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Statement of
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Chairman Rouzer, Ranking Member Napolitano, and distinguished members of the Committee, I am Aaron Bernstein, the Director of the National Center for Environmental Health at the Centers for Disease Control and Prevention, and the Director of the Agency for Toxic Substances and Disease Registry (ATSDR). It is an honor to appear before you today to discuss how investments in ATSDR are protecting Americans' health, now and in the future.

Agency for Toxic Substances and Disease Registry

In 1980, Congress created ATSDR through the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) to implement the health-related sections of laws that protect the public from hazardous wastes and spills of hazardous substances. Congress authorized the agency to assess the presence and nature of health hazards at specific Superfund sites, prevent and reduce further exposure and the illnesses that result from such exposures, and expand the knowledge base about health effects from exposure to hazardous substances. Amendments to the Resource Conservation and Recovery Act of 1976 (RCRA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA) broadened ATSDR's responsibilities and authorities in the areas of public health assessments, establishment and maintenance of toxicological databases, information dissemination, and medical education.

ATSDR accomplishes its mission by preparing for and responding to environmental health emergencies; supporting and building capacity at state, tribal, territorial, and local health departments; protecting children from the health effects of environmental exposures; and investigating environmental exposures to emerging contaminants of concern. Between FY 2021 and FY 2023, ATSDR responded to over 1,200 state, community, and federal requests to address the potential health risks to over 200,000 people around the country. During that period, ATSDR funded state health departments and conducted over 80 assessments to evaluate environmental

exposures in communities. Much of this work takes place in the regional offices, where staff can respond quickly during emergencies.

Modest increases in funding in FY 2020 through FY 2023 have allowed ATSDR to provide enhancements in its support to state and local health departments and expand its environmental health education efforts. The $1 million in additional funding requested in the President's Budget would allow ATSDR to expand its partnership with communities to address their concerns, monitor and investigate hazardous exposures, build environmental health capacity, and respond to environmental health emergencies. These efforts align with CDC/ATSDR's Moving Forward Initiative to modernize efforts to respond to public health crises in all communities, including those that are underserved. Sustained investment in public health infrastructure and capacity will be essential to build strong, resilient communities and will bolster CDC/ATSDR's ability to respond to the next public health event, including any that result from environmental exposures.

Preparing for and Responding to Environmental Health Emergencies

ATSDR Emergency Response Teams are available 24 hours a day and are composed of toxicologists, physicians, and other scientists available to assist during an emergency involving hazardous substances in the environment. These teams conduct assessments and provide technical support to health departments working to address environmental health emergencies.

ATSDR has staff located in 10 regional offices across the country, who are prepared to respond when natural hazards, chemical spills, and other environmental emergencies occur. Although most regional offices have a small staff, these offices are first on-the-ground, leveraging both the situational awareness they have developed over the years and the trust they

have established with state, territorial, local, and tribal health departments, regulatory agencies, and community organizations to ensure responses meet the needs of communities.

During environmental health emergencies, ATSDR provides information to health care providers to help treat patients, communicates with the public about health risks, forms partnerships to address community needs, and delivers technical assistance, including reviews of environmental sampling data to assess for public health risks.

ATSDR has aided state, territorial, local, tribal, and federal partners during many environmental disasters over the last several years, including responses to the drinking water contamination incident at Joint Base Pearl Harbor-Hickam and the recent train derailment and resulting chemical spill in East Palestine, Ohio. In both cases, the affected state health departments requested that ATSDR conduct an Assessment of Chemical Exposure (ACE) investigation, a rapid epidemiological assessment used to evaluate the health impact of environmental exposures. ATSDR sent staff to East Palestine to assist with on-the-ground efforts to conduct the ACE investigation and provide other technical assistance, such as attending meetings to answer community questions. Information from the ACE investigations was used by the health departments to inform the next steps of the response and identify additional follow-up needs. ATSDR continues to assist the health departments on an as-needed basis to ensure the continued safety of those in the communities. However, approximately 15 percent of ATSDR's staff responded to the East Palestine incident, either remotely or in the field, causing disruptions to routine work. With current resources, ATSDR would have difficulty responding to two concurrent events of this magnitude.

ATSDR also maintains resources to help partners prepare for and address health risks. For example, CDC and ATSDR have a wildfire readiness webpage with information people can

use to protect themselves[1] and a geospatial information portal[2] that complies data from the U.S. Forest Service, National Oceanic and Atmospheric Administration, and others with ATSDR's health and social vulnerability data to allow users to quickly see where wildfires are occurring across the world, the direction and magnitude of the wind, and an interactive map that shows detailed data on current fire incidents, smoke forecasts, fire forecasts, air quality, population vulnerability, and more. ATSDR responded to the Canadian Wildfire Smoke event in June 2023 by building an interactive map in less than two hours with information to visualize air quality, smoke, and population information, as well as providing health messaging, surveillance of air quality and health effects, and coordination with federal, state, tribal, and territorial partners. ATSDR is currently leading CDC/ATSDR's efforts to update the agencies' response planning for wildfires and the public health consequences of wildfire smoke exposures. CDC and ATSDR are also working with other federal agencies, including the Department of the Interior, U.S. Department of Agriculture, and U.S. Environmental Protection Agency, to integrate public health considerations into their wildfire activities through participation on multiple interagency workgroups, including the Wildland Fire Leadership Council.

Support to Health Departments

ATSDR's Partnership to Promote Localized Efforts to Reduce Environmental Exposure (APPLETREE) cooperative agreement program funds state health departments to detect, respond to, and prevent harmful exposures in communities. In FY 2020 through FY 2022, ATSDR awarded approximately $35 million to 28 state health departments through APPLETREE over

[1] https://www.cdc.gov/disasters/wildfires/index.html
[2] https://onemap.cdc.gov/Portal/home/

the three-year cycle of the competitive award. Funding increases in FY 2023 allowed ATSDR to expand APPLETREE to support two additional states, bringing the total to 30.

State health departments are on the front lines when it comes to responding to environmental exposures. ATSDR's cooperative agreement program builds capacity in states to assess health risks from potentially hazardous substances. Cooperative agreements have enabled greater ability for health departments to support clinicians who may have patients with specific concerns related to exposures, build bridges between health and environmental agencies, implement protections to harmful exposures, and rapidly respond to environmental emergencies.

APPLETREE allows health departments to form partnerships to address hazardous exposures comprehensively. For example, the Missouri Department of Health and Human Services collaborated with the U.S. Environmental Protection Agency, Missouri Department of Natural Resources, and local governments to address lead exposure concerns from contaminated drinking water. The partnerships led to the sampling of hundreds of private wells and a free community blood-lead testing event that helped people understand their risks and steps they can take to protect their and their family's health.

Many states, such as North Carolina and Washington, choose to use ATSDR support to enhance their actions addressing community concerns about emerging chemicals, including per- and polyfluoroalkyl substances (PFAS). APPLETREE also enables health departments to make resources available to the public, such as California's work to create a one-stop website with information on hazardous sites, environmental health screening, and mapping tools that residents can use to learn more about their environment and how it may affect their health.

Communities that are economically and socially marginalized continue to bear disproportionate impacts of environmental hazards and it remains a top priority for ATSDR to

continue to engage these communities to address their concerns and understand how exposures impact health. ATSDR has created tools to help health departments and others address exposures in these communities, including updates to the Public Health Assessment Guidance Manual[3] and a geospatial index[4] that uses demographic and socioeconomic data, along with cumulative environmental exposures, to identify communities that experience a disproportionately high environmental burden in the United States.

Protecting Children's Health

Children are uniquely sensitive to exposures to chemical contaminants and environmental stress such as extreme heat or cold. Children's minds and bodies are still developing which can make them less able to effectively cope with exposures when they occur. In addition, exposures can disrupt normal development and result in harm later in life. ATSDR manages a national network of 10 Pediatric Environmental Health Specialty Units (PEHSUs), located in each federal region across the United States, to advise parents, child caregivers, and healthcare providers on protecting and caring for children potentially exposed to harmful chemicals. Regional PEHSU units respond to requests for information, offer advice on environmentally related health effects for pregnant women and children, and provide education to healthcare providers, other health professionals, and community members.

The PEHSU network has produced many tools to help clinicians, parents, and children understand environmental exposures. Most health professionals who care for children do not receive adequate training to recognize, manage, treat, and prevent environmental health risks to children and pregnant women. PEHSUs fill this critical gap every day and especially when

[3] https://www.atsdr.cdc.gov/pha-guidance/index.html
[4] https://www.atsdr.cdc.gov/placeandhealth/eji/index.html

communities are in crisis, whether that comes from newly discovered PFAS exposures in a community or in situations such as the East Palestine train derailment.

ATSDR also protects children's health through the Choose Safe Places for Early Care and Education (CSPECE) program, which works to reduce exposure to dangerous chemicals in childcare facilities. Funded by ATSDR as part of APPLETREE, states screen potential childcare locations, educate childcare providers, and inform implementation of evidence-based protective measures to ensure children play, learn, and grow in healthy, safe places. In the last three years, CSPECE has enabled 260 local partnerships across various sectors, developed over 100 tools and resources to educate childcare providers, provided educational resources to over 55,000 childcare stakeholders, and screened over 9,000 childcare locations for potential hazards.

Investigating the Health Impacts of PFAS and Emerging Contaminants

Work on emerging environmental contaminants continues to be a priority for ATSDR, with the agency conducting work to characterize human exposures and understand the health impacts of those exposures. For example, ATSDR is continuing its work on addressing exposures to per- and polyfluoroalkyl substances (PFAS), a class of thousands of human-made chemicals that have been used in industry and consumer products since the 1950s. Exposure to these chemicals is widespread. CDC's National Health and Nutrition Examination Survey (NHANES) has detected PFAS in the blood of more than 95% of the U.S. population[5]. More research is needed to determine the health effects in humans[6], and some studies[7] suggest exposure may affect cholesterol levels, affect the immune system, and increase the risk for some cancers.

[5] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2072821/
[6] https://www.whitehouse.gov/wp-content/uploads/2023/03/OSTP-March-2023-PFAS-Report.pdf
[7] https://www.atsdr.cdc.gov/ToxProfiles/tp200.pdf

ATSDR has worked to address community concerns about PFAS since 2009, with the development of the first health assessment that looked at PFAS exposure in Decatur, Alabama. To date, ATSDR has worked to investigate exposure to, and possible health effects associated with, PFAS in more than 40 communities across the United States.

The National Defense Authorization Act (NDAA) of 2018 directed ATSDR to complete exposure assessments and a health study to look at PFAS exposure in communities. With funds provided through the Department of Defense appropriation, ATSDR conducted exposure assessments in ten communities near current or former military bases across the U.S. that are known to have had PFAS in their drinking water. An exposure assessment provides information to communities about the levels of PFAS in their bodies. The exposure assessments looked at exposure in more than 2,300 individuals from over 1,200 households, providing information about factors that can affect exposure, such as age, sex, and use of certain consumer products. In September 2022, ATSDR released a final report on the findings of the exposure assessments across all 10 sites. This information can be used to develop interventions which might ultimately reduce PFAS exposures.

ATSDR is also using funds provided through the Defense appropriation to conduct a national multi-site health study that will look at the relationship between PFAS exposures through drinking water and health outcomes. The Pease Study in New Hampshire is serving as the first site in the multi-site health study. ATSDR has completed recruitment and sample analysis for the Pease Study and is in the process of developing reports to share findings from the study, expected to be released in FY 2024. In 2019, ATSDR awarded research cooperative agreements to seven recipients to work on the multi-site study in seven additional states. Two recipients have completed study recruitment and sample collection while the remaining expect to

complete these steps by the end of FY 2023. This groundbreaking health study will provide information about the health effects of PFAS exposure that can be used in all communities to protect health.

ATSDR is also taking steps to ensure that clinicians have the guidance they need to address patient concerns about PFAS exposure. ATSDR is working closely with the Pediatric Environmental Health Specialty Units to offer pediatricians and other healthcare professionals information about PFAS so they can best serve their patients in these communities. ATSDR supported the National Academies of Science, Engineering, and Medicine to review the scientific information on PFAS to develop recommendations to inform updates to ATSDR's PFAS Guidance for Clinicians. ATSDR expects to update the guidance by the end of 2023.

In 2022, CDC and ATSDR released the *Guidelines for Examining Unusual Patterns of Cancer and Environmental Concerns*[8] to help health departments as they investigate patterns of disease in communities, another emerging environmental health issue. This document updated the 2013 guidance for investigating cancer clusters to include additional patterns of cancer that may warrant further assessment, approaches to better engage communities, standardized templates to document the nature and extent of cancer concerns, and updated approaches to identify and investigate unusual patterns of cancer, including suggestions for routine surveillance activities.

ATSDR is also investigating the potential health impacts of microplastics, which are pervasive in the environment and are small enough to be internalized and transported within the human body. Exposure-dose and health effects have not been established, but some research in animals has indicated that microplastic exposure may carry significant health consequences.

[8] https://www.cdc.gov/nceh/cancer-environment/pdfs/Guidelines-for-Examining-Unusual-Patterns-of-Cancer-and-Environmental-Concerns-h.pdf

Studies to understand health effects of microplastics in humans still need standardized methods for identifying and measuring plastic particles. ATSDR, along with CDC's National Center for Environmental Health, is working on developing the science to define and prioritize potential health risks and develop initiatives to better characterize and understand whether microplastic exposures are harmful to human health.

FY 2024 Budget Request for ATSDR

In FY 2024, ATSDR's budget request will allow ATSDR to respond to requests from communities, states, and other jurisdictions to investigate environmental exposures and provide information that can help them protect themselves and their families from chemical exposures. This includes preparing for and responding to environmental health emergencies. ATSDR will also continue to provide resources to state, territorial, local, and tribal health departments to build national public health capacity and develop tools to support that work.

ATSDR has used the annual ATSDR appropriations increases over the last four years and COVID supplemental funding to provide additional funding to states to build their environmental health capacity and to provide additional support to PEHSUs.

Conclusion

ATSDR serves on the frontline to protect the health of Americans when environmental risks appear. It has a unique mission and responsibility to advance health through studies, support of health departments, development of clinician guidance, and response to environmental health emergencies, all in partnership with affected communities. In FY 2024, the agency will continue working toward our goals of providing science-based guidance that can protect people from health risks that may come with environmental exposures. Thank you again for the opportunity to be here today to discuss the important work of the agency.