

The NYC Department of Health and Mental Hygiene (DOHMH) Environmental and Occupational Disease Epidemiology Office (EODE) promotes the environmental and occupational health of New York City residents and workers through disease surveillance and investigation, risk assessment and communication, and policy research and development of effective intervention strategies. EODE conducts ongoing surveillance on lead poisoning in adults, pesticide poisoning, and responds to public inquiries regarding mold exposure, cancer concerns, and occupational health issues. EODE is also the home of the ongoing CDC-funded New York City environmental public health tracking (EPHT) program, described below. Day to day activities of fellow will include participation in ongoing analysis of environmental and occupational hazard, exposure and health surveillance data including carbon monoxide poisoning data developed by the current CSTE Applied Epidemiology Fellow and pesticide poisoning data. The fellow will also investigate outbreaks of occupational or environmental diseases in NYC workers or residents as a member of an interdisciplinary team, write policy analyses of proposed legislation and evaluate at least one existing surveillance database. In addition, the fellow will be trained in bioterrorism preparedness and response.

The Fellow will be offered the opportunity to participate in the ongoing Environmental Public Health Tracking grant-funded Environmental & Occupational Hazard, Exposure and Health Effects data linkage project. This project will enable the DOHMH to enhance the value of currently collected data systems by facilitating the calculation of rates of over-exposure to pesticides and heavy metals and potentially associated diseases or other medical conditions. The calculation of rates is enabled by geographic linkage of hazard data, exposure data, and health outcome data with census or other population-based data. The Fellow will conduct all relevant statistical analyses of this data. The fellow will also assist EODE in:

- a. Improving the effectiveness of public health interventions by performing analyses of linked data to identify environmental hot-spots, high-risk neighborhoods and potential point-sources of exposure.
- b. Providing a more accurate estimate of the burden of environmental exposure and disease by cross-referencing data, where appropriate identifiers exist and are accessible to EODE, using deterministic or probabilistic matching.
- c. Developing new surveillance systems for pesticides and pesticide-related outcomes and interventions. NYC recently implemented a pesticide use reduction law (Local Law 37) requiring reconsideration of the use of pesticides by New York City agencies. One component of this law is the development of an electronic pesticide use reporting system. Once implemented, this system will yield analyzable information permitting evaluation chemical-specific use patterns and trends. Additional data will be made available around pesticide exposures and health outcomes from two newly available data feeds; poison control center data and emergency department utilization.

The fellow will also be offered the opportunity to work with the World Trade Center Health Registry, on data cleaning, analysis and development of reports of findings of the first biannual survey of registrants to be conducted in 2006.

Assignment Location: New York City, NY

Primary Mentor: James E. Cone, MD, MPH

Director, Environmental and Occupational Disease Epidemiology (July
2002-present)

Advanced Degrees: MD, University of California, San Francisco (1978)
MPH, University of California, Berkeley (1978)

Secondary Mentor: Wendy McKelvey, MS, PhD
Research Scientist III

Advanced Degrees: MS, University of California, Los Angeles (1992)
PhD, University of California, Los Angeles (1996)