

Colorado Smelter Exposure Investigation

ATSDR Exposure Investigations (EI) Generic Information Collection Request
OMB No. 0923-0048

Supporting Statement Part B

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B. Collections of Information Employing Statistical Methods

Although no statistical methodology is used for the investigations, we will use this section of the submission to describe how the data are collected.

B.1. Respondent Universe and Sampling Methods

Since the Agency for Toxic Substances and Disease Registry (ATSDR) does not use the exposure investigation (EI) results to generalize or estimate the total exposed population, the respondent universe and statistical methods for determining sample size are not a factor. The purpose of this EI is to determine if community exposures of health concern to lead and arsenic are occurring by collecting blood serum and urine samples from people with a high potential for exposure to lead and/or arsenic from historic smelting operations in Pueblo, CO. An EI is not a research study. Participant selection is specifically biased to participants with the greatest potential for exposure rather than statistical random selection methods used in research to generate or contribute to generalizable knowledge. In this EI, the population thought to be at greatest risk of exposure are residents located closest to the historic smelting operation site (within ½ mile). This includes the Eiler and Bessemer neighborhoods. Ideally, EIs attempt to recruit every person thought to be at high risk for exposure. In very small at-risk populations this may be possible. But in a larger population, which is the case in this EI, the number of participants who can be tested may be limited by available resources such as staffing and budgetary constraints. Most EIs, including this one, are location-based. We estimate the potential respondent universe based on street maps and census information.

B.2. Procedures for the Collection of Information

A list of questions, provided in Attachment 4, will be administered in person at the site of blood collection. Participants will be recruited by teams made up of ATSDR EI team members, ATSDR Region 8 staff and local Pueblo, CO public health officials. Teams will canvas the neighborhoods closest to the former smelter location. Emphasis will be placed on the most vulnerable populations to these chemicals. For blood lead, these include children ages 9 months to 17 years, pregnant women, and women of child bearing age. For urine arsenic it will include children ages 6 years to 17 years, pregnant women, and women of child bearing age. The team will also participate in one or more community open houses (dependent on what can be arranged in the community) to recruit as many volunteers as possible who meet the defined EI eligibility criteria as most likely to be exposed to the smelter site up to the limit that allocated resources for this EI will permit (up to 300 participants). The EI team will be identified by name to potential participants along with their qualifications or experience in conducting similar EIs.

Quality Control Procedures

Prior to the interviews, the EI team is trained on the site-specific questions to be asked (e.g., the purpose of each question, how to capture answers, place for comments, etc.). The list of questions and individual's answers are stored in a secure database or locked filing cabinet.

Each participant is given information regarding the name of the EI, a telephone number to answer questions, and the address of the ATSDR website where they can find more information about the EI (Attachment 4). Each participant receives a copy of their personal results (Attachments 6, 7, & 8). Individual results will be protected to the full extent provided by law and will not be shared publically in any published reports.

B.3. Methods to Maximize Response Rates and Deal with Non-response

The Colorado Smelter EI was requested by the Pueblo City County Health Department (PCCHD) to evaluate potential exposure, ATSDR is generally looking for participants that are the most highly exposed. We identify them through a location or an activity that they engage in. If activity-based (e.g., recreating on the slag pile at the location of the former smelter) we may need to contact people to encourage their participation.

We invite people to participate in our sampling based on who would likely be most exposed. For the Colorado Smelter EI, we will be recruiting up to 300 participants: including 1) children aged 9 months to 72 months (blood lead only) and children aged 6 to 17 years, 3) and pregnant women and women of child-bearing age. In ATSDR's experience, getting sufficient numbers of participants has not been a problem since EI communities often request the testing before we arrive. We often achieve close to a 100% response rate. However, because we are interpreting each individual's response to his or her specific exposure and not attempting to determine population level exposures, we can interpret results without 100% participation.

In addition the EI Team will providing a service to those community residents who live within ½ mile of the slag pile and former smelter site who chose to participate in the EI by providing with them their individual test results for blood lead and urine arsenic. Residents will be advised that testing is being offered at no charge to them.

B.4. Test of Procedures or Methods to be Undertaken

The EI team will use the questions provided in Attachment 4.

B.5. Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing Data

Statistical calculations are not used to determine participation in EIs. Rather, all the community residents with the greatest likelihood of exposure are asked to participate. The presence of a single blood lead level or urine arsenic level above the reference values as defined in the EI

Attachment 2. Colorado Smelter Exposure Investigation: Supporting Statement B

protocol indicates that exposure is occurring in the community and that further investigation is warranted.