First WHO Global Conference on Air Pollution and Health: Improving air quality, combatting climate change – saving lives

Pre-Conference Workshop

The Environmental Benefits Mapping and Analysis Program – Community Edition (BenMAP-CE): An open-source tool to estimate air quality-related health benefits

29 October 2018, Geneva
UNESCO International Bureau of Education, 15 Route des Morillons, 8:30h-12h
(short walking distance from WHO)

Workshop Coordinator: Dr Pierpaolo Mudu

Concept Note

Background

The environmental Benefits Mapping and Analysis Program - Community Edition (BenMAP-CE) is a PC-based and open-source tool developed by the U.S. Environmental Protection Agency (EPA) to quantify the health impacts and economic value of air quality changes. BenMAP-CE contains a user-modifiable database that comes pre-installed with a full suite of health impact functions, population projections, baseline health, air quality and economic value estimates for the U.S. and China. Data from the Global Burden of Disease (GBD) study is also included to enable analysts to assess the avoided deaths associated with user-specified air quality changes in each of the countries covered by the study. For example, analysts could quantify the number of avoided premature deaths from a hypothetical 30% reduction in PM2.5 levels in Indonesia.
This half-day workshop will provide participants with an overview of three key topics: (1) understanding the basic principles of air pollution benefits assessment so that they may characterize results and their uncertainty correctly; (2) operating the tool with the GBD data to perform country-level screening analyses; (3) specifying their own data in the tool to perform more refined, country- or region-specific analyses.

Kenneth Davidson will lead the workshop. Mr. Davidson is a senior policy analyst in the Assessment and Standards Division within US EPA’s Office of Transportation and Air Quality. For 20 years, he has applied his skills as a health and environmental benefits expert to support numerous mobile source regulations that improve public health, including regulations to control emissions from light-duty and heavy-duty vehicles, locomotives, ocean-going vessels, and other gas- and diesel-fueled engines. Mr. Davidson was also involved in the early development of benefits analysis tools, including early versions of BenMAP.

The purpose of the workshop is to provide an overview on: (1) the basic principles of air pollution benefits assessment, including how to interpret health impact results generated by BenMAP-CE; (2) using BenMAP’s built-in health impact functions, demographic, health and air quality data from the Global Burden of Disease study to perform country-level analyses of air pollution health impacts; (3) how users can supplement these data with more detailed and country-specific data to quantify a broader array of health impacts and assess the economic benefits of air quality changes.

**Target audience:**

Policy analysts, risk assessors, epidemiologists, public/environmental health specialists, economists and others interested in characterizing the health impacts and economic value of changes in air quality. Though not required, participants are encouraged to pre-install BenMAP-CE (v1.4) on their personal computers to follow along during the brief in-class demonstration.

**Language:**

Presentations and materials provided will be in English; the working language will also be English.

**Workshop Program / Provisional Agenda**

- 08.00-08.30: Registration
- 8.30-8.45: Introduction and workshop overview
- 8.45-9.30: Basics of air quality benefits analysis
- 9.30-10.30: Overview of the Global Burden of Disease tool in BenMAP-CE
- 10.30-11.00: Break
- 11.00-11.30: Finish Global Burden of Disease tool demonstration
- 11.30-12.30: BenMAP-CE: More than just the Burden of Disease tool
- 12.30-13.00: Discussion and Q&A

**Workshop lecturers:**
Dr Ken Davidson (US EPA)

**Expected Number of participants**

Maximum 100

**Participant registration**

The workshop is open and a registration form is provided on the website:
Registration: [https://extranet.who.int/datacol/survey.asp?survey_id=3914](https://extranet.who.int/datacol/survey.asp?survey_id=3914)
Deadline for registration is 21 October 2018.