



soilSHOP Tutorial Series

Part 5 of 5: Health Educators

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Expectations

By the end of Part 5, you should be able to:

- Explain the role of the health educator and why it is important.
- Identify action items for health educators.
- Understand how a soilSHOP event works.
- Identify materials and activities needed for a soilSHOP event.
- List the resources available for health educators.

Health Educators

What is the role of the health educator?

Health education is a primary purpose of soilSHOP events. Health educators (typically a team of 3 or 4) conduct one-on-one consultations with soilSHOP participants to review sample results and provide tailored best practices on ways to reduce exposures to harmful soil contaminants.

Health Educators

Why is the role of the health educators important?

Health educators:

- Form connections with participants, review soil sample results, and provide information on reducing exposures to lead and other heavy metals.
- Review and design soilSHOP events and health education material to meet specific needs and concerns of the community.
- Assist with event evaluation efforts and soilSHOP Internal Consultation Evaluation Form after each consultation.

Health Educator Action Items

Pre-event

- Complete soilSHOP trainings.
- Assist with planning and preparation of event.
- Review and design soilSHOP event and health education material to meet the needs and concerns of the community.
- Plan activities to engage participants and non-participants in the soilSHOP.
- Assist with outreach material.
- Review all materials for your station.

During event

- Ensure all materials are available for your station and activities.
- Conduct one-on-one targeted health education based on screenings.
- Conduct internal evaluations (optional).

Post-event

- Meet with team for follow-up procedures (e.g., review samples that were not screened during the event and speak with participant).
- Evaluate your station: what worked, lessons learned.

Pre-event

Material examples: planning and preparation

Reviewing these sections can help you prepare for your soilSHOP event and identify things that may come up on event day.

ATSDR Agency for Toxic Substances and Disease Registry

soilSHOP Toolkit

Planning and Preparation

On the day of your soilSHOP, some residents will arrive with bags of soil to participate in the free screening, and others may just stop by out of curiosity. This toolkit provides resources to help with the planning and logistics leading up to this moment, so you are prepared to welcome and engage all visitors into your soilSHOP. Materials in this toolkit can be adapted and modified to meet specific community needs, interests and available resources. Planning an event can take 3-5 months, and include milestones such as a kick-off call with your soilSHOP planning team, establishing a date and location for your event, conducting a site visit, and creating a staffing plan.

Special Considerations

Cohost

- Integrate the soilSHOP with another local event as a way to increase exposure, attendance, and impact, and to reduce the overall cost of implementing the event. Consider joining with:
 - an annual lead prevention/awareness week;
 - an Earth Day event;
 - a community health day;
 - a community-based urban gardening initiative;
 - farmer's market events;
 - Brownfields and land reuse engagement efforts;
 - school-based programs and initiatives.
- Coordinate with the organizers of these events well in advance of the event date to discuss the benefits of adding a soilSHOP to their program.

Plan a site visit

Dates	Action Items & Notes	Toolkit Resources
Month/s YEAR 3-4 months before event	<ul style="list-style-type: none"> Kick off meeting with core planning team Identify stakeholders and partners Draft list of educational resources – use input from partners to update Determine venue, event date and duration, and name Develop and initiate communications plan <p><i>*Distribute save-the-date announcements when event details are confirmed.</i></p>	<ul style="list-style-type: none"> Example so Example Re Informatio
Month/s YEAR 2 months before event	<ul style="list-style-type: none"> Develop communication and outreach materials (flyers, logo, announcements, soil sampling kit) Continue meetings and calls with stakeholders/planning team Review supplies and equipment needs (XRFs, gloves, calculators, log books, forms; tables, chairs, pop up tents) Discuss logistics – venue, AC outlets, parking, restrooms, rain plan, etc. Address translation (if needed) - are community volunteers available? Identify potential personnel for event (volunteers, agency staff, etc.) <p><i>*Note any upcoming vacations for key personnel</i></p>	<ul style="list-style-type: none"> Soil Sampli soilSHOP L Log In Form Example O Example so Printed Ma Example St
Month/s YEAR 1 month before	<ul style="list-style-type: none"> Confirm personnel commitments from various agencies/volunteers Assign staff to station teams (Log In, Screening, Health Ed.) and schedule team calls Implement communications plan (through web sites, list serves, newsletters, local papers, businesses, community meetings, etc.) Finalize all event materials (Log In Form, Labels, Sample Result Card, Health Education Consultation Evaluation Form, signage, etc.) Hold group call to finalize sample kit distribution plan 	<ul style="list-style-type: none"> Health Edu Evaluation Example so Example so Example St Example so Printed Ma
Month/s YEAR 3-4 weeks before	<ul style="list-style-type: none"> Schedule team calls – Log In/Registration Team, Screening Team, and Health Education Team – and schedule training calls Continue implementing communications plan (Round 1 of Sample Kit Distribution) Continue logistics planning Finalize educational materials (Resources Sheet, Trifold, etc); print materials as needed or post on a community/event web site Review equipment and printed materials checklist; order any materials/supplies needed 	<ul style="list-style-type: none"> soilSHOP Example R Example R Example so Printed Ma
Month/s YEAR 2-3 weeks before	<ul style="list-style-type: none"> Continue outreach meetings in community Continue logistics planning Confirm availability of all materials/supplies Develop soil screening plans (Example Soil Screening Guidance) Finalize health educator materials; reach agreement with partners on key messages Discuss health, safety and other special considerations 	<ul style="list-style-type: none"> Example so Printed Ma Example so
Month/s YEAR 1 week before	<ul style="list-style-type: none"> Continue logistics planning Visit event venue to review logistics Confirm staff assignments and availability Conduct volunteer and staff training calls 	<ul style="list-style-type: none"> Example Staff Roles and Functions

soilSHOP

Frequently Asked Questions (FAQs)

What is a soilSHOP?

The name soilSHOP stands for Soil Screening, Health, Outreach and Partnership. It is an innovative health education and outreach tool for protecting people from the health effects from chemicals, like lead, in soils.

What happens at a soilSHOP event?

At a soilSHOP event, we:

- Screen people's yard soil for lead or other heavy metals at no cost to participant.
- Give people same day soil screening results.
- Talk to people one-on-one about how to reduce their exposures to lead and other harmful chemicals in soil.

Why should I go to a soilSHOP?

Community and urban gardening offer numerous benefits. Some gardens may have chemicals like lead and other heavy metals in the soil from past use of lead-based paint and leaded gasoline, and from nearby industry. At a soilSHOP, you can learn if your soil is contaminated with lead or other heavy metals. You can bring in a small bag of soil from your yard or garden and have it screened for free. You will get your soil screening result that same day. You will also get information about how to reduce your exposures to contaminated soil and produce grown in this soil.

How can a soilSHOP be held?

A soilSHOP can be a stand-alone event or can be combined with other events. For example, a soilSHOP could be part of (1) an annual lead prevention/awareness week, (2) an Earth Day event, (3) a community focused art program, (4) a community-based urban gardening program, (5) farmer's market events in a community, or (6) school-based programs. We tailor soilSHOPs to meet the needs of each community.

How is my soil screened?

Trained soilSHOP staff screen soil using an X-ray fluorescence (XRF) instrument. The main benefit of the XRF is that it allows for quick, real time soil screening results. The XRF is a well-accepted and commonly used field instrument for screening soil for heavy metals like lead.

What are the limitations of the soilSHOP soil screening method?

Although the XRF is a well-accepted and commonly used field instrument for screening soil, limitations exist to this type of screening.

Some limitations include:

- Sample preparation and moisture content may affect the precision and accuracy of the result.
- Soil samples may not be representative of an entire yard or neighborhood.

Frequently asked questions

Planning timeline

Pre-event

Material examples: educational resources

Things to Remember about Lead in Soil

There is no known safe blood lead level.

- Lead is a health concern for young children and pregnant women.

Lead poisoning is a preventable disease.

- Get your children tested for lead. Children under 6 years of age are at most risk. If you are pregnant, lead can harm your baby.
- Identify, control or safely remove lead hazards in your environment.


Lead is common in urban settings.

- One screened sample may not tell the whole story about lead in your yard or garden.
- If you are concerned about your soil lead screening result, consider getting your soil further tested by a laboratory.

Avoid exposures to all sources of lead.

- Reduce lead exposure from garden soil by washing hands, removing shoes before entering the home, and washing all vegetables and fruits before eating.
- Always use lead-safe practices, both outdoors and indoors, to reduce lead exposure for your family.

Comments:



Understanding Your Soil Lead Screening Results

DISCLAIMER: This soilSHOP is a community health education event where people are offered free soil screenings to raise awareness of potential lead presence in their soil sample, and about how to avoid exposure to lead while gardening or playing in yards. The screening method will provide participants with same-day screening results, but cannot provide information about source(s) of lead in soil. Participants may wish to seek further laboratory testing to confirm their lead screening result. soilSHOP staff will help explain soil screening results and share information on ways to reduce potential exposure to lead in soil.

soilSHOP Trifold (both English and Spanish available)

City Park Information for Blood Lead Testing for Children –

- Does your child have a doctor? If not, call the City Park Lead Poisoning Prevention Program at 555-555-5555 to appointment.
- Scan QR code for links to the resources listed below.



Health Department's schedule an

Web-based and Printed Resources – CD Content List

ATSDR. Undated. Blood Lead Levels in Children Fact Sheet. Accessed March 2015: http://www.cdc.gov/nceh/lead/acclpp/Lead_Levels_in_Children_Fact_Sheet.pdf

Brooklyn College. Undated. Soil Testing Brochure: Information on How to Get Your Soil Tested by Brooklyn College. Prepared by Department of Environmental and Analytical Sciences. Accessed April 2015: http://www.brooklyn.cuny.edu/web/acs_centers_esac/110901_Soil_Brochure.pdf

Cornell Waste Management Institute (Cornell). Undated. Contaminants in Soils: An Overview of Key Topics. Powerpoint Presentation. Prepared by Cornell University Department of Crop and Soil Sciences, Cornell Waste Management Institute. Accessed April 2015: http://cwmi.ces.cornell.edu/soil_contaminants_overview.pdf

Cornell. Undated. Raised Bed Gardening. From Cornell Cooperative Extension, Chemung County. Accessed April 2015: <http://www.gardening.cornell.edu/factsheets/vegetables/raisedbeds.pdf>

Cornell. 2012. Understanding Your Test Results: Metals in Garden Soils and Vegetables. Healthy Soils, Healthy Communities. (<http://cwmi.ces.cornell.edu/healthysols.htm>) Prepared with partners including: New York State Department of Health, Cornell University Cooperative Extension New York City, and NYC Parks GreenThumb. December. Accessed April 2015: <http://cwmi.ces.cornell.edu/UnderstandingTestResultsMetalsSoilVeg.pdf>

Cornell. 2014. What Gardeners Can Do: 10 Best Practices for Healthy Gardening. Healthy Soils, Healthy Communities. Prepared with partners including: New York State Department of Health, Cornell University Cooperative Extension New York City, and NYC Parks GreenThumb. April. Accessed March 2015: <http://cwmi.ces.cornell.edu/WhatGardenersCanDoEngSh.pdf>


U.S. Environmental Protection Agency (EPA). 2009. Backyard Composting: It's Only Natural. Prepared by EPA Sustainable Landscapes Program. EPA-530-F-026. October.

EPA. Undated Web Page: Growing Gardens in Urban Soils. From EPA Clu-In Website: Eco-Tools - Tools for Ecological Land Reuse. Accessed March 2015: <http://cluin.org/ecotools/urbandgardens.cfm>


EPA. 2014. Technical Review Workgroup Recommendations Regarding Gardening and Reducing Exposure to Lead-Contaminated Soils. OSWER 9200-2-142. May. Accessed March 2015: http://www.epa.gov/superfund/lead/products/PBNA%20TRW%20Lead%20Contam%20Gardening%20Recommendations_06%2014012014.pdf

Johns Hopkins University. 2014. Soil Safety Resource Guide for Urban Food Growers. February. Prepared by the Johns Hopkins Center for a Livable Future. February. http://www.jhu.edu/research/centers-and-institutes/johns-hopkins-center-for-a-livable-future/_pdf/projects/urban-soil-safety/CLF%20Soil%20Safety%20Guide.pdf

Modifiable Resource Sheet



Your Soil Sample Number:



Your Soil Sample Number:

Your Soil Screening Result

Your Soil Screening Result

Thank you for coming!

DISCLAIMER: This soilSHOP is a health education event where community members are offered free lead screenings to raise awareness of potential lead in their soil sample, and about how to avoid exposure to lead while gardening or playing in yards. The screening method will provide participants with same-day screening levels, but cannot provide information about source(s) of lead in soils. Participants may wish to seek further laboratory testing to confirm their lead screening result. soilSHOP staff will help explain soil screening results and share information on ways to reduce potential

Thank you for coming!

DISCLAIMER: This soilSHOP is a health education event where community members are offered free lead screenings to raise awareness of potential lead in their soil sample, and about how to avoid exposure to lead while gardening or playing in yards. The screening method will provide participants with same-day screening levels, but cannot provide information about source(s) of lead in soils. Participants may wish to seek further laboratory testing to confirm their lead screening result. soilSHOP staff will help explain soil screening results and share information on ways to reduce potential

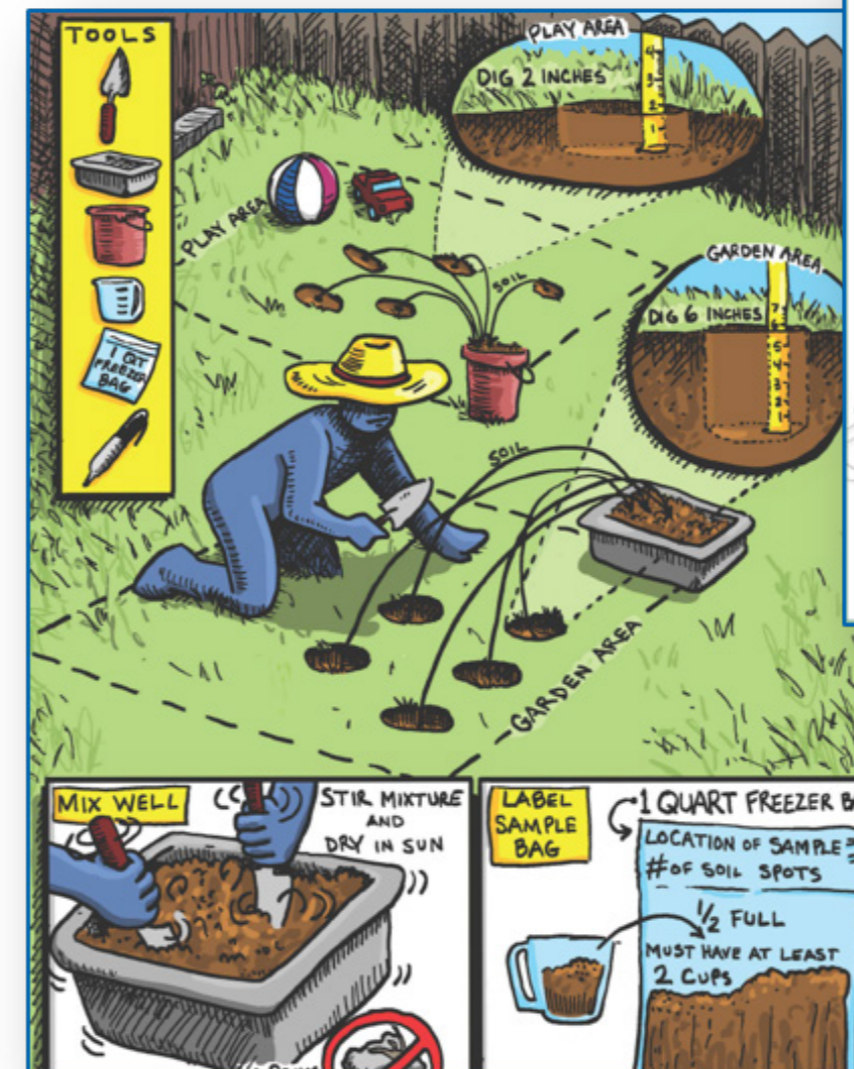
Sample Result Card

Pre-event

Material examples: outreach materials

Know your audience when developing materials. Address language barriers. Resources are available in Spanish.

The screenshot shows the 'soilSHOP Toolkit' website. The main content area is titled 'Outreach and Partnership' and includes social media icons for Facebook, Twitter, and a plus sign. Below this, there are two paragraphs of text explaining the importance of outreach and partnership in soilSHOP work. A small image of hands joined together is also visible. On the right side, there is a section titled 'Toolkit Resources for Outreach and Partnership' with links to various documents and presentations, including 'Soil Sampling Cartoon - Black and White', 'Soil Sampling Cartoon - Color', 'soilSHOP Logo.pdf', and two versions of 'Example Outreach Flyer' (English and Spanish).



The flyer is titled 'FREE SOIL SCREENING at CITY PARK' and is dated Saturday, May 3, 2016, from 10 a.m. to 4 p.m., rain or shine. It encourages bringing a soil sample in a Ziplock plastic bag for lead screening. The flyer lists several topics that partners will share information on: screening results, best practices to avoid lead exposure, tips to garden safely, resources for blood lead level testing, and healthy eating and exercise. It also states that park and museum entry are free and offers a tour of the museum, a plant sale, and a raised bed. The flyer includes the soilSHOP logo and the ATSDR logo.

Pre-event

Things to keep in mind when developing materials:

Common questions your audience may ask:

- Is my soil safe for... gardening, playing, etc?
- Why does my yard have different soil lead results?
- How can I get my soil cleaned?
- Did the soil cause me to get sick?

Key health messages:

- There is no known safe blood lead level.
- Lead is common in urban settings.
- Lead poisoning is a preventable disease.
- Exposure to lead can be avoided or reduced by following best practices for gardening and playing in soil.

Pre-event

Things to keep in mind when developing materials:

Key concepts to review with participants:

- Exposure pathways
- Limitations of screening
- Putting soil results into perspective
- De-emphasizing the “number (reading)”

Referrals

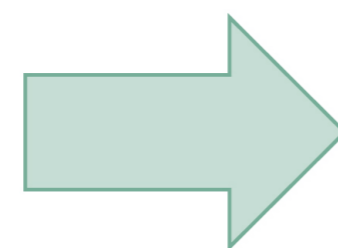
- Where to get blood lead testing
- Where to get additional soil quality testing
- Pediatric or worker health questions

During event

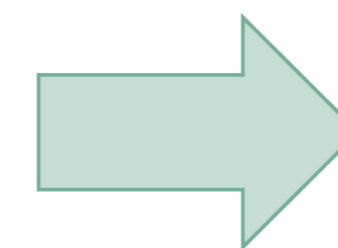
Some health educators may be actively engaging with participants throughout the event. They may provide general event information and lead event activities (e.g., children's activity groups).

A screenshot of the 'soiSHOP (Internal) EVALUATION TOOL' form. The form is titled 'soiSHOP (Internal) EVALUATION TOOL' and includes instructions for use. It contains several sections with questions and checkboxes for responses. The questions include: 'How many people did you speak with or consult this session?', 'How did they hear about event?', 'What topics did you share information about or discuss with them?', 'Did they bring soil samples to the event?', 'How much time did you spend with them', 'Reference made: (blood lead testing, clinic, further lab testing, composting, drinking water, other?)', and 'Did participant indicate that he/she:'. The form is designed for health educators to use to evaluate their interactions with participants during the event.

Health educator reviews soil sample results and sample package.



Health educators provide participants with their results and conduct one-one consultation.



Optional: After each consultation, health educators complete the Internal Evaluation Form.

During event

Health Education Station Set-Up:



Health educator stations in these photos display educational material, list the samples ready for pick-up on a whiteboard, and show provided seating areas for consultations.

During Event

Tips:

Assign each sample package to a health educator

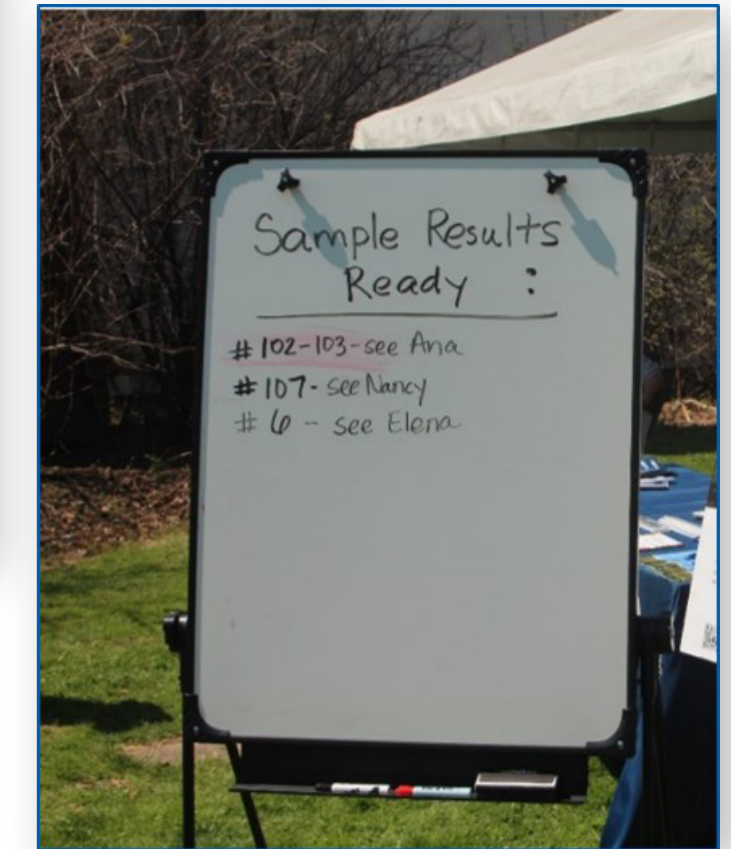
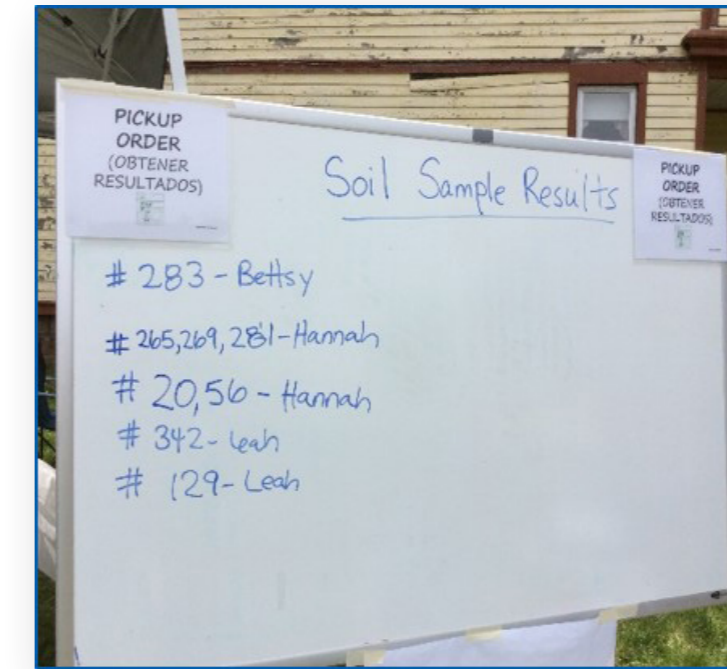
- Increases accountability
- Reduces likelihood that sample results will get lost
- Reduces participant wait time

Provide healthy snacks

- To attract participants to the station
- To promote good nutrition

Incorporate kid-friendly activities

- To attract participants and engage children



During event

Event examples: engaging activities



Include complimentary activities like:

- Children's craft station
- Raffles
- Gardening resources
- Food samples

During event

(Internal) Evaluation Tool:

The screenshot shows the ATSDR Agency for Toxic Substances and Disease Registry website. The main navigation bar includes the ATSDR logo, a search bar, and an 'ATSDR A-Z INDEX' dropdown. The 'soilSHOP Toolkit' is highlighted in green. The left sidebar contains a menu with categories: soilSHOP, Planning and Preparation, Outreach and Partnership, Soil Screening, Health Education (selected), Additional Activities, Frequently Asked Questions (FAQs), Videos, and soilSHOPs in Your Community. The main content area is titled 'Health Education' and includes social media icons for Facebook, Twitter, and a plus sign. The text describes the purpose of health education at soilSHOP events and lists key topics: results of soil screening, health problems from lead exposure, and tips to reduce lead exposure. It also lists activities health educators can do, such as reviewing materials and completing evaluation forms. A photo of a family is shown. Below the text is a section for 'Toolkit Resources for Health Education' with links to trifold brochures in English and Spanish, an example resources sheet, and the internal evaluation tool form.

Date: _____
Soil Sample Number: _____

soilSHOP (Internal) EVALUATION TOOL
For use by soilSHOP staff only. Not for public dissemination.

Instructions: This form should be completed by soilSHOP Health Educators and other staff after each engagement with soilSHOP participants and passersby. Completing this form can help event planners keep track of how many individual interactions and health education/outreach consultations were completed during your soilSHOP event. Information on this form can also help planners evaluate the planning and implementation process of this event. No personally identifiable information should be collected nor recorded on this form.

How many people did you speak with or consult this session? _____

How did they hear about event? _____
[flyer] [word of mouth] [internet] [email] [meeting]
[Other] (specify): _____

What topics did you share information about or discuss with them? (please circle all that apply)
[gardening] [children's health] [general health] [soil testing] [soil quality]
[Other] (specify): _____

Did they bring soil samples to the event? (please circle)
[yes] [no] [Other answer] (describe): _____

How much time did you spend with them (please circle):
[0 - 5 min] [6 - 10 min] [11 - 15 min] [15 - 20 min] [>20 min]

Referrals made: (blood lead testing clinics, further lab testing, composting, drinking water, other?)
[blood lead testing] [soil testing] [composting] [drinking water] [soil quality]
[Other] (specify): _____

Did participant indicate that he/she: (please circle)

- Learned something new today about preventing lead exposure? [yes] [no] [N/A]
- Will use the advice learned today? [yes] [no] [N/A]
- Will seek out one or more of the referrals made? [yes] [no] [N/A]

soilSHOP Outreach & Education Evaluation Form, 2016

Post-event

Post-event: Evaluation

- Team should meet to review follow-up procedures (review samples that may have not been screened due to time limit) and collect all Internal Evaluations.
- Finalize plan to review samples that were not addressed during the event, and provide participants with follow-up contact information.
- Conduct after-action meeting to evaluate your event and identify what worked, what didn't work, and any lessons learned.
- Share your event stories on [ATSDR soilSHOP website](#).

Practice Scenarios

Use the following scenarios to conduct a mock health education consultation with your colleagues and other soilSHOP health educators to help prepare for the real thing!

Scenario 1

- Mother of family with young children (< 6 yrs).
- Family uses yard for gardening and playing.
- The house is newly constructed with mostly bare soil.
- Soil lead results:
 - Garden = 90 ppm
 - Play area = 30 ppm

Practice Scenarios

Scenario 2

- Young couple bought pre-1970s home and is renovating it.
- Mother is two months pregnant.
- They are putting in garden and playground area in yard.
- Home surrounded by cute antique white picket fence.
- Soil lead results:
 - Garden = 390 ppm
 - Play area = 1000 ppm

Practice Scenarios

Scenario 3

- Single male in late twenties rents a property.
- He doesn't garden or play outside in yard.
- He feels lucky because his yard is low-maintenance, just patches of grass and mostly bare soil.
- He frequently throws BBQs and parties in his yard, and likes to invite his friends and family who have young children.
 - Soil lead result = 1600 ppm

Resources

All tools are available on the soilSHOP website:

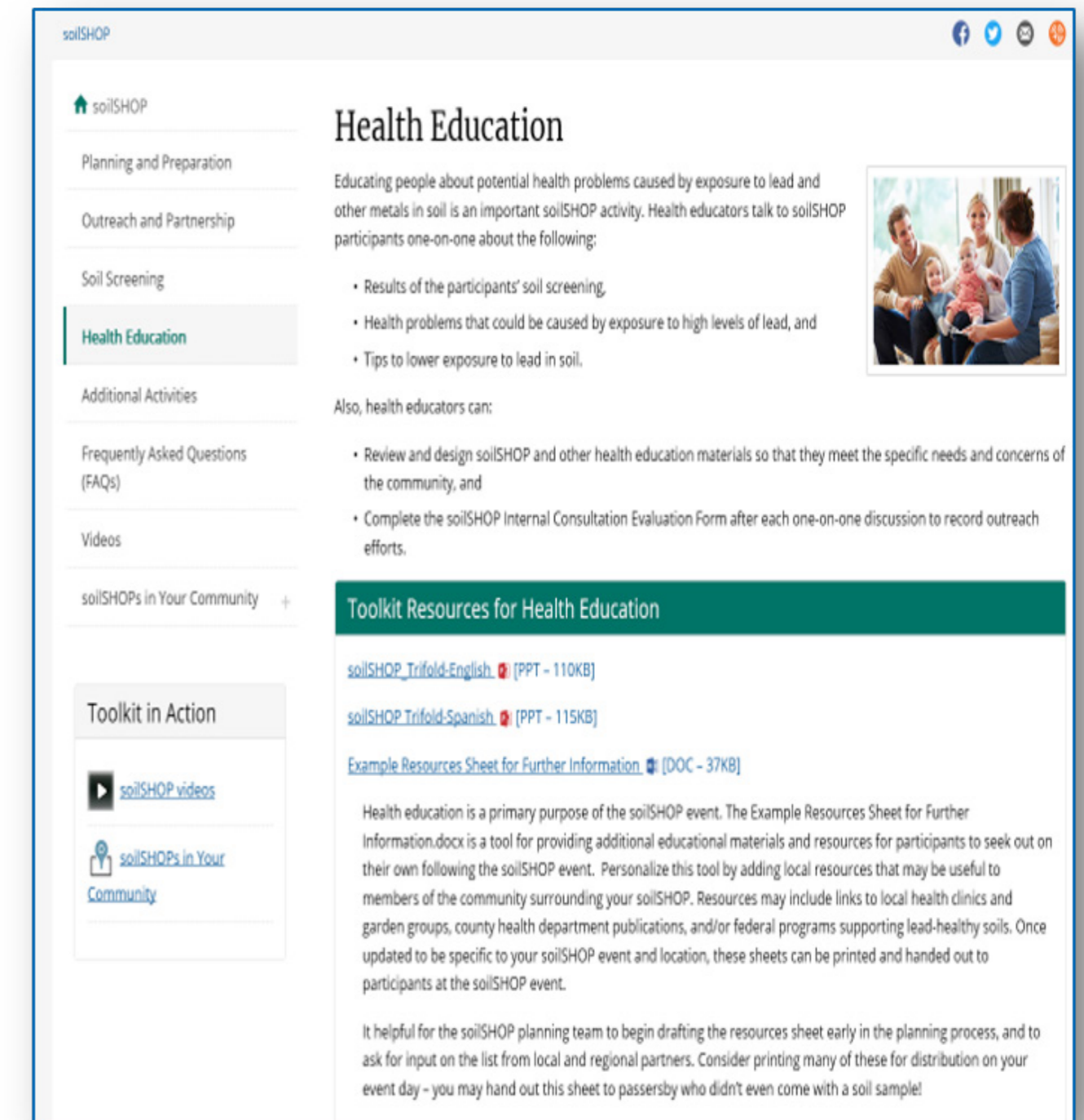
www.atsdr.cdc.gov/soilSHOP

For the Public

- [soilSHOP Trifold - English](#) (also available in [Spanish](#))
- [Example Resources Sheet for Further Information](#)

For soilSHOP Staff

- [soilSHOP \(Internal\) Evaluation Tool](#)
- [Log In Form](#)
- [Example Staff Roles and Functions](#)



The screenshot displays the soilSHOP website interface. On the left is a navigation menu with options: Home, Planning and Preparation, Outreach and Partnership, Soil Screening, Health Education (highlighted), Additional Activities, Frequently Asked Questions (FAQs), Videos, and soilSHOPS in Your Community. The main content area is titled "Health Education" and includes an introductory paragraph, a list of topics discussed (Results of soil screening, Health problems from lead, Tips to lower exposure), and a list of tasks for health educators (Review and design materials, Complete evaluation form). Below this is a "Toolkit Resources for Health Education" section with links to trifold documents in English and Spanish, and an example resources sheet. A "Toolkit in Action" sidebar on the left contains links for "soilSHOP videos" and "soilSHOPS in Your Community".

This completes our soilSHOP Tutorial Series. If you have any questions, please contact:
Your ATSDR Regional Office and soilSHOP@CDC.gov.

Agency for Toxic Substances and Disease Registry

