



**Testimony before the
Subcommittee on Water Resources and
Environment
Committee on Transportation and
Infrastructure
U.S. House of Representatives**

Agency Budgets and Priorities for FY 2010

Statement of

Howard Frumkin, M.D., Dr.P.H.

Director

**Agency for Toxic Substances and Disease Registry
and**

National Center for Environmental Health

Centers for Disease Control and Prevention

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Good afternoon Chairwoman Johnson and other distinguished members of the Subcommittee. On behalf of the new Director of the Centers for Disease Control and Prevention and Administrator of the Agency for Toxic Substances and Disease Registry, Dr. Thomas R. Frieden, I would like to thank you for the opportunity to be here today. I am Dr. Howard Frumkin, Director of the Agency for Toxic Substances and Disease Registry (ATSDR) and the Centers for Disease Control and Prevention's (CDC's) National Center for Environmental Health (NCEH).

I am a physician with 27 years of experience in environmental and occupational medicine and epidemiology. I have been Director of NCEH/ATSDR since September 2005. Previously, I served as chairman of the Department of Environmental and Occupational Health at Emory University's Rollins School of Public Health and professor of medicine at Emory Medical School.

In my dual role with NCEH and ATSDR, I have the opportunity to lead a highly dedicated group of people as they seek to provide answers on a wide variety of issues related to human health and the environment. And, we are working to identify and protect the public from environmental exposures to hazardous substances.

Today, I will provide a brief overview of ATSDR's scientific and programmatic activities. I will also discuss ways in which ATSDR is taking a fresh look at how we can serve communities concerned about toxic exposures.

The ATSDR Story

ATSDR is the principal non-regulatory federal public health agency responsible for addressing health effects associated with toxic exposures. The Agency's mission is

to serve the public through responsive public health actions to promote healthy and safe environments and prevent harmful exposures.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, more commonly known as the Superfund law, established ATSDR and the agency was organized a few years later. CERCLA reflected congressional and public concern with toxic chemicals, particularly hazardous waste, in the aftermath of such environmental disasters as Love Canal (New York) in the late 1970s.

ATSDR was charged with implementing the health-related provisions of CERCLA. CERCLA, and the subsequent Superfund Amendments and Reauthorization Act of 1986—or SARA—assigns ATSDR four responsibilities, each of which is described in more detail below:

- *Protecting the public's health from toxic chemicals*
- *Building the science base on toxic chemicals*
- *Providing information on toxic chemicals to health professionals and the public*
- *Establishing and maintaining registries*

Protecting the Public's Health from Toxic Chemicals

A core function of ATSDR is assessing potential health hazards posed by hazardous waste sites and making recommendations for protecting public health. This is a mandated function in the case of Superfund sites and discretionary in the case of other hazardous waste sites. ATSDR site-specific work is presented in one of several forms: Public Health Assessments, Public Health Consultations, Exposure Investigations, and Technical Assists.

In addition, ATSDR can help inform public health protection from chemical exposures in settings other than hazardous waste sites, circumstances that are collectively referred to as “releases.” These releases may range from chemical plant explosions to a spill of coal combustion products. They can be those identified by government agencies or by individuals within the community through the petition process.

ATSDR responds to emergencies involving the release of chemicals, most often in collaboration with the Environmental Protection Agency. ATSDR personnel provide real-time public health guidance following acute releases of hazardous substances and health information to the public (for example, helping determine when people can safely reoccupy their homes and businesses after an evacuation).

ATSDR’s work in protecting public health is highly productive. The Agency, in cooperation with state health agencies, issues between 300 and 400 Health Assessments and Health Consultations and provides more than 1,000 Technical Assists each year. During the period 1995-2006, 73% of its recommendations were implemented by Federal, state and local authorities.

ATSDR has a strong track record of public health practices and recommendations based on the best available science, even in sometimes controversial, highly charged situations. Several examples are illustrative:

- Montana: Vermiculite mined by the W.R. Grace Company in Libby, Montana, was contaminated with tremolite asbestos. EPA and the Montana congressional delegation requested that ATSDR evaluate human health concerns related to asbestos exposure in Libby. ATSDR has conducted a number of activities in the

community, including: a screening program to identify people whose health may have been impacted by exposure to asbestos; a mortality review that compared asbestos-associated death rates for residents of the Libby area with those in Montana and the United States; and a Tremolite Asbestos Registry, a listing of individuals with asbestos-related disease or those at high risk of developing asbestos-related disease because of exposure to asbestos. ATSDR continues to be actively involved with the site and the community, joining in June of 2008 with EPA to establish the Libby Health Risk Initiative, a program to add to the understanding of health effects of exposure to Libby asbestos.

- New Jersey: The Kiddie Kollege Day Care Center in Franklin Township, New Jersey, was housed in a former thermometer factory, exposing children and staff to mercury. In 2007, ATSDR worked with New Jersey health and environmental officials and staff at the nearby Pediatric Environmental Health Specialty Unit, a university-based effort funded partially by ATSDR, to assess the exposures. Initial findings included elevated levels of urinary mercury in 31 percent of children and 33 percent of adults tested. Follow-up testing after exposure had stopped showed that levels had been greatly reduced to below the reference values. New Jersey has since enacted legislation establishing stringent criteria before building permits can be issued for day care or educational institutions in environmentally high risk sites. Congress subsequently directed ATSDR to prepare a report on children's exposure to mercury, and that report was completed and submitted to Congress.¹

- Ohio: City View Center, a shopping center in Cuyahoga County, Ohio, was built on the site of a former landfill. In 2008, air monitors detected explosive levels of methane and other combustible gases. Based on the available information, ATSDR rapidly concluded that an urgent public health hazard was present, and recommended that immediate action be taken. ATSDR's finding provided the Ohio EPA, the Ohio Attorney General, and the U.S. EPA with further grounds for compelling the property owner to install an active vapor extraction system on the landfill to reduce the migration of gases into the shopping center.

Building the science base on toxic chemicals

ATSDR's applied research includes toxicologic and epidemiologic research. In some cases, ATSDR conducts this research in-house; for example, ATSDR scientists have developed innovative techniques of computational toxicology to help rapidly assess hazards of chemical releases. ATSDR's development and use of complex water modeling to reconstruct past exposure to contaminated drinking water at Camp Lejeune, North Carolina, is another example of groundbreaking work.² In other cases, ATSDR identifies critical toxicologic data needs and works with other federal agencies, as well as state agencies, universities, and volunteer organizations to fill those needs.

A key feature of ATSDR's scientific research is that it often grows out of site-specific public health activities. In addition to the work I have already mentioned in Libby, Montana, ATSDR investigated a cluster of cases of polycythemia vera, a rare blood disease, in Pennsylvania, the respiratory effects of exposure to toluene di-

isocyanate, an air pollutant, in North Carolina, and the respiratory effects of exposure to construction and demolition landfill emissions in Ohio.

In addition to original research, ATSDR assembles existing data on toxic chemicals. ATSDR's *Toxicological Profiles* are thorough reviews of available toxicological and epidemiologic information on specific chemicals that ATSDR health assessors and other responders use to identify contaminants and potential health effects that may be of concern at hazardous waste sites. They are widely used by scientists and members of the public.

Providing Information on Toxic Chemicals to Health Professionals and the Public

A third function of ATSDR is to provide health professional and community education through direct service at the community level, and through broader distribution of materials through the internet and other mechanisms. For example, ATSDR's ToxFAQs is a series of summaries of information about hazardous substances. These are user-friendly documents excerpted from *Toxicological Profiles*, particularly from the Public Health Statements contained in each profile. Each ToxFAQ provides plain language information about exposure to hazardous substances found around hazardous waste sites and the effects on human health. ATSDR also develops and provides medical education to assist health professionals in diagnosing and treating conditions related to hazardous exposures.

Establishing and Maintaining Registries

The fourth function assigned to ATSDR is establishing and maintaining registries—confidential databases designed to collect, analyze, and track information about groups of people who share defined exposures or illnesses. ATSDR also provides information to registrants about health services and other services available to them through other sources. Current registry activities include Libby, the World Trade Center (WTC), amyotrophic lateral sclerosis (ALS), and post-Hurricane Katrina trailer residents.

ATSDR—A Culture of Continuous Improvement

ATSDR has undergone a great deal of scrutiny in the past year. Consequently ATSDR has aggressively sought independent external reviews of its programs and processes and has implemented changes in response. With respect to management practice, CDC commissioned an outside review of ATSDR management, which found the same kinds of management and workforce concerns common to similarly sized CDC centers but no significant or systemic problems.³ Specific opportunities for improvement were identified, and we have implemented a solid management improvement plan. With respect to scientific peer review and document clearance policies, the NCEH/ATSDR independent Board of Scientific Counselors examined our procedures and found them to be sound.⁴ Again, specific opportunities for improvement were identified and implementation is underway. With regard to other procedures, improvements continue to be made: more accurate and clear language in the conclusions in Public Health Assessments; replacing an outdated data management

system with a contemporary, Web-based software package; converting Toxicological Profile updates to a real-time, Web-based system; and more.

We are also looking back at sites ATSDR where has worked with in the past to assess whether previous work needs to be updated or, in some cases, corrected. Three such sites under current review are Vieques, Puerto Rico, Midlothian, Texas, and Camp Lejeune, North Carolina.

ATSDR—A Fresh Look at How to Serve Communities

When ATSDR was established, the primary focus was on responding to health concerns from exposures related to hazardous waste sites being addressed under CERCLA. Through work with these sites, ATSDR's scientists have developed unique skills. In recent years, ATSDR has found an increasing demand for those skills in other areas related to hazardous exposures. These areas include additional work with Brownfield sites as ATSDR works with states and communities to bring public health considerations into redevelopment decisions. They also include emergency response situations involving potential exposures to hazardous chemicals. And finally, ATSDR receives a wide variety of requests from federal, state, and local agencies and individuals for assistance in responding to health concerns related to many kinds of hazardous exposures. We find that community interest is increasing rather than decreasing.

The FY 2010 President's Budget requests \$77 million for ATSDR, an increase of \$3 million above FY 2009, including the addition of 14 full-time equivalent employees. Of this budget increase, \$2 million is directed toward studies of non-occupational

exposures to uranium on the Navajo Nation. This budget request is consistent with appropriations for the past five years. ATSDR will continue to strive to meet its mission through increased efficiencies and productivity and the efforts of a dedicated staff.

In responding to this changing landscape, we are taking a fresh look at how ATSDR can serve communities with concerns about toxic exposures. ATSDR is undertaking major efforts to improve our abilities to meet those needs and to meet new challenges in the future through a review of the overall approach to carrying out our mission.

The many changes that have occurred in chemical science and technology during the quarter century of ATSDR's existence make this re-examination more compelling. Together these changes have revolutionized the context within which ATSDR works to protect the public from chemical hazards.

- *Analytic chemistry* tools now permit measurement of progressively lower levels of chemicals.
- *Biomonitoring*, the direct measurement of chemicals in people's body fluids, has advanced tremendously, enabling scientists to identify and quantify exposures.
- The *genetic revolution* and the emergence of the "omics" (genomics, proteomics, metabolomics) offer the potential to study gene-environment interactions, and to understand exposures and health effects at an individual level.
- *Toxicologic advances* such as computational and in vitro methods offer enormous opportunities for insight into chemical action, more rapidly and at less expense than ever before.

- *Green chemistry* represents an innovative approach that seeks to design and produce environmentally safe chemicals, avoiding the toxic effects on which ATSDR's work has focused.

Together, these considerations make clear that a re-evaluation of ATSDR's approach is timely and appropriate. Moreover, the responsibility of protecting the public from toxic chemicals does not rest with ATSDR alone. Several other agencies share in this responsibility, and many other stakeholders—industry, environmental groups, community groups, professional associations—play essential roles.

In fact, review of the nation's efforts to protect the public from chemical hazards over the last four decades—an effort that includes ATSDR but extends well beyond—reveals a mixed record of success. As a nation, we have achieved some notable successes but are still working to improve data collection, draw consistent conclusions, launch protective actions, and inform stakeholders. Various agencies and organizations—governmental and nongovernmental, regulatory and non-regulatory—carry out public health functions related to chemical exposures. These functions include exposure and health surveillance, investigation of incidents and releases, emergency preparedness and response, regulation, research, and education. There are numerous opportunities to make improvements to increase coordination. Some key responsibilities are not carried out adequately, while others are needlessly redundant. ATSDR's mission and functions must be considered within this broader context.

Several years ago, we took a first step forward by bringing ATSDR and CDC's National Center for Environmental Health into a closer working relationship by combining the management structures of the two organizations. This has allowed our

scientists ready access to unique technical knowledge and skills and facilitated more seamless collaboration. This collaboration has also allowed them to work together on complex environmental health responses as varied as responding to the aftermath of Hurricane Katrina and developing an understanding of potential health implications of drywall from China.

To further this collaboration, and take a more comprehensive look, ATSDR and NCEH have recently initiated the *National Conversation on Public Health and Chemical Exposures*. This initiative will convene a wide range of stakeholders over one to two years, including government agencies, community groups, industry, environmental groups, public health groups, and others. Various stakeholder groups are already highly supportive. I expect this effort to yield an action agenda for revitalizing the public health approach to chemical exposures. Part of this agenda will offer direction for ATSDR as it moves into its second quarter century.

Conclusion

ATSDR is an agency with a relatively short history, but a history that spans much of this nation's response to health concerns resulting from hazardous environmental exposures.

ATSDR has worked diligently to address the needs and concerns of communities and the people in those communities. Few federal agencies have a stronger track record in working "on the ground" serving local communities. The Agency has developed innovative tools and skill sets in carrying out its mission. ATSDR has

assembled a strong record of accomplishment—protecting health near hazardous waste sites, advancing science, and educating health professionals and the public.

I am committed to ongoing improvement in every aspect of ATSDR's work, enabling us to achieve the goals assigned by Congress and deserved by the American public: protecting public health from dangerous chemical exposures.

Endnotes

¹ Lee, R, Middleton, D, Caldwell, K, Dearwent, S, Jones, S, Lewis, B, Monteilh, C, Mortensen, ME, Nickle, R, Orloff, K, Reger, M, Risher, J, Rogers, HS, Watters, M. "A Review of Events That Expose Children to Elemental Mercury in the United States," *Environmental Health Perspectives*, Vol. 117, No. 6, pp. 871-878, 2009.

² Maslia, M. L., Aral, M. M., Faye, R. E., Suarez-Soto, R. J., Sautner, J. B., Wang, J., Jang, W., Bove, F. J., Ruckart, P. Z. "Reconstructing Historical Exposures to Volatile Organic Compound-Contaminated Drinking Water at a U.S. Military Base," *Journal of Water Quality, Exposure and Health*, Vol. 1, No. 1, pp. 49-69, 2009.

³ PricewaterhouseCoopers LLC, NCEH/ATSDR Human Capital Management Assessment, September 19, 2008.

⁴ NCEH/ATSDR Board of Scientific Counselors, Report on the Peer Review and Clearance Policies and Practices in the National Center for Environmental Health and the Agency for Toxic Substances and Disease Registry, March 4, 2009.