HEI's New “State of Global Air” Offers Accessible Resource for Public, Policy-makers, Scientists; Updated Each Year

This winter, HEI has launched the State of Global Air project—a concise, understandable annual report and interactive website providing “one-stop shopping” for key findings on the latest trends in air quality and its impact on human health globally, in regions, and in countries around the world. The report and website will be updated each year, highlighting the extent of significant health impacts from air pollution and its main sources as well as tracking progress toward cleaner air.

The State of Global Air is a collaborative effort among HEI, the Institute for Health Metrics and Evaluation at the University of Washington, and the University of British Columbia. On the interactive website, www.stateofglobalair.org, visitors can explore and compare trends in air quality and health from 1990 to the most recent data released (currently, 2015) from the Global Burden of Disease (GBD) project (www.healthdata.org/gbd/about). For the first time, the website makes available to everyone the full GBD air quality data sets for downloading and use. Graphs and their underlying data are downloadable for immediate publication or for further exploration.

The report and website highlight ambient air pollution levels (focusing on fine particulate matter and ozone), the latest levels of health impact (measured in numbers of people living with unhealthy air, premature deaths, death rates, years lived with disability, years of life lost, and other metrics), and trends in these measures globally, in major geographic regions, and in individual countries. The State of Global Air provides a platform for communicating summaries of major new HEI reports, such as Special Report 20, Burden of Disease Attributable to Coal-Burning and Other Major Sources of Air Pollution in China (2016) and an upcoming report on India, as well as relevant studies from other institutions.

“HEI’s State of Global Air project is a natural extension of HEI’s role as a communicator of complex scientific studies on air pollution and health to audiences both within and beyond the scientific research community—citizens, journalists, and policymakers,” said HEI President Dan Greenbaum. “Furthermore, it addresses the need for effectively informing government policymakers, along with industry and environmental stakeholders, to support their efforts to address air quality challenges.”
In future years, the State of Global Air will provide a detailed look at the newest GBD data on exposures of sensitive subpopulations (for example, children and the elderly), indoor or household air pollution from the burning of solid fuels, and additional air pollutants (for example, nitrogen dioxide).
HEI Announces Recipient of 2016 Walter A. Rosenblith New Investigator Award

Mònica Guxens, assistant research professor at Barcelona Institute for Global Health (ISGlobal; formerly Center for Research in Environmental Epidemiology, or CREAL) in Barcelona, Spain, has received HEI’s 2016 Walter A. Rosenblith New Investigator Award for her proposal “Air Pollution, Autism Spectrum Disorders, and Brain Imaging Amongst Children in Europe — the APACHE Project.”

Guxens, a physician, specializes in preventive medicine and public health. She received a Ph.D. in public health and biomedical research and has been a Río Hortega Fellow. In addition, Guxens was a post-doctoral fellow at CREAL, as well as at Erasmus Medical Center in Rotterdam and at Utrecht University’s Institute for Risk Assessment Sciences, both in the Netherlands. She subsequently joined the faculty at ISGlobal and received a Miguel Servet fellowship in 2014. She is also assistant research professor in the Department of Child and Adolescent Psychiatry/Psychology of the Erasmus University Medical Center–Sophia Children’s Hospital in Rotterdam.

Guxens’ research focuses on the role of environmental factors, including air pollution, on children’s development. In her Rosenblith Award study, she will evaluate whether prenatal air pollution exposure at different time windows is associated with development of autism spectrum disorders (ASDs) and whether prenatal and postnatal air pollution exposure is associated with changes in brain structure and function in children. She hypothesizes that exposure to air pollution during pregnancy may be related to an increased risk of ASDs, but not with an increased risk of autistic traits (subclinical deficits that do not meet formal criteria for autism spectrum disorder diagnosis). To test this hypothesis, Guxens will set up a large, population-based case-control study including children diagnosed with ASD in Catalonia, Spain. In addition, she will include longitudinal cohort data on children’s brain health from the Generation R Study in Rotterdam. For both regions, she will estimate air pollution exposure at the children’s home addresses using existing land-use regression models available from the European Study of Cohorts for Air Pollution Effects. Guxens will also apply innovative hybrid models — combining land-use variables and satellite-based remote sensing of aerosol optical depth — to evaluate different time windows of exposure. Finally, she will develop and apply novel methods to address measurement errors and to evaluate the possible associations of ASD and brain structural and functional changes with air pollution using mult pollutant models.

Named for the first chair of the HEI Research Committee, the Walter A. Rosenblith New Investigator Award supports the work of a promising scientist early in his or her career. In selecting award recipients, the Committee considers each applicant’s potential for a productive research career in examining air pollution and its effects on health, the support provided by the applicant’s institution, and the scientific merit of the research project and its relevance to HEI’s mission. Guxens is the 22nd scientist to receive the Rosenblith Award since the inception of the program in 1999.

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Jo Ivey Boufford, president of the New York Academy of Medicine, recently joined HEI’s Board of Directors, bringing extensive experience in medicine, international affairs, and public administration to the Board.

Boufford is Professor Emeritus of Public Service, Health Policy, and Management at New York University’s Robert F. Wagner Graduate School of Public Service, where she served as dean from 1997 to 2002. She is as well a clinical professor of pediatrics at New York University School of Medicine and codirector of the national program office of the Robert Wood Johnson Foundation Health and Society Scholars Program.

She has held a number of senior positions in the U.S. Department of Health and Human Services (HHS) and in public health institutions in New York City and State government. While at HHS she served as the U.S. representative on the executive board of the World Health Organization.

Elected to the National Academy of Medicine (NAM) in 1992, Boufford was foreign secretary of NAM from 2005 to 2015 and is a member of its Board on Global Health. She also has served in leadership of a number of national education and medical organizations, and was elected a fellow of the National Academy of Public Administration in 2005. She has received several honorary doctorate of science degrees, and has been a fellow of the New York Academy of Medicine since 1988 and a trustee since 2004.

Boufford received her M.D., with distinction, from the University of Michigan Medical School and is Board Certified in pediatrics.