



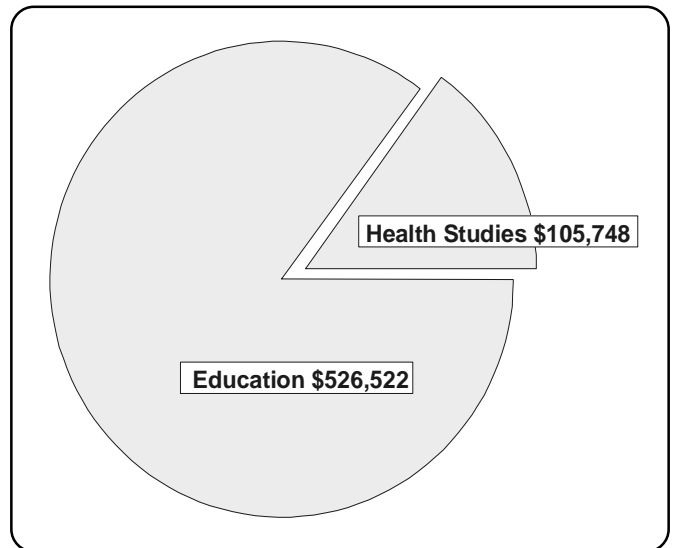
# Activities in Nevada

## ATSDR in Partnership with Nevada

The Agency for Toxic Substances and Disease Registry (ATSDR) is the lead public health agency responsible for implementing the health-related provisions of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). ATSDR is an Atlanta-based federal agency with 400 employees. ATSDR's annual budget for 2002 was \$78 million. ATSDR is responsible for assessing the presence and nature of health hazards at specific Superfund sites, helping to prevent or reduce further exposure and illnesses that result, and expanding the knowledge base about the health effects of exposure to hazardous substances.

ATSDR works closely with state agencies to carry out its mission of preventing exposure to contaminants at hazardous waste sites and preventing adverse health effects. ATSDR provides funding and technical assistance for states to identify and evaluate environmental health threats to communities. These resources enable state and local health

departments to further investigate environmental health concerns and educate communities. This is accomplished through cooperative agreements and grants. At this time, ATSDR has cooperative agreements and grants with 31 states, 1 American Indian nation (Gila River Indian Community), and 1 commonwealth (Puerto Rico Department of Health). From 1992 through 2002, ATSDR awarded more than **\$632,270** in direct funds and services to the state of **Nevada**. In addition to direct funds and services, ATSDR staff provides technical and administrative guidance for state-conducted site activities.



## ATSDR Site-Specific Activities

A **public health assessment** provides a written, comprehensive evaluation of available data and information on the release of hazardous substances into the environment in a specific geographic area. Such releases are assessed for current or future impact on public health. ATSDR staff, in conjunction with public health and environmental officials from **Nevada**, has conducted **one** public health assessment in the state at the **Carson River Mercury** site, the only National Priorities List (NPL) site in **Nevada**. ATSDR has completed most of the work on the public health assessment for **Naval Air Station Fallon**.

A **health consultation** is a written or oral response from ATSDR to a specific request for information about health risks related to a specific site, chemical release, or hazardous material. To date, five health consultations have been conducted at the following sites in **Nevada**: **Carson River Mercury site**, **Carson-Tahoe Hospital**, **Fallon JP-8 Fuel Pipeline**, **Lake Meade National Recreational Area**, and the **Monite Dynamite site**.

**Fallon, Nevada** - In July 2000, the **Nevada State Health Division (NSHD)** identified an increase in the incidence rate of childhood leukemia for **Churchill County, Nevada**. In September 2000, NSHD began an investigation of the case-families by administering a questionnaire and collecting drinking water samples from case-family homes. The investigation did not reveal any obvious risk factor or etiology.

In February 2001, the State Health Officer for Nevada convened an Expert Panel to review this investigation and other literature about leukemia among children. As a follow-up to the recommendations from this Expert Panel, the State of Nevada formally requested assistance from ATSDR in March 2001, to further evaluate environmental risk factors that might be linked to the childhood leukemia cluster in the Fallon area. ATSDR was asked to evaluate contaminant releases in Churchill County and provide an assessment of completed exposure pathways for the case-families.

In 2001, ATSDR provided technical assistance, program support, and training for community stress interventions to address the community stress issues created by the childhood leukemia cases.

ATSDR has reviewed environmental data from the Centers for Disease Control and Prevention (CDC) cross-sectional exposure assessment and additional past and current environmental data provided by various local, state and Federal sources. Data included contaminant levels in soil, ambient air, indoor dust, surface water, sediments, groundwater, drinking water, and wildlife in the Fallon area. Public health consultations on these environmental media evaluated any potential human exposure pathways to contaminants at levels of public health concern, with a focus on the childhood leukemia cases.

ATSDR has also performed an environmental public health assessment related to potential human exposure pathways from contaminant releases related to activities at the **Naval Air Station Fallon (NASF)**. Due to community concerns related to JP-8 fuels used by the Navy, ATSDR evaluated operations by the NASF related to fuel usage and releases and also evaluated the Kinder Morgan fuel pipeline.

In February 2003, ATSDR will meet with the Fallon community to discuss the results of its public health evaluations of exposures pathways in the Fallon/Churchill County area and how those results relate to the childhood leukemia case families. The fuel pipeline health consultation, which was released to the public for review in 2002, will be presented as a final document. The public health assessment on NASF and health consultations on other exposure pathways are scheduled to be released for public comment in February 2003. Further coordination with the community will include discussions on a completed health education needs assessment to determine any future educational activities.

**Sierra Army Depot** - Another example of a site where several site-specific activities are ongoing is **Sierra Army Depot (SIAD)**. The SIAD is located in **Herlong, California**, and is surrounded by the tribal lands of the Paiute Tribe. The SIAD operates as a military maintenance and storage facility of munitions and explosives classified as both product and hazardous waste. The facility also demilitarized hazardous waste munitions and explosives by disassembly, incineration, and open burning/open detonation (OB/OD). Past large scale operations have been discontinued.

Area residents have expressed concerns about possible health effects that might be associated with plumes of dust, smoke, and contaminants resulting from the detonations, and about suspected elevated levels of cancer in the area. ATSDR is conducting a health consultation to determine specific environmental contamination sources and routes of potential exposure from the site. The consultation will evaluate two areas: the potential health hazards from site-related air contamination and the community's concerns about cancer and health effects related to other site-related contaminants.

ATSDR is reviewing descriptive data gathered from the **California Cancer Registry**, the **California Registry of Northern California**, and the **Nevada Central Cancer Registry**. The **Nevada** and **California** state cancer registries have a cancer data sharing agreement, and the **Cancer Registry of Northern California** has responded to several community concerns about cancer incidence in northeastern California.

To evaluate whether people in the area are being exposed to airborne contaminants, ATSDR is reviewing information from atmospheric monitoring - or modeling - of past OB and OD activities. Investigators under contract to the Sierra Army Depot collected that data and information. ATSDR is currently reviewing the report and evaluating the information. A document describing ATSDR's evaluation is anticipated to be released in the summer of 2003.

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## Educating Health Professionals and Community Activities

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When five children were diagnosed with Acute Lymphocytic Leukemia in **Churchill County** within a few months of each other in late summer 2000, **Nevada State Health Division** officials initiated an investigation of the high number of childhood leukemia cases. As the investigation developed, in early 2001 ATSDR staff was requested to help address community stress related issues. Contact was made with the Center for Mental Health Services, the Federal Emergency Management Agency branch tasked with mental health support. A counselor specializing in disaster technology was subsequently engaged to conduct a needs assessment to identify community concerns associated with the continuing investigation. In addition to community concerns, the needs assessment also identified local resources that could provide assistance. Those contacted during the needs assessment included residents, farmers, community leaders, and representatives from **Naval Air Station Fallon**.

A major outcome of the needs assessment was the establishment of **Community United Response Team (CURT)**, a community action group to serve as a forum for community members to express ongoing concerns. One of the early requests of CURT was a request for ATSDR staff to conduct a series of community stress and risk communication seminars for Churchill County residents, physicians, and nurses. A major issue addressed during the September 2001 training was health care professionals concerns as to the best methods to communicate and interact with parents worried about their children's health as a result of the ongoing investigation.

Also at the request of CURT, in May 2002 ATSDR conducted a two-day, risk communication seminar for residents focused on the cancer cluster investigation. Included among issues addressed at the training were resident's concerns and recommendations as to dealing with high levels of media attention focused on the Fallon community.

Over a one week period in August 2002, ATSDR at the request of CURT conducted a follow-on educational needs assessment to identify continuing concerns and high priority community educational needs. Funded by Naval Air Station Fallon, it consisted of eight separate focus groups encompassing virtually every segment of the local population. Areas identified as concerns by the community were a desire for comprehensive information regarding all aspects of children's cancer, explanations and how to interpret a broad range of health statistics and specific medical and health information regarding children's health, particularly environmental issues. It was suggested that a Health Fair would be a means to provide information to the largest number of parents and residents.

ATSDR staff will meet in mid-February 2003 with community representatives to further plan the educational activities identified in the August assessment of NASF. This will coincide with a series of public availability sessions scheduled with the release of one public health assessment and a series of health consultations.

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## Health Studies

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The following is an example of a site-specific health study that ATSDR supported in **Nevada**.

**Carson River Mercury Exposure Study** - The purpose of this study was to assess human exposures to mercury contamination at the site. Mercury levels in blood and urine samples were measured and compared for two groups of 398 residents: those living 4,000 feet or less from the site, and those living more than 6,000 feet from the site. Potential risk factors were also examined. Results of the study indicated that all observed mercury levels (total mercury content) in blood and urine were below levels of concern (20 parts per billion in urine and 30 parts per billion in blood).

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## Toxicological Profiles

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ATSDR develops toxicological profiles that describe health effects, environmental characteristics, and other information, for substances found at NPL sites. These profiles describe pathways of human exposure and the behavior of toxic substances in environmental media such as air, soil, and water. Since 1995, more than **390** of these profiles have been supplied directly by ATSDR to requesters, including representatives of federal, state, and local health and environmental departments; academic institutions; private industries; and nonprofit organizations; in **Nevada**.



# ATSDR

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**If you would like additional information, contact ATSDR toll-free at (888) 42ATSDR,  
that is, (888) 422-8737 or visit the homepage at <http://www.atsdr.cdc.gov>**

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*February 2003*