



National Institute of  
Environmental Health Sciences  
*Your Environment. Your Health.*

2018-2023  
STRATEGIC PLAN

**Advancing Environmental  
Health Sciences  
Improving Health**



National Institutes of Health  
U.S. Department of Health and Human Services

## **Mission Statement**

The mission of the National Institute of Environmental Health Sciences is to discover how the environment affects people in order to promote healthier lives.

## **Vision Statement**

The vision of the National Institute of Environmental Health Sciences is to provide global leadership for innovative research that improves public health by preventing disease and disability.



## Theme One: Advancing Environmental Health Sciences

Advancing Environmental Health Sciences (EHS) encompasses the study of all levels of biological organization – molecular, biochemical pathway, cellular, tissue, organ, system, model organism, individual, and population – at all stages across the lifespan, from preconception through old age.

- 1. Basic Biological Research:** Research on the effects of the environment on biological systems and processes.
- 2. Individual Susceptibility:** The study of individual susceptibility arising from the life stage, genetics, epigenetics, and other factors in combination with the environment.
- 3. The Microbiome:** Study of the collection of microbes (bacteria, viruses, fungi) living in and on our bodies, and the role of the microbiome as a target and mediator of exposures.
- 4. The Exposome:** Study of the totality of environmental exposures experienced over the lifespan.
- 5. Co-Exposures:** Study of combined exposures.
- 6. Predictive Toxicology:** Using data on biological pathways to build testing arrays to predict adverse effects of a chemical exposure.
- 7. Data Science and Big Data:** Development of innovative data science and data-driven approaches to advance EHS.



## Theme Two:

### Promoting Translation – Data to Knowledge to Action

This theme reiterates NIEHS's commitment to ensuring that our research is directed toward improving people's health.

**1. Creating Knowledge From Data:**

Integrating and synthesizing data and research findings into collective knowledge to inform solutions to EHS problems.

**2. Outreach, Communications, and Engagement**

**3. Evidence-Based Prevention and Intervention**

**4. Environmental Health Disparities and**

**Environmental Justice:** NIEHS remains committed to uncovering the exposure burdens that combine with other social determinants of health, such as age, gender, education, race, and income, to create health disparities, as well as working to ensure environmental justice.

**5. Emerging Environmental Health Issues:**

NIEHS is strongly committed to addressing emerging environmental health issues through our research and translation goals, as well as by continuing to work with our public health partners to improve response, recovery, remediation, and resilience to EHS threats.

**6. Partnerships for Action:** Building and sustaining effective relationships with partner organizations to integrate complementary missions needed to implement environmental health improvements.



## Theme Three: Enhancing EHS Through Stewardship and Support

Success in our mission requires that NIEHS continue to provide strong stewardship of our resources – whether human, financial, or infrastructure – as well as support approaches that will enhance EHS and research translation.

- 1. Professional Pipeline:** NIEHS will continue recruiting and training the next generation EHS workforce and its leaders in research, science management, and research translation.
- 2. Greater Workforce Diversity:** NIEHS is committed to promoting a diverse EHS workforce by ensuring widespread opportunity and inclusion in our recruitment and training programs.
- 3. Promotion of Collaborative Science**
- 4. Training and Capacity Building in Global Health:** NIEHS will continue to provide U.S. training opportunities for students and researchers from other countries, collaborate with foreign research and health institutions to share expertise and maximize resources, and partner with international organizations to ensure access to the best EHS information.
- 5. Scientific Research and Data Infrastructure**
- 6. Impact Evaluation:** Measuring impacts of NIEHS research, training, and translation activities.

# Strategic Themes for Environmental Health Sciences

This interactive, broad-themed research approach will allow NIEHS to meet the challenges of tomorrow head-on.



“Advancing environmental health research offers us the best opportunity for preventing disease — because you can’t change your genes, but you can change your environment.”

Linda Birnbaum, Director

See the complete NIEHS Strategic Plan at [www.niehs.nih.gov/about/strategicplan](http://www.niehs.nih.gov/about/strategicplan)

October 2018



National Institute of  
Environmental Health Sciences

National Institutes of Health  
U.S. Department of Health and Human Services