



Pre-Conference Workshop 6

Course Title

Public health and Air Pollution in Asia (PAPA) – A forum for further development with new scopes and participants

Lead Instructor

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with sponsor from Health Effects Institute

Course Length

Half-day (4 hour), Morning

Registration Cap

24~30

Abstract

In the last decade compared with other parts of the world, Asia experienced a rapid growth in economic development and at the same time fast degradation in the environment particularly in air quality. The Health Effects Institute sponsored the first coordinated Public health and Air Pollution in Asia (PAPA) project with a view to demonstrating that air pollution is harmful to health and governments should account for that while planning for the economy [Wong et al 2008b].

The results from analysis of the project, using a common protocol across four cities, Bangkok in Thailand and Hong Kong, Shanghai and Wuhan in China, showed that levels of air pollutants including sulfur dioxide (SO₂), particulate matter with aerodynamic diameter less than or equal to 10 μm (PM₁₀), nitrogen dioxide (NO₂) and ozone (O₃), are generally high, but their health effects equivalent to those from North America and West Europe. Also the concentration response curves of air pollutants gave the support for linear relationships [Wong et al 2008b].

In Bangkok, effects of PM₁₀ were higher than the three Chinese cities, which may be due to differences in environmental factors, personal susceptibility and exposure factors [Vichit-Vadakan et al 2008]; and in Wuhan they were modified by extremely higher temperature [Qian et al 2008]. In Shanghai, populations with lower education attainment and females were subject to higher mortality risk associated with air pollution exposure [Kan et al 2008]. In Hong Kong, residents in high socially deprived areas were also subject to higher mortality risk from air pollution [Wong et al 2008a].

However, the number of cities in the first wave analysis was small which deterred precise estimation of the combined effects of the four cities and left some rooms for improvement in the assessment of concentration response curves.

Course Aims and Objectives

In this workshop for extension of the PAPA project we will work for the following objectives:

- (a) Discussion of scientific research questions and policy issues relevant to expansion of the coordinated analysis, including, but not limited to:
 - (i) Analysis of PM_{2.5}
 - (ii) Formulation of the concentration-response functions at high concentrations
 - (iii) Inclusion of morbidity (hospital admissions) data
 - (iv) Analysis of sensitive sub-populations
 - (v) Use of visibility data as proxy for air pollution data
- (b) Recruitment of more Asian cities into the PAPA project
- (c) Discussion of scientific research questions and policy issues relevant to individual cities
- (d) Organization of ways of collaboration for cities at different stages of data collection and different expertise in data analysis
 - (i) Discussion for feasibility of data sharing and meta analysis for the PAPA extension project
 - (ii) Plan for revision and extension of the Common Protocol which had been developed in the HEI PAPA 1st Wave Project.
- (e) Discussion on sources of funding for the project, including local sources

Targeted Audience

Researchers, statisticians & other workers for better air and environmental health