

**Report 75:** Environmental Health Economics

**Convener:** Bucher/Balbus

**Brief History:** In an era of shrinking resources, providing economic justification for resource expenditures, including those for environmental health interventions, will become increasingly important. To date, there has been very little development of either methods or data for valuing environmental health impacts and/or the cost savings provided by interventions. This gap contributes to a lack of focus and emphasis on environmental health in major policy initiatives like the Affordable Care Act and the National Prevention Strategy.

**Discussion Highlights:**

- Valuation has been well worked out for air pollution impacts, lead impacts on IQ/income loss, to certain extent asthma
- Both federal and state government representatives endorsed the importance of this issue in their work for being able to discuss environmental health in more general health policy contexts.
- There are several areas of need
  - Increasing analyses of economic impacts using established methods and datasets (e.g., local analyses of air pollution impacts)- could be done by a contractor
  - Building the community of researchers in environmental health economics. There are health economists and environmental economists but very few to no environmental health economists.
  - Funding methodological research to develop new and better ways to do analyses
- Rob McConnell wanted to include economic analysis of burden of disease associated with roadside air pollution. He was able to find funding not from NIH but from SCAQMD and sponsored a workshop to facilitate finding an economist with interest and skills needed to assist. This underscores the current challenges in expanding the knowledge base in this field.
- Partnerships with business schools, economics departments, foundations, insurance companies, social scientists will be necessary
  - Business schools provide internships and student projects, but still a need for qualified mentors
  - Insurance companies have actuarial tables and massive amounts of data, not linked to environmental exposures in general
- There is a major need for inter-disciplinary dialogue for several issues
  - Definitions of outcomes (e.g., school absence has strong meaning for economists, less for public health professionals)

- Terminology
- Incorporation of personal/societal values into cost-benefit analyses and decisions
- Translating environmental health information into personal economic terms, such as loss of lifetime income of a child from an environmental exposure, can be powerful in terms of communicating with both the public and policy-makers
- Serious concerns were raised about investing in expanding knowledge base on economic aspects
  - Decisions about value of interventions will be made narrowly on simplistic cost-benefit information, not taking into account other values
  - There may be an expectation that only interventions that save money are worthwhile, lack of recognition that all interventions have associated costs that often exceed benefits but are made for societal goods
  - Questions about how economic effectiveness information would drive the NIEHS research agenda, including governmental review of research programs
- Important to analyze costs and impacts up front in a variety of processes, including building design, green chemistry, rather than always comparing benefits to costs of remediation and cleanup.

**Recommendations:**

- Hire senior economist/social scientist to provide internal expertise/advice on program development
- Sponsor workshop or series of workshops to begin to frame the issues and identify the relevant experts
- Explore partnerships with academic institutions (e.g., Frank Ackerman at Tufts) for joint training opportunities
- Explore incorporation of incentives for adding in economists and economic analyses as supplements to grants or other funding opportunities

**Discussion Participants:**

Bruce Androphy, John Balbus, Douglas Brugge, John Bucher, Trisha Castranio, Lisa Conti, Mike DeVito, Christine Drew, Lynn Goldman, Nadine Gracia, Kathleen Gray, Erin Haynes, Bernhard Hennig, Shuk-Mei Ho, Andrea Hricko, Laurie Johnson, Paul Jung, Bruce Lanphear, Pat Mastin, Rob McConnell, Joshua Rosenthal, Jennifer Sass, Jane Schroeder, Bono Sen, Peggy Shepard, Kimberly Thigpen Tart, Wendy Thomas, Mary Wolfe, Robert Wright