

**HEALTHY HOMES AND LEAD HAZARD CONTROL  
LEAD HAZARD REDUCTION  
2013 Summary Statement and Initiatives  
(Dollars in Thousands)**

LEAD-BASED PAINT HAZARD REDUCTION PROGRAM	Enacted/ Request	Carryover	Supplemental/ Rescission	Total Resources	Obligations	Outlays
2011 Appropriation .....	\$120,000	\$141,628	-\$240	\$261,388 <sup>a/</sup>	\$253,583	\$174,000
2012 Appropriation/Request .....	120,000	6,545	...	126,545	125,833	154,000
2013 Request .....	<u>120,000</u>	...	...	<u>120,000<sup>b/</sup></u>	<u>119,000</u>	<u>130,000</u>
Program Improvements/Offsets .....	...	-6,545	...	-6,545	-6,833	-24,000

a/ Includes \$1.2 million that was transferred to the Department's Transformation Initiatives (TI) account. This amount is excluded from obligations and outlays.

b/ Includes \$600 thousand that will be transferred to the Department's Transformation Initiatives (TI) account. This amount is excluded from obligations and outlays.

**1. What is this request?**

The Department requests a total of \$120 million for the Healthy Homes and Lead Hazard Reduction Programs in fiscal year 2013. This is the amount appropriated in fiscal year 2012. In fiscal year 2013, the Department will continue the successful lead hazard reduction and healthy homes programs by targeting the worst-quality low-income housing that threatens the health and safety of low-income families, children, and other vulnerable populations. The total budget request for fiscal year 2013 comprises the following budget components:

- Lead Hazard Reduction Program: \$86 million
- Healthy Homes Program: \$30 million
- Lead Technical Studies and Programmatic Support: \$4 million

The Department is committed to making homes safer and healthier for low-income families, children, and other vulnerable populations (e.g., disabled veterans and the elderly). This funding request directly supports 2 of 5 HUD's Strategic Plan 2010-2015 goals: subgoal 3b—Utilize HUD assistance to improve health outcomes; and subgoal 4b—Promote energy-efficient buildings and location efficient communities that are healthy, affordable, and diverse. The Office of Healthy Homes and Lead Hazard Control (OHHLHC) programs directly underpin subgoal 3b through targeted housing interventions to reduce the severity and prevalence of asthma in children, and subgoal 4b by reducing the number of homes in the United States with significant environmental health and

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safety hazards such as mold and moisture, lead-based paint, poor indoor air quality, and pest infestations. There are solid returns on investment resulting from this funding.

As part of this effort:

- HUD, along with other Federal, state, local, and private partners, will continue to work to eliminate lead poisoning in low-income and at-risk children nationwide as a major public health problem;
- HUD will work to achieve meaningful reductions in the number of low-income homes with the most serious health and safety hazards;
- HUD will utilize an assessment method that identifies and grades housing conditions that pose serious threats to vulnerable low-income residents;
- HUD will eliminate the most severe hazards that threaten families and children in a cost-effective manner; and
- HUD will work to reduce overall disparities in the risk of exposure to lead and other health and safety threats to children--based on race, ethnicity, and socio-economic status.

Over the past several years, the importance of the housing stock to the nation's economy has become increasingly evident. Housing, as a financial and national asset, has never been more important. Homes and health are inextricably linked and together, they reflect two of the most basic needs as a society and serve as an indicator of the strength of the nation. The fact that improved housing quality results in improved health has been accepted since the mid-19<sup>th</sup> century (Lowry, 1991). Substandard housing affects communities through wealth depletion, an increase in abandoned properties, and housing instability. While unhealthy and unsafe housing continues to affect the health of millions of people from all income levels, geographic areas, and walks of life in the United States, susceptible and vulnerable populations, such as children, the poor, minorities, and people with chronic medical conditions are often disproportionately impacted by inadequate housing. Furthermore, low-income persons are more likely to lack resources for preventive measures in the home, and deferred maintenance can lead to the development and persistence of residential health hazards. Improving housing quality can have a dramatic effect on the health.

### Lead Hazard Reduction Program

For fiscal year 2013, the Department requests \$86 million for Lead Hazard Reduction Program. Funds will identify and control lead-based paint hazards in eligible privately owned rental or owner-occupied pre-1978 housing. The Lead Based Paint Hazard Control (LBPHC) and Lead Hazard Reduction Demo (LHRD) grant programs are similar in their overall goal of producing lead-safe units for low-income residents; the LHRD grant program is focused on jurisdictions with higher numbers of pre-1940 rental housing and higher rates of childhood lead poisoning cases. These programs are authorized under Section 1011 of the Residential Lead-Based Paint Hazard Reduction Act of 1992 (Title X of the Housing and Community Development Act of 1992; Public Law 102-550; 42 U.S.C.

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4852). Funding assists states, Native American Tribes, cities, counties/parishes, or other units of local government to identify and eliminate lead-based paint hazards in low- and very low-income private housing where children under 6 years of age reside or are likely to reside.

### **Healthy Homes Program**

For fiscal year 2013, the Department requests \$30 million for the Healthy Homes Program. Funds will assist cities, states, other units of local government and not-for-profit organizations to make housing repairs to target housing that reduces or eliminates significant health and safety hazards; and for evolutions to study the impact that health-related housing repairs have on health. Unlike the Lead Hazard Control Program, the Healthy Homes Production Program goes beyond just addressing lead-based paint hazards and covers the most serious threats to residents' health and safety. No other Federal program directly targets homes that threaten the health and safety of residents.

The Healthy Homes Program targets those housing conditions that have been scientifically shown to negatively impact occupant health and safety, including mold and moisture intrusion, lead paint, radon, carbon monoxide, and pest infestations, and creates opportunities for communities to make smart investments in housing that can end the cost-shifting that causes higher medical bills, higher energy costs and higher housing maintenance costs. The Healthy Homes Program is authorized under Sections 501 and 502 of the Housing and Urban Development Act of 1970 (12 U.S.C. 1701z-1 and 1701z-2).

Under the leadership of the OHHLHC, the Federal Healthy Homes Working Group (HHWG) will publish Advancing Healthy Housing – A Strategy for Action, which outlines goals and priorities in addressing health and safety conditions in housing for the next 3 to 5 years. The HHWG includes multiple agency stakeholders: the Department of Housing and Urban Development (HUD), the Centers for Disease Control and Prevention (CDC) and other organizations within the Department of Health and Human Services (HHS), the Environmental Protection Agency (EPA), the Department of Energy (DOE), the Department of Labor (DOL), the Department of Agriculture (USDA), and the National Institute of Standards and Technology (NIST). The initiatives encompassed in this Strategy for Action will capitalize on the collective expertise within the HHWG to advance policies on healthy housing.

### **Technical Studies and Programmatic Support**

For fiscal year 2013, the Department requests \$4 million for Lead Technical Studies and Programmatic Support. Funds will be used for achieving the Federal goal of eliminating childhood lead poisoning as a major public health problem. This goal requires research, outreach, and technical support to ensure that HUD's grantees make the most efficient and innovative use of funding. Lead Technical Studies and Support contracts also promote and assist with the enforcement of HUD's Lead Disclosure Rule and monitoring of implementation of HUD's Lead Safe Housing Rule by HUD's Program Offices and recipients of their assistance.

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### **Transformation Initiative**

In fiscal year 2013, the Department renews its request for the Transformation Initiative, which provides the Secretary the flexibility to undertake an integrated and balanced effort to improve program performance and test innovative ideas. Up to 0.5 percent of the funds appropriated for this account may be transferred to the Transformation Initiative Fund account for the following purposes: research, evaluations, and program metrics; program demonstrations; technical assistance and capacity building and Information Technology. Departmentwide, no more than \$120 million is estimated to be transferred to the Transformation Initiative Fund account in fiscal year 2013 although transfers could potentially total up to \$214.8 million. More details on the overall Transformation Initiative and these projects are provided in the justification for the Transformation Initiative Fund account.

### **2. What is this program?**

The mission of the Office of Healthy Homes and Lead Hazard Control is to provide safe and healthy homes for at-risk families and children by promoting and funding housing repairs to address conditions that threaten the health of residents, coordinating disparate health and housing agendas, supporting key research, targeting enforcement efforts, and providing tools to build sustainable local programs that mitigate housing-related health hazards. The OHHLHC assists States and local governments to remedy the unsafe housing conditions and the acute shortage of decent and safe dwellings for low-income families. The OHHLHC currently manages approximately 275 active grants totaling approximately \$600 million. The OHHLHC's lead grant programs have created over 165,000 lead-safe units; in addition to education and outreach, and scientific research. Staff routinely provides technical assistance and guidance to communities implementing lead and healthy homes program that directly contribute to improved health of children and their families.

The programs of the OHHLHC are unique in the Federal Government. Unlike many housing rehabilitation programs, which focus on major renovations without health and safety as a primary concern, the programs of the OHHLHC are intentionally focused on making homes safer for children and families to live in using established assessment methods that result in proven cost-savings.

The OHHLHC uses the Lead Hazard Control grant program model to offer Healthy Homes Production funds to repair housing conditions that pose significant threat to at-risk families and children. Lastly, the OHHLHC's successful lead and healthy homes research programs continue to provide scientifically validated support for the approaches the Office recommends to its grantees and, more broadly, to HUD housing programs and to home owners and housing managers and tenants.

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### Lead Hazard Control

The purpose of the competitive Lead-Based Paint Hazard Control (LBPHC) and the Lead Hazard Reduction Demonstration (LHRD) grant programs is to identify and control lead-based paint hazards in eligible privately owned rental or owner-occupied pre-1978 housing. The LBPHC and LHRD grant programs are similar in their overall goal of producing lead-safe units for low-income residents; the LHRD grant program is focused on jurisdictions with higher numbers of pre-1940 rental housing and higher rates of childhood lead poisoning cases. These programs are authorized under Section 1011 of the Residential Lead-Based Paint Hazard Reduction Act of 1992 (Title X of the Housing and Community Development Act of 1992; Public Law 102-550; 42 U.S.C. 4852). Funding assists states, Native American Tribes, cities, counties/parishes, or other units of local government to identify and eliminate lead-based paint hazards in low- and very low-income private housing where children under 6 years of age reside or are likely to reside.

### Healthy Homes

The purpose of the Healthy Homes Program is to assist cities, states, other units of local government and not-for-profit organizations to make housing repairs to target housing that reduces or eliminates significant health and safety hazards; and for evaluations to study the impact that health-related housing repairs have on health. Unlike the Lead Hazard Control Program, the Healthy Homes Production Program goes beyond just addressing lead-based paint hazards and covers the most serious threats to residents' health and safety. No other Federal program directly targets homes that threaten the health and safety of residents.

The Healthy Homes Program targets those housing conditions that have been scientifically shown to negatively impact occupant health and safety, such as mold and moisture intrusion, lead paint, radon, excessive heat/cold, carbon monoxide, pest infestations, and injuries in the home setting, and creates opportunities for communities to make smart investments in housing that can end the cost-shifting that causes higher medical bills, higher energy costs and higher housing maintenance costs. The Healthy Homes Program is authorized under Sections 501 and 502 of the Housing and Urban Development Act of 1970 (12 U.S.C. 1701z-1 and 1701z-2).

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Action will capitalize on the collective expertise within the HHWG to advance the policies on healthy housing enacted so many decades ago.

### Lead Technical Studies and Programmatic Support

Achieving the Federal goal of eliminating childhood lead poisoning as a major public health problem requires research, outreach, and technical support to ensure that HUD's grantees make the most efficient and innovative use of funding. Lead Technical Studies and Support contracts also promote and assist with the enforcement of HUD's Lead Disclosure Rule and monitoring of implementation of HUD's Lead Safe Housing Rule by HUD's Program Offices and recipients of their assistance.

Our lead regulatory support activities include:

- identify owners of pre-1978 housing, particularly larger multifamily housing, with known lead-based paint hazards who are likely not to have disclosed this information during sale or rental, for Lead Disclosure Rule enforcement action;
- review evidence and perform monitoring of lead hazard control work performed under settlement agreements, as part of case development and management of settlement agreements;
- analyze data from HUD program offices on the number of assisted housing units made lead safe through implementation of HUD's Lead Safe Housing Rule, and provide technical support to these Program Offices' compliance monitoring efforts;
- track the number of units made lead-safe through Lead Disclosure Rule enforcement and Lead Safe Housing Rule compliance;
- maintain and update guidance, toolkits, outreach documents and other materials and resources supporting implementation of the Lead Safe Housing Rule by program offices, housing providers, and residential property owners and managers; and
- support HUD staff's enforcement activities being coordinated with HUD's Program Offices, CDC, EPA,DOJ, and State and local housing and health departments.

Our lead technical studies and programmatic support activities include the activities listed below:

- conduct technical studies and demonstration projects to identify new innovative methods that reduce the cost and increase the effectiveness of lead hazard control and other housing-related health hazard remediation activities;
- develop policy, regulatory and guidance materials for environmental health and safety issues;
- provide technical support, public education and outreach on environmental health and safety issues in the home to state and local governments, the general public, the professional community, and trade groups;
- collaborate with EPA to operate a toll-free hotline and document distribution center for the general public; and
- develop grant management and tracking mechanisms related to grantee performance.

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### Staffing

<u>FTE</u>	<u>2011 Actual</u>	<u>2012 Estimate</u>	<u>2013 Estimate</u>
Headquarters .....	53	49	44
Field .....	<u>9</u>	<u>9</u>	<u>9</u>
Total .....	62	58	53

The Office of Healthy Homes and Lead Hazard Control (OHHLHC) is authorized 58 FTE for fiscal year 2012. The Office staffing for fiscal year 2013 is proposed for 53 FTE, reflecting an 8.2 percent reduction in its Personnel Services budget.

In addition to grant monitoring, staff activities include:

- development of Notices of Funding Availability,
- review of grant applications (expected to, once again, be over 200 in fiscal year 2013),
- negotiation and execution of grants,
- enforcement of lead safety regulations within the Office and in collaboration with other Program Offices,
- developing and monitoring contracts and interagency agreements, and
- providing technical assistance to the Office's grantees, Program Offices' stakeholders, and housing safety and health industry professionals.

Impacts of Reductions:

Reducing staffing further, in fiscal year 2013, will significantly increase the likelihood of inadequate oversight of existing and new grantees, which would increase the risk of poor grant performance, increase the outcome risk of higher prevalence of housing-related health and safety problems and consequent illnesses and hazards, especially by children in low-income families; it would also increase the likelihood of adverse OIG/GAO audits.

### **3. Why is this program necessary and what will we get for the funds?**

It is estimated that over 30 million U.S. housing units have significant physical problems, lead paint hazards, radon, or other health and safety hazards that place their occupants at risk for illnesses and injuries. Funding of this program will reduce the number of low-income substandard homes and indirectly improve the economy by reducing lost days at work due to illness and injury caused by housing conditions. The program has been extremely successful in reducing lead poisoning and other environmental housing-related hazards that affect the health of children and families. The Department will conduct a competitive grant competition to award funding. Every year, far more applications are received than can be awarded with the funds available.

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**Table 1: Fiscal year 2011 NOFA Summary**

<b>Program</b>	<b># Applicants</b>	<b>Requested Amount</b>	<b>Available Amount</b>	<b># Awarded</b>
Lead Hazard Reduction Program	108	\$252,739,548	\$94,110,000	39
Healthy Homes Program	137	\$176,092,958	\$16,000,000	12

Without these funds, local communities will be unable to address the critical needs they face in providing decent, safe and sanitary housing for their citizens, thereby forcing thousands of low-income families to live in housing that threatens their health, and often their lives, due to unsafe and unhealthy housing conditions.

The evidence is clear—unhealthy homes lead to unhealthy Americans:

- According to the American Housing Survey for the United States: 2009 (Department of Housing and Urban Development, 2009), nearly 6 million U.S. housing units have moderate to severe physical infrastructure problems alone – including water leaks and intrusion, injury hazards, pests, heating, plumbing, and electrical deficiencies based on occupant reporting.
- About 24 million housing units have one or more lead-based paint hazards. Of these homes, 1.2 million are low-income households with 1 or more children under age 6, the age group most sensitive for lead poisoning. Furthermore, low-income households are least able to afford to control these hazards (Department of Housing and Urban Development, 2009).
- More than 6.8 million housing units have radon exposures above the current EPA action level and cause 21,000 deaths per year from lung cancer attributable to this preventable hazard (Environmental Protection Agency, 2003).
- Approximately 17 million homes have elevated levels of 4 or more allergens, which have been associated with symptoms among residents with allergic asthma (Department of Housing and Urban Development, 2009).

Unhealthy and unsafe housing continues to affect the health of millions of people from all income levels, geographic areas, and walks of life in the United States; however, these hazards disproportionately impact children, the poor, minorities, people with medical conditions, people with disabilities, and older adults.

The health effects of poor housing conditions cost billions of dollars annually in housing-related healthcare costs for asthma, lead-based paint poisoning and injury, as well as lost productivity in the labor force. Reductions in the Lead Hazard Reduction funding will significantly reduce the OHHLHC's ability to reduce these costs through housing repairs and to provide safe, decent and sanitary (healthy homes) for the most at-risk American families.

Besides the physical health toll an at-risk home can have on its inhabitants (thousands of unnecessary emergency visits annually due to housing related injuries and illness), the monetary costs of unhealthy homes are enormous. A 2002 study conducted by the



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National Institute of Environmental Health Sciences examined the total annual costs of pediatric disease in American children. The study examined four categories of illness: lead poisoning, asthma, cancer, and neurobehavioral disorders. Researchers estimate that the total annual costs for these pediatric diseases are estimated to be \$54.9 billion (range \$48.8-64.8 billion): \$43.4 billion for lead poisoning, \$2.0 billion for asthma, \$0.3 billion for childhood cancer, and \$9.2 billion for neurobehavioral disorders. This sum amounts to 2.8 percent of total U.S. health care costs. This estimate is likely low because it considers only four categories of illness, incorporates conservative assumptions, ignores costs of pain and suffering, and does not include late complications for which etiologic associations are poorly quantified. The costs of pediatric environmental disease are high, in contrast with the limited resources directed to research, tracking, and prevention (Landrigan, Schechter, Lipton, & Fahs, 2002).

The health-related costs of unsafe housing contribute directly to significant social costs. Researchers find a clear relationship between elevated blood lead among children and their cognitive and behavioral impairment. Gould notes, "Even low levels of exposure appear to lower children's IQ, which increases the need for enrollment in special education services, reduces the likelihood of high school and college graduation, lowers lifetime earnings (both through educational and IQ pathways), and greatly increases their propensity to engage in violent criminal activity" (Gould, 2009).

This funding request will focus on making repairs in low-income homes with health and safety hazards, such as asthma and allergy triggers, radon, fire hazards, lead paint hazards, mold and moisture, injury hazards, and poor indoor air quality. This funding directly supports 2 of 5 HUD's Strategic Plan 2010-2015 goals: subgoal 3b—Utilize HUD assistance to improve health outcomes; and subgoal 4b—Promote energy-efficient buildings and location efficient communities that are healthy, affordable, and diverse. The OHLLHC programs directly underpin subgoal 3b through targeted housing interventions to reduce the severity and prevalence of asthma in children, and subgoal 4b by reducing the number of homes in the United States with significant environmental health and safety hazards such as mold and moisture, lead-based paint, poor indoor air quality, and pest infestations.

There are solid returns on investment resulting from this funding. Repairing conditions in the home that have the potential to cause harm to occupants will result in reductions to downstream healthcare costs and broader societal costs, and makes sound fiscal sense.

- For every dollar spent on controlling lead hazards, \$17–\$221 would be returned in health benefits, increased IQ, higher lifetime earnings, tax revenue, reduced spending on special education, and reduced criminal activity. To put these results in perspective, it is useful to compare these net benefits to an intervention commonly understood as tremendously cost effective—that of vaccinations. By comparison, cost-benefit analyses show that vaccination against the most common childhood diseases delivers large returns on investment, saving between \$5.30 and \$16.50 in costs for every dollar spent on immunizations (Gould, 2009); (Zhou, Santoli, Messonnier, Yusuf, Shefer, & Chu, 2005).

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- Exposure to dampness and mold in homes is estimated to contribute to approximately 21 percent of current asthma cases in the United States, at an annual cost of \$4 billion (Mason J and Brown MJ, 2010). The side effects include 10 million lost school days and 2 million emergency room visits every year (National Institutes of Health, 2007). By reducing moisture/water intrusion and improving overall indoor air quality, simple minor to moderate housing repairs can eliminate conditions that are attributed to asthma, resulting in a substantial return for money invested. The Connecticut Department of Public Health study to explore the cost-effectiveness of housing interventions directed at mitigating conditions that exacerbated asthma found that an estimated net savings of \$26,720 per 100 participants was estimated at 6 months follow-up due to decreases in unscheduled acute care visits for adults and children (Kimberly H. Nguyen, Eileen Boulay, & Justin Peng, 2010)
- Radon-induced lung cancer deaths result in \$2.3 billion annually for costs associated with 21,000 radon-related lung cancer deaths per year (Mason, 2010). Simple and low-cost housing repairs can effectively and permanently remove this life-threatening gas from the indoor home environment.

In addition, funds for these programs address critical housing quality needs in local communities by:

- 1) conducting applied research into interventions that promote health outcomes;
- 2) developing standardized methods for the assessment and control of housing-related health hazards;
- 3) mainstreaming of healthy housing principles into on-going practices and programs;
- 4) incorporating healthy housing principles into green construction and rehabilitation;
- 5) evaluating the effectiveness of interventions targeting mold/moisture problems;
- 6) implementing a national strategy for healthy homes outreach;
- 7) building capacity for evaluating and enforcing lead and healthy homes laws and codes; and
- 8) developing training to build healthy homes capacity and competency for partners, practitioners, and the public.

The Department's mission to develop and preserve quality, healthy, and affordable homes is directly connected to Lead Hazard Reduction funding. If the requested level of funding is reduced, the Department's goal of utilizing housing as a platform for improving quality of life will be affected negatively and the health of thousands of the nation's most vulnerable residents will be threatened. The OHHLHC programs have a history of success, filling critical needs in communities where no other resources exist to address substandard housing that threatens the health of the most vulnerable residents.

Considerable progress has been made in reducing the level of childhood lead poisoning by establishing policies that addressed the use of lead in our paint and gasoline. The prevalence of elevated blood lead levels that are at least 10 micrograms per deciliter (>10 µg/dL), the level at which the Centers for Disease Control and Prevention (CDC) recommends public health actions be initiated among children, decreased from 8.6 percent in 1988–1991 to 0.75 percent in 2003–2010, which is an 91 percent decline, according

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to the on-going National Health and Nutrition Examination Survey (NHANES) conducted by the CDC (<http://www.cdc.gov/nchs/nhanes.htm>). Approximately 173,000 U.S. children aged 1-5 years have blood lead at levels the CDC recommends public health actions are initiated. Recently, a CDC advisory panel recommended replacing the concept of a "level of concern" with a population-based "reference value" of at least 5 µg/dL, which would dramatically increase the number of children in need of Federal assistance (Advisory Committee on Children Lead Poisoning Prevention, 2012.). Although CDC has yet to accept this recommendation, this funding request will position the Department to provide lead hazard control funds in communities with at-risk children.

Low-income children, Blacks, and Hispanic children are at higher risk (Centers for Disease Control and Prevention, 2005a). Based upon results from the American Healthy Homes Survey, approximately 35 percent of housing units (37 million) in the U.S. contain lead-based paint and of those, 23 million have significant lead-based paint hazards in the form of deteriorated lead-based paint, lead contaminated house dust and lead-contaminated bare soil. (HUD, American Healthy Homes Survey. Lead and Arsenic Findings, 2011). Multivariable analysis indicates that residence in older housing, poverty, age, and being Hispanic or black are still major risk factors for higher lead levels. To maintain progress made and eliminate remaining disparities, efforts must continue to test children at high risk for lead poisoning, and identify and control sources of lead. Coordinated prevention strategies at national, state, and local levels will help achieve the goal of eliminating lead poisoning in children.

Additionally, although HUD and its federal partners have made great progress in reducing the prevalence of 5 µg/dL EBL from 25.6 percent of children ages 1-5 in 1988-1994 to 1.52 percent in 2003-2010 (Federal Interagency Forum on Child and Family Statistics, Wheeler, 2011).

It is imperative to stress that no level of lead in a child's blood can be considered safe. With all these successes, the fact that there are still nearly 24 million homes that contain significant lead-based paint hazards should energize our efforts, as these homes are potential sites for future poisonings.

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The enormous social costs imposed by unhealthy, substandard housing clearly demonstrate a need for continued, effective interventions. Other factors being equal, if Federal funding for these programs were reduced, each \$1 million in cuts would have the following impacts in terms of hazardous housing units that are unremediated and children under age 6 that are not protected. And as following pages will show, each dollar spent on these programs produces multiple dollars of verified benefits.

**Table 2:**

<b>Outcomes per \$1 million</b>	<b>Un-remediated housing units</b>	<b>Children under age 6 in those un-remediated housing units</b>
Lead Hazard Control grants	100	147
Healthy Homes grants	250	368
OHHLHC-weighted average	144	212

While there is a difference between the percentages of housing with significant lead-paint hazards and of children with elevated blood lead levels, this is explained by two factors. First, while the percentage of houses that have significant paint hazards has not changed much over the past several decades, the amount of lead in the deteriorated paint has gone down significantly. (National Center for Healthy Housing, 2010) Between 1990 and 2010, much older housing in poor condition was demolished, and much in fair to good condition underwent modernization that helped keep the remaining paint in good condition. Second, the definition of a home with significant paint hazards is very conservative. For example, an apartment with ten windows with paint on just one in hazardous condition has a significant lead-paint hazard.

This level of funding will continue the OHHLHC's strong track record of working with other HUD program offices and Federal partners to accomplish results. Collaboration with Federal partners and private sector entities engaged in housing and health, including non-profit organizations and industry, is critical to coordinating and implementing a national healthy homes agenda. In an effort to further the healthy homes agenda, the OHHLHC established the Federal Healthy Homes Work Group (HHWG) in order to strengthen coordination among Federal agencies to advance and implement healthy homes activities. By promoting communication and coordination, the HHWG promotes efficiencies in Federal Government service delivery systems by facilitating initiatives that combine complementary expertise, avoiding duplication of efforts, and providing a platform for a strong, unified national message. The HHWG activities directly support HUD's Strategic Plan:

- Establishing and championing a comprehensive Federal strategy to promote healthy homes and to support delivery of safe and healthy housing for all;
- Identifying and eliminating barriers that impede collaboration and complicate assisting those in need of Federal technical assistance and/or funding; and

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- Collaborating with key Federal and non-Federal stakeholders to implement a vigorous healthy homes marketing and implementation agenda at the community level.

The HHWG has developed an interagency strategic plan—“Advancing Healthy Housing – A Strategy for Action”—that outlines the priorities and overarching objectives for healthy housing over the next 3 to 5 years. It is a first step in organizing the work of six Federal agencies committed to making healthy homes available to all Americans, thus serving both as a roadmap for coordinated activities and as a visible statement of our commitment to carry out specific activities. The Strategy includes some actions that the HHWG will begin to implement immediately and others that will be addressed over the longer term.

### **4. How do we know that this program works?**

These funds prevent and control housing-related health problems. Unsafe and unhealthy homes affect the health of millions of people of all income levels, geographic areas, and walks of life in the U.S., and affect the economy directly through increased utilization of health care services and indirectly through lost wages and increased school days missed. Housing improvements help prevent injuries and illnesses, reduce associated health care and social services costs, reduce absentee rates for children in school and adults at work, and reduce stress, all which help to improve the quality of life. The cost-effectiveness of healthy homes intervention is well-documented by researchers:

- For every dollar spent on controlling lead hazards, \$17–\$221 would be returned in health benefits, increased IQ, higher lifetime earnings, tax revenue, reduced spending on special education, and reduced criminal activity. To put these results in perspective, it is useful to compare these net benefits to an intervention commonly understood as tremendously cost effective—that of vaccinations. Cost-benefit analyses show that vaccination against the most common childhood diseases delivers large returns on investment, saving between \$5.30 and \$16.50 in costs for every dollar spent on immunizations (Gould, 2009); (Zhou, Santoli, Messonnier, Yusuf, Shefer, & Chu, 2005).
- Exposure to dampness and mold in homes is estimated to contribute to approximately 21 percent of current asthma cases in the United States, at an annual cost of \$3.5 billion. The side effects include 10 million lost school days and 2 million emergency room visits every year (National Institutes of Health, 2007).
- Minor to moderate remediation of housing hazards attributed to asthma, such as reducing interior moisture and improving indoor air quality, results in a substantial return for money invested. Following the National Asthma Education Prevention Program’s (NAEPP) Expert Panel Report 3 (EPR3) guidelines concerning the need for environmental control measures for asthma, the Connecticut Department of Public Health conducted a study to explore the cost-effectiveness of housing interventions directed at mitigating conditions that exacerbated asthma. The study found that an estimated net savings of \$26,720 per 100 participants was estimated at 6 months follow-up due to decreases in unscheduled acute care visits for adults and children (Kimberly H. Nguyen, Eileen Boulay, & Justin Peng, 2010)

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- Falls are the leading cause of non-fatal injuries for all children ages 0 to 19. Every day, approximately 8,000 children are treated in U.S. emergency rooms for fall-related injuries. This approaches 3 million children each year. In 2000, the total direct cost of all fall injuries for people 65 and older exceeded \$19 billion. The financial toll for older adult falls is expected to increase as the population ages. By 2020, the annual direct and indirect cost of fall injuries is expected to reach \$54.9 billion (in 2007 dollars) (Englander, Hodson, & Terregrossa, 1996).
- Fire and burn injuries represent 1 percent of the incidence of injuries and 2 percent of the total costs of injuries, or \$1.3 billion each year. Fatal fire and burn injuries cost \$66 million, representing 6 percent of the total costs of all fatal injuries. According to the Home Safety Council, installing a smoke detector at an average cost of \$33 produces \$940 in benefits to the U.S. society (Home Safety Council, 2002).

The OHHLHC's program funds have contributed to the understanding of housing conditions and their connection to residents' health; identified effective interventions and preventive measures; and demonstrated the health benefits of targeting interventions to reduce or eliminate health hazards in homes:

- A randomized controlled trial in Cleveland, OH (Cuyahoga County and Case Western Reserve University) demonstrated significant improvement in asthma symptoms (including reduced acute care usage) among children following remediation focusing on mold and moisture problems in their homes.
- A study in Gary, IN (Purdue University) demonstrated that integrated pest management (IPM) treatments led to significant reductions in cockroach populations and cockroach allergen loadings in heavily infested units of public housing.
- In Seattle, WA, a HUD Healthy Homes grant to non-profit "Neighborhood House" and partners was used to upgrade 35 green built public housing units (built through HUD's HOPE VI Program) to "Breathe Easy Homes" with special features to improve indoor air quality and reduce indoor asthma triggers. Asthmatic children that were moved into these homes experienced significant improvements in asthma symptoms, including a reduced need for acute medical care.
- In Cuyahoga County, OH (Cuyahoga County Board of Health) and Bellingham, WA (Opportunity Council), grantees partnered with a weatherization program to provide an integrated approach to improve both energy efficiency and indoor environmental quality.
- Grant-funded projects to the Boston Public Health Commission and the Harvard School of Public Health included interventions in private and public housing, respectively, as well as the application of IPM. In both instances, evaluations identified improvements in the symptoms of asthmatic children following the interventions.

A review of scientific healthy housing intervention research conducted by the National Center for Healthy Housing in 2009 found overwhelming evidence that certain healthy homes interventions result in improvements in health or lead to changes in behaviors or other factors that result in better health (National Center for Healthy Housing, 2009).

## Lead Hazard Reduction

Also, a CDC task force recently reviewed the evidence for the effectiveness of housing-based interventions for asthma of children and adolescents (CDC Community Guide Branch, 2008). The task force found strong evidence for recommending the use of home-based multi-component interventions with an environmental focus. The significant benefits were found to include fewer days of asthma symptoms, fewer days of school missed, and fewer acute health care visits. These evaluations validate OHHLHC's strategy of pursuing a broader partnership-oriented approach that supports coordinated deployment of housing and healthcare interventions.

A 2003 report reviewed 72 studies of housing interventions aimed at improving health and found that the vast majority addressed only a single condition, most often lead poisoning, asthma or injury. Importantly, the review found that 68 percent of the studies showed statistically significant results; 61 percent had a comparison group; and 81 percent were able to document improvements in either health or environmental outcomes (Saegert SC, 2003; Runyan, et al., 2005). By targeting housing improvements at early intervention in communities most likely at risk, substantial returns may be realized to help prevent injuries and illnesses, reduce associated health care and social services costs, reduce absence rates for children in at work, and reduce stress, all helping improve quality of life.

The OHHLHC programs are targeted towards low-income housing. There were 42.4 million people living in poverty in 2009 (U.S. Census Bureau, 2010), and poor individuals are more likely to face environmental hazards because they lack resources for adopting preventive measures in the home, and deferred maintenance can cause or exacerbate residential health hazards. During the current acute shortage of affordable housing, many people are forced to live in marginal housing, or to choose between affordability and their health and safety (Joint Center for Housing Studies, 2011). This funding will affect thousands of Americans in a tangible and positive manner.

Lead Hazard Reduction

**HEALTHY HOMES AND LEAD HAZARD CONTROL  
LEAD HAZARD REDUCTION  
Summary of Resources by Program  
(Dollars in Thousands)**

<u>Budget Activity</u>	<u>2011 Budget Authority</u>	<u>2010 Carryover Into 2011</u>	<u>2011 Total Resources</u>	<u>2011 Obligations</u>	<u>2012 Budget Authority/ Request</u>	<u>2011 Carryover Into 2012</u>	<u>2012 Total Resources</u>	<u>2013 Request</u>
Lead Hazard Control								
Grants .....	\$46,206	\$67,685	\$113,891	\$113,891	\$62,500	...	\$62,500	\$86,000
Operation LEAP .....	...	...	...	...	...	...	...	...
Technical Studies .....	1,199	6,488	7,687	3,534	2,500	\$4,091	6,591	4,000
Healthy Homes .....	23,253	19,455	42,708	40,254	10,000	2,454	12,454	30,000
Lead Hazard Reduction								
Demonstration .....	47,904	48,000	95,904	95,904	45,000	...	45,000	...
Transformation								
Initiative .....	<u>1,198</u>	<u>...</u>	<u>1,198</u>	<u>1,198</u>	<u>...</u>	<u>...</u>	<u>...</u>	<u>...</u>
Total .....	119,760	141,628	261,388	254,781	120,000	6,545	126,545	120,000



## Lead Hazard Reduction

### **HEALTHY HOMES AND LEAD HAZARD CONTROL LEAD HAZARD REDUCTION Appropriations Language**

The 2013 President's Budget includes proposed changes in the appropriations language listed and explained below. New language is italicized and underlined.

For the Lead Hazard Reduction Program, as authorized by section 1011 of the Residential Lead-Based Paint Hazard Reduction Act of 1992, \$120,000,000, to remain available until September 30, [2013] 2014: Provided, That up to [\$10,000,000] \$30,000,000 of that amount shall be for the Healthy Homes Initiative, pursuant to sections 501 and 502 of the Housing and Urban Development Act of 1970 that shall include research, studies, testing, and demonstration efforts, including education and outreach concerning lead-based paint poisoning and other housing-related diseases and hazards: Provided further, That for purposes of environmental review, pursuant to the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) and other provisions of the law that further the purposes of such Act, a grant under the Healthy Homes Initiative, [Operation Lead Elimination Action Plan (LEAP),] or the Lead Technical Studies program under this heading or under prior appropriations Acts for such purposes under this heading, shall be considered to be funds for a special project for purposes of section 305(c) of the Multifamily Housing Property Disposition Reform Act of 1994[: Provided further, That of the total amount made available under this heading, \$45,000,000 shall be made available on a competitive basis for areas with the highest lead paint abatement needs: Provided further, That each recipient of funds provided under the third proviso shall make a matching contribution in an amount not less than 25 percent: Provided further, That each applicant shall certify adequate capacity that is acceptable to the Secretary to carry out the proposed use of funds pursuant to a notice of funding availability]: Provided further, That amounts made available under this heading in this or prior appropriations Acts, and that still remain available, may be used for any purpose under this heading notwithstanding the purpose for which such amounts were appropriated if a program competition is undersubscribed and there are other program competitions under this heading that are oversubscribed (Department of Housing and Urban Development Appropriations Act, 2012.)

#### Changes from 2012 Appropriations

The President's budget proposes to delete the Lead Hazard Demonstration language because the regular grant program subsumes the activities of both programs.