

Appendix L

Fact Sheets Used at ATSDR's Public Meeting in March 2002

Summary of the Public Health Assessment for the VBI70 Site



Background

The Vasquez Boulevard and I-70 (VBI70) Superfund site is part of the National Priorities List (NPL) of hazardous waste sites. The Agency for Toxic Substances and Disease Registry (ATSDR), a public health agency of the U.S. Department of Health and Human Services, is required to conduct public health assessments on NPL sites.

The VBI70 site includes the northeast Denver neighborhoods of Swansea, Elyria, Cole, Clayton, and southwest Globeville.

The U.S. Environmental Protection Agency (EPA) has taken soil samples from about 3,000 residential properties in the VBI70 area and tested them for arsenic and lead. Test results show that some properties have high levels of arsenic and lead in soil. ATSDR's public health assessment describes the health implications from arsenic and lead in soil.

Findings About Arsenic in Soil

Children: Some preschool children eat large amounts of soil (about 1 teaspoon) while playing and exploring their world. This is called soil-pica behavior.

ATSDR is concerned that about 650 properties sampled so far have arsenic levels in soil that might pose a **public health hazard** for preschool children who have soil-pica behavior and who eat unusually large amounts of soil. Arsenic in soil might make some preschool children with soil-pica behavior sick.

On the basis of demographic information, about 300 preschool children live in these 650 properties and somewhere between 12 and 60 of these children might have soil-pica behavior sometime during their preschool years.

Adults: Soil arsenic levels and cancer are a concern for people who grew up in a house that had high levels of arsenic in soil and who continued to live in the house as adults. These people could have a higher chance of getting certain kinds of cancer. EPA has identified about 260 properties where the increased risk of cancer is unacceptable.

Findings About Lead in Soil

Some properties in the VBI70 area have high levels of lead in soil that are a health hazard to some preschool children living at those properties. Exposure to lead-contaminated soil might increase children's blood lead levels, causing harmful effects in children.

Recommendations

ATSDR made several recommendations to local, state, and federal agencies to address public health issues about arsenic and lead in soil. ATSDR recommended that EPA reduce exposure to arsenic and lead in properties where soil arsenic and lead levels are a health concern. ATSDR recommended that EPA collect soil samples from the remaining properties in the neighborhood and from neighborhoods outside the VBI70 site.

ATSDR's Activities

ATSDR is conducting an environmental health intervention project to train local health care providers about arsenic and lead. ATSDR is also working with the Colorado Department of Public Health and Environment and the University of Colorado to conduct a health investigation into soil-pica behavior at the VBI70 site. ATSDR is conducting health education with these activities and with the release of the public health assessment.

VBI70

**Where Can I
Get More
Information
About ATSDR's
Activities?**

**For more
information,
call
David Mellard
ATSDR, Atlanta
1-888-42 ATSDR
or
1-404-498-0443**

**Chris Poulet
ATSDR, Denver
303-312-7012**

ATSDR
AGENCY FOR TOXIC SUBSTANCES
AND DISEASE REGISTRY

Arsenic in Soil



Arsenic in Your Yard

The U.S. Environmental Protection Agency (EPA) has tested soil/dirt from yards in the Swansea, Elyria, Cole, Clayton, and southwest Globeville neighborhoods to see if they contain high levels of arsenic.

Soil and Your Health

Doctors and scientists from the Agency for Toxic Substances and Disease Registry (ATSDR) have looked at test results from soil collected in the neighborhoods to see whether the amount of arsenic is high enough to cause health problems for people who live in the area. ATSDR found that the amount of arsenic in some yards might be a health concern for some children and adults.

How Can Arsenic Get into the Body?

Soil that contains arsenic can get into the body in many ways. When children play and when adults work in the garden, we sometimes touch things that have dirt or dust on them and then put our hands or other items into our mouths. When this happens, small amounts of arsenic can get into our bodies along with the dirt or dust.

Swallowing these small amounts of soil with arsenic usually will not cause health problems. But if arsenic in soil is too high, children and adults might become sick.

Adults and Arsenic

Arsenic levels and cancer are a concern for people who grew up in a house with high levels of arsenic in soil and who continued to live in the house as adults. These people could have a higher chance of getting certain kinds of cancer, such as skin cancer and cancer of the lung, bladder, kidney, and liver.

Soil Pica

Some preschool children eat large amounts of soil (about 1 teaspoon) while playing and exploring their world. This is called soil-pica behavior.

Soil-pica behavior is especially a concern for children who live in areas with high arsenic levels in soil. After eating large amounts of soil with high levels of arsenic, these children could have health problems such as nausea or upset stomach, stomach cramps, vomiting, diarrhea, swelling of the face, and headaches.

You Can Protect Yourself

Here are a few things that you can do to protect your family from arsenic in the soil. These tips are especially important if you live in an area with high arsenic levels in soil. These tips are good steps for everyone to follow.

- Watch your preschool children when they are playing outside. Keep them from eating dirt or mud and from putting toys in their mouths.
- Talk to older children about the possible danger of eating soil.
- Encourage preschool children to play in areas of the yard that are covered by grass.
- Talk to adults about not eating soil or mud from their yards.

VBI70

**Where Can I
Get More
Information
About
Exposure to
Arsenic in Soil
and Soil-Pica
Behavior?**

**For more
information about
arsenic and soil-pica
behavior at the
VBI70 site, contact:**

**David Mellard
ATSDR, Atlanta
1-888-42-ATSDR
or
1-404-498-0443**

**Chris Poulet
ATSDR, Denver
303-312-7012**

ATSDR
AGENCY FOR TOXIC SUBSTANCES
AND DISEASE REGISTRY

Lead in Soil



Lead in Your Yard

The U.S. Environmental Protection Agency (EPA) has tested soil/dirt from yards in the Swansea, Elyria, Cole, Clayton, and southwest Globeville neighborhoods to see if the soil/dirt contains high levels of lead.

Soil and Your Health

Doctors and scientists from the Agency for Toxic Substances and Disease Registry (ATSDR) looked at test results from soil collected in the neighborhoods to see whether the amount of lead is high enough to cause health problems for people who live in the area. ATSDR found that the amount of lead in some yards is at levels that are of concern for some children.

Where Does Lead Come From?

Lead can come from household paint made before 1978, the glaze (paint) on some pottery or dishes, soil, and even drinking water.

How Can Lead Get into the Body?

Soil that contains lead can get into the body in many ways. When children play, they sometimes touch things that have dirt or dust on them and then put their hands or other items into their mouths. When this happens, small amounts of lead can get into their bodies along with the dirt or dust.

Swallowing small amounts of soil with lead usually will not cause health problems. But if the amount of lead in soil is too high, children might become sick.

Possible Health Problems From Lead

When children have high levels of lead in their bodies, they might have health problems such as hearing problems, lowered intelligence scores, learning problems, and delays in development.

Where Can I Get More Information About Exposure to Lead in Soil?

If you think your child has been exposed to lead, you may contact:

Mishelle Macias

Colorado Department of Health and Environment
303-692-2622

or

Gene Hook

City and County of Denver
720-865-5452

VBI70

**Where Can I Get
More
Information
About Lead at
the VBI70 Site,
Please Contact:**

**David Mellard
ATSDR, Atlanta
1-888-42 ATSDR
or
1-404-498-0443**

**Chris Poulet
ATSDR, Denver
303-312-7012**

ATSDR
AGENCY FOR TOXIC SUBSTANCES
AND DISEASE REGISTRY

ATSDR Site Activities: Vasquez Boulevard/I-70 (VBI70) Site

March 2001

What Is ATSDR?

The Agency for Toxic Substances and Disease Registry (ATSDR) is a federal public health agency headquartered in Atlanta, Georgia. ATSDR is part of the U.S. Department of Health and Human Services. ATSDR works with communities; environmental groups; and other agencies such as federal, state, local, and tribal governments to protect the public's health from hazardous waste.

ATSDR's Involvement at VBI70

Since 1998, ATSDR has worked with other agencies and the community to address concerns about arsenic and lead contamination in the Swansea, Elyria, Cole, Clayton, and southwest Globeville areas of northeast Denver.

The ATSDR Health Team

ATSDR worked with the community and other agencies to form the VBI70 Health Team. The team includes members such as community members, representatives from local community groups, the U.S. Environmental Protection Agency (EPA), the Colorado Department of Health and Environment, and the County and City Health Department.

Since the Health Team began meeting in 1998, the group has planned several activities in the communities around the VBI70 site. For example, a question-and-answer session was held with a gardening expert from one of the local universities. Community members were invited to come and hear information about safe gardening in the VBI70 area and ask their gardening questions.

ATSDR Activities

Working with the VBI70 Health Team, ATSDR is conducting several activities at the VBI70 site. These activities include a public health assessment report, environmental health interventions project, health investigation, and health education.

The VBI70 Public Health Assessment

The public health assessment report presents a summary of the environmental data available for the site and describes who might be exposed to arsenic and lead in soil and how those individuals might be exposed. The report includes information about possible health effects that could occur if residents are exposed to contamination at the VBI70 site. The report also includes a public health action plan and a series of recommendations to federal, state, and local agencies about public health issues identified by ATSDR.

During the development of the report, ATSDR released a fact sheet about gardening in the VBI70 study area. ATSDR also held a workshop where a group of national experts was brought together to provide advice to the agency about children and adults who eat soil.

ATSDR and the VBI70 Health Team are using information from the report as they conduct other public health activities such as medical testing, community health education, and health care provider education in the communities around VBI70.

The Environmental Health Intervention Project

ATSDR will conduct an environmental health interventions project at the VBI70 site. ATSDR's decision to conduct the project was made on the basis of information gathered about arsenic and lead contamination in the area, and after discussions with residents. The program will include health education for residents and local health care providers about the VBI70 study area and about possible health effects from arsenic and lead exposure.

Health Investigation

ATSDR recently provided funds to the Colorado Department of Public Health and Environment to conduct a health investigation in the VBI70 study area. The health investigation will begin in spring 2002 and will address soil-pica behavior among preschool children and will identify household cases of acute and chronic arsenic and lead poisoning. Health investigation activities will include

- # a community door-to-door census
- # urine and hair arsenic testing in children
- # blood lead testing
- # exposure questionnaires to assess pica and soil ingestion behavior
- # public meetings.

Health Education

ATSDR plans to conduct a community health education program related to the public health assessment and other agency activities. This program will include information on the public health assessment and information for residents who participate in the environmental health interventions project and health investigation. The materials will explain the purpose of the activities and methods used to collect information. ATSDR will also provide information to residents to assist them in understanding the information in these reports.

Where Can I Get More Information About ATSDR's Activities?

Contact David Mellard toll-free at 1-888-42ATSDR or at 404-498-0443 (e-mail: dam7@cdc.gov) or Chris Poulet in ATSDR's Denver office at 303-312-7013 (e-mail: cgp8@cdc.gov).
