

# DEPARTMENT of HEALTH and HUMAN SERVICES

Agency for Toxic Substance and Disease Registry

FY 2008 Annual Performance Report

#### MESSAGE FROM THE DIRECTOR

We are pleased to present the FY 2008 Annual Performance Report for the Agency for Toxic Substance and Disease Registry (ATSDR). The report represents the monitoring and management of ATSDR's scientific efforts to protect the health of U.S. citizens against disease related to toxic substance exposures.

The agency's mission is to use the best science, take responsive action, and provide trustworthy health information to prevent and mitigate harmful exposures to toxic substances and related disease. ATSDR continues to prevent, determine, and mitigate health effects at sites with toxic exposures, and its successes in doing so directly benefit Americans.

ATSDR monitors its performance through long-term performance measures that evaluate the Agency's success in mitigating exposures at the most urgent and hazardous sites. These measures assess and document the impact of ATSDR's efforts on the health of people exposed to toxic substances.

To the best of my knowledge, the performance data reported by ATSDR for inclusion in the FY 2008 Annual Performance Report is accurate, complete, and reliable, with one exception. The HAZDAT information system used as the source for performance measure 17.1.1 is no longer functional, and is being replaced with a new database, which is anticipated to be on line in FY 2009.

Sincerely,

Julie Louise Gerberding, M.D., M.P.H.

Jahi Paise Selveling

Director, Centers for Disease Control and Prevention, and

Administrator, Agency for Toxic Substances and Disease Registry

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

Med She was

Director, National Center for Environmental Health/

Agency for Toxic Substances and Disease Registry

# TABLE OF CONTENTS

Message from the Director	
Introduction	2
SUMMARY OF MEASURES AND RESULTS	3
DETAIL OF PERFORMANCE	4
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY	
OVERVIEW OF PERFORMANCE	g
STATEMENT OF MISSION	9
DISCUSSION OF ATSDR STRATEGIC PLAN	10
ADDITIONAL ITEMS	12
PROGRAM EVALUATIONS	12
DATA SOURCE AND VALIDATION TABLE	13

# INTRODUCTION

This FY 2008 Annual Performance Report provides information on ATSDR's actual performance and progress in achieving the goals established in the FY 2008 Annual Performance Plan which was published in February 2008.

The goals and objectives contained within this document support the Department of Health and Human Services' Strategic Plan (available at <a href="http://aspe.hhs.gov/hhsplan/2007">http://aspe.hhs.gov/hhsplan/2007</a>).

# SUMMARY OF MEASURES AND RESULTS

The table below provides a summary of ATSDR's performance measures.

Fiscal Year	Targets	Results Reported	Results Reported ÷ Targets	Targets Met	Targets Unmet	Targets Unmet But Improved	% of Targets Met
2005	3	3	100%	3	0	0	100%
2006	5	5	100%	5	0	0	100%
2007	6	6	100%	5	1	0	83%
2008	6	2	33%	0	2	0	0%
2009	6	N/A	N/A	N/A	N/A	N/A	N/A

# **DETAIL OF PERFORMANCE**

## AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

#	Key Outcomes	FY 2005 Actual	FY 2006 Actual	FY 2007 Target	FY 2007 Actual	FY 2008 Target	FY 2008 Actual	FY 2009 Target
17.E.1	Reduce the average cost per site to deliver public health findings and recommendations to the public.[E]	10%	17%	21%	6% (Unmet)	24%	1/2009	27%

## **Efficiency Measure 17.E.1**

In the event of a known or suspected public health threat, the timeliness with which critical information is delivered to the public may greatly influence the speed with which the American people can take protective actions. Toward this end, ATSDR is working to provide critical public health findings and recommendations to the public in the most expedient manner. Historical data demonstrate that ATSDR's health consults (HCs) can be conducted in a fraction of the time (and therefore at less cost) required to conduct public health assessments (PHAs). In many cases, HCs are sufficient to provide the public with the information they need, therefore ATSDR is working to increase the proportion of sites that are addressed with HCs rather than PHAs, where appropriate.

In FY 2007, ATSDR decreased the costs (by approximately six percent) of addressing sites with PHAs and HCs. ATSDR did not meet its target of 21 percent because many of the sites were addressed through technical assists rather than through HCs. Technical assists are often the most efficient and cost-effective way to address site-related requests. However, this Method was not included in the original baseline used to estimate the original PART targets. While ATSDR did not meet the numeric PART target, it did meet the intent of the goal by using a more cost-effective Method of addressing the sites.

Program management has been working with management representatives from other program areas in ATSDR to develop definitions and business rules that will apply to all ATSDR issued public health assessments, health consultations, and technical assistance reports. This will help improve consistency in the content and format of these documents and hopefully will lead to business changes that contribute to improved efficiency.

ATSDR is currently working to develop a new efficiency measure in conjunction with CDC's agency-wide process to achieve significant efficiencies through the Public Health Integrated Business Services High Performing Organization (PHIBS HPO).

#	Key Outcomes	FY 2005 Actual	FY 2006 Actual	FY 2007 Target	FY 2007 Actual	FY 2008 Target	FY 2008 Actual	FY 2009 Target
Long Tern effects.	n Objective 17.1: Assess c	urrent and pre	event future e	xposures to	toxic substan	ces and rela	ated human	health
17.1.1	Reduce exposures to toxic substances and mitigate the likelihood of future toxic exposures by increasing EPA's, state regulatory agencies', or private industries' acceptance of ATSDR's recommendations at sites with documented exposures. [O]	91% (Exceeded)	89% (Exceeded)	>82%	89% (Exceeded)	>83%	12/2009	>84%

# Long-term Objective 17.1, Performance Measure 1

ATSDR responds to toxic substance releases when they occur or as they are discovered. One of the agency's primary responsibilities during these events is to provide information and to recommend actions, from a public health perspective, to the agency or industry responsible for cleaning up the released toxins and/or mitigating the likelihood of future releases. Since ATSDR serves in an advisory capacity, with no regulatory or enforcement authority, the protection of the publics health from toxic substance release is dependent on the extent to which 1) ATSDR's recommendations are adopted by those entities that do have enforcement authority, (e.g., EPA and state regulatory agencies); and 2) private industries adhere to ATSDR's recommendations and regulations. This measure reports the percentage of ATSDR's public health and safety recommendations accepted by EPA, state regulatory agencies, and private organizations.

ATSDR tracks the adoption rate of its recommendations to EPA, state regulatory agencies, or private organizations. In FY 2005 and FY 2006, the program exceeded its target. In FY 2007, ATSDR tracked recommendations for ceasing and reducing exposures and further site characterization for urgent and public hazard conclusion category sites in the last reporting period. While ATSDR tracks and encourages acceptance of its recommendations, it is up to the external entities to make the ultimate decision to do so. ATSDR has experienced an overwhelming rise in the acceptance of its recommendations by the external entities in recent years. In FY 2007, the agency exceeded its target of an 82 percent adoption rate with an end result of 89 percent. The performance target was set at an approximate level and actual performance is only a slight deviation. There is no effect on overall program or activity performance related to this measure. ATSDR is currently transitioning to a new database as HAZdat is now longer functional. The new system is expected to be online in FY 2009.

By adopting ATSDR recommendations, the EPA, state regulatory agencies and/or private industries enable exposures to environmental contaminants at sites to be reduced or ceased. This measure is the end point of ATSDR's health assessment process as authorized by CERCLA legislation. Thus, this measure is a public health outcome for ATSDR.

#	Key Outcomes	FY 2005 Actual	FY 2006 Actual	FY 2007 Target	FY 2007 Actual	FY 2008 Target	FY 2008 Actual	FY 2009 Target
Long Term	Long Term Objective 17.2: Determine human health effects associated with exposures to priority hazardous substances.							
17.2.1	Advance understanding of the relationship between human exposures to hazardous substances and adverse health effects by completing toxicological profiles for substances hazardous to human health.	15 (Met)	18 (Met)	18	18 (Met)	18	16 (Unmet)	18
17.2.2	Fill data needs for human health effects/risks relating to hazardous exposures.	N/A	24 (Met)	30 data needs	30 (Met)	32	29 (Unmet)	32

#### Long-term Objective 17.2, Performance Measure 1

A significant part of ATSDR's work is determining the relationship between human exposures to hazardous substances and health effects. As required by law, ATSDR prepares toxicological profiles (ToxProfiles) for hazardous substances found at the National Priorities List (NPL) sites and upon request from the scientific community. This Priority List of Hazardous Substances is a

catalog of the hazardous substances most commonly found at NPL facilities and those that pose significant potential threat to human health. Hazardous substances may be added or deleted from the NPL annually; therefore, each year there may be substances for which ToxProfiles must be developed.

Each profile provides a summary and comprehensive evaluation, and an interpretation of available scientific information on a substance. Because ToxProfiles are intended to be comprehensive in nature, when there are insufficient data to provide a complete picture of the health effects of a toxic substance, ATSDR identifies what data are needed, and works to collect needed information to complete the profile. This measure tracks the number of identified data needs that are resolved annually.

In 2008, 13 ToxProfiles were developed. Four of these profiles were released for public comment and include manganese, cadmium, chromium, and radon. Two are on a modified schedule pending additional review (formaldehyde and perfluoroalkyls). The other seven are undergoing final review for release as final documents. These include aluminum, cresols, diazinon, dichloropropenes, guthion, phenol, and 1,1,2,2-tetrachloroethane. ToxProfiles were published and mailed to a nominal number of recipients. To maximize distribution and minimize costs, the documents were also made available on the ATSDR homepage at http://www.atsdr.cdc.gov/toxpro2.html and on CD ROM.

Sixteen priority data needs were filled for priority hazardous substances including chromium, 1,1-dichloroethene, and di(2-ethylhexyl)phthalate. These data needs were filled by information/studies that were identified during the development of the updated toxicological profiles or during literature reviews. For example, using recent available studies, an intermediate duration oral Minimal Risk Level (MRL) was derived for Chromium (VI) which fills the priority data need for dose-response animal data for intermediate-duration oral exposures.

ATSDR was only able to fill 16 data needs in FY 2008 due to the lack of research focusing on identified priority data needs. ATSDR will continue to work with CDC's Division of Laboratory Sciences for the availability of biomonitoring data and look for opportunities with research partners (e.g. private sector, National Toxicology Program, CDC/NIOSH). This will be accomplished through the representation of the division on the Tri-Agency Superfund Applied Research Committee (TASARC).

# Long-term Objective 17.2, Performance Measure 2

ATSDR also works to determine the relationship between toxic exposures and disease through health studies, disease tracking, and surveillance activities. ATSDR's research findings help determine whether exposures to hazardous substances can lead to increased risk for various health problems, such as cancer, leukemia, multiple sclerosis, asthma, and other illnesses.

This measure tracks the number of data needs (i.e., gaps in knowledge about effects from exposure to hazardous substances) that ATSDR fills through the completion of site-specific or broader research studies. A data need is a specific question posed by a community or other stakeholders at sites where ATSDR provides services. It may also be a question ATSDR seeks to answer under its research agenda.

ATSDR remains focused on determining the relationship between toxic exposures and disease. Through the development of health studies, disease tracking projects, and surveillance studies, the Agency improves the science base for environmental public health decision-making by filling the gaps in knowledge about human health effects from exposure to hazardous substances.

During FY 2008, ATSDR successfully filled 29 site-specific and research data needs. An additional 11 site-specific and research data needs were partially met, largely due to timeframes

associated with clearance and publication guidelines. Some efforts that are among those that led to the completion of this goal, include a journal article on Posttraumatic stress symptoms in lower Manhattan residents two to three years after the September 11, 2001 terrorist attacks which was published in the *Journal of Traumatic Stress* in June 2008; a journal article on Construction and Demolition (C&D) Landfills which was published in the *Journal of Environmental Health*; and a community study report on Polycythemia Vera which was printed in the ATSDR community report in August 2008.

#	Key Outcomes	FY 2005 Actual	FY 2006 Actual	FY 2007 Target	FY 2007 Actual	FY 2008 Target	FY 2008 Actual	FY 2009 Target
Long Term	Long Term Objective 17.3: Mitigate the risks of human health effects from toxic exposures.							
17.3.1	Protect human health by preventing or mitigating human exposures to toxic substances or related health effects at sites with documented exposures. [O]	54% (Exceeded)	65% (Met)	70%	70% (Met)	72%	1/2009	74%
17.3.2	Provide services to mitigate the risks of health effects from exposure to hazards from disasters.	N/A	Met	Deploy staff as requested to emergency events in a timely manner 100% of the time.	Met	Deploy staff as requested to emergency events in a timely manner 100% of the time.	1/2009	Deploy staff as requested to emergency events in a timely manner 100% of the time.

# Long-term Objective 17.3, Performance Measure 1

This outcome measure captures the impact of the agency on human health in communities where actual or potential exposures exist. The long-term measure tracks the percentage of sites where human health risks or effects have been mitigated. The measure compares documented human health risks or effects at the time of the initial site assessment to those after intervention, thus measuring the reduction in people's actual or potential exposures. Depending on the toxic substance(s) and route(s) of exposure, the impact of interventions on human health can be measured through the following:

- Morbidity/Mortality rates that measure, for example, the reduction in childhood cancer or birth defects rates.
- Biomarkers, which signal the presence of toxic substances in the body, are used in cases where reliable and affordable tests are available.
- Environmental monitoring that measures reductions in environmental contaminants to below levels of human health concern.
- Behavioral change that documents changes in behavior that prevents future exposures.

Since FY 2005, the program has met or exceeded its targets. In FY 2007, ATSDR continued to work with the EPA and other partners to assess the status of the implementation of interventions. Based on current data, interventions have been implemented at 70 percent of those sites posing an urgent or public health hazard.

ATSDR's Division of Health Assessment and Consultation continues to provide training to technical staff working on the site evaluations and emphasize the need for them to work closely

with site managers, community members, and other health professionals to ensure that appropriate actions needed to minimize exposures are implemented as quickly as possible.

# Long-term Objective 17.3, Performance Measure 2

ATSDR responds to disasters by deploying expert personnel to affected sites and by providing technical and coordination assistance to other agencies. All ATSDR emergency response staff are to be ready to deploy to sites within six hours of notification and to report to the CDC Emergency Operations Center within 20 minutes of an emergency request. In addition, ATSDR builds and maintains its response readiness by participating in national and regional planning sessions and emergency exercises.

Since FY 2006, the program has met its targets and will continue to employ its current strategies to ensure continued success.

# **OVERVIEW OF PERFORMANCE**

#### STATEMENT OF MISSION

The Agency for Toxic Substances and Disease Registry (ATSDR) is the nation's public health agency for chemical safety. The agency's mission is to use the best science, take responsive action, and provide trustworthy health information to prevent and mitigate harmful exposures toxic substances and related disease.

The discovery of contamination in New York State's Love Canal during the 1970s first brought the problem of hazardous wastes to national attention. Similarly, the health threat from sudden chemical releases came into focus in December 1984, when a cloud of Methyl isocyanate gas released from a Union Carbide facility in Bhopal, India, seriously injured or killed thousands of people.

Both events represent the kinds of issues at the core of ATSDR's congressional mandate. First organized in 1985, ATSDR was created by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, more commonly known as the Superfund law. In 1986, Congress passed the Superfund Amendments and Reauthorization Act (SARA). Through these and other pieces of legislation, Congress responded to the public's demand for a more complete accounting of toxic chemicals and releases. In addition, Congress was—and remains—concerned by other pathways of potential exposure, including food, water, air, and consumer goods.

Since the creation of ATSDR, thousands of hazardous sites have been identified around the country. The Superfund program remains responsible for finding and cleaning up the most dangerous hazardous waste sites in the country. ATSDR has also been at the forefront in protecting people from acute toxic exposures that occur from hazardous leaks and spills, environment-related poisonings, and natural and terrorism-related disasters.

Under its CERCLA mandate. ATSDR's work falls into four functional areas:

- Protecting the public from toxic exposures;
- Increasing knowledge about toxic substances;
- Delivering health education about toxic chemicals; and
- Maintaining health registries.

Through our work in these areas, ATSDR continues to prevent and mitigate exposures and related health effects at hazardous waste sites across the nation.

#### **DISCUSSION OF ATSDR STRATEGIC PLAN**

ATSDR's mission, focus and overarching strategic goals are complementary to the HHS Strategic Plan and support the agency's congressional mandate. The agency's strategic goals, listed below, were refined through ATSDR's 2007 PART reassessment with OMB. ATSDR was originally evaluated in 2003.

# Goal 1: Assess current and prevent future exposures to toxic substances and related human health effects.

ATSDR assesses current and prevents future exposures by responding to toxic substance releases when they occur or as they are discovered. One of the agency's primary responsibilities during these events is to provide information and to recommend actions, from a public health perspective, to the agency or industry responsible for cleaning up the released toxins and/or mitigating the likelihood of future releases. The agency is successful in preventing ongoing and future exposures when EPA, state regulatory agencies, or private organizations accept the agency's recommendations and take appropriate actions. Therefore, ATSDR takes an active approach of following up on its recommendations with the regulatory agencies to ensure they adopt ATSDR's public health and safety recommendations.

# Goal 2: Determine human health effects associated with exposures to priority hazardous substances.

A significant part of ATSDR's work is determining the relationship between human exposures to hazardous substances and health effects. As required by law, ATSDR prepares ToxProfiles for hazardous substances found at the NPL sites and upon request from the scientific community. This "Priority List of Hazardous Substances" is a catalog of the hazardous substances most commonly found at NPL facilities and those that pose significant potential threat to human health. Hazardous substances may be added or deleted from the NPL annually; therefore, each year there may be substances for which ToxProfiles must be developed.

ATSDR works to determine the relationship between toxic exposures and disease through health studies, disease tracking, and surveillance activities. ATSDR's research findings help determine whether exposures to hazardous substances can lead to increased risk for various health problems, such as cancer, leukemia, multiple sclerosis, asthma, and other illnesses.

#### Goal 3: Mitigate the risks of human health effects from toxic exposures.

A key indicator of the success of ATSDR's work with its partners is not only to identify exposures to toxic substances, but also to take action and follow-up to ensure that the effect of these risks on exposed individuals is minimal. CDC uses behavior change as a measurement of success but also focuses on more outcome-oriented measures, such as comparing morbidity/mortality rates, measuring the reduction of environmental exposures, performing biomarker tests, and monitoring the behavior change of relevant community members and/or health professionals.

# **Links to HHS and ATSDR Strategic Plans**

	ATS	SDR STRATEGIC (	GOALS
	Assess and Prevent Exposures	Determine Human Health Effects	Mitigate Risks of Exposures
HHS STRATEGIC GOALS			
GOAL 1: Improve the safety, quality, affordability and accessibility of health care, including behavioral health care and long-term care.	-		-
1.1 Broaden health insurance and long-term care coverage.	-	-	-
1.2 Increase health care service availability and accessibility.	-	-	-
1.3 Improve health care quality, safety, cost and value.	-	-	-
1.4 Recruit, develop and retain a competent health care workforce.	-	-	-
GOAL 2: Prevent and control disease, injury, illness and disability across the lifespan, and protect the public from infectious, occupational, environmental and terrorist threats.	X	х	х
2.1 Prevent the spread of infectious diseases.	-	-	-
2.2 Protect the public against injuries and environmental threats.	Х	Х	Х
2.3 Promote and encourage preventive health care, including mental health, lifelong healthy behaviors and recovery.	-	-	-
2.4 Prepare for and respond to natural and man-made disasters.	Χ	X-	X
GOAL 3: Promote the economic and social well-being of individuals, families and communities.	X	х	х
3.1 Promote the economic independence and social well-being of individuals and families across the lifespan.	-	-	-
3.2 Protect the safety and foster the well-being of children and youth.	Χ	Х	Х
3.3 Encourage the development of strong, healthy and supportive communities.	Х	Х	Х
3.4 Address the needs, strengths and abilities of vulnerable populations.	Х	Х	Х
GOAL 4: Advance scientific and biomedical research and development related to health and human services.	X	X	x
4.1 Strengthen the pool of qualified health and behavioral science researchers.	-	-	-
4.2 Increase basic scientific knowledge to improve human health and development.	Х	Х	Х
4.3 Conduct and oversee applied research to improve health and well-being.	Х	Х	Х
4.4 Communicate and transfer research results into clinical, public health and human service practice.	Х	Х	Х

## **ADDITIONAL ITEMS**

#### **PROGRAM EVALUATIONS**

In the first quarter of FY 2007, ATSDR instituted a new evaluation for interventions at sites with the most urgent public health hazards using its Board of Scientific Counselors (BSC), shared with CDC's Environmental Health program. The review included program goals and objectives, accomplishments, quality of science, and public health impact of the Site Specific Activities of the four divisions of ATSDR. The overarching conclusion of the BSC was that Site Specific Activities of ATSDR have made a positive contribution to the health of communities and to the public health infrastructure.

Over the past year, ATSDR has made significant strides in implementing recommendations of the BSC. The recommendations, along with the requirement to implement, were directed to division leadership. Progress was tracked during mid- and end-of-year program reviews with division leadership (convened by NCEH/ATSDR Office of Director). Future plans and activities to address recommendations were also provided by division leadership to NCEH/ATSDR in the reports and meetings. A few of the recommendations tracked included, collaborations among divisions, formalizing succession planning, employing strategies in recruitment, establishing strategic alliances with universities and colleges to enhance the presence of environmental health curricula, and increase publishing presence in journal publications.

The two external peer reviews conducted in FY 2008 were the Preparedness and Emergency Response program and the Clearance and Peer Review Policies and Procedures. The Preparedness program recently presented its action plan back to the BSC for comment and review and will be implementing over the coming year.

# DATA SOURCE AND VALIDATION TABLE

Measure Unique Identifier	Data Source	Data Validation
17.E.1	ATSDRs Division of Health Assessment and Consultation tracks the timeliness information in the agency's information system, Sequoia. The NCEH/ATSDR Office of Financial and Administrative Services (OFAS) provides the labor cost information that is used to compute the average costs.	The NCEH/ATSDR Office of Policy, Planning, and Evaluation developed the Methodology for this measure and is responsible for validating the data in coordination with OFAS and the Division of Health Assessment and Consultation (DHAC).
17.1.1	ATSDRs HazDat information system is used to track and report on the above performance measures and targets.	An ongoing quality assurance/quality control process (QA/QC) is used to ensure quality and data accuracy for all documents entered into the system. In addition, systemgenerated reports are reviewed and monitored for accuracy on an ongoing basis.
17.2.1	Data needs are listed in the Federal Register. ATSDR fills the data needs through U.S. Environmental Protection Agency regulatory mechanism (test rules), private sector volunteerism, and the direct use of CERCLA funds. Additional data needs are filled through collaboration with the National Toxicology Program (NTP), by ATSDRs Great Lakes Human Health Effects Research Program, and other agency programs. Also, data needs can be filled through reevaluation of new or existing data (non-ATSDR sponsored) that become evident during the toxicological profile update process. Toxicological Profiles that are under development are also listed in the Federal Register along with the release dates.	ATSDRs Division of Toxicology and Environmental Medicine manually monitors and tracks the research being performed to meet the data needs and the numbers of profiles under development and published. The Division reports on its progress towards meeting these targets through quarterly strategic planning reviews with the Office of the Director.
17.2.2	ATSDR's Division of Health Studies (DHS) tracks the percent of data needs filled.	DHS will validate the data needs filled on the basis of established criteria and will track and report status during strategic planning reviews.
17.3.1	ATSDR tracks the completion of this measure using its Goal 3 PART Sites database.	The completion of these measures is validated by the Division of Health Assessment and ConsultationsHealth Assessors, Technical Project Officers and/or State Site Leads. The Site Leads report follow-up information on an ongoing basis to DHAC and the Office of Policy, Planning, and Evaluation (OPPE). DHAC maintains the database and monitors

Measure Unique Identifier	Data Source	Data Validation
		performance measure progress on an ongoing basis.
17.3.2	ATSDR's Divisions of Toxicology and Environmental Medicine andRegional Operations track requests for emergency assistance and document the Agencys responses.	The data is validated through the Agencys performance review process.