



June 2018

LEAD PAINT IN HOUSING

HUD Should
Strengthen Grant
Processes,
Compliance
Monitoring, and
Performance
Assessment

GAO Highlights

Highlights of [GAO-18-394](#), a report to congressional committees

Why GAO Did This Study

Lead paint in housing is the most common source of lead exposure for U.S. children. HUD awards grants to state and local governments to reduce lead paint hazards in housing and oversees compliance with lead paint regulations in its rental assistance programs. The 2017 Consolidated Appropriations Act, Joint Explanatory Statement, includes a provision that GAO review HUD's efforts to address lead paint hazards. This report examines HUD's efforts to (1) incorporate statutory requirements and other relevant federal standards in its lead grant programs, (2) monitor and enforce compliance with lead paint regulations in its rental assistance programs, (3) adopt federal health guidelines and environmental standards for its lead grant and rental assistance programs, and (4) measure and report on the performance of its lead efforts. GAO reviewed HUD documents and data related to its grant programs, compliance efforts, performance measures, and reporting. GAO also interviewed HUD staff and some grantees.

What GAO Recommends

GAO makes nine recommendations to HUD including to improve lead grant program and compliance monitoring processes, request authority to amend its lead inspection standard in the voucher program, and take additional steps to report on progress. HUD generally agreed with eight of the recommendations. HUD disagreed that it should request authority to use a specific, stricter inspection standard. GAO revised this recommendation to allow HUD greater flexibility to amend its current inspection standard as indicated by analysis of the benefits and costs.

View [GAO-18-394](#). For more information, contact Daniel Garcia-Diaz at (202) 512-8678 or garciadiazd@gao.gov.

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HUD Should Strengthen Grant Processes, Compliance Monitoring, and Performance Assessment

What GAO Found

The Department of Housing and Urban Development's (HUD) lead grant and rental assistance programs have taken steps to address lead paint hazards, but opportunities exist for improvement. For example, in 2016, HUD began using new tools to monitor how public housing agencies comply with lead paint regulations. However, HUD could further improve efforts in the following areas:

- **Lead grant programs.** While its recent grant award processes incorporate statutory requirements on applicant eligibility and selection criteria, HUD has not fully documented or evaluated these processes. For example, HUD's guidance is not sufficiently detailed to ensure consistent and appropriate grant award decisions. Better documentation and evaluation of HUD's grant program processes could help ensure that lead grants reach areas at risk of lead paint hazards. Further, HUD has not developed specific time frames for using available local-level data to better identify areas of the country at risk for lead paint hazards, which could help HUD target its limited resources.
- **Oversight.** HUD does not have a plan to mitigate and address risks related to noncompliance with lead paint regulations by public housing agencies. We identified several limitations with HUD's monitoring efforts, including reliance on public housing agencies' self-certifying compliance with lead paint regulations and challenges identifying children with elevated blood lead levels. Additionally, HUD lacks detailed procedures for addressing noncompliance consistently and in a timely manner. Developing a plan and detailed procedures to address noncompliance with lead paint regulations could strengthen HUD's oversight of public housing agencies.
- **Inspections.** The lead inspection standard for the Housing Choice Voucher program is less strict than that of the public housing program. By requesting and obtaining statutory authority to amend the standard for the voucher program, HUD would be positioned to take steps to better protect children in voucher units from lead exposure as indicated by analysis of benefits and costs.
- **Performance assessment and reporting.** HUD lacks comprehensive goals and performance measures for its lead reduction efforts. In addition, it has not complied with annual statutory reporting requirements, last reporting as required on its lead efforts in 1997. Without better performance assessment and reporting, HUD cannot fully assess the effectiveness of its lead efforts.

Examples of Homes with Lead Paint Hazards



Source: GAO. | GAO-18-394

Contents

Letter		1
	Background	5
	HUD Has Incorporated Relevant Requirements for Awarding Recent Lead Grants, but Could Better Document and Evaluate Grant Processes	13
	HUD Could Take Additional Steps to Monitor Compliance with Lead Paint Regulations	24
	HUD's Blood Lead Level Standard Aligns with CDC Guidelines and Lead Inspection Standards Are Less Stringent in the Voucher Program	33
	HUD Could Better Measure and Report on Performance of Lead Efforts	37
	Conclusions	41
	Recommendations for Executive Action	42
	Agency Comments and Our Evaluation	43
Appendix I	Nonfederal Funding Sources Used by Selected Grantees of HUD Lead Hazard Control Grants	47
Appendix II	Objectives, Scope, and Methodology	51
Appendix III	Comments from the Department of Housing and Urban Development	58
Appendix IV	GAO Contact and Staff Acknowledgments	67
Tables		
	Table 1: HUD's Lead-Based Paint Hazard Control Grant and Lead Hazard Reduction Demonstration Grant Programs' Scoring Factors and Point Distribution, 2017	14
	Table 2: Department of Housing and Urban Development (HUD) Lead Grant Programs: Selected Grantees' Sources of Nonfederal Funds as Matching Contributions, 2013–2017	49

Figures

Figure 1: The Department of Housing and Urban Development's Lead Hazard Control Grant Programs, Fiscal Years 2013–2017	11
Figure 2: The Department of Housing and Urban Development's Lead Grant Programs' Processes for Reviewing and Selecting Applicants	17
Figure 3: Department of Housing and Urban Development (HUD) Lead Grant Awards (2013–2017) and Indicators of Lead Paint Hazard Risk by County	23
Figure 4: Department of Housing and Urban Development's (HUD) Process for Monitoring Public Housing Agencies' Compliance with Lead Paint Regulations	27
Figure 5: Key Elements of Program Performance Assessment for Federal Agencies	38

Abbreviations

CDC	Centers for Disease Control and Prevention
CDBG	Community Development Block Grant
EPA	Environmental Protection Agency
funding notice	Notice of Funding Availability
HHS	Department of Health and Human Services
HUD	Department of Housing and Urban Development
Lead Office	Office of Lead Hazard Control and Healthy Homes
OFO	Office of Field Operations
OMB	Office of Management and Budget
PD&R	Office of Policy Development and Research
PHA	public housing agency
PIH	Office of Public and Indian Housing
Title X	Residential Lead-Based Paint Hazard Reduction Act (Title X of the Housing and Community Development Act of 1992)
voucher program	Housing Choice Voucher program

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June 19, 2018

The Honorable Susan Collins
Chairman
The Honorable Jack Reed
Ranking Member
Subcommittee on Transportation, Housing and Urban Development, and
Related Agencies
Committee on Appropriations
United States Senate

The Honorable Mario Diaz-Balart
Chairman
The Honorable David Price
Ranking Member
Subcommittee on Transportation, Housing and Urban Development, and
Related Agencies
Committee on Appropriations
House of Representatives

The Centers for Disease Control and Prevention (CDC) have estimated that approximately half a million U.S. children (ages 1 to 5) have blood lead levels higher than most children's levels.¹ According to CDC, no safe level of lead in the blood has been identified. When absorbed into the body, especially in young children, lead can damage the brain and nervous system, slow development and growth, and cause learning or behavioral problems. According to CDC, lead-based paint hazards, such as dust containing lead and chips from deteriorated lead-based paint, are the most common source of lead exposure for U.S. children.² Young children are at greater risk of being exposed to lead because they often crawl on the floor, have frequent hand-to-mouth activity, and intentionally

¹CDC is an agency within the Department of Health and Human Services. CDC reviewed National Health and Nutrition Examination Survey data from 2007–2010 to develop this estimate of the number of children with blood lead levels high enough for targeting prevention-related actions. For more information, see the Background section of this report.

²Throughout the report, we refer to lead-based paint hazards as "lead paint hazards" and lead-contaminated dust as "lead dust." Lead paint hazards include any condition that can cause harmful exposure to lead from lead dust, soil, or paint that is deteriorated or present in accessible, friction, or impact surfaces (e.g., walls, windows, door frames).

ingest nonfood items. Also, exposure to lead impacts young children more because of their small body size and weight compared to adults.

The Department of Housing and Urban Development's (HUD) most recent survey of housing conditions estimated that roughly 35 percent of U.S. homes (37 million) contained some lead-based paint.³ Additionally, the survey estimated that 93 percent of the homes with lead paint were built before 1978—the year the United States banned lead-containing paint used in housing.⁴ HUD has certain statutory responsibilities related to reducing lead exposure in housing, which include, awarding grants to states and local governments to help address lead paint hazards in private, low-income housing and promulgating lead paint regulations for HUD's rental assistance programs.

The 2017 Consolidated Appropriations Act, Joint Explanatory Statement, Division K, includes a provision for GAO to report on HUD's policies, procedures, and processes for addressing lead paint hazards in housing.⁵ This report examines HUD's efforts to (1) incorporate statutory requirements and other relevant federal standards in its lead grant programs; (2) monitor and enforce compliance with lead paint regulations for its rental assistance programs; (3) adopt federal health guidelines and environmental standards for lead paint hazards in its lead grant and rental assistance programs; and (4) measure and report on its performance related to making housing lead-safe. The provision also directs GAO to review opportunities to improve coordination and leveraging of public and private (i.e., nonfederal) sources of funds to reduce federal costs associated with identifying and remediating lead paint hazards. Information about nonfederal sources of funds used by grantees as part of HUD's lead grant programs is included in appendix I of this report.

In this report, we examine lead paint hazards in housing and we focus on HUD's lead hazard control grant programs and its two largest rental

³Department of Housing and Urban Development, *American Healthy Homes Survey: Lead and Arsenic Findings*, April 2011. HUD conducted the survey from June 2005 through March 2006. The survey measured levels of lead, lead hazards, allergens, arsenic, pesticides, and mold in homes nationwide.

⁴For the Consumer Product Safety Commission's ban on lead-containing paint, see *Lead-Containing Paint and Certain Consumer Products Bearing Lead-Containing Paint: Establishment as Banned Hazardous Products*, 42 Fed. Reg. 44193 (Sept. 1, 1977).

⁵See 163 Cong. Rec. H4088 (daily ed. May 3, 2017).

assistance programs that serve the most families with children: the Housing Choice Voucher (voucher) and public housing programs.⁶

To address the first objective, we compared HUD's lead grant programs' processes with statutory requirements and federal internal control standards.⁷ For example, we reviewed HUD's annual notices of funding availability to identify the criteria HUD has used to evaluate grant applications and determine the extent to which the 2017 notices incorporated statutory requirements. We also compared HUD's lead grant program processes to the Office of Management and Budget (OMB) requirements for competitively awarded grants.⁸ To review the extent to which grant awards have gone to counties with indicators of lead paint hazard risk, we analyzed HUD's grant data from 2013 through 2017 and county-level U.S. Census Bureau data on the age of housing and poverty level of individuals in the United States. HUD's grant data were not available electronically before 2013, when the agency started using grants management software. We determined the HUD and Census data were sufficiently reliable for our purposes—to identify the locations and grant award amounts for HUD grantees and to identify counties with older housing and individuals living in poverty. Additionally, we interviewed HUD staff about the agency's grant application and award processes. To obtain information and perspectives from HUD grantees, we also reviewed a nongeneralizable sample of 20 grant applications and interviewed 10 of the 20 grantees. We conducted site visits to 5 of the 10 grantees we interviewed. We selected these grantees to achieve variation in geographic locations and the type of HUD grants they had previously received, among other things.

⁶For a description of the Housing Choice Voucher and public housing programs, see the Background section of this report. We did not examine lead hazards in schools, daycare centers, commercial buildings, water, food, or products such as toys, ceramics, or jewelry. For additional work on lead in water, see GAO, *Drinking Water: Additional Data and Statistical Analysis May Enhance EPA's Oversight of the Lead and Copper Rule*, [GAO-17-424](#) (Washington, D.C.: Sept. 1, 2017). Additionally, we have ongoing work reviewing lead service lines and lead in school drinking water.

⁷GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: September 2014).

⁸Office of Management and Budget, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (codified at 2 C.F.R. pt. 200), effective for grants awarded starting in December 2014.

To address the second objective, we reviewed relevant laws and HUD's lead paint regulations and guidance and internal memorandums related to its efforts to monitor and enforce compliance with these regulations. We reviewed HUD databases used to monitor compliance and observed HUD staff demonstrating these databases. We reviewed HUD documentation of instances of potential noncompliance by public housing agencies (PHA) with lead paint regulations and enforcement actions HUD has taken.⁹ We compared HUD's regulatory compliance monitoring and enforcement approach to federal internal control standards.¹⁰ We interviewed HUD staff about internal procedures for monitoring and enforcing compliance of lead paint regulations. To address the third objective, we compared HUD's programs and regulations with relevant CDC health guidelines and Environmental Protection Agency (EPA) standards. We also interviewed staff from CDC and EPA to obtain information about their health guidelines and environmental standards related to lead.

To address the fourth objective, we reviewed HUD documentation related to performance goals, measures, program evaluations, and reporting requirements, including HUD's recent annual performance reports. We compared HUD's practices against leading practices for assessing program performance and federal internal control standards.¹¹ Finally, we interviewed HUD staff to understand performance goals, measures, and reporting HUD has used to assess its lead efforts. Appendix II contains a more detailed description of our objectives, scope, and methodology.

We conducted this performance audit from March 2017 to June 2018 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that

⁹PHAs are state and local agencies that administer HUD's Housing Choice Voucher and public housing programs.

¹⁰[GAO-14-704G](#).

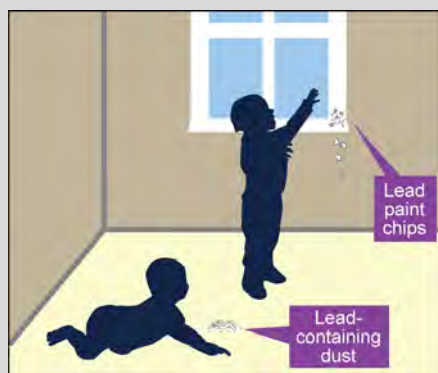
¹¹We have previously stated that performance goals and measures are important management tools that can serve as leading practices for planning at lower levels within federal agencies, such as individual programs or initiatives. For example, see GAO, *Veterans Justice Outreach Program: VA Could Improve Management by Establishing Performance Measures and More Fully Assessing Risks*, [GAO-16-393](#) (Washington, D.C.: Apr. 28, 2016); *Performance Measurement and Evaluation: Definitions and Relationships*, [GAO-11-646SP](#) (Washington, D.C.: May 2, 2011); and [GAO-14-704G](#).

the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Federal Agencies and Key Regulations Related to Lead Paint Hazards

Common Sources of Lead Paint Hazards in a Child's Home



Source: GAO. | GAO-18-394

Lead-based paint hazards, such as dust containing lead and chips from deteriorated lead-based paint, are the most common source of lead exposure for U.S. children. Young children are at greater risk of being exposed to lead because they often crawl on the floor, have frequent hand-to-mouth activity, and intentionally ingest nonfood items. Also, exposure to lead impacts young children more because of their small body size and weight compared to adults.

While HUD has primary responsibility for addressing lead paint hazards in federally-assisted housing, EPA also has responsibilities related to setting federal lead standards for housing. EPA sets federal standards for lead hazards in paint, soil, and dust.¹² Additionally, EPA regulates the training and certification of workers who remediate lead paint hazards.¹³ CDC sets a health guideline known as the “blood lead reference value” to identify children exposed to more lead than most other children.¹⁴ As of 2012, CDC began using a blood lead reference value of 5 micrograms of lead per deciliter of blood. For children whose blood lead level is at or above CDC’s blood lead reference value, health care providers and public health agencies can identify those children who may benefit the most from early intervention. CDC’s blood lead reference value is based on the 97.5th percentile of the blood lead distribution in U.S. children (ages 1 to 5), using data from the National Health and Nutrition Examination

¹²See e.g. Lead; Identification of Dangerous Levels of Lead, 66 Fed. Reg. 1206 (Jan. 5, 2001). EPA also sets federal standards to reduce lead in drinking water under a treatment technique rule, known as the Lead and Copper Rule. See 40 C.F.R. § 141.80 et seq. As previously noted, lead in drinking water is outside the scope of this report.

¹³40 C.F.R. pt. 745; See ex. Lead; Notification Requirements for Lead-Based Paint Abatement Activities and Training, 69 Fed. Reg. 18489 (Apr. 8, 2004); Lead; Renovation, Repair, and Painting Program, 73 Fed. Reg. 21692 (Apr. 22, 2008).

¹⁴Previously, children under age 6 years were identified by CDC as having a blood lead “level of concern” if the test result was greater than or equal to 10 micrograms of lead per deciliter of blood. CDC no longer uses the term “level of concern.”

Survey.¹⁵ Children with blood lead levels above CDC's blood lead reference value have blood lead levels in the highest 2.5 percent of all U.S. children (ages 1 to 5). HUD, EPA, and the Department of Health and Human Services (HHS) are members of the President's Task Force on Environmental Health Risks and Safety Risks to Children.¹⁶ HUD co-chairs the lead subcommittee of this task force with EPA and HHS. The task force published the last national lead strategy in 2000.¹⁷

The primary federal legislation to address lead paint hazards and the related requirements for HUD is the Residential Lead-Based Paint Hazard Reduction Act (Title X of the Housing and Community Development Act of 1992).¹⁸ We refer to this law as Title X throughout this report. Title X required HUD to, among other things, promulgate lead paint regulations, implement the lead hazard control grant programs, and conduct research and reporting, as discussed throughout this report.

The two key regulations that HUD has issued under Title X are the Lead Disclosure Rule and the Lead Safe Housing Rule:

¹⁵The survey is a population-based survey to assess the health and nutritional status of adults and children in the United States and to determine the prevalence of major diseases and associated risk factors. Blood lead levels are one of several laboratory tests conducted as part of the survey. CDC reviews National Health and Nutrition Examination Survey data as they are updated and reviews the blood lead reference value every 4 years based on the two most recent cycles of data. The current blood lead reference value is based on National Health and Nutrition Examination Survey data from 2007–2008 and 2009–2010. According to CDC staff, as of February 2018, the agency was considering updating its blood lead reference value based on National Health and Nutrition Examination Survey data from 2011–2014.

¹⁶Exec. Order No. 13045, 3 C.F.R. § 13045 (1998). The President's Task Force on Environmental Health Risks and Safety Risks to Children was created, among other duties, to identify children's environmental health and safety issues (including lead), develop federal interagency strategies, and communicate information to federal, state, and local decision makers. It has 17 members.

¹⁷President's Task Force on Environmental Health Risks and Safety Risks to Children, *Eliminating Childhood Lead Poisoning: A Federal Strategy Targeting Lead Paint Hazards*, February 2000.

¹⁸Housing and Community Development Act of 1992, Pub. L. No. 102-550, title X, § 1001 et seq. (1992) (codified generally at 42 U.S.C. § 4851-56. and 15 U.S.C. 2681-92) (hereinafter Title X). Prior to this, in 1971, Congress had passed the Lead-Based Paint Poisoning Prevention Act, Pub. L. No. 91-695, 84 Stat. 2078 (1971) (codified at 42 U.S.C. § 4801-46). This law required that the government establish procedures aimed at eliminating lead paint hazards in federally assisted housing.

-
- **Lead Disclosure Rule.** In 1996, HUD and EPA jointly issued the Lead Disclosure Rule.¹⁹ The rule applies to most housing built before 1978 and requires sellers and lessors to disclose any known information, available records, and reports on the presence of lead paint and lead paint hazards and provide an EPA-approved information pamphlet prior to sale or lease.
 - **Lead Safe Housing Rule.** In 1999, HUD first issued the Lead Safe Housing Rule, which applies only to housing receiving federal assistance or federally-owned housing being sold.²⁰ The rule established procedures for evaluating whether a lead paint hazard exists, controlling or eliminating the hazard, and notifying occupants of any lead paint hazards identified and related remediation efforts. The rule established an “elevated blood lead level” as a threshold that requires landlords and PHAs to take certain actions if a child’s blood test shows lead levels meeting or exceeding this threshold. In 2017, HUD amended the rule to align its definition of an “elevated blood lead level” with CDC’s blood lead reference value.²¹ This change lowered the threshold that generally required landlords and PHAs to act from 20 micrograms to 5 micrograms of lead per deciliter of blood. According to the rule, when a child under age 6 living in HUD-assisted housing has an elevated blood lead level, the housing provider must take several steps. These generally include testing the home and other potential sources of the child’s lead exposure within 15 days, ensuring that identified lead paint hazards are addressed within 30 days of receiving a report detailing the results of that testing, and reporting the case to HUD.

¹⁹Requirements for Disclosure of Known Lead-Based Paint and/or Lead-Based Paint Hazards in Housing, 61 Fed. Reg. 9064 (Mar. 6, 1996).

²⁰Requirements for Notification, Evaluation and Reduction of Lead-Based Paint Hazards in Federally Owned Residential Property and Housing Receiving Federal Assistance, 64 Fed. Reg. 50140 (Sept. 15, 1999). Throughout the report, the term “lead paint regulations” means the parts of the Lead Disclosure Rule and the Lead Safe Housing Rule applicable to HUD’s public housing and Housing Choice Voucher programs, unless otherwise specified. See ex. 24 C.F.R. part 35, sbpts. A, L, and M. The Lead Safe Housing Rule includes other requirements, such as those for residential housing owned by federal agencies other than HUD or HUD-owned single family properties, but as previously noted these programs or requirements were not the focus of this review.

²¹Requirements for Notification, Evaluation and Reduction of Lead-Based Paint Hazards in Generally Owned Residential Property and Housing Receiving Federal Assistance, 82 Fed. Reg. 4151 (Jan. 13, 2017).

HUD Offices Involved in Lead Efforts and HUD's Rental Assistance Programs

Office of Lead Hazard Control and Healthy Homes (Lead Office).

HUD's Lead Office is primarily responsible for administering HUD's two lead hazard control grant programs, providing guidance on HUD's lead paint regulations, and tracking HUD's efforts to make housing lead-safe. The Lead Office collaborates with HUD program offices on its oversight and enforcement of lead paint regulations.²² For instance, the Lead Office issues guidance, responds to questions about requirements of lead paint regulations, and provides training and technical assistance to HUD program staff, PHA staff, and property owners. The Lead Office's oversight efforts also include maintaining email and telephone hotlines to receive complaints and tips from tenants or homeowners, among others, as they pertain to lead paint regulations.²³ Additionally, the Lead Office, in collaboration with EPA, contributes to the operation of the National Lead Information Center—a resource that provides the general public and professionals with information about lead, lead hazards, and their prevention.²⁴

Office of Public and Indian Housing (PIH). HUD's PIH oversees and enforces HUD's lead paint regulations for the rental assistance programs.²⁵ As discussed earlier, this report focuses on the two largest rental assistance programs serving the most families with children—the Housing Choice Voucher and public housing programs.

- **Housing Choice Voucher program.** In the voucher program, eligible families and individuals are given vouchers as rental assistance to

²²HUD's Office of the Secretary has delegated oversight and enforcement authority for lead paint laws and regulations to HUD's Lead Office. See Delegation of Authority for the Office of Lead Hazard Control and Healthy Homes, 81 Fed. Reg. 89496 (Dec. 12, 2016). According to the Lead Office's interpretive guidance for the Lead Safe Housing Rule, monitoring and enforcement of compliance with the Lead Safe Housing Rule will be integrated into the administrative procedures for each affected HUD program, such as the voucher and public housing programs.

²³Property owners or tenants of HUD-assisted housing can email Lead_Regulations@HUD.gov or call (202) 402-7690. Additionally, PHAs and property owners can call or email to request technical assistance.

²⁴The general public can call 1 (800) 424-LEAD or see <https://www.epa.gov/lead/forms/lead-hotline-national-lead-information-center> for more information.

²⁵Other HUD offices, including the Office of Housing and Office of Community Planning and Development, oversee other forms of rental assistance covered by the Lead Safe Housing Rule; however, as previously noted these programs were not the focus of this review.

use in the private housing market. Generally, eligible families with vouchers live in the housing of their choice in the private market. The voucher generally pays the difference between the family's contribution toward rent and the actual rent for the unit.²⁶ Vouchers are portable; once a family receives one, it can take the voucher and move to other areas where the voucher program is administered.²⁷ In 2017, there were roughly 2.5 million vouchers available.²⁸

- **Public housing program.** Public housing is reduced-rent developments owned and operated by the local PHA and subsidized by the federal government.²⁹ PHAs receive several streams of funding from HUD to help make up the difference between what tenants pay in rent and what it costs to maintain public housing. For example, PHAs receive operating and capital funds through a formula allocation process. PHAs use operating funds to pay for management, administration, and day-to-day costs of running a housing development. Capital funds are used for modernization needs, such as replacing roofs or remediating lead paint hazards. According to HUD rules, generally families that are income-eligible to live in public housing pay 30 percent of their adjusted income toward rent. In 2017, there were roughly 1 million public housing units available.

For both of these rental assistance programs, the Office of Field Operations (OFO) within PIH oversees PHAs' compliance with lead paint regulations, in conjunction with HUD field office staff. The office has a risk-based approach to overseeing PHAs and performs quarterly risk assessments. Also within PIH, staff from the Real Estate Assessment

²⁶Specifically, a family generally pays 30 percent of its monthly adjusted income toward rent, and the PHA pays to the landlord the remainder of the rent through a HUD-subsidized "voucher." The voucher generally is equal to the difference between (1) the lesser of the unit's gross rent (generally, rent plus utilities) or a local "payment standard" and (2) the household's payment. The payment standard is based on the local fair market rent established by HUD. HUD defines "adjusted income" as a family's annual income minus a number of mandatory deductions, such as an amount for unreimbursed reasonable child care expenses necessary to enable a family member to work or further their education.

²⁷The portability of vouchers may be subject to some restrictions, such as a 12 month waiting period before a tenant can move to a location outside of the PHA's jurisdiction.

²⁸Congress usually provides funding for vouchers annually in the appropriations for HUD.

²⁹Some states, such as Massachusetts, fund public housing properties that do not receive assistance from HUD and are separate from HUD's public housing program. These are not included in the scope of our work.

Center are responsible for inspecting the physical condition of public housing properties.

Office of Policy Development and Research (PD&R). HUD's PD&R is the primary office responsible for data analysis, research, and program evaluations to inform the development and implementation of programs and policies across HUD offices.

HUD's Lead Hazard Control Grant Programs

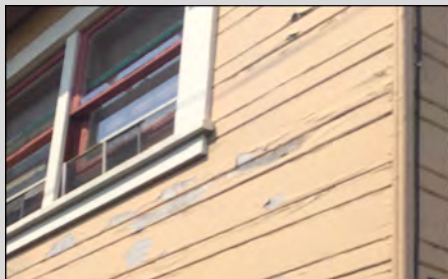
Example of a Home with Lead Paint Hazards



Source: GAO. | GAO-18-394

The sign provided a warning about lead paint hazard and was posted at a home in Baltimore, Maryland, which was undergoing lead paint hazard remediation work funded by the Department of Housing and Urban Development's lead hazard control grant program.

Example of a Home with Peeling Lead Paint



Source: GAO. | GAO-18-394

The exterior siding of this home in Alameda County, California, showed peeling paint identified as a lead paint hazard. Alameda County used grant funds from the Department of Housing and Urban Development's lead hazard control grant program for the remediation work.

HUD has had two grant programs that competitively award lead hazard control grants to state and local jurisdictions: the Lead-Based Paint Hazard Control grant program and the Lead Hazard Reduction Demonstration grant program.³⁰ For both grant programs, HUD has issued annual Notices of Funding Availability (funding notices) to solicit applications from these jurisdictions.³¹ Both grant programs have had a 3-year term and are intended to help jurisdictions identify and control lead hazards in low-income, private housing where children under age 6 reside or are likely to reside.³² However, the Lead Hazard Reduction Demonstration grant program has been focused on urban jurisdictions with rental housing built before 1940 and higher rates of childhood lead poisoning. Both grant programs have required grantees to meet certain matching requirements, but the percentage of matching contribution differed for each program. Specifically, the Lead-Based Paint Hazard Control grant program has required grantees to match at least 10 percent

³⁰The grant programs are authorized by Title X § 1011 (codified as amended at 42 U.S.C. § 4852). The Consolidated Appropriations Act 2018, Pub. L. No. 115-141, Div. L, Title II (2018), provides funds for a single grant program referred to as the Lead Hazard Reduction Program. According to HUD, the single grant program would cover the breadth of the two previous lead grant programs.

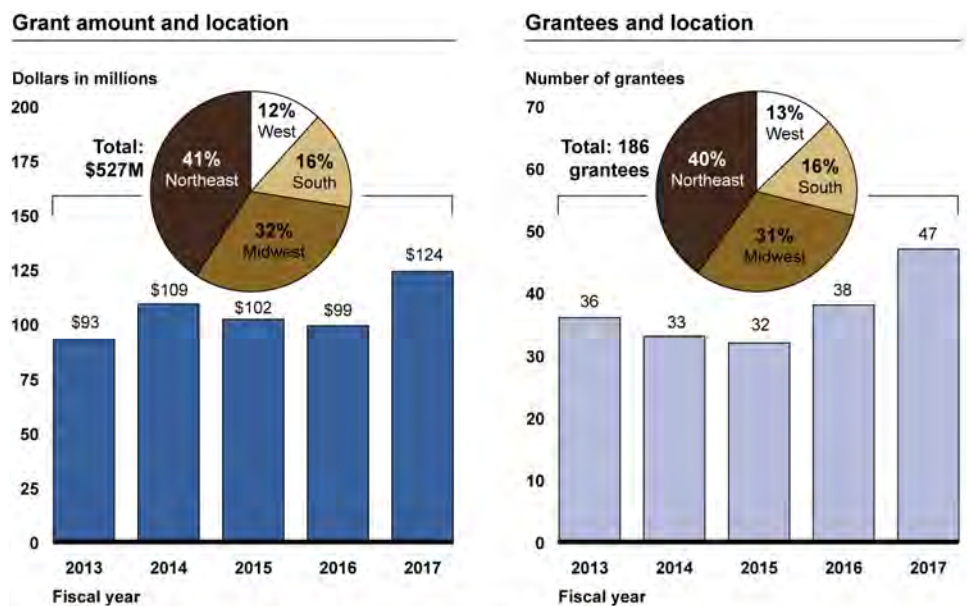
³¹Other federal agencies sometimes refer to these announcements as Notices of Funding Opportunity. Federal agencies publish these notices to announce opportunities for applicants to apply for competitively awarded grants.

³²HUD is authorized to provide grants to eligible applicants to evaluate and reduce lead paint hazards in housing that is not federally assisted, owned, or public housing. Specifically, HUD noted in its 2017 funding notice that the lead grant programs assist jurisdictions in undertaking programs to control lead paint hazards in eligible privately owned rental or owner-occupied housing.

of the total grant amount, while the Lead Hazard Reduction Demonstration grant program has required at least a 25 percent match.³³

For fiscal years 2013–2017, HUD awarded \$527 million for its lead hazard control grants, which included 186 grants to state and local jurisdictions (see fig. 1). In these 5 years, about 40 percent of grants awarded went to jurisdictions in the Northeast and 31 percent to jurisdictions in the Midwest—regions of the country known to have a high prevalence of lead paint hazards.³⁴

Figure 1: The Department of Housing and Urban Development’s Lead Hazard Control Grant Programs, Fiscal Years 2013–2017



Source: GAO analysis of Department of Housing and Urban Development data. | GAO-18-394

Note: The percentages do not always add to 100 percent due to rounding.

³³For instance, if HUD’s grant award is \$3 million, the grantee is required to contribute at least \$300,000 (10 percent) for the Lead-Based Paint Hazard Control grant program or at least \$750,000 (25 percent) for the demonstration grant program. The Consolidated Appropriations Act 2018, Pub. L. No. 115-141, Div. L, Title II (2018), does not specify a match requirement for the single grant program referred to as the Lead Hazard Reduction Program.

³⁴Department of Housing and Urban Development, *American Healthy Homes Survey: Lead and Arsenic Findings*, April 2011.

Additionally, in these 5 years, 90 percent of grant awards went to grantees at the local jurisdiction level (cities, counties, and the District of Columbia). The other 10 percent of grant awards went to state governments. During this time period, HUD awarded the most grants to jurisdictions in Ohio (17 grants), Massachusetts and New York (15 grants each), and Connecticut (14 grants).

HUD Has Incorporated Relevant Requirements for Awarding Recent Lead Grants, but Could Better Document and Evaluate Grant Processes

Lead Grant Programs Have Incorporated Statutory Requirements for Eligibility and Selection

HUD's Lead-Based Paint Hazard Control grant and the Lead Hazard Reduction Demonstration grant programs have incorporated Title X statutory requirements through recent annual funding notices and their grant processes. Title X contains applicant eligibility requirements and selection criteria HUD should use to award lead grants.

To be eligible to receive a grant, applicants need to

- be a state or local jurisdiction,
- contribute matching funds to supplement the grant award,
- have an approved comprehensive affordable housing strategy, and
- have a certified lead abatement program (if the applicant is a state government).³⁵

HUD has incorporated these eligibility requirements in its grant programs' 2017 funding notices, which require applicants to demonstrate that they meet these requirements when they apply for a lead grant. According to the 2017 funding notices, applicants must detail the sources and amounts of their matching contributions in their applications. Similarly, applicants must submit a form certifying that the proposed grant activities are consistent with their local affordable housing strategy. HUD's 2017

³⁵A certified lead abatement program is a state-administered program that trains and certifies lead abatement professionals and has been authorized by EPA.

funding notices state that if applicants did not meet these eligibility requirements, HUD would not consider their applications.

Additionally, Title X requires HUD to award lead grants according to the following applicant selection criteria:

- the extent to which an applicant’s proposed activities will reduce the risk of lead poisoning for children under the age of 6;
- the degree of severity and extent of lead paint hazards in the applicant’s jurisdiction;
- the applicant’s ability to supplement the grant award with state, local, or private funds;
- the applicant’s ability to carry out the proposed grant activities; and
- other factors determined by the HUD Secretary to ensure that the grants are used effectively.

In its 2017 funding notices, HUD incorporated the Title X applicant selection criteria through five scoring factors that it used to assess lead grant applications. HUD allocated a certain number of points to each scoring factor. Applicants are required to develop their grant proposals in response to the scoring factors. When reviewing applications, HUD staff evaluated an applicant’s response to the factors and assigned points for each factor. See table 1 for a description of the 2017 lead grant programs’ scoring factors and points.

Table 1: HUD’s Lead-Based Paint Hazard Control Grant and Lead Hazard Reduction Demonstration Grant Programs’ Scoring Factors and Point Distribution, 2017

HUD’s scoring factors	Description	Maximum available points
1. Capacity of the applicant and relevant organizational experience	Applicants must demonstrate that they and their partners have sufficient qualified personnel and are prepared to perform lead hazard control work, among other things.	20
2. Need/extent of the problem	Applicants must demonstrate need for a lead grant in the applicant’s jurisdiction through publicly available data, including elevated blood lead level data, income data, housing data, and other factors contributing to need.	20
3. Soundness of approach	Applicants must demonstrate their ability to carry out lead hazard control work and prepare a quality workplan to implement the proposed lead grant activities.	46
4. Budget proposal	Applicants must thoroughly estimate all applicable costs for lead grant activities and present them in a clear and coherent format.	10
5. Achieving results and program evaluation	Applicants must identify procedures for monitoring grant performance and measuring outcomes, among other things.	4
Total 100 points		

Source: Department of Housing and Urban Development’s (HUD) 2017 Notices of Funding Availability for the lead grant programs. | GAO-18-394

As shown in table 1, HUD awarded the most points (46 out of 100) to the “soundness of approach” scoring factor, according to HUD’s 2017 funding notices. Through this factor, HUD incorporated Title X selection criteria on an applicant’s ability to carry out the proposed grant activities and supplement a grant award with state, local, or private funds. For example, HUD’s 2017 funding notices required applicants to describe their detailed plans to implement grant activities, including how the applicants will establish partnerships to make housing lead-safe. Specifically, HUD began awarding 2 of the 100 points to applicants who demonstrated partnerships with local public health agencies to identify families with children for enrollment in the lead grant programs. Additionally, HUD asked applicants to identify partners that can help provide assistance to complete the lead hazard control work for high-cost housing units. Furthermore, HUD required applicants to identify any nonfederal funding, including funding from the applicants’ partners. Appendix I includes examples of state, local, and nongovernmental funds that selected grantees planned to use to supplement their lead grants.

HUD Has Taken Actions Consistent with OMB Requirements but Has Not Fully Documented or Evaluated Its Lead Grant Programs’ Processes

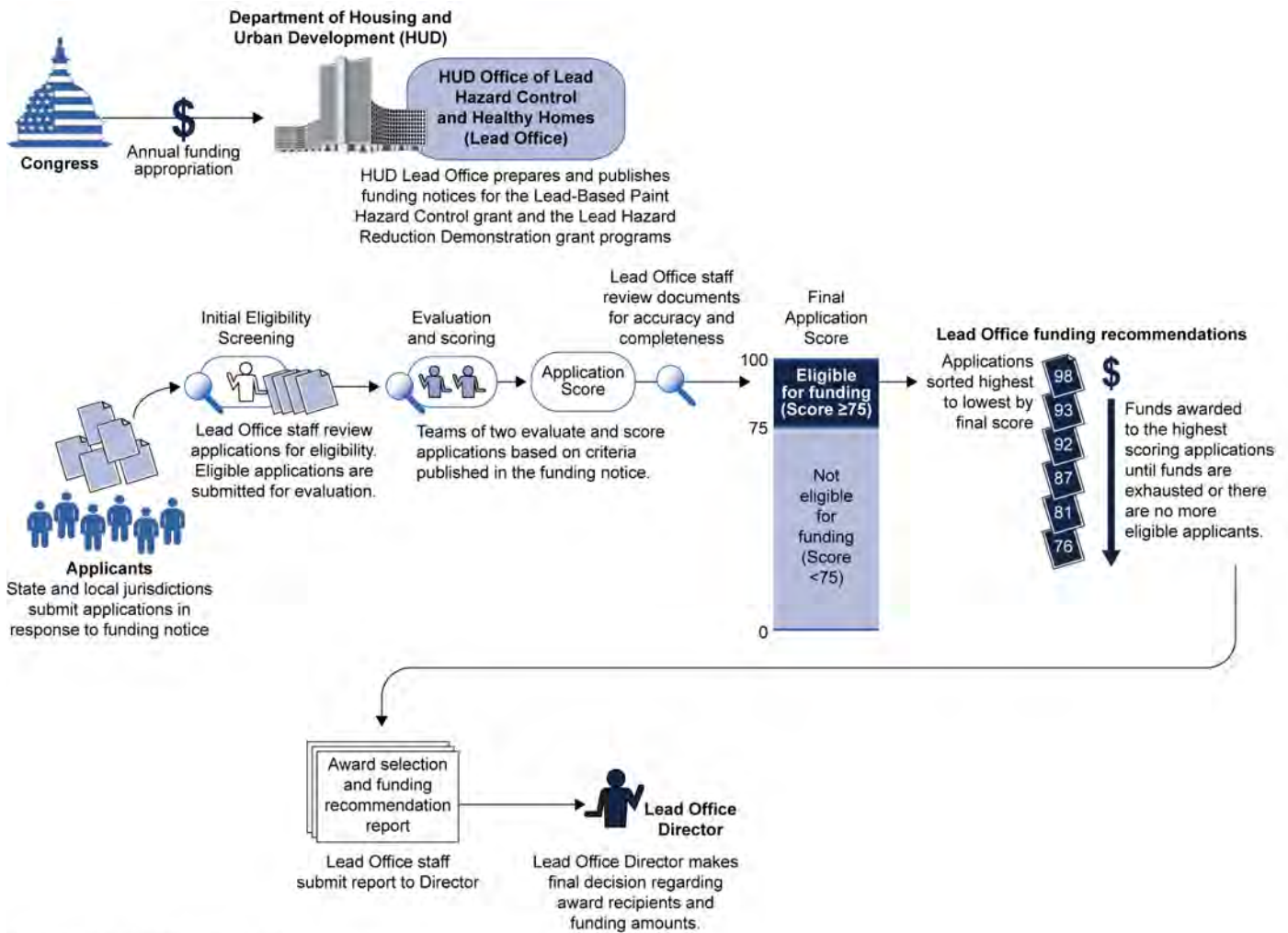
In its lead grant programs, HUD has taken actions that were consistent with OMB’s requirements for competitively awarded grants.³⁶ OMB generally requires federal agencies to: (1) establish a merit-review process for competitive grants that includes the criteria and process to evaluate applications; and (2) develop a framework to assess the risks posed by applicants for competitive grants, among other things.³⁷ Through a merit-review process, an agency establishes and applies criteria to evaluate the merit of competitive grant applications. Such a process helps to ensure that the agency reviews grant applications in a fair, competitive, and transparent manner. Consistent with the OMB requirement to establish a merit review process, HUD has issued annual funding notices that communicate clear and explicit evaluative criteria. In addition, HUD has established processes for reviewing and scoring grant

³⁶Competitively awarded federal grants generally follow stages of pre-award, award, implementation, and closeout. Our review focused on the pre-award stage. We define the term “pre-award” to mean those grant program activities that occur prior to the official award negotiations and agreement between the agency and grantee. The pre-award process varies from grant to grant, but it generally involves the preparation and publication of the funding notice by the agency, the development and submission of the application by applicants, the review of applications by the agency, and the agency award selection.

³⁷Office of Management and Budget, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (codified at 2 C.F.R. pt. 200), effective for grants awarded starting in December 2014.

applications using these evaluative criteria, and selects grant recipients based on the review scores (see fig. 2). For example, applicants that score at or above 75 points are qualified to receive awards from HUD. Also, HUD awards funds beginning with the highest scoring applicant and proceeds by awarding funds to applicants in a descending order until funds are exhausted. Furthermore, consistent with the OMB requirement to develop a framework to assess applicant risks, HUD has developed a framework to assess the risk posed by lead grant applicants by, among other things, deeming ineligible those applicants with past performance deficiencies or those that do not have a financial management system that meets federal standards.

Figure 2: The Department of Housing and Urban Development’s Lead Grant Programs’ Processes for Reviewing and Selecting Applicants



Source: GAO analysis of HUD information. | GAO-18-394

However, HUD has not fully documented or evaluated its lead grant processes in reviewing and scoring the grants and making award decisions:

Documenting grant processes and award decisions. While HUD has established processes for its lead grant programs, it lacks documentation, including detailed guidance to help ensure that staff carry out processes consistently and appropriately. Federal internal control standards state

that agency management should develop and maintain documentation of its internal control system.³⁸ Such documentation assists agency management by establishing and communicating the processes to staff. Additionally, documentation of processes can provide a means to retain organizational knowledge and communicate that knowledge as needed to external parties.

The Lead Office's Application Review Guide describes its grant application review and award processes at a high level but does not provide detailed guidance for staff as to how tasks should be performed.³⁹ For example, the Guide notes that reviewers score eligible applications according to factors contained in the funding notices but does not describe how the reviewers should allocate points to the subfactors that make up each factor. Lead Office staff told us that creating detailed scoring guidance would be challenging because applicants' proposed grant activities differ widely, and they said that scoring grant applications is a subjective process. While scoring grant applications may involve subjective judgments, improved documentation of grant review and scoring processes, including additional direction to staff, can help staff apply their professional judgment more consistently in evaluating applications. By better documenting processes, HUD can better ensure that staff evaluate applications consistently.

Additionally, HUD has not fully documented its rationale for deciding which applicants receive lead grant awards and for deciding the dollar amounts of grant awards to successful applicants. In prior work examining federal grant programs, one recommended practice we identified is that agencies should document the rationale for award decisions, including the reasons individual applicants were selected or not and how award funding amounts were determined.⁴⁰ While HUD's internal memorandums listed the applicants selected and the award amounts, these memorandums did not document the rationale for these decisions or provide information sufficient to help applicants understand award

³⁸[GAO-14-704G](#).

³⁹Department of Housing and Urban Development, Office of Lead Hazard Control and Healthy Homes, *Application Review Guide: Guidance for Notice of Funding Availability Review Teams*, 2017.

⁴⁰GAO, *Intercity Passenger Rail: Recording Clearer Reasons for Awards Decisions Would Improve Otherwise Good Grantmaking Practices*, [GAO-11-283](#) (Washington, D.C.: Mar. 10, 2011).

outcomes.⁴¹ Lead Office staff told us that most grantees have received the amount of funding they requested in their applications, which was generally based on HUD's maximum grant award amount. Lead Office staff said they could use their professional judgment to adjust award amounts to extend funding to more applicants when applicants received similar scores.

However, the Lead Office's documentation we reviewed did not explain this type of decision making. For example, in 2017, when two applicants received identical scores on their applications, HUD awarded each applicant 50 percent of the remaining available funds rather than awarding either applicant the amount they requested. Representatives of one of the two grantees told us they did not know why the Lead Office had not provided them the full amount they had requested. Lead Office staff told us that, to date, HUD has not considered alternative ways to award grant funding amounts. By fully documenting grant award processes, including the rationale for award decisions and amounts, HUD could provide greater transparency to grant applicants about its grant award decisions.

Evaluating processes. HUD lacks a formal process for reviewing and updating its lead grant funding notices, including the factors and point allocations used to score applications. Federal internal control standards state that agencies should implement control activities through policies and that periodic review of policies and procedures can provide assurance of their effectiveness in achieving the agency's objectives.⁴² Lead Office staff told us that previous changes to the factors and point allocation used to score applicants have been made based on informal discussions among staff. However, the Lead Office does not have a formal process to review and evaluate the relevance and appropriateness of the factors or points used to score applicants. Lead Office staff told us that they have never analyzed the scores applicants received for the factors to identify areas where applicants may be performing well or poorly or to help inform decisions about whether changes may be needed to the factors or points.

⁴¹ According to the Lead Office's memorandums, the documents constitute the final report of the Application Review Panel.

⁴² [GAO-14-704G](#).

Additionally, HUD has not changed the threshold criteria used to make award decisions since the threshold was established in 2003. As previously shown in figure 2, applicants who received at least 75 points (out of 100) have been qualified to receive a grant award. However, HUD grant documentation, including the funding notices and the Application Review Guide, does not explain the significance of this 75-point threshold. Lead Office staff stated that this threshold was first established in 2003 by HUD based on OMB guidance. A formal review of this 75-point threshold can help HUD determine whether it remains appropriate for achieving the grant programs' objectives. Furthermore, by periodically evaluating processes for reviewing and scoring grant applications, HUD can better determine whether these processes continue to help ensure that lead grants reach areas of the country at greater risk for lead paint hazards.

HUD Has Begun to Develop Analyses to Help More Fully Identify Areas at Risk for Lead Paint Hazards but Has Not Set Time Frames for Using Local-Level Data

HUD has begun to develop analyses and tools to inform its efforts to target outreach and ensure that grant awards go to areas of the country that are at risk for lead paint hazards. However, HUD has not developed time frames for incorporating the results of the analyses into its lead grant programs' processes. HUD has required jurisdictions applying for lead grants to include data on the need or extent of the problem in their jurisdiction (i.e., scoring factor 2). Additionally, Lead Office staff told us that HUD uses information from the American Healthy Homes Survey to obtain information on lead paint hazards across the country.⁴³ However, the staff explained that the survey was designed to provide meaningful results at the regional level and did not include enough homes in its sample to provide information about housing conditions, such as lead paint hazards, at the state or local level. Because HUD awards lead grants to state and local jurisdictions, it cannot effectively use the survey results to help the agency make award decisions or inform decisions about areas for potential outreach.

In early 2017, the Lead Office began working with PD&R to develop a model to identify local jurisdictions (at the census-tract level) that may be at heightened risk for lead paint hazards. Lead Office staff said that they hope to use results of this model to develop geographic tools to help

⁴³Department of Housing and Urban Development, *American Healthy Homes Survey: Lead and Arsenic Findings* (April 2011). HUD conducted the survey from June 2005 through March 2006. The survey measured levels of lead, lead hazards, allergens, arsenic, pesticides, and mold in homes nationwide.

target HUD funding to areas of the country at risk for lead paint hazards but not currently receiving a HUD lead grant. Lead Office staff said that they could reach out to these at-risk areas, help them build the capacity needed to administer a grant, and encourage them to apply. For example, HUD has identified that Mississippi and two major metropolitan areas in Florida (Miami and Tampa) had not applied for a lead grant. HUD has conducted outreach to these areas to encourage them to apply for a lead grant. In 2016, the City of Jackson, Mississippi, applied for and received a lead grant.

Though the Lead Office has collaborated with PD&R on the model, HUD has not developed specific time frames to operationalize the model and incorporate the results of the model for using local-level data to help better identify areas at risk for lead paint hazards. Federal internal control standards require agencies to define objectives clearly to enable the identification of risks.⁴⁴ This includes clearly defining time frames for achieving the objectives. Setting specific time frames could help to ensure that HUD operationalizes this model in a timely manner. By operationalizing a model that incorporates local data on lead paint hazard risk, HUD can better target its limited grant resources towards areas of the country with significant potential for lead hazard control needs.

We performed a county-level analysis using HUD and Census Bureau data and found that most lead grants from 2013 through 2017 have gone to counties with at least one indicator of lead paint hazard risk.⁴⁵ Information we reviewed, such as relevant literature, suggests that the two common indicators of lead paint hazard risk are the prevalence of housing built before the 1978 lead paint ban and the prevalence of

⁴⁴[GAO-14-704G](#).

⁴⁵We used county-level estimate data on the age of housing and poverty level in the United States from the Census Bureau's 2011–2015 American Community Survey data. The specific variables used were year structure built and poverty status. The estimated county-level percentages of older housing and poverty rate are expressed as a range of values. For the lower and upper ends of the range, we generated a 95 percent confidence interval that was within plus or minus 20 percentage points. Our analysis did not account for population, but for the purposes of awarding grants, population density of a jurisdiction may be one of a number of relevant factors, according to HUD staff. For additional details on our analysis, see appendix II.

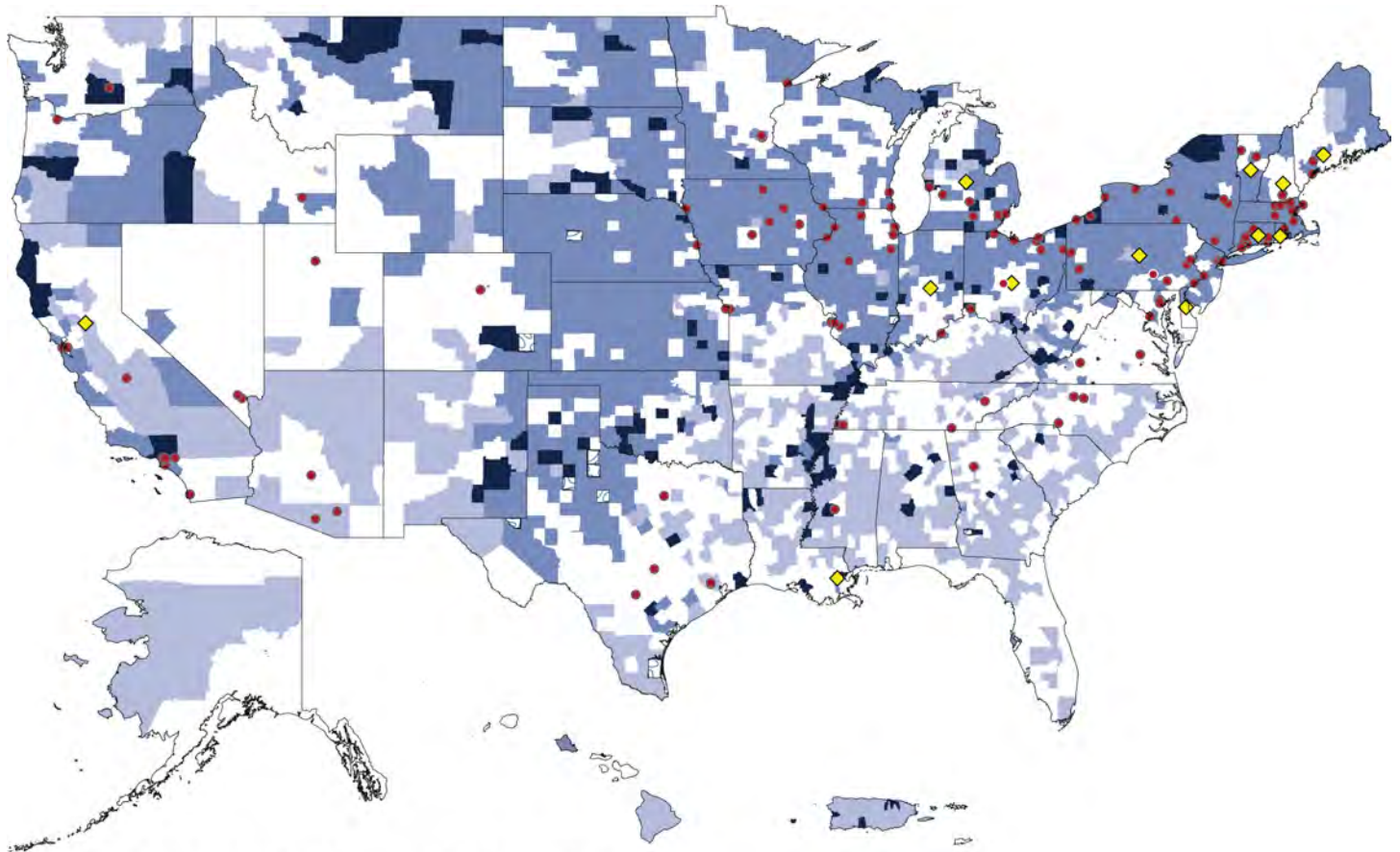
individuals living below the poverty line.⁴⁶ We defined areas with lead paint hazard risk as counties that had percentages higher than the corresponding national percentages for both of these indicators. The estimated average percentage nationwide of total U.S. housing stock constructed before 1980 was 56.9 percent and the estimated average percentage nationwide of individuals living below the poverty line was 17.5 percent.⁴⁷ As shown in figure 3, our analysis estimated that 18 percent of lead grants from 2013 through 2017 have gone to counties with both indicators above the estimated national percentages, 59 percent of grants have gone to counties with estimated percentages of old housing above the estimated national percentage, and 7 percent of grants have gone to counties that had estimated poverty rates above the estimated national percentage.⁴⁸ (For an interactive version of this map, [click here](#).) When HUD finalizes its model and incorporates information into its lead grant processes, HUD will be able to better target its grant resources to areas that may be at heightened risk for lead paint hazards.

⁴⁶For example, see Eric M. Roberts and Paul B. English, "Analysis of multiple-variable missing-not-at-random survey data for child lead surveillance using NHANES," *Statistics in Medicine* 35 (August 2016) and *A Targeted Approach to Blood Lead Screening in Children, Washington State: 2015 Expert Panel Recommendations*, prepared by the Washington State Department of Health (November 2015).

⁴⁷We calculated the estimated percentages nationwide for the age of housing and poverty level in the United States using county-level data from the Census Bureau's 2011–2015 American Community Survey. The estimated average nationwide percentages of older housing and poverty rates are expressed as a range of values. For the lower and upper ends of the range, we generated a 95 percent confidence interval that was within plus or minus 20 percentage points. The Survey data on the age of housing is separated by the decade in which the structure was built. We selected 1980 as the threshold for older housing because it was the demarcation point closest in time to the 1978 lead paint ban.

⁴⁸For state government grantees (12 of them), we used address data provided by HUD and assigned a corresponding county. However, state government grantees can specify other counties within their state where lead hazard control activities may occur. In our analysis, we were not able to account for the actual counties where state grantee lead hazard control activities took place.

Figure 3: Department of Housing and Urban Development (HUD) Lead Grant Awards (2013–2017) and Indicators of Lead Paint Hazard Risk by County



County higher than the estimated average national percentage

	Grantees	
Both old houses and poverty	34 (18%)	Data unavailable/not reliable
Old houses only	109 (59%)	
Poverty only	13 (7%)	
Neither old houses nor poverty	30 (16%)	

Type of grantee

- State government^a
- Local government (i.e., city or county)

Sources: GAO analysis of Department of Housing and Urban Development and U.S. Census Bureau data; MapInfo (map). | GAO-18-394

Note: This map shows the locations of HUD lead grant awards from 2013 through 2017. Also, this map compares counties in the United States with the estimated average percentages nationwide of two commonly known indicators of lead paint hazard risk. The two indicators and their estimated national percentages are: older housing as measured by pre-1980 housing (56.9 percent of the total U.S. housing stock) and poverty rate (17.5 percent of the total U.S. population). We calculated the estimated average percentages nationwide of the two indicators using county-level data from the

2011–2015 American Community Survey. The estimated national and county-level percentages of the two indicators are expressed as a range of values. For the lower and upper ends of the range, we generated a 95 percent confidence interval that was within plus or minus 20 percentage points. We omitted the data for 12 counties that we determined were unreliable for our purposes. We categorized a given county based on whether the county had estimated percentages of pre-1980 housing and poverty statistically higher than one, both, or neither of the corresponding national percentages of both indicators. These two indicators do not reflect any differences in population density across counties, which may affect the quantity of housing stock at-risk for lead paint hazards. According to HUD staff, for the purposes of awarding lead grants, population density of a jurisdiction may be one of a number of possible relevant factors.

^aThe location markers for the state grantees in this map represent the address of the grantees but may not necessarily reflect the areas where lead hazard control activities occurred.

HUD Could Take Additional Steps to Monitor Compliance with Lead Paint Regulations

HUD Has Taken Steps to Strengthen Compliance Monitoring for Lead Paint Regulations

In 2016, HUD began to incorporate new steps to monitor PHAs' compliance with lead paint regulations for nearly 4,000 PHAs.⁴⁹

Previously, according to PIH staff, HUD required only that PHAs annually self-certify their compliance with lead paint laws and regulations, and HUD's Real Estate Assessment Center inspectors check for lead paint inspection reports and disclosure forms at public housing properties during physical inspections.⁵⁰ Starting in June 2016, PIH began using new tools for HUD field staff to track PHAs' compliance with lead paint requirements in the voucher and public housing programs.

⁴⁹As previously noted, PHAs are state and local agencies that administer HUD's Housing Choice Voucher and public housing programs. Within PIH, OFO is responsible for the general oversight of PHAs, including compliance with lead paint regulations. OFO works in conjunction with staff from HUD's field offices to help monitor PHAs' compliance with laws and regulations.

⁵⁰HUD Form 50077, PHA Certifications of Compliance with the PHA Plans and Related Regulations. A lead paint inspection report explains the result of a surface-by-surface investigation to determine the presence of lead paint hazards, if any, in a property's housing units. The Real Estate Assessment Center does not inspect all units in a property but rather determines a statistically valid sample of units based on the number of units within a property.

As shown in figure 4, PIH's compliance oversight processes for the voucher and public housing programs include various monitoring tools for overseeing PHAs. Key components of PIH's lead paint oversight processes include the following:

- **Tools for tracking lead hazards and cases of elevated blood levels in children.** HUD uses two databases to monitor PHAs' compliance with lead paint regulations: (1) the Lead-Based Paint Response Tracker, which PIH uses to collect and monitor information on the status of lead paint-related documents, including lead inspection reports and disclosure forms, in public housing properties but not in units with voucher assisted households; and (2) the Elevated Blood Lead Level Tracker, which PIH uses to collect and monitor information reported by PHAs on cases of elevated blood levels in children living in voucher and public housing units. In June 2016, OFO began using the Lead-Based Paint Response Tracker database to store information on public housing units and to help HUD field office staff to follow up with PHAs that have properties missing required lead documentation. In July 2017, OFO began using information recorded in the Elevated Blood Lead Level Tracker to track whether PHAs started lead remediation activities in HUD-assisted housing within the time frames required by the Lead Safe Housing Rule.⁵¹
- **Lead paint hazards included in PHAs' risk assessment scores.** OFO assigns scores to PHAs based on their relative risk in four categories: physical condition, financial condition, management capacity, and governance.⁵² OFO uses these scores to identify high-

⁵¹According to OFO staff, this tracker was created to help HUD monitor PHAs' compliance with some of the new requirements noted in the January 2017 amendment to the Lead Safe Housing Rule. See Requirements for Notification, Evaluation, and Reduction of Lead-Based Paint Hazards in Federally Owned Residential Property and Housing Receiving Federal Assistance, 82 Fed. Reg. 4151 (Jan. 13, 2017).

⁵²HUD's risk-based approach seeks to target oversight and monitoring efforts to those PHAs that are most at risk. OFO's Risk Assessment Protocol includes qualitative and quantitative analysis of PHAs' physical and financial condition, management capacity, and governance. For example, risks to physical assets are considered under the "physical condition" category, while risks related to PHAs' occupancy levels and voucher utilization rates would be considered under the "management" category. According to the protocol, OFO generates a score for each PHA estimating its relative risk. Each quarter, OFO issues a new risk assessment report designating PHAs as very high risk; high risk; moderate risk; or low risk. According to the protocol, there are nearly 4,000 PHAs, and because HUD has diminishing resources for oversight, OFO must direct its resources toward the riskiest PHAs. See Department of Housing and Urban Development, Office of Field Operations, *Risk Assessment Protocol*, July 2017.

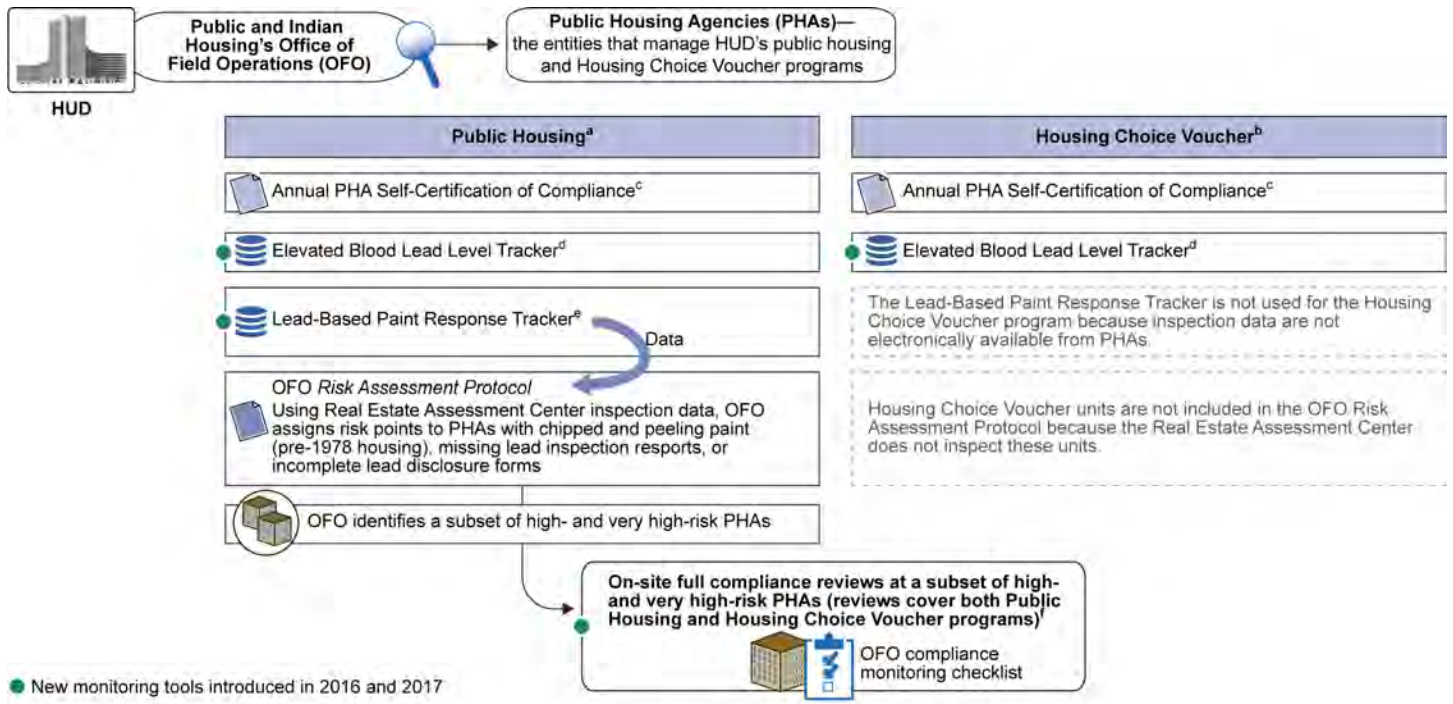
and very high-risk PHAs that will receive on-site full compliance reviews. In July 2017, OFO incorporated data from the Real Estate Assessment Center into the physical condition category of its Risk Assessment Protocol to help account for potential lead paint hazards at public housing properties.⁵³

- **Questions about lead paint included as part of on-site full compliance reviews.** In fiscal year 2016, HUD field offices began conducting on-site full compliance reviews at high- and very high-risk PHAs as part of HUD's compliance monitoring program to enhance oversight and accountability of PHAs. In fiscal year 2017, as part of the reviews, HUD field office staff started using a compliance monitoring checklist to determine if PHAs comply with major HUD rules and to gather additional information on the PHAs. This checklist included lead-related questions that PIH field office staff use to determine whether PHAs meet the requirements in lead paint regulations for both the voucher and public housing programs.⁵⁴

⁵³According to the protocol, OFO assigns points (i.e., indicating increased risk) if there is evidence that the PHA has been identified to have properties that are pre-1978 with peeling paint, according to Real Estate Assessment Center physical inspection data. And, if Real Estate Assessment Center physical inspection data note either a missing lead inspection report or lead disclosure forms, OFO assigns additional points.

⁵⁴For the voucher program, the checklist requires a review of a PHA's lead-based paint policies, procedures, and practices. For the public housing program, the checklist asks for documentation that PHAs have met lead paint requirements, such as evidence that properties have been tested for the presence of lead paint and that lead abatement was carried out when required.

Figure 4: Department of Housing and Urban Development's (HUD) Process for Monitoring Public Housing Agencies' Compliance with Lead Paint Regulations



Source: GAO analysis. | GAO-18-394

^aHUD's Public Housing program (public housing) is one of HUD's two largest rental assistance programs (the other is the Housing Choice Voucher program) serving the most low-income families with children. Public housing is reduced-rent developments owned and operated by state or local entities and subsidized by the federal government.

^bIn HUD's Housing Choice Voucher program (voucher program), eligible families and individuals receive vouchers as rental assistance to use in the private housing market.

^cHUD requires PHAs to self-certify compliance with lead paint laws and regulations through HUD Form 50077, PHA Certifications of Compliance with the PHA Plans and Related Regulations.

^dAs of July 2017, HUD began using information recorded in the Elevated Blood Lead Level Tracker in the public housing and voucher programs to record information the agency requires PHAs to report on cases of children with elevated blood lead levels in public housing and voucher units.

^eAs of June 2016, HUD started using the Lead-Based Paint Response Tracker, a database designed to help monitor PHAs' compliance with lead paint regulations with information collected by Real Estate Assessment Center inspectors in public housing units. Real Estate Assessment Center inspectors check for the presence of lead inspection reports and lead disclosure forms at public housing units, and recorded instances of chipped and peeling paint in pre-1978 housing.

^fIn Fiscal Year 2017, HUD included questions on lead paint regulations within the monitoring checklist for the full compliance reviews.

In 2016, OFO and HUD field offices began using information from the new monitoring efforts to identify potential noncompliance by PHAs with lead paint regulations and help the PHAs resolve the identified issues.⁵⁵ According to HUD data, as of November 2017, the Lead-Based Paint Response Tracker indicated that 9 percent (357) of PHAs were missing both lead inspection reports and lead disclosure forms for one or more properties. There were 973 PHAs missing one of the two required documents. OFO staff told us that they prioritized following up with PHAs that were missing both documents. According to OFO staff, PHAs can resolve potential noncompliance by submitting adequate lead documentation to HUD. OFO staff told us the agency considers missing lead documentation as “potential” noncompliance because PHAs may provide the required documentation or they may be exempt from certain requirements (e.g., HUD-designated elderly housing).

HUD Does Not Have a Plan to Mitigate Risks Associated with Its Compliance Monitoring Approach

While HUD has taken steps to strengthen compliance monitoring processes, it does not have a plan to identify and address the risks of noncompliance by PHAs with lead paint regulations. Federal internal control standards state that agencies should identify, analyze, and respond to risks related to achieving the defined objectives.⁵⁶ Furthermore, when an agency has made significant changes to its processes—as HUD has done with its compliance monitoring processes—management review of changes to these processes can help the agency determine that its control activities are designed appropriately.

Our review found that HUD does not have a plan to help mitigate and address risks related to noncompliance with lead paint regulations by PHAs (i.e., ensuring lead safety in assisted housing). Additionally, our review found several limitations with HUD’s new compliance monitoring approach, which include the following:

- **Reliance on PHA self-certifications.** HUD’s compliance monitoring processes rely in part on PHAs self-certifying that they are in compliance with lead paint regulations, but recent investigations have

⁵⁵OFO works in conjunction with staff from HUD’s field offices to help monitor PHAs’ compliance with lead paint regulations. As previously noted, HUD’s Office of the Secretary has delegated oversight and enforcement authority for lead paint laws and regulations to HUD’s Lead Office, which collaborates with HUD program offices, such as PIH (OFO is within PIH), see 81 Fed. Reg. 89496 (Dec. 12, 2016).

⁵⁶[GAO-14-704G](#).

found that some PHAs may have falsely certified that they were in compliance. In November 2017, HUD filed a fraud complaint against two former officials of the Alexander County (Illinois) Housing Authority, alleging that the former official, among other things, falsely certified to HUD that the Housing Authority was in compliance with lead paint regulations.⁵⁷ Further, PIH staff told us there are ongoing investigations related to potential noncompliance with lead paint regulations and false certifications at two other housing authorities.

- **Lack of comprehensive data for the public housing program.** OFO started to collect data for the public housing program in the Lead-Based Paint Response Tracker in June 2016 and the inventory of all public housing properties includes units inspected since 2012. In addition, HUD primarily relies on the presence of lead inspection reports but does not record in the database when inspections and remediation activities occurred and does not determine whether they are still effective. Because of this, the information contained in the lead inspection reports may no longer be up-to-date. For example, a lead inspection report from the 1990s may provide evidence that abatement work was conducted at that time, but according to PIH staff, the housing may no longer be lead-safe.⁵⁸
- **Lack of readily available data for the voucher program.** The voucher program does not have readily available data on housing units' physical condition and compliance with lead paint regulations because data on the roughly 2.5 million units in the program are kept at the PHA level. According to PIH staff, HUD plans to adopt a new system for the voucher program that will include standardized, electronic data for voucher units. PIH staff said the new system (Uniform Physical Condition Standards for Vouchers Protocol) will allow greater oversight and provide HUD the ability to conduct data analysis for voucher units.
- **Challenges identifying children with elevated blood lead levels.** For several reasons, PHAs face ongoing challenges receiving information from state and local public health departments on the

⁵⁷According to the complaint, the former Executive Director of the Alexander County Housing Authority had indicated that the Housing Authority had completed required lead inspections, but a review of the PHA's records revealed that the submitted certifications were false.

⁵⁸In January 2018, HUD announced \$25 million in grant funding to help identify and remediate lead paint hazards in public housing. According to the announcement, the funding is needed for housing that was tested and abated over 20 years ago and those past control methods may no longer be effective.

number of children identified with elevated blood lead levels. First, children across the U.S. are not consistently screened and tested for exposure to lead.⁵⁹ Second, according to CDC data, many states use a less stringent health guideline to identify children compared to the health standard that HUD uses (i.e., CDC's current blood lead reference value).⁶⁰ PIH staff told us that some public health departments may not report children with elevated blood levels to PHAs because they do not know that a child is living in a HUD-assisted unit and needs to be identified using the more stringent HUD standard. Lastly, Lead Office staff told us that privacy laws in some states may impose restrictions on public health departments' ability to share information with PHAs.

- **Limited coverage of on-site compliance reviews.** While full on-site compliance reviews can be used to determine if PHAs are in compliance with lead paint regulations, OFO conducts a limited number of these reviews annually. For example, in Fiscal Year 2017, OFO conducted 72 reviews of the roughly 4,000 total PHAs. Based on OFO information, there are 973 PHAs that are missing either lead

⁵⁹Blood lead testing is a covered service for children enrolled in the Medicaid program through the Early and Periodic, Screening, Diagnostic and Treatment benefit. All children enrolled in Medicaid are required to receive blood lead screening tests at ages 12 months and 24 months. States are allowed to request approval from the Centers for Medicaid & Medicare to implement targeted lead screening programs (i.e., not test all children enrolled in Medicaid) and one state has an approval (Arizona). According to a November 2016 Centers for Medicaid & Medicare Services bulletin, data suggest that only about 38 percent of children enrolled in Medicaid ages 1–2 are reported to have been screened for lead in 2015. However, the Centers for Medicaid & Medicare believe that this under-represents the actual number of children who received blood lead screening tests because the claims and encounter data this finding was based on do not capture screenings that are not paid for by Medicaid, such as screenings performed by clinics using CDC funding or funded by state health departments. Nevertheless, the Centers for Medicaid & Medicare states the data indicate that there are many children at risk of lead exposure that are not being tested. Further, for children not enrolled in Medicaid, according to the American Academy of Pediatrics and CDC, universal screens or blood lead level tests are recommended for children living in high prevalence areas with increased risk factors as identified by CDC, such as older housing.

⁶⁰According to CDC's data, as of February 2018, 18 states and the District of Columbia were aligned with the federal health guideline of 5 micrograms per deciliter of blood, and the remaining 32 states used a less stringent standard (i.e., a guideline greater than 5 micrograms per deciliter of blood), which may result in fewer children with elevated blood lead levels being identified and reported. Additionally, CDC staff noted that the specific actions required to be taken when a child tests above the blood lead reference value vary.

inspection reports or lead disclosure forms indicating some level of potential noncompliance.⁶¹

HUD's steps since June 2016 to enhance monitoring of PHAs' compliance with lead paint regulations have some limitations that create risks in its new compliance monitoring approach. By developing a plan to help mitigate and address the various limitations associated with the new compliance monitoring approach, HUD could further strengthen its oversight and help ensure that PHAs maintain lead-safe housing units.

HUD Lacks Detailed Procedures to Address Noncompliance and Make Enforcement Decisions

HUD does not have detailed procedures to address PHA noncompliance with lead paint regulations or to determine when enforcement decisions may be needed. Lead Office staff told us that their enforcement program aims to ensure that PHAs have the information necessary to remain in compliance with lead paint regulations. According to federal internal control standards, agencies should implement control activities through policies and procedures.⁶² Effective design of procedures to address noncompliance would include documenting specific actions to be performed by agency staff when deficiencies are identified and related time frames for these actions.

While HUD staff stated that they address PHA noncompliance through ongoing communication and technical assistance to PHAs, HUD has not documented specific actions to be performed by staff when deficiencies are identified. OFO staff told us that in general, PIH has not needed to take many enforcement actions because field offices are able to resolve most lead paint regulation compliance concerns with PHAs through ongoing communication and technical assistance.⁶³ For example, HUD

⁶¹ Additionally, PHAs that OFO identifies for suspected or potential lead paint hazards but determines to not pose sufficiently high risks in other categories—financial condition, management, and governance—may not be ultimately identified as one of the high- or very high-risk PHAs to receive a full on-site compliance review.

⁶² [GAO-14-704G](#).

⁶³ PIH staff told us the violation would have to be egregious for HUD to take an enforcement action such as evidence that the PHA's actions contributed to injury or harm of residents living in HUD-assisted housing units (i.e., evidence that the noncompliance contributed to elevated blood lead levels). In response to our requests for enforcement actions taken, HUD provided evidence of one. For example, in 2013 Springfield (Massachusetts) Housing Authority entered into consent agreements with HUD and EPA to pay civil monetary penalties as a result of a joint enforcement effort between HUD and EPA to resolve alleged violations of certain requirements of lead paint regulations.

field offices sent letters to PHAs when Real Estate Assessment Center inspectors could not locate required lead inspection reports and lead disclosure forms, and requested that the PHA send the missing documentation within 30 days. However, OFO's fiscal years 2015–2017 internal memorandums on monitoring and oversight guidance for HUD field offices did not contain detailed procedures, including time frames or criteria HUD staff would use to determine when to consider whether a more formal enforcement action might be warranted.

Additionally, Lead Office staff said if efforts to bring a PHA into compliance are unsuccessful, the Lead Office would work in conjunction with PIH and HUD's Office of General Counsel's Departmental Enforcement Center to determine if an enforcement action is needed, such as withholding or delaying funds from a PHA or imposing civil money penalties on a PHA. Lead Office staff also told us that instead of imposing a fine on a PHA, HUD would rather work with the PHA to resolve the lead paint hazard. However, the Lead Office provided no documentation detailing the specific steps or time frames HUD staff would follow to determine when a noncompliance case is escalated to the Office of General Counsel. In a March 2018 report to Congress, HUD noted that children continued to test positive for lead in HUD-assisted housing in 2017.⁶⁴ In the same report, HUD notes PIH and the Lead Office will continue to work with PHAs to ensure compliance with lead paint regulations. By adopting procedures that clearly describe when lead paint hazard compliance efforts are no longer sufficient and enforcement decisions are needed, HUD can better keep PHAs accountable in a consistent and timely manner.

⁶⁴From April to December 2017, 33 and 4 children, respectively, in the voucher and public housing programs, tested positive for lead in their blood and the source of the lead was identified as lead paint hazards in their housing units. See Department of Housing and Urban Development, Office of Public and Indian Housing and Office of Lead Hazard Control and Healthy Homes, *Report to Congress: HUD Oversight of the Lead Safe Housing Rule for the Public Housing and Housing Choice Voucher Programs* (March 2018).

HUD's Blood Lead Level Standard Aligns with CDC Guidelines and Lead Inspection Standards Are Less Stringent in the Voucher Program

HUD's Blood Lead Level Standard Aligns with the Current CDC Health Guideline

The standard HUD uses to identify children with elevated blood lead levels and initiate lead hazard control activities in its rental assistance aligns with the health guideline set by CDC in 2012.⁶⁵ HUD also uses CDC's health guideline in its lead grant programs.⁶⁶ In HUD's January 2017 amendment to the Lead Safe Housing Rule, HUD made its standard for lead in a child's blood more stringent by lowering it from 20 micrograms to 5 micrograms of lead per deciliter of blood, matching CDC's health guideline (i.e., blood lead reference value).⁶⁷ Specifically, HUD's stronger standard allows the agency to respond more quickly when children under 6 years old are exposed to lead paint hazards in voucher and public housing units.⁶⁸ The January 2017 rule also established more comprehensive testing for children and evaluation

⁶⁵CDC has identified no safe level of exposure to lead, measured in blood. Since 2012, CDC has used a health guideline (i.e., blood lead reference value) of 5 micrograms of lead per deciliter of blood to identify children whose blood lead levels are much higher than most children's levels and for whom it recommends initiation of public health actions.

⁶⁶According to HUD's 2017 Notices of Funding Availability for the lead grant programs, it is a program requirement that children living in housing units that will undergo lead hazard control work have their blood tested for lead levels unless the child's parent or guardian chooses not to have the child tested. Additionally, HUD requires applicants to report the number of children under age 6 with an elevated blood lead level above CDC's current reference level of 5 micrograms of lead per deciliter of blood. HUD uses this information to score applicants and award grants.

⁶⁷HUD issued a final rule that amends HUD's lead paint regulations, see 82 Fed. Reg. 4151 (Jan. 13, 2017) (codified at 24 C.F.R. pt. 35). The 2017 Elevated Blood Lead Level Amendment to HUD's Lead Safe Housing Rule became effective on February 13, 2017 and required PHAs and landlords to comply with the rule starting July 13, 2017.

⁶⁸As previously stated, according to the January 2017 rule, if a child under age 6 living in a HUD-assisted housing unit has an elevated blood lead level, then the housing provider must test the home and building common areas for sources of the child's lead exposure within 15 days, remediate lead paint hazards within 30 days of receiving the results of that test, and must report the case to HUD.

procedures for HUD assisted housing. According to HUD's press release that accompanied the rule, by aligning HUD's standard with CDC's guidance, HUD can respond more quickly in cases when a child who lives in HUD assisted housing shows early signs of lead in their blood.⁶⁹ The 2017 rule notes HUD will revise the agency's elevated blood lead level to align with future changes HHS may make to its recommended environmental intervention level.⁷⁰

HUD's Lead Dust Standards Align with EPA's for Rental Assistance Programs and Exceed Them for Lead Grant Programs

HUD's standards for lead dust levels align with EPA standards for its rental assistance programs and exceed EPA standards for the lead grant programs. In 2001, EPA published a final rule on lead paint hazard standards, including lead dust clearance standards.⁷¹ The rule established standards to help property owners, contractors, and government agencies identify lead hazards in residential paint, dust, and soil and address these hazards in and around homes. Under these standards, lead is considered a hazard when equal to or exceeding 40 micrograms of lead in dust per square foot sampled on floors and 250 micrograms of lead in dust per square foot sampled on interior window sills. In 2004, HUD amended the Lead Safe Housing Rule to incorporate the 2001 EPA lead dust standards as HUD's standards. Since this time, HUD has used EPA's 2001 lead hazard standards in its rental assistance programs.

In February 2017, HUD released policy guidance for its lead grantees requiring them to meet new and more protective requirements for identifying and addressing lead paint hazards in the lead grant programs than those imposed by EPA's 2001 standards that HUD uses in the rental assistance programs.⁷² For example, the policy guidance requires

⁶⁹Department of Housing and Urban Development, *HUD Issues Final Rule To Help Children Exposed to Lead Paint Hazards* (Jan. 13, 2017).

⁷⁰The final rule notes that the current recommended environmental intervention level is tied to the CDC's blood lead reference value. As previously noted, CDC reviews the blood lead reference value every 4 years based on National Health and Nutrition Examination Survey data as the data are updated.

⁷¹Identification of Dangerous Levels of Lead, 66 Fed. Reg. 1206 (Jan. 5, 2001). The rule establishes standards for lead-based paint hazards (including hazards from lead in dust and soil) in most pre-1978 housing and child-occupied facilities.

⁷²Department of Housing and Urban Development, Office of Lead Hazard Control and Healthy Homes Policy Guidance 2017-01 Rev. 1, *Revised Dust-Lead Action Levels for Risk Assessment and Clearance; Clearance of Porch Floors* (Washington, D.C.: Feb. 16, 2017).

grantees to consider lead dust a hazard on floors at 10 micrograms per square foot sampled (down from 40) and on window sills at 100 micrograms per square foot sampled (down from 250). The policy guidance noted that the new requirements are supported by scientific evidence on the adverse effects of lead exposure at low blood lead levels in children. Further, the policy guidance established a standard for porch floors—an area that EPA has not covered—because porch floors can be both a direct exposure source for children and a source of lead dust that can be tracked into the home.

On December 27, 2017, the United States Court of Appeals for the Ninth Circuit ordered EPA to issue a proposed rule updating its lead dust hazard standard and the definition of lead-based paint within 90 days of the decision becoming final and a final rule within 1 year of the proposed rule.⁷³ Because HUD's Lead Safe Housing Rule generally defines lead paint hazards and lead dust hazards to mean the levels promulgated by EPA, if EPA changes its 2001 standards those new standards would be used in HUD's rental assistance programs. On March 16, 2018, EPA filed a request to the court asking for clarification for when EPA is required to issue the proposed rule and followed up with a motion seeking clarification or an extension. In response to EPA's motion, on March 26, 2018, the court issued an order clarifying time frames and ordered that the proposed rule be issued within 90 days from March 26, 2018.

HUD Uses a Less Stringent Lead Inspection Standard for the Voucher Program

HUD's Lead Safe Housing Rule requires a stricter lead inspection standard for public housing than for voucher units. According to HUD staff, HUD does not have the authority to require the more stringent inspection in the voucher program. While HUD has acknowledged that moving to a stricter inspection standard for voucher units would provide greater assurance that these units are lead-safe and expressed its plan to support legislative change to authorize it to impose a more stringent inspection standard, HUD has not requested authority from Congress to amend its inspection standard for the voucher program.

For voucher units, HUD requires PHAs to ensure that trained inspectors conduct visual assessments to identify deteriorated paint for housing units

⁷³The United States Court of Appeals for the Ninth Circuit also noted that the deadlines would only be modified if EPA presented new information showing modification was required. See *In Re A Cmty Voice v. U.S. Environmental Protection Agency*, 878 F.3d 779 (2017).

inhabited by a child under 6 years old.⁷⁴ In a visual assessment, an inspector looks for deteriorated paint and visible surface dust but does not conduct any testing of paint chips or dust samples from surfaces to determine the presence of lead in the home's paint.⁷⁵ By contrast, for public housing units, HUD requires a stronger inspection process. Lead-based paint inspections are required for pre-1978 public housing units. If that inspection identifies lead-based paint, PHAs must then perform a risk assessment. In a risk assessment, in addition to conducting a visual inspection, an inspector tests for the presence of lead paint by collecting and testing samples of paint chips and surface dust, and typically using a specialized device (an X-ray fluorescence analyzer) to measure the amount of lead in the paint on a surface, such as a wall, door, or window sill.

Staff from HUD's Lead Office and the Office of General Counsel told us that Title X did not include specific risk assessment requirements for voucher units, and HUD does not believe, therefore, that it has the statutory authority to require an assessment more thorough than a visual assessment of voucher units.⁷⁶ As of May 2018, HUD had not requested statutory authority to change the visual assessment standard used in the voucher program. However, HUD previously acknowledged the limitation of the weaker inspection standard in a June 2016 publication titled *Lead-Safe Homes, Lead-Free Kids Toolkit*.⁷⁷ In this publication, HUD noted its plans to support legislative change to strengthen lead safety in voucher units by eliminating reliance on visual-only inspections. Staff from HUD's Lead Office and Office of General Counsel told us the agency recognizes that risk assessments are more comprehensive than visual assessments. The staff noted that, by definition, a risk assessment is a stronger inspection standard than a visual-only assessment because it includes additional identification and testing.

⁷⁴24 C.F.R. § 35.1215. This subpart of the Lead Safe Housing Rule applies only to HUD-assisted housing units occupied or to be occupied by families or households that have one or more children of less than 6 years of age, common areas servicing such housing units, and exterior painted surfaces associated with such housing units or common areas.

⁷⁵According to HUD staff, pre-1978 housing units are generally presumed to have lead-based paint, unless paint testing or an inspection has proven otherwise.

⁷⁶According to HUD, the legislative history shows that Congress directed HUD not to require risk assessments for the voucher program, see e.g., S. Rep. No. 102-332 (1992).

⁷⁷Department of Housing and Urban Development, Office of the Secretary, *Lead-Safe Homes, Lead-Free Kids Toolkit* (Washington, D.C.: June 13, 2016).

In responding to a draft of this report, HUD cited the need to conduct and evaluate the results of a statistically rigorous study on the impacts of requiring a lead risk assessment versus a visual assessment, such as the impact on leasing times and the availability of housing for low-income families. HUD further noted that such a study could explore whether alternative options to the full risk assessment standard (such as targeted dust sampling) could achieve similar levels of protection for children in the voucher program. Requesting and obtaining authority to amend the standard for the voucher program would not preclude HUD from doing such a study. Such analysis might support a range of options based on consideration of health effects for children, housing availability, and other relevant factors.

Because HUD's Lead Safe Housing Rule contains a weaker lead inspection standard for the voucher program children living in voucher units may be less protected from lead paint hazards than children living in public housing. By requesting and obtaining statutory authority to amend the voucher program inspection standard, HUD would be positioned to take steps to ensure that children in the voucher program are provided better protection as indicated by analysis of the benefits and costs from amending the standard.

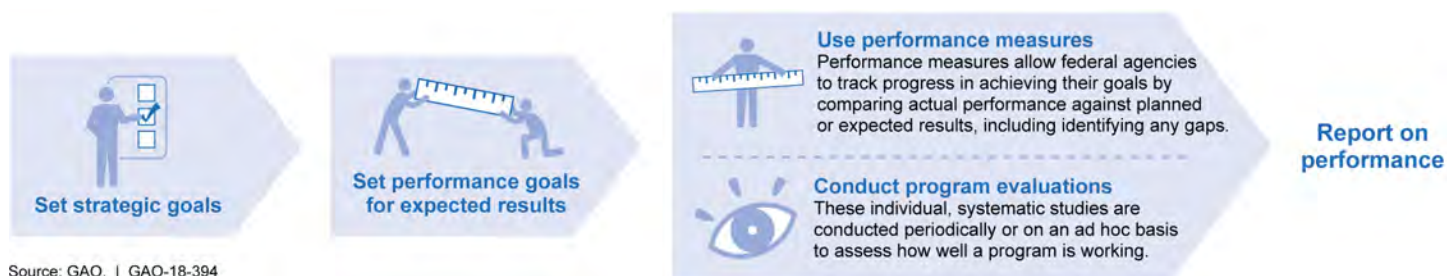
HUD Could Better Measure and Report on Performance of Lead Efforts

HUD has taken limited steps to measure, evaluate, and report on the performance of its programmatic efforts to ensure that housing is lead-safe. First, HUD has tracked one performance measure for its lead grant programs but lacks comprehensive performance goals and measures. Second, while HUD has evaluated the effectiveness of its Lead-Based Paint Hazard Control grant program, it has not formalized plans and does not have a time frame for evaluating its lead paint regulations. Third, HUD has not issued an annual report on the results of its lead efforts since 1997.

A key aspect to promoting improved federal management and greater efficiency and effectiveness is that agencies set goals and report on performance. We have previously reported that a program performance assessment contains three key elements—program goals, performance

measures, and program evaluations (see fig. 5).⁷⁸ In our prior work, we have noted that both the executive branch and congressional committees need evaluative information to help them make decisions about the programs they oversee—information that tells them whether, and why, a program is working well or not.⁷⁹

Figure 5: Key Elements of Program Performance Assessment for Federal Agencies



Source: GAO. | GAO-18-394

Program goals and performance measures. HUD has tracked one performance measure for making private housing units lead-safe as part of its lead grant programs but lacks goals and performance measures that more fully cover the range of its lead efforts. In addition to our prior work on program goals and performance measures, federal internal control standards state that management should define objectives clearly and that defining objectives in measurable terms allows agency management to assess performance toward achieving objectives.⁸⁰ According to Lead Office staff, HUD provides information on its goals and performance measures related to its lead efforts in the agency’s annual performance

⁷⁸For example, see [GAO-16-393](#). Program goals communicate what the agency proposes to accomplish and allow agencies to assess or demonstrate the degree to which those desired results were achieved. Performance measures are concrete, objective, observable conditions that permit the assessment of progress made towards the goals. We have previously defined performance measurement as the ongoing monitoring and reporting of program accomplishments, particularly progress toward pre-established goals. Most federal agencies now use performance measures to track progress towards goals. Program evaluations are individual systematic studies conducted periodically or on an ad hoc basis to assess how well a program is working, typically relative to its objectives. Some federal agencies conduct in-depth program evaluations to assess their programs’ impact or learn how to improve results.

⁷⁹[GAO-16-393](#) and [GAO-11-646SP](#).

⁸⁰[GAO-14-704G](#).

reports.⁸¹ For example, the fiscal year 2016 report contains information about the number of private housing units made lead-safe as part of HUD's lead grant programs but does not include any performance measures on HUD's lead efforts for the voucher and public housing programs.⁸² Lead Office staff told us HUD does not have systems to count the number of housing units made lead-safe in these two housing programs. The staff said the Lead Office and PIH recently began discussing whether data from an existing HUD database could be used to count units made lead-safe within these programs. However, they could not provide additional details on the status of all these efforts. Without comprehensive goals and performance measures, HUD does not know the results it is achieving with all its lead paint hazard reduction efforts. Moreover, HUD may be missing opportunities to use performance information to improve the results of its lead efforts.

Program evaluations. HUD has evaluated the effectiveness of its Lead-Based Paint Hazard Control grant program but has not taken similar steps to evaluate the Lead Safe Housing Rule or Lead Disclosure Rule. As previously stated, our prior work on program performance assessment has noted the importance of program evaluations to know how well a program is working relative to its objectives. Additionally, Title X required HUD to conduct research to evaluate the long-term cost-effectiveness of interim lead hazard control and abatement strategies. For its Lead-Based Paint Hazard Control Grant program, HUD has contracted with outside experts to conduct evaluations. For example, the National Center for Healthy Housing and the University of Cincinnati's Department of Environmental Health evaluated whether the lead hazard control methods used by grantees continued to be effective 1, 3, 6, and 12 years later.⁸³

⁸¹HUD has reported the information on lead-safe housing units for the grant programs as part of an overall agency goal and performance measure related to the number of green and healthy housing units completed (some of which may not be related to lead-safe housing efforts). Lead Office staff told us they track the average dollar amount grantees have spent to make a housing unit lead-safe (i.e., a cost per unit metric) but the agency does not formally track or report this metric.

⁸²Additionally, the report contained information on the number of housing units made lead-safe for other HUD programs, such as HUD's Office of Community Planning and Development's implementation of the Community Development Block Grant and HOME Investment Partnerships programs. As noted previously, this office and these programs were not the focus of this review.

⁸³The purpose of the evaluations was to compare the effectiveness of the different lead hazard control methods used by grantees, using lead dust levels and blood lead levels as the primary measures of effectiveness. Results of the lead grant program evaluations have been published between 2004 and 2012; for a full list of publications see appendix II.

The evaluations concluded that the lead hazard control activities used by grantees substantially reduced lead dust levels and the original evaluation and those completed 1 and 3 years later were also associated with substantial declines in the blood lead levels of children living in the housing remediated using lead grant program funds.

HUD has general plans to conduct evaluations of the Lead Safe Housing Rule and the Lead Disclosure Rule, but Lead Office and PD&R staff said they did not know when or if the studies will begin. In a 2016 publication, HUD noted its plans to evaluate the Lead Safe Housing Rule requirements and noted that such an evaluation would contribute toward policy recommendations and program improvements.⁸⁴ Additionally, in its 2017 Research Roadmap, PD&R outlined HUD's plans for two studies to evaluate the effectiveness of requirements within the Lead Safe Housing and Lead Disclosure Rules.⁸⁵ However, PD&R and Lead Office staff were not able to provide a time frame for when the studies would begin. PD&R staff told us that the plans noted within the Research Roadmap were HUD's first step in research planning and prioritization but that appropriations for research have been prescriptive in recent years (i.e., tied to specific research topics) and fell short of the agency's research needs. By studying the effectiveness of requirements included within the Lead Safe Housing and Lead Disclosure Rules, including the cost-effectiveness of the various lead hazard control methods, HUD could have more complete information to assess how effectively it uses federal dollars to make housing units lead-safe.

Reporting. HUD has not reported on its lead efforts as required since 1997.⁸⁶ Title X includes annual and biennial reporting requirements for

⁸⁴Department of Housing and Urban Development, Office of the Secretary, *Lead-Safe Homes, Lead-Free Kids Toolkit* (Washington, D.C.: June 13, 2016).

⁸⁵Department of Housing and Urban Development, Office of Policy Development and Research, *HUD Research Roadmap: 2017 Update*, January 2017.

⁸⁶Department of Housing and Urban Development, Office of Lead Hazard Control, *Moving Toward A Lead-Safe America: A Report to the Congress of the United States*, February 1997. In March 2018 HUD issued a report in response to a request from Congress to report on the steps HUD has taken to improve its data collection and analysis processes for Housing Choice Voucher units with respect to lead paint regulations, see Department of Housing and Urban Development, Office of Public and Indian Housing and Office of Lead Hazard Control and Healthy Homes, *Report to Congress: HUD Oversight of the Lead Safe Housing Rule for the Public Housing and Housing Choice Voucher Programs*, March 2018.

HUD.⁸⁷ Staff from HUD's Lead Office and General Counsel told us that in 1998 the agency agreed with the congressional committees of jurisdiction that HUD could satisfy this reporting requirement by including the required information in its annual performance reports. Lead Office staff told us HUD's recent annual performance reports do not contain specific information required by law and that HUD has not issued other publicly available reports that contain the Title X reporting requirements. Title X requires HUD to annually provide Congress information on its progress in implementing the lead grant programs; a summary of studies looking at the incidence of lead poisoning in children living in HUD-assisted housing; the results of any required lead technical studies; and estimates of federal funds spent on lead hazard evaluation and reduction in HUD-assisted housing.⁸⁸ As previously stated, the annual performance reports have provided information on the number of housing units made lead-safe through the agency's lead grant programs, but not through the voucher or public housing programs. In March 2018, Lead Office staff told us HUD plans to submit separate reports on the agency's lead effort, covering the Title X reporting requirements, starting in fiscal year 2019. By HUD complying with Title X statutory reporting requirements, Congress and the public will be in a position to better know the progress HUD is making toward ensuring that housing is lead-safe.

Conclusions

Lead exposure can cause serious, irreversible cognitive damage that can impair a child for life. Through its lead grant programs and oversight of lead paint regulations, HUD is helping to address lead paint hazards in housing. However, our review identified specific areas where HUD could improve the effectiveness of its efforts to identify and address lead paint hazards and protect children in low-income housing from lifelong health problems:

- **Documenting and evaluating grant processes.** HUD could improve documentation for its lead grant programs' processes by providing more specific direction to staff and documenting grant award rationale. In doing so, HUD could better ensure that grant program staff score grant applications consistently and appropriately and

⁸⁷Title X § 1061, 106 Stat. 3926 (codified at 42 U.S.C. § 4856).

⁸⁸Biennial reporting requirements include reporting on HUD's progress in implementing expanded lead paint hazard evaluation and reduction activities, as well as providing information on the effectiveness of the Lead Disclosure Rule in making the public aware of lead paint hazards, among other things.

provide greater transparency about its award decisions. Additionally, periodically evaluating its grant processes and procedures could help HUD better ensure that its lead grants reach areas most at risk for lead paint hazards.

- **Identifying areas at risk for lead hazards.** By developing specific time frames to finalize and incorporate the results of its model to more fully identify areas at risk for lead paint hazards, HUD can better identify and conduct outreach to at-risk localities that its lead grant programs have not yet reached.
- **Overseeing compliance with lead paint regulations.** False self-certifications of compliance by some PHAs and other limitations in HUD's compliance monitoring approach make it essential for HUD to develop a plan to mitigate and address limitations, as well as establish procedures to determine when enforcement decisions are needed. These actions could further strengthen HUD's oversight and keep PHAs accountable for ensuring that housing units are lead-safe.
- **Amending inspection standard in the voucher program.** Children living in voucher units may receive less protection from lead paint hazards than children living in public housing units because HUD applies different lead inspection standards to the two programs. HUD could ensure that children in the voucher program are provided better protection from lead by requesting and obtaining statutory authority to amend the voucher program inspection standard as indicated by analysis of the benefits and costs of amending the standard.
- **Assessing and reporting on performance.** Fully incorporating key elements of performance assessment—by developing comprehensive goals, improving performance measures, and adhering to reporting requirements—could better enable HUD to assess its own progress and target its resources toward lead efforts that maximize impact. Additionally, HUD may be missing opportunities to inform the Congress and the public about how HUD's lead efforts have helped reduce lead poisoning in children.

Recommendations for Executive Action

We are making the following nine recommendations to HUD:

- The Director of HUD's Lead Office should ensure that the office more fully documents its processes for scoring and awarding lead grants and its rationale for award decisions. (Recommendation 1)
- The Director of HUD's Lead Office should ensure that the office periodically evaluates its processes for scoring and awarding lead grants. (Recommendation 2)

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- The Director of HUD's Lead Office, in collaboration with PD&R, should set time frames for incorporating relevant data on lead paint hazard risks into the lead grant programs' processes. (Recommendation 3)
 - The Director of HUD's Lead Office and the Assistant Secretary for PIH should collaborate to establish a plan to mitigate and address risks within HUD's lead paint compliance monitoring processes. (Recommendation 4)
 - The Director of HUD's Lead Office and the Assistant Secretary for PIH should collaborate to develop and document procedures to ensure that HUD staff take consistent and timely steps to address issues of PHA noncompliance with lead paint regulations. (Recommendation 5)
 - The Secretary of HUD should request authority from Congress to amend the inspection standard to identify lead paint hazards in the Housing Choice Voucher program as indicated by analysis of health effects for children, the impact on landlord participation in the program, and other relevant factors. (Recommendation 6)
 - The Director of the Lead Office should develop performance goals and measures to cover the full range of HUD's lead efforts, including its efforts to ensure that housing units in its rental assistance programs are lead-safe. (Recommendation 7)
 - The Director of the Lead Office, in conjunction with PD&R, should finalize plans and develop a time frame for evaluating the effectiveness of the Lead Safe Housing and Lead Disclosure Rules, including an evaluation of the long-term cost effectiveness of the lead remediation methods required by the Lead Safe Housing Rule. (Recommendation 8)
 - The Director of the Lead Office should complete statutory reporting requirements, including but not limited to its efforts to make housing lead-safe through its lead grant programs and rental-assistance programs, and make the report publicly available. (Recommendation 9)

Agency Comments and Our Evaluation

We provided a draft of this report to HUD for review and comment. We also provided the relevant excerpts of the draft report to CDC and EPA for their review and technical comments. In written comments, reproduced in appendix III, HUD disagreed with one of our recommendations and generally agreed with the remaining eight. HUD and CDC also provided technical comments, which we incorporated as appropriate. EPA did not have any comments on the relevant excerpts of the draft report provided to them.

In its general comments, HUD noted that the lead grant programs and HUD's compliance assistance and enforcement of lead paint regulations have contributed significantly to, among other things, the low prevalence of lead-based paint hazards in HUD-assisted housing. Further, HUD said the lead grant programs and compliance assistance and enforcement of lead paint regulations have played a critical part in developing and maintaining the national lead-based paint safety infrastructure. HUD asked that this contextual information be included in the background of the report. The draft report included detailed information on the purpose and scope of HUD's lead grant programs, two key regulations related to lead paint hazards, and efforts to make housing lead-safe. Furthermore, the draft report provided context on other federal agencies' role in establishing relevant standards and guidelines for lead paint hazards. We made no changes in response to this comment because we did not think it was necessary for background purposes.

HUD disagreed with the draft report's sixth recommendation to request authority from Congress to use the risk assessment inspection standard to identify lead paint hazards in the Housing Choice Voucher program. As discussed in the report, HUD's Lead Safe Housing Rule requires a more stringent lead inspection standard (risk assessments) for public housing than for Housing Choice Voucher units, for which a weaker inspection standard is used (visual assessments). In its written comments, HUD said that before deciding whether to request the statutory authority to implement risk assessments for voucher units, it would need to conduct and evaluate the results of a statistically rigorous study on the impacts of requiring a lead risk assessment versus a visual assessment, such as the impact on leasing times and the availability of housing for low-income families. HUD further noted that such a study could explore whether alternative options to the full risk assessment standard (such as targeted dust sampling) could achieve similar levels of protection for children in the voucher program. We note that requesting and obtaining authority to amend the standard for the Housing Choice Voucher program would not preclude HUD from doing such a study. We acknowledge that the results of such a study might support a range of options. Therefore, we revised our recommendation to provide HUD with greater flexibility in how it might amend the lead inspection standard for the voucher program based on consideration of not only leasing time and availability of housing, as HUD emphasized in its written comments, but also based on the health effects on children. The need for HUD to review the lead inspection standard for the voucher program is underscored by the greater number of households with children served by the voucher program compared to public housing,

as well as recent information indicating that more children with elevated blood lead levels are living in voucher units than in public housing.

HUD generally agreed with our remaining eight recommendations and provided specific information about planned steps and other considerations related to implementing them. For example, in response to our first three recommendations on the lead grant programs, HUD outlined specific steps it plans to take, such as updating its guidance for scoring grant applications and reviewing its grant application scoring methods to identify potential improvements. In response to our fourth and fifth recommendations to the Director of HUD's Lead Office on compliance monitoring and enforcement of lead paint regulations, HUD noted that PIH should be the primary office for these recommendations with the Lead Office providing support. While these recommendations had already recognized the need for the Lead Office to collaborate with PIH, we reworded them to clarify that it is not necessary for the Lead Office to have primary responsibility for their implementation.

HUD generally agreed with our seventh and eighth recommendations, but noted some considerations for implementing them. For our seventh recommendation about performance goals and measures, HUD noted that it will re-examine the availability of information from the current housing databases to determine whether data on housing unit production can be added to the existing data collected. HUD noted if that information is not sufficient, it would need to obtain Office of Management and Budget approval and have sufficient funds for such an information technology project. For our eighth recommendation about evaluating the Lead Safe Housing and Lead Disclosure Rules, HUD noted if its own resources are insufficient, the time frame for implementing this recommendation may depend on the availability of funding for contracted resources. Finally, in response to our ninth recommendation, HUD said that it will draft and submit annual and biennial reports to the congressional authorizing and appropriations committees and then post the reports on the Lead Office's public website.

We are sending copies of this report to the appropriate congressional committees, the Secretary of the Department of Housing and Urban Development, the Administrator of the Environmental Protection Agency, and the Secretary of Health and Human Services, and other interested parties. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-8678 or garcia Diaz@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix IV.

A handwritten signature in black ink, appearing to read "Daniel Garcia-Diaz". The signature is fluid and cursive, with a long horizontal stroke at the bottom.

Daniel Garcia-Diaz
Director, Financial Markets and Community Investment

Appendix I: Nonfederal Funding Sources Used by Selected Grantees of HUD Lead Hazard Control Grants

Under the Department of Housing and Urban Development's (HUD) Lead-Based Paint Hazard Control and the Lead Hazard Reduction Demonstration grant programs, HUD competitively awards grants to state and local jurisdictions, as authorized by the Residential Lead-Based Paint Hazard Reduction Act (Title X of the Housing and Community Development Act of 1992).¹ Title X requires each grant recipient to make matching contributions with state, local, and private funds (i.e., nonfederal) toward the total cost of activities. For the Lead-Based Paint Hazard Control grant and the Lead Hazard Reduction Demonstration grant programs, the matching contribution has been set at no less than 10 percent and 25 percent, respectively, of the total grant amount.² For example, if the total grant amount is \$3 million, then state or local jurisdictions must provide at least \$300,000 and \$750,000, respectively, for each grant program, in additional funding toward the cost of activities.³ HUD requires lead grant applicants to include information on the sources and amounts of grantees' matching contributions as part of their grant applications.⁴ Additionally, Title X requires HUD to award grants in part based on an applicant's ability to leverage state, local, and private funds to supplement the federal grant funds.⁵

To identify the nonfederal funding sources grantees used in the lead hazard control grants, we selected and reviewed the lead grant applications of 20 HUD grantees and interviewed representatives from 10

¹See Title X § 1011 (codified as amended at 42 U.S.C. § 4852).

²Title X, the original authorizing statute for both grant programs, requires that applicants provide a matching contribution "in an amount not less than 10 percent of the total grant amount." 42 U.S.C. § 4852(h). The Lead Hazard Reduction Demonstration has been reauthorized annually through appropriations legislation. The Fiscal Year 2017 Consolidated Appropriations Act requires applicants to this grant program to provide a matching contribution in "an amount not less than 25 percent of the total." Consolidated Appropriations Act, 2017, Pub. L. No. 115-31, 131 Stat. 777-78 (2017). The Consolidated Appropriations Act 2018, Pub. L. No. 115-141, Div. L, Title II (2018), provides funds for a single grant program referred to as the Lead Hazard Reduction Program and does not specify a match requirement for the single grant program.

³Grantees must use their matching contributions to pay for grant activities that are specified in HUD's annual notices of funding for the agency's lead grant programs.

⁴HUD staff told us that the agency had previously awarded additional points to applicants who contributed more than the required matching contributions in 2000 through 2011 and also noted that the agency is considering doing so again in future years.

⁵Grantees can use nonfederal funds to satisfy the grant programs' matching contribution requirements and pay for eligible grant activities that are allowable under HUD's annual notices of funding availability for the its lead grant programs.

of these.⁶ We selected these grantees based on their geographic locations; the number of HUD lead grants they had previously received; experience with HUD's lead hazard control grants; and whether they have received both grants from 2013 through 2017. Grantees we selected included entities at the state, municipality, and county levels. Information from our grant application reviews and interviews of grantees cannot be generalized to all HUD grantees.

Based on our review of the selected grant applications and interviews of selected grantees, we found that grantees planned to use the following types of nonfederal funding sources as their matching contributions to support their lead grants activities:

- **State and local funds.** Eighteen of the 20 grantees we selected noted that they planned to use state or local funding sources to supplement HUD's grant funds. The state and local funding sources included state or local general funds and local property taxes or fees.⁷ For example, grantees in Connecticut, Baltimore, and Philadelphia used state or local general funds to cover personnel and operating costs. Additionally, grantees in Alameda County (California), Hennepin County (Minnesota), Malden, St. Louis, and Winnebago County (Illinois) planned to use local taxes, including property taxes or fees, such as real estate recording and building permit fees, to cover some costs associated with their lead hazard control grants activities.
- **Community Development Block Grant funds.** Ten of the 20 grantees we selected indicated that they planned to use Community Development Block Grant (CDBG) program funds to cover part of the costs of their lead hazard control grants.⁸ CDBG program funds can be used by states and local communities for housing; economic

⁶We selected 20 grantees in Alameda County, California; Atlanta, Georgia; Baltimore, Maryland; State of Connecticut; Cuyahoga County, Ohio; District of Columbia; Denver, Colorado; Hennepin County, Minnesota; Lewiston, Maine; Malden, Massachusetts; Memphis, Tennessee; Monroe County, New York; Philadelphia, Pennsylvania; Providence, Rhode Island; San Antonio, Texas; San Francisco, California; St. Louis, Missouri; Tucson, Arizona; State of Vermont; and Winnebago County, Illinois.

⁷A general fund is the primary fund a state or a local government uses to collect revenues and pay expenses that are not designated to a specific fund.

⁸CDBG program funds are annually appropriated by Congress. After funds are set aside for special statutory purposes—the Indian Community Development Block Grant program and allocated insular areas—70 percent of the remaining CDBG appropriation is allocated to entitlement communities (generally metropolitan cities and counties) and 30 percent to states.

**Appendix I: Nonfederal Funding Sources Used
by Selected Grantees of HUD Lead Hazard
Control Grants**

development; neighborhood revitalization; and other community development activities.⁹ For example, grantees in Baltimore and Memphis noted in their grant applications that they planned to use the funds to cover costs related to personnel, operations, and training.

- **Nongovernmental contributions or discounts.** Eight of 20 grantees we selected stated that they anticipated some forms of nongovernmental contributions from nonprofit organizations or discounts from contractors to supplement the lead grants. For example, all eight grantees stated that they expected to receive matching contributions from nonprofit organizations.

Table 2 summarizes the nonfederal funds by source that the 20 selected grantees planned to use, based on our review of these grantees' applications.

Table 2: Department of Housing and Urban Development (HUD) Lead Grant Programs: Selected Grantees' Sources of Nonfederal Funds as Matching Contributions, 2013–2017

Fiscal year of grant application	State or local funds (in dollars) ^a	Community Development Block Grant funds (in dollars)	Nongovernmental contributions (in dollars) ^b	Total matching contribution (in dollars)	Number of applications selected ^c
2013	493,248	1,576,304	0	2,069,552	3
2014	4,193,929	0	227,161	4,421,090	4
2015	3,299,807	1,601,355	9,489	4,910,651	3
2016	783,369	982,282	100,000	1,865,651	4
2017	1,586,513	1,267,321	1,902,594	4,756,428	6
2013–2017 (in dollars)	10,356,866	5,427,262	2,239,244	18,023,373	20
2013–2017 (as a percentage of total dollars)	57	30	12	100	

Source: GAO analysis of selected grant applications of HUD's lead grant programs. | GAO-18-394

Note: We selected a nonprobability sample of 20 lead grant applications from 2013 through 2017. We reviewed these applications and identified the sources and amounts of nonfederal funds that grantees had planned to use as matching contributions. The information we identified may or may not be representative of the actual matching contributions that grantees used for grants awarded from 2013 through 2017. Percentages do not sum to 100 percent due to rounding.

^aThe state and local funds included state or local general funds, and local property taxes or fees.

^bThe nongovernmental funds included contributions from nonprofit organizations and discounts from contractors.

⁹According to federal law, although CDBG is funded by federal funds, CDBG funds may be treated as nonfederal funds that may be used, as allowed, for another federal grant program. See 42 U.S.C. § 5305(a)(9); 24 C.F.R. § 570.201(g). HUD's lead hazard control grant programs allow CDBG funds to be counted toward the matching contribution requirements.

**Appendix I: Nonfederal Funding Sources Used
by Selected Grantees of HUD Lead Hazard
Control Grants**

⁶We selected and reviewed one lead grant application each from 20 grantees in Alameda County, California; Atlanta, Georgia; Baltimore, Maryland; State of Connecticut; Cuyahoga County, Ohio; District of Columbia; Denver, Colorado; Hennepin County, Minnesota; Lewiston, Maine; Malden, Massachusetts; Memphis, Tennessee; Monroe County, New York; Philadelphia, Pennsylvania; Providence, Rhode Island; San Antonio, Texas; San Francisco, California; St. Louis, Missouri; Tucson, Arizona; State of Vermont; and Winnebago County, Illinois.

Furthermore, almost all of the selected grantees stated in their grant applications or told us that they expected to receive or have received other nonfederal funds in excess of their matching contributions. For example, 15 grantees stated that they generally required or encouraged property owners or landlords to contribute toward the lead hazard remediation costs. Also, grantees in Baltimore, District of Columbia, Lewiston, and Providence indicated that they expected to receive monetary or in-kind donations from organizations to help carry out lead hazard remediation, blood lead-level testing, or training. Additionally, the grantee in Alameda County (California) told us that they have received nonfederal funds from a litigation settlement with a private paint manufacturer.

Appendix II: Objectives, Scope, and Methodology

This report examines the Department of Housing and Urban Development's (HUD) efforts to (1) incorporate statutory requirements and other relevant federal standards in its lead grant programs; (2) monitor and enforce compliance with lead paint regulations for its rental assistance programs; (3) adopt federal health guidelines and environmental standards for lead hazards in its lead grant and rental assistance programs; and (4) measure and report on its performance related to making housing lead-safe.

In this report, we examine lead paint hazards in housing, and we focus on HUD's lead hazard control grant programs and its two largest rental assistance programs that serve the most families with children: the Housing Choice Voucher (voucher) and public housing programs.¹

To address all four objectives, we reviewed relevant laws, such as the Residential Lead-Based Paint Hazard Reduction Act (Title X of the Housing and Community Development Act of 1992, referred to as Title X throughout this appendix) and relevant HUD regulations, such as the Lead Safe Housing Rule and a January 2017 amendment to this rule.² To examine trends in funding for HUD's lead grant programs for the past 10 years, we also reviewed HUD's budget information for fiscal years 2008 through 2017. We interviewed HUD staff from the Office of Lead Hazard Control and Healthy Homes (Lead Office), Office of Public and Indian Housing (PIH), Office of Policy Development and Research (PD&R), and other relevant HUD program and field offices. Finally, we reviewed our prior work and those of HUD's Office of Inspector General.³

¹We did not examine lead hazards in schools, daycare centers, commercial buildings, water, food, or products such as toys, ceramics, or jewelry. For additional work on lead in water and schools, see GAO, *Drinking Water: Additional Data and Statistical Analysis May Enhance EPA's Oversight of the Lead and Copper Rule*, [GAO-17-424](#) (Washington, D.C.: Sept. 1, 2017). Additionally, we have ongoing work reviewing lead service lines and lead in school drinking water.

²See e.g. Title X; 24 C.F.R. pt. 35; Requirements for Notification, Evaluation and Reduction of Lead-Based Paint Hazards in Federally Owned Residential Property and Housing Receiving Federal Assistance, 82 Fed. Reg. 4151 (Jan. 13, 2017). We also reviewed relevant congressional committee reports that originally accompanied Title X, see ex. S. Rep. No. 102-332 (1992).

³GAO, *Department of Housing and Urban Development: Actions Needed to Incorporate Key Practices into Management Functions and Program Oversight*, [GAO-16-497](#) (Washington, D.C.: July 20, 2016); and Department of Housing and Urban Development, Office of Inspector General, *Risk Based Enforcement Could Improve Program Effectiveness*, 2014-OE-0002 (Washington, D.C.: Feb. 12, 2016).

To address the first objective, we reviewed HUD's Notices of Funding Availability (funding notices), policies, and procedures to identify HUD's grant award processes for the Lead-Based Paint Hazard Control grant and Lead Hazard Reduction Demonstration grant programs. For example, we reviewed HUD's annual notices of funding availability from 2013 through 2017 to identify HUD's scoring factors for evaluating grant applications. We compared HUD's grant award processes in 2017 with Title X statutory requirements, the Office of Management and Budget (OMB) requirements for awarding federal grants, and relevant federal internal control standards.⁴ We also interviewed HUD staff about the agency's grant application review and award processes.

To determine the extent to which HUD's grants have gone to counties in the United States potentially at high risk for lead paint hazards, we compared grantee locations from HUD's lead grant data for grants awarded from 2013 through 2017 with county-level data on two indicators of lead paint hazard risk from the 2011–2015 American Community Survey—a continuous survey of households conducted by the U.S. Census Bureau. We analyzed HUD's grant data to determine the number and dollar amount of grants received by each grantee, and the grantees' addresses. We then conducted a geographic analysis to determine whether each HUD lead grant went to a county that met at least one, both, or neither of the two commonly known indicators of lead paint hazard risk—the age of housing and poverty level. We identified these two indicators through a review of relevant academic literature, agency research, and state lead modelling methodologies.⁵

We used data from the 2011–2015 American Community Survey because the data covered a time frame that best aligned with the 5 years of lead grant data (2013 through 2017). Using its county-level data, we calculated an estimated average percentage nationwide of housing units built before

⁴Title X; Office of Management and Budget, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (codified at 2 C.F.R. pt. 200) , effective for grants awarded starting in December 2014; and GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: September 2014).

⁵For example, see Eric M. Roberts and Paul B. English, "Analysis of multiple-variable missing-not-at-random survey data for child lead surveillance using NHANES," *Statistics in Medicine* 35 (November 2016); Department of Housing and Urban Development, *American Healthy Homes Survey: Lead and Arsenic Findings*, April 2011; and Washington State Department of Health, Division of Environmental Public Health, *A Targeted Approach to Blood Lead Screening in Children, Washington State: 2015 Expert Panel Recommendations* (November 2015).

1980 (56.9 percent) and an estimated average percentage nationwide of individuals living below the poverty level (17.5 percent). We used 1980 as a benchmark for age of housing because the American Community Survey data for age of housing is separated by the decade of construction and 1980 was closest in time to the 1978 federal lead paint ban. We categorized counties based on whether their levels of pre-1980 housing and poverty were above one, both, or neither of the respective national average percentage for each indicator.⁶ The estimated average nationwide and county-level percentages of the two indicators (e.g., older housing and poverty rate) are expressed as a range of values.⁷ For the lower and upper ends of the range, we generated a 95 percent confidence interval that was within plus or minus 20 percentage points.

We classified a county as above the estimated average percentages nationwide if the county's confidence interval was higher and did not overlap with the nationwide estimate's confidence interval. We omitted the data for 12 counties that we determined were unreliable for our purposes.⁸ We analyzed data starting in 2013 because that was the first year for which these grant data were available electronically. We also interviewed HUD staff to understand their efforts and plans to perform similar analyses using indicators of lead paint hazard risk. To assess the reliability of HUD's grant data, we reviewed documentation of HUD's grant database, interviewed Lead Office staff on the processes HUD used to collect and ensure the reliability of the data, and tested the data for missing values, outliers, and obvious errors. To assess the reliability of the American Community Survey data, we reviewed statistical information from the Census Bureau and other publicly available documentation on the survey and conducted electronic testing of the data. We determined

⁶Our analysis did not account for population, but for the purposes of awarding grants, population density of a jurisdiction may be one of a number of relevant factors, according to HUD staff. Additionally, for state government grantees (12 of them), we used address data provided by HUD and assigned a corresponding county. However, state government grantees can specify other counties within their state where lead hazard control activities may occur. In our analysis, we were not able to account for the actual counties of where state grantee lead hazard control activities took place.

⁷The American Community Survey is a probability survey and only one of a large number of samples that might have been drawn. Because each sample could have provided different estimates, we express our confidence in the precision of the particular sample's results as a range (i.e., the confidence interval). This range would contain the actual population value for 95 percent of the samples we could have drawn.

⁸Specifically, the estimates for these 12 counties had margins of error greater than 20 percent.

that the HUD grant data and American Community Survey county-level data on age of housing and poverty were sufficiently reliable for identifying areas at risk of lead paint hazards and determining the extent to which lead grants from 2013 through 2017 have gone to at-risk areas.

Furthermore, to obtain information about how HUD works with grantees to achieve program objectives, we conducted in-person site visits to five grantees located in five localities (Alameda County, California; Atlanta, Georgia; Baltimore, Maryland; District of Columbia; and San Francisco, California); and interviewed an additional five grantees on the telephone (Hennepin County, Minnesota; Lewiston, Maine; Malden, Massachusetts; Providence, Rhode Island; and Winnebago County, Illinois). In addition, we reviewed the grant applications of the 10 grantees we spoke to and an additional 10 grantees from 10 additional jurisdictions (State of Connecticut; Cuyahoga County, Ohio; Denver, Colorado; Monroe County, New York; Philadelphia, Pennsylvania; Memphis, Tennessee; San Antonio, Texas; St. Louis, Missouri; Tucson, Arizona; and State of Vermont).

We selected the 10 grantees for site visits or interviews based on the following criteria: geographic variation, number of years the grantees had HUD's lead grants, and grantees that have received both types of lead grants from 2013 through 2017. We selected the 10 additional grantees' applications for review based on geographic diversity and to achieve a total of two applications for each year during our 5-year time frame, with at least one application from each of the two HUD lead grant programs. As part of our review of selected grant applications, we identified nonfederal funding sources used by grantees, such as local tax revenues, contractor discounts, and property owner contributions. Information from the selected grantees and grant applications review cannot be generalized to those grantees we did not include in our review. Additionally, we interviewed representatives from housing organizations to obtain additional examples of any nonfederal funding sources, such as state or local bond measures, or low-interest loans to homeowners.⁹

To address the second objective, we also reviewed HUD guidance and internal memorandums related to its efforts to monitor and enforce compliance with lead paint regulations for public housing agencies (PHA),

⁹For example, we interviewed representatives from the National Center for Healthy Housing and the Green and Healthy Homes Initiative.

the entities that manage HUD's voucher and public housing rental assistance programs.¹⁰ In addition, we reviewed HUD's documentation of databases it uses to monitor compliance, including the Lead-Based Paint Response Tracker and the Elevated Blood Lead Level Tracker, and observed HUD staff's demonstrations of these databases. HUD staff also provided a demonstration of the Record and Process Inspection Data database (known as "RAPID") used by HUD's Real Estate Assessment Center to collect physical inspection data for public housing units. We obtained and reviewed information from HUD about instances of potential noncompliance with lead paint regulations by PHAs as of November 2017 and enforcement actions HUD has taken. We compared HUD's regulatory compliance monitoring and enforcement approach to federal internal control standards.¹¹ We interviewed staff from HUD's Lead Office, Office of General Counsel, Office of Field Operations, and field staff, including four HUD regional directors in areas of the country known to have a high prevalence of lead paint hazards, about internal procedures for monitoring and enforcing compliance with lead paint regulations by the PHAs within their respective regions.

To address the third objective on HUD's adoption of federal health guidelines and environmental standards for lead paint hazards in its lead grant and rental assistance programs, we reviewed relevant rules and HUD documentation. To identify relevant federal health guidelines and environmental standards, we reviewed guidelines and regulations from the Centers for Disease Control and Prevention (CDC) and the Environmental Protection Agency (EPA) and interviewed staff from each agency. To identify state and local laws with different requirements than these federal guidelines and standards, we obtained information from and interviewed staff from CDC's Public Health Law Program and the National Conference of State Legislatures. We compared HUD's requirements to CDC's health guideline known as the "blood lead reference value" and EPA's standards for lead-based paint hazards and lead-dust clearance

¹⁰For example, see Department of Housing and Urban Development, *Guidance on EPA's Lead-Based Paint Renovation, Repair and Painting (RRP) Rule, HUD's Lead Safe Housing Rule, and the EPA-HUD Lead Disclosure Rule*, Notice PIH 2011-44 (HA), OHHLHC 2011-01 (Washington, D.C.: July 29, 2011) and *Interpretative Guidance on HUD's Lead Safe Housing Rule: The HUD Regulation on Controlling Lead-Based Paint Hazards in Housing Receiving Federal Assistance and Federally Owned Housing Being Sold (24 CFR Part 35)*, (Washington, D.C.: June 2004).

¹¹[GAO-14-704G](#).

standards.¹² Finally, we reviewed information in HUD's 2017 funding notices and lead grant programs' policy guidance about requirements for grantees as they pertain to health guidelines and environmental standards. We also interviewed HUD staff about how HUD has used the findings from lead technical study grants to consider changes to HUD's requirements and processes regarding identifying and addressing lead paint hazards for the grant programs.

To address the fourth objective, we reviewed HUD documentation related to performance goals and measures, program evaluations, and reporting. For example, we reviewed HUD's recent annual performance reports to identify goals and performance measures related to HUD's efforts to make housing lead-safe. Further, we reviewed Title X to identify requirements related to evaluating and reporting on HUD's lead efforts. We reviewed program evaluations and related studies completed by outside experts for the lead grant programs and interviewed staff from one of the organizations that conducted the evaluations.¹³ In addition, we interviewed Lead Office and PD&R staff about the agency's plans to evaluate the requirements in the Lead Safe Housing Rule and reviewed

¹²Since 2012, CDC has used a health guideline (i.e., blood lead reference value) of 5 micrograms of lead per deciliter of blood to identify children whose blood lead levels are much higher than most children's levels and for whom it recommends initiation of public health actions.

¹³The National Center for Health Housing and The University of Cincinnati Department of Environmental Health, *Evaluation of the HUD Lead-Based Paint Hazard Control Grant Program*, a final report prepared for the Department of Housing and Urban Development, Office of Healthy Homes and Lead Hazard Control (May 1, 2004); Sherry L. Dixon, Jonathan W. Wilson, Paul A. Succop, Mei Chen, Warren A. Galke, William Menrath, and C. Scott Clark, "Residential Dust Lead Loading Immediately After Intervention in the HUD Lead Hazard Control Grant Program," *Journal of Occupational and Environmental Hygiene*, vol. 1, no. 11 (2004); Sherry L. Dixon, Jonathan W. Wilson, C. Scott Clark, Warren A. Galke, Paul A. Succop, and Mei Chen, "Effectiveness of lead hazard control interventions on dust lead loadings: Findings from the evaluation of the HUD Lead-Based Paint Hazard Control Grant Program," *Environmental Research*, vol. 98 (2005); Jonathan W. Wilson, Tim Pivetz, Peter Ashley, David Jacobs, Warren Strauss, John Menkedick, Sherry Dixon, Hsing-Chaun Tsai, Vincent Brown, Warren Friedman, Warren Galke, and Scott Clark, "Evaluation of HUD-funded lead hazard control treatments at 6 years post-intervention," *Environmental Research*, vol. 102 (2006); and Sherry Dixon, David Jacobs, Jonathan Wilson, Judith Akoto, Rick Nevin, and C. Scott Clark, "Window replacement and residential lead paint hazard control 12 years later," *Environmental Research*, vol. 113 (2012).

corresponding agency documentation about these plans.¹⁴ Additionally, we reviewed the Lead Office's most recent strategic plan (2009) and annual report (1997) on the agency's lead efforts.¹⁵ We compared HUD's use of performance goals and measures, program evaluations, and reporting against leading practices for assessing program performance and federal internal control standards.¹⁶ Finally, we interviewed staff from HUD to understand goals and performance measures used by the agency to assess their lead efforts.

We conducted this performance audit from March 2017 to June 2018 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

¹⁴For example see Department of Housing and Urban Development, Office of the Secretary, *Lead-Safe Homes, Lead-Free Kids Toolkit* (Washington, D.C.: June 13, 2016) and Office of Policy Development and Research, *HUD Research Roadmap: 2017 Update*, January 2017.

¹⁵Department of Housing and Urban Development, Office of Healthy Homes and Lead Hazard Control, *Leading Our Nation to Healthier Homes: The Healthy Homes Strategic Plan*, July 2009 and Office of Lead Hazard Control, *Moving Toward A Lead-Safe America: A Report to the Congress of the United States*, February 1997.

¹⁶For example, see GAO, *Veterans Justice Outreach Program: VA Could Improve Management by Establishing Performance Measures and More Fully Assessing Risks*, [GAO-16-393](#) (Washington, D.C.: Apr. 28, 2016); *Performance Measurement and Evaluation: Definitions and Relationships*, [GAO-11-646SP](#) (Washington, D.C.: May 2, 2011); and [GAO-14-704G](#).

Appendix III: Comments from the Department of Housing and Urban Development



OFFICE OF LEAD HAZARD CONTROL
AND HEALTHY HOMES

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-3000

May 2, 2018

Mr. Daniel Garcia-Diaz
Director, Financial Markets and Community Investment
Government Accountability Office
441 G Street NW
Washington, DC 20548-0001

Dear Director Garcia-Diaz:

Thank you for the opportunity to comment on the Government Accountability Office's (GAO's) April 13, 2018, draft engagement report GAO-18-394, *Lead Paint in Housing: HUD Should Strengthen Grant Processes, Compliance Monitoring, and Performance Assessment*. We are conveying HUD's comments on the draft, including our responses to GAO's draft recommendations and, below them, our recommended edits to the draft report.

The design and implementation of HUD's lead safety programs, notably its Lead Hazard Control Grant Programs, and its compliance assistance and enforcement programs for its Lead Disclosure Rule and Lead Safe Housing Rule, have contributed significantly to the national reduction in children's blood lead levels and the low prevalence of lead-based paint hazards in HUD-assisted housing. They have also played a crucial part in developing and maintaining the national lead-based paint safety infrastructure by providing an ongoing demand for services from its contractors, so that it is available for housing that is unassisted as well as HUD-assisted. HUD recommends that this contextual information be added to the start of the Background segment.

We generally agree with most of the GAO draft recommendations, with limitations on proceeding with some of them. Most notably, before deciding whether we would request the significant statutory change in draft recommendation 6, to require lead risk assessments in certain housing choice voucher units, we would need to conduct and evaluate the results of a statistically rigorous study on their impact on leasing times and availability of housing for extremely low-income families. Similarly, on developing measures to cover the full range of our lead efforts, as described in draft recommendation 7, before proceeding, we would likely need Office of Management and Budget approval of the information collection and of the information technology project and have sufficient information technology funds appropriated and allocated for the project.

We appreciate GAO's efforts to review HUD's lead safety programs and recommend enhancements to the programs' effectiveness.

Sincerely,

Matthew Ammon
Director

www.hud.gov espanol.hud.gov

**HUD's Comments on Draft Engagement Report GAO-18-394,
Lead Paint in Housing:
HUD Should Strengthen Grant Processes, Compliance Monitoring,
and Performance Assessment**

May 2, 2018

HUD's comments on the draft GAO recommendations:

- 1) The Director of HUD's Lead Office should ensure the office more fully documents its processes for scoring and awarding lead grants and its rationale for award decisions.

HUD agrees with this recommendation to enhance the documentation of its already rigorous grant selection process.

HUD's Office of Lead Hazard Control and Healthy Homes (OLHCHH; "Lead Office" in the draft GAO report) has existing documented processes for the scoring and awarding of Lead Hazard Control Grants ("lead grants" in the draft). Its lead grant programs have been one of the key reasons for the significant decline in childhood lead poisoning over the last two decades. The Department continues to be the leader in the effort to reduce lead poisoning in children from lead hazards in housing, having been instrumental in promulgating the federal lead-based paint strategy,¹ building capacity including a responsible network of grantees and other support, conducting research and outreach, and collaborating with stakeholders nationwide.

Its lead grant programs are carefully crafted to enlist and empower states and communities to compete for and efficiently utilize the resources and have always focused on those areas of greatest need. The grants are highly competitive and are awarded based on a rigorous application review and selection process which includes numerous considerations related to capability, previous experience, need, and grantee contributions, among others. The grant selection processes include implementation of a strong Quality Assurance Program. This aligns the work of grant Application Review Panel members, chairs and co-chairs, and the Office's management, which performs its own quality control checks as part of preparing to select applicants for award, with the Notice of Funding Availability (NOFA) and the Review Guide used by the Application Review Panels for the lead grants. The Office's management of the grants includes several layers of oversight (including on-site and remote monitoring) and tracking performance in the Healthy Homes Grants Management System, progress reviews, compliance assistance and, when needed, grant enforcement; grantees' experience, especially on their performance in producing lead-safe housing units and properly expending grant funds, is a consideration in their applications for future grants.

¹ President's Task Force on Environmental Health Risks and Safety Risks to Children: Eliminating Childhood Lead Poisoning: A Federal Strategy Targeting Lead Paint Hazards. February 2000. https://portal.hud.gov/hudportal/documents/huddoc?id=DOC_11883.pdf

The Office will update the processes, including updating the Review Guide to identify and explain even more clearly rating elements and criteria to be used by reviewers for scoring each rating factor and subfactor, and explain the rationale for use of the elements and criteria. The Office's grants award quality control program for the application rating process will be used to ensure that the rating elements and criteria are used as intended.

The Office's existing process for documenting Application Review Panel Reports used for selecting awardees for its Lead Hazard Control Grant Programs will be revised to include an expanded discussion of the rationale for awardee selection and grant funding based on the rating elements and criteria outlined in its Review Guide.² If applicable in a specific grant award cycle, the Office will identify any deviation from those rating elements and criteria and the reason for the Office's accepting the deviation in selecting the awardees.

- 2) The Director of HUD's Lead Office should ensure the office periodically evaluates its processes for scoring and awarding lead grants.

HUD agrees with this recommendation, noting that it already conducts such evaluations, but will enhance how it does so.

HUD notes that GAO's draft recommendation for HUD to "periodically evaluate[] its processes for scoring and awarding lead grants" is likely to be met through internal review and assessment procedures rather than a formal large-scale evaluation that would likely entail the use of limited research funding typically employed for large scale full program evaluations.

HUD also notes that it already systematically reviews the Lead Hazard Control Grant Programs and all other competitive program scoring award systems through the annual NOFA system that involves program staff expertise, departmental grants management expertise, feedback received from grantees and applicants, and a Department-wide clearance of all NOFAs. HUD agrees that the Lead Hazard Control Grant NOFA development process might benefit from using additional information, such as additional data, when available and reliable, to help ensure that all areas of the country with lead hazard reduction needs are aware of and can successfully apply for funding.

The OLHCHH will conduct a debriefing with the Chair, Co-Chair, and reviewers (members) of the Lead Hazard Control Grant Program Application Review Panel and the Office's leadership, to review the results of the scoring and application methods used that year, including the degree of adherence to the rating elements and criteria outlined in its Review Guide. Recommendations will be taken from all reviewers and a recommendation summary will be provided to the Chair of the Panel for the next fiscal year's Lead Hazard Control

² On page 21 of the draft report, GAO noted a 2017 case in which a grantee complained it had received only half its funding request. That grantee had tied with another for the lowest score for available funding; the remaining amount was enough for only one fully-funded grant or the two at half-funding. In fairness, HUD asked each if it would accept the reduced amount; after consultation, both agreed, and HUD gave each half of its request.

Grant Program NOFA(s) for use in developing that year's NOFA(s) and, as needed, revising the Rating Guide and grants award quality control program.

- 3) The Director of HUD's Lead Office, in collaboration with PD&R, should set time frames for incorporating relevant data on lead paint hazard risks into the lead grant programs' processes.

HUD agrees with this recommendation, noting that it is already enhancing its efforts seen in prior-year Lead Hazard Control Grant Program NOFAs, in its forthcoming FY 2018 NOFA,³ but also noting that further work may be subject to limitations in available funding.

Regarding efforts within the OLHCHH, that Office will use the results of its evaluating its processes for scoring and awarding lead grants, as described in HUD's comment on GAO draft recommendation 2, above. The OLHCHH will also collaborate with HUD's Office of Policy Development and Research (PD&R), and consider, through formal semiannual meetings and ongoing project discussions in between, how relevant data could be used to affect the review and scoring process for grant awards, and to improve efficiency, outcomes, and awareness of lead grant dollars.

Currently, PD&R research staff have been conducting the research into identifying relevant data factors. If HUD determines that contracted research support is also needed based on the complexity of the analyses, such contracting may be subject to limitations in available funding.

The OLHCHH Director will continue to collaborate with the PD&R Leadership on lead safety issues, such as by encouraging research collaborations on communities' lead risks and applying that information to the OLHCHH's grant, outreach, and interagency programs and projects, and facilitate expansion of the interoffice collaboration.

- 4) The Director of HUD's Lead Office, in collaboration with PIH, should establish a plan to mitigate and address risks within HUD's lead paint compliance monitoring processes.

HUD agrees that a plan, as described, should be established, but recommends that its Office of Public and Indian Housing (PIH), which, as a program office, regularly establishes plans to mitigate and address risks in assisted housing under its purview, should be the primary office for this recommendation, with the OLHCHH providing collaborative support.

This assignment reversal will allow PIH to smoothly integrate its lead risk mitigation plan into its overall program risk mitigation plan and will allow the OLHCHH to provide lead paint compliance monitoring oversight of the implementation of the PIH plan.

The OLHCHH Director will continue to collaborate with the PIH Leadership on lead safety issues, including engaging in the implementation of PIH's lead risk mitigation plan for its assisted housing stock and resident families, and facilitating expansion of the interoffice

³ Because these comments were developed during the selection process for the FY 2018 NOFA, and the GAO report may be issued before the NOFA is issued, details on its draft rating factors cannot be provided here (see, e.g., 42 U.S.C. §3537a(a), 24 CFR 4.24(a)).

collaboration.

- 5) The Director of HUD's Lead Office, in collaboration with PIH, should develop and document procedures to ensure that HUD staff take consistent and timely steps to address issues of PHA noncompliance with lead paint regulations.

HUD agrees that a plan, as described, should be established, but recommends that PIH, which, as a program office, regularly develops, establishes, and documents procedures to ensure that HUD staff take consistent and timely steps to address issues of PHA noncompliance with PIH regulations, should be the primary office for this recommendation, with the OLHCHH providing collaborative support.

This assignment reversal will allow PIH to smoothly integrate its lead regulatory noncompliance mitigation plan into its overall program risk mitigation plan and hold its staff responsible for taking consistent and timely steps to address issues of PHA noncompliance with lead paint regulations and will allow the OLHCHH to provide lead paint compliance monitoring oversight of the implementation of the PIH plan.

The OLHCHH Director will continue to collaborate with the PIH Leadership on lead safety issues, including engaging in the implementation of PIH's lead regulatory compliance assistance and enforcement program for its assisted housing stock and resident families, and facilitating expansion of the interoffice collaboration.

- 6) The Secretary of HUD should request authority from Congress to use the risk assessment inspection standard to identify lead paint hazards in the Housing Choice Voucher program.

HUD does not have enough information to decide whether to agree or disagree with the substance of this recommendation, as discussed below, so it must respectfully disagree with the recommendation as worded.

Before deciding whether HUD would request the significant statutory change to Congress identified in this draft recommendation, to obtain statutory authority to require lead risk assessments for pre-1978 housing in the Housing Choice Voucher (HCV) program in which a child under age 6 resides or is expected to reside,⁴ the Department would need to conduct and evaluate the results of a statistically rigorous study on the impact of requiring a lead risk assessment vs. a visual assessment for deteriorated paint (i.e., the current requirement⁵), and as a consequence, requiring interim controls of any lead-based paint hazards identified by the risk assessment vs. stabilization of deteriorated paint identified by the visual assessment,⁶ on HCV leasing times and availability of housing for extremely low-income families; such a study has been neither funded nor designed.

⁴ I.e., the scope of housing for which visual assessments for deteriorated paint are currently required under the Lead Safe Housing Rule for the HCV program (24 CFR §§ 35.1200(b)(1), 35.1215(a)(1)).

⁵ 24 CFR 35.1215(a)(1).

⁶ I.e., the scope of lead hazard control work under the Lead Safe Housing Rule for risk assessments when lead-based paint hazards are identified (see, e.g., 24 CFR §§ 35.110, 35.715(b), 35.820).

The current inspection process in the HCV program typically takes 15 days to complete and is already considered by landlords to be a major disincentive to renting their units to HCV families. Every major study that has looked at how to improve access to opportunity for families has cited the time required to complete HUD required inspections as a major obstacle to landlord acceptance of the HCV program.⁷ The current inspection process includes a visual assessment for deteriorated paint. If a unit fails the HQS inspection prior to move in, the landlord can decline to make any repairs, and simply offer the unit to a new prospective tenant without penalty. Adding a lead risk assessment would add an estimated 5 to 15 days to the HCV approval process. Landlords have no reason to hold a unit for another week or two for an additional inspection, especially in tight rental markets when there is high demand for affordable rental housing.

Therefore, without a statistically rigorous study on the impact of risk assessments on leasing times and availability of housing for extremely low-income families that would demonstrate the feasibility of the recommended risk assessment for HCV housing, HUD is not comfortable advocating for a statute to require it. The study could also look at whether there are other options (such as targeted dust sampling) that would achieve similar levels of protection as a full risk assessment for the HCV program.

The OLHCHH, PIH and PD&R Leadership will continue to collaborate on lead safety issues, including exploring methods, and the economic feasibility, given limited departmental research funds, of conducting research into the impact of risk assessments on leasing times and availability of housing for extremely low-income families, and on ensuring lead safety for HCV families.

- 7) The Director of the Lead Office should develop performance goals and measures to cover the full range of HUD's lead efforts, including its efforts to ensure that housing units in its rental assistance programs are lead-safe.

HUD agrees with the recommendation in principle but notes that statutorily-based administrative and financial considerations may need to be addressed before it could be implemented.

The draft GAO report notes that, "HUD has tracked one performance measure for its lead grant programs (draft p. 35), and that GAO reviewed "HUD's recent annual performance reports to identify goals and performance measures related to HUD's efforts to make housing lead-safe;" (draft pp. 50-51) but does not mention that HUD's tracking in those reports is based on not only its Lead Hazard Control Grant (lead grant) programs, but also production of lead-safe units by its Community Development Block Grant (CDBG), HOME Investment Partnerships (HOME), and Housing Opportunities for Persons with AIDS (HOPWA) programs within its Office of

⁷ Graves E. "Rooms for Improvement: A Qualitative Metasynthesis of the Housing Choice Voucher Program," *Housing Policy Debate* 26(2):346-361, 2016.
<http://dx.doi.org/10.1080/10511482.2015.1072573>.

Community Planning and Development (CPD).⁸

HUD does agree, however, with the GAO draft report's statement that the Department "lacks comprehensive performance goals and measures" "to cover the full range of HUD's lead efforts, including its efforts to ensure that housing units in its rental assistance programs are lead-safe" (draft pp. 35, 40). Comprehensive measures, and comprehensive performance goals based on analysis of the measurements collected under those measures, would require adding housing unit production information from PIH and the Office of Multifamily Housing to that from CPD and the OLHCHH.

HUD will re-examine the availability of information from the current PIH and Multifamily Housing databases (e.g., PIH's Inventory Management System (IMS)/ PIH Information Center (PIC), and Multifamily Housing's Integrated Real Estate Management System (iREMS)) to determine what production information can be added to the existing information from CPD and the OLHCHH.

If that information is not sufficient to cover the full range of HUD's lead efforts, HUD would need to request and obtain Office of Management and Budget approval of the associated information collections, and OMB's approval of the information technology project (re OMB Exhibit 300 under Circular A-11), as well as have sufficient information technology funds appropriated and allocated for the project. HUD notes that, as with its research budget (see HUD's comments on draft GAO recommendation 3), HUD's information technology funds are chronically oversubscribed, so funding this project is not assured.

The OLHCHH Director will collaborate with the PIH, Housing, CPD, PD&R, and Chief Financial Officer (CFO) Leadership on lead safety issues regarding developing, implementing, and tracking performance goals and measures to cover the full range of HUD's lead efforts, and facilitating expansion of the multi-office collaboration.

- 8) The Director of the Lead Office, in conjunction with PD&R, should finalize plans and develop a time frame for evaluating the effectiveness of the Lead Safe Housing and Lead Disclosure Rules, including an evaluation of the long-term cost effectiveness of the lead remediation methods required by the Lead Safe Housing Rule.

HUD agrees with the recommendation, noting that the time frame to be selected may depend on external factors, most notably, availability of funding for contracted research, if staff resources are determined to be insufficient.

The draft GAO recommendation refers to two possible research projects in PD&R's Research Roadmap: 2017 Update:⁹ a Lead Awareness Module for the Current Population Survey (related

⁸ See, e.g., HUD, FY 2017 Annual Performance Report, p. 23, fn. 24.
www.hud.gov/sites/dfiles/SPM/documents/FY17_APR.pdf.

⁹ HUD Office of Policy Development and Research, Research Roadmap: 2017 Update, pp. 36-37, January 2017. www.huduser.gov/portal/pdf/ResearchRoadmap-2017Update.pdf.

to the Lead Disclosure Rule¹⁰), and an evaluation of the Effectiveness of Lead Safe Housing Rule.¹¹

The Research Roadmap is a PD&R process to systematically gather potential research and evaluation topics, questions, and projects. The process was developed, in part, in response to recommendations from the National Academy of Sciences,¹² as well as from PD&R's own roadmap process previously used for building technology related research.

The 2017 update to the Research Roadmap was based on the review of over 500 suggested research topics to develop a list of potential projects to consider for future funding and implementation. As such, the presence of a project does not indicate that it will be undertaken.

The Roadmap, however, is not the final word. In its entirety, the Roadmap is likely to be more ambitious than HUD's research budget will allow, and Congressional policymakers may endorse selected Roadmap priorities or different priorities. The budget process ultimately will determine what research HUD is able to undertake and when projects are initiated. (p. 6)

It is important, therefore, to recognize that the Research Roadmap is both a process and an important step from which final decisions for research and evaluation needs can be drawn utilizing a systematic and strategic approach. Final decision-making is highly dependent on limited availability of appropriations and priorities identified by Congressional Committees in the annual HUD appropriations process.

HUD agrees that review of the effectiveness of the Lead Safe Housing and Lead Disclosure Rules are important issues. Senior OLHCHH and PD&R staff have begun discussions to identify options to evaluate the effectiveness of the two rules, and to develop a timeline for complete the evaluations. An initial timeline has been drafted for activities that can be completed by HUD staff, and coordination on these activities will continue over the next calendar year. If staff resources are determined to be insufficient for doing the research in house, and a decision is made to conduct evaluation activities using the procurement of one or more contracts, these procurement actions will, subject to the availability of funds, be awarded during the FY 2019 procurement cycle.

The OLHCHH Director will collaborate with the PD&R Leadership on lead safety issues regarding developing, implementing, and evaluating the effectiveness of the Lead Safe Housing and Lead Disclosure Rules, and facilitating expansion of the interoffice collaboration.

¹⁰ 24 CFR 35, subpart A.

¹¹ 24 CFR 35, subparts B – R.

¹² National Academy of Sciences, "Rebuilding the Research Capacity at HUD: 2008." www.nap.edu/read/12468/chapter/1.

- 9) The Director of the Lead Office should complete statutory reporting requirements, including but not limited to its efforts to make housing lead-safe through its lead grant programs and rental-assistance programs, and make the report publicly available.

HUD agrees with this recommendation.

The OLHCHH will, in collaboration with PD&R and HUD's Program Offices, draft and submit the annual and biennial reports to Congress under the Residential Lead-Based Paint Hazard Reduction Act of 1992.¹³ The report will be routed for departmental and then OMB clearance, and made publicly available on the Office's website after it is delivered to HUD's Congressional authorizing and appropriations committees.

The OLHCHH Director will collaborate with the PIH, Housing, CPD, PD&R, and CFO Leadership on lead safety issues regarding preparation of the annual and biennial reports to Congress and facilitating expansion of the interoffice collaboration.

Appendix IV: GAO Contact and Staff Acknowledgments

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Staff Acknowledgments

In addition to the contact named above, John Fisher (Assistant Director), Beth Faraguna (Analyst in Charge), Enyinnaya David Aja, Farah Angersola, Carol Bray, William R. Chatlos, Anna Chung, Melinda Cordero, Elizabeth Dretsch, Christopher Lee, Marc Molino, Rebecca Parkhurst, Tovah Rom, Tyler Spunaugle, and Sonya Vartivarian made key contributions to this report.

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