

***Methods to Address Challenges in Displaying and
Disseminating Tracking Data Part II
Johns Hopkins Bloomberg School of Public Health
Rm. W3030
615 N. Wolfe Street
Baltimore, MD***

Course Agenda

Tuesday, Aug. 2nd

1:00 – 1:30 Welcome/Introductions

1:30 – 5:00 Geostatistics for Environmental Exposure Mapping and Assessment

A brief overview of geostatistics followed by an explanation of spatial dependence, variograms, and kriging in applications of environmental exposure mapping and the potential for residual spatial variation and its effects on model inference. The session will end with a discussion of geostatistical computing and a demonstration in the R Statistical Computing Environment.

Wednesday, Aug. 3rd

9:00 – 12:00 Case-Crossover Analysis

Epidemiologic study design and analysis considerations for the time-stratified case-crossover approach with application to assessment of effect modification among exposure sensitive populations.

12:00 – 1:00 Lunch

1:00 – 5:00 Statistical Methods for Time Series Analyses of Air Pollution and Health

Two national datasets will be presented the National Mortality Morbidity Air Pollution Study (NMMAPS), a multi-site time series study which includes time series data from the 90 largest US locations for the period 1987-2000 and the recently started National Medicare Cohort Study (NMCS) which includes morbidity and mortality individual level data on the entire US population of elderly for the period 1999-2001.

By use of these national data sources we will discuss: epidemiological evidence of the health effects of air pollution; confounding and effect modification in time series studies; statistical modelling for air pollution risk estimation (including semi-parametric Poisson regression, random effect models), and policy implications.

5:00 Adjourn