



Activities in Montana



ATSDR in Partnership With Montana

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 2003 is approximately \$82 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. From **fiscal years 1993 through 2003**, ATSDR awarded more than **\$8.4 million** in direct funds and services to the state of **Montana**. In addition to direct funds and services, ATSDR staff provides technical and administrative guidance for state-conducted site activities. ATSDR has stationed a regional representative in **Helena** to facilitate services to Libby, and to state, federal, and county agencies in Montana.

ATSDR Site-Specific Activities Public Health Assessment-Related Activities

One of the agency's important mandates is to conduct **public health assessments** of all National Priorities List (NPL) sites and of other sites where a significant threat to the public health might exist. **Seventeen** sites have been designated to the NPL in **Montana**.

A **public health assessment** is 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 **Montana**, has conducted **20** health assessments in the state. Following is an example of a health assessment conducted in Montana.

From fiscal years 1993 through 2002, ATSDR awarded more than \$8.4 million in direct funds and services to the state of Montana.

- **Libby Asbestos Site**—**Libby** was proposed to the NPL in February 2002. ATSDR prepared a public health assessment to evaluate public health implications of exposure to contaminants at the site. The assessment concluded that the site posed a past public health hazard, and that current remaining source areas pose a current public health hazard. Areas remediated by the U.S. Environmental Protection Agency (EPA) pose no apparent public health hazard. The final public health assessment was released in May 2003.

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. It is a more limited response than a public health assessment is. To date, **43** documented health consultations have been performed at **27** sites in **Montana**. Following are recent examples of health consultations conducted in the state.

- **Great Northern Bark Company, Columbia Falls**—The Great Northern Bark Company separates and classifies bark and log-yard waste into bark used for landscaping. EPA was asked by Senator Conrad Burns (R-MT) to investigate constituent concerns associated with the company; i.e., whether airborne concentrations

of volatile organic compounds (VOCs) measured near the facility could pose a public health hazard to **Columbia Falls** residents. ATSDR was asked by EPA to respond to the Senator's request. The health consultation, released in January 2003, concluded that the measured air contaminants posed no apparent public health hazard to the general population.

■ **Fort Peck Indian Reservation**—In 2001, the **Fort Peck Assiniboine and Sioux tribes** asked ATSDR to evaluate their public health concerns associated with exposures to shallow groundwater contaminants, including nitrate, VOCs, and naturally occurring radioactive material (NORM) associated with oil field activities. The health consultation released in April 2003 addresses public health concerns related to the consumption of groundwater contaminated with nitrate. In some areas of the Fort Peck Reservation, elevated nitrate concentrations in groundwater are a public health hazard for young infants, pregnant women, and person with medical conditions that affect hemoglobin or methemoglobin levels in their bloodstreams.

VOCs in groundwater and NORM concerns for the area will be addressed in other health consultations.

Health Education and Community Activities

Since 1995, through a cooperative agreement with ATSDR, the National Association of County and City Health Officials has provided support to 50 local health departments to build local Superfund capacity. Building on an educational needs assessment, the **Mineral County Environmental Health and Planning Office** (Alberton site), the **Lincoln County Environmental Health Department** (Libby site), and the **Missoula City-County Health Department** (Missoula White Pine and Sash

site) were recipients of capacity-building training focused on integrating environmental protection, community involvement, environmental health education activities, and other public health practices to promote improved community health.

ATSDR has conducted a series of community outreach and education activities for residents of

Libby. In 2000, ATSDR and EPA jointly conducted community stress management training for Libby residents and area health care professionals. In 2002, ATSDR's training sessions targeted primarily local students, parents, and teachers. Multiple sessions on children's environmental health were conducted for the local Head Start Program. A seminar on cancer was presented to students at **Troy High School**. The seminar ad-

ressed the process of cancer, risk factors and impact of lifestyles, and how cancers (including lung cancer) progress, and included discussions on environmental hazards associated with cancer. A more advanced seminar on the same topic was conducted for students in the Medical Assistant curriculum at **Lincoln County Flathead Valley Community College**.

In spring 2003, at the request of the state medical officer, ATSDR health educators began a series of conference calls with the **Libby** medical community to foster communication and interaction, to avoid duplication of services, and continue to develop local health care infrastructure.

As a part of ATSDR's nationwide Environmental Health Nursing Initiative, an innovative 2003 calendar developed by the **Montana State University-Bozeman College of Nursing** was distributed to educate practicing nurses and students about the role of nurses in environmental health issues across Montana. "Environmental Health and Nursing: Montana Nurses Breaking New Ground" highlights Montana nurses' involvement in topics ranging from asbestosis and mesothelioma to assessing environmental



Hearing conducted by Senator Max Baucus (D-MT) in Libby during 2002.

concerns of Montana's tribal nations to indoor air quality.

The **Montana Environmental Health Association**, with city, county, state, and tribal organization members, benefits from an ATSDR national cooperative agreement with the National Environmental Health Association. The cooperative agreement provides evaluation, planning, design, and implementation of environmental health education program to respond to the significant threat of chemical terrorism.

ATSDR's regional representative in **Helena** provides support and assistance to state and county public health officers in **Montana** with chemical exposure information. Exposure concerns often involve pesticides, dioxins, and releases from industrial facilities. ATSDR's regional representative also assisted EPA and other federal agencies in providing risk communication and pesticide training to the **Crow Nation** and to the **Confederated Salish and Kootenai Tribes** in Montana.



Scenic view entering Libby.

Association of Occupational and Environmental Clinics

ATSDR provides financial and technical support to members of the Association of Occupational and Environmental Clinics (AOEC). This support is provided to improve education and communication related to surveillance, diagnosis, treatment, and prevention of illness or injury related to exposure to hazardous substances. The AOEC member institution in **Montana** is St. Patrick Hospital Occupational Health Services in **Missoula**.

Health Studies

Health studies are conducted to determine the relationships between exposures to hazardous substances and adverse health effects. Health studies also define health problems that require additional

investigation through, for example, a health surveillance or epidemiologic study.

Human exposure to tremolite asbestos in contaminated vermiculite has been recognized as a potential public health problem. Exposures to tremolite asbestos have occurred among people working at, living near, and otherwise in contact

with, vermiculite mined and processed at the W.R. Grace mine in **Libby**. Exposures have also occurred at other facilities that processed the vermiculite ore from Libby, and at other vermiculite mining and processing facilities in the United States. In 1999, a regional pulmonary physician reported a large caseload of patients from Libby with asbestos-related disease. Following are recent activities related to asbestos

exposures in Libby.

- **Medical Testing**—People who lived, worked, or played in **Libby** were provided the opportunity to participate in medical testing during summer and fall 2000 and summer 2001. The first phase of testing (in 2000) included 6,149 participants. The second phase was completed on September 7, 2001, and included 1,158 participants, bringing the total participants tested to 7,307. Notification letters have been mailed to the final participants. The results of the year 2000 testing program were summarized in a community report and provided to the Community Assistance Group (CAG) on August 23, 2001. A preliminary report of the results of the combined testing was made available to the community on September 26, 2002, at two public meetings. The final manuscript for combined medical testing has undergone peer review and has been published online (*Environ Health Perspect* doi:10.1289/ehp.6346).
- **Mortality review**—ATSDR completed the review of asbestos-related mortality in the **Libby**

area. The review report is complete and final results were presented to the community on September 26, 2002.

- **Evaluation of Cases of Asbestos-Related Illness, A Pilot Review and Case Series**—Asbestos fibers released during vermiculite mining in **Libby** resulted in exposure to mine employees, their household contacts, and other area residents. In addition to the mine-related cases, a pulmonologist identified 27 patients from the Libby area with asbestos-related disease who were not thought to be occupationally linked to the vermiculite mine. Twenty-two participants were interviewed to obtain a more detailed exposure history. Their chest x-rays and computed tomography (CT) scans were reviewed by independent subject-matter experts. This case series review resulted in confirmation of 18 cases for research purposes. Eight participants reported potential environmental exposure pathways, but did not report mine-related (or other) occupational exposure to vermiculite or to commercial asbestos. Seven of these eight environmentally exposed participants were confirmed as cases for research purposes. The report was completed in August 2002.
- **CT Study**—A study using CT scans was conducted to determine the rate of abnormalities among persons who participated in the year 2000 medical testing. These persons had pleural abnormalities observed by only one B-reader. All 353 CT scans were reviewed by the expert CT radiologists. CT scans detected pleural abnormalities in 98 persons (28% of all tested) whose chest x-rays had been classified indeterminate. Most of these persons—69 (70%)—were either former vermiculite mine/mill workers or their household contacts. A preliminary report to the community was presented in **Libby** on September 26, 2002. The final report is anticipated in fall 2003.
- **Tremolite Asbestos Registry**—Worker and household contacts related to the **Libby** mine were traced using company records and other information. These two groups had the highest rates of abnormalities and would benefit the most from receiving notification of risk, health education and counseling, possible medical testing, and possible entry into an exposure

registry. This tracing activity was coordinated with the development of the long-term registry. Nearly 4,500 persons have been traced to date. Preparation for the first data collection for the Tremolite Asbestos Registry (TAR) is under way. It is anticipated that data collection will begin in 2004.

- **The Montana Asbestos Screening and Surveillance Activity (MASSA)**—MASSA is now under way in **Libby** for ongoing medical testing and follow-up of affected individuals. ATSDR will closely coordinate all of these activities with the **Montana Department of Public Health and Human Services (MDPHHS)**, which has the lead for this activity.

Resource Materials

ATSDR develops materials that public health professionals and medical care providers can use to assess the public health impacts of chemical exposures. Resources are available in print, on the ATSDR Web site, and on CD-ROM. For example, medical management guidelines are available for acute chemical exposures to more than 40 chemicals. ATSDR's toxicological profiles comprehensively describe health effects; pathways of human exposure; and the behavior of more than 250 hazardous substances in air, soil, and water at hazardous waste sites. In the last 5 years, more than **6,000** of these profiles have been sent to requesters, including representatives of federal, state, and local health and environmental departments; academic institutions; private industries; and nonprofit organizations in **Montana**. ATSDR has also developed extensive resources for community members.

For more information, contact ATSDR toll-free at 1-888-42ATSDR (1-888-422-8737) or visit the ATSDR Web page at www.atsdr.cdc.gov.