediate Outcomes. *Biostatistics* (in press)

Brooke SB, **Dominici F**, Pronovost P, Makary M, Schneider E, and Pawlik TM (2012) Variations in surgical outcomes associated with hospital compliance with safety practices. *Surgery*, DOI: 10.1016/j.surg.2011.12.001

Under Revision

Myers J, **Dominici F**, Morlock L Bayesian Hierarchical Models for Analysis of Medication Errors, *Annals of Applied Statistics* (under revision) (*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, *British Medical Journal*

Chang H, Peng R, **Dominici F**, Bayesian Model Averaging For Clustered Data, *Bayesian Analysis (Student Paper Award Winner, 2009 Eastern North American Region/International Biometric Society, Student Paper Award Winner, 2009 American Statistical Association Health Policy & Statistics Section's)*.

Barr CD, Diez DM, Wang Y, Samet JM, **Dominici F** Comprehensive smoking bans and acute myocardial infarction among Medicare patients in 387 U.S. counties: 1999 to 2008 (*under revision*).

Submitted Articles

Venturini S, **Dominici F**, Parmigiani G Generalized Quantile Treatment Effect.

Myers J, Venturini S, **Dominici F**, Morlock L Random Effects Models for Identifying the Most Harmful Medication Errors in a Large Voluntary Reporting Database.

Chung Y, **Dominici F**, Coull B Bayesian Spatially Varying Coefficient Models for Estimating the Health Effects of Long-Term PM_{2.5} Exposure and the Effect Modification by the Chemical Composition.

Bobb JF, **Dominici F**, Peng R Reduced Bayesian Hierarchical Models: Estimating Health Effects of Simultaneous Exposure to Multiple Pollutants.

Krall J, Bell M, **Dominici F**, Peng R, Mortality Effects of Particulate Matter Constituents in a National Study of U.S. Urban Communities.

Zanobetti A., Bell ML, **Dominici F** Effect modifiers of health effect estimates for short-term exposure to ozone and particulate matter: A Review of the literature for the period 2000 to 2010.

Correia A, Pope CA, Dockery D, Ezzati M, **Dominici F** The Effect of Air Pollution Control on Life Expectancy in the United States: An Analysis of 545 US counties for the period 2000 to 2007.

Peng RD, Samoli E, Pham L, **Dominici F**, Touloumi G, Ramsay T, Burnett RT, Krewski D, Le Tertre A, Cohen A, Atkinson RA, Anderson HR, Katsouyanni, K, Samet JM, Acute effects of ambient ozone on mortality in europe and north america: results from the APHENA study.

Zigler CM, Watts K, Coull B, **Dominici F** Model Feedback in Bayesian Propensity Score Estimation

Book

Peng R. 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 PM₁₀-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 PM₁₀-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 (Hopkins)

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, 2006-2010, completed (*ENAR 2008 Student Travel Award*)
Jessica Myer, PhD candidate, 2007-2010, completed (*ENAR 2008 Student Travel Award*)
Jennifer Feder, PhD candidate, 2008-2010 completed (*ENAR 2010 Student Travel Award*)

Pre-doctoral students in Biostatistics (Harvard)

Andrew Correia, PhD candidate, 2010-present
Krista Watts, PhD candidate, 2011-present
Matt Cefalu PhD candidate, 2011-present

Post-doctoral fellows in Biostatistics (Hopkins)

Michelle Bell, PhD, 2002-2003, Professor, Yale University
Roger Peng, PhD, 2003-2005, Associate Professor, Johns Hopkins University
Holly Janes, PhD, 2005-2007, Assistant Professor, University of Washington Seattle
Sonja Greven, PhD, 2008-2009, Assistant Professor, University of Munich
Christopher D. Barr, PhD, 2008-2010, Assistant Professor, Harvard University

Post-doctoral fellows in Biostatistics (Harvard)

Yeonsung Chang, PhD, 2010-2011, Assistant Professor, Seoul University
Yiping Dou, PhD, 2010, Scientist at Yahoo
Corwin Zigler, PhD, 2010-present
David Diez, PhD, 2010-present
Kyu Ha Lee, PhD, 2011-present
Jennifer F Bobb, PhD, 2011-present

Statistical Advisor of PhD students from Other Departments (Hopkins)

Mario Meriardi, 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

Statistical Advisor of PhD students from Other Departments (Harvard)

Kathie Dionisio, PhD, Department of Global Health and Population, 2010
Peter James, PhD, Environmental Health, 2011
Marianthi-Anna Kioumourtoglou, PhD, Environmental Health, 2011

MPH Students

Jayne 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

Final Oral Participation (Hopkins)

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

Juan Ramos-Bonilla, Environmental Health Sciences 2009
 Howard Chang, Biostatistics 2009
 Lydia Isaac, Health Policy and Management 2009

Final Oral Participation (Harvard)

Kathie Dionisio, Environmental Health 2011
 Mariel Finucane, Biostatistics, 2011

Classroom Instruction (enrollment) - Hopkins

1998-1999	140.763	Bayesian Methods
1999-2000	140.763	Bayesian Methods
2002-2003	140.763	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)

Classroom Instruction (Harvard)

2010-2011	249	Bayesian Methodology in Biostatistics (26)
2011-2012	249	Bayesian Methodology in Biostatistics (22)

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. *Time Series Analysis of Air Pollution: How Risky is Breathing*.
- 2009 Johns Hopkins Bloomberg School of Public Health. Summer Institute of Epidemiology and Biostatistics. *Methods for Clinical and Translational Research*.

RESEARCH GRANT PARTICIPATION (Principal Investigator)

Johns Hopkins (Completed, only listed the ones as PI)

- 2000-2003: Air Pollution and Mortality in a National Sampling Frame, The Health Effects Institute
- 2003-2004: Ozone and Mortality in the US: A Bayesian Hierarchical Approach, Environmental Protection Agency
- 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
- 2003-2008: Statistical Methods for Environmental Epidemiology, R01-NIEHS
- 2005-2007: Multi-level Models for Social and Behavioral Determinants of Disease Incidence and Prevalence, R01-supplement NIEHS
- 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
- 2005-2010: Training Grant in Environmental Biostatistics, (Dominici) NIEHS, Co-Director

Harvard (Current as PI or Co-PI)

2008-2013 NCI P01

09/10/08-08/31/13

CA134294-02 (Lin, Dominici)

Statistical Informatics for Cancer Research, NCI-P01

This program project will tackle a series of problems motivated by the analysis of high dimensional data arising in population-based studies of cancer.

NIH/NIEHS R01 ES012054 (Dominici)

08/15/09-07/31/12

Statistical Methods for Population Health Research on Chemical Mixtures

The work proposed will provide evidence on health effects of air pollution and temperature through the application of the proposed methods to various data sets available to us.

FAA (Levy, Dominici)

07/01/10-5/31/12

Health Impacts of Aviation-Related Air Pollutants (Partners Project II)

The primary goal of this project is to develop models evaluating linkages between aviation activity and air pollution patterns in neighborhoods surrounding small and large airports, focusing on mobile monitoring data collected near T.F. Green Airport and fixed-site monitoring data collected near Los Angeles International Airport. The project additionally involves development and application of methods to model health risks from future aviation emissions given changes over time in emissions, background concentrations, and population patterns, with an emphasis on extracting individual airport impacts from national-scale atmospheric model outputs.

NIH R01 ES019560 (Peng)

04/01/11-03/31/15

Statistical Methods for Complex Environmental Health Data

This proposal will develop Bayesian hierarchical models for estimation of the health effects of air pollution sources and chemical constituents accounting for spatial misalignment and measurement error. Research staff will conduct nation-wide epidemiological studies aimed at estimating short- and long-term health effects of PM_{2.5} chemical constituents and its emission sources.

EPA RD 83490001 (Zanobetti)

04/01/11-3/31/14

Are diabetics and the neurologically impaired at increased risk from air pollutant exposures? A National analysis

The objective of this study is to assess whether diabetics and individuals with neurological disorders are at increased mortality risk from short- and long-term air pollutant exposures in several US counties, and if these effects vary by individual and area-level factors, PM components and multi-pollutants mixtures.

EPA RD 83479801 (Koutrakis)

1/1/11 - 12/31/15

Air Pollution Mixtures: Health Effects Across Life Stages (Project 5 and Biostatistics Core)

The fundamental objectives of the Center are to investigate the effects of individual pollutants, pollution source types and multi-pollutant mixtures on cognitive and neuropsychological function, cardiovascular and endothelial function, inflammation, birth weight and growth, CVD hospitalization and mortality across life stages; and, to identify susceptibility and vulnerability factors that can modify these effects.

NIH/NIEHS R01 ES019955(Savitz)

07/01/11-3/31/14

Air Pollution and Pregnancy Outcome in New York City

We propose to examine the relationship between air pollution and pregnancy outcome in New York City to help determine whether there is a causal link, focusing on the effect of particulate air pollution in late pregnancy on preterm birth and reduced fetal growth.

EPA R834894 (Dominici)

07/01/11-6/30/13

The effect of air pollution control on life expectancy in the United States: national population-based analysis

The proposed research will provide essential new data sources, methods, and empirical knowledge on how differential trends in key criteria pollutants and PM2.5 chemical components have affected the trends in cause-specific mortality and life expectancy in a national study.

NIH R21 (Peng)

08/01/11-7/31/13

Extreme Heat and Human Health: Characterizing Vulnerability in a Changing Climate

This project will improve both public health and clinical practice by rigorously quantifying the effects of biological, environmental, and socio-economic factors that make individuals and populations more vulnerable to **extreme heat**. By providing broad-based evidence of the modifying effects of these factors, findings from the project will serve as the scientific foundation for designing targeted interventions to protect vulnerable groups.

HEI (Dominici/Zigler)

3/1/12 - 2/28/13

Causal Inference Methods for Estimating Long Term Health Effects of Air Quality Regulations

This grant proposed the development of causal-inference methods for assessing the health effects of air quality regulations, also known as accountability assessment. Methods will be applied to regulations emanating from the 1990 Clean Air Act Amendments (CAAA), but the methodology and associated software will be broadly applicable to examination of the effects of other, more recent regulations. Ultimately, this research will provide much needed support to the EPA and other stakeholders for incorporating health outcomes research into policy development.

ACADEMIC SERVICE

Johns Hopkins

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

Harvard

Department

Curriculum Committee, 2010-present

School

Committee on Concerns of Women Faculty (Vice-Chair), 2010-present
Academic Executive Team (Deans and Associate Deans), 2011-present
Tenure-committee member, 2010, 2011

University

University Council on Research Computing, 2011-present