

Gaining Sponsor Support, While Maintaining Scientific Independence

The Experience of the Health Effects Institute

Dan Greenbaum, President
Health Effects Institute

NASEM Sponsor Influence and Research Workshop
December 14, 2022



Trusted Science • Cleaner Air • Better Health

Building Trusted Science

To Inform Often Controversial Decisions

- HEI's Origins and Structure
- Key Elements to Preserve Independence
- Some examples of HEI Science in Action
- Closing Thoughts

HEI - Origins

- 1977: Clean Air Act Requirements (s.202a4)
 - Vehicle companies to test health effects of emissions
 - EPA-Industry relationship poor
 - Dueling, defensive science
 - Not advancing understanding
- 1978-79: EPA Administrator and Industry CEOs
 - There must be a better way to produce science we can trust
- 1980: The Health Effects Institute launched

The Health Effects Institute

Trusted Science – Cleaner Air – Better Health
www.healtheffects.org

- Independent Non-profit Research Institute for over 40 years
- Balanced Core Support
 - US EPA and the worldwide motor vehicle Industry
 - Also, partnerships with WHO, ADB, EU, US FHWA, other industries, foundations
- Independent Board and Expert Science Committees
 - Board agreed to by EPA Administrator and core industry sponsors
 - Board appoints, without sponsor approval:
 - *Research Committee* selects all research competitively
 - Separate *Review Committee* intensively peer reviews all results
- Full Transparency
 - All Results – positive and negative – published, *along with a detailed Commentary of the HEI Review Committee*
 - Work to make all data accessible to others
- Does not take policy positions

The Health Effects Institute

Trusted Science – Cleaner Air – Better Health
www.healtheffects.org

- **Targeted Research and Reanalysis**
 - Over 350 Studies on a wide variety of air pollutants: PM, ozone, diesel, air toxics, others
 - Exposure, Toxicology, Epidemiology
 - Thorough peer-review and commentary before publication
- **Scientific Review**
 - e.g., *New Report*: The Health Effects of Exposure to Traffic
- **Global Health**
 - North America, Europe
 - China, India, and Africa
- **Also, HEI-Energy**
 - Examining the potential exposures and health impacts of unconventional oil and gas development (“fracking”)
 - Potential future work on hydrogen

Welcome to the Health Effects Institute

We provide high-quality, trusted science for cleaner air and better health. Read more about our research mission and unique model of equal partnership by government and industry.

> **Learn more about HEI**

Annual Conference

Annual Report

Guide for Authors

FAQ

Sponsors

Careers

State of Global Air

Energy Research

WHAT'S NEW

- > State of Global Air 2018: Over 7 Billion People Face Unsafe Air
- > Webinar: Did power plant and motor vehicle controls improve air quality and health in Atlanta?
- > Request for Qualifications and Proposal for Quality Assurance Oversight
- > Update Winter 2018 now available
- > New studies on health effects of traffic-related pollution

Key Features to Produce, Communicate Trusted Science

1. Strategic planning and rigorous competition to produce quality, policy-relevant science
2. Broad transparency of results, data, and methods
3. No Policy Advocacy

HEI's Strategic Plan



Targeting HEI's research and review activities each 5 years

Responding to the needs of HEI industry & government sponsors, and other interested parties;

Anticipating future policy and technology events; and

Evolving over time to adapt to changing knowledge and events

Rigorous strategic planning and science



Transparency

Full public disclosure of results

PIs free to publish in scientific journals

But must produce comprehensive final reports *of all analyses performed*

Positive *and* negative findings reported

Access to Data

HEI itself has full access to all underlying data for review

Access to data, methods to be provided to other investigators

No Policy Advocacy

From its Inception

Designed to produce policy-relevant science to inform often controversial decisions

If HEI's work is not used to support smarter decisions, then we have failed...

BUT HEI does not take policy positions based on its science

Board concerned that any subsequent results could be misinterpreted as only being supportive of previously taken positions

A few cogent examples

The Harvard Six Cities/American Cancer Society Reanalysis

- Called for by EPA, Industry, Congress

- Complete independent reanalysis with access to all data

The **M**ulticenter **O**zone **S**tudy on Older Adults (MOSES)

- Significant questions about ozone cardiovascular effects

- Nearly 90 older adults exposed to ambient and higher levels

US, Europe, and Canada Low level Exposure Studies

- There were limited studies showing associations at very low level

- 3 teams picked competitively to examine effects in 68 million Americans, 8 million Canadians, and 25 million Europeans.

In Sum

- Controversy and distrust between major parties led to a public-private leveraged partnership for research investment
- Designed for maximum impartiality and credibility
 - Sponsor input into priorities, but no involvement in study selection, oversight, or review
- Guided by a carefully drawn, responsive strategic research plan
- Renewal of the Plan and funding each five years provides opportunity to refresh, and refocus, the research
- Results: Nearly 400 research studies, re-analyses, and systematic literature reviews
 - Widely cited in the literature and in policy/regulatory deliberations

Thank you!

Dan Greenbaum, President
Health Effects Institute
dgreenbaum@healtheffects.org