National Center for Healthy Housing

NEW YORK STATE'S
LEAD PRIMARY PREVENTION PROGRAM:
Implementation Report for Year Three, October 1, 2009 – September 30, 2010

Prepared for the New York State Department of Health
Bureau of Community Environmental Health and Food Protection
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EXECUTIVE SUMMARY

Despite substantial progress, childhood lead poisoning remains a serious health threat, both in New York State (NYS) and around the nation. Since there is no medical treatment that permanently reverses the neurodevelopmental effects of lead exposure, primary prevention (taking action before a child is harmed) is critical to address the problem. Primary prevention marks an important augmentation of the traditional approach of responding to children who have already been poisoned.

LPPP Year Three Goals

1. Identify housing at greatest risk for lead-based paint hazards;
2. Develop partnerships and community engagement to promote primary prevention;
3. Promote interventions to create lead-safe housing units;
4. Build Lead-Safe Work Practice (LSWP) workforce capacity; and
5. Identify community resources for lead-hazard control.

In 2007, NYS undertook a new primary prevention initiative, with the Governor proposing and the NYS Legislature agreeing to dedicate $3 million in new state funding for fiscal year 2007-2008. A new subdivision 3 was added to PHL § 1370-a, creating the NYS Childhood Lead Primary Prevention Program (LPPP) as a pilot program.

Specifically, the new statutory provision required NYS Department of Health (DOH) to "identify and designate a zip code in certain counties with significant concentrations of children identified with elevated blood lead levels for purposes of implementing a pilot program to work in cooperation with local health officials to develop a primary prevention plan for each such zip code identified to prevent exposure to lead-based paint." In granting DOH authority to designate zip codes as "areas of high risk," the amended statute permitted DOH as well as local health departments to adopt a proactive approach to reducing children's exposure before harm occurred. This allowed health departments to gain access to homes for the purposes of education and inspection, even if no child with an EBLL currently resided in the unit and even if the unit was not currently occupied by a child (but one day could be). Local health departments in the eight counties (Albany, Erie, Monroe, New York City[i], Oneida, Onondaga, Orange, and Westchester) with the highest number of incident cases of lead poisoning among children under age six annually received funding in 2007.

For 2008-09, the Governor proposed and the NYS Legislature committed to additional funds for the CLPPPP that brought the total funded amount to approximately $5 million. This increased the funding allocated to the eight renewing grantees, and provided funds for four new grantees: Broome, Chautauqua, Dutchess, and Schenectady Counties.

In 2009, based on the promising results of the CLPPPP, Governor Paterson successfully sought to make the program permanent by amending PHL § 1370-a(3) (see L. 2009, C. 58, pt. A, § 4). In addition, funding was further increased to approximately $7.7 million

[i] The five boroughs within New York City are considered a single county for the purposes of the LPPP.

for fiscal year 2009-10. Two new grantees (Niagara and Rensselaer counties) were added to the program.

Increased funding in 2010-11 of $10.1 million is committed to the program, including contracts with the existing 14 grantees and new grantee Ulster County, bringing the total number to 15. Together they are implementing a housing-based primary prevention initiative that will reach tens of thousands of housing units.

LPPP has made a significant difference in the lives of children and their families and in the infrastructure for primary prevention of lead-based hazards. Since its inception on October 1, 2007, almost 7,000 children have been directly affected by the LPPP through visits to their homes, and over 4,000 have been referred for blood lead testing as a result of those visits. Over 12,000 housing units have been investigated, and nearly 9,000 of them were found to have potential and/or confirmed lead-based paint hazards (see Chapter 4).

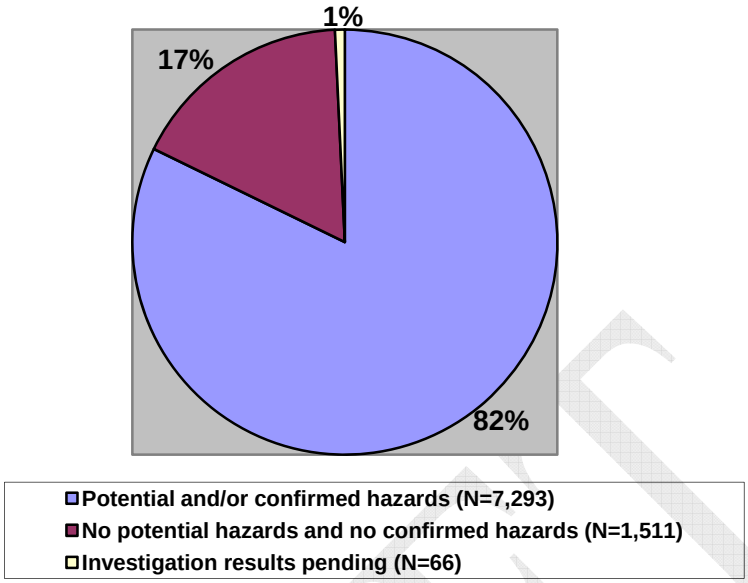
Since its beginning in October 2007, LPPP-funded investigations and follow-up to ensure remediation of identified hazards have produced 2,852 lead-safe housing units.

Work is underway in 6,069 more units that were found to have potential and/or confirmed hazards and have not yet been cleared of all hazards.

This report focuses on the LPPP's implementation in Year Three (October 1, 2009 through September 30, 2010). During this time, grantees made dramatic progress. Grantees:

1. Reached almost fourteen million individuals through a combination of news stories or paid advertisements and health fairs, letters, flyers, displays, and other forms of direct contact.
2. Visited, conducted investigations, or followed up to ensure remediation in homes with 4,607 children age six and under – those most vulnerable to neurodevelopmental damage.
3. Referred 1,677 children for blood-lead testing from homes with identified hazards.
4. Determined that 7,293 units had potentially hazardous conditions or confirmed lead hazards (see Figure A).
5. Produced 1,653 units of lead-safe housing (see Figure B). Almost 1,100 children age six or under lived in these homes.

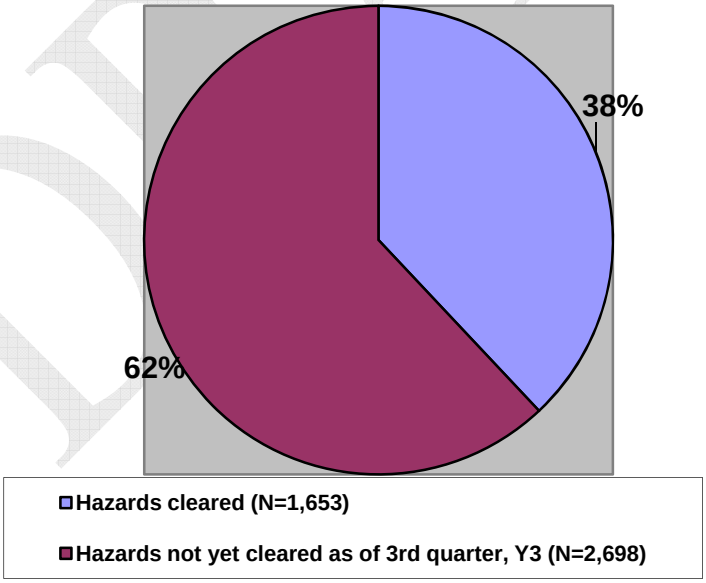
Figure A. Hazard Status of All Units in Year Three (N=8,870)



Source: Unit-based data.

Note 1: Units reported here include those first investigated in Year Three and units carried over from previous years.

Figure B. Clearance Status of Housing Units with Confirmed Hazards, Year Three (N=4,351)



Source: Unit-based data.

Note 1: Includes those units first investigated in Year Three and units carried over from previous years.

Increased marketing, direct outreach, and especially the Environmental Protection Agency's (EPA) Lead Renovation, Repair, and Painting (RRP) Rule increased the demand for training. In Year Three, grantees funded 213 training sessions—nearly 100 more sessions than in Year Two. They also trained 3,448 individuals— 1,636 more than they trained in Year Two.

The RRP Rule, which went into full effect on April 22, 2010, applies to most residential and commercial renovations in buildings built before 1978. The rule impacted the types of training grantees provided, with a pronounced shift from the eight-hour U.S. Department of Housing and Urban Development (HUD)/EPA lead-safe work practices (LSWP) classes to the new EPA-certified renovator classes.

DOH encouraged grantees to tailor their programs to local needs and conditions and experiment with different approaches for education, outreach, targeting high-risk populations, and service delivery.[ii] Grantees enhanced their partnerships with other local governmental agencies and community- and faith-based agencies in Year Three. Renewing grantees experimented with a variety of strategies to improve compliance with orders to eliminate lead hazards, coordinate with code enforcement, streamline policies and procedures, and leverage funding or activities with other community programs.

The National Center for Healthy Housing (NCHH) provides ongoing technical and evaluation assistance to the DOH and to LPPP grantees. The observations and recommendations in this report are based on NCHH's review of grantee work plans, quantitative data, quarterly reports and other program documents; interviews with grantees; joint site visits with DOH staff; and participation in conference calls and meetings hosted by DOH. NCHH has the following recommendations for new and continuing grantees:

1. Take full advantage of the authority granted under PHL 1370-a(3) to
    a. Designate high-risk areas quickly when grant funds become available for the program;
    b. Expand the high-risk designation to other areas as local conditions warrant, or fully use the tools already provided under local statutes, authorities, and interagency agreements;
    c. Focus program services on blocks within the high-risk target area to facilitate remediation in contiguous housing;
    d. Explore designating the local housing code agency within a community of concern as an agency authorized to administer these provisions.
2. Encourage code enforcement officials to adopt systematic rental property inspection programs and to use the Property Maintenance Code for citing

[ii] These strategies are highlighted in Chapters 2-7 of this report, as well as in the four reports NCHH has already issued on Year One and Two of the LPPP, which can be found at http://www.health.state.ny.us/environmental/lead/programs_plans/index.htm).

deteriorated paint in pre-1978 housing. A Certificate of Occupancy should only be issued after lead-based paint (LBP) hazards have been addressed.

3. Dedicate resources and allow sufficient time to expand existing relationships—or build new ones—with community-based organizations and local agencies to assure support for program services and policies and to leverage resources.
4. Forge partnerships with public agencies (e.g., DSS, weatherization agencies, nonprofit housing agencies) to ensure that families receiving government assistance have access to lead-safe housing.
5. Consider funding partner agencies with LPPP funds to assist in identification of high-risk units and investigation strategies.
6. Clarify and strengthen RRP enforcement authority and assure compliance with the new rule.
7. Increase coordination with public and private housing programs and providers that fund or require lead-related repairs in order to keep pace with the demand the LPPP generates.
8. Identify and secure additional funding streams to support the creation of lead-safe housing units in the target areas.

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GLOSSARY AND ABBREVIATIONS

BLL	Blood-Lead Level, a measure of concentration of lead in blood.
BOCES	Board of Cooperative Educational Services. A state program that provides shared specialized educational programs and services to school districts in order to reach diverse populations and improve educational achievement.
CDBG	Community Development Block Grant, a source of federal funding for community and economic development and housing rehabilitation for low- and moderate-income families.
CDC	U.S. Centers for Disease Control and Prevention.
Clearance	Procedures to verify that no lead-based paint chips or dust particles remain after repairs have been completed. A visual clearance involves assessment of the work areas to determine that no paint chips remain. A dust lead clearance test requires analysis of dust samples collected according to federal protocol and analyzed by an EPA-accredited laboratory. Results of the analysis must comply with EPA/HUD hazard standards before the location is considered cleared.
CLPPP	Childhood Lead Poisoning Prevention Program.
De minimis	The amounts of painted surfaces to be disturbed during rehabilitation, maintenance, paint stabilization, or hazard reduction activity, below which safe work practices and clearance are not required.
DOH	NYS Department of Health.
DSS	NYS Department of Social Services.
EBL or EBLL	Elevated Blood-Lead Level. In this report, a BLL over the CDC level of concern of greater than or equal to 10 µg/dL is considered an EBLL.
EPA	U.S. Environmental Protection Agency.
HNP	NYS Healthy Neighborhoods Program.
HPD	NYC Department of Housing Preservation and Development.
HUD	U.S. Department of Housing and Urban Development.

LBP	Lead-Based Paint.
LHD	Local Health Department.
LHC	Lead-Based Paint Hazard Control.
LPPP	NYS Lead Primary Prevention Program
LSWP	Lead-Safe Work Practices.
MOU	Memorandum(a) of Understanding.
Notice and Demand	The primary method by which local health departments notify property owners when lead-based paint hazards are identified during an investigation.
NCHH	National Center for Healthy Housing.
NYC	New York City.
NYS	New York State.
PHL	NYS Public Health Law.
PSA	Public Service Announcements.
RRP	Renovation, Repair, and Painting Rule (40 CFR 745.80, Subpart E).
Section 8	Federal tenant-based rental assistance, or vouchers, given to low-income renters to subsidize rentals in market-rate apartments.
µg/dL	Micrograms per Deciliter.
XRF	X-Ray Fluorescence, a method for assessing the concentration of lead on painted surfaces in a field setting.

1. INTRODUCTION

A National Perspective on Primary Prevention

Although lead poisoning is a preventable disease, it continues to be a major children's environmental health problem in the United States.[1] An estimated 240,000 children have elevated blood-lead levels (EBLLs).[2] Lead exposure can result in neurological damage, including intellectual impairment, developmental delays, learning disabilities, memory loss, hearing problems, attention deficits, hyperactivity, behavioral disorders, and other health problems. Lead is particularly dangerous to children under the age of six due to the rapid growth and development of their nervous systems and their greater lead uptake from what they consume.

Communities engaging in lead poisoning prevention can reap large monetary benefits. In the U.S., IQ loss related to lead exposure is estimated to result in a loss of $43 billion in lifetime earnings. This does not include other social benefits, such as avoided medical care, special education, crime, stress on parents and children, behavior problems, and many other preventable adverse health effects.[3]

The most common source of childhood lead poisoning is lead-based paint (LBP) in older homes, and the primary exposure pathway is the ingestion of lead-contaminated settled interior dust and contaminated soil.[4] [5] Although banned from use in residential paint and other consumer products in 1978,[6] there are still an estimated 38 million pre-1978 dwellings nationwide that contain LBP,[7] and 24 million have deteriorated (chipping, peeling, flaking) LBP and dust and/or soil hazards.[8] [9] More than four million of these dwellings are homes to one or more young children.[10]

Years of federal, state, and local activity have resulted in a decline in the number of children with elevated blood lead levels. From 1994 to 2006, the number dropped by 86 percent, from 890,000 to 120,000 (from 4.4 percent of all children to 0.6 percent).[11] Recognition that lead exposure affects IQ even when BLL levels are lower than10 µg/dL has added new urgency to the call for primary prevention.

The LBP exposure burden still occurs disproportionately in deteriorated or unsafely-renovated pre-1978 homes, with communities of color and low-income families disproportionately impacted. New York State is no exception. Figure 1.1 shows the strong relationship between potential environmental justice communities as designated by the New York State Department of Environmental Conservation (NYSDEC).

Potential Environmental Justice Areas are 2000 U.S. Census block groups of 250 to 500 households each that, in the 2000 Census, had populations that met or exceeded at least one of the following statistical thresholds[iii]:

1. At least 51.1 percent of the population in an urban area reported themselves to be members of minority groups; or

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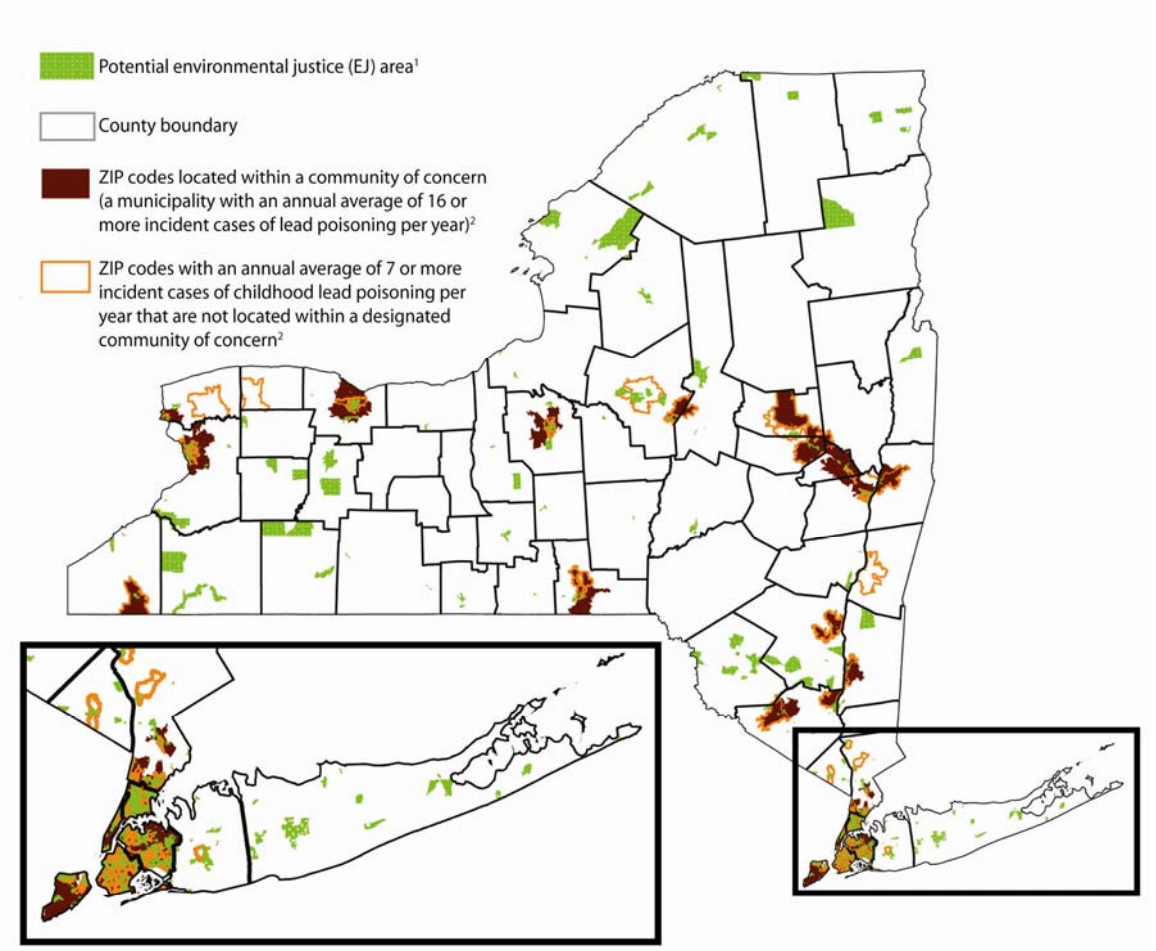
[iii] New York State Department of Environmental Conservation. *County Maps Showing Potential Environmental Justice Areas. http://www.dec.ny.gov/public/899.html.*

2. At least 33.8 percent of the population in a rural area reported themselves to be members of minority groups; or
3. At least 23.59 percent of the population in an urban or rural area had household incomes below the federal poverty level.

Fig. 1.1. Potential Environmental Justice Areas and Childhood Lead Poisoning Communities of Concern in New York State



[1] Communities that qualify as a potential environmental justice area under NYSDEC critiera. Source: NYSDEC

[2] Based on the average # of incident cases of childhood lead poisoning per year among children under six years of age, by municipality and ZIP code, NYS, 2005-2007. Source: NYSDOH

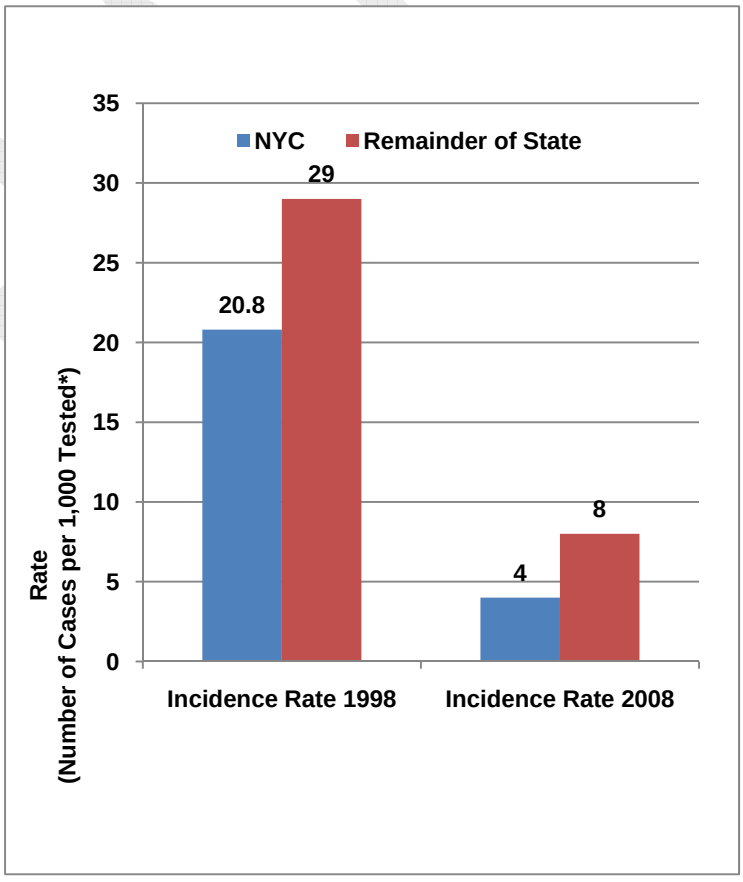
Source: New York State Task Force on the Prevention of Childhood Lead Poisoning, Final Report 2010

In 2004, CDC's Advisory Committee on Childhood Lead Poisoning Prevention (ACCLPP) called for a more aggressive housing-based primary prevention approach: "To ensure successful elimination of EBLLs in children, programs must not rely solely on screening and secondary prevention but also focus on preventing lead exposure through the implementation of housing-based primary prevention."[12] In 2009, the U.S. Surgeon General's *Call to Action to Healthy Homes* explicitly recommended "test[ing] houses occupied by children less than six years of age for lead and control or eliminate lead hazards…." as a necessary step to achieve national objectives.[13] The U.S. Environmental Protection Agency (EPA) implemented its Renovation, Repair, and Painting Rule in April 2010. It requires contractors who disturb LBP in pre-1978 homes and child-occupied facilities to be certified as renovators and to follow specified work practices strictly to prevent lead contamination.[14]

Lead Poisoning in New York State

New York consistently ranks high on key risk factors associated with lead poisoning including many young children living in poverty, a large immigrant population, and an older, deteriorated housing stock.[15] Additional aggressive action to reduce children's exposure to lead remains a state public health priority.

Fig. 1.2. Incidence Rate* BLL <=10 ug/dL, 1998 and 2008



Although the overall incidence (newly diagnosed cases) of lead poisoning among NYS children under age six steadily declined from 1998 to 2008,[16] thousands of children are still at risk because EBLL rates vary greatly across the state (see Figure 1.2)[17 18] For the three-year period between 2006 and 2008, 80 percent of children under age six years, with newly identified BLLs 10 µg/dL and above, resided in the thirteen highest incidence counties (ordered from high to low): Kings, Queens, Erie, Bronx, Monroe, New York City, Onondaga, Westchester, Oneida, Orange, Nassau, Albany, and Richmond.

Primary Prevention in New York State

Primary prevention has been a critical component of New York State's efforts to address childhood lead poisoning for many years.[21] Local health departments (LHD) receiving state funding for Childhood Lead Poisoning Prevention Programs (CLPPP) incorporate primary prevention into their programs, including the following activities:[iv]

1. Identify and partner with other local agencies, organizations, and stakeholders to develop a shared local approach for primary prevention.
2. Identify local communities, neighborhoods, and buildings with the highest need for primary prevention strategies.
3. Develop strategies that are consistent with local resources to provide primary prevention services to the areas of highest need.

Several localities have adopted primary prevention laws. For example, since 1982 New York City has had a local ordinance requiring investigation and remediation of LBP hazards in dwellings that house young children.[v] The City of Rochester's lead ordinance applies to all rental units, regardless of child occupancy.[vi]

Other communities rely on a combination of state and local authorities to inspect and enforce remediation of homes or apartments. Funding for this remediation commonly comes from the property owner, federal lead hazard control grants, or other state and federal housing rehabilitation funds. Appendix A details the authorities and procedures, including blood-lead screening requirements that apply to CLPPP activities and local ordinances.

The 2007 Pilot Lead Primary Prevention Program

In 2007, Public Health Law Section 1370(a) (3) was amended to create a pilot Lead Primary Prevention Program (LPPP):

> *The department shall identify and designate a zip code in certain counties with significant concentrations of children identified with elevated blood-lead levels for purposes of implementing a pilot program to work in cooperation with local health officials to develop a primary prevention plan for each such zip code identified to prevent exposure to lead-based paint.*

In granting the New York State Commissioner of Health authority to designate zip codes as "areas of high risk," the DOH as well as the local health departments adopted a proactive approach to reducing children's exposure before harm occurred. Using the legislation's authority, health departments could gain access to homes for the purposes of education and investigation, even in the absence of a child or a child with an EBLL.

[iv] Minimum required activities to be consistent with contractual obligations for CLPPP work plans.

[v] New York City's "Local Law #1 of 2004 – The New York City Childhood Lead Poisoning Prevention Act" and "NYC Health Code."

[vi] City of Rochester's "Lead-Based Paint Poisoning Prevention Act."

The legislation required Pilot-funded recipients to:

1. Use the "area of high risk" designation within "communities of concern" and the Notice and Demand or equivalent process to inform owners and require repairs as appropriate to complete remediation work in targeted areas.
2. Identify geographic areas within high-risk zip codes that had a high prevalence of actual or presumed LBP hazards, based on lead surveillance data, prior case histories, demographic information, age and condition of housing, and other factors.
3. Refer children under age six who had not received required lead screenings to their primary care providers and/or LHD lead prevention program for follow-up.
4. Develop a housing inspection program that included the following:
   a. Prioritization of dwellings within target areas for inspections;
   b. Inspection of high-risk dwellings for potential lead hazards;
   c. Correction of identified lead hazards using effective lead-safe work practices (LSWP);
   d. Appropriate oversight of remediation work; and
   e. Clearance by certified inspectors.
5. Develop formal partnerships, including formal agreements or Memoranda of Understanding (MOU), with other county and municipal agencies and programs. Prospective partners included code enforcement offices, local Departments of Social Services, local housing agencies, HUD Lead Hazard Control grantees, weatherization programs, and community groups with interest in lead poisoning prevention.
6. Develop new or use existing enforcement policies and activities to assure safe and effective remediation of identified lead hazards.
7. Coordinate available financial and technical resources to assist property owners with remediation.
8. Develop and implement LSWP training for property owners, contractors, and residents and promote development and use of a certified workforce for lead remediation activities.
9. Collect and report data to DOH to evaluate the progress and effectiveness of the Initiative.

The Eight Original FY 2008 Grantees
(October 1, 2007-September 30, 2008):

Albany, Erie, Monroe, Oneida, Onondaga, Orange, and Westchester counties and New York City.

Pilot grantees targeted one or more of the state-designated zip codes and worked in other high-risk areas within the targeted county as resources permitted. DOH also encouraged them to tailor their work plans to the needs, resources, and capacities in their jurisdictions. Grantees could implement activities as part of an existing program, including their CLPPP or their NYS Healthy Neighborhoods Programs (HNP), or they

could develop new infrastructure. An NCHH study provides a detailed evaluation of the strategies, obstacles, costs, and accomplishments during Year One.[1]

2008-2010 Expansion of the Program

Year Two (FY 2009) Additional Grantees:

Broome, Chautauqua, Dutchess, and Schenectady counties.

In 2008, the Governor proposed and the NYS Legislature committed to additional funds for the LPPP, bringing the total funded amount for Year Two to approximately $5 million. This increased the funding allocated to the eight renewing grantees and provided funds for four new ones: Broome, Chautauqua, Dutchess, and Schenectady counties. DOH asked renewing grantees to refine their outreach and inspection efforts, engage more community partners, and look for ways to build toward sustainability. DOH also expanded its technical support to grantees through its website, teleconferences, and a two-day conference during which grantees explored ways to increase partnerships with community-based organizations, housing agencies, and code enforcement.

The 2009 amendments made a direct and positive impact on grantees' work plan activities and goals. The new law gave grantees the flexibility to define their "areas of concern" beyond the original high-risk zip code(s) and continued the requirement for grantees to contract with their housing code enforcement agencies. It also encouraged coordination between weatherization and other programs that could fund required lead hazard control work and ensured a mechanism for referral for lead testing of pregnant women and children encountered during an LPPP visit.

In June 2009, the New York State Health Commissioner issued a letter to health care providers on the importance of monitoring BLLs below 10 µg/dL, released new educational materials to help families understand the meaning of these lower levels, and required that the following comment be added to all laboratory reports for BLL values: "Blood lead levels in the range of 5-9 µg/dL have been associated with adverse health effects in children aged 6 years and younger. The term 'normal' should no longer be used to describe BLLs less than 10 µg/dL."[19]

Year Three (FY 2010) Additional Grantees:

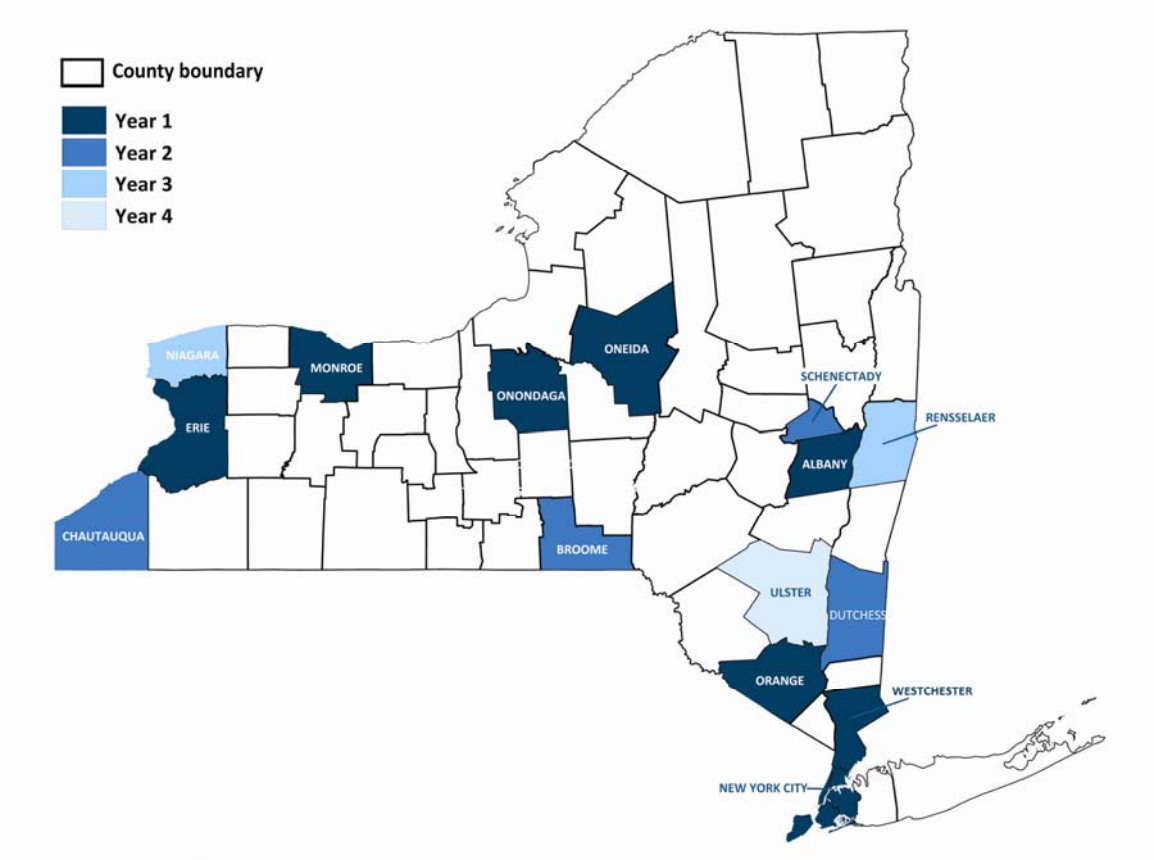
Niagara and Rensselaer counties

In June 2009, the Governor also announced DOH's revised regulations to require comprehensive follow-up and environmental interventions for all children with BLLs of 15 µg/dL or greater (reduced from 20 µg/dL or greater). This latter change affected LPPP grantees by restricting their visits to those homes where children with EBLLs under 15 µg/dL resided.

In 2009, based on the promising results of the Pilot, Governor Paterson successfully sought to make the LPPP permanent under an amendment to PHL 1370-a(3), and funding was further increased to $7.7 million. With the addition of two new grantees in 2009 (Niagara and Rensselaer Counties), 14 grantees implemented a housing-based primary prevention initiative. Increased funding in 2010 is expected to be committed to contracts

with the existing 14 grantees and one new grantee, Ulster County, bringing the total number of grantees to 15 (see Figure 1.3).

Fig. 1.3. LPPP Grantees by Year of Entrance, FY 2008 – FY 2011



Source: New York State Department of Health

Evaluation Design and Methodology

Under contract with DOH, the NCHH team:

1. Consults on how to implement the LPPP;
2. Provides training and hands-on consultation to grantees and their partners in coordination with DOH; and
3. Develops and implements a comprehensive evaluation of the LPPP for DOH.

The contract enables field investigators to work with each grantee to provide feedback on work plans, models for practice, and technical support on program design and implementation issues. Investigators also participated in some joint site visits with DOH staff and in conference calls and meetings hosted by DOH. A conference on Technical Assistance and Networking in September 2010 was particularly useful in informing sections of this report.

NCHH developed a standardized reporting system to gather information from grantees about their actions and progress toward achieving each of the LPPP's five goals. The system consists of a quarterly report and a Microsoft Access database.

The central part of the reporting system is a quarterly report form, which is organized according to goals. For the four goals that are not specific to individual housing units, the quarterly report requests primarily narrative descriptions.[vii] For the goal of promoting interventions to create lead-safe housing units, the quarterly report requests summaries based on individual housing units as well as some narrative about their processes, challenges faced, and solutions developed.

To help grantees capture the unit-based housing data, NCHH developed a Microsoft Access database. Grantees could either use the database provided or import data into it from their own systems. The database contains reports that can be used at the end of each quarter to generate the summary data needed for the quarterly report. The grantee can also run these reports throughout the year in order to assess progress at any time.

The Access database also contains a form on which grantees can record information about each marketing and outreach event that they used to raise awareness about their programs and the risks of lead exposure. As with the housing unit data, grantees can use a report from the database to generate the quantitative data requested in the quarterly report form about these activities.

This report covers LPPP implementation from October 1, 2009 through September 30, 2010 (Year Three). It is organized according to the five program goals:

1. Identify housing at greatest risk of lead-based paint hazards,
2. Develop partnerships and community engagement to promote primary prevention,
3. Promote interventions to create lead-safe housing units,
4. Build LSWP workforce capacity, and
5. Identify community resources for lead-hazard control,

Chapter 4, which addresses the goal of creating lead-safe housing units, uses the database of 8,870 housing units. Of these units, 6,196 were first visited in Year Three; 2,343 were carried over from previous years to complete remediation or clearance; and an additional 331 units are included even though grantees provided incomplete information about the investigation or did not conduct the initial investigation but reported information on hazards or clearance. Chapter 4 contains more information on the methodology related to

[vii] Those four goals are (1) identify housing at greatest risk of lead-based paint hazards, (2) develop partnerships and community engagement to promote primary prevention, (3) build LSWP capacity, and (4) identify community resources for lead-hazard control.

individual housing units, and Appendix D contains additional detail on the decision criteria for unit-level data.

The intent of this report is to summarize the progress of grantees and of the LPPP as a whole and to provide useful information to grantees as their implement their programs. Grantees have varying institutional infrastructures and local conditions that need to be considered when comparing across grantees. Most notably, grantees differ in their level of established relationships with code enforcement agencies as well as in the capacity, resources, and support they receive from within their health departments. They also differ in their amount of personnel and in their level of financial resources for the LPPP. Finally, grantees use varying strategies and approaches depending on the types of housing found within their target areas (e.g., proportion of single-family homes vs. multi-family homes) that need to be considered when interpreting the findings in this report.

2. IDENTIFYING HOUSING AT GREATEST RISK FOR LEAD PAINT HAZARDS

This chapter addresses the following evaluation questions:

1. To what extent have grantees used the authority granted by PHL 1370-a(3) along with or in place of local ordinances to designate communities of concern and high-risk areas?
2. To what extent have grantees conducted investigations outside the zip codes that are the primary focus of the LPPP?
3. Within their target zip codes and communities of concern, what approaches have grantees used to identify the units targeted for intervention?
4. To what extent have grantees used maps or other visual representations of their target areas to plan their activities and/or communicate with others about lead risks and their program?

Using the "High-Risk Area" Designation

Grantees without a local lead ordinance used PHL 1370-a(3) to declare areas of high risk. Grantees typically made the declaration through a press release or Commissioner's order. They referenced this authority in outreach materials to the target neighborhoods and notices to property owners as part of the investigation process. Appendix E contains an example of a Commissioner's order declaring areas of high risk. Monroe County and New York City continued to rely on their local ordinances (see Appendix A). Some grantees took a two-pronged approach by (1) designating zip codes as "areas of concern" and (2) targeting a more limited area within a zip code as "high-risk." For example, in Dutchess County, zip code 12601 was identified by the state as having the highest annual incidence of EBLLs among children under age six. The grantee used GIS mapping of EBLLs to identify the City of Poughkeepsie as the area of high risk within that target zip code.

Defining Target Zip Codes and Conducting Inspections within Them

When NYS identified communities of concern and areas of high risk for the LPPP, it used a two-step process. First, municipalities with an annual average of 16 or more incident cases of childhood lead poisoning were identified.[viii] Next, to refine target areas within municipalities, the analysis was repeated at the zip code level to identify zip codes with an annual average of seven or more incident cases. Both of these criteria were required to qualify as a target zip code. In their applications for funding and their annual work plans, grantees identified the communities of concern and target zip codes for their programs.

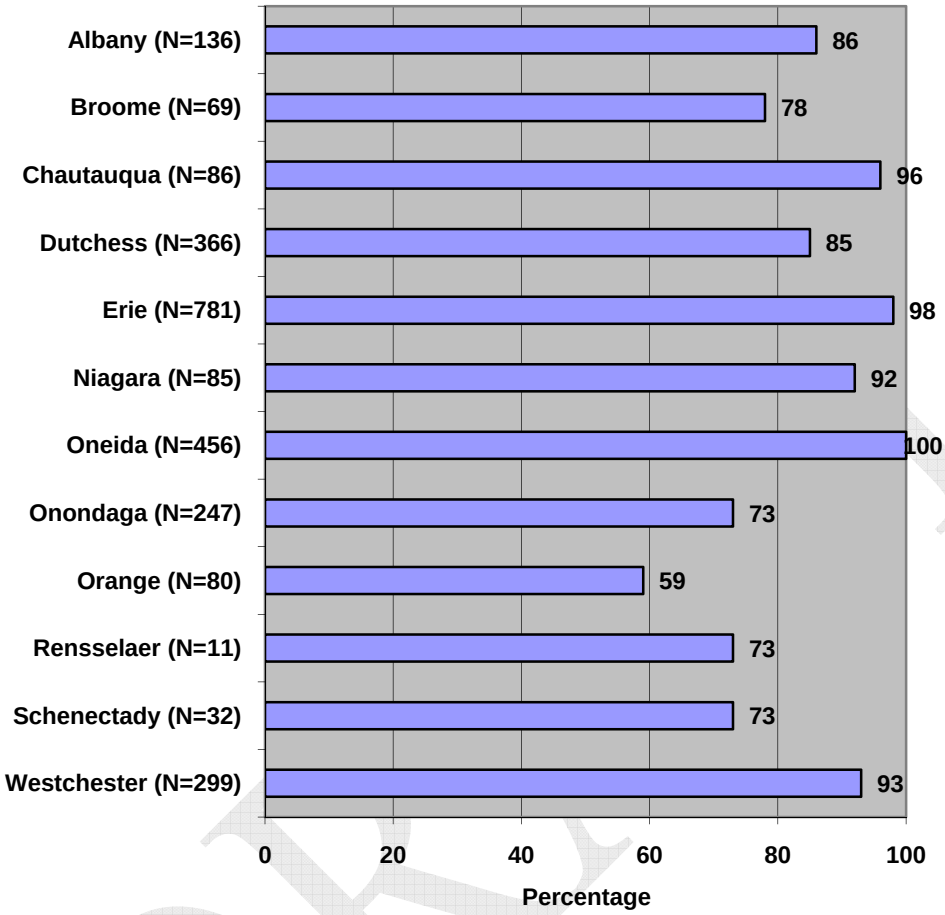
[viii] Incident cases are children under age six that have been newly identified with a blood lead level greater than or equal to 10 µg/dL.

Table 2.1 shows the municipalities and target zip codes identified by grantees. Grantees conducted most of their investigations within those target zip codes (see Figure 2.1).

Table 2.1. Communities of Concern and Zip Codes in Year Three, by Grantee

Grantee	Municipality	Zip Codes
Renewing grantees		
Albany	Albany	12202, 12206, 12208, 12209, 12210
Broome	Binghamton	13901, 13905
Chautauqua	Jamestown	14701
Dutchess	Poughkeepsie	12601
Erie	Buffalo	14207, 14208, 14211, 14212, 14213, 14215
Monroe	Rochester	14605, 14609, 14611, 14621, and all zip codes within the City of Rochester.
New York City	Bronx, Kings, New York, Richmond, and Queens Counties	Program operates in all NYC zip codes.
Oneida	Utica	13501, 13502
Onondaga	Syracuse	13204, 13205, 13208
Orange	Multiple communities	10940, 12550
Schenectady	Schenectady	12303, 12304, 12307,12308
Westchester	Multiple communities	10550, 10606, 10701, 10705, 10801
New grantees		
Niagara	Niagara Falls	14301
Rensselaer	Troy	12180, 12182

Figure 2.1. Percentage of Investigations within Target Zip Codes Year Three



Source: Unit-based data. All units first investigated in Year Three.

Note 1: New York City is not included in the figure because its scope is city-wide with an approach that targets high-risk neighborhoods and populations based on EBLL history, lead hazard violation history, and other data.

Note 2: Monroe County is not included in the figure because, by agreement with the DOH, most of Monroe's investigations are conducted by the City of Rochester's code enforcement staff, which conducts inspections city-wide. [ix] *Monroe County LPPP does target four specific zip codes within the City of Rochester. Thirty-five percent of the investigations in Year Three occurred in these target zip codes.*

[ix] In Rochester, a city housing inspection can be triggered by a new or renewal Certificate of Occupancy request, a County Department of Human Services Quality Housing Inspection, a Neighborhood Empowerment Team survey, or a tenant or neighborhood group complaint. The lead law requires that the inspection include a visual inspection of properties for deteriorated paint or bare soil. Properties in high-risk areas that pass the visual inspection must also undergo a dust wipe test. The law applies to most of the rental properties in the City of Rochester that were built prior to 1978.

Defining Target Units within High-Risk Areas

Grantees refined their efforts by identifying specific target housing or populations within the areas of highest risk. Some grantees identified specific neighborhoods or census blocks/tracts within the designated high-risk areas by using data such as age of housing, history of EBLLs, socioeconomic status of residents, and percentage of rental properties. Most of the grantees (all except Chautauqua and Dutchess) inspect units where children with BLLs between 5-9 and 10-14 μg/dL (or both) reside, or units adjacent to them.

The following are additional examples of targeting:

1. Chautauqua's strategy emphasized identifying "hot spots" and going door-to-door to enroll units that met pre-set criteria for a home assessment. They used a geo-coded map of the target area of concern to identify the hot spots, which were areas with the highest historical prevalence of children with EBLLs.
2. Dutchess identified the City of Poughkeepsie within its target zip code on the basis of EBLLs, age of housing, and percentage of the population under age six that was below the poverty level. Within the City of Poughkeepsie, the city Building Inspector uses housing complaint and building permit inspections to access residences and make visual assessment as to whether paint and dust conditions are in compliance with NYS property maintenance code.
3. Oneida identified specific census tracts and block groups within its target zip codes using data on housing age, occupancy, and lead poisoning data. They also used birth certificate data to focus on areas with high numbers of children under age six.
4. Albany, Broome, Niagara, Onondaga, Rensselaer, and Westchester target housing units with a history of EBLL cases, although there are some differences in the details of their approaches. Albany limits these inspections to units where a child age six or under currently resides. Niagara and Onondaga also inspect adjacent units.
5. New York City, Onondaga, and Orange target units with a history of inspections showing lead hazards.
6. New York City targets homes of newborns living in high-risk neighborhoods and children visited by the Asthma Initiative. Broome, Monroe, Niagara, Oneida, Schenectady, and Westchester also visit homes of at-risk newborns or pregnant women.
7. Albany, Broome, Oneida, Onondaga, and Schenectady focus on resettled refugees. Onondaga County has agreements with two agencies that work with resettled refugees. Interpreters call newly resettled refugees with children to explain the program and schedule appointments. Assisted by the interpreters, staff provide lead risk assessments, basic lead education, perform an assisted cleaning to remove lead paint chips and lead dust, and leave the family with cleaning supplies to continue the cleaning. Oneida County works with landlords, tenants, and organizations that place resettled families. The program contracted with the Multicultural Association of Medical Interpreters to call refugee tenants to

increase awareness and publicize the LPPP's offer of home inspections. Interpreters also make home visits with program staff.

8. Onondaga County has agreements covering foster care, child protective services and rent-subsidy programs to place children age seven or under in lead-safe homes. Code Enforcement has modified its inspection form for properties that require a security deposit from DSS to indicate interior/exterior chipping or peeling paint. This information allows DSS to refer these units to the primary prevention grantee for a lead inspection. Orange plans an MOU with DSS for them to register recipients for LPPP as part of their sign-up for social services, and Albany and Broome also target some services to recipients of other agencies' services.

Table 2.2 summarizes grantees' approaches to defining target housing. In addition to targeting neighborhoods and individual housing units, all the grantees investigated some units in response to requests from tenants and/or owners and referrals from community partners such as the Healthy Neighborhoods Programs. Some grantees, such as Broome, emphasize a targeted referral approach, encouraging tenants and owners to request inspections.

Table 2.2. Grantee Approaches to Defining Target Housing, Year Three

Approaches	Renewing grantees												New grantees	
	Albany	Broome	Chautauqua	Dutchess	Erie	Monroe	New York City	Oneida	Onondaga	Orange	Schenectady	Westchester	Niagara	Rensselaer
Concentrate on specific neighborhoods within designated high-risk areas.	X	X	X	X	X		X	X	X	X	X	X	X	X
Strategies for targeting individual housing units														
Re-inspect units with a history of EBLL cases or other units in the same building.	X	X					X		X			X	X	X
Visit the homes of at-risk newborns or pregnant women.	X	X				X	X	X			X	X	X	X
Inspect units where children with BLLs between 5-9 or 10-14 µg/dL (or both) reside, or units adjacent to them.		X			X	X	X	X	X	X	X	X	X	X
Inspect rental units of resettled refugees.	X	X						X	X		X			
Inspect rental units of DSS-funded recipients (TANF, foster care) or Section 8 funded recipients.	X	X							X	X				

Note: Three grantees targeted housing units in ways not readily categorized in Table 2.1: (1) In Year Three, NYC began conducting building-wide canvassing of apartments located in buildings where two or more apartments had been remediated through Commissioner's Orders and where a child under six years of age currently resides; (2) Onondaga targeted units that had been cited at least twice in the past and still had the potential for recurrent lead hazards; (3) Orange prioritized inspections for properties with a history of inspections showing lead hazards. As previously noted, most investigations in Monroe County are conducted by City of Rochester code enforcement and are not selected by the LPPP to meet specific targeting criteria.

Using Geographic Information Systems (GIS) to Identify Properties

Grantees continue to produce and fine-tune GIS maps. For most grantees, these maps were produced by LPPP or other Health Department staff. Albany partnered with its local Planning Board, and Orange County worked with the county's Division of Geographical Systems. Erie County is exploring having mapping services provided by its partner, the Community Foundation of Greater Buffalo, while Schenectady County is considering using an outside contractor because of lack of support from the planning office.

Grantees used maps in the following ways:

1. To help visualize high-risk housing and populations both for internal purposes and for external audiences (such as community groups, elected officials, or the media);
2. To target neighborhoods for visual assessments of deteriorated exterior paint or door-to-door canvasses;
3. To expand their efforts and to evaluate and revise their intervention strategies; and
4. To depict units investigated, hazards found, and units cleared of hazards.

See Appendix C for examples of maps used in Albany and Dutchess counties. Other examples include the following:

1. Erie is producing updated GIS maps of lead poisonings in Erie County from 1994 to 2009. The maps are intended to enable grantees to see patterns of poisonings over time and to assist declaring areas of high risk. Erie will also use GIS maps to plot their cleared units—providing a powerful visual tool for outreach events and motivating staff as they see the results of their hard work.
2. Oneida creates maps that overlay units investigated with the designated high-risk areas, helping them to determine whether their LPPP inspection efforts are consistent with their identified target areas. It also permits them to tailor target areas based on need and offer education and outreach efforts to census tracts and block groups that are not as well represented.

3. DEVELOPING COMMUNITY ENGAGEMENT AND PARTNERSHIPS TO PROMOTE PRIMARY PREVENTION

Chapter 3 addresses the following evaluation questions:

1. What marketing and communication efforts have grantees used to raise awareness about their programs and the risks of lead exposure, and what information do they have about the relative effectiveness of these efforts?
2. How have grantees engaged community groups and coalitions, and what have they found to be the best strategies to initiate these relationships?
3. In what ways have grantees collaborated with other agencies, programs, and coalitions in carrying out their primary prevention activities, and what approaches have they found to be most productive?
4. What actions have grantees taken to expand their legislative and administrative capacity?

Marketing and Media

All grantees sought to create awareness and support for housing-based primary prevention and to engage residents and property owners in target areas in LPPP services. Collectively, they reached almost fourteen million individuals through a combination of news stories or paid advertisements and health fairs, letters, flyers, displays, and other forms of direct contact. (See Table 3.1 for a breakdown of outreach activities.)

Outreach activities included the following:

1. Albany County distributed flyers that included pictures and descriptions of incentives they were offering to residents to allow them to perform inspections in their homes.
2. Broome County gained media attention through its "100 Days to RRP" press release. The release generated television, print, and internet coverage and generated approximately 150 phone calls from contractors looking for RRP training information.
3. Oneida County sent letters to pediatric/family practice providers reminding them of the LPPP and encouraging referrals for children in their practice who live in high-risk areas. Through the mailing, Oneida also introduced providers to the point of care "Lead Care II" capillary lead testing device,[x] which generated significant interest among providers interested in purchasing a Lead Care II device to increase lead testing.
4. Rensselaer County purchased space at bus kiosks to advertise their program and educate the public about lead poisoning prevention.

[x] The LeadCare II blood lead test system is a portable device that delivers quantitative blood-lead results within minutes with only a finger-stick sample of blood.

Table 3.1. Reported Number of Marketing and Outreach Activities,* Through Fourth Quarter, Year Three

	Grantees that entered in Year One (N=8 Grantees)	Grantees that entered in Year Two (N=4 Grantees)	Grantees that entered in Year Three (N=2 Grantees)	All Grantees (N=14 Grantees)
Free media				
Number of Events	23	461	16	500
Estimated Audience	3,150,952	380,895	181,918	3,713,765
Paid media				
Number of Events	3,736	2,477	1,394	7,607
Estimated Audience	6,580,048	1,960,438	689,504	9,229,990
Educational events for the general public				
Number of Events	909	55	12	976
Estimated Audience	524,071	9,505	3,238	536,814
Events to enroll tenants or property owners				
Number of Events	1,974	12	3	1,989
Estimated Audience	7,584	101,085	1,350	110,019
Direct outreach to individuals				
Number of Events	5,049	38	49	5,136
Estimated Audience	27,361	1,561	6,497	35,419
Other				
Number of Events	6,662	5	1	6,668
Estimated Audience	76,456	47,157	10	123,623

Source: Quarterly Reports

Note: The Microsoft Access database contained an optional form that grantees could use to record data about each marketing event and a report that could be used to generate the total number of event and individuals reached in each outreach category. This table does not use data from those forms, however, because 5 of the 14 grantees did not report data through the database at all and those that did provided widely disparate numbers in the database and in the quarterly reports.

***Definitions: Free Media** - Print, radio, and television public service announcements, special program bulletins/newspapers. **Paid Media** - Paid advertisements in newspapers, TV, or radio; development and distribution of videos, billboards, bus signs. **Educational Events for the General Public** - Health fairs or community events outside the target high-risk areas; presentations to members of community- or faith-based organizations. **Events to Enroll Tenants or Property Owners** - Health fairs or community events in the high-risk areas; presentations to community- or faith-based organizations, landlords or landlord associations, tenants or tenant-rights associations, neighborhoods groups, and other group events specific to landlords or tenants in target housing. **Direct Outreach to Individuals** - letters, handbills, or flyers to individual housing units, target families, property owners for the purposes of scheduling home visits, inspections, or participation in LSWP training. **Other** - Information posted on websites; displays at hardware stores, libraries, building permit offices, et cetera.*

Grantees expressed some frustration at the difficulty of evaluating the success of outreach efforts, especially those that were not targeted to specific audiences. For example, Broome ran Public Service Announcements and paid media programs that were estimated to have reached over 300,000 people, but they received no phone calls that could be linked to the effort. Grantees have found that general health fairs and community lunches or social times are not as effective as incentives and partnerships with community groups that have a shared vision, a conclusion that is supported by existing public health literature. They are searching for better ways to evaluate the relative effectiveness of different outreach approaches.

Engagement of Community Groups

Grantees recognize that community support and value for primary prevention is critical to the LPPP's success. Most of the grantees have an advisory board or community coalition that supported their LPPP programs, although the coalitions differed in their level of activity and participation. Grantees suggested that creating a shared vision with other coalition members is necessary to leverage the coalition's work to advance primary prevention efforts.

Examples of community partnership include the following:

1. In collaboration with the Community Foundation of Greater Buffalo (CFGB) and other partners, Erie County assisted in a service event sponsored by Group Work Camp, a Christian-based service program. Over 400 youth and their chaperones participated in a week-long service project to help needy homeowners with painting and repair of over 70 homes. CFGB required that LSWP be used at all sites doing painting, and the work was monitored by a trained volunteer force. In addition to getting the homes repaired using LSWP, the young adults and their chaperones were educated on the dangers of lead exposure and how to make repairs in older homes properly.
2. Orange County continues to expand and strengthen its Lead Safe Orange Coalition. Outreach has been expanded to local school groups, Habitat for Humanity, and the NAACP.
3. Niagara County's partnership with Environmental Education Associates helped it receive a $100,000 lead-hazard capacity building grant from the U.S. Department of Housing and Urban Development (HUD). Broome County also successfully partnered with First Ward Action Council, a local housing agency, to receive a $100,000 HUD lead-hazard capacity building grant.

In their outreach efforts and work with community groups, grantees have found it important to respond to the challenge of diverse language needs. Where needed, grantees made printed materials and advertising available in Spanish, and most had translators available for home visits and investigations. Grantees also conducted outreach at health fairs, festivals, or other activities targeted to the Spanish-speaking community. Oneida County and the City of Utica offered one-stop seminars for property owners, with interpreters providing simultaneous translation in Spanish, Burmese, Karen, and Somali Maay Maay. Interpreters were available to assist with HUD housing renovation

applications. Onondaga County's primary prevention brochure was translated into nine languages.

Some other approaches that grantees have discovered to be helpful include:

1. Investing time in educating community agencies and representatives about the lead poisoning problem, past activities, and future intentions, with a focus on creating a path from their increased education to their active participation as partners.
2. Tailoring meeting agendas to the topics of greatest mutual interest, rather than an overview of the LPPP and a generalized request for support.
3. Developing short-term contracts with clear performance objectives for the community partner (e.g., for recruitment of property owners) and expectations about what the LPPP will provide in return.

Collaborations with Other Agencies

The grantees started with very different institutional infrastructures to support housing-based primary prevention. Some grantees had little or no lead abatement workforce capacity, little or no past relationships with their housing or codes departments, few or no coalitions, no local lead laws, and limited resources even in the health department. Others had all that capacity in place when they began. Many of the initial grantees of the LPPP already had HUD grants in place, Healthy Neighborhood Programs, and local lead ordinances. Developing this infrastructure "from scratch" and enhancing existing relationships both take time and are labor intensive. Grantees understand, however, that doing so is essential to short-term success and sustainability of the primary prevention initiative.

Table 3.2 illustrates some of the ways in which grantees are collaborating with other agencies to develop an infrastructure for primary prevention. Some of these collaborations are intended to encourage other agencies to use their mechanisms for encouraging or sanctioning owners to make their properties lead-safe. Others enhance the capabilities of both agencies through their combined efforts.

Table 3.2. Grantee Collaboration with Other Agencies

Strategy	Illustration
Changes in referral process, procedures, or documentation.	Oneida developed a new facsimile (fax) form to support the exchange of housing unit information between municipalities. With this fax form, any unit that is investigated by the LPP has its address sent over on the form, and the City's Residential Occupancy Permit (ROP) office verifies if the unit is registered and has been inspected. This process has helped to find rental units not previously registered with the City of Utica, to find patterns of non-compliance for owners undergoing LPPP enforcement proceedings, and to alert rental owners when the LPPP knows that their unit is not registered. An added advantage of this procedural change is that it illustrates to the City a benefit of partnering with the grantee.
Coordinated data collection and data	In Oneida County, City of Utica code officers and County lead inspectors use common software to document inspections and link inspection data

Strategy	Illustration
sharing with other agencies.	between the programs. Chautauqua County is developing a Mobile GIS Lead Application that will enhance their program's mapping capabilities and data tracking. It will allow risk assessors to collect and link photos and other data on each unit they visit and to track and report on the entire life cycle of individual requests for service, from the initial investigation through final remedial actions. The application will also be able to merge program data with other state and local data bases.
Joint visits with or referrals from health and social service agencies.	Although some grantees reported difficulty in achieving cooperation with social service agencies, Onondaga and New York City have strong working relationships with them. Onondaga's public health educator provides lead risk reduction training for prospective foster parents through the Department of Social Services (DSS), and has an agreement not to place a DSS-funded child into foster care until it is lead-safe. New York City reported that their relationship with the NYC Department of Homeless Services (DHS) is helped by the ability to coordinate with a medical director within DHS.
Joint staff training with health or social service programs.	New York City trains the home visiting staff of the Department of Health and Mental Health and the Asthma Initiative on visual inspections for peeling lead paint and general lead poisoning prevention awareness. These staff members then make referrals to LPPP as needed. Oneida worked with DSS to revise their dwelling survey form to include chipping and peeling paint and carbon monoxide detectors as check boxes rather than requiring staff to write in the information (which often resulted in the information being left blank).
Referrals to or from code enforcement or other housing enforcement or repair programs.	New York City and Oneida provide information on lead hazard control programs to every property owner that receives a notice about hazards in their property. NYC CLPPP works closely with the NYC housing agency, the Department of Housing Preservation and Development (HPD), which is responsible for enforcement of the NYC Housing Code and is the lead agency for the enforcement of the NYC Childhood Lead Poisoning Prevention Act (Local Law 1). When NYC identifies lead paint violations in an apartment in a multi-family dwelling, the building address is referred to the HPD which checks to see if the building is in compliance with Local Law 1. Monroe County refers to the City of Rochester code enforcement housing units identified in its targeting to homes of children with BLLs between 5 and 9.
Joint training with code enforcement or other housing programs.	Onondaga pursued approval for continuing education credit for LSWP training as part of the continuing education program for local code enforcement officers. Code enforcement officers have been invited to participate and receive continuing education units (CEUs) for completing the training. Other grantees have also found that offering CEUs is a good way to develop and strengthen relationships with partner agencies.
Agreements to improve coordination with code enforcement.	Orange County has an agreement with code enforcement in the cities of Newburgh and Middletown for the grantee to have access to the outcomes of referrals to code enforcement. This allows them to know which properties have been remediated correctly or condemned.

Strategy	Illustration
Strengthen enforcement through partnerships between LPPP and code enforcement.	The City of Albany Code Enforcement can revoke a Rental Certificate of Occupancy if repairs to occupied units cited by LPPP are not made in a timely manner. Oneida codes officers can reference PHL 1370-a(3) in their citations, which carries substantially higher fines than those associated with building code citations..
Inter-agency cooperation to provide information about lead hazards	Oneida works with the City of Utica to insure that, when any housing units are sold through a foreclosure process, the prospective owner receives information on past lead hazards and information on LSWP and LPPP offerings, including the availability of the window replacement classes. NYC has an MOU in place with HPD to support lead hazard awareness training efforts by HPD. NYC LPPP provides financial support outside of primary prevention grant funds for these training efforts.

In developing these agency relationships, grantees have found the following to be useful considerations:

1. Continue to identify areas where they can streamline scheduling, training, and purchasing across partner agencies.
2. Assess IT capacity to link and share data across agencies. If such capacity does not exist, explore using college interns or other staff to support existing IT staff in this regard.
3. Plan and budget for computer upgrades both internally and for partner organizations. As necessary, identify private, local, state, or regional grants to upgrade equipment and software.
4. Explore opportunities to reach agreements with agencies that allow use of increasing levels of sanctions, such as starting with lower penalties under code enforcement before moving to enforcement and application of the higher public health law sanctions, as a way to encourage compliance.

Expanded Legislative and Administrative Capacity

Legislative and judicial relationships can be essential to ensuring the effectiveness both of the specific primary prevention initiative and of the continuity of a primary prevention focus beyond the specific LPPP. They can also help grantees make maximum use of existing authority. For example, rental Certificate of Occupancy programs could be a useful tool in primary prevention but are often not linked to lead-based paint inspections.

The court system can also be useful in facilitating remediation either through enforcement or as an incentive to avoid enforcement. For example, Albany County issues Orders from the Commissioner to landlords who fail to complete remediation. Noncompliant landlords can be referred to the county court for prosecution by the Albany County District Attorney's Office. Erie County refers property owners in the City of

Buffalo who fail to remediate hazards to the Buffalo Municipal Housing Court. The Housing Court has proven to be an effective way to gain compliance, not just levy fines.

Where there is local legal authority, it can be used to facilitate remediation. New York City uses its authority under Local Law 1 to refer properties that have not met remediation requirements to the Emergency Repair Program (ERP) of the NYC's Department of Housing Preservation and Development (HPD). ERP makes the repairs through its contractors and the owner is billed for the cost of repairs.

One way to increase community education and awareness about lead risk and the need for primary prevention is use of a lead-safe housing registry. Lead-safe housing registries enable agencies—and renters and purchasers, in some cases—to identify units in which inspections have not found lead-based paint hazards or hazards have been remediated and cleared. Two counties (Albany and Oneida) have developed lead-safe housing registries that will be available for public use once approved by the counties' legal departments. Several other counties have considered developing registries but are not actively pursuing that effort at this time. These registries require plans for regular updates, and jurisdictions must also evaluate their potential liability for the information provided, since conditions in the units may change after clearance has been documented. Nonetheless, they provide a means of stimulating public demand for lead-safe units.

Grantees also need to develop an infrastructure for program operations that is effective and committed to learning and improvement. They need to determine which of their program activities are effective and which need to be modified to achieve program goals.

Table 3.3 shows grantee approaches in each of these areas: relationships with legislators and the judiciary, changes to codes and regulations, lead-safe housing registries, and evaluation.

Table 3.3. Grantee Approaches to Expanded Legislative and Administrative Capacity

	Renewing grantees												New grantees	
	Albany	Broome	Chautauqua	Dutchess	Erie	Monroe	New York City	Oneida	Onondaga	Orange	Schenectady	Westchester	Niagara	Rensselaer
Legislators, the judiciary, and codes and regulations														
Presentations to elected officials.	X	X	X	X	X		X	X	X	X		X	X	
Presentations to judges, prosecutors, hearing officers.					X			X		X				
Modifications to health, housing, nuisance, or sanitary code.				X	X	X	X	X	X	X				
Modifications to Certificate of Occupancy or building permit process.	X		X	X		X		X				X		
Other initiatives														
Lead-safe housing registry.														
Evaluations of LPPP programs and strategies.					X		X	X	X					

Source: Quarterly Reports, work plans, and other documents

Note 1: Presentations are those reported during Year Three. Code and regulatory modifications might have occurred in previous years. Housing registry and evaluations are reported as of the end of Year Three.

Note 2: Monroe County and New York City have and use lead registries that existed before LPPP began.

Note 3: The City of Syracuse (Onondaga County) has recently initiated action to establish a rental registry. The registry will include a provision that rental units must be free of hazards prior to being occupied

Challenges in Partnership and Community Engagement

Grantees cited a number of challenges in their partnership and community engagement efforts. Although most grantees had an advisory board or community coalition supporting their LPPP programs, many noted that they have struggled to keep boards or coalitions invigorated. Many grantees stated their intent to revive and reinvigorate these boards and coalitions in the remainder of Year Three and during Year Four. Additionally, grantees noted major challenges in evaluating the effectiveness of their partnerships. Grantees asked for assistance in evaluating the in-kind support they receive from community groups and partner agencies to track the value of these relationships more effectively. Some grantees noted challenges in preparing Memoranda of Understanding (MOUs) with partner agencies.

4. PROMOTING INTERVENTIONS

This chapter addresses the following evaluation questions: [xi]

1. What issues did grantees encounter in gaining access to housing units, and how did they address them?
2. What investigation protocols did grantees use, and how did they address implementation issues they encountered?
3. How many housing units were investigated, and what were the characteristics of those housing units?
4. How many units were determined to have hazards and cleared of hazards, and how was the identification and clearance of hazards related to other factors, such as housing characteristics?
5. What actions did grantees take to notify owners of hazards that needed to be remediated and to confirm clearance?
6. How long did it take to obtain clearance of hazards, and what factors were associated with time to clearance?
7. What were the direct and indirect benefits of the housing intervention for children?
8. What have been the cumulative activities and results from Year One through Year Three?

This chapter also includes a description of the methodology specifically related to data on individual housing units; a more general description of the evaluation methodology is in Chapter 1.

Methodology

This chapter's description of grantees' interventions to create lead-safe housing units is based on two general sources: (1) narrative descriptions in grantee work plans and quarterly reports and (2) unit-based quantitative data that grantees entered into a Microsoft Access database. At the end of the fourth quarter, they sent that database to NCHH for analysis along with the quarterly reports.

Units described in this chapter include units first visited in Year Three and units that were first visited in Year One or Year Two and carried over into Year Three for remediation or clearance. Units that were investigated in Year One or Two and found to have no hazards or that were cleared of all hazards before Year Three began are excluded from analysis in

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[xi] *The year-end evaluation report will also address the following additional question: "What actions have grantees taken to evaluate and report the costs and benefits of the housing interventions and, where analyses have been performed, what have they found?"*

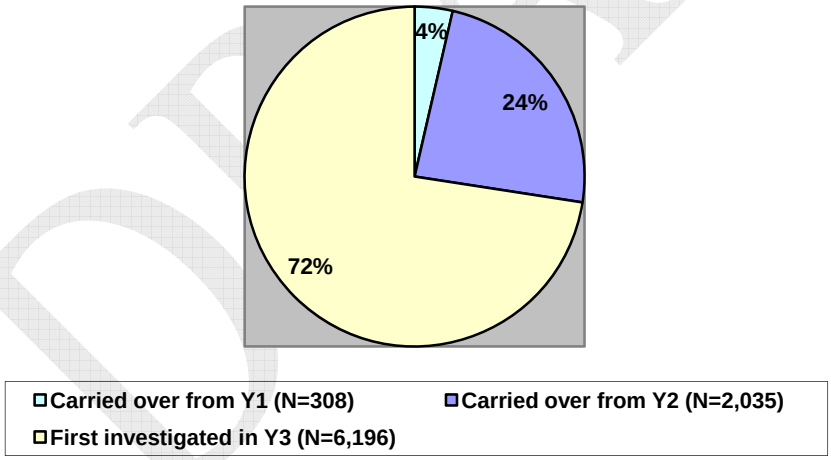
this report, except in the description of cumulative activities and results over the years. Some analyses also include 331 units in the database that have incomplete information on investigation or were not originally investigated by the grantee but are being monitored by grantees to ensure remediation and clearance. In addition, some analyses are based on all units in the database while others are limited to units first investigated in Year Three. Table and figure notes describe these distinctions in more detail.

Access to Units

Grantees first investigated or carried over from previous years a total of 8,539 housing units during this report period. Of these units, 6,196 were first visited in Year Three and 2,343 were carried over from previous years (see Figure 4.1). Most of the investigations (90 percent) had been carried out by grantees that entered in Year One (see Table D-1 in Appendix D). Of the 14 grantees, Monroe reported the most investigations by far: 3,467 (56 percent) of the total. Erie, Monroe, and New York City together accounted for 5,720 (67 percent) of the units investigated (see Table D-2 in Appendix D).[xii]

Of the 6,196 units first investigated in Year Three, Year One entrants also carried out most of the investigations (88 percent). The number of units first investigated in Year Three by Year One entrants ranged from Orange County's 136 units to Monroe County's 2,347.

Figure 4.1. Percentage of Units First Investigated or with Continuing Work in Year Three, by Year of Investigation (N=8,539)



Source: Unit-based data for all units first investigated in Year Three or carried over from previous years.

Note: There are an additional 331 units in the database that had incomplete information on the investigation or were not investigated by the grantee. For those units, the year of investigation is unknown.

[xii] Programs vary in a number of ways that need to be considered when interpreting these findings, such as: amount of personnel; level of financial resources for the LPPP; investigation strategies and approaches; and type of housing in their target area (e.g., proportion of single-family homes vs. multi-family homes).

Some grantees chose a two-step process for gaining access to units: first, an informational home visit, and then a second visit for an investigation. Others conducted part or all of the investigation at the first visit.[xiii] Grantees generally saw it as advantageous to have the informational visit and the investigation at the same time or at least within a few days of each other. Some tried to have an investigator available to come to the unit if the resident agreed, even if the educator and investigator did not arrive as a team. The primary reason for scheduling the two activities at or near the same time was that it was easier to complete the investigation while the resident was aware of the risk being described and perhaps more motivated to participate. In addition, if too much time elapses between the initial contact and the attempt to enter for an investigation, the resident may have moved to another location.

At most sites, LPPP staff conducted the investigations. Three grantees have transferred funds to other organizations for them to do some or all of the investigations. In Monroe, as previously noted, most of the LPPP investigations are performed by City of Rochester code enforcement as part of their activities under the city's lead law. Some units identified by the LPPP on the basis of a child's BLL are also referred to code enforcement for inspection and enforcement. Dutchess County has an agreement under which the units for inspection are selected by the City of Poughkeepsie building inspectors, who use housing complaints and building permit requests to identify residences.[xiv] Rensselaer has a contract with Cornell Cooperative Extension for the performance of initial inspections and inspection follow-up activities by EPA-certified staff.

Most of the grantees used incentives, such as cleaning supplies, smoke detectors, and educational coloring books and crayons for the children, as a way to facilitate access to units in some of their investigations. The overall number of units receiving incentives was not large, however. Of the 6,196 units investigated in Year Three, 17 percent (1,071) received incentives, while 82 percent (5,092 units) did not; the question was not answered for the remaining units.

The use of incentives differed greatly across grantees. In Year Three, five grantees gave incentives at 80 percent or more of the units (Albany, Chautauqua, Orange, Niagara, and Rensselaer), and Chautauqua and Niagara gave them at all units. In contrast, five grantees gave incentives at 10 percent or fewer of the housing units (Dutchess, Monroe, New York City, Schenectady, and Westchester), and New York City and Schenectady offered no incentives.[xv] In Year Two, Westchester frequently gave incentives, but changed practice in Year Three, only giving incentives to 7.7 percent. Two of the three grantees that

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[xiii] Units that received only educational materials were not counted as investigated.

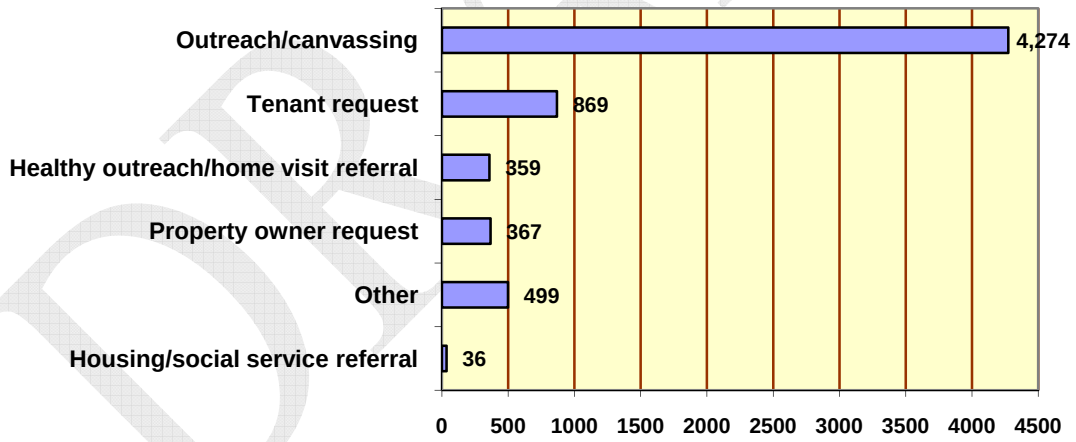
[xiv] Building inspectors perform visual assessments of deteriorated interior and exterior paint for units in target areas they had already planned to inspect. After final inspection, owners are requested to contact the grantee to perform dust wipe clearance. Noncompliant owners are referred to the grantee for a full LBP risk assessment, followed by issuance of a Notice and Demand.

[xv] Incentives would not be needed or appropriate to gain access where the investigation is being done by the code enforcements agency, as in Dutchess and Monroe.

conducted the most investigations (Monroe and New York City) were among those rarely giving incentives to gain access.[xvi]

As Figure 4.2 shows, most of the units first investigated in the first three quarters of Year Three were described as reached through the LPPP's outreach and canvassing efforts. Grantees generally used this category to describe any initiative for investigation that was not any of the other specific categories, such as tenant or owner request or referral. For example, it includes the inspections in Monroe County performed as part of the City of Rochester's existing Certificate of Occupancy activities in enforcement of its lead ordinance, which were the majority of the investigations done in that county's LPPP. It also includes investigations conducted as a result of targeted identification of housing with a history of risk hazards or on the basis of children's BLLs. Once housing units have been identified for investigation, grantees send letters or conduct door-to-door canvassing in selected area. There has been a general movement across the past three years away from mass mailings and door-to-door canvassing in broadly defined areas to more targeted approaches. Upcoming changes to the data collection system may separate out inspections done through existing Certificate of Occupancy activities into a new category to represent better the number of units investigated through direct outreach and canvassing activities.

Figure 4.2. Number of Units First Investigated in Year Three, by Strategy (N=6,196)



Source: Unit-based data for units first investigated in Year Three.
Note: Multiple sources of referral could apply in any single investigation.

Grantees continue to be challenged by how best to get into units, especially for the purpose of additional inspection or follow up on work plan progress after notices were issued. Active refusal to allow entry does not appear to be the main problem, though some grantees, such as Onondaga, have encountered property managers that refuse access to their units despite their use of a Commissioner's Order to facilitate access to inspection. Chapters 2 and 3 have described new initiatives or authority to enter when

[xvi] Both of these jurisdictions have local lead laws that authorize access to units.

grantees encounter refusal. The more common problem, however, is tenant or landlord failure to keep scheduled appointments. Albany County had not used incentives in the past but attributed their greater success in gaining access to residences this year to the incentives program. They believe the incentives have also allowed them to have a higher rate of success in completing the inspections and in obtaining referrals. The large supply of referrals from their incentive programs and partnerships with doctors' offices has meant that they have not had to target any other groups for inspections.

None of the grantees have indicated that tenant concerns about the threat of eviction by landlords if they cooperate with the LPPP were a major obstacle to entry. However, Oneida reported that several property owners had evicted tenants shortly after they became involved with the LPPP inspections. Although the grantee could not prove that cooperation with the LPPP was the reason for the eviction, they are concerned that other tenants may be discouraged from cooperation, fearing eviction. The LPPP is vigilant in following up on any suspected cases of retaliatory eviction and provides tenants with information on their rights.

Investigation Protocols

Grantees used a variety of investigative techniques, with interior and exterior visual assessments most frequently mentioned (see Figure 4.3). The only units counted as "investigated" were those in which an assessment questionnaire or techniques such as visual assessment, XRF, or dust or soil sampling were used. If a unit received only educational materials, that unit was not counted as investigated. All the units that were investigated with an assessment questionnaire were also investigated using some other technique.

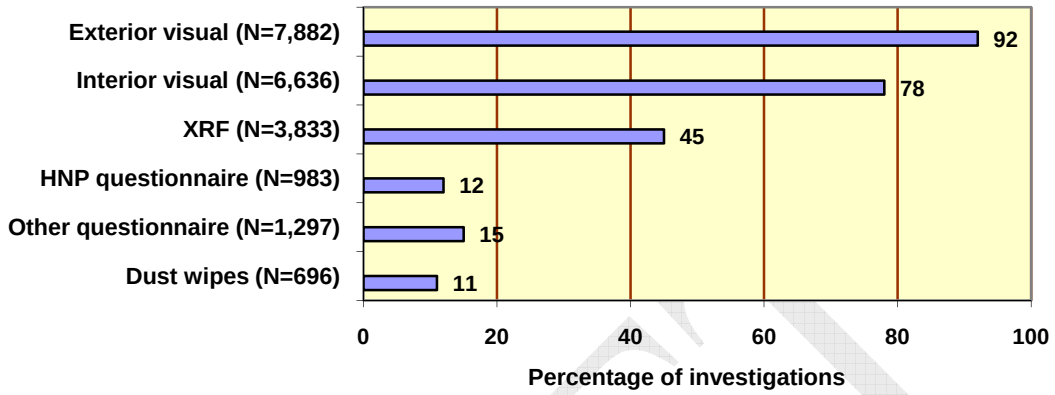
XRF testing was reported for almost half (45 percent) of the units investigated. An XRF reading was more likely to have been used; however, in units found to have hazards (89 percent) and in units cleared of all confirmed hazards (90 percent). (See Appendix D, Figure D-1.)

Overall, dust wipes were rarely used in investigations[xvii] (used in about 11 percent). Broome and Oneida, used dust wipes in the majority of investigations (more than 70 percent); Erie used them rarely (fewer than 10 percent of their investigations). Albany, Monroe, and Onondaga have policies of contingent use of dust wipes; that is, dust wipes will be used if the interior visual investigation does not show hazards, in order to confirm that dust hazards are not present. Monroe reported the most frequent use of dust wipes, with 369 units, but that number represents only 11 percent of their investigated units. Albany reported using dust wipes in 62 units, which represents about 28 percent of their

[xvii] Note: This section discusses the use of dust wipe sampling during the inspection process. It does not include information on dust wipe sampling used in during clearance.

investigations. Onondaga had the smallest number and percentage of units with dust wipes: 14 units and (three percent).[xviii]

Figure 4.3. Percentage of Investigations in Which Each Investigative Activity Was Used (N=8,539)



Source: Unit-based data for all units first investigated in Year Three or carried over from previous years.

Note: Does not sum to 100 percent because multiple investigative activities could be used in any single investigation.

In its implementation report on Year Two of the LPPP,[xix] NCHH identified as an area for additional research the question of the advantages and disadvantages of requiring a dust wipe test in housing units that do not have deteriorated paint as a way of ensuring that the units are safe from otherwise undetected lead dust hazards. Once more data are available on the results of investigations that used dust wipes in Albany, Monroe, and Onondaga, it may be possible to examine the extent to which the extra step of a dust wipe detected hazards. At this point, investigation results are still pending on most of those investigations. Some light may be shed on this question, however, by an external evaluation of the City of Rochester's lead law.[xx] That analysis found that, over a two-year period, 85 percent of over 9,000 housing units referred for dust wipe testing after passing the visual inspection also passed the dust wipe test.

[xviii] In the City of Rochester, within Monroe County, dust wipe samples are required by local ordinance if a housing unit passes the visual inspection; however, the City is not required to report to the grantee about which units had dust wipes. Monroe had data about dust wipes (whether they were used or not) for 15 percent of the units investigated.

[xix] National Center for Healthy Housing. March 2010. *New York State's Primary Prevention of Childhood Lead Poisoning Initiative: Implementation Report for Year Two, October 1, 2008 – September 30, 2009.* See http://www.health.state.ny.us/environmental/lead/programs_plans/index.htm).

[xx] Center for Governmental Research. December 2008. *An Evaluation of the City of Rochester's Lead Law: 2006-2008.*

Another potential promising strategy is the use of exterior assessments either as a sole basis for ordering issues of remediation or as a way to identify the highest-risk housing for further inspection within a target area. Two grantees illustrate each of these approaches. Erie County issues orders for remediation based on identified exterior hazards alone; most of these hazards are confirmed by a combination of visual assessment and XRF. New York City is in the process of examining the relationship between exterior and interior hazards based on a study of selected housing units. As part of this study, the grantee performs an observation of the exterior of all buildings in which lead risk assessment inspections are conducted. Inspection data will be analyzed to determine if exterior conditions can be used as a predictor of high-risk housing.

Previous unpublished research conducted by NCHH and its partner organizations indicates that an exterior visual screen—in conjunction with data on the age of housing and the demographic characteristics of families—could be used to identify properties likely to have elevated dust lead levels. The screens in the study were found to be useful in identifying the highest-risk properties among a set of older, high-risk housing[xxi], as well as among a more representative housing sample.[xxii] Numerous combinations of different exterior conditions were predictive of interior dust lead levels, suggesting that there is not one model assessment tool. Additionally, the data indicated varying results in different cities, which were most likely attributable to different housing types. If grantees choose to use an exterior visual screen, the data suggest that it would be most useful for them to develop an assessment tool that is tailored to the housing stock in their target areas. It is important to note that visual screens should be used as a strategy for targeting properties in need of immediate corrective action, and that buildings that "pass" the visual screen should not be deemed lead-safe without additional inspection and testing.

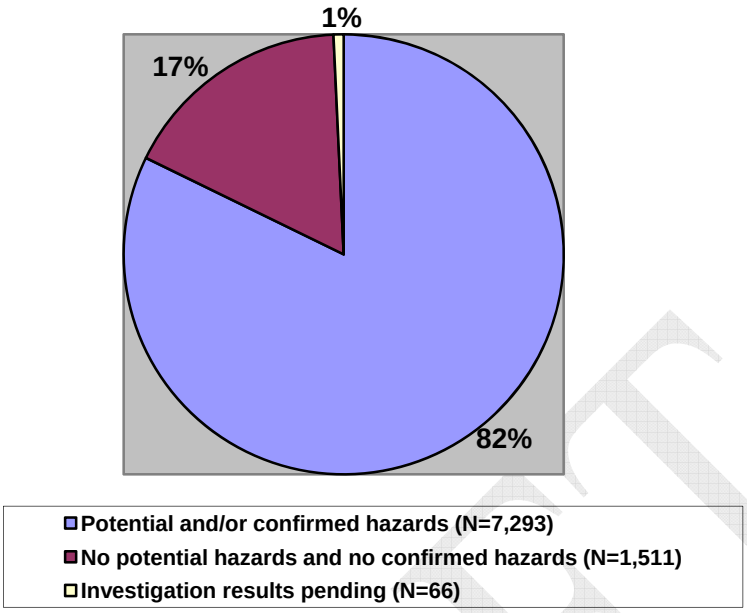
Investigation and Clearance Results

Of the 8,870 housing units that grantees first investigated in Year Three or followed from previous years to ensure remediation of hazards, 84 percent had potential and/or confirmed hazards (see Figure 4.4).

[xxi] Dixon, Sherry et al. (2006). *The Use of an Exterior Visual Screen to Identify Buildings with a High Risk of Dust Lead Hazards.* Unpublished research conducted by the National Center for Healthy Housing, ERT Associates, Centers for Disease Control and Prevention, and the University of Cincinnati. This study was funded under CDC PO 200-2003-M-10448. The Evaluation was supported by U.S. HUD Grant Nos. MDLR005-94 and OHLPR0010-95. The KKI Study was funded by the National Center for Healthy Housing. The RI study was funded by the ATPM/CDC Cooperative Agreement Research Program (Grant TS 275 14/14).

[xxii] Dixon, Sherry (2009). *Boston Exterior Visual Screen (Community Assessment Tool) Analysis.* Unpublished research conducted by the National Center for Healthy Housing and the Lead Action Collaborative.

Figure 4.4. Hazard Status of All Units in Year Three (N=8,870)



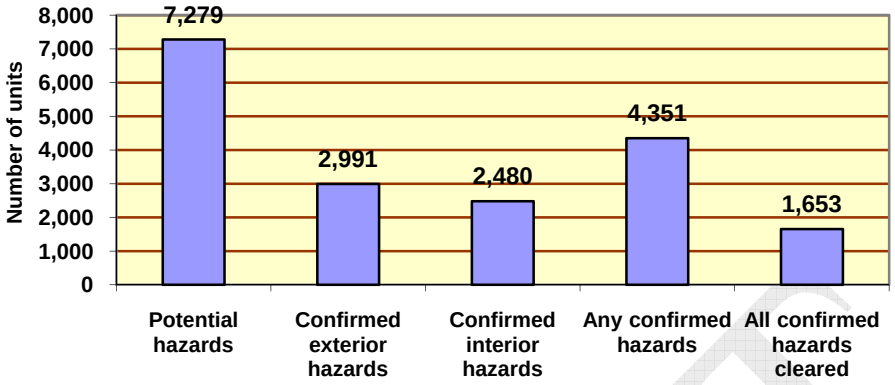
Source: Unit-based data.
Note 1: Units reported here are those first investigated in Year Three or carried over from previous years, including the 331 units where investigation data were incomplete or the grantee did not conduct the initial investigation.

Grantees reported 7,279 units with potential hazards [xxiii] and 4,351 units with any confirmed hazards [xxiv] (see Figure 4.5). Of all units investigated in Year Three or carried over from previous years, 1,653 units were cleared of all confirmed exterior or interior hazards.

[xxiii] A unit was coded as having a potential hazard if XRF readings or samples had been taken but results were pending, where deteriorated paint was observed on the visual assessment, or where deputized code inspectors found "conditions conducive to lead poisoning." Some of these units were subsequently confirmed as having exterior hazards, interior hazards, or both; some were later found not to have confirmed hazards. In addition, units first described in the Microsoft Access database used for Year One were coded as "potential hazards" until grantees updated the database to clarify whether the hazards were exterior or interior.

[xxiv] A unit was coded as having a confirmed exterior hazard if deteriorated paint was determined to contain LBP by XRF measurement or where a positive lead paint chip sample or soil sample over federal hazard levels was obtained. A unit with a confirmed interior hazard was one in which deteriorated paint was determined to contain LBP by XRF measurement or where a positive lead paint sample, dust wipe, or water sample was obtained. The unit was considered to have no confirmed exterior or interior hazards if (a) the grantee observed no potential hazards and conducted no further tests for hazards or (b) they observed potential hazards but did not conduct further tests for hazards. The latter situation sometimes occurred when the grantee was unable to get back inside the property or when the property was referred to another local agency for follow-up and remediation. In situations in which grantees required owners to remediate potential hazards without confirming the hazards through XRF; dust wipes; or paint, water, or soil samples, they could code the hazard as "confirmed" after the property had been remediated and cleared of hazards.

Figure 4.5. Potential and Confirmed Hazards and Hazards Cleared, All Units through the Fourth Quarter, Year Three (N=8,870)



Source: Unit-based data.

Note 1: Units reported here are those first investigated in Year Three or carried over from previous years, including the 331 units where investigation data were incomplete or the grantee did not conduct the initial investigation.

Note 2: Units not identified as having potential hazards might have been coded either "no" or "unknown." Units not identified as having confirmed hazards might have been coded either "no" or "not verified or still in progress."

Note 3: One additional unit in which hazards were not confirmed as either exterior or interior was also reported cleared of hazards.

As Figure 4.6 shows, for all grantees combined, interior hazards were more likely to have been cleared during this period (51 percent) than were exterior hazards (39 percent). The combined grantee data, however, obscures large differences among grantees that may help to explain these differences. Grantees differed widely in the number of investigations conducted, the pattern of exterior and interior hazards identified, and their clearance rates for each kind of hazard (see Figure 4.7 and Figure 4.8 and Table D-2 in Appendix D). For example, New York City's investigation protocol focused on interior rather than exterior hazards; it found and cleared the largest number of units with interior hazards. On the other hand, Erie County focused more on exterior hazards and cleared the greatest quantity of units with exterior hazards.

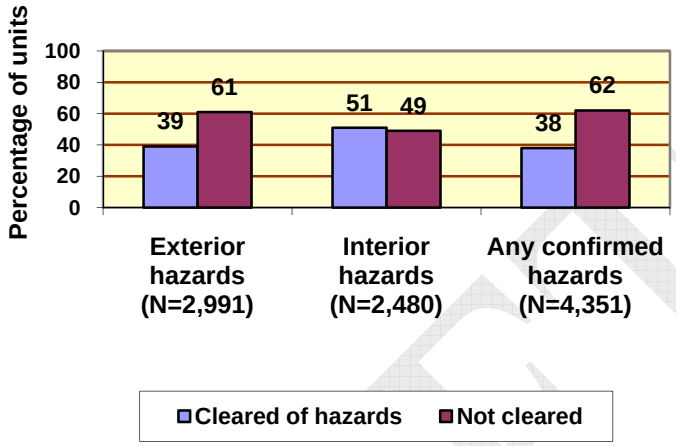
As with the interior and exterior hazards, the combined grantee data obscures large differences among grantees in the units cleared of all hazards in Year Three (see Table D-2 in Appendix D). Of those grantees that had 100 or more units with any confirmed hazards, the percentage of units cleared of all hazards ranged from six percent in Chautauqua to 82 percent in New York City.[xxv]

Owner-occupied units are often investigated as a result of a self-referral from the owner. Anecdotal information from grantees suggests that there is less leverage to obtain

[xxv] It is possible that more units have been cleared than Monroe was able to report, since it is dependent on receiving data from the City of Rochester for the majority of the units investigated.

compliance from owners that decide not to make the necessary repairs even when they are presented with the evidence of high lead in dust levels or deteriorating paint.

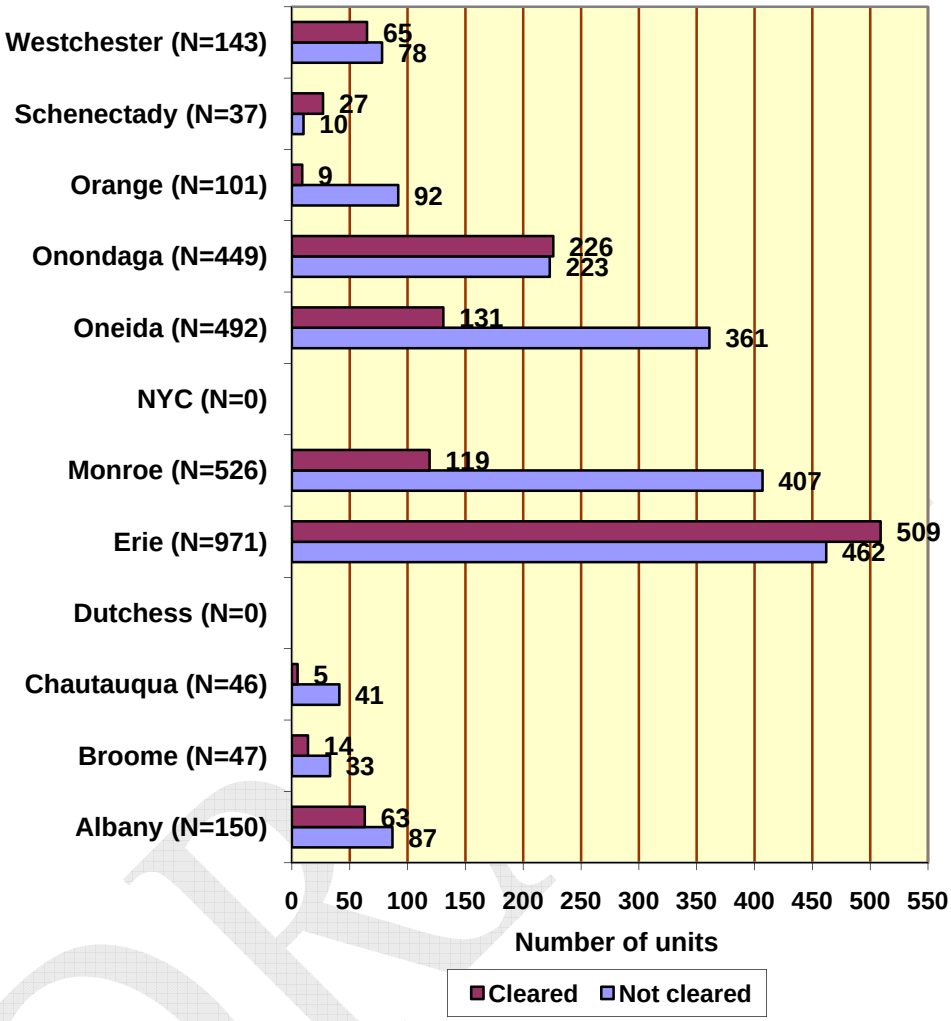
Figure 4.6. Percentage of Units with Exterior, Interior, or Any Confirmed Hazards by Clearance Status through the Fourth Quarter, Year Three (N=8,870)



Source: Unit-based data.

Note: Units reported here are those first investigated in Year Three or carried over from previous years, including the 331 units where investigation data were incomplete or the grantee did not conduct the initial investigation.

Figure 4.7. Clearance Status of Confirmed Exterior Hazards, by Renewing Grantee, through the Fourth Quarter, Year Three



Source: Unit-based data.

Note 1: Units reported here are those first investigated in Year Three or carried over from previous years, including the 331 units where investigation data were incomplete or the grantee did not conduct the initial investigation.

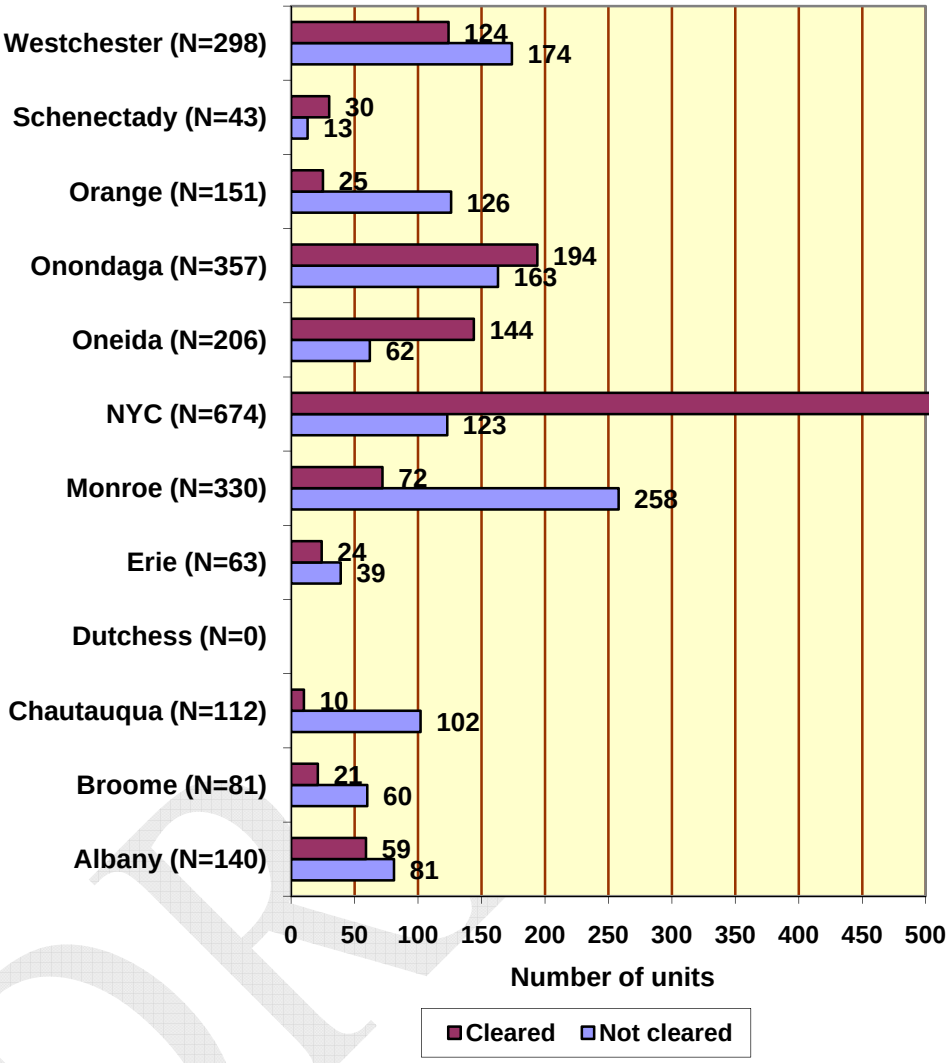
Note 2: New grantees are not included in the figure due to the comparatively small number of housing units they investigated in Year Three and the short amount of time in which units could have been cleared.

Note 3: Some units not counted as having confirmed hazards at this time may be re-coded as having hazards later, once some hazards currently coded as "not verified or still in process" are resolved.

Note 4: The absence of exterior hazards in New York City is a result of their investigations approach of focusing on interior hazards. Dutchess County has no confirmed hazards due to their use of visual inspections to trigger notification and enforcement. In the Year Three database, these hazards cannot be coded as confirmed hazards until the units have been remediated and cleared. Dutchess County identified 302 units with potential hazards.

Note 5: Weather often delays clearance by limiting the seasons in which repairs and clearance can be completed.

Figure 4.8. Clearance Status of Confirmed Interior Hazards by Renewing Grantee, through the Fourth Quarter, Year Three



Source: Unit-based data.

Note 1: Units reported here are those first investigated in Year Three or carried over from previous years, including the 331 units where investigation data were incomplete or the grantee did not conduct the initial investigation.

Note 2: New grantees are not included in the figure due to the comparatively small number of housing units they investigated in Year Three and the short amount of time in which units could have been cleared.

Note 3: Some units not counted as having confirmed hazards at this time may be re-coded as having hazards later, once some hazards currently coded as "not verified or still in process" are resolved.

Note 4: Dutchess County has no confirmed hazards due to their use of visual inspections to trigger notification and enforcement. In the Year Three database, these hazards cannot be coded as confirmed hazards until the units have been remediated and cleared. Dutchess County identified 302 units with potential hazards.

Characteristics of Housing Units: Age, Occupancy, and Past History of EBLL Investigations

Most investigations occurred in rental properties: 87 percent (7,162) of the 8,213 occupied investigated units for which tenure information was available.[xxvi] Erie County was an exception among the returning grantees: Almost half of its units investigated (43 percent) were owner-occupied. Where the investigated units in Erie were rental properties, most were properties of one or two units. In Albany, Chautauqua, Monroe, Niagara, Oneida, Onondaga, and Schenectady counties, more than half the units investigated were also in rental properties of one or two units. New York City and Westchester reported more than half of the investigated units were in larger rental properties (see Table D-3 in Appendix D).

As Figure 4.9 shows, owner-occupied units were more likely to have confirmed hazards: 72 percent of the 1,051 investigated units compared with 51 percent and 44 percent, respectively, of the one to two unit and three or more unit rental units (both $p<0.001$) [xxvii] Rental properties with one or two units were more likely to have confirmed hazards than rental properties with three or more units ($p<0.001$). In considering this finding, it is important to note that these owner-occupied units were investigated because of a referral, owner request, or other targeting strategy. This should not be seen as suggesting that, overall, LBP hazards would be found more often in owner-occupied housing.

Of the units with hazards, units in the larger rental properties were more often cleared of all hazards: 49 percent of all units with hazards compared with 36 percent of the units in smaller rental properties and 28 percent of the units in owner-occupied properties (both $p<0.001$). Rental properties with one or two units were more likely to have been cleared of all hazards than owner-occupied properties ($p<0.001$).

Grantees may need to give special attention to helping owners of those units realize the importance of making the properties lead-safe and helping them find funding.

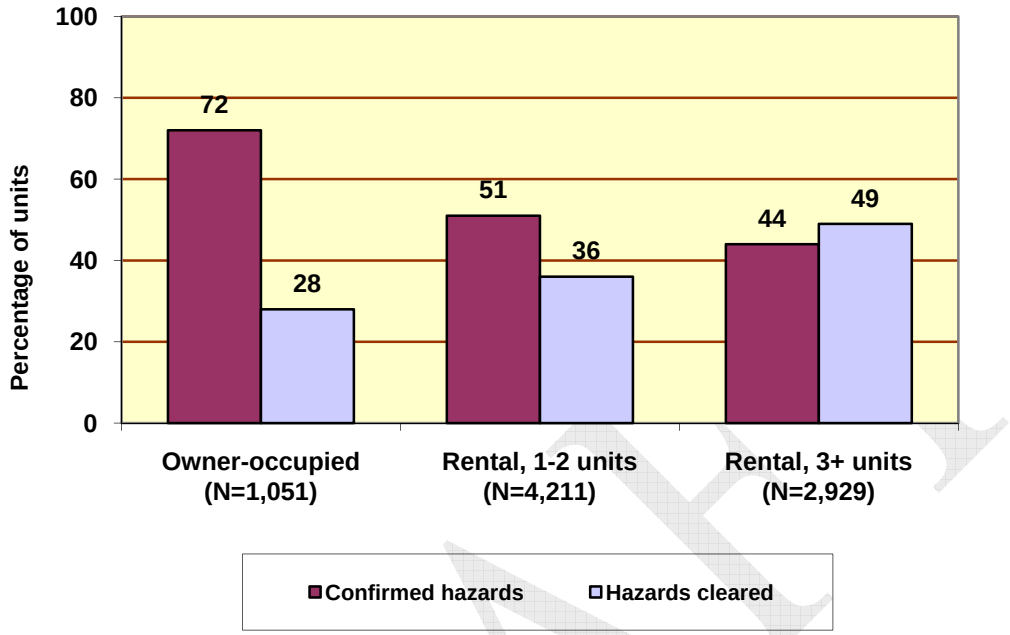
Pre-1940 properties constituted the vast majority of properties investigated,[xxviii] found to have hazards, and cleared of all hazards (see Figure 4.10.). Few of those investigated (529, about seven percent) had been built in 1960 or later.

[xxvi] Most visits conducted by the LPPP also occurred in rental properties.

[xxvii] The chi-squared test was used to test that the percent of units with a given characteristic were different between two groups of homes.

[xxviii] Pre-1940 properties also constitute the majority of properties visited by the LPPP.

Figure 4.9. Percentage of Units Confirmed to Have Hazards and Cleared of Confirmed Hazards, by Building Type, through Fourth Quarter of Year Three

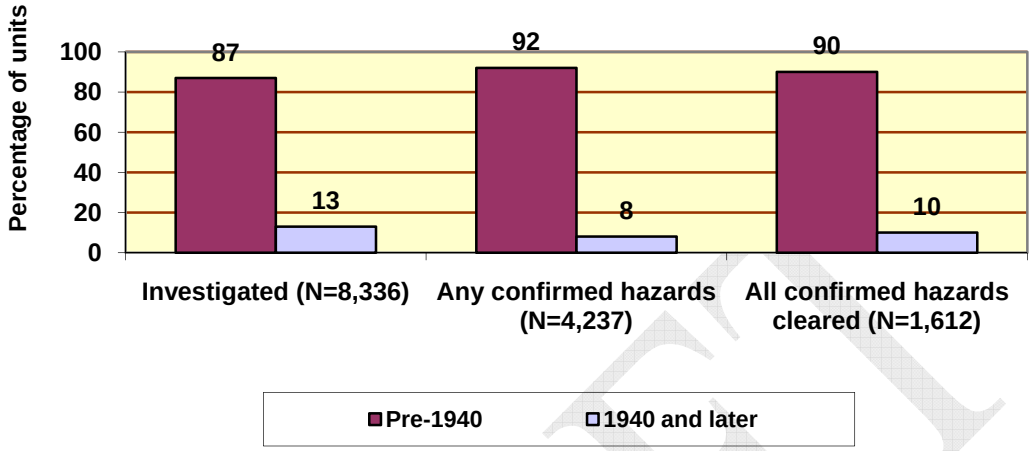


Source: Unit-based data.

Note 1: Units reported here are those first investigated in Year Three or carried over from previous years, including the 331 units where investigation data were incomplete or the grantee did not conduct the initial investigation.

Note 2: Excludes 22 investigated units in rental properties with an unknown number of units and 326 units for which building type was not reported.

Figure 4.10. Percentage of Units Investigated, Confirmed to Have Hazards and Cleared of Hazards, by Building Age, Through Fourth Quarter of Year Three



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Source: Unit-based data.

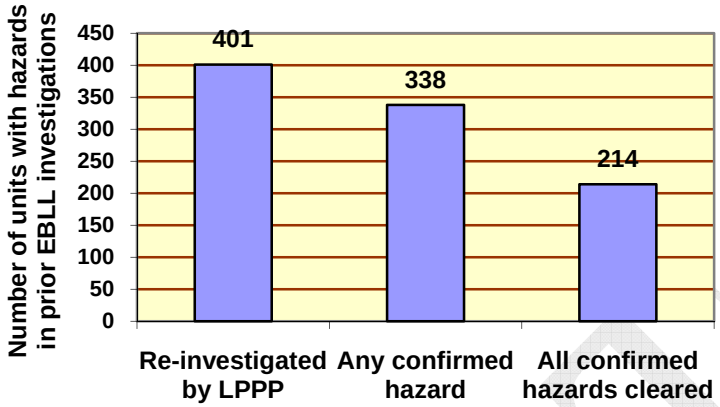
Note 1: Units reported here are those first investigated in Year Three or carried over from previous years, including the 331 units where investigation data were incomplete or the grantee did not conduct the initial investigation.

Note 2: Excludes 203 investigated units where the age of property was unknown or not reported.

Relatively few of the units investigated (or their buildings) were known to have been the subject of a previous EBLL investigation where hazards were found (401 units, or five percent). [xxix] In the 4,351 units where any confirmed hazards were found at the LPPP visit, previous EBLL investigations had found hazards in 338 units (or their buildings). These units or buildings were primarily in New York City (164), and Onondaga County (83). As of the end of Year Three, 214 of these had been cleared again (see Figure 4.11).

[xxix] If the grantee did not know whether a specific unit had been the subject of a previous EBLL investigation, information about previous EBLL investigations at the rental property could be provided as an indicator of likely hazards at that unit in the past.

Figure 4.11. Previous EBLL Investigations that Found Hazards in Units Investigated, Confirmed to Have Hazards, and Cleared of Confirmed Hazards, Year Three



Source: Unit-based data.

Note 1: Units reported here are those first investigated in Year Three or carried over from previous years, including the 331 units where investigation data were incomplete or the grantee did not conduct the initial investigation.

Notification and Enforcement

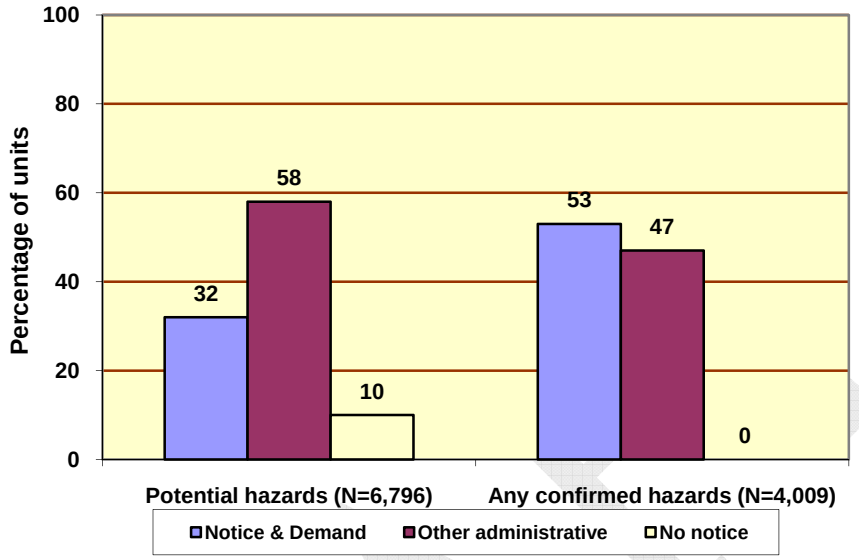
Grantees used different approaches to notifying owners of hazards that needed to be remediated (see Table D-4, Appendix D). Of the three grantees with the largest number of units investigated, Monroe and New York City predominantly used administrative notices other than a Notice and Demand when potential hazards were found. Erie predominantly used Notice and Demands. Of the remaining grantees, six used predominantly Notice and Demand and five used predominantly other administrative notices.

Within the Notice and Demand framework, grantees have the discretion to take a voluntary compliance or directive approach. Oneida County issues a Notice and Information to all owners. This document includes the results of the visual interior and exterior inspection, as well as the results of the dust wipe sampling. Only those owners who are not compliant are subject to XRF testing and issuance of a Notice and Demand. Oneida has found this a cost effective method to achieving compliance. Albany County noted that they had tried voluntary compliance (a soft notice) during Year One but they achieved less than 30 percent compliance. Now they use Notice and Demand as a first step.

For all grantees combined, some administrative notification other than a Notice and Demand was most often used for situations involving potential hazards; grantees used Notice and Demand and other notices with roughly equal frequency for confirmed hazards (see Figure 4.12). This overall pattern was influenced by two factors: (1) the predominant usage of other administrative notices by Monroe and New York City, which together accounted for over half (51 percent) of the units with potential hazards; and (2) the fact that Erie County, which used Notice and Demand, had more confirmed hazards

than either Monroe or New York City. The Notice and Demand mechanism was rarely used after the first notification of hazards.

Figure 4.12. First Approaches When Potential or Confirmed Hazards Were Found, through Fourth Quarter of Year Three



Source: Unit-based data.

Note 1: Units reported here are those first investigated in Year Three or carried over from previous years, including the 331 units where investigation data were incomplete or the grantee did not conduct the initial investigation.

Note 2: Excludes units for which information about first notice was not provided.

Grantees typically provided the notice about hazards either at the time of investigation (Dutchess and Niagara) or in fewer than two weeks after the investigation (see Table D-5 in Appendix D). There was no consistent pattern of whether notification took longer if it was a Notice and Demand or another administrative notice.

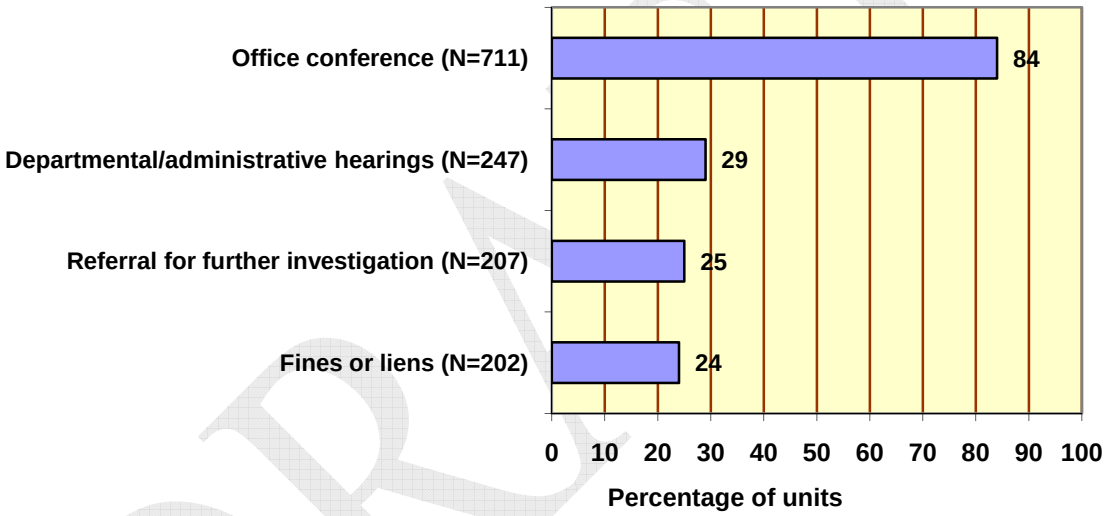
Grantees used a variety of means to enforce the requirement that owners remediate using lead-safe work practices. Most often, they required that owner work plans state that LSWP will be used. Grantees reviewed the implementation of these LSWP practices when they monitored the job sites for compliance with work plans, and also when the owners received free LSWP training along with an incentive package of materials. Requiring a work plan is helpful because follow-up can be based on the timetables in their plan. If timetables are not met, legal action or next steps can be taken. In Albany, for example, if compliance is not timely, the next step is an order from the Commissioner. If the owner is not in compliance with the order from the commissioner, the next step is court.

Some grantees described difficulty in getting owners to prepare adequate work plans. Westchester County reported success with requiring each owner or owner's representative to come into the LPPP office to discuss the work plan, which allows them

to confirm that the work plan is adequate. The meeting time and date is given along with the notice about the hazard. If they do not come to the meeting, there is a follow-up letter. If they don't come to a second scheduled meeting, they are sent to an administrative hearing, which can lead to a fine.

Grantees reported that remediation and clearance of most housing units was reached without any action beyond the initial notice or an office conference. For the 1,653 units cleared of all confirmed hazards by the end of Year Three, about one-third of the units (511 units) required no further action beyond notification of the hazards. In order to enforce remediation and clearance in the 844 units that required further action, the most frequent action was an additional office conference (see Figure 4.13).[xxx]

Figure 4.13. Additional Enforcement Actions Needed to Achieve Remediation and Complete Clearance in Units With Confirmed Hazards, Year Three (N=844)



Source: Unit-based data.

Note 1: Units reported here are those first investigated in Year Three or carried over from previous years, including the 331 units where investigation data were incomplete or the grantee did not conduct the initial investigation.

Note 2: Units might have had more than one additional enforcement action.

Note 3: Some office conferences may not have been necessary as a result of the owner's failure to comply with the initial notice but may, instead, have been a routine part of the notification and enforcement process, such as a review of the owner's work plan.

Even though it is not frequently required, knowledge that the court system can be used may help obtain compliance. Albany County issues Orders from the Commissioner to landlords who fail to complete remediation. Landlords who continue to be noncompliant can be referred to the county court for prosecution by the Albany County District Attorney's Office. Erie County refers property owners in the City of Buffalo who fail to

[xxx] For 131 of the units with complete clearance (12 percent), grantees did not report whether additional actions beyond first notification were needed in order to achieve remediation.

remediate hazards to the Buffalo Municipal Housing Court. The Housing Court has proven to be an effective way to gain compliance, not just levy fines.

Time Required to Achieve Clearance of Hazards

For units cleared of all confirmed hazards, half were cleared in about three months or less (a median of 97 days). Because some units took much longer to clear, the mean number of days from investigation to clearance was 137 days. The median number of days to clearance varied substantially across grantees: from 48 days in Monroe to almost six months (180 days) in Westchester (see table D.6 in Appendix D).

The relationship between the number of days from investigation to clearance and other factors was not always what one would expect. The only statistically significant differences were in Westchester, where units that received a Notice and Demand were cleared significantly more quickly than units that received another administrative notification, and in Erie, Oneida, and Onondaga, where clearance times were shorter in Year Two than in Year Three.[xxxi]

1. **Additional enforcement action required.** One might expect the time interval between investigation and clearance to be greater in situations where some additional enforcement action beyond the initial notice was required. This expected difference was demonstrated when examining the mean number of days: 148 days with some additional action and 130 days with none, a statistically significant difference (p=0.012). The difference in the median number of days also in the expected direction (a median of 98 days when additional action was necessary compared with a median of 96 days when no additional action was needed), but this difference was not significant (p=0.456).
2. **Rental properties compared with owner-occupied properties.** One might expect rental properties to be cleared more quickly than owner-occupied properties because owners may not have funds and resources immediately available to remediate the hazards. Erie was the only grantee with enough rental and owner-occupied properties for this comparison. The analysis showed no statistically significant difference between the 152 owner-operated properties and the 205 rental properties: medians of 110 and 121 days respectively (p=0.352), and means of 145 and 154 days (p=0.444).
3. **Larger rental properties compared with small properties**. One might also expect units in larger rental properties (three or more units) to be cleared more quickly than units in smaller properties, for similar reasons of funds and resources. New York City was the only grantee that had clearance data on enough units in large and small properties for this comparison. As expected, in New York City, the housing units in the 410 larger rental properties were cleared more quickly than the 141 units in smaller properties: medians of 69 days compared

[xxxi] A two-sample t-test was used to test that there was a significant difference in the mean times. A Wilcoxon rank-sum test was used to test that there was a significant difference in the median times. An observed significance level (p-value) less than 0.05 indicates that the difference is significant.

with 79 days and means of 94 days compared with 106 days. However, neither the mean nor the median differences were significant (p=0.195 and p=0.207, respectively).

4. **Notice and Demand compared with other administrative notices**. With the exception of Westchester, each grantee almost exclusively used either Notice and Demand or other administrative notices to inform owners about hazards needing remediation. As a result, comparing clearance times would be confounded with other factors that might explain clearance differences across grantees. Within Westchester, the 54 units that received a Notice and Demand were cleared significantly more quickly than the 65 units that received another administrative notification: medians of 84 days compared with 450 days and means of 103 days compared with 376 days (both p<0.001).

5. **Year Three compared with Year Two**. It is hard to know what to expect in comparing clearance times between this program year and last year. On the one hand, grantees might improve their procedures for encouraging remediation and documenting clearance. On the other hand, as the program continues, grantees are accumulating larger numbers of housing units from previous years that pose difficulties in obtaining clearance. The only grantees for which there were statistically significant differences in clearance times were Erie, Monroe Oneida, and Onondaga. In all three counties, units were cleared more quickly in Year Two than in Year Three (see Table D.7 in Appendix D). Additional issues cited by grantees as impacting clearance times in Year Three include the time needed for owners to attend RRP training before work can begin on a property, the impact of the current financial crisis on local health departments through layoffs and consolidation, the impact of weather on program's ability to clear exteriors during winter months, and involvement in specific public health emergencies such as H1N1 Flu,

Benefits for Children and Others

Children benefited in multiple ways from LPPP investigations and interventions. Some benefits were experienced immediately; others are likely to occur in the future. For example, future child residents living in a house that was cleared of hazards through these interventions will benefit from living in a lead-safe home.

Year Three activities affected at least 4,607 children though visits, investigations, and remediation efforts that made their parents or caregivers more aware of lead hazards and the need for remediation.

DOH asked all grantees to report the number of children living in the housing units visited and the number referred for BLL testing. Most grantees did report the number of children living in each unit (see table D.8 in Appendix D). Four counties (Dutchess, Erie, Oneida, and Monroe) were only able to do so for less than half of all units investigated [xxxii]due to the nature of their investigations. In Monroe, where investigations are

[xxxii] Monroe provided information about children for only 189 (8%) of the 2,370 units investigated.

conducted by city building inspectors, information about children is not reported to the grantee. In Dutchess, city building inspectors capture information on the number of children on the Visual Assessment form, but these data are not entered in the Primary Prevention database. In Erie, most investigations involved exterior assessments, which did not provide information about children residing in the unit. Oneida conducted 311 of its investigations through its contract with the City of Utica Codes Department. These investigations also involved exterior assessments and did not provide information about children residing in the unit.

Overall, in the 8,539 units with investigations, grantees reported the number of children in less than half of the units (3,632, or 43 percent), since Erie and Monroe counties, which had limited information about children, accounted for such a large percentage of all units investigated. In the units where information about children was provided, 2,828 (78 percent) of the units had one or more child age six or under. In NYC, 100 percent of the inspections are targeted to homes with children, since the presence of a child less than six years is a criterion for inspection.

Increased awareness of owners and tenants about lead paint hazards. Although the grantees were unable to quantify the change in information and attitudes of owners and tenants, it is reasonable to think that they learned from the experience of the investigation and, where needed, from the remediation and clearance efforts. This increased information and awareness may lead them to preventive actions that will protect children in the future in houses that they own or rent.

Creation of lead-safe housing units. Removal and stabilization of lead-based paint hazards from housing units benefits children and others living in the unit at the time. So long as the unit is maintained properly, remediation also benefits children and others who will live in the unit in the future. Data from the HUD LHC Grant Program indicate that a range of lead-hazard control treatments are all effective at significantly reducing lead levels on floors, window sills, and window troughs even six years after the lead hazard control treatments.[xxxiii] These treatments include low-level interventions (paint film stabilization and specialized cleaning of dust and, in some cases, capping of window sills and troughs), mid-level interventions (partial or full window abatement plus abatement of selected surfaces), and high-level interventions (full abatement). An evaluation of the treatments after 12 years is currently underway and will provide further information regarding the long term success of various lead hazard control treatments. Whenever possible, grantees should continue to strive to find programs and funding to replace key components such as windows and trim. Additionally, the use of interim controls stresses the need for local policies to ensure ongoing property maintenance.

As previously noted, in Year Three, grantees confirmed that remediation in 1,653 units had produced lead-safe housing. Of those units, at least 1,098 had one or more children

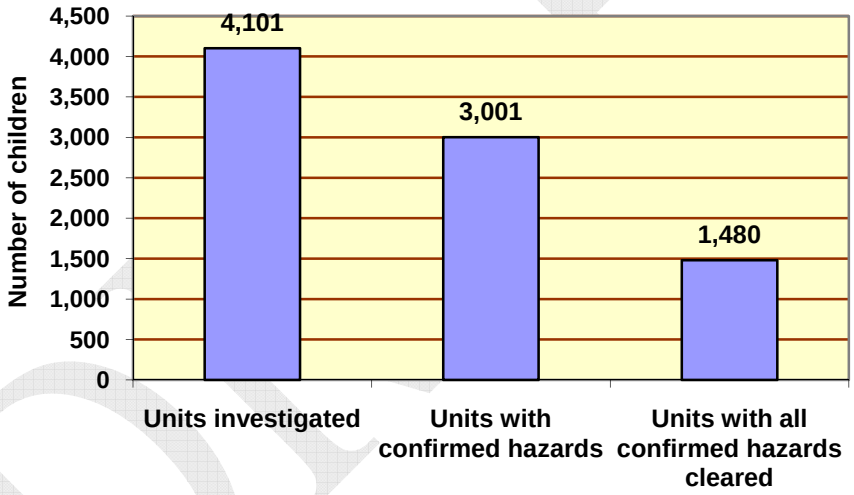
[xxxiii] Wilson, Jonathan et al. (2006). Evaluation of HUD-funded lead hazard control treatments at 6 years post-intervention. *Environmental Research* 102 (2): 237-248.

living there. As will be discussed in more detail later in this chapter, across the three years of the LPPP, at least 2,852 units have been cleared of all LBP hazards.

The percentage of investigated units in which children lived differed greatly among the grantees. Overall, 78 percent of the investigated units with information about children had at least one child living in the unit. Some grantees, such as New York City, Oneida, and Albany County had at least one child in all, or almost all (more than 90 percent), of the units investigated. Others had children living at the time of investigation in as few as 22 33 percent of the units (Dutchess).

The LPPP directly benefited at least 4,101 children six and under who lived in housing units that were investigated (see Figure 4.14). Of these, at least 3,001 lived in housing with confirmed hazards that needed action to prevent lead poisoning. By the end of Year Three, all hazards had been cleared from the units in which at least 1,480 children lived.

Figure 4.14. Number of Children in Units Investigated, in Units with Confirmed Hazards, and in Units with All Hazards Cleared, Year Three

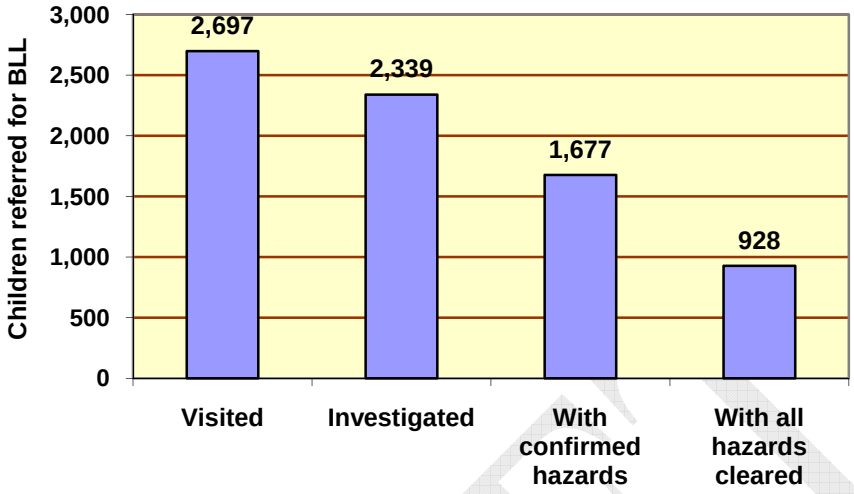


Source: Unit-based data.

Note 1: Units reported here are those first investigated in Year Three or carried over from previous years, including the 331 units where investigation data were incomplete or the grantee did not conduct the initial investigation.

Referral for BLL tests. In addition to the increased safety of the home, children benefited from referrals for BLL tests (see Figure 4.15). Grantees referred many of the children they encountered in the units for BLL tests, including children who have never had a BLL test, children who are overdue for a BLL test, and children whose parents are unsure if they have ever had a BLL test. At least 63 percent of those children in units cleared of hazards (928 of the 1,480 children) were referred for testing.

Figure 4.15. Number of Children Referred for BLL Test from Units with Different Characteristics, Through Fourth Quarter, Year Three



Source: Unit-based data.

Note 1: Units reported here are those first investigated in Year Three or carried over from previous years, including the 331 units where investigation data were incomplete or the grantee did not conduct the initial investigation.

Most of the grantees rely on their Childhood Lead Poisoning Prevention Program (CLPPP) to follow up on children who have been referred for testing. Additional efforts to follow up include Albany County's Children's Blood Lead Test Tracking Form that captures the child's name, date of birth, recent lead test (yes or no), and elevated blood lead level (yes or no). The data captured are checked monthly to see if necessary testing is being performed; if not, letters are sent to the family reminding them to have the child tested. Monroe and New York City use their existing lead registries to track children's testing and blood lead levels. Oneida monitors both families who accepted home inspections and those that refused them from their newborn program and sends out reminders to have the children tested. Those test results are tracked to provide information on the impact of children living in units who had remediation versus units where parents refused inspections.

Some grantees have purchased and begun using LeadCare II devices to increase screening rates in their community and referrals to the LPPP. In Year Three, seven grantees purchased at LeadCare II devices: Albany, Broome, Chautauqua, Niagara, Onondaga, Orange, and Schenectady. Oneida plans to use this approach in WIC clinics, to improve screening of high-risk children receiving WIC/Medicaid, and in other locations if funding can be obtained.

Improved health outcomes. Increased awareness of LBP hazards and production of lead-safe housing units are useful indicators that primary prevention may be achieving its goal of preventing the neurodevelopmental damage of children's exposure to lead. In

Year Four, NCHH and the grantees will explore ways to gather more conclusive information about outcomes for children.

Other benefits. As grantees are increasingly successful in getting housing units remediated, whole neighborhoods are being changed in appearance, especially where the units being cleared are single family dwellings or small rental properties. In addition to protecting children, this intervention can improve neighborhoods and property values. It can be useful for grantees to make sure the community sees this benefit. Documenting this change—perhaps with "before" and "after" photographs—is one way for the grantee to increase support from property owners for this effort.

Cumulative Activities and Results over Years One, Two, and Three

Since the inception of the LPPP, over 13,000 homes have been visited and over 12,000 have been investigated (see Table 4.1). Nearly 9,000 housing units were found to have potential and/or confirmed hazards; of those, at least 2,852 had already been cleared of all hazards by the end of Year Three.[xxxiv]

Almost 7,000 children have been directly affected by the LPPP through visits to their homes, and over 4,000 have been referred for BLL testing.[xxxv] In each year of the LPPP, visits have been predominantly to renter-occupied units in properties built before 1960.

[xxxiv] The number of units cleared of all hazards includes those cleared of all confirmed exterior and interior hazards and those cleared of other hazards where whether the hazard was exterior or interior was not specified.

[xxxv] Note from the previous discussion that the number of units with children and the number of children affected by LPPP is quite likely higher than what is reported here.

Table 4.1. Combined Data about Activities of the LPPP for Year One, Year Two, and Year Three

	Units by Year of First Visit				All Units Combined
	Year One	Year Two	Year Three	Year Unknown	
Access to housing units and results					
Initial visit	1,778	4,861	6,564	110	**13,313**
Investigation	1,253	4,526	6,273	71	**12,123**
Potential and/or confirmed hazards	804	3,180	4,900	37	**8,921**
Cleared of all hazards	398	1,140	1,311	3	**2,852**
Contact with children					
Housing units with children	875	1,548	2,458	48	**4,929**
Housing units with children referred for EBLL testing	518	1,181	1,863	15	**3,577**
Children in units visited	1,292	2,050	3,371	70	**6,783**
Children referred for EBLL testing	641	1,298	2,138	17	**4,094**
Characteristics of housing units: age of units					
Built pre-1960	1,059	4,288	5,951	49	**11,347**
Built 1960 or later	211	398	499	14	**1,122**
Characteristics of housing units: occupancy					
Owner-occupied	441	407	786	22	**1,656**
Renter-occupied	1,299	4,316	5,561	82	**11,258**
Vacant	11	100	210	4	**325**

Source: Unit-based data.

Note 1: Units found to have hazards in Year One or Two might have been cleared of hazards in those years or carried over and cleared of hazards in a later year.

Note 2: The increase from Year One to Year Two in number of units visited and investigated is an overstatement of the actual increase. In Year One, about 2,000 units in Monroe were visited and investigated by Rochester City inspectors with funds from the LPPP, but information about those units was not included in reports from the grantee.

Note 3: Where the grantee confirmed whether a unit had exterior and interior hazards, a unit was considered cleared of all hazards only if all confirmed hazards were cleared.

5. BUILDING LEAD-SAFE WORK PRACTICE WORKFORCE CAPACITY

This chapter addresses the following evaluation questions:

1. What role has the LPPP played in implementation of EPA's Renovation, Repair, and Painting Rule in the community, and what has been the impact of the rule on training activities?
2. How many LSWP training sessions did the grantee sponsor, what type of training did they offer, and how many individuals were trained?
3. What have grantees done to encourage broader adoption of lead-safe work practices?
4. What barriers have grantees encountered and what solutions have they found?

EPA's RRP Rule and a Changing Landscape

Improper renovation techniques and the creation of lead paint dust during renovation work have long been known to be associated with increased risk of lead exposure to children. Grantees have worked to address this problem by providing landlords, home owners, and contractors training in LSWP, which focuses on reducing the amount of dust generated during paint-disturbing work, containing any dust generated, and thoroughly cleaning the job site after work to remove any lead-contaminated dust. In previous years, the use of LSWP was largely voluntary outside of federally subsidized housing covered by HUD's Lead Safe Housing Rule. However, a major new regulation from the EPA, the Lead Renovation, Repair, and Painting Rule (RRP Rule) went into full effect on April 22, 2010.

More information about the RRP Rule can be found at www.epa.gov. In short, it applies to nearly all work conducted in homes and child-occupied facilities built before 1978. It requires both firm certification and certification of at least one individual who works for that firm as a "Lead Renovator." The rule's focus on preventing lead poisoning during renovation, repair, and paint work aligns well with the goals of the primary prevention program and afforded grantees opportunities to combine messages or promote RRP in their communities to further primary prevention program goals. However, the additional requirements of RRP, especially the requirements for training programs to be accredited and regulated by the EPA, posed additional barriers for grantees to address.

In prior years, nearly all LSWP training conducted by the grantees (91 percent in FY09) used the joint HUD/EPA LSWP curriculum. This curriculum was both inexpensive and relatively easy to teach, with few supplies required, and its delivery was unregulated. Beyond a requirement to stick to the published curriculum and offer an exam that students had to pass, there were no requirements for class size, instructor qualifications, or class registration. Grantee staff or any number of potential partners could offer the LSWP class relatively easily and often at no or low cost to the student, and students would be recognized by HUD as having the necessary training for compliance with the HUD Lead-Safe Housing Rule.

In contrast, RRP training is highly regulated with strict oversight from the EPA. To teach an RRP class, an instructor must work with an accredited training program. The process of becoming an accredited program requires an extensive application to the EPA that presently takes three to six months for the agency to review. Once accredited, the training program must meet EPA standards for locations where the class is taught, notify the agency in advance of a scheduled class, teach two hours of hands-on activities that require a substantial amount of supplies, and maintain a student-to-teacher ratio within their accredited range (often 25:1 for the lecture and 6:1 for the hands-on). As a result, the cost associated with providing or contracting for someone to provide the RRP class is likely to be substantially higher, especially on a per-student basis.

Grantees were faced with a number of decisions as to how to continue to ensure a supply of trained contractors in their communities. The unregulated HUD/EPA LSWP curriculum, while insufficient to qualify students as RRP certified renovators, is not completely without utility. Most of the basic work practices—limiting the amount of dust generated, containing dust generated, and cleaning up thoroughly—are essentially identical. Do-it-yourselfers, doing work without compensation in their own homes, are not required by law to take the RRP class and may get all the necessary knowledge to work safely from the older curriculum. Students completing the old class are still qualified for work on HUD jobs, so long as their supervisor is RRP-certified. Those who have completed the HUD/EPA LSWP class are also eligible, at least for the time being, to become RRP-certified through a four-hour refresher class from an accredited training provider, which is less cost-intensive than the full RRP class. On the other hand, with most potential students (landlords and contractors) required to be RRP-certified in order to work legally, and the fact that both the old HUD/EPA LSWP course and the RRP initial course are eight training hours, many students would rather invest the single day of time in the RRP course that will meet all legal requirements. Additionally, grantees who are looking for property owners to correct lead hazards in housing and who rightly do not want to turn a blind eye toward the federal regulations need to ensure that those performing the work end up being RRP-certified, not simply trained in LSWP.

Training Accomplishments

During Year Three, grantees offered both HUD/EPA LSWP classes and the newer RRP classes. Nine of the 14 grantees—the majority—offered both types of classes during this period. Three grantees, Dutchess, Niagara, and Oneida, offered only RRP classes, while two, Orange and Westchester, offered only the HUD/EPA LSWP classes, although both are considering offering RRP in the future (see Table D.9 in Appendix D).

While the majority of grantees offered classes using both curriculums, there was a pronounced shift towards RRP classes. Whereas 91 percent of students trained by grantees were trained in the HUD/EPA LSWP class in the previous year, in Year Three, as shown in Table 5.1, of the 3,448 individuals trained, a total of 1,377, or 40 percent, were trained in a newer RRP class, leaving about 60 percent to have been trained in the HUD/EPA LSWP curriculum. The progression is even more noticeable looking at the quarter-to-quarter numbers. While nearly all training classes in the first quarter were HUD/EPA LSWP classes, the percentage of students taking the classes with the older curriculum fell to 76 percent in the second quarter. By the third quarter, RRP actually

edged out HUD/EPA LSWP courses, with just over 50 percent of students. In the fourth quarter, the percentage of students taking the RRP course rose to 54 percent.

Table 5.1. LSWP Training Sessions and Individuals Trained by All Grantees, through Fourth Quarter of Year Three

Type of Training	Number of Sessions	Number of Individuals Trained
EPA/HUD LSWP curriculum	106	2,070
EPA Renovator curriculum (RRP)	104	1,377
LSWP presentations not using EPA/HUD curriculum	3	1
Lead-safe weatherization	0	0
EPA-certified abatement worker/supervisor	0	0
TOTAL	213	3,448

Source: Quarterly reports.

Note 1: Some individuals might have received more than one kind of training.

Note 2: The EPA Renovator curriculum includes both an eight-hour initial class and a four-hour refresher class that would be attended by those who have had previous LSWP training. RRP certification can be obtained either by completing the eight-hour class or by completing a four-hour refresher course and LSWP training.

Note 3: Data do not include training programs that have become self-sustaining through local partnerships with community colleges..

As would be expected from the regulatory requirements on student-to-teacher ratios, it took more classes to reach the same number of participants when teaching RRP as compared to the HUD/EPA LSWP curriculum. While the average EPA/HUD LSWP class offered by a grantee had 20 students (2,070 students in 106 classes), the average RRP class was attended by only 13 students (1,377 students in 104 classes). The increased number of classes required to reach the same number of individuals has important scheduling and cost implications for grantees both in the current and in future grant years.

As in previous years, a small number of grantees reported the most training paid for with LPPP funds. New York City, Albany, Monroe, Dutchess, and Onondaga combined represented a total of 2,340 students, over two-thirds of the total number trained. During Year Three, only one training session other than the EPA/HUD LSWP and RRP classes was reported on the quarterly reports, although Oneida also reported offering classes in window replacement.

The majority of grantees used contractors or partners, such as Environmental Education Associates (EEA), Cornell Cooperative Extension, or CNY Environmental Institute, to instruct the classes. Despite the partner's handling the actual instruction, grantees reported making substantial investment of time and resources to facilitate the classes, either through arranging for local locations to hold the classes, or through registering participants and addressing cancellations, waiting lists, and the like.

Grantees reported various ways in which they encouraged participation in training. New York City and Oneida County conducted LSWP sessions in Spanish. New York City also modified the course testing procedures to address low literacy levels for Spanish- and English-speakers. Most offered the training free or at reduced cost and took steps to

schedule the training when it would be most convenient for participants to attend. Some offered incentive packages to participants who completed the training. Albany, Rensselaer, and Schenectady counties coordinate their LSWP and RRP training in order to maintain ongoing training throughout the year for residents of all three counties.

Several grantees reported that the combination of the awareness of the RRP Rule and the actions they took to encourage participation in training resulted in a great deal of demand and no problems in identifying adequate numbers of students to fill classes. Initially, even classes using the HUD/EPA LSWP curriculum, which does not qualify a student for certification, appeared to receive increased interest. Broome, New York City, Onondaga, and Westchester all noted increased interest in the LSWP classes at the time of peak interest in the RRP Rule. However, as RRP-specific classes became more readily available, several of these grantees noted a decreased interest in taking a class using the older curriculum. Broome noted, "…when Lead Renovator courses were actually available locally (through EEA), the interest in LSWP classes dropped off completely. We couldn't get more than four people in a class, so our LSWP courses were cancelled." Westchester noted that some people even showed up to an LSWP training session only to walk out when they discovered it would not qualify them for RRP certification, leading Westchester to work with partners to ensure they were giving clearer descriptions of what the LSWP course would and would not achieve. New York City, while noting some waning of interest in the LSWP course, was able to keep classes well attended, partially a result of targeted marketing of it, such as to workers of firms who already have a supervisor RRP-certified and by encouraging participants of the previous LSWP classes to refer their colleagues.

Grantees are taking different approaches toward providing or funding training or, instead, facilitating access to training but not funding all of it. Some grantees see a move toward encouraging and facilitating training, rather than paying for all of it themselves, as part of an emphasis on sustainability of the primary prevention initiative. Oneida, for example, worked with Mohawk Valley Community College in their Center for Corporate and Community Education to add RRP classes to their offerings at a location near target communities and provided tuition vouchers to owners of units enrolled in the program. Oneida also worked with the local Workforce Investment Board, to offer the RRP class to disadvantaged young adults to help build their job skills, addressing both jobs and healthy housing concerns, and Dutchess partnered with Rebuilding Together of Dutchess County, a volunteer housing rehabilitation organization. In both cases, the partners helped to cover the cost of the training while the grantees provided locations and logistical support.

On the other hand, some are moving toward offering RRP training with LPPP staff. Erie County received EPA recognition in March for an EPA-Accredited Training Program, meaning program staff can offer the eight-hour RRP class and produce certified renovators. Orange County reported that they are working toward submitting an application to EPA, and Westchester is also exploring offering the RRP class using their staff.

Encouraging Broader Adoption of Lead-Safe Work Practices

In addition to providing or facilitating training, grantees worked to integrate lead-safe work practice requirements into broader practice in their communities. While grantees in previous years had worked with local code enforcement and other authorities to help encourage the use of LSWP and create voluntary lists of contractors trained in lead-safe work practices, the legal requirements of RRP gave these efforts a boost. No longer voluntary, grantees were able to help push the recognition of the rule's requirements in other governmental programs. Although federal law leaves enforcement of the RRP Rule in the hands of the EPA and states that voluntarily assume responsibility for the rule (which New York has not), there is no legal prohibition to localities either adopting the RRP Rule's requirements into their own codes so they can be enforced locally or ensuring contractors have the federal certifications prior to working with local programs.

Several grantees reported meetings with local officials to explain the RRP Rule's requirements. In Erie County, program staff reported meeting with 28 building departments across the county to discuss the RRP Rule and held an in-service training on lead hazards and lead regulations for local government staff. New York City worked with other city agencies to clarify the overlap between RRP and the existing LSWP requirements present in Local Law 1, in addition to meeting with the EPA Region 2 about enforcement issues within the city. Albany has been working with county code enforcement to encourage them to cite peeling paint as a code violation, which would require any corrections to be completed in accordance with the RRP Rule. In Westchester, the Department of Consumer Affairs has existing licensing requirements for contractors in the county. As a result of communication from the grantee, they are now distributing information on the RRP Rule to licensed contractors. Schenectady reported that the Schenectady City Code Enforcement Office is going a step further, requiring proof of proper lead trainings or future registration for trainings as a prerequisite to permit issuance. Such linking of RRP certification to permit issuance has potential to increase compliance rates substantially and is worth broader consideration by other grantees.

Working beyond local government, several grantees also worked to spread information about the rule to key constituencies and regulated entities. In Albany, for example, the program met with professional or trade organizations, including the Capital District Association of Rental Property Owners, to provide details on the requirements of the RRP Rule. Broome reported substantial media attention to the rule resulting from a "100 Days to RRP" press release aimed at increasing awareness about the rule. Erie provided information on the rule to thousands of individuals at the Buffalo home and garden show, while Oneida included information on the rule in property owner seminars, direct mailings to contractors, and in press releases and public service announcements. This increased awareness may translate to increased compliance with the rule's requirements, although there is no available metric of compliance rates to assess the impact.

Recognizing that it was not always easy for a homeowner or landlord to find a contractor with LSWP training, several grantees proposed to develop websites providing a list of trained entities or otherwise assist in linking LSWP-proficient contractors with interested clients. The implementation of the RRP Rule, however, has created a number of

difficulties with this list. Oneida wanted to ensure that any listed contractors were fully legal under the federal requirements prior to listing them. While the individual renovator becomes certified merely through the completion of the eight-hour class, the renovation firm (or employer) needs to complete an EPA application process. This process, which can take several weeks or months, has delayed the grantee from being able to list contractors as certified. Broome decided that, given the EPA requirements and the existence of an EPA website where property owners may search for a RRP-certified firm by location, there was no need for a local listing. The county now just refers those looking for certified contractors to EPA's site. Dutchess, while still maintaining a local webpage, discovered a number of barriers, including getting permission from contractors to be listed and having staffing resources to keep it current. As a matter of practice, it largely relies upon the EPA's database. Grantees may wish to consider what value may be added from a local lead-safe contractor listing given the ability of EPA's website to provide local results.

Addressing Barriers and Finding Solutions

As grantees sought to offer training and encourage wider adoption of LSWP, they encountered several barriers and developed solutions similar to those of previous years: difficulty in moving a contracting process along in a timely fashion, the difficulty in students' reticence to take a full day off work to participate in the training, and the need to address multiple languages. The latter two difficulties were addressed, as described above, through scheduling classes on weekends and offering the classes in Spanish and well as English. Grantees also continued to develop strategies for identifying and reaching out to potential trainees. For example, several grantees promoted RRP training among those who had previously taken the HUD/EPA LSWP course.

The RRP requirements created new issues for grantees to address because there was an option for students to become certified either by taking the eight-hour RRP class or by taking a combination of the eight-hour HUD/EPA LSWP course followed by the four-hour RRP refresher. New York City mass-mailed participants who had successfully completed a LSWP course to inform them that RRP had come into effect and to provide information on local training providers who offer the four-hour refresher course. Albany County took this approach a step further, deciding that rather than offering the eight-hour RRP class, they would encourage students to take the eight-hour HUD/EPA LSWP course followed by the four-hour RRP refresher to achieve EPA certification. This decision was based on the fact that their provider could train 50 students at a time for LSWP, 24 at a time in a four-hour RRP refresher course, but only eight at a time in the eight-hour RRP course. Therefore, with two days of instruction time, a total of 48 individuals could become certified through the combination of a HUD/EPA LSWP course and an RRP refresher, compared with only 16 trained through initial eight-hour RRP classes. As a result, it was less costly for them on a per-student basis to offer the HUD/EPA LSWP in combination with a refresher course than to offer an initial RRP course, provided the student is willing to spend an extra four hours away from work. Grantees wishing to consider this model, however, should recognize that the EPA has proposed eliminating after July 2011 this "grandfathering" option that allows individuals who have been previously trained in LSWP to become certified through a refresher class.

A new difficulty caused by the RRP Rule's implementation was that it slowed down grantees' processes for addressing hazards in properties they inspected. Although they recognized that in the long term the required EPA Renovator training should reduce lead poisonings due to unsafe work practices, in the short term it forced the LPPP to provide longer periods for repairs when an owner wishes to conduct the work themselves. While Renovator classes are scheduled several times per month, dependent upon the date they receive their Notice and Demand or Notice and Information, it can slow down the start of remediation work. Especially in the early months of the rule being in effect, a shortage of area contractors who had completed the EPA certification process further delayed training for those intending to do the remediation. Grantees believed this problem would largely dissipate as larger number of contractors and landlords became trained and certified under the rule.

6. SECURING LEAD HAZARD CONTROL FUNDS

This chapter will address the following evaluation questions:

1. In what ways are grantees coordinating with HUD Lead Hazard Control grant programs in their communities?
2. What other sources of funding for remediation have grantees identified?
3. What challenges have grantees faced in linking property owners with funding, and how have those challenges been addressed?

Coordinating with HUD Lead Hazard Control Grant Programs

Grantees continue to describe lack of funding for remediation as the greatest obstacle to clearing lead hazards in the units they investigate. Where the HUD Lead Hazard Control grants are available, they are seen as a primary source of funding.

Most of the grantees have LHC grants available; some grantees administer the funding directly while in some jurisdictions the funding is administered by a partner agency. Nine of the 14 have LHC grants at this time, but there is some uncertainty about continuation of the grant in Oneida County (through the City of Utica). In January 2011, HUD awarded over $17 million in lead hazard control grants to NYS. The awardees included:

- Broome County Health Dept. $2,100,000
- Westchester County $1,749,639
- City of New York Dept. of Housing and Preservation and Development $4,500,000
- Onondaga County $3,100,000
- City of Schenectady $3,212,641
- City of Syracuse $2,947,266

This is in addition to funding received from HUD by Broome and Niagara counties for capacity building in the prior year.

All grantees whose communities had LHC grants reported informing owners of units with hazards about the LHC grants. For example, in Onondaga, the grantee works to promote the City of Syracuse Lead Program widely with the families they serve through community outreach and education activities. In each letter of Notice and Demand, the grantee includes a City of Syracuse Lead Program brochure.

In addition to informing property owners about the LHC grant, some grantees have taken a more active role in helping them apply for grants, but with mixed success. For example, Chautauqua County did not find their assistance was very helpful to potential grant applicants, while Oneida found their event to be successful. They arranged an event at a local community college with refreshments and folders of information, trying to make the experience as user-friendly as possible. The presentation was interpreted into five

different languages at the event. Flyers were also prepared in multiple languages and residents were assisted with applications at the event.

To determine the extent to which LHC grants have been used for LPPP-required remediation, NCHH attempted to find out from grantees whether each unit with hazards had obtained LHC funding for remediation. The way the data were requested, however, made it difficult for grantees to report completely.[xxxvi] Of the 1,653 units cleared of all confirmed hazards, grantees were able to report only 15 units that had received funding from LHC, but it is quite likely that this is an understatement of the funding received.

Other Sources of Funding

Where grantees have identified sources of funding in addition to the LHC grants, they have attempted to make property owners aware of them, primarily through printed materials. For example, in Onondaga, the brochure distributed with each Notice and Demand includes a resource guide that includes not only the City of Syracuse Lead Program but also a list of other local programs that provide supplies or assistance with home improvements and weatherization.

New York City may have the most ambitious plans for informing the community about resources available. During Year Two, the grantee, working in collaboration with the city's Department of Housing Preservation and Development (HPD) and Neighborhood Housing Services (NHS), developed a brochure to let people know about the financial resources that are available for remediation. This brochure was printed during the first quarter of Year Three, with the objective of distributing 20,000 of them by September 30, 2010. Distribution included a mass mailing to 11,000 licensed home improvement contractors. In addition, three community-based organizations distributed 8,500 brochures. NHS and HPD distribute the brochures to building owners in the low-income communities where they work. (Building owners must apply to HPD for several of these loans.) As of September 30, 2010, the New York City LPPP, together with CBO partners, had distributed over 23,000 financial brochures. The brochures are available in English and in Spanish.

Grantees have also tried to identify additional sources of funding for remediation. LHC grant programs account for less than 10 percent of all available federal funding for housing repairs, and nonprofit community development corporations and faith-based organizations also have a role in identifying strategies to help low-income owners with remediation, such as forgivable loans, access to discounts through bulk purchases, etc.

[xxxvi] They were asked to wait until a unit had been cleared of all confirmed hazards before reporting on whether the unit was referred to LHC for funding and, if so, whether funding was received. The lag between identifying the hazards and getting all hazards cleared reduced the reliability of the reports about funding. In addition, grantees reported that they did not have a good source of information about whether owners completed the applications for funding and, if so, if they were funded. Grantees also interpreted the question about "referral" to LHC to mean that the owner was given information about the grant program but not necessarily given any further assistance in applying.

Few grantees reported progress in building new relationships with other sources of federal support, such as Community Development Block Grants (CDBG) or weatherization programs, even with the implementation of the federal economic stimulus program in 2009. Many grantees sought to build stronger relationships with their weatherization programs, especially for the purposes of window replacement, but progress in this area has been slow. The necessity to comply with EPA's RRP Rule has actually delayed some window replacement initiatives because of the need to have work performed by EPA-certified renovators.

An important regulation to increase the stock of lead-safe housing in a community is the "Lead-Safe Housing Rule" that details lead safety standards for federally-assisted housing. This policy requires all federally-funded rehabilitation to assure lead-safe work practices and lead-safe housing as a part of their rehabilitation. Grantees report that it has been challenging for them to work in partnership with CDBG and HOME programs to assure compliance and to track this housing as a part of their registries and overall prevention efforts.

Some grantees have reported modest success with securing foundation funding, including grants for equipment, software, and evaluation. The Community Foundation of Greater Buffalo (CFGB) works with Erie County to provide additional resources to home and property owners in the target high-risk areas. CFGB is also facilitating the grantee's partnership with AmeriCorps to train disadvantaged youth in LSWP and/or RRP requirements. Their training includes working to remediate hazards in properties cited by the grantee. Excellus BlueCross BlueShield provided a grant for high-efficiency particulate air (HEPA) vacuums to Oneida. In Monroe County, the Greater Rochester Health Foundation has funded a one-stop shopping approach to packaging funding (federal, state, and private) for individual properties, using a local community action agency as the site for this service.

New York City continues to use its authority under Local Law 1 and the NYC Health Code to refer properties that have not met remediation requirements to the Emergency Repair Program (ERP of the NYC Department of Housing Preservation and Development (HPD). ERP makes the repairs through its contractors, and the owner is billed for the cost of repairs. New York City also refers units with window guard violations to the Window Falls Prevention Program.

Grantees frequently describe their local coalitions as a resource to identify funds. For example, both Orange and Rensselaer counties described plans to use local coalitions to research funding sources. More expansively, grantees are encouraged to work with program partners to leverage service systems such as code enforcement which can be viewed as a valuable resource.

At a state-wide conference of LPPP grantees, assistance in identifying funding resources was identified as a key area of need for technical assistance. In addition to compiling a list of available federal funding resources, grantees might benefit from assistance on how to become more active participants in community development planning and how to compete successfully for federal housing support. Continuing and expanding current

grantee efforts to make lead primary prevention a higher priority with local housing agencies may also have a positive effect on funding opportunities.

Challenges in Linking Property Owners with Funding

Challenges in helping property owners fund remediation arise from many sources, primarily the overall amount of funding available but also the challenges specific to using the LHC grant.

Issues with using the LHC grant to fund remediation include the following:

1. Successful LHC programs often have a waiting list of pre-qualified units, limiting the number of units identified by the LPPP that can qualify for funding and complete remediation in a timely manner.
2. Units located in historic districts require even longer times for clearance due to issues related to replacement of windows.
3. Many LHC grants are perceived as more available to owner-occupied units than to rental properties. Although HUD sets no such restrictions, local grantees may choose to restrict services by property type.
4. Additional delays may occur in obtaining funding for renter-occupied units because of tenants' reluctance to provide the income information required for LHC grants. At least one grantee has addressed this issue by developing a process for the tenant to send financial information directly to the grant program without sending it through the landlord; other grantees have expressed interest in establishing similar processes.
5. The costs of necessary repairs may exceed the resources of the grant program or the value of the property, and owners may not qualify for other loans.
6. Owners may be unwilling to take on the forgivable loans that are part of many grant packages.
7. Successful enrollment in the LHC grant may delay final remediation and clearance of hazards beyond what was originally anticipated under the Notice and Demand or other notification requirements. Grantees have addressed this issue by requiring the property owner to complete interim controls to reduce lead hazards until more permanent work can be completed.

Current grantees are well aware of the need for additional resources to support remediation. In fact, grantees have universally requested that DOH lift the restrictions on using grant funds for lead hazard control. In interviews with NCHH, grantees suggested several strategies for the future, including setting aside a percentage of LPPP funding for planning purposes, providing greater assistance with identifying private sources of funding, allowing regional grant applications, and including more time to meet collectively with nearby grantees to explore other regional approaches. While all grantees made more efforts to build partnerships with housing-based organizations, they found these agencies the hardest to address and the least aware of the priorities of the LPPP.

Grantees used some of the following strategies for securing resources:

1. Working with program partners to identify or expand funding options for LHC.
2. Identifying the housing organizations that need to be part of primary prevention planning from the very beginning.
3. Understanding how housing rehabilitation funding is allocated in their communities.
4. Documenting the expected costs of lead-safe repairs in order to reduce community apprehension.
5. Actively engaging in the regional consolidated planning process to prioritize lead hazard control for funding.
6. Applying alone or in partnership with other agencies or community-based organizations, for federal, state, or private funding.
7. Securing additional revenues to support their operations (such as recovering costs of repairs through liens or fines).

7. QUANTIFYING PROGRAM COSTS AND BENEFITS

As a part of the final report requirement, grantees must detail how they used their funding to achieve the goals of the work plan. This analysis is intended to serve as a self-assessment and to identify cost-effective practices. Although the format was optional, technical assistance and training was offered to programs this year to assist them with the analysis. Conducting cost analysis is important because it can provide support for program funding and expenditures by detailing the return on investment. The process of conducting cost benefit analysis has a collateral benefit of facilitating process improvement as component parts of an intervention are analyzed.

True cost benefit analysis is an economic evaluation that calculates program costs and outcomes in monetary terms. Net benefit can be calculated by subtracting the cost of an intervention(s) from monetary health and environmental benefits. As primary prevention programs work toward conducting the gold standard of cost benefit analysis, they started by conducting a cost analysis. This entailed quantifying the value of resources to implement intervention(s) and linking the cost to program outputs or activities.

Activities

Westchester Pilot Project. As a part of training and technical assistance provided to primary prevention grantees, Westchester County conducted a cost analysis pilot project. This case study provided the basis for a webinar conducted by NCHH in September 2010 for the grantees. The processes and templates developed during the pilot project and presented during the webinar can be applied to many different services systems. The method quantifies costs by prospectively conducting a detailed time study of an intervention. A time study tracks the amount of time and associated cost for each staff member to conduct activities associated with the LPP Program, such as dust wipe sampling, reporting, and interactions with property owners. The cost for activities analyzed are then linked to specific program outputs or health and housing outcomes, such as number of housing units inspected, number of housing units where lead-based paint hazards were remediated, and the number of children protected.

The process used for the pilot project included the following:

- Determining the service system or program activity to analyze (i.e., cost estimate)
- Documenting protocols or processes
- Specifying staff roles and responsibilities
- Developing time estimating worksheets
- Documenting time by conducting a time study
- Averaging time across staff for the component parts of an intervention
- Calculating hourly rates
- Calculating intervention costs

- Quantifying program outputs and activities
- Analyzing and documenting findings.

Westchester County analyzed the cost of risk assessments, canvassing, and LSWP training. The risk assessment process, from the time that a housing unit is referred into the program, until the time that dust lead clearance is achieved, was intensely studied. The calculation quantified the difference in costs when no hazards were identified, hazards were identified and compliance was achieved, and hazards were identified and a hearing was required to achieve compliance. The costs were linked to program activities such as the number of lead-safe housing units produced, the number of children protected by virtue of living in these lead-safe housing units, the number of children tested for lead exposure and the value of leveraged funding. Westchester County's report can be found in Appendix F.

Summary, Highlights, and Strategies of Year Three Efforts

After the webinar was conducted, each county embarked on its own cost analysis. After submission, technical assistance continued through written feedback and conference calls with each grantee. The conference calls clarified portions of the report, highlighted strengths, and provided advice about how the reports and analysis could be improved. The program highlights and strategies for consideration follow below.

Tracking referral sources. To evaluate promotional methods (e.g., newspaper advertising, TV and radio advertising, door-to-door outreach and interagency referrals), Chautauqua County tracked the source of referrals to its program and is using this information to improve the effectiveness of its canvassing, advertising, and media efforts. Chautauqua's cost per referral for each method used included $1,069 for print advertising, $0 for interagency referrals, $30.25 per referral for door-to-door outreach, $1,927 for TV advertising, and $966 per referral for radio advertising. This process helped Chautauqua determine that its use of newspaper advertising was ineffective in generating referrals. For Chautauqua, personal outreach through agency partnerships and door-to-door outreach appear to be the most cost-effective.

Calculating the value of code enforcement partnership. Oneida County calculated the cost of lead inspections by City of Utica code enforcement staff as $85.83 per housing unit. This cost includes an initial inspection, digital photographs of hazards, issuance of a Notice and Order, re-inspection, and hearing testimony if needed. This information reveals efficient deployment of funding and the value of this partnership through leveraged funding. This information can be used by other primary prevention grantees as they attempt to collaborate with building inspection/code enforcement departments in their locality.

Quantifying the educational and societal benefits of lead poisoning prevention. Orange County used special education costs specific to Orange County school districts and peer-reviewed research quantifying the proportion of special education costs and learning disabilities attributable to lead poisoning to demonstrate the value of preventing

lead exposure. Orange County determined potential savings ranging from $20,000 to $40,000 depending on the school district per child per year by preventing special education needed due to lead exposure. Niagara County used peer-reviewed research and census data to examine the impact of lead poisoning on income loss and medical costs.

Lead-safe work practice training. Cost analyses of LSWP training revealed best practices related to targeting low literacy and non-English-speaking students, assuring high-quality trainers, and training program logistics that result in accessibility in terms of location and the time that training is offered (e.g. weekends). New York City calculated their cost per student in LSWP courses as $270.57. This figure includes extensive marketing and outreach as well as the development and translation of a low-literacy exam for the course. New York City also used their cost analyses to support process improvement and strategic planning efforts.

Estimating the cost of enforcement. In Westchester County, the cost of risk assessment services –from the time that a housing unit was referred into the program until the time that dust clearance is achieved after lead hazard reduction - were accurately calculated and determined to be more than double the more basic estimate in the previous cost analysis:

- Inspection Services – No hazards identified: $235.17
- Inspection Services – Hazards identified: $1,088.70
- Inspection Services – Hazards identified and a hearing required to achieve compliance: $1,366.22

The additional cost of enforcement efforts (i.e., hearings) were calculated at $278 per housing unit. Westchester will recommend increasing fines for property owner non compliance based on this additional cost. The cost analysis also documented that every grant dollar received in primary prevention funding was matched with Westchester County tax levy dollars.

Recommendations

During the fourth year of the primary prevention initiative, each grantee is encouraged to:

1. Apply the prospective time study method developed as a part of the Westchester pilot project to at least one of their service systems. It is recommended that this be included in the work plans.
2. Use the pilot project methodology to conduct cost analysis of risk assessments and LSWP training. This will allow for comparisons across grantees and reflect differing resources and funding levels and identification of best practices.
3. Identify and quantify leveraged or matching funds in order to quantify the value of key partnerships.
4. Identify if they have the data needed to conduct the gold standard cost benefit analysis. Data elements needed include the cost of risk assessments, window

replacement, paint stabilization, and lead dust cleaning and clearance. Health benefits and increases in property values can be calculated with this information. Energy savings can also be quantified if the program has access to energy bills.

8. CONCLUSIONS AND RECOMMENDATIONS

LPPP has made a significant difference in the lives of children and their families in New York State and has built unprecedented infrastructure to support primary prevention efforts. Since its inception on October 1, 2007, almost 7,000 children age six and under have been directly affected through visits to their homes, and over 4,000 of those children have been referred for blood lead testing as a result of those visits. Over 12,000 housing units have been investigated, and nearly 9,000 of them were found to have potential or confirmed lead-based paint hazards. Of those housing units with hazards, 2,852 have been remediated and made lead-safe. Work is underway in 6,069 more units that have not yet been cleared of all hazards.

Sustainability Issues

Sustainability for primary prevention means the capacity to support and maintain primary prevention activities over time. During Year Three of the LPPP, the DOH encouraged grantees to consider how they will make their program activities sustainable in the long term through strategies such as leveraging funding, identifying partners to conduct inspections, and creating community demand for lead-safe housing. This included a focus on sustainability at the Year Three *Technical Assistance & Networking Meeting* as well continued inclusion of specific sustainability questions in the grantee work plan directions for Year Four.

At the *Technical Assistance & Networking Meeting* in Year Three, the grantees noted a number of challenges in their efforts to develop a more sustainable program. These challenges included limited staff and financial resources that hindered programs' ability to be proactive in sustainability planning and capacity building. Grantees also cited partnerships as a critical, but challenging area in their LPPP efforts. Many grantees have struggled in their efforts to keep coalitions and task forces relevant and meaningful in advancing primary prevention. Additionally, grantees have identified critical partnerships that have been a challenge to develop, notably partnerships with housing and code enforcement agencies. Grantees also cited challenges in identifying funding streams beyond existing federal grants for lead hazard control efforts.

Despite these challenges, grantees also recognize that sustainability planning and the creation of a more sustainable program brings numerous benefits to their efforts in lead poisoning prevention. They noted that sustainability planning could help them be more efficient with their time and resources, and that proactive planning will result in grantees being poised to move quickly on funding opportunities. Grantees also noted that the process of planning for sustainability could help ensure coordinated efforts among staff, identify current program strengths and areas for improvement, and prepare the program for any sudden changes in funding or other crisis situations.

Efforts to improve program sustainability will be increasingly important given current funding challenges at national, state, and local levels. Grantees should continue to build their capacity in order to support and maintain program activities over time.

Promising Strategies for Year Four

Because of the wide diversity in infrastructure, demographics, and housing types within the grantees' geographical areas, the following strategies may not be useful in each situation. Nevertheless, they show promise for further consideration.

1. Creation or expansion of primary prevention coalitions or task forces.
2. Expansion of mapping efforts to plan and evaluate program activities as well as to describe them to the community.
3. Agreements between grantees and code enforcement offices to use PHL 1370-a(3) or local authority to cite deteriorated paint as a condition conducive to lead poisoning.
4. Agreements with code enforcement to conduct systematic code enforcement and lead-specific inspections with LPPP funding rather than using LPPP staff for all investigations.
5. Use of identified exterior hazards as a basis for issuing orders for remediation whether or not interiors have been assessed.
6. Increasing in the number of individuals trained in LSWP through partnerships with workforce development programs, community colleges, and other partners, using LPPP as a referral source for training rather than a primary source of funding.
7. Increasing the number of code inspectors who take LSWP or RRP training.
8. Providing LSWP or RRP training as a continuing education activity.
9. Leadership by the LPPP in informing the public about the RRP Rule and facilitating access to training.
10. Regional strategies for securing funds for lead hazard control or LSWP training.
11. Creation of tools to track and monitor the effectiveness of partnerships.
12. Agreements with social service agencies at the local or state level to ensure children in social services-funded housing are in lead-safe homes.

Areas for Additional Research

Despite the increase in qualitative and quantitative information on the impact of the LPPP, there are still outstanding issues that would benefit from more research:

1. What are the true costs to property owners to comply with the orders for remediation under the LPPP, and how can these costs be reduced?
2. What are tenants' experiences after required remediation? Do evictions increase?
3. What are the costs and benefits of key components of an effective lead-hazard primary prevention program, such as risk assessments, LSWP training, partnership development, and enforcement activities? What are the monetary benefits of lead hazard control in terms of child health, property value, and energy efficiency?

4. What are the advantages and disadvantages of requiring a dust wipe test in housing units that do not have deteriorated paint as a way of ensuring that the units are safe from otherwise undetected lead dust hazards? In what circumstances is that a cost-effective strategy?
5. What are the health outcomes for children of this primary prevention initiative?

Recommendations for Grantees

The following recommendations for grantees are grouped according to the LPPP goal with which the recommendation is most closely associated. Some of them, however, may relate to more than one goal. Additionally, NCHH provides recommendations for grantees in the area of program sustainability.

Identifying housing at greatest risk for lead-based paint hazards:

1. Take full advantage of the authority granted under PHL 1370-a(3) to
   a. Designate high-risk areas quickly when grant funds become available for the program;
   b. Expand the high-risk designation to other areas as local conditions warrant, or fully use the tools already provided under local statutes, authorities, and interagency agreements;
   c. Focus program services on blocks within the high-risk target area to facilitate remediation in contiguous housing;
   d. Explore designating the local housing code agency within a community of concern as an agency authorized to administer these provisions.
2. Encourage code enforcement officials to adopt systematic rental property inspection programs and to use the Property Maintenance Code for citing deteriorated paint in pre-1978 housing. A Certificate of Occupancy should only be issued after lead-based paint (LBP) hazards have been addressed.
3. Continue to explore ways to deliver services to specialized at-risk populations, such as newborns. Increase investigations targeted to units where children with BLLs of 5-9 or 10-14 μg/dL have resided in the past in order to ensure that these units provide no ongoing risk to children.
4. Continue attempts to encourage agencies that fund housing for children to ensure the housing they finance is lead-safe.
5. Expand mapping efforts by integrating lead poisoning prevention data with other health statistics, such as childhood injury and asthma prevalence data. This approach may identify future partners for prevention and increase understanding of the health issues associated with the housing in the high-risk zip codes.

Developing community engagement and partnerships:

1. Continue to win the support of elected and appointed local, regional, state, and federal officials, especially to achieve cooperation in enforcement and funding for lead hazard control.

2. Dedicate resources and allow sufficient time to expand existing relationships—or build new ones—with community-based organizations and local agencies to assure support for program services and policies and to leverage resources.
3. Increase efforts to engage community-based organizations in outreach and recruitment and involve community residents themselves in lead poisoning prevention efforts.
4. Encourage agency partners in housing and other areas to participate in creating lead-safe housing by fully exercising their own agencies' mechanisms to encourage or sanction owners to make their properties lead-safe.
5. Identify strategies to develop mutually beneficial partnerships.
6. Consider funding partner agencies with LPPP funds to assist in identification of high-risk units and investigation strategies.
7. Forge partnerships with public agencies (e.g., LDSS, weatherization agencies, nonprofit housing agencies) to ensure that families receiving government assistance have access to lead-safe housing.

Promoting interventions to create lead-safe housing units:

1. Understand and address property owner and resident resistance to investigations and remediation.
2. Address obstacles to re-entry for the purposes of investigation. Even if the purpose of home visits is education, an inspector should be on standby to conduct an inspection if the resident gives consent. This will reduce the number of visits made to the home.
3. Continue to reduce delays in remediation by making program operations more efficient and exploring additional administrative strategies, such as housing courts, or agreements with local code enforcement offices, prosecutors, and judges.

Building lead-safe workforce practice (LSWP) capacity:

1. Continue to make LSWP training attractive to contractors and property owners by using incentives, scheduling training at convenient times, and building community demand for these services.
2. Clarify and strengthen RRP enforcement authority and assure compliance with the new rule.
3. Improve relationships with EPA to ensure accurate information about and appropriate enforcement of the RRP Rule.
4. Identify partnership opportunities to shift the costs and management of LSWP training to other qualified local agencies.
5. Explore opportunities for training code enforcement officials through the continuing education process.

Identifying community resources for lead-hazard control:

1. Increase coordination with public and private housing programs and providers that fund or require lead-related repairs in order to keep pace with the demand the LPPP is expected to generate. Strategies may include:
    a. Establishing agreements to give units identified by the LPPP high priority in funding with agencies that administer Community Development Block Grants (CDBG), Housing Choice Vouchers (Section 8), weatherization, and other state- and federally-funded programs.
    b. Allocating LPPP funding for dedicated staff to help property owners complete applications for available federal, state, and local funding, such as CDBG and NYS Energy Research and Development Authority's programs for energy conservation and renovation.
    c. Approaching local housing programs, community development corporations, and lenders about establishing a "one-stop shopping" site for grant and loan programs that can fund lead hazard reduction for rental and owner-occupied units.
    d. Systematically collecting information that identifies the barriers to property owners' receiving lead-hazard control funds and develop strategies to facilitate funding of high-risk properties.
2. Identify and secure additional funding streams to support the creation of lead-safe housing units in the target areas.

Strategies for improving program sustainability:

1. Assess their program's capacity for sustainability including documenting program effectiveness, diversified funding sources, efficient program operations, partnerships, leadership, and sound management practices.
2. Develop a sustainability plan that addresses areas of weaknesses to strengthen programs' sustainability capacity. Sustainability doesn't happen on accident but rather is the result of intention and planning.
3. Identify and actively seek out opportunities to diversify financial resources. This includes exploring funding from local philanthropic organizations.
4. Identify and actively seek out opportunities to diversify and increase non-financial resources, including but not limited to: leveraging other programs and service systems, partnerships with colleges and universities; hosting fellows from national organizations such as the Centers for Disease Control and Prevention; and developing partnerships to shift LSWP and RRP training capacity to local community colleges and vocational schools.
5. Explore opportunities for generating or increasing revenue internally through permits, fines and other fee structures.
6. Continue to work with code enforcement and housing agencies to develop collaborative and mutually beneficial relationships.

7. Rejuvenate existing coalitions and task forces, develop new coalitions and task forces as needed, and identify opportunities to integrate into other local coalitions and task forces where strong partnerships could be formed. Develop strategies for keeping members engaged in the work of the LPPP, such as setting developing strategic plans, implementing time-limited projects that give members concrete tasks and ownership, and providing opportunities for members to assume leadership roles.
8. Strengthen the use of data in order to link lead poisoning prevention and its impact to broader community concerns. These include, but are not limited to: the costs and benefits of lead poisoning prevention on health, housing quality, housing values, energy savings, community development, and job growth; and the consequences of lead poisoning for the education system, the health system, and for children, families, and entire communities.

Recommendations for State Agencies

As part of the continuing effort to prevent childhood lead poisoning, on June 2, 2009, Governor Paterson issued Executive Order No. 21 to establish the Governor's Task Force on the Prevention of Childhood Lead Poisoning (the Task Force). The Task Force was defined as a "body of State officials who are charged with the execution of the State's policies and programs in a variety of areas, for the purpose of ensuring the collaboration of such officials and State agencies in the coordination and maximization of available resources and expertise." The Task Force issued a preliminary report to the Governor and to the New York State Advisory Council on Lead Poisoning Prevention in November 2009 and a final report in October 2010.

The preliminary report detailed the Task Force's efforts to inventory specific primary prevention actions already undertaken by State agencies and recommended other such actions that could be taken in the short term without additional legislative or budget authority. In its preliminary report, the Task Force recommended nine enhancements that could be taken immediately to strengthen current State lead poisoning prevention efforts:

- Connect lead poisoning prevention programs with clean energy and weatherization assistance programs;
- Enhance procedures for assuring that family-based child care environments are lead-safe and that consistent protocols are followed for assessing lead hazards in child care facilities;
- Increase awareness of lead poisoning among human service providers and other local organizations that work directly with young children at risk for lead poisoning;
- Balance housing funding streams to prioritize older homes (built before 1960) and high-risk communities;
- Develop targeted education and awareness campaigns emphasizing the importance of housing inspections for lead hazards and childhood blood lead screening;

- Work with the State Office of Court Administration and administrative judges for each of the municipal courts and district courts to make use of their equitable jurisdiction to ensure that lead-paint hazards are remediated;
- Facilitate training of LSWP by enhancing existing energy services contractor training programs;
- Amend the NYS property maintenance code to require LSWP and repair of underlying problems when peeling paint is repaired in housing built before 1978 and train code inspectors on the new requirement; and,
- Explore strategies for enhancing compliance with existing state and federal lead hazard notification requirements.

This final report set forth the Task Force's finding as to the problems of lead poisoning and outlined the implementation by State agencies of the nine enhancements recommended in the preliminary report. Finally, it included the Task Force's recommendations for future administrative actions and legislative and regulatory changes and administrative actions that it believes could help fulfill the ultimate objective of eradicating childhood lead poisoning in the State of New York.

APPENDIX A – AUTHORITIES AND PROCEDURES

New York State has undertaken a number of initiatives to advance the national 2010 goal of eliminating childhood lead poisoning. In 2004, the New York State Department of Health (DOH) published its strategic plan for the elimination of childhood lead poisoning in New York State by 2010. This plan, which covers upstate New York and complements the New York City strategic plan,[20] "…serve[s] as a roadmap to guide the work of the Department and partner organizations statewide in efforts to eliminate childhood lead poisoning over the next five years."[21]

The bulk of the 2004 State Plan's initiatives expanded and strengthened surveillance and secondary prevention initiatives, including improvements in screening and vigorous investigation and remediation of LBP hazards in the dwellings where children with EBLLs resided or spent significant periods of time. It also highlighted strategies to improve education for families whose children might be exposed to LBP hazards, build community awareness, and strengthen local coalitions to support for further prevention activities.

New York State Public Health Law section 1370(c), and the regulatory language in 10 C.N.Y.R.R. 67-1.2 require all health care providers to conduct blood-lead screening tests on all children at or around one year of age and again at or around age two. Health care providers also must assess all children aged six to 72 months at least once annually for risk of lead exposure and order blood-lead tests for all children found to be at risk based on those assessments. As of 2009, New York State requires mandatory reporting of all blood-lead test results and authorizes the exchange of information between the statewide childhood lead registry and the New York State Immunization Information System to promote screening and improve surveillance. Local health departments must inspect for LBP hazards in all housing units where children with sustained BLLs of 15 µg/dL or greater reside (level was lowered from 20 µg/dL to 15 µg/dL by New York State in 2009). This investigation includes an exterior and interior visual assessment for deteriorated paint, administration of a comprehensive questionnaire to assess child risk factors for exposure, and sampling of paint, soil, and other media as required. Property owners receive a Notice and Demand as outlined in NYS Public Health Law Section 1373 (3), which lists the lead hazards identified. The Notice and Demand specifies that an owner correct the conditions conducive to lead poisoning within a fixed number of days as defined by the LHD (typically 30 days), use lead-safe practices and/or knowledgeable workers to conduct the work, and achieve clearance after work is completed in order to demonstrate that no hazards remain. Failure to comply with the Notice and Demand on a timely basis results in referral for prosecution. All of these important measures are best characterized as "secondary prevention," because action occurs only after a child's blood-lead level has become elevated over the federal level of concern.

In addition to these measures, the State's 2004 strategic plan called for more intensive primary prevention strategies to reduce children's exposure to lead:

> *…There is increasing consensus among researchers, health care providers, and policymakers that primary prevention strategies must be strengthened to*

achieve elimination of childhood lead poisoning. Educational strategies related to exposure avoidance and improved nutrition have been demonstrated to contribute to primary prevention, but alone are not sufficient to prevent lead poisoning. Residential lead hazard control measures, ranging from improved cleaning techniques to interim containment measures to complete lead abatement, are regarded as the most critical components of primary prevention. Communities with more rigorous lead remediation laws, and more stringent enforcement of those laws, can be both cost-effective and successful at breaking the cycle of lead exposure and reducing blood-lead levels among at-risk children. [22]

New York City's policy differs from the above in that environmental intervention and case coordination services are triggered by blood-lead levels greater than or equal to 15 µg/dL. Rather than the Notice and Demand procedure, the City uses its authority under NYC Health Code and issues a Commissioner's Order to Abate (COTA), requiring abatement of lead hazards using lead-safe work practices, trained workers, and dust wipe clearance testing. Failure to comply with the COTA triggers enforcement action, including fines, and referral to the Department of Housing Preservation and Development's Emergency Repair Program (ERP). Work performed by the ERP is then billed to the landlord.

The City of Rochester and New York City are two jurisdictions in the LPPP that have local lead ordinances mandating remediation of LBP hazards. (The Syracuse Regional Lead Task Force is exploring the addition of a local lead ordinance.) Key elements of the two cities' ordinances as they apply to LPPP activities are described below.

In 2004, New York City revised its Childhood Lead Poisoning Prevention Act, known as Local Law 1, to require landlords of three or more units built before 1960 (the year New York City banned lead paint), or between 1960 and 1978 if the landlord knows that the building has lead paint, to identify and annually repair LBP hazards in every apartment occupied by a child under six or at each apartment's turnover, whichever occurs first. Owners of one- and two-unit family homes must fix LBP hazards at turnover. Landlords must follow LSWP and trained workers for any work disturbing LBP. New York City's Department of Housing Preservation and Development (HPD) is the primary enforcement agency for Local Law 1. Each year the landlord is required to determine whether there is a child under six years of age living in each apartment. If so, the landlord must inspect for and safely repair any LBP hazards. If hazards are not repaired, tenants can call New York City's 311 complaint hotline to request an HPD inspection. HPD will inspect and order the landlord to repair identified LBP hazards safely.

When the Newborn Home Visiting Program (NHVP) staff finds peeling paint during a home visit, they refer the home to the Lead Program. EPA-certified risk assessors from the Lead Program conduct an environmental inspection that includes XRF paint testing. The risk assessor tests non-intact painted surfaces in fair or poor condition and all painted window sills, regardless of condition. The family receives educational information on lead poisoning prevention, including information on Local Law 1 and a brochure on lead poisoning. Educational materials are available in multiple languages. If the Lead Program

identifies LBP hazards, it issues a Commissioner's Order to Remediate Nuisance (COTR) and mails the COTR to the landlord or owner, along with instructions and guidance on how to do the work. The landlord/owner must hire an EPA-certified firm with workers who have EPA/HUD-approved lead-safe work practices training or EPA certified abatement worker training to perform the remediation. In keeping with the requirements under Local Law 1, the landlord/owner must complete the remediation of the violations within 21 days of receipt of the COTR. The inspector will re-inspect the home to determine compliance. The landlord/owner must submit dust wipe clearance tests after satisfactory remediation of the violations. If the landlord/owner fails to comply with the COTR within the 21-day timeframe, the Lead Program refers the home to the Emergency Repair Program (ERP) of the HPD to make the repairs. The landlord is billed for the service via tax lien.

In July 2006, the City of Rochester's "Lead-Based Paint Poisoning Prevention" law (Municipal Code of the City of Rochester Ordinance 2006-37) went into effect. This law covers most rental properties in the City; nearly 60 percent of occupied City housing is rental. Under the Ordinance, inspectors look for deteriorated paint in housing units at the time of the regular Certificate of Occupancy inspection or if the unit receives funding through the TANF (Temporary Assistance for Need Families) program. Under Section §90-55 and in Section 3, high-risk areas can be defined using data collected by the Monroe County Department of Public Health on children with elevated blood-lead levels and properties identified as having LBP hazards. An inspection may also be initiated in response to a tenant, neighborhood group, or medical doctor request.

As part of the inspection, a City inspector performs a standardized visual inspection for deteriorated paint and bare soil. All inspections within these high-risk areas include a visual assessment for deteriorated paint above federal *de minimis* levels on the interior and exterior. If the visual inspection finds bare soil or deteriorated paint exceeding the *de minimis* levels, a 30-Day Hazard Notice and Order is issued to the property owner. The property owner must contact the City of Rochester within seven days and provide a work schedule within one week of this contact. All tenants must be notified no less than three days prior to the start of lead hazard control activities. All deteriorated paint in pre-1978 housing is assumed to contain lead, unless additional testing at the owner's expense proves otherwise. Owners must fix deteriorated paint using LSWP. For situations involving interior deteriorated paint violations, clearance testing must be provided by a third-party, EPA-certified Risk Assessor or Lead Inspector before the citations on the property can be removed.

Units that pass the visual inspection in the high-risk areas must have additional dust wipe sampling. Property owners may receive a citation for a Lead Dust Sample violation if they fail to have dust samples taken on a timely basis or fail to submit the certified test results to the City's NET Lead Inspection Unit. (For the Lead-Safe Saturday units, the LPPP has an inspector return to the unit to do the sampling and absorbs the cots of the dust wipe testing.) If more than 50 percent of the wipe samples exceed EPA standards or if any one dust wipe contains a lead level greater than twice the EPA standard, a 30-Day Hazard Notice and Order is issued immediately for a Lead Dust Hazard Violation. If fewer than 50 percent of the samples fail, and none are twice the EPA standard, a second sampling cycle is performed on the area that failed. Any failure on this second cycle results in the issuance of a Notice and Order for a Lead Dust Violation.

APPENDIX B – DESCRIPTION OF PLANNED YEAR THREE PROGRAM ACTIVITIES, BY GRANTEE [xxxvii]

Albany County Primary Prevention Program

Target area: Albany County's primary target area consists of zip codes 12202 and 12210 located in the city of Albany. Within these primary zip codes, the grantee will actively continue to seek referrals for inspection through their partnerships. The program will also operate within three other zip codes in the city (12208, 12209, and 12210) in which inspections will be performed upon request.

Housing intervention:

1. Within their target area, inspections will be performed
   - Where children six years of age or under reside or spend a minimum of eight hours a week;
   - In housing where pregnant women reside; and
   - In vacant housing where it is likely that children six years of age or younger will be residing.
2. Additional features of the grantee's targeting include the following:
   - Using an Area of High Risk Designation;
   - Identifying dwelling units where children with EBLLs resided in the past and conducting visual inspections if children six years of age or younger currently live there;
   - Performing XRF inspections for tenants and/or landlords upon request as long as there are children age six or under currently residing there; and
   - Conducting inspections of these adjacent/appurtenant residences, with the use of an XRF.
3. Notice and Demands will be issued to the owners of properties where lead hazards are identified.
4. Clearance testing, including dust sampling, is required when the repair of identified hazards is completed.
5. If legal action is necessary, use the established policies and procedures currently used for unresponsive property owners in EBLL cases (Albany County Court System).

Inspection protocol: An EPA-certified risk assessor from the county will perform a visual inspection of painted surfaces in unit(s), common areas, and exterior of residential building with prior XRF inspection. If no prior XRF inspection has been performed, the

[xxxvii] Program descriptions come from the grantees' work plan for 2009-2010, other documents provided by the grantees, and updated information DOH provided to NCHH.

risk assessor will conduct an inspection of these areas with an XRF. If no interior hazards are found in visual inspection, dust wipe sampling is used to confirm the absence of hazards. The protocol for any additional sampling is being developed. Informational lead inspections are now being provided in the target zip code. The protocol for these inspections will be the same as other inspections conducted using an XRF.

Incentives: LSWP training classes and RRP refresher courses will be offered free to landlords, tenants, and contractors who will be performing lead paint remediation work. The use of HEPA vacuums will be offered free to landlords, tenants, and contractors who will be performing lead paint remediation work. Cleaning products will be offered to tenants requesting a lead risk inspection for their home.

Clearance testing: Dust sampling will be performed by EPA-certified risk assessors from the Albany County Health Department (ACHD) once they have verified that all required repairs have been completed.

Building workforce capacity: ACHD will assess the adequacy of the current, local trained/certified workforce. ACHD will continue to partner with Cornell Cooperative Extension to offer educational/training programs such as LSWP training sessions and RRP refresher courses. ACHD will also partner with Rensselaer and Schenectady counties in offering the LSWP and RRP training in order to increase the availability of sessions to residents of both counties.

Identifying resources for lead hazard control: ACHD will assess existing funding programs and collaborate with other agencies and community groups to explore new funding sources.

Developing partnerships and community involvement: ACHD, Division of Environmental Health Services, will collaborate with the Division of Nursing/Maternal Child Health, to evaluate blood-lead screening information of children residing in dwellings targeted for inspection, and for the provision of referrals for screening when appropriate. The division will also:

- Strengthen and continue their relationship and understanding with Albany County District Attorney's Office to build a mechanism for enforcement.
- Receive guidance from the Department of Law for informational inspections in high-risk zip codes.
- Obtain approval from Department of Law to send contact letters to landlords and tenants in targeted housing in targeted zip codes. Sent contact letters to landlords and hand-deliver contact letters to tenants.
- Continue partnership with Code Enforcement to receive referrals of housing with deteriorated paint.
- Continue partnership with Cornell Cooperative Extension. Conduct LSWP and RRP trainings.

- Continue to further partnership with HUD through Albany Community Development for possible grant assistance to landlord.
- Continue partnership with Albany County Planning Board to develop maps of the target area showing residences inspected and other information.
- Develop a new partnership with the Albany Police and Fire Department to assist in finding landlords.
- Develop a mechanism with the Albany Code Enforcement to encourage their inspectors to perform inspections regarding deteriorated paint, issue citations to remediate the paint by using LSWP and RRP certification in houses older than 1978, and to contact ACHD to perform dust wipe clearance.
- Develop a new partnership with Project Strive to obtain referrals.
- Continue a new partnership with the Albany County Legislator to share information from our program and to receive legislative support.
- Develop partnership with Albany County Dental Clinic to obtain referrals.

Additional highlights: Informational lead inspections will be offered to residents and property owners who are concerned about the possibility of lead hazards in their residences. Individuals who request such an inspection will receive information regarding LSWP and be encouraged to attend an LSWP training class and the RRP refresher course.

Broome County Primary Prevention Program

Target area: The Broome County target area consists of all parts of zip code 13905 within the City of Binghamton.

Housing intervention*:* Properties eligible for inspections include any dwellings within the target area built before 1978 where children under the age of six reside or regularly visit. Additional features of their targeting include the following:

- Re-inspection of units with a history of EBLLs of $\geq$15 or other units in the same building.
- Visits to the homes of at-risk newborns or pregnant women through referrals by BCHD visiting nurses.
- Inspection of rental units in the target area where children with EBLLs between 10 and 14.9 reside, as referred by the Childhood Lead Poisoning Prevention Program.

Inspection protocol: Upon referral or identification, attempts are made to contact unit residents to schedule an inspection. If that is unsuccessful, attempts are made to reach neighbors and/or to work directly with the landlord/property manager of the dwelling. The program provides basic education, literature, and resources, and conducts a visual inspection with dust wipe testing of household surfaces or XRF inspection.

Property owners whose properties are found to contain deteriorated paint and/or lead dust hazards are provided a Notice of Information letter, seeking voluntary compliance. They are provided the opportunity to correct the hazards "voluntarily" in a lead-safe manner if they respond and act quickly (within approximately 90 days).

At the beginning of the program year, property owners/maintenance personnel had the option to attend a free LSWP training before undertaking the work in order to receive free painting supplies as incentives. However, after April 22, 2010, all personnel conducting lead interim control work in a unit with identified hazards are required to be trained as an EPA Lead Renovator (at the minimum). Compliance with this new requirement automatically made participants eligible for painting supply incentives.

Failure to complete repairs voluntarily in a timely manner results in a full risk assessment with XRF testing and issuance of a Notice and Demand, if applicable. XRF testing is also conducted (instead of the visual/dust wipe protocol) in some cases: for example, if a property is in very poor shape, obviously has significant dust hazards, or if voluntary compliance is unlikely to occur. In all cases, all work needs to be conducted using LSWP, and must have a written lead-safe work plan prior to commencing renovations.

Incentives: LSWP training is offered free of charge to property owners, maintenance personnel, contractors, and other interested parties. After April 22, landlords/maintenance personnel under notice through the program are offered and provided with the EPA Lead Renovator course. Landlords who successfully complete the required lead safety training are eligible for free painting supplies, up to $500 per unit. Dust clearance testing is conducted on remediated units at no charge. Tenants whose units are inspected receive educational materials, cleaning kits, first aid kits, snack containers/sippy cups, coloring books, and other items as applicable. In addition, all residents, landlords, and maintenance personnel are encouraged to borrow a HEPA vacuum for free (through Cornell Cooperative Extension of Broome County) to help with cleaning up lead dust.

Clearance: Each unit is required to pass a dust clearance test at the conclusion of interior remediation work. Testing is conducted by Health Department Risk Assessors and/or Dust Sampling Technicians free of charge for properties under notice.

Building workforce capacity: The program offered free LSWP trainings and promoted local EPA lead renovator courses until the RRP Rule went into effect in April 2010. After that, the program began to offer local RRP courses free of charge for property owners and maintenance personnel working on properties under notice. Property owners seeking qualified personnel for renovations are referred to the list of certified renovation firms on the EPA's website.

Identifying resources for lead hazard control: The County successfully partnered with First Ward Action Council, a local housing agency, and received a $100,000 HUD LHC capacity building grant to prepare for a HUD Lead Hazard Control Grant application in Fall 2010.

Developing partnerships and community involvement: Partnerships included the following:

- First Ward Action Council
- City of Binghamton Code Enforcement
- Tioga Opportunities (to be developed)
- Opportunities for Broome
- Broome County Department of Social Services
- Binghamton University (Research Foundation)
- Environmental Education Associates
- Broome-Tioga Workforce (to be developed)
- Broome County Health Department Maternal and Child Health Program
- Broome County Health Department Early Intervention Program
- Broome County Health Department WIC Program
- Binghamton Local Development Corporation (BLDC)
- Preservation Association of the Southern Tier (PAST)
- Cornell Cooperative Extension
- Daniels Paint

Chautauqua County Primary Prevention Program

Target area: Chautauqua County has identified the zip code 14701 in the City of Jamestown as the target area. Zip code 14701 will be declared an area of high risk.

Housing intervention:

1. Eligible households are pre-1978 rental or owner-occupied properties in which a child age six or younger spends a minimum of six hours per week. Vacant units must have at least two bedrooms for children in the future.
2. Households may be referred through partner agencies, self referrals, or through door-to-door outreach in program-identified "hot spots."

Inspection protocol: Chautauqua County Health Department (CCHD) will conduct a lead hazard risk assessment using XRF on at least one wall per room. They will conduct a dust wipe sample if no lead paint is found with XRF, in order to determine if external dust hazards are intruding. A Letter of Notification will be issued for the property regarding the hazards. Property owners are provided information on LSWP trainings, referrals for financial support, and information on EPA-certified contractors. After completing LSWP training and receiving vouchers for painting supplies, if property owners do not comply within 30 days, a Notice and Demand will be issued.

Incentives: For property owners who complete LSWP training, an incentive package of painting and cleaning supplies is provided. For tenants of properties that need

remediation, cleaning supplies are provided. Incentives for completing the home assessment include smoke alarms and carbon monoxide detectors.

Clearance testing: Clearance testing of properties will be required when the repair of identified hazards are completed. This will be paid for by the program.

Building workforce capacity: Local property owners, managers, and tenants will be encouraged to attend LSWP training. Notification of these free trainings will be included with each Notice of Violation and will be advertised in the target communities. Renovation, Repair, and Painting (RRP) training will also be offered to contractors and landlords that complete the LSWP training.

Identifying resources for lead hazard control: Owners will be referred to Chautauqua's HUD Lead Hazard Control Grant, which is administered by Chautauqua Home Rehabilitation and Improvement Corp., and the HUD LEAP Grant, which is administered by Chautauqua Opportunities, Inc.

Developing partnerships and community involvement: Partners include the following groups:

- Chautauqua Home Rehab and Improvement Corp.
- Chautauqua Opportunities Inc.
- Jamestown Housing Authority
- Joint Neighborhood Project
- Jamestown Department of Development
- Women, Infant and Children's (WIC) Clinics

Dutchess County Primary Prevention Program

Target area: The target area is the portion of zip code 12601 within the City of Poughkeepsie.

Housing intervention: Units for inspection will be selected by City of Poughkeepsie building inspectors, who will use housing complaint and building permit requests to identify residences.

Inspection Protocol: The City of Poughkeepsie building inspector will conduct a visual assessment of all accessible interior and exterior areas, assessing for any deteriorated paint films in order to determine if conditions are in compliance with the NYS property maintenance code. The inspector will also determine the occupancy of the houses/units. If not in compliance, the building inspector will provide the owner with written notification requiring the property owner, landlord, or contractor to eliminate the deteriorated paint films, following lead-safe work practices. The notice will specify the observations, the required corrective actions, the methods for corrective action, and a timetable. LSWP

educational materials will accompany the written notification. The property owners or designee will provide documentation of LSWP training or demonstrate the ability to conduct the activity using LSWP. The property owner may also hire a certified firm that has been certified in RRP. LSWP/RRP training will be offered to the property owner or designee, arranged through the Health Department. The building inspector will be responsible for all follow-up inspections until compliance is met. If compliance is not met, the case will then be referred to the Health Department for enforcement procedures (via a stipulated agreement or through the formal Administrative Procedures and documentation that is currently in place).

Incentives: LSWP training classes will be offered free to those property owners (or designee) whose residence(s) require remediation. Incentive packages (primer, poly, et cetera) are also offered to those property owners or designees who have completed LSWP or RRP training, which they can then use to conduct remediation work.

Clearance testing: Once the property owner/landlord corrects the potential lead paint hazards in accordance with lead-safe work practices, an inspection will be conducted to document completion of work. Then third-party clearance dust wipe samples will be obtained. The Primary Prevention Program may reimburse the property owner for the cost of the initial series of clearance dust wipe samples. The property owner will pay for any subsequent dust sampling, if necessary.

Building workforce capacity: Dutchess County will offer LSWP training to property owners and RRP to landlords and contractors, thereby increasing our local workforce capacity. DOH proposes to contract with a third party to provide a regular schedule of LSWP and or RRP training classes.

Identifying resources for lead hazard control: Dutchess County is beginning to work with Lead Coalition members to identify the full range of current and potential resources available to property owners to assist with elimination or remediation of conditions conducive to lead exposure.

Developing partnerships and community involvement: DCDOH is the lead agency for this project and has partnered with the City of Poughkeepsie to implement the housing intervention portion of this program. They have also partnered with Rebuilding Together to offer collaborative LSWP and RRP training. DCDOH partners include the Nursing MCH home visiting program as well as Environmental Health Sanitarian staff. Referrals from these programs can be made based on observations of chipping and peeling paint during the course of a home visit. A local Lead Coalition is being developed, which will meet quarterly and include a number of community and government organizations. These partners will provide referrals when appropriate and also help spread the word by educating about lead prevention, lead testing, and the City's ability to receive complaints.

Erie County Primary Prevention Program

Target area: Six zip codes in the City of Buffalo will be designated as communities of concern: 14207, 14208, 14211, 14212, 14213, and 14215. The Erie County

Commissioner of Health will declare designated high-risk block groups within the communities of concern as "areas of high risk." The LPPP will focus on these areas of high risk.

Housing intervention strategy: The intervention strategy has the following steps:

1. All property owners of a housing unit in the designated high-risk block group will receive notification of the high-risk designation via U.S. mail. Occupants will be notified by post cards left at each property.
2. Initial Block Survey: Surveys noting building characteristics, physical condition, and occupancy status will be conducted for each block within a designated high-risk area.
3. Neighborhood Canvass with Exterior Risk Assessments. Staff will survey the exterior of each housing structure in the designated "area of high risk" using an XRF to determine actual presence of lead. Owners will receive a risk assessment report of potential and actual hazards existing at their property. In conjunction with exterior risk assessments of all paint on the exteriors of properties within the designated high-risk area, staff will attempt to identify and gain access to units where young children reside. Upon gaining access, staff will conduct an assessment of the paint condition of the interior of the dwelling unit, educate the resident about lead poisoning and ways to protect their family, determine if all children have received blood lead level testing, and finally provide cleaning supplies to help ensure a lead-safe environment.
4. A Notice and Demand will be issued to all property owners of units where lead hazards are identified based upon the exterior lead risk assessment. A work plan will be required. Owners will be required to demonstrate that the person responsible for the work has completed either the lead-safe work practices class or the EPA Renovation, Repair, and Painting class; or hire an RRP-certified contractor to perform interim controls and/or component abatement.
5. Full environmental risk assessments (interior and exterior XRF testing) will be completed in dwelling units where a child with an EBLL of 5 – 14 resides.

In addition, follow-up education visits, including an interior visual paint inspection, will be provided to families according to established priorities and/or those who have been recruited through outreach events or referred by program partners.

Inspection protocol: Risk assessments of all paint on property exteriors within the high-risk areas and a limited number of full NYS EBL risk assessments will be completed. Owners will be notified of the intention to conduct a full risk assessment. If a property is determined to have lead-based paint hazards, owners will be issued a Notice and Demand seeking remediation of all hazards in accordance with lead-safe work practices. Owners who fail to bring a property into compliance will receive a summons to Housing Court.

Incentives: Property owners and maintenance workers who submit proof of lead-safe work practices or RRP training will be eligible for a lead-safe work practices supply kit,

which includes Tyvek suits, disposable gloves, 6-mil gauge plastic sheeting, primer, and other painting supplies.

Clearance testing: Upon completion of the required work, owners will be required to contract for a clearance examination and submit clearance results.

Building workforce capacity: The program will expand workforce capacity by contracting with Environmental Education Associates to provide at least six lead-safe work practice trainings to do-it-yourself property owners, maintenance workers, and unit occupants. In addition, Erie County will become an EPA-certified trainer for the RRP course and offer classes to do-it-yourself property owners, maintenance workers, and unit occupants. Erie County is forging a partnership with Western New York AmeriCorps that will provide disadvantaged youth with the opportunity to gain skills in LSWP and provide assistance to property owners in the "area of high risk."

Identifying resources for lead hazard control: The program will work with the Western New York Coalition to End Lead Poisoning and other program partners to identify the full range of current and potential resources available to property owners to assist with elimination or remediation of conditions conducive to lead exposure.

Developing partnerships and community involvement: Erie County Lead Primary Prevention Program will actively engage with community groups in the target area and agencies that serve the residents in the target areas to partner with the LPPP. A minimum of six "Train the Trainer" classes will be held for staff of partnering agencies.

Partners: Partners of Erie County's program include the following organizations:

- Environmental Education Associates, Inc.
- Buffalo Municipal Housing Court
- Western New York AmeriCorps
- Community Foundation of Greater Buffalo
- City of Buffalo Division of Citizen Services
- Western New York Coalition to End Lead Poisoning
- Belmont Shelter Corp (County and City HUD grantee)
- Neighborhood Housing Services; Buffalo Community Centers;
- Buffalo Prenatal-Perinatal Network; EPIC/Ready, Set, Parent Program
- City of Buffalo Board of Block Clubs; Citizen Action Organization
- Holy Cross Head Start; CAO Head Start; Independent Health Foundation;
- Western New York Lead Poisoning Prevention Resource Center
- Local City Officials, County Legislators, and State Representatives

Monroe County Primary Prevention Program

Target area: The following zip codes within the City of Rochester comprise the target area for Year Three: 14604, 14605, 14606, 14607, 14608, 14609, 14610, 14611, 14612, 14613, 14614, 14615, 14619, 14620, and 14621. High-risk populations living in these zip codes will also be targeted. The first population being targeted is 100 families of children with venous blood lead levels between 5 and 9 µg/dL, the second is 250 families of children with venous blood lead levels in the 10-14 µg/dL range, and the final is 50 pregnant women who live in the target area or are referred by their health care provider.

Housing intervention:

1. Expand the City of Rochester's existing Certificate of Occupancy (C of O) activities and enhance efforts by adding qualified staff to conduct inspections. During Year Three of the grant, the City will retain these staff and will be required to continue to perform the additional lead visual inspections (2,196) and lead dust wipe test sampling (1,275).
2. A Monroe County Department of Public Health (MCDOPH) Lead Program outreach worker will visit the homes of the 100 families who have children with venous levels between 5 and 9 µg/dL. The outreach worker will conduct an EPA lead visual assessment and will provide a healthy home inspection and education. Properties found to have deteriorated paint will be referred directly to the City of Rochester Lead Program for inspection and enforcement through the Lead Ordinance. Those properties that do not have deteriorated paint will also be referred to the City of Rochester Lead Program for performance of lead dust wipe testing.
3. A MCDOPH Lead Program public health sanitarian will visit the homes of the 50 pregnant women and 250 families of children with venous blood lead levels between 10-14 µg/dL. The sanitarian will conduct a Lead XRF inspection and will provide a healthy home inspection and education. Properties found to have conditions conducive to lead poisoning will be designated an "area of high risk" under Public Health Law and have a Notice and Demand issued to the property owner.

Inspection protocol: All units inspected by the City of Rochester will be subjected to a visual inspection for deteriorated paint above *de minimis* levels on the interior and exterior or if bare soil is found. A 30-Day Hazard Notice and Order is issued. The property owner is required to contact the City within seven days and then provide a work schedule within one week from contact with the City. Tenants are required to be notified no less than three days prior to the commencement of control activities. Clearance testing must be provided by a third party.

Additional dust wipe sampling is required in all units that pass the initial visual inspection. (A Dust Sample Violation is cited upon a failure of a property owner to timely cause dust samples to be taken and certified test results to be submitted.) If more than 50 percent of the wipe samples exceed EPA standards or if any wipe is found to have a lead level greater than twice the EPA standard, a 30-Day Hazard Notice and Order is issued

immediately for a Lead Dust Hazard Violation. If fewer than 50 percent of the samples fail, and none are twice the EPA standard, a second sampling cycle is performed on the area that failed. Any failure on this second cycle will result in the issuance of a Notice and Order for a Lead Dust Violation.

The properties for the 50 pregnant women and 250 families of children with venous blood lead levels between 10-14 µg/dL will be inspected by EPA-certified risk assessors, who will conduct lead inspections using EBL protocols. Properties found to have conditions conducive to lead poisoning will be designated an "area of high risk" under Public Health Law and have a Notice and Demand issued to the property owner.

Incentives: Residents will receive a cleaning kit (bucket, mop, detergent) and fire safety supplies as an incentive to allow the MCDOPH sanitarian/outreach worker and property conservation inspector into the unit to conduct lead inspections.

Building workforce capacity: Free LSWP training will be provided by the MDOPH. The four-hour EPA RRP refresher course will also be offered. The City of Rochester's website contains a list of local EPA-certified risk assessment and abatement firms.

Identifying resources for lead hazard control: The following is a list of available programs within the community to assist property owners and tenants in funding rehabilitation efforts and lead hazard control programs:

1. Monroe County Department of Public Health HUD Grant for Investors and Owner-Occupied for up to $5,500.
2. City of Rochester–approximately $4 million recently awarded HUD Lead-Based Paint Hazard Reduction Demonstration Grant.
3. Lead Connections-Materials and Reference Assistance for Tenants and Owner-Occupied.
4. Greater Rochester Health Foundation Grant–Lead Hazard Control Grants of up to $15,000/unit for City of Rochester properties in the 14621 zip code.
5. One Stop Lead Resource Center at Action for a Better Community funded by the Greater Rochester Health Foundation provides lead outreach and assistance to target area homes.

Developing partnerships and community involvement: MCDOPH has partnered with the City of Rochester, Rochester's Lead Coalition, and the NYS Coalition of Property Owners and Businesses, Inc.

New York City Primary Prevention Program

Target areas: NYC is using a city-wide approach targeted to high-risk neighborhoods and populations for all of its primary prevention activities for Year Three of the grant. The NYC LPPP uses three main interventions to promote lead paint hazard reduction in homes: inspections, education and other outreach, and partnerships and community involvement.

Housing intervention: NYC uses several strategies to identify target housing for inspections.

Strategy A: NYC LPPP receives referrals for peeling paint in the homes of newborns from the Newborn Home Visiting Program. LPPP follows up on these referrals by contacting the family and conducting a lead risk assessment inspection with XRF testing and a healthy homes inspection.

Strategy B: NYC LPPP receives referrals for peeling paint in the homes of young children from the Asthma Initiative, another DOHMH agency. LPPP follows up in the same manner as that outlined for DPHO referrals.

For Strategy A and B, LPPP provides environmental inspections, including XRF testing. When lead paint hazards are identified, LPPP orders the property owner to correct the hazards safely. Homes of DPHO clients with serious housing hazards in addition to peeling paint will be referred to the NYC Department of Housing Preservation and Development (HPD) for appropriate follow-up. If lead paint hazards are identified, the property owner will be ordered to remediate the hazards within 21 days. As for any NYC Commissioner's Order for lead paint hazards where the owner fails to comply within this timeframe and/or conduct the repairs appropriately, the property will be referred to HPD's Emergency Repair Program (ERP) to complete the repairs safely. The property owner will be billed for the cost of the repairs.

LPPP continues to provide training on visual assessment for lead paint hazards for new home visiting staff and also continues to provide refresher training as needed to existing staff.

Strategy C: NYC LPPP uses the NYC blood lead registry and the birth registry of Vital Records of the DOHMH to identify high-risk housing of children less than three years old with a BLL of 10-14 µg/dL and newborns living in the same building. In Year Two, NYC targeted newborns less than three months old for this intervention. In Year Three the target age has been expanded to less than six months old . If lead paint violations are found in the homes of children less than three years old with BLLs of 10-14 µg/dL, NYC orders the property owner to abate the violations within five days of receipt of the Order as is ordered for homes of lead-poisoned children (BLLs of $\geq$15 µg/dL). If lead paint violations are identified in the home of newborns, the property owner will be ordered to remediate the violations within 21 days of receipt of the Order.

Strategy D: In Year Three of the grant, NYC LPPP will be piloting a new inspection intervention strategy. Using the NYC lead registry, the program will identify building addresses where two or more Commissioner's Orders for lead violations have been cited in two or more distinct apartments and all of the Commissioner's Orders have been closed for over a year. LPPP will canvass these buildings and offer inspections in the apartments where there is a child under six years of age. If lead paint violations are found, NYC will order remediation for the lead paint violations within 21 days of receipt of the Order.

Strategy E: NYC LPPP performs an observation of the exterior of all buildings in which lead risk assessment inspections are conducted. Inspection data will be analyzed to determine if exterior conditions can be used as a predictor of high-risk housing.

Inspection protocol: EPA-certified risk assessors from LPPP or HPD will perform the XRF inspections and the follow-up inspections of the homes in which the staff of the home visiting agencies has observed possible lead hazards. The inspection will include visual inspection for lead and other home environmental hazards, lead risk assessment interview, and education. In addition, all inspections done by LPPP will include an observation for building exterior conditions.

Incentives: NYC will promote awareness of currently available funding sources, including HUD grant programs, to property owners to assist in financing lead hazard control efforts. In addition, property owners will be provided with a list of EPA-certified contractors.

Clearance testing: When work is completed, clearance dust wipe sampling by a certified, independent third party is required for all Commissioner's Orders to repair lead paint hazards.

Building workforce capacity: NYC will offer training on working safely with lead paint using the EPA-HUD approved LSWP curriculum and will consider offering the Renovation, Repair, and Painting curriculum. The training is offered in English and Spanish on the weekends and is provided at no cost to the participants.

Identifying resources for lead hazard control: During Year One and Two, NYC conducted research to identify financial products that were available for lead hazard repair and worked with HPD and Neighborhood Housing Services (NHS) in the development of a new financial brochure. NYC will distribute the new brochure on financial resources with the aid of community partners and other agencies. Distribution of the brochure on the HUD lead hazard control grant assistance program will continue in Year Three. The brochure on the HUD lead hazard control grant assistance program is enclosed with every LPPP Commissioner's order and is also distributed through other means.

Development of partnerships and community involvement: NYC LPPP will continue to use existing partnerships with other DOHMH home visiting agencies (the DPHO, the Asthma Initiative, and the Window Falls Prevention Program), HPD and other NYC agencies, NHS and other community partners, local associations, homeowner focus groups, HUD, and others to implement lead and healthy homes interventions.

NYC LPPP will continue to promote awareness of lead poisoning prevention through participation in tenants' nights and owners' nights and providing parent talks and training for staff. Brochures and other educational materials on lead poisoning and financial resources available for lead hazard repair will be distributed city-wide.

Niagara County Primary Prevention Program

Note: the Niagara program began in Year Three. It began conducting investigations during the first quarter of the year.

Target Area: The 14301 zip code will be designated as the "area of high risk." Within this area, one or more block groups will be designated for door-to-door efforts.

Housing Intervention: The Neighborhood Intervention Strategy within designated high-risk areas will be as follows:

1. ***Community Outreach:*** In cooperation with community groups, the LPPP will sponsor informational sessions to raise awareness among residents about lead poisoning and to gain access to dwellings within high-risk areas.
2. ***Initial Block Survey:*** Staff will identify dwelling units with young children and attempt to gain access to the units housing children less than six years of age. Staff will conduct a risk assessment of the paint condition, educate the residents, and determine if the children have been tested for elevated blood lead levels. Cleaning supplies will be provided to ensure a lead-safe environment.
3. ***Full NYS EBLL Risk Assessments:*** Dwelling units within the high-risk areas, which have been determined to have deteriorated paint and which house children less than six years of age, will be selected for a full NYS EBLL risk assessment.

Inspection Protocol: Visual risk assessments of all properties, as well as a limited number of full NYS EBLL risk assessments, will be completed. Owners will be notified of the intention to conduct a full risk assessment. If a property is determined to have lead-based paint hazards, owners will be issued a Notice and Information seeking remediation of all hazards in accordance with LSWP. Owners who fail to bring property into compliance will be subjected to a Notice and Demand followed by administrative actions or a summons to housing court.

Clearance Testing: Upon completion of the required work, owners will receive clearance examination and results from the LPPP. Failures will be cleared by a third-party at the expense of the owner.

Incentives: Property owners and maintenance workers who submit proof of LSWP or EPA Renovators trainings will be eligible for a lead-safe work practices supply kit, including primer and other painting supplies. Residents who participate in the program will receive cleaning supplies and household items to reduce the potential lead exposure in their homes. These supplies will include mops, buckets, wipes, and cleaner.

Building Work Force Capacity: The program will contract with Environmental Education Associates to provide at least five lead-safe work practice trainings to property owners, maintenance workers, and residents.

Identifying Resources for Lead Hazard Control: Niagara County's partnership with Environmental Education Associates helped it receive a $100,000 lead-hazard capacity building grant from Housing and Urban Development. They plan to apply for a much

larger grant by the end of 2010 for aiding our efforts. They will also work with other program partners to identify the full range of current and potential resources available to property owners to assist with the remediation of conditions conducive to lead exposure.

Developing Partnerships and Community Involvement: Niagara County Department of Health LPPP will actively engage community groups and agencies within the target areas to collaborate. A minimum of three "Train the Trainer" classes will be held for the staff of collaborating agencies. Partners are the following:

- Community Health Worker Program
- Environmental Education Associates
- NCDOH Healthy Neighborhoods Program
- Niagara Falls Inspections Department

Oneida County Primary Prevention Program

Target area: Oneida County will identify specific census tracts and block groups in the zip codes 13501 and 13502 as an "area of high risk" based on GIS mapping that includes age of housing stock, income level, and rental units. Additional census tracts and block groups in these zip codes were added in Year Three based on analysis of patterns of request for LPP services from parents of newborns.

Housing intervention: Properties eligible for inspections will sub-target infants born in 2008, 2009, and 2010, children under age three, or units that will house refugee families with children under the age of six. Birth registry data is matched to list of streets in high-risk census tracts and block groups to facilitate contact and offer free inspection and lead hazard reduction education services to every parent with a newborn.. Parents without phone service are contacted by mail. Failure to make contact results in a personal visit to attempt contact. Interpreters make telephone calls to those residents with limited English proficiency to explain the program and encourage the scheduling of a home inspection visit. Interpreters are used on all inspection and education visits where there is limited English proficiency. Families with children with EBLL's of 10-14 are offered free housing visual inspections and dust wipe sampling in the high-risk areas.

The program will conduct a mass mailing to selected landlords to invite them to a meeting to discuss the "new high-risk designation" label in order to convince them to participate. The information provided will include education on New York State, Oneida County, and City of Utica laws pertaining to housing maintenance and codes, Federal Disclosure Rule regulations, and maintaining tenant records.

Inspection protocol: The basic inspection protocol will consist of visual inspections by health department personnel along with dust wipe sampling. Property owners whose properties are found to contain chipping and peeling paint and/or lead dust hazards will be given a Notice and Information letter that includes digital photographs of hazards, laboratory report of dust wipe sampling, floor plan detailing hazard areas and requirements to use a certified Renovator or complete Renovator training themselves. Property owners who comply with the Notice and Information will receive a re-

inspection and clearance examination with dust wipe sampling. Failure to comply may result in XRF testing of surfaces and issuance of a Notice and Demand or further enforcement activity.

Those rental units housing children identified as high-risk per the Pilot will receive free professional specialized cleaning after the work is completed, and free clearance testing will be provided to support the development of a lead-safe housing registry in the future. Children will be followed for up to two years to insure blood lead level remains under lead poisoning levels of concern. A HEPA vacuum loaner program will be available to other landlords in the target area, and one free clearance testing will be offered up to the limits expressed in the grant for units housing children.

A message will be conveyed that property owners may decrease liability claims due to lead poisoning incidence in their rental units, avoid issuance of Notice and Demand, avoid rental income being held up until repairs are completed, avoid a codes fine if they fixed it adhering to a lead-safe manner and if repairs are completed within 30 days of official contact or at a date to be negotiated depending on extent of repairs. Non-compliant property owners will be subjected to a full risk assessment and Notice and Demand and referral for codes violations.

Incentives: Tenants who participate receive a free cleaning kit consisting of cleaning instructions, a mop kit with cleaning solution and pads, small bucket, cleaning solution, spray bottle, and paper towel. They also receive a free primer touch-up kit consisting of primer, foam brushes, and instructions on touching up additional chipping paint after landlord repairs to prevent contact with lead-based paint until the landlord can repair it. The HEPA vacuum program has been expanded to the entire county with the help of a grant from Excellus BlueCross BlueShield.

Clearance: Clearance will be offered free to property owners who comply with the Notice of Information letter or to landlords who plan to rent to refugee families prior to their occupying the unit, up to the limits expressed in the grant.

Building workforce capacity: RRP trainings will be offered to property owners and tenants. The LPPP grant will provide free RRP eight-hour training for eligible property owners who receive a Notice and Information and wish to make repairs themselves. Those who have completed the eight-hour LSWP will be offered the RRP Refresher. Health Department staff will receive additional training to increase capacity in risk assessment and sampling technician.

Identifying resources for lead hazard control: The LPPP collaborated with the City of Utica to obtain a HUD Lead Hazard Control Grant in 2009 for over $2 million dollars to renovate 160 units over three years.

Developing partnerships and community involvement: The following organizations have partnered with Oneida County:

- Safe Housing Coalition of Central New York

- GroWest, a local renovation contractor
- Hope VI
- Mohawk Valley Community Action and MVCAA Head Start
- Utica Municipal Housing Authority
- Mohawk Valley Community College
- Oneida County Health Coalition
- Oneida County Department of Social Services
- Office for the Aging and Continuing Care
- United Way
- City of Utica Codes Enforcement, Department of Urban and Economic Development, Utica Fire Department, Utica Police Department
- Mid York Library Systems
- Oneida County and local City Clerks
- Contractor Connections
- Workforce Development Institute of Oneida County
- Mohawk Valley Refugee Resettlement Center
- Adirondack Bank
- Excellus BlueCross BlueShield
- St. Elizabeth Community Design Team
- Multi-cultural Association of Medical Interpreters
- Oneida County Workforce Investment Board & Neighborhood Works: Homeownership Center

Onondaga County Primary Prevention Program

Target area: Onondaga County has identified the entire City of Syracuse as the target area, with a focus on zip codes 13204, 13205, and 13208.

Housing intervention:

1. Eligible households can be characterized as (a) a property in which a child age six or under resides or regularly visits or a pregnant woman resides, (b) a property built before 1950, (c) a property with chipping and peeling paint; (d) a property located in the target area, and (e) rental property.
2. Referrals for home-based inspections will be accepted from code enforcement, community partners, DSS, health department programs, and tenants. Onondaga County Health Department (OCHD) also has a list of repeat properties that will be targeted for inspection during Year Three.

3. OCHD will conduct door-to-door outreach in several of the highest-risk census block groups. An attempt to inspect all rental units built prior to 1950 will be made. Property owners and tenants will be notified of the planned door-to-door outreach.
4. Home visits will be conducted for newly arrived refugee families. With the assistance of the two local resettlement agencies, OCHD staff will provide basic lead education to the family, perform an assisted cleaning of their unit to remove lead paint chips and lead dust, and leave the family with cleaning supplies to continue the cleaning.

Inspection protocol: OCHD will conduct a lead hazard risk assessment using the HUD *de minimis* standards. The program will also collect dust wipes as part of the initial inspection if no lead paint hazards are identified—this is to ensure there are no lead dust hazards.

A Notice of Violation (equivalent to NYS Notice and Demand) will be issued for the property. Property owners are provided information on LSWP and trainings, programs providing financial support, and information on EPA-certified contractors.

Incentives: The incentives program has two parts. An incentive package is available for owners, managers, or tenants of properties *cited under the program* to attend LSWP/RRP training. The package includes cleaning supplies and LSWP materials. A second part of the program is the conservation kits that are provided to landlords that cooperatively request a lead inspection, as part of the door-to-door inspection effort.

Clearance testing: Clearance testing of properties will be required when the repair of identified hazards is completed. The program will pay for the tests.

Building workforce capacity: The program will support local property owners, managers, and tenants to attend LSWP training. Notification of these free trainings will be included with each Notice of Violation and will be advertised in the target communities. RRP trainings will also be offered primarily to individuals completing work on properties cited under the program.

Identifying resources for lead hazard control: There are no local ordinances regarding lead paint. The LPPP has identified the need for enhanced lead legislation and is working with the Syracuse Lead Task Force to begin developing ideas for this to present to a local city councilor. The City of Syracuse and Onondaga County Community Development both receive Lead Hazard Control/Lead Demonstration Grants from HUD.

Developing partnerships and community involvement: OCHD partners include the following organizations:

- Code Enforcement
- Local Department of Social Services – Foster Care Program, Public Assistance
- Syracuse Lead Task Force

- Community Based Organizations
- City of Syracuse HUD Grant
- Childcare providers
- Healthcare providers
- Refugee resettlement agencies

Orange County Primary Prevention Program

Target area: Orange County has identified two target areas. One is census tracts 3, 4, and 5 within zip code 12550, which is located in the city of Newburgh. The other is the City of Middletown, census tracts 11, 12, and 14 in zip code 10940. There are also focus areas within the census tracts that consist of several blocks.

Housing intervention: Orange County DOH will:

1. Declare the census tracts within new target area an area of high risk.
2. Go door-to-door in the target areas, inspecting *all* residences accessed with the use of an XRF. The same inspections will be conducted based on referrals from DSS, local code enforcement and Community Development, as well as from other programs in the LHD. Other modes of outreach will continue, such as outreach at agencies, bus stops, and landlord and tenants association meetings.
3. Respond to inspection requests from tenants, property owners, and other interested parties.
4. Accept referrals from Community Health Outreach Childhood Lead Program for children residing in the target area with blood lead levels from 10-14 μg/dL.
5. Issue Notice and Demands to the owners of property where lead paint hazards are identified.
6. Refer any suspect code issues to both cities' code enforcement offices.
7. Hold administrative hearings for those property owners that are non-compliant, assessing monetary and legal penalties.
8. Require clearance testing, including dust sampling, when the repair of identified hazards is completed.

Inspection protocol: An EPA-certified risk assessor from Orange County Department of Health (OCDOH), with the use of an XRF, will inspect the interior and exterior of all residential buildings in the target area.

Incentives: As an incentive to allow for an inspection of their apartment, tenants will be offered cleaning supplies including cleaning solution, paper towels, buckets, sponge mops, cleaning cloths, sponges, latex gloves, and garbage bags. Children's buckets, shovels, and playground balls with the OCDOH/LSO logo will be offered as well.

Paint, paint brushes, and wipes are also provided for residents to use after an XRF inspection takes place. This practice will reduce exposure while the Notice and Demand and work plan processes take place.

Homeowners who perform their own remediation will be encouraged to complete LSWP training, as provided by the Orange County Office of Community Development. Homeowners who complete the LSWP training and who will do the work themselves will receive a prescribed set of supplies, such as plastic sheeting and painting supplies (including rollers, paint brushes, roller pans/buckets, primer, and other associated materials), with a $300 limit of supplies per property owner. The sanitarian will directly supervise remediation to ensure that these items are used for the intended purpose and conduct clearance testing (including dust sampling) when repairs are completed.

Clearance testing: Dust sampling will be performed by EPA-certified staff from the OCDOH or other EPA-certified individuals once the property owner has notified OCDOH that all required repairs have been completed.

Building workforce capacity: A list of local certified contractors has already been developed, and the adequacy of this work force will be assessed. Additionally, the County's Office of Community Development is offering LSWP training to property owners and contractors throughout the County, as well has locating training sessions within the target area.

Identifying resources for lead hazard control: The county Office of Community Development already has several grant programs available for property owners to remediate hazardous lead conditions, including a HUD community block grant that specifically targets the repair of lead paint hazards. A list of these funding sources is included with the notice and demand. The LHD will work with other county agencies to obtain additional funding sources for homeowners.

Developing partnerships and community involvement: The LPPP will continue to collaborate with other DOH Divisions. The program will also continue to collaborate with city code offices. The program partners with other county agencies including Real Property, Finance, Community Development, and Social Services. They have organized and head a Lead-Safe Orange Coalition consisting of community partners, parents, and activist organizations. The mission of the Coalition will be to promote policy and systems changes in the targeted cities.

The Division of Community Health Outreach conducts a media campaign to bring this initiative to the attention of the public. This will consist of press releases, outreach to community groups, tenant advocate groups, landlord associations, and civic groups. They also seek to provide "public health detailing" to various individuals and organizations, including faith-based organizations, medical providers, and home remodeling businesses serving the Newburgh and Middletown areas.

Rensselaer County Primary Prevention Program

Note: as of June 30, 2010, Rensselaer, which began in Year Three, reported that it is still in the earlier stages of development; initial inspections and clearances are just beginning. The incentive program for property owners, tenants, and contractors is in place. LSWP and RRP trainings are being provided free to the public and have been appreciated greatly by the residents and participants of the program, according to community feedback. Numerous paid and free media events have taken place promoting the program and many community partnerships have been established.

Target area: Rensselaer County has designated the 12180 and 12182 zip codes as its high-risk target areas. Primary focus will be given to the 12182 zip code due to its high percentage of newly confirmed lead cases above 10 μg/dL and due to the high percentage of homes built pre-1950.

Housing intervention: Rensselaer County DOH will:

1. Use the high-risk area previously defined.
2. Contract with Rensselaer County Cornell Cooperative Extension for the performance of initial inspections and inspection follow-up activities by EPA-certified staff.
3. Identify and inspect residential units built pre-1980 within the designated target areas, where a child six years of age and under, with a confirmed Blood Lead Level (BLL) 10-14 μg/dL, currently resides. Adjacent residential units in the same property will also be inspected in an effort to make whole properties lead-safe. In the event that there are no eligible homes with children with BLLs between 10 and 14 μg/dL then this range will be dropped to 5-9 μg/dL. Accept referrals from new and established community partnerships and voluntary property owners or tenants, as each property/residence is expected to meet the current target definition criteria listed above.
4. Identify and inspect potential high-risk lead paint hazards outside of the designated target areas with New York State Department of Health's consultation and approval.
5. Conduct visual and XRF inspections as necessary.
6. Issue Notice and Demand to property owners of residential units where lead paint hazards are identified, which will include guidance on remediation and assistance, applications for incentives, and listings of scheduled LSWP and RRP courses. Lists of EPA-certified contractors will be provided as necessary.
7. Pursue legal actions against property owners who remain unresponsive after issuance of Notice and Demand. Legal action will take place with the assistance of the Rensselaer County Attorney's Office in order to gain compliance through existing enforcement procedures.

Inspection Protocol: After each identified and/or referred property has been determined to meet the current target definition, a visual and XRF inspection of the property will be conducted by an EPA-certified lead risk assessor. Interior and exterior painted surfaces as

well as all common areas of the properties will be checked for lead hazards. The process for the inspection can be found in CSFP 730 of the *Environmental Health Manual*.

Incentives: HEPA vacuums will be offered for use free of charge to homeowners performing their own remedial actions. LSWP training will be offered free of charge to any persons residing within any defined target area or property defined as a lead hazard. Items to assist homeowners with remediation efforts will also be made available through a mini-grant program.

Clearance testing: Rensselaer County DOH conduct visual clearance inspections, including initial dust sampling, of remediated units.

Building workforce capacity: RCDOH has partnered with Rensselaer County Cornell Cooperative Extension (CCE) for the current grant year. The first two quarters of the 2009-2010 fiscal year will primarily focus on program and staff development. Staff members will receive proper program training and EPA Lead Risk Assessor certification in order to conduct visual and XRF inspections regarding lead paint hazard identification. The County currently has a GIS-based mapping program and is working with IT staff to develop the database and add a mapping layer specific to the Primary Prevention Program.

RCDOH will partner with Albany Cornell Cooperative Extension to offer training programs such as two Lead-Safe Work Practices trainings and two Renovation, Repair, and Painting trainings to property owners, contractors and residents. RCDOH will also partner with Schenectady County and Albany County in offering these training sessions to increase the availability of sessions to residents in all three counties.

Identifying resources for lead hazard control: RCDOH will hold a partnership luncheon to build and strengthen partnerships, in hopes of forming a Lead Prevention Coalition or lead based designated Task Force. One of the main goals of the newly developed coalition or task force will be to identify and pool local resources. RCDOH will be working closely with new and existing partners to identify additional funding sources to facilitate this program and to provide assistance to homeowners and/or tenants.

Developing partnerships and community involvement: RCDOH has developed a close working partnership with Cornell Cooperative Extension and will continue to maintain that partnership. Partnerships with Rensselaer County IT staff and the County's executive office will continue. RCDOH will develop more relationships with agencies that share common goals and will be able to provide resources to assist. This is anticipated to be accomplished through the development of a lead-free coalition or task force, as mentioned previously. Some of the anticipated agencies that we will be working with include, but are not limited to:

- Troy Code Enforcement
- Section 8
- Troy Housing Authority

- Commission on Economic Opportunity (CEO) Program
- Troy Rehabilitation and Improvement Program (TRIP)
- Troy Architectural Program (TAP)
- U.S. Department of Housing and Urban Development (HUD)
- Women, Infants, and Children (WIC) programs
- Maternal and Child Health Home Visiting Program
- Newborn Services
- Social Services
- Child and Family Services
- Local fire inspectors
- Community- and faith-based organizations

A key partner in this program will be the City of Troy, as they have recently developed a landlord registry. Formalized MOUs will be developed with participating agencies for the purpose of completing program goals and objectives.

Schenectady County Primary Prevention Program

Target area: Schenectady County originally identified the 12307 and 12304 zip codes within the City of Schenectady as its high-risk target areas. Adjacent zip codes 12303 and 12308 with similar housing stock 12303 and 12308 were later added.

Housing intervention: Schenectady County DOH will:

1. Continue to work in the high-risk designated area within the target zip code areas and notify property owners through press releases and print materials.
2. Accept referrals of properties from various partners, including the County's Healthy Neighborhoods Program, other County DOH programs (MCH, Schenectady Healthy Families), the City of Schenectady's HUD Lead Hazard Control grant, Schenectady Municipal Housing Authority (SMHA), and CBOs, as well from tenants and property owners.
3. Conduct visual and XRF inspections of referred units, starting with the following:
    a. Residential units that were occupied by a lead-poisoned child with a confirmed EBL of ≥20 µg/dL (which cases have been environmentally closed and are presently occupied by a child younger than six years old).
    b. Units that were or are occupied by a lead poisoned child with a confirmed EBL of ≥10 µg/dL, and is presently occupied by a child younger than six years old.
    c. Units identified through the HNP grant with potential lead paint hazards.

4. Conduct visual and XRF inspections of all adjacent residential units in the same property in an effort to make whole properties lead-safe.
5. Issue Notice and Demand to property owners of residential units where lead hazards are identified. The grant will work with other agencies, like the SMHA Section 8 inspections, to provide an enhanced inspection by offering HEPA vacuums and completing dust wipe clearance to units SHMA has identified with potential lead problems. The grant will work with property owners to secure funds, if possible, to complete lead remediation work.
6. Conduct clearance inspections, including dust sampling, of these properties.
7. Pursue legal actions against property owners, when necessary, with the assistance of the Schenectady County Attorney's office, using existing enforcement procedures.

Inspection protocol: Units referred because of defective paint conditions will be inspected by Environmental Health staff working in the grant program. Visual and XRF inspections of properties within the target area will be conducted by an EPA-certified risk assessor. Interior and exterior painted surfaces as well as all common areas of the properties will be checked for lead hazards.

Incentives: Schenectady County will not be providing direct incentives to assist in lead paint remediation. The grant will provide LSWP training to property owners and contractors conducting lead remediation within the target area. Additionally, HEPA vacuums are made available free to parties conducting lead remediation work for both the Primary Prevention and the City of Schenectady Lead Hazard grants.

Clearance testing: Dust sampling will be performed by EPA-certified risk assessors working in the grant, upon completion of lead hazard remediation work.

Building workforce capacity: Schenectady County Environmental Health will offer educational training programs targeting both property owners and contractors performing lead remediation projects in the 12304 and 12307 zip codes. The Albany County Cooperative Extension will provide both LSWP and RRP Rule training. The grant has partnered with LPPP grant in Albany and Rensselaer Counties to provide staggered trainings in each jurisdiction.

Identifying resources for lead hazard control: Schenectady County Environmental Health will work closely with property owners of residential units that have been identified with lead hazards to give them information pertaining to the City of Schenectady lead remediation grant, which is still accepting property referrals. This information will be made available to them when a Notice and Demand is sent out in an effort to speed up application and acceptance into the City's grant. If income-eligible, the City's grant will provide property owners with an available funding source for lead remediation activities.

Developing partnerships and community involvement: The Schenectady County Environmental Health Unit will collaborate with several existing Schenectady County

Public Health Services programs, including the Healthy Neighborhood Program, the Childhood Lead Poisoning Program, the Schenectady Healthy Families program and the Maternal Child Health program. It is also partnering with the City of Schenectady Lead Remediation Program and the Schenectady County Planning Department. Additionally, the grant has built partnerships with several other community-based agencies through outreach and education about the grant, including Schenectady Land Trust, Better Neighborhoods Inc., Habitat for Humanity, and the Schenectady Weed and Seed program. MOUs are being drawn up with SMHA to provide enhanced inspections for Section 8 properties with potential lead problems.

The Schenectady County Environmental Health Unit will collaborate with the Schenectady County Public Health Services Maternal Child Health program to evaluate blood lead screening data of children living in the target zip code areas and refer those children that have not yet been screened for blood lead testing. Families living in the target area having children with EBLLs of 10-15 µg/dL will be offered inspections of their residences to check for lead hazards.

Westchester County Primary Prevention Program

Target area: Westchester County has expanded its target areas in the grant cycle 2009-2010. The current target area of zip code 10701 in Yonkers has been expanded to include the 10705 zip code. The new zip codes are 10550, in the City of Mount Vernon; 10801, in the City of New Rochelle; and 10606, in the City of White Plains.

Housing intervention: Westchester County will take the following actions:

1. Continue to perform door-to-door canvassing as necessary.
2. Target multi-family residences that previously had a child living in a unit who had an elevated BLL and was the focus of an investigation by the Childhood Lead Poisoning Program. (CLPP)
3. Work with the information provided on LeadWeb to focus on addresses of children who have had a BLL of between 10 and 15 µg/dL.

Inspection protocol: When defective paint conditions are observed during a visual inspection of a residential building by a program partner or one of the trained staff, an EPA-certified risk assessor from LPPP will perform an inspection of the interior and exterior of the residential buildings with the use of an XRF.

We utilize a revised Notice and Demand which automatically summons the property owner to a work plan meeting, which takes place between two to four weeks after the date of the initial notice. At this meeting, target dates for remediation are specifically given. These dates are dependent on the scope of the work that is needed.

Incentives: Property owners are made aware of all funding sources currently available to assist in financing lead hazard control efforts. In addition, property owners, contractors, and other interested parties are made aware of lead-safe work practice certification classes offered through LPPP. LPPP staff distribute incentive items including but not

limited to cleaning products, buckets, sponges, flashlights, and smoke detectors, depending upon the needs of the tenant or landlord. This reduces injury risks and increases the likelihood of gaining entry to units and successfully conducting lead risk assessments. Many of these items have our program name and contact information on them to assist in promotion of the program.

Specially designed door hangers, which explain our program and how to contact us, are being used during door-to-door outreach whenever no one is at home.

Clearance testing: Dust sampling/clearance testing is being performed by WCHD's EPA-certified risk assessors once they have verified that all required repairs have been completed.

Building workforce capacity: WCHD offers the Lead-Safe Work Practices training course free of charge. Staff has been trained to conduct this hands-on approach to working lead-safe. The Westchester County Department of Emergency Services allows WCHD to use their classroom space free of charge to conduct the course.

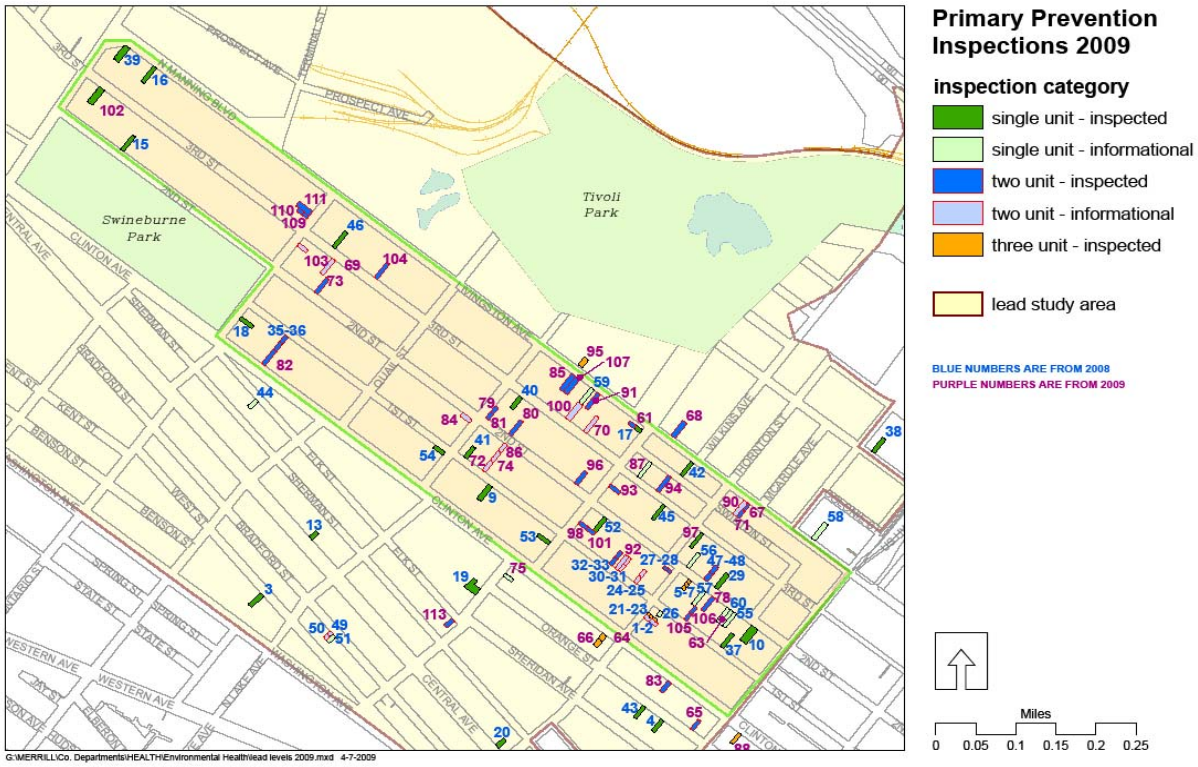
Identifying resources for lead hazard control: WCHD works with the WC Planning Department to inform homeowners of available funding sources. Another partner is Hudson Valley Region 211, a free, confidential, multilingual information and referral telephone service that puts callers in touch with services that can assist them.

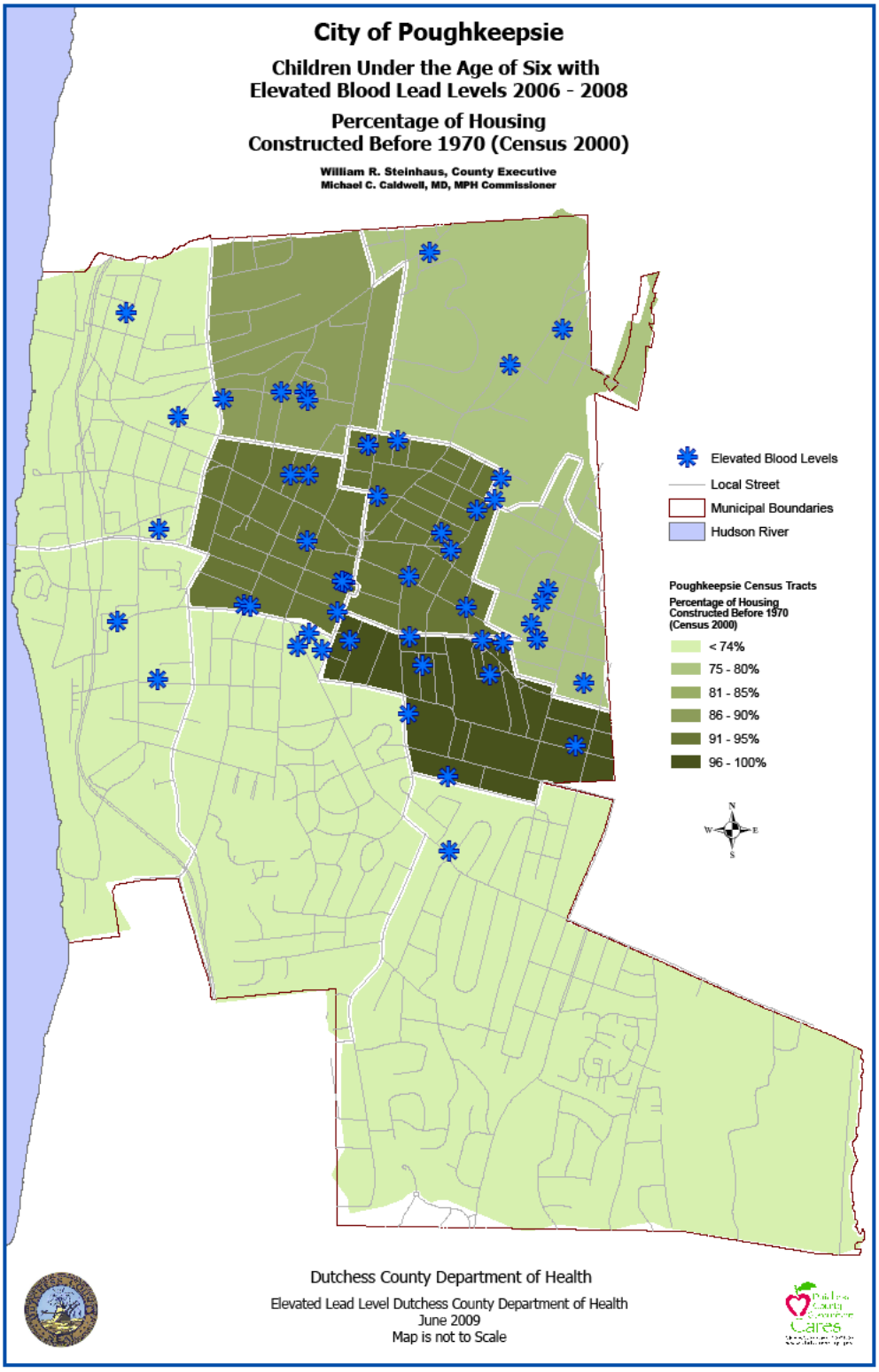
Developing partnerships and community involvement: The LPPP collaborates internally with the Childhood Lead Poisoning Program, the Healthy Neighborhood Program, and the Lead-Safe Westchester Program. Within the City of Yonkers, partnerships with other agencies include the Yonkers Building Department, CLUSTER, WESTHAB Inc., and the Nepperhan Neighborhood Community Center. During the summer months, a partnership with Saint John's Episcopal Church allows for outreach at the farmer's market on Thursdays.

New partnerships in the expanded target areas will include local governmental, community-, and faith-based organizations. Partners are encouraged to attend the LSWP course in order to obtain a more thorough understanding of the program. The course will also educate employees of those partners to be aware of conditions conductive to lead poisoning. WCHD is using the Healthy Neighborhood Model to establish rapport with community-based organizations in the target areas and is actively eliciting support in raising awareness of the initiative and achieving its goals.

WCHD has started an outreach program at day care centers and schools to educate children on lead hazards, proper hand washing, and diet. Westchester County Department of Emergency Services to use their classroom space free of charge to conduct our Lead-Safe Work Practice course.

APPENDIX C – EXAMPLES OF GRANTEE MAPS: ALBANY COUNTY AND DUTCHESS COUNTY




City of Poughkeepsie
Children Under the Age of Six with
Elevated Blood Lead Levels 2006 - 2008
Percentage of Housing
Constructed Before 1970 (Census 2000)
William R. Steinhaus, County Executive
Michael C. Caldwell, MD, MPH Commissioner
Elevated Blood Levels
Local Street
Municipal Boundaries
Hudson River
Poughkeepsie Census Tracts
Percentage of Housing
Constructed Before 1970
(Census 2000)
< 74%
75 - 80%
81 - 85%
86 - 90%
91 - 95%
96 - 100%
N
W
E
S
Dutchess County Department of Health
Elevated Lead Level Dutchess County Department of Health
June 2009
Map is not to Scale

APPENDIX D – ADDITIONAL DATA TABLES

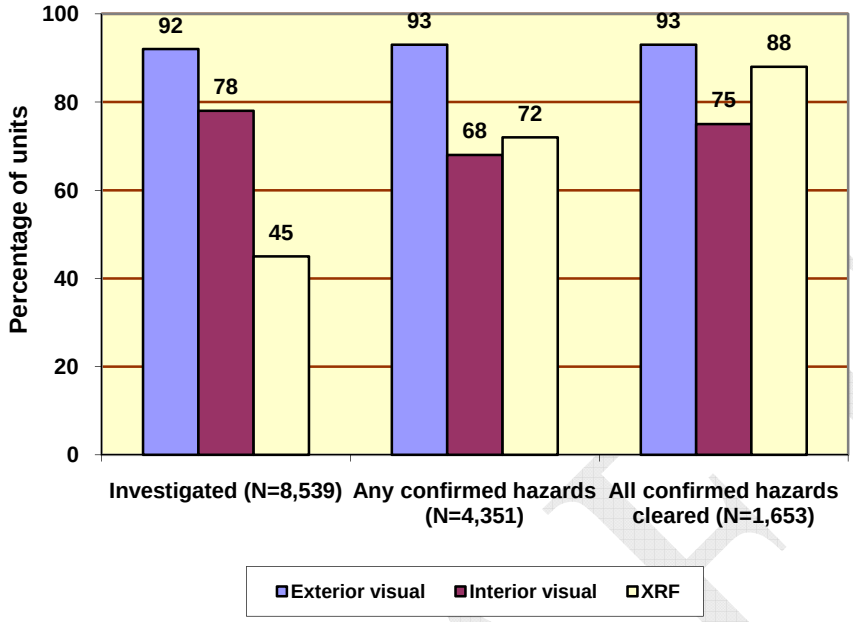
The overall methodology for describing grantees' interventions to create lead-safe housing units is described in Chapter 5. The rules below describe in more detail how the quantitative analyses were conducted.

1. Exclude units investigated in Year One or Year Two (i.e., before October 1, 2009) that required no additional follow-up by the grantee. This rule excluded (1) all units that the grantee had investigated in either of those years and determined to have no hazards and (2) all units investigated in those years in which all hazards found had been cleared.
2. Exclude units that had no initial visit or investigation. This rule also excluded units that had data, such as number of children, but where the unit was never visited by staff of the LPPP or staff of other agencies deputized or funded by the LPPP.
3. Include only activities that occurred before the end of the fourth quarter of Year Three (i.e., September 30, 2010). For example, if a unit was investigated before September 30 but cleared of hazards after that date, the unit was included in analyses related to the investigation but not in analyses related to clearance; if both the initial visit and investigation occurred after September 30, that unit was excluded from all the analyses.
4. Conduct some analyses using only those units first investigated in Year Three and others using those units plus the units first investigated in Year One or Year Two and not excluded as a result of Rule 1 above. Some analyses also included 331 units that had incomplete information about the investigation, which prevented their being classified by specific year, or for which the grantee did not conduct the investigation. Tables and figures in the report are annotated to show which data set was used.
5. Include only activities that were performed by the grantee or an organization deputized or funded by the grantee. For example, if the investigation was conducted and funded by another organization but the unit was referred to the grantee to follow up for confirmation of remediation and clearance, then the hazards found at that unit and the actions taken by the grantee were included in the analyses but the unit was not counted as investigated by the grantee.
6. Exclude cases as missing if the unit lacks data for any one variable in a set of comparisons (e.g., if a unit was identified as having a clearance, but no hazards were reported as identified in the unit, then the clearance was treated as missing for discussion of units with hazards that had received clearance).
7. For cases where the grantee could report the occurrence or nonoccurrence of an activity as well the date when it occurred, "no" answers were re-coded as "yes" if a date was provided.
8. For cases where the grantee could report the occurrence or nonoccurrence of an activity as well provide additional detail about the activity, "no" answers were re-coded as "yes" if additional information was provided. For example, if a grantee reported that a second visit was not made to a unit but later described activities that occurred at a second visit, then the question about a second visit was re-coded as "yes."

9. Where a grantee could respond to a question by choosing one or more of the available answers (i.e., where the instruction was to "check all that apply"), if any response was chosen, then that response was coded "yes" and all other response possibilities were coded as "no."
10. Where clearance dates had not been provided for all confirmed hazards and a grantee provided information about a unit that was only valid if a unit had been cleared of all hazards, the additional information provided by the grantee was excluded from the analyses.
11. For table cells that did not apply to a particular grantee, "NA" was used to show that the cell did not apply (e.g., if the grantee had no units that were cleared of hazards and the cell described the length of time to clear hazards). NA was also used in some cases where data were missing in order to distinguish absence from a valid zero.

While the reader might expect that the summary data generated from NCHH analysis of the unit-based data would be equivalent to the summary data provided in the quarterly reports, numbers in the quarter reports might be either larger or smaller than numbers from the analysis of unit-based data. There are several reasons why the reports might differ. First, the summary data NCHH generated from the unit-based dataset includes units carried over from previous years, while the data grantees provided in the quarterly reports on investigations and potential and confirmed hazards would reflect only units first investigated in Year Three. Second, grantees sometimes included in their quarterly reports data on additional units other than those being tracked by the evaluation (such as housing units visited by Healthy Neighborhood Program staff but not investigated with funds from the LPPP). Where there are differences, the quarterly report numbers are generally smaller.

Figure D.1. Investigative Procedures Used in Units Investigated, Confirmed to Have Hazards, and Cleared of Hazards, through Fourth Quarter of Year Three



Source: Unit-based data. Includes all units investigated in Year Three or carried over from previous years, even where investigation data were incomplete or the grantee did not conduct the initial investigation.

Note: A single unit could have had more than one investigative procedure.

Table D-2. Investigation Results for Year Three

	Renewing grantees												New grantees	
	Albany	Broome *	Chautauqua *	Dutchess *	Erie	Monroe	New York City	Oneida	Onondaga	Orange	Schenectady *	Westchester	Niagara	Rensselaer
Investigated														
Y3 units	159	89	90	433	795	2347	875	458	339	136	44	324	92	15
All units in Y3 database	222	104	119	439	1210	3467	1043	572	483	244	53	476	92	15
Potential hazards														
Number of units	179	100	108	302	1117	2370	1327	554	465	220	46	402	74	15
Confirmed exterior hazards														
Number of units	150	47	46	0	971	526	0	492	449	101	37	143	14	15
Number cleared	63	14	5	NA	509	119	NA	131	226	9	27	65	3	2
Percent cleared	42	30	11	NA	52	23	NA	27	50	9	73	46	21	13
Confirmed interior hazards														
Number of units	140	81	112	0	63	330	674	206	357	151	43	298	11	14
Number cleared	59	21	10	NA	24	72	551	144	194	25	30	124	2	2
Percent cleared	42	26	9	NA	38	22	82	70	54	17	70	42	18	14
Any confirmed hazards														
Number of units	154	85	114	0	1008	697	674	525	465	175	47	377	15	15
Number cleared of all hazards	64	16	7	NA	378	87	551	142	232	16	33	123	2	2
Percent cleared of all hazards	42	19	6	NA	38	12	82	27	50	9	70	33	13	13

Source: Unit-based data for units investigated in Year Three or carried over from previous years, even where investigation data were incomplete or the grantee did not conduct the investigation.

** Grantees entered in Year Two.*

Note 1: "Y3 units" are those first investigated in Year Three. "All units in Y3 database" are those first investigated in Year Three plus those carried over from previous years because hazards were not remediated and cleared before Year Three.

Note 2: The data in this table may not be directly comparable to the data that appeared in grantees' quarterly reports for Year Three. (See explanation at the beginning of Appendix C.)

Note 3: New York City has 284 more units with potential hazards than units investigated because of units identified through various registries and referrals systems, including homes referred by the city's Newborn Home Visiting Program (NHVP), the city's Asthma Initiative, and buildings previously cited for lead-based paint hazards or where a child with a BLL of 10-14 µg/dL resides. When the grantee was unable to conduct an investigation in a referred unit, the unit was counted as having a potential hazard but no investigation, and no remediation was ordered (See Rule 5 above).

Note 4: Some units not counted as having confirmed hazards at this time may be re-coded as having hazards later, once some hazards currently coded as "not verified or still in process" are resolved. Units could not be considered cleared of all hazards if some hazards were not verified or still in process.

Note 5: In addition to these units shown as cleared of all hazards, one housing unit in Albany was cleared of hazards but whether the hazards were exterior or interior was not specified.

Table D.3. Building Type of Units Investigated, Year Three

	Renewing grantees												New grantees	
	Albany	Broome *	Chautauqua *	Dutchess *	Erie	Monroe	New York City	Oneida	Onondaga	Orange	Schenectady *	Westchester	Niagara	Rensselaer
Owner-occupied	19 *9%*	10 *11%*	25 *23%*	92 *29%*	486 44%	92 *3%*	0	161 *29%*	34 *7%*	36 *15%*	4 8%	69 *16%*	19 *21%*	4 *26%*
Rental, 1-2 units	164 *76%*	43 *46%*	72 *66%*	86 *27%*	583 52%	2154 *62%*	258 *25%*	300 *53%*	324 *67%*	89 *38%*	37 *77%*	42 *10%*	52 *57%*	7 *47%*
Rental, 3+ units	32 *15%*	40 *46%*	13 *12%*	141 *44%*	45 4%	1195 *35%*	783 *75%*	102 *18%*	125 *26%*	108 46%	7 15%	314 *73%*	20 *22%*	4 *27%*
Total	215	93	110	319	1114	3441	1041	563	483	233	48	425	91	15

Source: Unit-based data for units investigated in Year Three or carried over from previous years, even where investigation data were incomplete or the grantee did not conduct the investigation.

** Grantees entered in Year Two.*

Note 1: The data in this table may not be directly comparable to the data that appeared in grantees' quarterly reports for Year Three. (See explanation at the beginning of Appendix C.)

Note 2: Total shown is the number of housing units where the unit type was known and reported.

Note 3: Shading shows housing type most frequently investigated by each grantee, where half or more of the investigations were conducted in one type of housing.

Table D.4. Notification Approach when Potential or Confirmed Hazards were Found, Year Three

	Renewing grantees												New grantees	
	Albany	Broome *	Chautauqua *	Dutchess *	Erie	Monroe	New York City	Oneida	Onondaga	Orange	Schenectady *	Westchester	Niagara	Rensselaer
Potential hazards														
Number of units	177	92	102	301	1112	2266	1327	318	465	212	43	384	71	15
Notice and Demand	172	5	0	0	970	117	0	4	438	201	36	232	6	15
Other notice	0	82	100	301	138	2120	698	250	27	0	6	144	65	0
No notice	5	5	1	0	4	7	629	3	0	9	1	5	0	0
Unknown	0	0	1	0	0	22	0	61	0	2	0	3	0	0
Any confirmed hazards														
Number of units	153	78	108	NA	1004	682	674	290	465	169	44	376	14	15
Notice and Demand	152	5	0	NA	952	110	0	4	438	168	36	230	5	15
Other notice	0	71	106	NA	50	567	674	224	27	0	7	142	9	0
No notice	1	2	1	NA	2	5	0	1	0	0	1	4	0	0
Unknown	0	0	1	NA	0	0	0	61	0	1	0	0	0	0

Source: Unit-based data. Includes all units investigated in Year Three or carried over from previous years, even where investigation data were incomplete or the grantee did not conduct the investigation.

** Grantee entered in Year Two.*

Note 1: The data in this table may not be directly comparable to the data that appeared in grantees' quarterly reports for Year Three. (See explanation at the beginning of Appendix C.)

Note 2: Some units not counted as having confirmed hazards at this time may be re-coded as having hazards later, once some hazards currently coded as "not verified or still in process" are resolved.

Note 3: The number of units is the number for which the question about notification was answered.

Note 4: Shading shows type of notification most frequently used, where one approach was used much more frequently than another.

Note 5: Dutchess County had no confirmed hazards due to their use of visual inspections to trigger notification and enforcement. In the Year Three database, these hazards cannot be coded as confirmed hazards until the units have been remediated and cleared. Dutchess County identified 302 units with potential hazards.

Note 6: The 629 units in New York City with potential hazards that were not sent a notice represent: (1) units with potential hazards that were referred to the LPPP where LPPP staff was unable to gain entry; or (2) units with potential hazards that were referred to the LPPP where LPPP staff gained entry and did not identify any lead-based paint hazards.

Table D.5. Days from Investigation to First Notice, Year Three

	Renewing grantees												New grantees	
	Albany	Broome *	Chautauqua *	Dutchess *	Erie	Monroe	New York City	Oneida	Onondaga	Orange	Schenectady *	Westchester	Niagara	Rensselaer
N	125	79	103	415	1095	2230	698	262	NA	75	36	369	71	15
Mean	16	20	22	0	6	2	4	12	NA	17	11	19	0.4	7
Median	11	13	14	0	2	0	0	7	NA	9	6	5	0	6
Minimum	0	1	0	0	0	0	0	2	NA	1	0	0	0	0
Maximum	373	245	81	0	243	853	21	372	NA	372	47	423	4	16

Source: Unit-based data. Includes all units investigated in Year Three or carried over from previous years, even where investigation data were incomplete or the grantee did not conduct the investigation.

** Grantee entered in Year Two.*

Note 1: N is the number for which dates were provided for investigation and date of first notice. The types of notices included in this table could include all notices used by LPP Programs, including notices to remediate hazards, general notices sent to all owners, or notices sent to owners informing them that no hazards were found. Changes to the data collection system in Year Four will improve reporting by capturing information regarding only notices sent about hazards requiring remediation.

Note 2: Shading shows grantees that predominantly used Notice and Demand for first notification of confirmed hazards.

Note 3: An entry of "0" means that the investigation and the notice were on the same day.

Note 4: Onondaga County tracks investigation and enforcement activities in a separate, internally developed database, which resulted in the practice of selecting the quarter a first notice was generated rather than providing the specific date in the Primary Prevention database. Onondaga will begin entering specific first notice date in Year Four.

Table D.6. Days from Investigation to Clearance of All Confirmed Hazards, Year Three

	Renewing grantees												New grantees	
	Albany	Broome *	Chautauqua *	Dutchess *	Erie	Monroe	New York City	Oneida	Onondaga	Orange	Schenectady *	Westchester	Niagara	Rensselaer
Units cleared of all confirmed hazards														
N	61	16	<10	NA	378	87	551	137	232	13	33	122	<10	<10
Mean	164	177		NA	152	92	97	169	126	208	126	269		
Median	141	145		NA	118	48	70	126	98	147	108	180		
Minimum	28	59		NA	1	0	17	10	1	24	9	6		
Maximum	682	334		NA	779	760	910	633	836	678	302	762		
Units that needed additional enforcement actions to achieve complete clearance														
N	NA	<10	NA	NA	163	<10	551	14	35	<10	<10	65	<10	NA
Mean				NA	182		97	359	253			360		
Median				NA	135		70	399	236			286		
Minimum				NA	5		17	84	111			64		
Maximum				NA	779		910	633	723			762		

Source: Unit-based data. Includes all units investigated in Year Three or carried over from previous years, even where investigation data were incomplete or the grantee did not conduct the investigation.

** Grantee entered in Year Two.*

Note 1: N is the number for which dates were provided for investigation and clearance of all confirmed hazards. Descriptive statistics are not reported where N < 10.

Note 2: NA is used where a category does not apply to the grantee, e.g., the grantee had no units cleared of all confirmed hazards or units that needed additional enforcement action. Dutchess had no confirmed hazards due to their use of visual inspections to trigger notification and enforcement. In the Year Three database, these hazards cannot be coded as confirmed hazards until the units have been remediated and cleared. Dutchess County also had no cleared hazards.

Note 2: Shading shows grantees that predominantly used Notice and Demand for first notification of confirmed hazards.

Note 3: New York City has the same data for units cleared of all confirmed hazards and units that needed additional enforcement actions to achieve complete clearance because the grantee included regular conferences conducted with each property owner sent an order to remediate as an additional enforcement action needed to achieve complete clearance in the database.

Note 4: For units requiring clearance of exterior hazards, weather often impacts the time from investigation to clearance by limiting the seasons in which repairs and clearance can be completed.

Table D.7. Comparison of Number of Days from Investigation to Clearance of All Confirmed Hazards: Year Three and Year Two

	Albany		Erie		Monroe		New York City		Oneida		Onondaga		Westchester	
	Y3	**Y2**	**Y3**	**Y2**	**Y3**	**Y2**	**Y3**	**Y2**	**Y3**	**Y2**	**Y3**	**Y2**	**Y3**	**Y2**
N	61	46	378	183	87	43	551	359	137	42	232	161	122	23
Mean	164	137	152	119	92	28	97	94	169	109	126	105	269	331
p-value	*0.186*		*<0.001*		*<0.001*		*0.500*		*0.004*		*0.016*		*0.164*	
Median	141	143	118	101	48	21	70	69	126	*60*	98	*92*	180	382
p-value	*0.332*		*0.002*		*<0.001*		*0.600*		*0.005*		*0.036*		*0.195*	
Minimum	28	23	1	0	0	0	17	18	10	8	1	1	6	51
Maximum	682	362	779	414	760	126	910	536	633	443	836	448	762	647

Source: Unit-based data. Includes all units investigated in Year Two or Year Three or carried over from previous years, even where investigation data were incomplete or the grantee did not conduct the investigation.

Note 1: Grantees not included in the table did not have enough units cleared of hazards in both years in order to make an appropriate comparison.

Note 2: N is the number for which dates were provided for investigation and clearance of all confirmed hazards.

Note 3: A two sample t-test was used to test the significance of differences in means for Year Two and Year Three. A Wilcoxon signed-rank test was used to test the difference in medians. An observed significance level (p-value) less than 0.05 indicates that the difference is significant.

Note 4: Shaded cells show comparisons that were statistically significant.

Note 5: Additional issues cited by grantees as impacting clearance times in Year Three include the time needed for owners to attend RRP training before work can begin on a property, the impact of the current financial crisis on local health departments through layoffs and consolidation, the impact of weather on program's ability to clear exteriors during winter months, and involvement in specific public health emergencies such as H1N1 Flu.

Table D.8. Number of Units Investigated that had a Child Age Six or Younger, Year Three

	Renewing grantees												New grantees	
	Albany	Broome *	Chautauqua *	Dutchess *	Erie	Monroe	New York City	Oneida	Onondaga	Orange	Schenectady *	Westchester	Niagara	Rensselaer
Number of units	222	104	119	439	1210	3467	1043	572	483	244	53	476	92	15
Number (and %) of units that had data on children	222 *100%*	102 *98%*	118 *99%*	79 *18%*	304 *25%*	234 *7%*	1043 *100%*	266 *47%*	480 *99%*	228 93%	49 *92%*	409 *86%*	90 *98%*	15 *100%*
Number (and %) of units that had children	214 *96%*	74 *73%*	82 70%	17 *22%*	227 75%	158 *68%*	1043 *100%*	256 *96%*	329 *68%*	171 75%	35 71%	155 *39%*	54 *60%*	13 87%

Source: Unit-based data. Includes all units investigated in Year Three or carried over from previous years, even where investigation data were incomplete or grantee did not conduct the investigation.

** Grantee entered in Year Two.*

Note 1: Table shows the number of units investigated that had data on whether or not children were present.

Note 2: Percent of units that had children is the percentage of units with any data on children that had children.

Note 3: Shading shows grantees that had data on children for fewer than half of the units investigated.

Table D.9. LSWP Training Sessions and Individuals Trained in Year Three, by Grantees That Entered in Year One, Year Three

	Albany	Erie	Monroe	NYC	Oneida	Onondaga	Orange	Westchester	TOTAL for Year One Entrants
EPA/HUD LSWP training									
Number of sessions	8	6	10	31	0	14	3	11	83
Number of individuals trained	257	51	159	806	0	221	67	79	1,640
EPA renovator training									
Number of sessions	16	5	14	3	4	18	0	0	60
Number of individuals trained	312	47	207	57	13	36	0	0	672
LSWP presentations not using EPA/HUD curriculum									
Number of sessions	0	0	0	0	3	0	0	0	3
Number of individuals trained	0	0	0	0	1	0	0	0	1
Lead-safe weatherization training									
Number of sessions	0	0	0	0	0	0	0	0	0
Number of individuals trained	0	0	0	0	0	0	0	0	0
EPA-certified abatement worker/supervisor training									
Number of sessions	0	0	0	0	0	0	0	0	0
Number of individuals trained	0	0	0	0	0	0	0	0	0

Source: Quarterly reports

Note 1: Data presented in this table do not reflect training programs that have become sustainable through partnerships. For example, Oneida developed a partnership with their local community college that provides training to contractors and property owners. These sessions are not captured in the data above.

Note 2: Oneida worked with Mohawk Valley Community College to arrange for and advertise three RRP refresher courses in Year 3. Only one attendee attended the training through LPPP funds, but the courses had more than one attendee.

Table D.9 (continued). LSWP Training Sessions and Individuals Trained in Year Two by Grantees that Entered in Year Two or Year Three, as of the Third Quarter, Year Three

	Broome	Chautauqua	Dutchess	Niagara	Rensselaer	Schenectady	TOTAL for Year Two & Three Entrants
EPA/HUD LSWP training							
Number of sessions	8	7	0	0	5	3	23
Number of individuals trained	97	45	0	0	180	108	430
EPA renovator training							
Number of sessions	15	3	11	6	3	6	44
Number of individuals trained	48	26	285	72	140	134	705
LSWP presentations not using EPA/HUD curriculum							
Number of sessions	0	0	0	0	0	0	0
Number of individuals trained	0	0	0	0	0	0	0
Lead-safe weatherization training							
Number of sessions	0	0	0	0	0	0	0
Number of individuals trained	0	0	0	0	0	0	0
EPA-certified abatement worker/supervisor training							
Number of sessions	0	0	0	0	0	0	0
Number of individuals trained	0	0	0	0	0	0	0

Source: Quarterly reports

APPENDIX E – SAMPLE COMMISSIONER'S ORDER

STATE OF NEW YORK
COUNTY OF _____ DEPARTMENT OF HEALTH[xxxviii]

COMMISSIONER'S ORDER

WHEREAS, the New York State Legislature has found : "Environmental exposure to even low levels of lead increases a child's risk of developing permanent learning disabilities, reduced concentration and attentiveness and behavior problems. These problems may persist and adversely affect the child's chance for success in school and life. Higher levels of lead can cause mental retardation, kidney disease, liver disease, and even death". And

WHEREAS, the New York State Legislature has enacted *Public Health Law Section 1373* which provides that the commissioner or his representative may designate an area of high risk for abatement of lead poisoning conditions and

WHEREAS, certain portions of _____ County have been found to have a high number of dwellings with lead poisoning conditions and

WHEREAS, *Public Health Law Section 1370* defines 'area of high risk' as an area designated in which dwellings have a condition conducive to lead poisoning of children present and

WHEREAS, THE _____County (Director) of Health finds that it is in the public interest to designate an area of high risk of lead poisoning conditions so said conditions can be abated to protect children of our community and

WHEREAS, the designation of an area of high risk for lead poisoning conditions make certain programs available to dwelling owners to economically assist in the abatement of lead poisoning conditions it is

NOW THEREFORE, in the interest of protecting the health and welfare of the people of _____County to designate the following as areas of high risk of lead poisoning conditions to make them eligible for any and all programs to assist in the abatement of this public health hazard as soon as reasonably possible. So it is hereby

ORDERED, that pursuant to Public Health Law 1373, the following areas, as per attached map (OR DESCRIBE THE AREA) are designated areas of high risk for lead poisoning conditions.

SO ORDERED.

Signed this ____day of _____, 2008 in _____, New York.

_____
(Commissioner/Director Name)
(Title)

[xxxviii] This Commissioner's Order was developed by Oneida County.

APPENDIX F – WESTCHESTER COUNTY COST BENEFIT ANALYSIS

Risk Assessments:

The cost estimate for a risk assessment includes program activities from the time a housing unit is referred into the program or identified as in need of a risk assessment until the time that dust wipe clearance is achieved after lead hazard control is complete. It does not include the cost of remediation.

Total Costs:

- Risk Assessment - No hazards identified: **$234.65**
- Risk Assessment - Hazards identified: **$718.83**
- Risk Assessment - Hazards identified and a hearing is required to achieve compliance: **$991.31.***
- ***Note:** When enforcement is needed the costs to the program increases, at a minimum, by **$265.85.** This cost is incurred per hearing date. Some cases have multiple hearing dates due to chronic non-compliance. During Grant Year Three, 83 additional update inspections for hearings were required for a total of $22,065.55. (83 X $265.85)

Costs to the Grant vs. Leveraged Funding:

Funding made possible by the NYSDOH for the Primary Prevention Initiative through grant funding supports three Sanitarians, one of the two Environmental Health Technicians, the Community Health Worker, the Field Supervisor and Program Manager (8%) salaries, office and dust wipe supplies, mileage, and indirect costs (fringe benefits for grant funded staff).

Funds leveraged as a result of grant funding from Westchester County tax levy supports the time of the Secretary I, one Environmental Health Technician, and the Program Manager (12%) salaries, and the costs of the chemistry laboratory to analyze the dust wipe samples. A breakdown of grant funding and leveraged funding follows.

- **Risk Assessment -No hazards identified: $234.65**

  $227.53 (97%) of these costs are borne by the grant and $7.12 (3%) is leveraged from other funding sources.

- **Risk Assessment – Hazards identified: $718.83**

$581.07 (81%) of these costs are borne by the grant and $137.76 (19%) is leveraged from other funding sources.

- **Risk Assessment - Hazards identified and a hearing is conducted to achieve compliance: $991.31**

  $783.04 (79%) of these costs are borne by the grant and $208.27 (21%) is leveraged from other funding sources.

Outcomes: During the 2009-2010 grant year, 349 risk assessments were conducted at a total cost of $229,875.77.*

***Note: Total risk assessment costs were calculated as follows:**

- Risk Assessment -No hazards identified: 67 X $234.65 = $15,721.55
- Risk Assessment - Hazards identified: 240 X $718.83 = $172,519.20
- Risk Assessment - Hazards identified and a hearing is required to achieve compliance: 42 X $991.31 = $41,635.02

Risk assessments produced the following outcomes:

- **Lead-Safe Housing Units:** 146 housing units successfully underwent lead hazard control.**
- **Children Protected:** 176 children under the age of six are now living in lead-safe housing units.
- **Children Tested:** 49 children were referred for testing for lead exposure.
- **Leveraged Funding:** Primary prevention grant funding from the NYSDOH leveraged $42,286.78 in funding from Westchester County (tax levy).

****Note:** Number of housing units made lead-safe includes homes where risk assessment were conducted prior to the grant cycle. These were included assuming that a portion of the housing units where risk assessments were conducted in this grant year won't be remediated until the 2010-201 1 grant cycle.

Lead-Safe Work Practices (LSWP) Training: S86.95 per person

Cost: The cost to plan for and implement each LSWP training course totals $449.09.

Outcome: In the 2009-2010 grant year, 11 training courses were offered and attended by 79 individuals.

Cost per person for training:

11 courses X $449.09 = $4,939.99 179 individuals = $62.53 per person

Cost per person for training including the cost of the incentive bag provided to each participant: $62.53+ $33.95 = $86.95 per person

Canvassing:

Door-to-door canvassing is conducted in the high risk target area to identify homes in need of risk assessments. The time study documented that:

- 74% of door knocks result in no answer at a cost of $1.92 per housing unit.
- 21% of door knocks result in contact with the occupant but no risk assessment was conducted at a cost of $3.84 per housing unit.
- 5% of door knocks result in a risk assessment at a cost of $41.60 per housing unit.

Primary Prevention Lead Hazard Reduction Program Costs:

Risk Assessment Process – No Hearing						
Function/Task	**Hourly Rate**	**Rate/Minute**	**Time (Minutes) per Case**	**Rate per Visit**	**Funded**	**Leveraged**
CHW	$26.33	$0.43	34	$14.62	$14.62	
Secretary I	$28.96	$0.48	42	$20.16		$20.16
Environmental Health Technician	$28.96	$0.48	220	$105.60	$52.80	$52.80
Sanitarian	$38.56	$0.64	334	$213.76	$213.76	
Field Supervisor	$49.08	$0.82	85	$69.70	$69.70	
Program Manger	$53.89	$0.90	28	$25.20	$2.02	$23.18
			Subtotal Salaries	$449.04	$352.90	$96.14
Indirect Cost Rate & Fringe Benefits				$230.63	$189.01	$41.62
			Total Salaries and Fringe	$679.67	$541.91	$137.76
Dust Wipe Supplies				$2.16	$2.16	
Office Supplies and Material				$10.00	$10.00	
Mileage				$27.00	$27.00	
Total Cost				**$718.83**	**$581.07 (81%)**	**$137.76 (19%)**

Primary Prevention Lead Hazard Reduction Program Costs:

Risk Assessment Process – Hearing						
Function/Task	**Hourly Rate**	**Rate/Minute**	**Time (Minutes) per Case**	**Rate per Visit**	**Funded**	**Leveraged**
CHW	$26.33	$0.43	39	$16.77	$16.77	
Secretary I	$28.96	$0.48	42	$20.16		$20.16
Environmental Health Technician	$28.96	$0.48	425	$204.00	$102.00	$102.00
Sanitarian	$38.56	$0.64	441	$282.24	$282.24	
Field Supervisor	$49.08	$0.82	90	$73.80	$73.80	
Program Manger	$53.89	$0.90	28	$25.20	$2.02	$23.18
			Subtotal Salaries	$622.17	$476.83	$145.34
Indirect Cost Rate & Fringe Benefits				$318.32	$255.39	$62.93
			Total Salaries and Fringe	$940.49	$732.22	$208.27
Dust Wipe Supplies				$4.32	$4.32	
Office Supplies and Material				$12.00	$12.00	
Mileage				$34.50	$34.50	
Total Cost				**$991.31**	**$783.04 (79%)**	**$208.27 (21%)**

Primary Prevention Lead Hazard Reduction Program Costs:

Risk Assessment Process – No Hazard Identified						
Function/Task	**Hourly Rate**	**Rate/Minute**	**Time (Minutes) per Case**	**Rate per Visit**	**Funded**	**Leveraged**
CHW	$26.33	$0.43	9	$3.87	$3.87	
Secretary I	$28.96	$0.48				
Environmental Health Technician	$28.96	$0.48				
Sanitarian	$38.56	$0.64	207	$132.48	$132.48	
Field Supervisor	$49.08	$0.82				
Program Manger	$53.89	$0.90	6	$5.40	$0.43	$4.97
			Subtotal Salaries	$141.75	$136.78	$4.97
Indirect Cost Rate & Fringe Benefits				$75.40	$73.25	$2.15
			Total Salaries and Fringe	$217.15	$210.03	$7.12
Dust Wipe Supplies						
Laboratory Dust Wipe Analysis						
Office Supplies and Material				$10.00	$10.00	
Mileage				$7.50	$7.50	
Total Cost				**$234.65**	**$227.53 (97%)**	**$7.12 (3%)**

Lead-Safe Work Practices Course				
Function/Task	**Hourly Rate**	**Rate/Minute**	**Time**	**Rate per Class**
Community Health Worker	$26.33	$.43	55	$23.65
Sanitarian	$38.56	$.64	420	$268.80
			Subtotal Salaries	$292.45
			Indirect Cost Rate/Fringe Benefit	$156.64
			Total Salary & Fringe	**$449.09**

Note: Incentive Bags provided to each participant total $33.95 each

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