Strengthening the Environmental Health Workforce Across the Nation

Protecting communities relies on a wide range of professional expertise:

- Toxicologists
- Health Assessors and Environmental Scientists
- Engineers and Physical Scientists
- Health Education and Communication Specialists
- Environmental Health Clinicians
- Epidemiologists

ATSDR provides on-the-ground, localized support to communities through the work of more than 200 environmental health professionals located in:

- 10 Regional Offices
- 30 State Public Health Departments
- 10 Pediatric Environmental Health Specialty Units
- 1 Satellite Environmental Health Specialty Unit Headquarters

Advancing Environmental Health Science and Medicine

ToxProfiles™
ATSDR’s Tox Profiles™ and associated resources provide comprehensive information on hundreds of chemicals for scientists, physicians, researchers, and communities. This information helps determine when exposures in communities pose health risks.

Environmental Medicine
Through development of environmental medicine educational materials and support of the Pediatric Environmental Health Specialty Units (PEHSUs), ATSDR provides resources to healthcare professionals across the country. These resources help healthcare professionals evaluate and manage patients with environmental exposures and provide counseling on exposure reduction or prevention. Additionally, PEHSUs provide community education and outreach on environmental exposures.

Mapping, Simulation Science, Modeling, and Lab Analysis
ATSDR uses state-of-the-art tools and resources, like geospatial analysis and modeling, to understand how people are exposed to chemicals in the environment. ATSDR uses computer-based models to predict potential health effects related to exposure to hazardous substances in the air, water, soil, and food. ATSDR also leverages resources available at the Centers for Disease Control and Prevention (CDC), such as laboratory analysis, to answer questions from the public.

Registries and Surveillance
ATSDR uses environmental health surveillance systems and operates registries, such as the National Amyotrophic Lateral Sclerosis (ALS) Registry, to assess the relationship between toxic substance exposures and adverse health outcomes, conditions, or diseases. The results of these activities inform future assessments and decision-making to protect health.
Public Health Assessments and Consultations
ATSDR conducts public health assessments (PHA) to determine if people living near a hazardous waste site are being exposed to toxic substances, if that exposure is harmful, and what can be done to stop or reduce the exposure. If a specific health question or issue arises about a potential environmental hazard, ATSDR conducts a public health consultation.

Exposure Investigations (EI) and Health Studies
When critical data needed for a PHA or consultation are missing or not available, ATSDR may conduct an EI to collect and analyze this information. This may include environmental testing of soil, water, or air, and biomedical testing of urine and blood samples to assess exposure to contaminants.

ATSDR designs and conducts health studies to evaluate the association between human exposure to environmental contaminants and possible health effects. This information is communicated to support environmental public health action for affected communities.

Environmental Justice and Health Equity
Communities with lower incomes, communities of color, and Indigenous and Native American communities are at a higher risk of living in areas affected by environmental exposures. ATSDR and partners assist these communities to revitalize land impacted by contamination; develop tools such as the Environmental Justice Index to identify at-risk and affected groups and evaluate related factors to address environmental health inequities; and support towns, cities, and states in adopting practices to ensure early childcare and education centers are not located near chemical hazards.

Community Engagement Sciences and Intervention
ATSDR works directly with communities and tribal nations across the U.S. to listen to, assess, and address their environmental concerns. ATSDR offers many resources and programs for communities facing environmental concerns.

ATSDR’s Partnership to Promote Local Efforts to Reduce Environmental Exposure (APPLETREE)
ATSDR’s cooperative agreement program (APPLETREE) builds funded state partners’ capacities to assess and respond to site-specific issues involving human exposure to hazardous substances in the environment and potential health effects.

Environmental Public Health Training
ATSDR offers extensive training resources to build the capacity of the nation’s environmental public health workforce. ATSDR provides online, interactive, and CDC-accredited training modules on the fundamentals of the Public Health Assessment process as well as other topics.

Emergency Management
ATSDR Emergency Management coordinates responses to environmental health emergencies to address the public health consequences of technological disasters, hazardous material releases, terrorist events, and natural disasters such as hurricanes, wildfires, floods, and tornadoes. ATSDR supports public health partners, offering 24/7 assistance and on-site response teams across the continental U.S. ATSDR also participates in preparedness activities and recovery missions to support resilient communities across the U.S.