

Costantini M. / HEI USA

HEI Critical Review of the Health Effects of Traffic-Related Air pollution

In January 2007, the HEI Board of Directors appointed a new expert panel to review the growing literature on the potential health effects of exposure to traffic. This topic was identified as a priority in the 2005-2010 HEI Strategic Plan because many questions had been raised by the complex findings of the growing number of studies evaluating the health of people who live at various distances from roads or who spend differing amounts of time in traffic. The questions included whether the measurements of “exposure” are valid and whether the studies account for other confounders (e.g. socioeconomic status). The Panel, which is chaired by Dr. Ira Tager of the HEI Research Committee and the University of California at Berkeley, has compiled and reviewed a large data base of over 1,000 studies of emissions, exposure, and animal and human health effects, and has developed a comprehensive document that reviews this literature and integrates the conclusions across disciplines.

The report is divided into chapters that cover the following areas: Emissions from Motor Vehicles, Assessment of Exposure to Air Pollution from Traffic; Health Effects Related to Traffic Exposure; Toxicology of Traffic-related Air Pollutants; Synthesis of Evidence from Epidemiology and Toxicology. A final chapter summarizes and integrates the evidence from the various chapters.

A draft of the report was reviewed by a group of experts in the disciplines covered in the report and was subsequently revised by the Panel to address the comments received. The report is currently in press. This presentation will provide a brief overview of the major elements and conclusions of each chapter, with particular emphasis on the issues relating to assessing exposure and the interpretation of the epidemiologic studies.