

## PARTNERSHIP WITH THE HEALTH EFFECTS INSTITUTE

### Background

In 1980, the U.S. Environmental Protection Agency and the motor vehicle industry chartered the Health Effects Institute (HEI) to conduct independent and impartial science to address urban air quality problems in the United States.

The 30-year, public-private partnership between EPA and HEI in Boston has produced critical research to improve the nation's air quality.

To continue this partnership, EPA has awarded HEI \$25 million in grant funding for 2010 – 2015 to provide innovative research to improve air quality.

The EPA-HEI partnership has continuously provided impartial science that is timely, targeted, and useful to addressing the important air quality problems in the nation. This renewed funding will help advance research to tackle the newest challenges to protecting air quality, including the impacts of climate change and air pollution mixtures in the atmosphere.

### Research Focus

EPA and HEI are developing the next generation of tools and scientific information to examine the combined effects of air pollution on human health and the relationship between air quality and climate change.

Research by HEI will be clustered within the following four themes:

- **Multipollutant Exposure, Epidemiology, and Toxicology** – No one is exposed to only one pollutant at a time. This research will consider the health effects of



exposure to a range of pollutants (ozone, particles, air toxics, and others) under different scenarios, including climate change.

- **Assessing the Public Health Impact of Air Quality Actions** – Assessing the health outcomes associated with air quality improvements is important in evaluating the success of HEI's research program. This research will further examine options for long-term, systematic studies of a variety of subjects (e.g., biofuels, urban pollution "hot spots," and reduced exposures in susceptible populations).
- **Emerging Fuels and Technologies** – New fuels (e.g., ethanol) and technologies (e.g., hybrid vehicles) are increasing fuel efficiency and reducing climate-changing emissions. This research will identify any additional emissions from these technologies that may cause increases in other pollutants. The full life cycle - from source extraction and production through combustion and disposal - of these new fuels and technologies will be explored.

- **International Perspective** – Air quality and climate change are international issues. This research will allow HEI to take advantage of unique geographic, population, or technical opportunities and work with leading scientists from around the world to answer key science questions. HEI will work with the vehicle and energy markets in Asia and Latin America to encourage science-based decisions.

Issues that will be incorporated into each of the research themes are **Sensitive Populations** (e.g., older adults), **Innovation** (e.g., new methods and research questions), and **Validation** (e.g., reanalysis and toxicology).

### Learn more at:

[www.epa.gov/ncer/hei](http://www.epa.gov/ncer/hei)

[www.epa.gov/airscience](http://www.epa.gov/airscience)

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