

Follow Up Biologic Testing for Exposure to Arsenic ASARCO Hayden Smelter Site, Hayden & Winkelman, Arizona Exposure Investigation

ATSDR Exposure Investigations (EI) Generic Information Collection Request
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Supporting Statement Part B

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Table of Contents

B. Collections of Information Employing Statistical Methods.....3
 B.1. Respondent Universe and Sampling Methods.....3
 B.2. Procedures for the Collection of Information.....3
 B.3. Methods to Maximize Response Rates and Deal with Non-response.....4
 B.4. Test of Procedures or Methods to be Undertaken.....4
 B.5. Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing
 Data.....4

Attachments:

1. Supporting Statement A
2. Supporting Statement B
3. Hayden, AZ EI Parental Permission/Assent/Consent Forms
 - 3A. Parental Permission Form for Urine Arsenic Testing and Questionnaire: Children 6 to less than 18 years of age
 - 3B. Assent Form for Urine Arsenic Testing and Questionnaire: Children and Youth aged 7 to less than 18 Years of age
 - 3C. Consent Form for Urine Arsenic Testing and Questionnaire: Adults aged 18 years and over
4. Hayden, AZ EI Questionnaire
5. Hayden, AZ EI Research Determination
6. Hayden, AZ EI Sample Results Letters
 - 6A. Sample Results letter to the Parent of a Participant 6 to less than 18 - Total Arsenic below follow up level
 - 6B. Sample Results Letter for Participant 6 to less than 18 Years of Age – Total As Above, Organic As Not Elevated, Inorganic As Elevated
 - 6C. Sample Results Letter for Participant 6 to less than 18 Years of Age - Total As Above, Organic As Elevated, Inorganic As Not Elevated
 - 6D. Sample Results Letter for Participant 6 to less than 18 Years of Age - Total As Above, Organic As Elevated, Inorganic As Elevated
 - 6E. Sample Results Letter to a Pregnant Woman or Woman of Child Bearing Age 15 to less than 45 years - Total Arsenic Below Follow-up Level
 - 6F. Sample Results Letter to a Pregnant Woman or Woman of Child Bearing Age 15 to less than 45 years) – Total As Above, Organic As Not Elevated, Inorganic As Elevated
 - 6G. Sample Results Letter to a Pregnant Woman or Woman of Child Bearing Age 15 to less than 45 years - Total As Above, Organic As Elevated, Inorganic As Not Elevated
 - 6H. Sample Results Letter to a Pregnant Woman or Woman of Child Bearing Age 15 to less than 45 years) - Total As Above, Organic As Elevated, Inorganic As Elevated
7. Example of Prior EI Final Report
8. Arsenic Retest Recruitment Letter
9. Urine Collection Instructions
10. Hayden & Winkelman Site Map and Demographics
11. Tips for Reducing Exposure to Arsenic

B. Collections of Information Employing Statistical Methods

There is no statistical methodology used for this investigation. Section B.1 of the submission (below) describes how the data will be 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.

Past and ongoing copper smelting activity in the cities of Hayden and Winkelman has resulted in lead and arsenic contamination in the soil throughout the city. The historic and current smelting process emits lead, arsenic, copper, sulfur dioxide, particulate matter, and other materials into the air. Some of these substances have been and still are being deposited in soil across the area. The U.S. Environmental Protection Agency (EPA), Arizona Department of Environmental Quality (ADEQ), and ASARCO are completing site cleanup through a Superfund alternative process.

The purpose of the ATSDR follow up EI is to return to the Hayden and Winkelman area to offer a urinary arsenic retest to all 58 residents who participated in the initial 2015 EI testing for urinary arsenic. ATSDR will offer the retests at a time when the smelter is likely to be in operation, providing a more accurate measure of resident's typical level of arsenic exposure. Eligible participants will include all those who participated in the initial ATSDR EI for urinary arsenic

B.2. Procedures for the Collection of Information

Recruitment for the Hayden follow up EI sampling event will be specifically directed to the 58 residents who participated in the initial ATSDR EI for urinary arsenic. If additional residents request testing, they will be accommodated if space and testing equipment is available up to a maximum of 60 participants. Of this group, children from 6 to <12, adolescents from 12 to <18 years of age, and pregnant mothers will be given first priority for testing.

- Sending a letter of invitation (Attachment 8) approximately two to three weeks prior to the sampling event to all prior participants. The letter will include information on how to make an appointment to obtain urinary arsenic retesting.
- Door to door recruitment and distribution of urine specimen collection cups will take place 3-4 days prior to the sampling event to follow up with past participants. Past participants who have not yet made an appointment will be invited to participate and will be signed up for a specific time for the sampling at a central location within the Hayden/Winkelman community.

- Recruitment will focus on the 58 participants who provided a urine specimen during the initial ATSDR Hayden, AZ EI. If additional residents of the community request testing they will be accommodated if space and testing equipment is available up to a maximum of 60 participants.

Participants in the investigation will be encouraged to make an appointment at a central urine specimen collection location. A list of questions, provided in Attachment 4, will be administered in person at the central collection site. Participants who do not make an advance appointment can still provide a urine sample at the collection site. ATSDR personnel will pack and ship all samples overnight to the NCEH or a contract laboratory from the sample collection site.

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. Each participant will receive a copy of their personal results (sample results letters provided in Attachment 6). 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

ATSDR has a list of all addresses of homes that participated in the initial EI in Hayden. A letter of invitation (Attachment 8) and a fact sheet will be provided to all prior participants who provided a urine specimen. In addition, information will be provided through the local school system social media to make families aware of the follow up testing opportunity. In addition the follow up EI team will go door to door as needed to provide prior participants with an opportunity to participate in the retesting.

EPA is currently remediating residential soil in Hayden and Winkelman so it is anticipated that residents will be aware of the cleanup effort and be willing to be included in the EI. Even without 100% participation, we can interpret results because we are providing participants an individual result and are not attempting to determine population level exposures. We will also be able to compare that result to their prior EI urinary arsenic results and evaluate those results alongside arsenic levels in the air at the time of retesting and compare that with the prior EI findings.

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.