

Reassessment of the Department of Veterans Affairs Airborne Hazards and Open Burn Pit Registry

Committee

David A. Savitz

Chair

David A. Savitz, Ph.D., (NAM), (chair), is a professor of epidemiology in the Brown University School of Public Health where he serves as chair of epidemiology and deputy dean, with joint appointments as a professor of obstetrics and gynecology and pediatrics in the Alpert Medical School. From 2013-2017, Dr. Savitz served as the vice president for research at Brown University. He came to Brown in 2010 from Mount Sinai School of Medicine, where he had served as the Charles W. Bluhdorn Professor of Community and Preventive Medicine and the director of the Disease Prevention and Public Health Institute since 2006. Before that appointment, he taught and conducted research at the University of North Carolina School of Public Health and at the Department of Preventive Medicine and Biometrics at the University of Colorado School of Medicine. His epidemiologic research has addressed a wide range of public health issues including exposures related to military deployments, veterans' health, environmental effects of energy development, risks from environmental exposures during pregnancy, and drinking water safety. He has authored more than 400 papers in professional journals and the editor or author of four books on environmental epidemiology. He has served as president of the Society for Epidemiologic Research, the Society for Pediatric and Perinatal Epidemiologic Research, and the North American Regional Councilor for the International Epidemiological Association. Dr. Savitz is a member of the National Academy of Medicine, inducted in 2007, and has previously served on 14 consensus committees, 8 of which he chaired or vice-chaired, in addition to serving on several other NASEM convening activities. He chaired the 2017 committee on the Assessment of the Department of Veterans Affairs Airborne Hazards and Open Burn Pit Registry. Dr. Savitz received his undergraduate training in psychology at Brandeis University, holds a master's degree in preventive medicine from The Ohio State University, and received his Ph.D. in epidemiology from the University of Pittsburgh Graduate School of Public Health.

John R. Balmes

Member

John R. Balmes, M.D., is a professor of medicine in the divisions of occupational and environmental medicine and pulmonary and critical care medicine at the University of California, San Francisco. Dr. Balmes studies the respiratory health effects of various air pollutants, including combustion products resulting from indoor cooking stoves and wild fires. He has a particular interest in occupational respiratory disease. He has investigated the acute effects of inhalation exposures to ambient air pollutants in his human exposure laboratory at San Francisco General Hospital and the chronic effects of such exposures in epidemiological studies with collaborators at the University of California, San Francisco and the University of California, Berkeley. Dr. Balmes also is investigating genetic determinants of responses to air pollutants and has been the Physician Member of the California Air Resources Board. He was a member of the Institute of Medicine Committee on the Long-term Health Effects of Exposure to Burn Pits in Iraq and Afghanistan, and the Committee for Review of the Army's Enhanced Particulate Matter Surveillance Project. Dr. Balmes received his M.D. from the Mount Sinai School of Medicine.

Michelle Bell

Member

Michelle Bell, Ph.D., M.S., M.Sc., M.S.E., (NAM), is the Mary E. Pinchot Professor of Environmental Health at the Yale University School of Forestry and Environmental Studies, with secondary appointments at the Yale School of Public Health, Environmental Health Sciences Division and the Yale School of Engineering and Applied Science, Environmental Engineering Program. Her research investigates how human health is affected by environmental conditions such as atmospheric systems, including air pollution, weather, and exposures such as wild fires. Much of this work is based in epidemiology, biostatistics, and environmental engineering. Her research is designed to be policy-relevant and contribute to well-informed decision-making to better protect human health and benefit society. She is the recipient of the Prince Albert II de Monaco / Institut Pasteur Award, the Rosenblith New Investigator Award, and the NIH Outstanding New Environmental Scientist Award. She was elected to the National Academy of Medicine in 2020 and has served as a member on two consensus committees, one of which was the Committee for Review of the Army's Enhanced Particulate Matter Surveillance Project, and a member of the Planning Committee on the Implications of the California Wildfires for Health, Communities, and Preparedness. Dr. Bell holds a M.S. in environmental engineering from Stanford University, a M.S.E. in environmental management and economics from Johns Hopkins University, an M.Sc. in philosophy from University of Edinburgh, and a Ph.D. in environmental engineering from Johns Hopkins University.

Michael J. Daniels

Member

Michael J. Daniels, Sc.D., is the Andrew Banks Family Endowed Chair and Professor of the Department of Statistics at the University of Florida. His research focuses on Bayesian methodology for missing data and causal inference, missing data in longitudinal studies, and statistical methodology for HIV. He has served as co-editor of the top biostatistical methodology journal, *Biometrics*. He is an elected Fellow of the American Statistical Association and received the Lagakos Distinguished Alumni Award (from Harvard Biostatistics) in 2014. He currently serves as president of the Eastern North American Region of the International Biometrics Society and chair-elect of the Statistics in Epidemiology section of the American Statistical Association among many past leadership positions. He received his Sc.D. in biostatistics from Harvard University.

Marianthi-Anna Kioumourtzoglou

Member

Marianthi-Anna Kioumourtzoglou, Sc.D., M.S.P.H., is an assistant professor in the Department of Environmental Health Sciences at Columbia University's Mailman School of Public Health. She is trained as an environmental engineer and epidemiologist. Her research focuses on applied statistical issues related to environmental epidemiology, including quantifying and correcting for exposure measurement error, exposure prediction uncertainty propagation, and assessment of high-dimensional and complex exposures in health analyses. Her studies often focus on air pollution exposures, mixtures, on identifying vulnerable sub-populations, and characterizing how risks may vary across neighborhood-level and other urban characteristics, as well as with changing climate. She holds a M.S.P.H. from the Environmental Sciences and Engineering Department at the University of North Carolina at Chapel Hill and a Sc.D. in Environmental Health from the Harvard T.H. Chan School of Public Health.

Bhramar Mukherjee

Member

Bhramar Mukherjee, Ph.D., M.S., is John D. Kalbfleisch collegiate professor of biostatistics, professor and chair of biostatistics, professor of epidemiology, and professor of global public health, at the University of Michigan School of Public Health. She also serves as research professor at the Michigan Institute of Data Science, and associate director of quantitative data sciences at the University of Michigan Rogel Cancer Center. Professor Mukherjee's research interests include statistical methods for analysis of electronic health records, studies of gene-environment interaction, Bayesian methods, shrinkage estimation, and analysis of multiple pollutants. She is the principal investigator on National Science Foundation and National Institutes of Health-funded methodology grants. Dr. Mukherjee is founding director of the University of Michigan's summer institute on Big Data. She is a fellow of the American Statistical Association and the American Association for the Advancement of Science and is the recipient of many awards for her scholarship, service, and teaching. She was a member of the National Academies' committees on Inorganic Arsenic and Rising Midlife Mortality Rates and Socioeconomic Disparities. Dr. Mukherjee has a M.S. in applied statistics and data analysis from the Indian Statistical Institute, an M.S. in mathematical statistics from Purdue University, and a Ph.D. in statistics from Purdue University.

Frances M. Murphy

Member

Frances Murphy, M.D., M.P.H., is President and CEO of Sigma Health Consulting, LLC, a woman-owned, veteran-owned healthcare consulting company. Dr. Murphy is a health care executive with extensive experience in managing, operating, and transforming large health care organizations. She serves as a consultant in evidence-based medicine, epidemiology, health information technology, leadership development, healthcare management, neuroscience and mental health, women's health, quality and safety, and veterans' and military health. Although Dr. Murphy did not participate directly, her company was one of three companies that conducted work under a blanket purchase agreement with VA's Office of Post-Deployment Health to conduct an analysis of the Airborne Hazards and Open Burn Pit Registry data linked with VA medical records (no evaluation component and all directed by VA). This work was completed in August 2020. Dr. Murphy had a 20-year career working in the Department of Veterans Affairs (VA) at both medical centers and in VA Central Office. She served as the Principal Deputy Under Secretary for Health from 1999-2002 then as the Deputy Under Secretary for Health for Health Policy Coordination from 2002-2006. Dr. Murphy has served as a member of two National Academies' Boards and has served on three consensus committees, including the Committee on the Assessment of the Department of Veterans Affairs Airborne Hazards and Open Burn Pit Registry. She is a veteran of the U.S. Air Force, completing her service as a Major in the Medical Corps. Dr. Murphy is Board Certified in neurology and earned her M.D. at Georgetown University School of Medicine and her M.P.H. from the Uniformed Services University of the Health Sciences.

Kristen M. Olson

Member

Kristen M. Olson, Ph.D., M.S., is the Leland J. and Dorothy H. Olson Professor in sociology and Director of the Bureau of Sociological Research in the Department of Sociology at the University of Nebraska-Lincoln. Dr. Olson's research includes examining interviewer effects, paradata, the intersection of nonresponse and measurement errors, within-household selection in self-administered surveys, and questionnaire design. She has more than 70 peer-reviewed publications that have appeared in numerous journals. Dr. Olson is editor-in-chief of the *Journal of Survey Statistics and Methodology*, and is a member of American Sociological Association and the American Association for Public Opinion Research. She is an elected fellow of the American Statistical Association. Dr. Olson has previously served as a member of three NASEM consensus committees. She has a M.S. degree in survey methodology from the Joint Program in Survey Methodology at the University of Maryland, College Park, and a Ph.D. in survey methodology from the University of Michigan.

Tyler Smith

Member

Tyler Smith, Ph.D., M.S., is a professor and statistical epidemiologist at National University in San Diego. He has conducted extensive longitudinal studies and research on the physical and mental health of military populations, particularly those who have served overseas during the operations in Iraq and Afghanistan. Prior to joining National University, Dr. Smith was a Department Head of Deployment Health Research and a Principal Investigator for the Millennium Cohort Study, a DoD-sponsored project that has been conducted to evaluate the long-term effects of military service. Following the 1991 Gulf War, Dr. Smith worked with a team to utilize growing electronic data repositories to conduct epidemiologic research focused on possible health outcomes from deployment. He then worked with the Scientific Steering and Advisory Committee of the Millennium Cohort Study along with a data and analytic team in the late 1990's to develop the study's methods and assess its progress and priorities. This rigorous design allowed for the assessment of baseline characteristics prior to exposures in theater and through the observation of disease incidence. Studies linked these longitudinal data to electronic vaccine, inpatient, ambulatory, pharmaceutical, personnel, occupation, exposure, mortality, and deployment data to complete analyses focused on PTSD, depression, suicide, alcohol misuse, tobacco use, sleep disorders, hypertension, diabetes, and respiratory disease among others relevant to military health. These efforts have culminated in nearly 150 peer-reviewed publications in major scientific journals including *JAMA*, *BMJ*, and *AJE* and ~300 presentations at scholarly meetings. He previously served on the NASEM Committee on the Initial Assessment of Readjustment Needs of Military Personnel, Veterans and their Families. Dr. Smith completed his BS in mathematics with option in statistics from Chico State, a M.S. in statistics from the University of Kentucky and his Ph.D. in epidemiology from the University of California, San Diego.