

US EPA ARCHIVE DOCUMENT

# 9 EVALUATING YOUR LEAD-SAFE YARD PROGRAM

This chapter provides guidance on evaluating the effectiveness of your lead-safe yard program. Section 9.1 suggests questions that you may want to focus on during your evaluation. Section 9.2 discusses the need for documenting your program's work at key evaluation points.

The information in this chapter is designed primarily for managers and organizers who are responsible for running lead-safe yard programs.

## 9.1 FOCUSING YOUR EVALUATION

How effectively does your program reduce young children's exposure to lead? To answer this, you will need to evaluate your program.

As described in Section 1.2.2, EPA New England and the National Center for Lead Safe Housing (<http://www.lead-safe-housing.org>) are currently leading a HUD-funded research study to document the effectiveness of the low-cost interim soil control measures used by the EMPACT Lead-Safe Yard Project. The study will include a retrospective evaluation of the soil intervention work conducted during Phases 1 and 2 of the EMPACT LSYP. It also will examine data collected during the summer of 2000 by all three Boston-based lead-safe yard programs: the EMPACT project, the Lead Safe Boston demonstration project, and the Boston Public Health Commission project. Soil-lead data will be collected before, during, and after each yard intervention, mainly to document the effectiveness of the landscape treatment measures in reducing risk to residents.

In designing an approach to evaluating your own program, you can focus on any of a number of criteria. Some of these are easily measurable, others are not. Here are four questions you may want to look at in your evaluation:

- How effective were the yard treatments in reducing soil-lead levels?
- How well did the yard treatments hold up over time?
- What effect did the yard treatments have on children's blood lead levels?
- How well did your program educate residents about lead poisoning?

## 9.2 DOCUMENTING EVALUATION POINTS

An effective strategy for evaluating mitigation work is to compare the yard at three points in time: pre-treatment, immediately after treatment, and one year after treatment. Key to conducting an evaluation is adequate documentation of the program's work. Throughout this handbook, tools for documenting lead-safe yard activities have been identified. The following documentation should be contained in the case file you began upon initial contact with the homeowner:

- Homeowner application materials and consent form (Chapter 5).
- Results of educational 'quiz' (Chapter 5).
- "Homeowner Yard Use/Treatment Options Interview" Form (Chapter 5).
- "Before and after" photographs of the yard.

- Site worksheet (with monitoring results) and color-coded plot plan (Chapter 6).
- Treatment plan (Chapter 7).
- Contract (Chapter 7).
- Cost estimate sheet (Chapter 7).
- “Homeowner’s Approval of Treatment Plan” Form (Chapter 7).
- Project Completion Certificate (Chapter 7).
- Any information available about blood lead levels of children living in the home.

When you return a year later, you should again obtain the homeowner’s permission for inspecting the yard and taking additional measurements and photographs. A sample form is shown on page 126 (“Homeowner Permission Form—One Year Follow Up”). Your photos and notes from the follow-up visit will help document how well the landscaping measures have been maintained. You should also get input from the owner on:

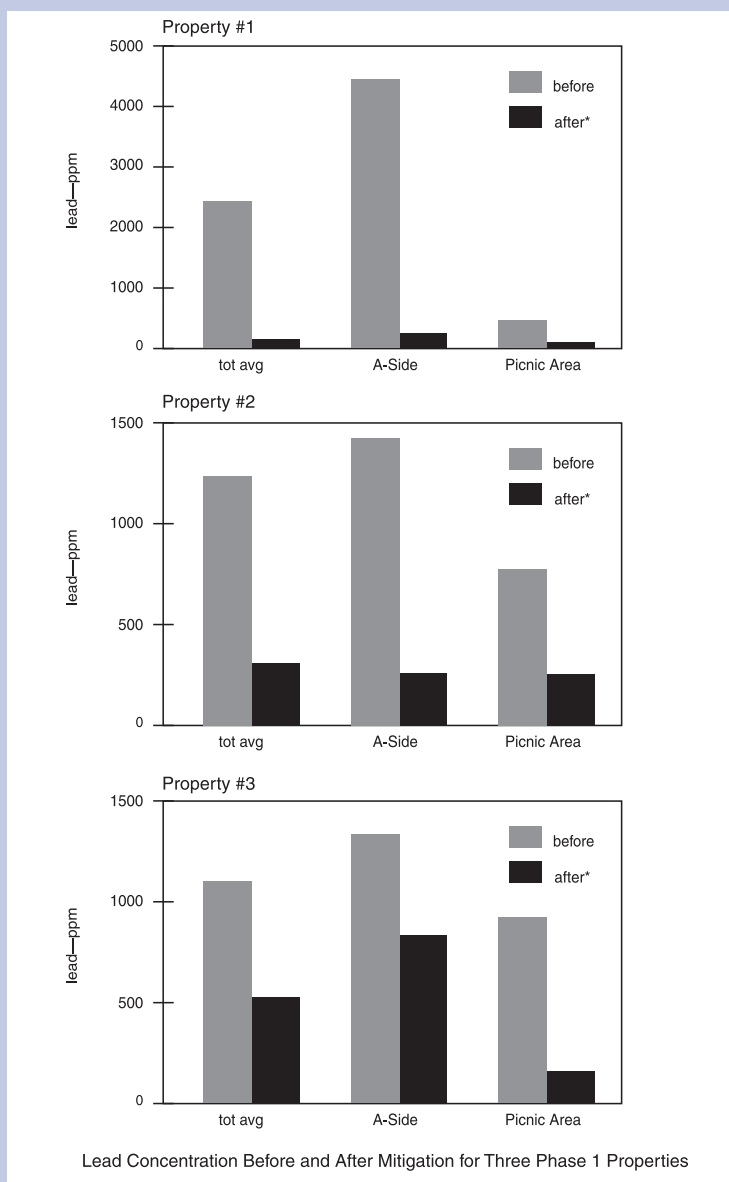
- His or her impressions of the benefits and/or drawbacks of the landscaping done at the home.
- How hard or easy it was for the homeowner (or another resident) to maintain the landscaping measures and whether the maintenance plan was clear and easy to follow.
- How your lead-safe yard program could be improved (e.g., through better treatment measures or better maintenance procedures).

You can also try to evaluate how well your educational efforts worked; the EMPACT outreach worker, for example, plans to readminister the quiz that she gives following the educational video, ‘Lead Poisoning: The Thief of Childhood.’ Finally, you can ask the residents if they are willing to give you the results of any lead testing done on children who live at the home.

All of this information will help you document and assess the various aspects of the program. This evaluation will be of value to your project team, your funders, the community, and each family involved in the program.

### ASSESSING REDUCTIONS IN SOIL-LEAD LEVELS

In the summer of 1999, the EMPACT Lead-Safe Yard Project returned to several residences in the Bowdoin Street neighborhood to assess changes in surface soil-lead levels. All of these residences had been treated one year earlier, during Phase 1 of the project. Retesting efforts focused on play areas and/or areas that had been found to have high soil-lead levels during the initial testing. As illustrated in the graphs below, the results of the retesting showed that lead concentrations in the yard surfaces were significantly lower at each site. This indicated to the project team that the landscape barriers installed at the sites during the yard treatments were effectively covering the contaminated soil below. In the year 2001, the EMPACT LSYP intends to do another round of retesting at 25 sites.



\*Soil-lead concentrations were sampled 10 to 13 months after mitigation.

## Homeowner Permission Form Boston Lead Safe Yard Program One Year Follow Up

Your yard has been made more safe for children to play in and for you to enjoy by the landscaping improvements that we have done through the Lead Safe Yard Program. Thank you for your cooperation during this community effort.

Now that we have finished a large number of yards in your neighborhood, we would like to inspect the work to see how well the improvements are holding up over time. We would like your permission to talk with you and to visually inspect all of the landscape improvements made by our program. During the visual inspection, we would also make some measurements and take a few photographs of the work. The inspection will take about an hour. This evaluation is funded by Lead-Safe Boston and the U.S. Department of Housing and Urban Development (HUD) and coordinated by the National Center for Lead-Safe Housing.

I give my permission for a visual inspection and measurements of the landscape improvements made by the Boston Lead Safe Yard Program.

Homeowner #1 signature	Date
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Homeowner #2 signature	Date
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Lead-Safe Yards Evaluation staff or Interviewer	Date
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