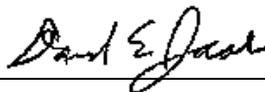


QUARTERLY REPORT

# Grant Programs Progress Report

We are pleased to transmit to you the Grant Programs Performance Report for the 3rd quarter of fiscal year 2003. This report details accomplishments toward achieving the Office of Healthy Homes and Lead Hazard Control's (OHHLHC) key performance goals. This information has been compiled from grantee quarterly and final reports, as well as Government Technical Representative (GTR) monitoring activities. The report includes activities occurring through June 30, 2003.

These quarterly reports are part of our overall strategy to refocus our collective efforts and attention toward achieving results and sharing successes. This is the third report we have issued and we are continually refining the data and analyses contained herein. In doing so, we hope to provide you with a better understanding of our programs' overall performance as well as individual grantee performance. We also will highlight good performance and areas of concern, with the intent of elevating everyone's performance and ensuring success.



David E. Jacobs, PhD  
Director, Office of Healthy Homes and Lead Hazard Control

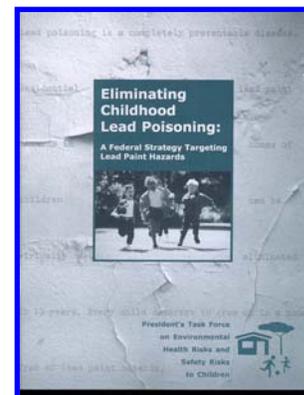
## SUMMARY

The Lead Hazard Control Grant Program has achieved nearly 86 percent of its annual goal, having made 6,550 housing units lead safe through the third quarter of this fiscal year. Based on this performance, we expect to meet and possibly exceed the annual goal of 7,600 lead-safe units. A review of our production data for the third quarter fiscal year 2003 indicates that our quarterly production has increased 13 percent from the first quarter

fiscal year 2003 and is the highest production in a quarter since the inception of the grant program.

We have completed a total of 6,550 units to date for the fiscal year, which is an 8 percent increase (an additional 510 units) over fiscal year 2002 for the same timeframe.

The Healthy Homes Initiative continues to be ahead of expectations in meeting its FY 2003 performance goal of 26 operational agreements. These grantees to date have: developed and tested new methods for assessing exposure to mold; trained 2,604 individuals, community organizations,



### Highlights

✓ Summary

✓ Lead Hazard Control Grant Program Results and Goals

✓ Lead Hazard Control Grant Program Accomplishments

✓ Healthy Homes Grant Program Results and Goals

✓ Healthy Homes Grant Program Accomplishments

Volume 3

September 2003

*U.S. Department of Housing and Urban Development*

AmeriCorps workers, Head Start teachers, parents, and residents in asthma management, lead poisoning, second-hand smoke, the home environment, and controlling environmental hazards in the home; assessed 4,203 units; provided interventions in 1,176 housing units to remediate health hazards identified, and; conducted outreach activities reaching over 428,000 individuals and distributed approximately 10,000 educational materials about housing-related hazards.

This report describes our accomplishments, which are really your accomplishments, toward achieving the Office of Healthy Homes and Lead Hazard Control key performance goals. We compiled this information from grantee quarterly and final reports, as well as Government Technical Representative (GTR) monitoring activities.

The report includes activities occurring through June 30, 2003.

In addition, detailed grantee production and expenditure status reports are provided as Attachments. These reports are used to evaluate our grantees to help us determine the necessary technical assistance needed to improve performance and to track planned milestones for major tasks/activities against actual performance.

**Lead Hazard Control Grant Program**

**Results - Goals**

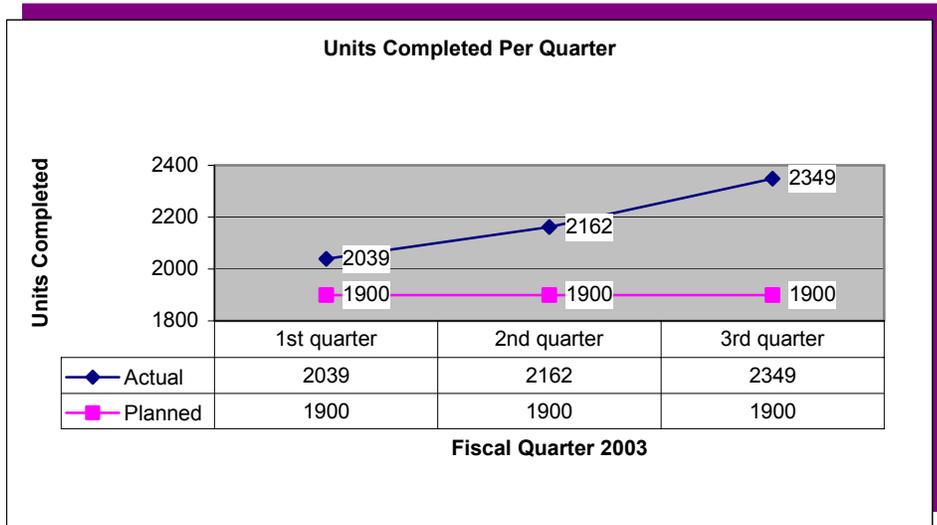
By the end of this quarter we achieved nearly eighty-six (86) percent of our annual goal, having made 6,550 of 7,600 housing units lead safe for low-income families with young children at greatest risk of lead poisoning. This achievement is well above our planned mid-year goal of 5,700 lead safe housing units. Further, with another 3,273 units already in progress, we fully anticipate successfully achieving, and perhaps exceeding our annual target.

Cumulatively, the Lead Hazard Control Grant Program has made 50,794 housing units lead safe and has tested over 83,414 units for the presence of lead-based paint and lead-based paint hazards. The challenge of meeting the goal of eliminating childhood lead poisoning by 2010 requires that we

redouble our efforts. The work done over the past decade to develop a nationwide infrastructure of thousands of trained or licensed abatement contractors, inspectors, trained rehabilitation specialists, maintenance workers and others has put us in a strong position to address this challenge through leveraged public and private-sector resources. We intend to take full advantage of these resources during the coming year, working proactively with other HUD programs as well as with our private and public sector partners. Further, we intend to ensure inclusion, in our performance results, of the substantial numbers of housing units made lead safe as a result of public outreach/education programs; federal, state and local enforcement; leveraging of other funds; and other HUD rehabilitation housing assistance programs.

Measure	Fiscal Goal Planned	YTD Actual	Variance	Status	YTD Planned	YTD Actual	Variance	Status
Number of housing units made lead-safe	7,600	6,550	+ 16%	Above plan	5,700	6,550	+ 149	Above plan

QUARTERLY REPORT



**Discussion**

Due to the implementation of improved performance standards and increased technical assistance, efforts to develop approaches to reduce unexpended grant program funds and to meet work plan goals are on target. A review of our production data for the third quarter fiscal year 2003 indicates that our quarterly production has increased 13 percent from the first quarter fiscal year 2003 and is the highest production in a quarter since the inception of

the grant program. We have completed a total of 6,550 units to date for the fiscal year, which is an 8 percent increase (an additional 510 units) over fiscal year 2002 for the same timeframe.

An assessment of the quarterly data indicates a maturing and refinement in the development and use of our monitoring tools, evaluations, and activities. Nearly 85 percent of grantees appear to be on track to meeting their work plan goals by the end of the calendar year.

An analysis of active grant rounds is provided on the next page.

Grant Round	Fiscal Year	Units in Grant Agreement	Percent of Units Completed
8	2000 (start dates ~ 2/1/2001)	7,914	80%
9	2001 (start dates ~ 3/1/2002)	6,616	26%
10	2002 (start dates 2/1/2003)	6,464	2%

**Impediments to Performance / Proposed Solutions**

Detailed grantee status production and expenditure reports for the reporting period January – March 2003 are provided in Attachment A. These reports sort grantees by funding round and by performance and are used to help us determine the necessary technical assistance needed to improve performance and to track planned milestones for major tasks/activities against actual performance. As part of these efforts, GTRs have identified several

general “themes” that may plague a grantee’s performance. While many of the issues and corrective actions may be unique to specific local conditions within a jurisdiction, these general “themes” and their proposed solutions are described in the table below. In addition, we have described specific examples of activities conducted by grantees last quarter (*see page 6 - Specific Lead Hazard Control Grantee Accomplishments*) that grantees have found beneficial to their program’s implementation.

**QUARTERLY REPORT**

Issues Identified	Proposed Solutions
<p><b>Inadequate Program Management</b></p>	<ul style="list-style-type: none"> <li>▪ Continue QA/QC for sub-recipients to ensure quality and on-time evaluations and intervention of units enrolled</li> <li>▪ Add staff resources</li> <li>▪ Develop electronic-based data and reporting system that can be accessed by all CBOs and management personnel to help speed up the management and project approval processes</li> <li>▪ Replace current personnel with more experienced leadership</li> <li>▪ Amend work plan to goals based on actual experience</li> <li>▪ At least one staff person should be dedicated to track and manage the grant's production schedule</li> <li>▪ Modify work plan to address impediments in order to resolve lead hazard control design obstacles</li> <li>▪ Develop work out strategy that includes actual strategies, not a reiteration of the benchmark milestones.</li> </ul>
<p><i>Low Production</i></p> <p><i>– Units</i></p> <p><i>Completed</i></p>	<ul style="list-style-type: none"> <li>▪ Continue to market to tenant-based Section 8 rental assistance and housing rehab programs</li> <li>▪ Develop better mechanisms for tracking the intake of units to identify "pipeline" issues</li> <li>▪ Ensure sub-recipients are participating in health fairs or other outreach activities to "spread-the-word" other than residents in enrolled buildings</li> <li>▪ Increase projects via referrals from non-profits and CDC CLPPP programs</li> <li>▪ Conduct a door-to-door campaign in target area</li> <li>▪ Expand pipeline – (recruit EBL units / expand program to multi-family units / lead-only projects / Sec. 8 units / weatherization / rental-investor-owned units)</li> <li>▪ Expand target area</li> <li>▪ Develop property/unit management system and tracking tools to monitor the production status of each and every case from intake-to-final clearance</li> <li>▪ Integrate lead hazard control with rehabilitation production</li> </ul>
<p><b>Low Expenditures – LOCCS Drawdowns</b></p>	<ul style="list-style-type: none"> <li>▪ Ensure timely drawdowns to track with production - Develop procedures to ensure for timely processing of the LOCCS draw request at least once a month</li> <li>▪ Coordinate with local financial offices to ensure that program expenditures are tied closely with timely drawdowns</li> </ul>
<p><b>Inadequate Contractor Capacity</b></p>	<ul style="list-style-type: none"> <li>▪ Provide training for Lead Contractors to be trained/certified</li> <li>▪ Implement contractor incentive program</li> </ul>

**Program Accomplishments**

Specific program accomplishments during the third quarter of FY 2003 (April 1 – June 30, 2003) include:

**National/Local Capacity Building**

Availability of Contractors: The Lead Hazard Control Grant Program has stimulated the creation of a large cadre of competent contractors and trained workers. This quarter alone grantees have trained, or sponsored training of 4,049 individuals. This training ranged from Lead Abatement Worker and Supervisor training courses, refresher training for lead contractor/supervisor license renewal, Lead Smart Renovator training to contractors and landlords, loan or other incentive programs available to contractors, including grant funds to assist with EPA training and licensing, and medical screening fees, and Lead-Safe Work Practices training for property owners and contractors. Several grantees have made this mandatory for participants and it has proven to be an incentive for contractors to become eligible to bid on projects.

**Local Capacity Building:** The Lead Hazard Control Grant Program has created in-house expertise in over 250 justifications across the country. A sample of activities conducted by grantees during the 3<sup>rd</sup> quarter included:

- A 40-hour training session for lead abatement contractors was held mid-June in which ten individuals participated - follow-up is being conducted with those individuals to insure they become certified at the state level; a 24-hour abatement worker class was held in mid-June in which eleven workers participated - follow-up is being

conducted with those individuals to insure they are certified at the State level (Marshalltown City).

- Funded lead-based paint worker/supervisor training. Of the 13 attendees, six were referred by the Springfield Urban League YouthBuild Program. Three Youthbuild kids received Lead Contractor/Supervisor Initial certificates and the other three received Lead Safe Work Practices certificates. One trainee is an active lead contractor who employs supervisors and workers. Two trainees are going to be employed by Turner-Bailey, Inc., a local lead contractor (Springfield City).
- Provided training to landlords – conducted primary prevention/lead-safe maintenance and repair training for a Spanish-speaking audience. A 2-hour program for Spanish-speaking landlords will be developed to be held in September, 2003 (Milwaukee).
- Sponsored certification training - the program provided certification for one worker and one supervisor for BlueSky Solutions, one of our program contractors, and worker refresher training for two workers at Labor's Community Service Agency, one of the non-profit housing organizations with which the program partners (Phoenix).
- Collaborated with the Minority Contractors Association, Full Employment Council of K.C. and the Job Corps in efforts to find individuals with carpentry skills as well as Section 3 residents to attend the lead-based paint

## *U.S. Department of Housing and Urban Development*

- supervisor/worker trainings (Kansas City).
- Sponsored Lead Worker trainings for our area contractors. A total of 28 people became State certified Lead Abatement Workers as a result of the training. These workers were referred by various lead abatement contractors who bid on our jobs. They are/were immediately employed at the completion of the training (Columbus).
- Attended lead safe work practices training (grantee staff, administrators of partnering agencies and contractor's working with the affected programs). This two-day training was conducted in support of HUD's effort to further train the contractor base now working under the requirements of HUD's Lead Safe Housing Rule (Boston).
- Sponsored a Lead Workers Course at Youngstown State University, a Working Partner. Twelve (12) low-income people were sent to the class in order to get their lead license. Five were referrals from the Youngstown Area Urban League. Seven were referrals from the YouthBuild Program (Mahoning County).

### **Development of Comprehensive Community Approaches**

**Collaborative Partnerships:** The Lead Hazard Control Grant Program has stimulated the effective collaboration of local health, housing, and community development agencies as well as local faith-based and community-based organizations and groups of parents of lead poisoned children. Quarterly grantee accomplishments included:

- Grantee staff was integral in developing, organizing, and

- conducting a focused, specialized housing demonstration project in a high-risk neighborhood of the City. The "house-lab" concept, co-sponsored by the GLO (Get the Lead Out) project, brought together medical students from the University of Rochester (UR), UR Community Outreach staff, neighborhood homeowners, United Way and other community advocates, City code officers, City/County/State politicians and the media for demonstrations and hands-on experience in conducting low-level interventions, window treatments, and specialized cleaning for lead hazard control. The house-lab also served to host a local EPA Lead Supervisor training course (Allstate Services) that trained 10 persons (Monroe County).
- The grantee finalized its partnership with a leading San Francisco childcare provider network, home childcare training provider and the City's foster care training center who have all integrated the program into the lead hazard awareness phase of their curriculum. Foster care providers have responded positively to the direct marketing. Approximately 25 foster care providers in training have applied for remediation grants based on outreach efforts (San Francisco).
- The grantee's Social Worker worked with the staff of Children's Hospital to identify safe lead-free homes for children released from hospital emergency rooms with high lead levels. The DOH Mobile Van Program tested 70 children for EBL in May; 26 had an EBL above >10 (St. Louis).

**Public Education/Outreach:** Quarterly grantee accomplishments included:

- HEPA vacuums were rented 65 times at neighborhood and reuse centers for high-risk units with families (Minneapolis).
- Presented at the Calvary Baptist Health Fair and Hawthorne Elementary Health Fairs. From contacts made at these Health Fairs, twelve landlords were referred to the Lead Safe Housing Program. Additional community outreach activities included attending health fairs, apartment owners' conferences, public radio announcements, and newsletter distribution. The net effect of these outreach and marketing activities is that the program receives approximately 1 to 2 referrals a day from landlords and homeowners (Salt Lake County).
- Presentations were conducted for Homebuyer Education classes and for Section 8 landlords. In addition, a mailing campaign was directed towards landlords who previously participated in the city's Weatherization Program, in anticipation that the opportunity for low-cost methods of funding additional home improvements will prove attractive (Pawtucket).
- Contracts were executed with several community-based groups to perform outreach activities targeting specific groups in our larger community. The CBO's partnering on Project REAL II will conduct activities including: translations, interpretations and general outreach to the Hispanic community; market the program through leaders of faith groups and regularly disseminate information on the program through their periodic newsletters; create an

active presence in the poorer neighborhoods to develop programs and encouraging active participation in a variety of skills training and community driven efforts and will enroll and train local persons in appropriate lead training classes (Richmond).

- Conducted about 131 door-to door home visits (some include in-home child cares and informal baby-sitting providers) to assess housing conditions and the presence of lead paint hazards and provided information about lead and available resources in target neighborhoods (Scott Park/Jonesboro, Hampton School area, near NC A&T State University off Lindsay Street, and Phillips Avenue area. Out of 131 homes visited and tested, 69 were positive, and 69 were negative for lead. Submitted approximately 142 referrals to Greensboro Lead Safe Housing Program for follow-up (Greensboro).
- Outreach includes the use of a Community Mobile Healthcare Clinic donated for use by the Akron Metropolitan Housing Authority. The Community Mobile Healthcare Clinic, which is placed within the high-risk census tract areas, has been scheduled frequently at community events to provide free lead screening for children along with one-on-one education sessions with the parents. Our efforts this year are to expand the use of the Community Mobile Healthcare Clinic at community centers, health fairs, schools and community events within the target areas and throughout the City of Akron (Akron).

**Economic Opportunities for Low-Income and Minority Residents**

**Economic Opportunities:** The Lead Hazard Control Grant Program is creating economic opportunities for low-income

*U.S. Department of Housing and Urban Development*

residents of target areas all over the country. Quarterly grantee accomplishments include:

- Completing lead-based paint worker training for 379 low to very low-income individuals and employed 194 as a result of this training.

For more information, visit the lead hazard control program web site at:  
<http://www.hud.gov/offices/lead/lhc/index.cfm>

**Healthy Homes Grant Program**

**Results - Goals**

To achieve HUD's strategic goal of developing safe and affordable housing, the Healthy Homes Initiative will make operational 26 grants/cooperative agreements for FY 2003. We made a total of 12 Healthy Homes Demonstration and

Technical studies grants operational in the second quarter. To date, we have awarded \$31.5 million to 41 grantees in 20 states, positively impacting the lives of tens of thousands of young children.

Measure	YTD Planned	YTD Funded	YTD Operational	YTD Reporting Progress	Status
<b>Number of operational grants/cooperative agreements funded by the Healthy Homes Initiative Program</b>	26	41	39	39	Above plan

<sup>1</sup> Of the 41 grants that have been funded, 2 grants have been closed out.

**Discussion**

Healthy Homes grant activities continue to identify ways to prevent or reduce the severity of childhood health problems, such as asthma, lead poisoning, and unintentional injuries, related to substandard housing conditions. Healthy Homes demonstration projects develop protocols (e.g., visual assessment, cleaning, interventions), develop instrumental methods, provide

educational materials for children and adults, produce websites, and build capacity (training community health workers, interns, residents, and grantee staff) to carry out healthy homes assessments and interventions. Core programmatic elements of the Healthy Homes grants include:

- **Method Development** of assessment tools and intervention protocols to identify and repair

# QUARTERLY REPORT

U.S. Department of Housing and Urban Development

- housing-related hazards and evaluation of the effectiveness of these protocols;
- **Capacity Building/Training** for “high performance” housing that is energy efficient, durable, sustainable, and healthy and safe for occupants;
- **Assessment** of housing-related health and safety hazards that pose risks to the health of residents, particularly children in low-income families;
- **Interventions** to correct these hazards, together with an evaluation of the effectiveness of these interventions;
- **Education/Outreach** about healthy homes issues to individuals and the general public.

Healthy Homes grantees are successfully performing assessments and interventions, as well as providing Healthy Homes information to residents, property owners and construction professionals. A summary of achievements, and cumulative totals (effective June 30, 2003), is provided in the table below.

Performance Element	3 <sup>rd</sup> Quarter	To Date
No. of Clients Contacted	2,078	37,781
No. of Clients Enrolled	446	2,496
No. of Units Assessed	358	4,203 <sup>1</sup>
No. of Interventions Completed	231	1,176
No. of Individuals Trained	602	2,604
No. of Individuals Reached	373,901	428,058

<sup>1</sup>This number exceeds “No. of Clients Enrolled” because it reflects projects that carry out assessments prior to enrollment as a criterion for enrollment. In a number of cases, results of the assessment indicate that a unit is not appropriate for enrollment in the project

**Program Accomplishments**

Some highlights and outcomes of Healthy Homes Grant Program during the 3rd Fiscal Quarter 2003 are presented below:

**Method Development**

Healthy Homes grantees are developing and validating assessment methods that include resident questionnaires, visual assessment, and environmental assessment (sampling and analytical methodologies).

**Columbia University** successfully purified four fungal species and is immunizing rabbits to collect antibodies to be used for analyzing dust and serum samples for the four fungal extracellular polysaccharide (EPS) species. Serum samples of fungal-specific EPS from the same person showed good reproducibility.

The **University of Medicine and Dentistry of New Jersey** is using flushable wipes for wipe sampling. A new microwave digestion method for flushable wipes was developed using NIST SRM 2710 "Montana Soil" as lead dust. Unlike wipes used in previous studies, the tested wipes were completely decomposed and the residues were vacuum filtered to avoid sample solution loss. The recovery rates were found between 90% and 110%. This is an improvement over a previous method used in another HUD project, which showed 80% recovery for wipe samples on average.

**Research Triangle Institute** is developing a vacuum sampler to collect and measure contaminants in dust. The research team redesigned the filter to collect dust more evenly and incorporated an electropolished funnel and plastic wand to reduce dust retention in the filter deposition funnel and the wand, maximizing dust collected on the filter and preventing contamination of subsequent samples. The team is also

investigating the use of a more powerful air pump to increase airflow.

**Radiation Monitoring Devices, Inc. (RMD)** is collaborating with Dr. Kevin Hazen of the University of Virginia to prepare a series of species-specific monoclonal antibodies to five fungi that are found in water-damaged buildings: *Stachybotrys chartarum*, *Trichoderma harzianum*, *Aspergillus niger*, *Penicillium chrysogenum* and *Aureobasidium pullulans*. These antibodies will be used to detect and quantify mold species in indoor air.

**Duke University** is using a new data collection instrument, a distal sampler, for their crawlspace project. Preliminary findings suggested that entering the crawl space resuspended particles in the air and increased the concentration of airborne molds in the samples, so the grantee initiated the use of the distal sampler that allows an aerosol sample to be captured without entry into the crawl space. Duke is presenting preliminary results at the Fifth International Conference on Bioaerosols, Fungi, Bacteria, Mycotoxins and Human Health in Saratoga Springs, New York, in September 2003. Drs. Miranda and Thomann are preparing a manuscript on the bulk dust and bioaerosols data to be submitted to Environmental Health Perspectives.

**Capacity Building/Training**

In Quarter 3 Healthy Homes grantees trained a total of 602 individuals, including owner-occupants, property owners, remodelers, contractors, enforcement officials, grantees and partner staff. Information about training activities in specific Healthy Homes grant projects is presented below.

**The Harvard School of Public Health** facilitated staff training on Integrated Pest

*U.S. Department of Housing and Urban Development* Management (IPM). This training included instruction on pest control methods and the importance of IPM, information about food storage and cleaning.

The **Seattle/King County Public Health** outreach staff received refresher training on motivational interviewing techniques. This training is designed to aid the community health worker in identifying issues that the participant is most interested in working on during their sessions together. Skills learned have proven useful in community health education work. Additional training was provided on controlling mold in the home environment for 30 Peer Educators.

The **Boston Public Health Commission (BPHC)**, the Boston Inspectional Services Department and the North East Asthma Regional Council delivered inspector training to inspectors from several city and federal agencies. The training addressed mold and moisture, IPM, violation writing, and implementing Healthy Homes building practices and was delivered to 73 individuals, including state sanitary and building code inspectors, Section 8 inspectors and city lead paint and environmental inspectors. **BPHC** plans to work with large Community Development Corporations (CDCs) and Section 8 landlords to deliver a cost-effective IPM program to their low-income asthma tenants with the objective of modeling affordable, safe extermination and education programs for landlords. The grantee will pilot a program with one large management company, with plans to offer it to four more CDCs in the coming months.

**Healthy Homes Network (HHN)** is developing a partnership with the Kansas City, Missouri Housing Authority to incorporate Healthy Homes Specialist training into Welfare-to-Work and Self-Sufficiency programs. HHN is developing a partnership with Minority Contractors Association to provide apprenticeships for Full Employment Council graduates.

**City of Phoenix** grantee staff met with City of Phoenix housing rehab staff and lead hazard control staff to organize training opportunities and familiarize staff with Healthy Homes program activities.

The **University of Alabama at Birmingham** offered training in mold assessment and remediation. This grantee trained 11 remodelers and contractors and 14 individuals in Quarter 3.

### Assessment

Healthy Homes grantees contacted 2,078 clients this quarter, enrolled 446 clients and completed assessments in a total of 358 units. Follow-up assessments and recruitment continued to be challenge for some projects. Grantees implemented new strategies to address these issues. A summary of some of the grantee activities is presented below.

The **University of Alabama at Birmingham** found that the prospect of receiving a home inspection, home education, a hazard reduction kit, and healthy homes interventions continue to serve as an incentive for enrollment.

Preliminary results from the **Duke University** project suggest high levels of variability between mold species and allergen levels in the houses sampled. Early analysis indicated that mean concentrations for both dust mite and cockroach allergens were above levels generally considered to cause sensitization and symptom exacerbation. The median concentrations, however, were much lower indicating high variability across sample homes. Bioaerosol sampling showed a significant number of study homes with high levels of mold, and the potential of a regional bias.

The **Harvard School of Public Health's** community health advocates and the project nurse collected health data, including quality of life, spirometry, respiratory symptom diary, peak flow measurements, calendar

*U.S. Department of Housing and Urban Development*

and medication follow-up forms and allergy testing for participating children. Team members made environmental measurements and IPM follow-up for the participating families.

Assessments for the **University of Wisconsin School of Pharmacy's** Healthy Homes Initiative project included explaining the research study, signing consent forms, knowledge tests, health care utilization data, and surveys of areas most frequented by the child (living room, kitchen, bedroom, bathroom, and hallway/stairway).

Assessments performed by **Seattle/King County Public Health** revealed the following healthy homes issues: carpeting that needed to be replaced, inadequate ventilation (fans) and inadequate weather sealants that caused leaks and water intrusion.

The **Erie County Department of Health** staff are finding that gaining entry for education visits and/or six month follow up assessments of the enrolled dwelling units is challenging. Staff are now attempting to make unannounced visits to the units and their success rate has increased. Using this strategy, the inspector is making contact with the occupants, and in some cases, is able to schedule a visit at a later time. The grantee is also experiencing follow-up problems because a number of tenants have either moved, or are not interested in receiving a follow-up visit. Because the grantee delivers a popular "Homeowner's Gift" at the time of enrollment, staff are considering providing a "Refill Pack" as an incentive for making the follow-up visit more attractive to participants.

All units selected for housing interventions in the **Alameda County** project receive dust sampling for dust mite, cat, cockroach, mouse and mold allergens. The pre-intervention assessment results indicated that various levels of these allergens were present in the homes tested. Test results indicated the presence of the

following: dust mite allergens in most homes; elevated levels of cat allergens in a few homes; mouse urinary protein allergens in about half of the homes sampled; cockroach allergens in about a third of the homes, usually where housekeeping is substandard; high levels of mold spores in about a quarter of the homes, which generally correlates water leaks with the presence of mold.

**Boston Public Health Commission (BPHC)** provides a written home inspection report to each family. This report presents information that compares the findings of the baseline inspection with those of the follow-up inspection. The health educator reinforces the educational objectives conveyed during the initial visit.

**Healthy Homes Network** incorporated new HIPAA requirements into the recruitment process and found that HIPAA requirements created the need for an additional step in the recruitment process. Now, applicants who meet the initial screening criteria are sent a packet containing the HIPAA information, project information, and appropriate consent forms.

The **Illinois Department of Public Health** found that shorter follow-up times, less commitment for the client and more flexible medical criteria were factors that contribute positively in an individual's decision to participate in the project.

In the **City of Stamford's** Healthy Homes project, the epidemiologist collects data from our standardized assessment tools used by the inspector and the nurse/case manager enters it into a database. Results of all interventions can therefore be determined with standardized quantifiable measures. Scores are obtained in the following six assessment areas:

1. disease severity
2. degree of control
3. parental knowledge of the disease
4. child's knowledge of the disease

*U.S. Department of Housing and Urban Development*

- 5. adequacy of treatment and
- 6. household environmental trigger score

The parent accompanies the inspector during the assessment and is told about environmental and housing-related issues during the assessment. This method provides first-hand knowledge of elements to evaluate when a home is checked for unsafe or hazardous conditions. In this grant, incentives are given at 3, 6, and 12 month visits to encourage continued participation in the program.

The **Mount Sinai School of Medicine** administers a comprehensive and validated survey, the American Academy of Pediatrics Children’s Health Survey for Asthma, at in-person interviews.

**Advanced Energy** developed a research protocol for submission to Institutional Review Board and elected to obtain approval through an innovative process involving partner organizations. The grantee obtained necessary approvals for the IRB at one partner organization to accept the IRB review by the second partner organization. As a result, significant time was saved by not having to undergo two separate IRB reviews.

In **Alameda** County’s grant project, staff suspected some degree of underreporting of asthma symptoms by parents. This was discussed with the Evaluator for the Project who addressed this issue by adding two questions to the bi-weekly phone interview. One of the new questions will evaluate if the child was on continuous/daily medications that controlled asthma severity. A second question will track reduction in activity/play due to asthma and is expected to provide another marker for asthma severity. The grantee continued to evaluate asthma using a question on the use of inhalers (rescue medication).

**Northeast Denver Housing Center** coordinates with Sun Power, the local

weatherization agency. Sun Power provides referrals to the grantee when they identify a health and safety problem that does not fall under their weatherization program guidelines.

**Interventions**

This quarter Healthy Homes grantees performed interventions in 231 units, 95 interventions were for respiratory hazards, 176 for safety hazards, 53 for lead hazards and 155 for other hazards. Specific information about the kinds of interventions that grantees facilitated is provided below.

The intervention package used by the **Harvard School of Public Health** included air filters, new mattresses for participating children, heavy-duty cleaning, placement of baits and traps, and caregiver education regarding pest management. IPM assistants provided families with help in preparing for the IPM contractor’s visit and in organizing their apartments afterwards.

Four factors contributed to the intervention plan facilitated by the **University of Wisconsin**: the result of the parent survey, results of the visual assessment of the home by project staff; the presence of younger siblings; and, feasibility of the planned intervention. The main devices given to families included those to prevent access to poisonous substances, electrical outlets, stairways, and areas deemed to be unsafe for children (e.g., outdoors). The grantee’s Delphi study identified these hazards as within the top ten risks to children in the target age group.

**The Coalition for Lead Safe Housing’s** Safe at Home Program is partnering with the Baltimore City Health Department’s Asthma Prevention Program for the referral of families who are screened and found to have a member of the family who suffers from asthma. This coordination will include the installation of mattress pad covers and pillow covers by the Asthma Program.

*U.S. Department of Housing and Urban Development*

**Northwest Denver Housing Center** utilizes a five-year forgivable loan to perform interventions. For homeowners, the loan is forgiven at a rate of 20% per year for five years, as long as they continue to use the home as their primary residence. For rentals, the loan is forgiven at a rate of 20% per year, as long as they keep the unit affordable and prioritize it for families with children. The grantee found that most owner-occupants and landlords will participate using this financing mechanism. In this project the grantee removes components with mold, installs bath fans, kitchen fans, dryer vents, smoke detectors, radon mitigation systems, handrails, railing around upper level deck, repairs floor and stairs. Lead hazard control activities include removing and replacing windows, encapsulation, cleaning, and painting. NE Denver refers cases to Sun Power when weatherization or combustion safety checks are needed. Weatherization has also been helpful in eliminating roaches since the cellulose insulation contains boric acid.

**The University of Alabama at Birmingham (UAB)** placed \$50,000 into a subcontract with the Jefferson County Office of Community Development (JCCCD) to provide an efficient way to hire contractors through the County for home remediation. Because JCCCD is already hiring contractors qualified to conduct the lead remediation in many of the homes where UAB will perform interventions to address other hazards, UAB believes that the same contractors can provide the services required in their Healthy Home project, thereby avoiding duplication of effort by UAB and the County.

**UAB** remediated the Citizen Lead Education and Poisoning Prevention (CLEPP) Safe House with the support of the Birmingham/Jefferson County Lead Grant, the Birmingham/Jefferson County Healthy Homes, CBDG funding from the City of Birmingham, Baptist Medical Center

Princeton, and private contributors. The Safe House was commissioned as “Maurci’s House,” a temporary shelter to provide safe haven for families whose homes have lead contamination or other environmental hazards. The house is named for and dedicated to the late Maurci Jackson, a pioneer in childhood lead poisoning prevention and director of United Parents Against Lead.

**Illinois Department of Public Health** removes and replaces contaminated drywall/plaster and water-damaged ceiling tiles. Staff cleaning wood framework (with HEPA vacuums and detergent), heat registers, gutters and downspouts. Project staff repair gutters and remove/replace water-damaged carpeting and tub surrounds, install bathroom exhaust fans and seal exterior cracks around the foundation.

**Boston Public Health Commission** initially focused on homes for sale to new buyers and the Department of Neighborhood Development (DND) created a duplex house design that meets the objectives of minimizing dust, moisture and reducing allergens and noxious fumes. DND agreed to set aside 10% of its inventory for development as “healthy homes” where persons with respiratory conditions will receive preference to buy. A lottery was held last quarter in which a name was chosen from pre-approved low-income clients who had at least one family with a documented respiratory condition. About 70 families applied for the lottery, which would enable a needy family the chance to purchase it. The sale of the home is currently pending.

**Education/Outreach**

In the 3<sup>rd</sup> quarter, Healthy Homes grantees reached a total of 368,031 individuals in activities that included health fairs, community events, recreational activities, presentations, radio broadcasts, conferences and exhibits. Sustainability of recruitment

*U.S. Department of Housing and Urban Development*

continues to be an issue for a number of grantees and these grantees have developed innovative strategies to address recruitment issues, as presented below.

In **Cuyahoga County's** Mold and Moisture Control project, families receive two types of education, group sessions and in-home education sessions. Overall families, have attended both sessions, and, of the completed units to date, all families attended the group session. After Cuyahoga completed the interventions, staff contacted the family for an in-home visit.

The **Mount Sinai School of Medicine** participated in two community outreach events and recruited families at each event. One event, World Asthma Day Event, resulted in the recruitment of 15 new families. A second event, the Annual Asthma Symposium "Housing Solutions" organized by East Harlem Asthma Working Group resulted in the recruitment of 7 new families. The target audiences for the symposium were tenants, landlords, future homeowners and NYC Housing Authorities. Free asthma education, environmentally safe cleaning supplies, individual attention and help with referrals were used as incentives for recruitment.

**Advanced Energy** established a relationship with Family Coordinators at three participating Habitat for Humanity Affiliates and began developing a recruiting strategy for each Affiliate, as well as a draft fact sheet that each Affiliate can use to inform homeowners about the project and opportunities to participate.

**Duke University** implemented a door-to-door recruitment strategy, specifically designed to recruit participants from low-income, minority neighborhoods—a group that is historically difficult to recruit into research studies. Response rates, while low compared to the project's overall recruitment, were quite good, given the target neighborhoods. Duke also created maps of lead-exposure risk for the

Buncombe County Environmental Quality Institute at The University of North Carolina-Asheville to improve their door-to-door outreach efforts. Maps were also provided to doctors in Orange County to increase blood-lead screenings of the at-risk populations. Dr. Marie Lynn Miranda participated in the General Assembly for Durham CAN (Congregations, Associations, and Neighborhoods) and, to an audience of more than 300, stressed the importance of screening at-risk children for elevated blood lead levels

Numerous flyers were printed in several languages (English, Spanish, Portuguese, Khmer) by the **University of Massachusetts, Lowell** to invite agencies, tenants, and landlords to a Healthy Homes "Year of the Home" Fair. The Fair was attended by numerous agencies celebrating the ways that different cultures use their homes. An Opening Ceremony and Proclamation was performed by the Vice Mayor of the City of Lowell followed by panel discussions on Healthy Homes topics (Economic Impact of Unhealthy Homes, Healthy Strategies for Pest Management, Local Policy/Right to Know, Diversity and Healthy Homes, Healthy Home Cleaning Products and Chemicals), recognition of Agencies' work in the city.

The **Harvard School of Public Health** completed a manuscript titled "Self-reported Changes in Environment and Health Following Heating System Upgrades in Low-Income Housing". In this paper the results from the Environmental Assessment Survey at West Broadway were compared to results from an earlier survey conducted prior to the heating system upgrade. Results show improvements in several symptoms associated with allergy and asthma – wheezing, nosebleeds, sneezing and burning/itching eyes between the first and second surveys; however, the findings can only be considered suggestive that energy savings might be coupled with health benefits. Research is needed that uses larger sample sizes, follows the same population

*U.S. Department of Housing and Urban Development*

longitudinally and that collects more stringent environmental and health measurements. Preliminary information about nitrogen dioxide concentrations and air exchange rates were presented in a poster at the Harvard Working Interdisciplinary Students for the Environment (WISE) Symposium in April.

The **University of Wisconsin School of Pharmacy** utilizes the Head Start program for recruitment and receives a list of children who are either entering Head Start programs in the fall, or who are at least 30 months of age. Head Start had provided current lists of students for project staff to contact, and has continually served as a contact for families already enrolled in the study. This grantee continues to give presentations at a regular Head Start Family Fun Night. The presentation (30 minutes in length) focused on home fire safety. Key learning objectives included recognition of environmental and behavioral modifications aimed at minimizing fire hazards in the home, and fire survival skills such as preparing a fire escape plan. The grantee also participated in a community-wide event known as Safety Saturday, where several organizations, corporations, hospitals, and municipal services presented to the general public interactive displays and activities that emphasized aspects of injury prevention and safety. The event was held in conjunction with the weekly farmer’s market and attracted several hundred people.

The **Coalition for Lead Safe Housing** is developing a campaign to engage property owners in healthy homes intervention processes and to show these individuals that , as a result of incorporating healthy homes interventions, property values increase and the properties become safe and compliant for future rentals.

**Boston Public Health Commission (BPHC)** participated in the Tools for Schools program at the Kennedy School in Boston and conducted education at a local family shelter, and participated in the Latino

Child Health Project at Northeastern University. (BPHC) staff also participated in the 5K Run for Asthma Research.

The **City of Stamford** had a booth set up in the lobby of the government center in Stamford for World Asthma Day. Staff provided information on asthma and smoking and performed spirometry testing for smokers. Staff also participated in the school registration for the Stamford School System's new enterers, giving information on asthma and flyers about the Healthy Homes program.

The **City of Phoenix’s** public information officer arranged with Prensa Hispana, a local Spanish language newspaper, to run a Healthy Homes Tip of the Week on a regular basis. The tip is developed by the Health Educator, reviewed by other staff, translated and provided to Prensa. This grantee also participated in a legislative education day on World Asthma Day.

The **Erie County Department of Health** planned and implemented the First Annual Asthma Awareness Day, co-sponsored by the WNY Asthma Coalition, Buffalo Bison Minor League Baseball, Indoor Air Professionals and Erie County Health Department – HHI Program. This event attracted over 7,500 individuals who attended the baseball game and visited the Erie County grantee’s booth. As a result of participating in the event and having an exhibit, Erie County contacted 500 clients. The grantee served as the event Chair and facilitated “Answers for Asthma, an evening educational event held in conjunction with local AAA Baseball Game. During these events Erie utilized a Healthy Homes Interactive Maze, a visually appealing display and fun activity to draw attendees at the various events. Both children and adults alike found the maze fun and educational. It is a wonderful tool to encourage children to examine hazards in their own homes for the hazards.

# QUARTERLY REPORT

*U.S. Department of Housing and Urban Development*

The **University of Alabama at Birmingham** enhanced the educational portion of their home interventions by implementing a "social contract" for enrolled households to facilitate hazard reduction activities in their own homes for a minimum of a 6-month period. The contract is finalized upon inspection of the home and includes education and interventions provided to the residents through the grant project. Elements of the contract are performed by residents in a timeline worked out between a Healthy Homes Environmentalist (HHE) and the head of household. HHEs continue to participate in health fairs, and, as a result of this participation, there has been a dramatic increase in the number of families requesting consideration for participation in the Jefferson County Healthy Homes Initiative Project.

**Northeast Denver Housing Center** previously relied on doctors to refer asthma patients to their program. However, because of recruitment concerns, the grantee has initiated a direct solicitation of participants through flyers, direct contact with nurses, schools and clinics, newspaper articles and advertisements. After a participant made a contact with the grantee, the grantee contacted the doctor to verify the asthma condition. In the 3rd quarter, this grantee contacted and enrolled 102 clients.

**Alameda County** is exploring the possibility of improving recruitment by establishing relationships with private pediatric pulmonary physicians for direct referrals. To address the translator accessibility issue, staff are developing a Spanish project handout to be given to families who are unable to be seen at the clinic. This "Sorry We Missed You" card will briefly explain the project and ask families to contact the grantee if interested in participating in the Healthy Homes project.