

**Testimony by
The Agency for Toxic Substances and Disease Registry**

**Presented by
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Good afternoon. Madams Chairwomen and Members of Council, thank you for the opportunity to provide you with written testimony on the activities of the Agency for Toxic Substances and Disease Registry (ATSDR) at the Child Development Center of American University, a day care facility.

ATSDR, an agency of the U.S. Department of Health and Human Services, is the lead public health agency responsible for implementing the health-related provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). ATSDR's mission is to prevent exposure and adverse health effects and diminished quality of life associated with exposure to hazardous substances from waste sites, unplanned releases, and other sources of pollution present in the environment.

On January 18, 2001, ATSDR participated in a conference call with the U.S. Environmental Protection Agency (EPA), the U.S. Army, and the District of Columbia Department of Health (DOH). The Army indicated that elevated concentrations of arsenic were detected in surface soil samples recently collected from the playground of the Child Development Center at American University (AU-CDC). Parents of children attending the day care facility were notified of this finding, and they expressed concern for the health of their children. DOH asked ATSDR for assistance in addressing the parents' concerns.

ATSDR reviewed the request as it would a proposal for the agency to conduct an Exposure Investigation (EI). An EI is one approach ATSDR uses to better characterize potential exposures to hazardous substances, generally through bio-medical testing. The request was evaluated against ATSDR's selection criteria for conducting an EI, which include the following:

(1) Can an exposed population be identified?

- (2) Does a data gap exist that affects the ability to interpret whether or not a health hazard exists?
- (3) Can the data gap be addressed by an EI?
- (4) How would the results of the EI impact public health decision making?

ATSDR determined that the request met the agency's criteria for conducting an EI, and, accordingly, agreed to conduct an EI for the children currently attending the AU-CDC. In addition, ATSDR agreed to include the adult staff at the AU-CDC in its EI.

Officials at American University had relocated the AU-CDC to another location on the campus as soon as the contamination was brought to their attention. Therefore, children and AU-CDC staff had no known current exposure to arsenic at the time of the EI request. After a person is exposed to arsenic, the arsenic is rapidly metabolized and excreted in the urine within a few days. Because the children had no known recent exposure to arsenic, it would not be useful to test their urine samples for arsenic.

Arsenic is deposited in the hair root as the hair grows. Therefore, measuring the arsenic concentration in a length of hair provides an indication of arsenic exposure over the life of the hair. ATSDR collected 2-inch lengths of hair from the EI participants, which corresponds to approximately 5 months of hair growth.

With the assistance of DOH and AU-CDC staff, written informed-consent forms were signed by parents or guardians of the children. The children ranged from 2 ½ through 5 ½ years of age. About half of the children had attended AU-CDC for 7 months or less; the remainder had attended for 1 year or more. During January 31 through February 1, 2001, ATSDR staff collected hair samples from 28 children and 4 adults at the AU-CDC. Approximately one-half gram of hair was cut from the back of the head at the nape of the neck. These samples were sent to a clinical medical laboratory for analyses, and the test results are expected to be available in late February 2001.

ATSDR told the parents that ATSDR would notify them of the test results for their child's hair sample and provide them with an interpretation of the test's health significance. If any children are found to have elevated levels of exposure to arsenic, ATSDR can make a recommendation for referral to a Pediatric Environmental Health Specialty Unit (PEHSU) for further evaluation. ATSDR and EPA fund a PEHSU at the George Washington University Medical Center. The physicians in this unit can provide the community with expertise in pediatric environmental medicine.

Finally, upon completion of the EI, ATSDR will issue a written public report summarizing the findings of the EI and making recommendations for follow-up actions, if needed. For further information about ATSDR's activities, please contact Andrea Wargo, Ph.D., Associate Administrator, of the ATSDR Washington D.C. Office (202) 690-7536, or Kenneth Orloff, Ph.D. of the ATSDR Division of Health Assessment and Consultation in Atlanta (404) 639-0670.