Department of Health

Lead Poisoning Prevention Program

Report 2018-S-12 | August 2019

OFFICE OF THE NEW YORK STATE COMPTROLLER
Thomas P. DiNapoli, State Comptroller

Division of State Government Accountability

Audit Highlights

Objective

To determine if the Department of Health has provided adequate oversight of the Lead Poisoning Prevention Program. Our audit covered children identified with elevated blood lead levels during the period January 1, 2014 through August 7, 2018 and follow-up activities done by the local health departments through March 19, 2019.

About the Program

Lead poisoning poses a major health risk to children. Lead poisoning is most often the result of inhaling or ingesting lead-contaminated dust. The irreversible effects of lead exposure can include anemia, hearing loss, lower IQ, growth and behavioral problems, kidney damage, and even death. In New York State, the Department of Health (Department) is responsible for administering the Lead Poisoning Prevention Program (Program). The Program, designed to develop and coordinate activities to prevent lead poisoning and minimize exposure to lead, is implemented through local health departments (LHDs). LHDs follow Department guidance in creating programs to address lead-poisoning prevention requirements and provide case management and follow-up services for children based on their elevated blood lead levels (BLLs). Services can range from nutritional and risk education to environmental investigation to determine the source of the lead contamination.

BLLs are tracked through LeadWeb, a Department-maintained system used by LHDs to carry out the required case management and follow-up activities for children with elevated BLLs. The Department's regional offices are responsible for scheduling and conducting reviews of LHDs' Program implementation once every three years or more frequently for cause.

Key Findings

- While we found that, in general, the LHDs are providing required Program services to lead-poisoned children, the Department should improve its monitoring of Program implementation to ensure all children with elevated BLLs are receiving required services. We found the following instances of noncompliance with Program requirements:
  - Department regional staff are not consistently scheduling and conducting on-site reviews of LHDs' Program implementation, contrary to the requirement that these reviews be conducted every three years at a minimum. Notably, we found that 4 of the 56 LHDs have not been reviewed since 2010.
  - For 43 (11 percent) of the 400 case files we reviewed at the eight LHDs we visited, five LHDs did not produce evidence during our visits that the proper follow-up services were provided to children with elevated BLLs. Furthermore, Department officials informed us the LHDs had not recorded that the follow-up services had been provided for these 43 cases in the Department's tracking system (LeadWeb).
- Given the Department's use of LeadWeb as the primary system for monitoring whether

lead-poisoned children receive timely care, it is important that the system contain comprehensive, reliable data. However, we found significant issues with the reliability of the system's data and identified discrepancies between LeadWeb and LHD data.

- On April 12, 2019, the Public Health Law was amended to lower the State standard for elevated BLLs to the level recommended by the Centers for Disease Control and Prevention in 2012. The fact that the number of BLL tests requiring follow-up services under the standard in place during our audit (24,989 tests) was 31 percent of what it would have been under the current standard (80,946 tests) during our test period underscores the importance of improved monitoring of LHD Program operations moving forward, as LHDs will be managing significantly more elevated BLL cases.

Key Recommendations

- Ensure that the risk of exposure to lead is minimized through compliance with Program monitoring requirements.
- Implement the proper internal controls and quality assurance measures to provide adequate assurance that LeadWeb data is complete and accurate before it is used by LHDs or for Department monitoring purposes.
- Develop and enforce regulations requiring LHDs to perform follow-up services for all children whose BLLs meet or exceed the statutorily set levels, or lower levels as may be established, according to rule or regulation.

Office of the New York State Comptroller
Division of State Government Accountability

August 8, 2019

Howard A. Zucker, M.D., J.D.
Commissioner
Department of Health
Corning Tower
Empire State Plaza
Albany, NY 12237

Dear Dr. Zucker:

The Office of the State Comptroller is committed to helping State agencies, public authorities, and local government agencies manage government resources efficiently and effectively and, by so doing, providing accountability for tax dollars spent to support government operations. The Comptroller oversees the fiscal affairs of State agencies, public authorities, and local government agencies, as well as their compliance with relevant statutes and their observance of good business practices. This fiscal oversight is accomplished, in part, through our audits, which identify opportunities for improving operations. Audits can also identify strategies for reducing costs and strengthening controls that are intended to safeguard assets.

Following is a report of our audit entitled *Lead Poisoning Prevention Program.* The audit was performed pursuant to the State Comptroller's authority as set forth in Article V, Section 1 of the State Constitution and Article II, Section 8 of the State Finance Law.

This audit's results and recommendations are resources for you to use in effectively managing your operations and in meeting the expectations of taxpayers. If you have any questions about this report, please feel free to contact us.

Respectfully submitted,

Division of State Government Accountability

Contents

Glossary of Terms

Abbreviation	Description	Identifier
BLL	Blood lead level	*Key Term*
CDC	Centers for Disease Control and Prevention	*Federal Agency*
Department	Department of Health	*Auditee*
Law	New York Public Health Law, Article 13, Title 10	*Law*
LeadWeb	Department-maintained system used by LHDs to carry out the required case management and follow-up activities for children with elevated BLLs	*Key Term*
LHD	Local health department	*Key Term*
NYSIIS	New York State Immunization Information System	*System*
Program	Lead Poisoning Prevention Program	*Key Term*
Regulations	New York Codes, Rules and Regulations, Title 10, Subpart 67-1	*Law*

Background

Although lead poisoning is preventable, it continues to pose a major health risk to children. Lead poisoning is most often the result of inhaling or ingesting lead-contaminated dust. Because of their normal developmental behaviors, children under age six are at higher risk of ingesting lead paint chips or lead-contaminated dust from floors, windowsills, and toys. No safe blood lead level (BLL) has been identified in children, and the irreversible effects of lead exposure can include anemia, hearing loss, lower IQ, growth and behavioral problems, kidney damage, and even death. In addition, lead poisoning in pregnant women has been linked to high blood pressure, miscarriage, pre-term birth, and low birth weight.

New York Public Health Law, Article 13, Title 10 (Law) establishes the Department of Health's (Department) responsibility for developing a Lead Poisoning Prevention Program (Program) to coordinate lead-poisoning prevention activities and to minimize the risk of exposure to lead. Specifically, the Law requires the Department to promulgate and enforce regulations for screening children and pregnant women for lead poisoning and to follow up on children who have elevated BLLs; establish a statewide registry of child BLLs; identify and designate areas in the State with significant concentrations of children with elevated BLLs as communities of concern (for the purpose of implementing local lead-poisoning prevention programs); and develop and implement public education and community outreach programs on lead exposure, detection, and risk reduction.

New York Codes, Rules and Regulations, Title 10, Subpart 67-1 (Regulations) mandates that children receive universal blood lead testing by health care providers at or around one and two years of age. Additionally, health care providers are required to perform risk assessments of children at least annually from the ages of six months to six years. Blood lead testing at age one is intended to identify children soon after they become mobile, and lead exposure generally peaks at age two due to increased exploration of the environment. An April 2019 amendment to the Law revised the definition of an elevated BLL from a concentration of greater than 10 micrograms per deciliter (µg/dL) to one of greater than or equal to 5 µg/dL. The Department has 180 days from the date of passage to update the Regulations to reflect this amendment.

While the Department is responsible for overseeing the Program, local health departments (LHDs) play a major role in implementing the Program at the local level. LHDs follow Department guidance in creating their own local programs to address lead-poisoning prevention requirements in adherence with the Law, Regulations, and contract provisions, providing case management and follow-up services for children based on their

BLLs. These services can range from nutritional and risk reduction education to environmental investigation to determine the source of the lead contamination. During the period January 1, 2014 to August 7, 2018, Department records show that approximately 1.2 million BLL tests were conducted statewide (excluding New York City) involving 763,339 children.

Audit Findings and Recommendations

While we found that, in general, the LHDs are providing required Program services to lead-poisoned children, the Department should improve its oversight of LHDs to more effectively ensure that all of the State's lead-poisoned children receive timely follow-up services.

Our testing focused on the implementation of follow-up services provided by the LHDs based on elevated BLLs. We found a majority of the LHDs we visited had cases where either appropriate follow-up services were not provided to children with elevated BLLs or where, based on documentation in the case file, a determination of whether appropriate follow-up services were provided could not be made. We also found that Department regional staff are not consistently scheduling or conducting reviews of LHDs' Program implementation, contrary to the Department's written procedures requiring these reviews every three years or more frequently based on cause. Notably, we found that 4 of 56[1] LHDs had not been reviewed since 2010.

In addition, we found the Department could improve its monitoring and tracking systems to better ensure LHDs take timely actions when children with elevated BLLs are identified.

Monitoring LHDs' Program Implementation

The Department has established regulations and guidelines for screening children for lead poisoning, reporting laboratory results, and following up on children with elevated BLLs. LHD programs do not have to directly provide all follow-up services but are responsible for tracking and documenting that required interventions have occurred. The goal of follow-up for children with elevated BLLs is to coordinate the services required to reduce their BLLs below thresholds recommended by the Centers for Disease Control and Prevention (CDC) and to identify and reduce potential sources of lead exposure in their environments to prevent further exposure. As explained in the following sections, we determined the Department needs to better monitor LHD activities to ensure the Program is functioning as intended at the local level.

Regional Office Oversight

Department regional offices are required to conduct site visits to LHDs to ensure the Program is functioning as required at the local level. These site visits include interviews with county lead officials, a review of children's files (primarily to determine whether children are receiving required follow-up services), and a review of outreach and education materials and the

1 For reporting purposes, the Department considers New York City as a single county and Hamilton County does not participate in the State-funded grant program, reducing the number of counties subject to the Department's contract management activities from 62 to 56.

policy and procedure manual required of each county. During these reviews, regional office staff also assess each LHD's overall Program administration, efforts to increase the number of children being screened for lead levels, and primary prevention activities.

The Department's written procedures specify that the reviews be conducted and reported on once every three years or more frequently for cause. The Department's regional office staff are responsible for scheduling and performing these reviews, and lists of LHDs requiring reviews should be sent to the Department's central office contract managers. We found Department regional staff are not consistently conducting these on-site reviews. Additionally, the Department does not enforce timely submission of reports on these reviews when they are completed, sometimes failing to obtain them at all.

Our evaluation of the most recent Department reviews as of June 1, 2018 found 27 of the 56 (48 percent) LHD reviews to be outstanding, and four LHDs had not been reviewed since 2010. Of the eight LHDs we visited, three were last reviewed between 2010 and 2013, with no future reviews scheduled at the time of our visit. Additionally, we found that only one LHD we visited had been cited by the Department prior to our audit scope for not maintaining proper case documentation. Our review found this same LHD deficient in providing required follow-up services.

According to Department officials, in addition to on-site reviews of the LHDs, regional office staff are responsible for providing reports on these reviews, including corrective action plans as needed, to the Department. We found reports still outstanding for reviews performed in 2010 and 2011 for three LHDs and a fourth report submitted nearly two years after a review. Department officials confirmed that reviews have not taken place as required and stated they "do what they can" to get the reports from the regional offices, but were only able to provide us with an updated review schedule.

The Department has policies in place to ensure that LHDs are properly implementing the Program, but fails to enforce or follow up on these policies. Without on-site reviews and timely, complete reporting, the Department lacks adequate assurance that Program components are properly implemented at the LHD level and that children with elevated BLLs are receiving the required case management, including any necessary follow-up services.

Case Management and Follow-Up Services

LHDs are required to identify and track children with elevated BLLs to ensure appropriate follow-up services are provided, which may include nursing

and environmental management services, medical treatment, referrals to other agencies, and testing of siblings under age six. The Department has established time frames for the completion of environmental inspections, and the LHDs are responsible for developing policies and procedures for the completion of the other services and for coordinating these activities with the primary care providers. LHDs are also required to provide public and professional education and community outreach services on lead-poisoning prevention.

Nursing services (required for confirmed BLLs of 10 µg/dL and above during our audit scope) include providing risk reduction educational materials for parents, nutritional counseling relating to foods that aid in reducing adverse effects of lead, and case management to ensure routine follow-up of blood lead testing. Environmental services are currently required for confirmed BLLs of 15 µg/dL and above. These services include inspection of any location where a child spends more than eight hours per week for potential lead hazards (e.g., paint, jewelry, food, household items). Public and professional education and community outreach are conducted through informational sessions, training seminars, and community events (such as county fairs) where the LHDs can share their expertise on reducing lead exposure.

To determine if proper follow-up services were being provided, we reviewed a random sample of 400 cases in LeadWeb with reported BLLs requiring follow-up nursing services (10 µg/dL and above) from eight LHDs across the State. As shown in Table 1, we identified 43 cases among five LHDs where either the LHDs did not produce any evidence during our visits that the proper follow-up services were provided to children (37) or documentation was insufficient to determine whether services were provided (6). The Department reviewed and acknowledged our findings, but offered no explanation for why the services were not provided. However, some LHDs we visited said they were refused access to the homes or the children could not be found (i.e., family had moved), so follow-up services could not be provided. We found two LHDs had made referrals to Social Services in cases where parents/guardians did not comply with BLL retesting.

Table 1 – Required Follow-Up Services Not Provided or Potentially Not Provided by LHD

LHD	No Evidence of Services Provided	Unclear if Services Provided	Total	Percent of Total
Albany	28	3	31	72%
Monroe	3	0	3	7%
Onondaga	3	0	3	7%
Orange	0	3	3	7%
Suffolk	3	0	3	7%
Total	**37***	**6**	**43**	**100%**

Note: We found no evidence of missed follow-up services in the records we reviewed for Erie, Nassau, or Oneida counties.
*At the conclusion of the audit, the Department confirmed that follow-up services had not been entered for these cases in LeadWeb.

Furthermore, of the 37 cases without any evidence of the required follow-up nursing services, 18 (49 percent) had been closed without follow-up nursing services (see Table 2). Nursing services are a critical first step in educating parents on risk reduction and nutritional counseling to help reduce the adverse effects of lead. Without these services, parents of children with elevated BLLs are at risk of not receiving information necessary to reduce their children's BLLs to below CDC-recommended thresholds.

Table 2 – Required Follow-Up Nursing Services Not Provided

BLL (µg/dL)		Case Status			
Lower Range	Upper Range	Closed Cases	Open Cases	Unknown	Totals
10	<15	8	5	1	14
15	<25	8	1	0	9
25	<45	0	10	0	10
45	<60	1*	2*	0	3
60	<70	0	0	0	0
70 and Above	–	1*	0	0	1
Totals	–	**18**	**18**	**1**	**37**

*Although evidence was not produced that follow-up nursing services were provided, environmental investigation and remediation, where necessary, were performed and BLLs dropped significantly over time in these cases.

LHDs are required to notify parents/guardians of the need for follow-up blood testing, typically by letter. We found for 3 of the 400 cases sampled (0.75

percent) there was no evidence of any communication that follow-up blood testing was required.

Recommendation

1. Ensure that the risk of exposure to lead is minimized through compliance with Program monitoring requirements that, at a minimum, includes:

    - Working with regional office staff to ensure on-site reviews are completed within the specified time frames and reports are provided as required; and
    - Ensuring that LHDs are using all means available to them to ensure follow-up services are provided and tracked when elevated BLLs are detected.

LeadWeb Reliability

The BLLs of New York's children are tracked through LeadWeb, a Department-maintained web-based tracking and data storage system. Department officials stated that the system is the primary database used to monitor the Program. All BLL test results for children younger than 18 are reported to LeadWeb by laboratories, and LHDs are notified of new cases identified in their county. LeadWeb also collects information on housing-related hazards and environmental follow-up for each child. LHD staff are required to document when follow-up services are provided for each case, which they input directly into LeadWeb. As such, the system provides a real-time database of blood lead tests and follow-up activities.

LHDs are required to prescreen all records in LeadWeb daily, not only for new cases identified in their county that require follow-up services, but also to verify the county of residence indicated for each such case and ensure the correct LHD is assigned responsibility. If residence in the county is confirmed, the record is accepted; if not, it is rejected, and the correct county receives notification of the child's test result. This helps to ensure timely and appropriate follow-up by the correct LHD for children with elevated BLLs. However, each county-to-county alteration introduces the risk of human error and may result in cases falling through the cracks and not being properly accounted for.

Given its use as the primary system for monitoring whether lead-poisoned children receive timely care, it is important that LeadWeb contain reliable data. We found significant issues with the reliability of the system's data.

For example, for three LHDs we visited, we compared the lead testing data provided by the Department (from LeadWeb) with data from the LHDs and found discrepancies between Department data and LHD data (see Table 3).

Table 3 – BLL Testing Data Discrepancies

LHD	Time Period*	BLL Test Totals		
		LeadWeb Data Download	LHD Data	Difference
Erie	2014–2018	110,364	112,028	1,664
Albany	2014–2018	28,081	27,521	560
Nassau	2014–2017	155,792	156,663	871
Total				**3,095**

*Time period for Erie and Albany LHDs was 1/1/2014–8/7/2018 and for Nassau LHD, 1/1/2014–12/31/2017.

According to LHD officials, LeadWeb is capable of producing standard reports on subjects such as children who require follow-up or confirmatory BLL testing, summary reports of children screened by age group, or BLL test results by age group. Department officials stated that only the dynamic reports (customizable, user-defined reports) do not function as designed and cannot be used for analysis. Some LHD officials, however, expressed concern over the overall accuracy and flexibility of the LeadWeb database. An LHD official told us that, because LeadWeb reports are "not very accurate," the LHD has used the New York State Immunization Information System (NYSIIS) data for statistics. The official said NYSIIS is a better tool because it shows physician testing rates as well as physicians who fail to report BLLs. If LeadWeb is the primary tool for tracking elevated BLLs, it should be comprehensive. This would minimize the need for LHDs to gather information elsewhere.

According to Department officials, LHDs had been given the option to provide case management activities for children with confirmed BLLs of 5–9.9 µg/dL, at their discretion, since 2015. At one LHD we visited, an official told us the county provides follow-up services for cases with a BLL of 8 µg/dL or higher, and cases with a BLL of 5–7.9 µg/dL can be referred for outreach; however, LeadWeb does not allow case management entries where the BLL is below 10 µg/dL. As the Program's primary tracking, monitoring, and management tool, LeadWeb should be capable of tracking case management of any BLLs for which LHDs may provide case management – whether discretionary or not – to ensure appropriate care for New York's children with elevated BLLs.

Without accurate data, and the ability to enter case management activities for BLLs under 10 µg/dL, LHDs will have difficulty tracking and accounting for actions taken regarding Program implementation, and the Department will have difficulty accounting for LHDs' compliance.

Recommendation

2. Implement the proper internal controls and quality assurance measures to provide adequate assurance that LeadWeb data is complete and accurate.

Revised Elevated BLL Thresholds Used for Program Implementation

Historically, the CDC referred to 10 µg/dL of lead as its "level of concern" for adverse health outcomes in children. BLLs under this threshold were typically considered to be within acceptable levels, and, aside from providing education and monitoring development in children who tested in the 5–9.9 µg/dL range, no further follow-up action was recommended. Newer evidence shows that exposure to even small amounts of lead may contribute to behavioral problems, learning disabilities, and lowered intelligence scores.

On April 12, 2019, the Law was amended to lower the State standard for elevated BLLs from 10 µg/dL to 5 µg/dL, as recommended by the CDC in 2012. The amendment requires the Department to implement the new BLL standard and makes reporting and follow-up services at this level mandatory for all LHDs.

Children with BLL tests in the range of 5–9.9 µg/dL made up approximately 5 percent (55,957 tests) of the total blood test results during our scope period (see Table 4).

Table 4 – Total Number of BLL Test Results by Range, 2014–2018

Year	µg/dL				
	<5	5–9.9	10–14.9	≥15	Totals
2014	244,593	12,566	2,932	2,454	262,545
2015	243,529	12,074	3,057	2,549	261,209
2016	249,805	13,247	3,138	2,535	268,725
2017	244,751	11,888	3,027	2,567	262,233
2018*	138,637	6,182	1,510	1,220	147,549
Totals	**1,121,315**	**55,957**	**13,664**	**11,325**	**1,202,261**
Percent	**93%**	**5%**	**1%**	**1%**	**100%**

*Figures provided by the Department were through August 7, 2018.

The cases we reviewed did not include children with BLLs of less than 10 µg/dL, as follow-up services at this level were not required in New York during

our audit period. Under the standard in place during our audit, the number of BLL tests requiring follow-up services was 31 percent of what it would have been under the current standard (24,989 tests compared with 80,946 tests), further underscoring the importance of improved monitoring of LHD Program operations moving forward, as they will be required to handle significantly more cases.

Recommendation

3. Develop and enforce the regulations requiring LHDs to perform follow-up services for all children with BLLs of 5 µg/dL and above as required by the amended Law.

Audit Scope, Objective, and Methodology

The objective of our audit was to determine if the Department has provided adequate oversight of the Program. Our audit covered children identified with elevated BLLs during the period January 1, 2014 through August 7, 2018 and follow-up activities done by the LHDs through March 19, 2019.

To achieve our objective, we interviewed officials from the Department and LHDs. We selected LHDs with the highest number of overall BLL tests during our scope period. We reviewed and gained an understanding of Department policies and procedures and became familiar with, and assessed the adequacy of, internal controls related to the Department's monitoring of the LHDs' implementation of the Program.

We reviewed data from LeadWeb to determine its reliability and accuracy. We found instances of incomplete or inaccurate information in LeadWeb and so deemed the data to be unreliable and limited our reliance on it to support our audit findings. We used hard copy records from the LHDs whenever possible to support our audit findings. For our testing, we considered 10 µg/dL and above to be an elevated BLL and selected eight LHDs based on the total number of BLL test results above that level. We selected and reviewed a random sample of 50 case files at each location to determine if the required follow-up services were being provided. Records in the case files included initial contact documents used to gather household information, including descriptions of the child's behavioral, physical, and developmental status; medical records; initial home visit reports; Environmental Health Division service reports; educational materials provided; and community agency referral forms. Although we selected random samples, our conclusions cannot be projected to the population as a whole.

Statutory Requirements

Authority

The audit was performed pursuant to the State Comptroller's authority as set forth in Article V, Section 1 of the State Constitution and Article II, Section 8 of the State Finance Law.

We conducted our performance audit 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 objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

In addition to being the State Auditor, the Comptroller performs certain other constitutionally and statutorily mandated duties as the chief fiscal officer of New York State. These include operating the State's accounting system; preparing the State's financial statements; and approving State contracts, refunds, and other payments. In addition, the Comptroller appoints members to certain boards, commissions, and public authorities, some of whom have minority voting rights. These duties may be considered management functions for purposes of evaluating organizational independence under generally accepted government auditing standards. In our opinion, these functions do not affect our ability to conduct independent audits of program performance.

Reporting Requirements

We provided a draft copy of this report to Department officials for their review and formal comment. Their comments were considered in preparing this final report and are attached to it. In their response, Department officials generally agreed with our recommendations and indicated they will take steps to address them. Our responses to certain Department comments are included in the report's State Comptroller's Comments, which are embedded within the Department's response.

Within 90 days of the final release of this report, as required by Section 170 of the Executive Law, the Commissioner of Health shall report to the Governor, the State Comptroller, and the leaders of the Legislature and fiscal committees, advising what steps were taken to implement the recommendations contained herein, and where recommendations were not implemented, the reasons why.

NEW YORK STATE OF OPPORTUNITY. Department of Health

ANDREW M. CUOMO
Governor

HOWARD A. ZUCKER, M.D., J.D.
Commissioner

SALLY DRESLIN, M.S., R.N.
Executive Deputy Commissioner

June 20, 2019

Mr. Brian Reilly, Audit Director
Office of the State Comptroller
Division of State Government Accountability
110 State Street – 11th Floor
Albany, New York 12236-0001

Dear Mr. Reilly:

Enclosed are the Department of Health's comments on the Office of the State Comptroller's Draft Audit Report 2018-S-12 entitled, "Lead Poisoning Prevention Program."

Thank you for the opportunity to comment.

Sincerely,

Sally Dreslin, M.S., R.N.
Executive Deputy Commissioner

Enclosure

cc: Marybeth Hefner
Diane Christensen
Jeffrey Hammond
Jill Montag
Brad Hutton
Gary Ginsberg
Adrienne Mazeau
Michael Cambridge
Deanna Ripstein
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Department of Health
Comments on the
Office of the State Comptroller's
Draft Audit Report 2018-S-12 entitled,
"Lead Poisoning Prevention Program"

The following are the Department of Health's (Department) comments in response to the Office of the State Comptroller's (OSC) Draft Audit Report 2018-S-12 entitled, "Lead Poisoning Prevention Program."

The Department manages several comprehensive and progressive programs to combat lead exposure to children and prevent lead poisoning in NYS. The programs include the Lead Poisoning Prevention Program, the Childhood Lead Poisoning Prevention Primary Prevention Program, and the Healthy Neighborhoods Program. The Department provides funding to support Regional Lead Resource Centers across the State and manages the Statewide Lead Testing in School Drinking Water program, the Lead Service Line Replacement program, and the free-lead testing in drinking water program. Collectively, these programs provide numerous services, resources, statutory requirements, and technical assistance to address lead sources in and around homes, buildings including schools and daycares, and other infrastructure (drinking water service lines) to reduce exposures to lead. Several of these programs, including the Childhood Lead Poisoning Primary Prevention Program, focus on preventing lead exposures by targeting high risk communities/housing to perform environmental inspections and recommend lead abatement and remediation activities to address exposures where sources of lead are identified.

For the purposes of this audit, the NYS Office of the State Comptroller focused on one of these programs, the Lead Poisoning Prevention Program. The Lead Poisoning Prevention Program is performed by the Department's District Offices and local health departments with Department oversight. During the audit period, the District Offices and local health departments closely monitored all blood lead test results for children reported to the Department and responded to *all* children with elevated blood lead levels equal to or greater than 10 micrograms per deciliter (µg/dL).

To implement the Lead Poisoning Prevention Program, the District Offices and local health departments respond to elevated blood lead levels (equal to or greater than 10 µg/dL) through coordination with health care providers to ensure risk reduction, nutrition counseling, confirmatory blood testing, and follow-up blood lead testing. In cases where the health care provider does not provide such services, following repeated reminders, the local health departments work to provide such services including risk reduction, nutrition counseling, and sharing recommendations with the parent or guardian to seek confirmatory blood testing and follow-up blood lead testing for their child. For children with confirmed elevated blood lead levels equal to or greater than 15 µg/dL, District Offices and local health departments work to ensure health care providers perform a complete diagnostic evaluation; provide medical treatment, if necessary; and make referrals to the Department or local health department for environmental management. The District Offices and local health departments perform the environmental management activities including inspection of residences and other environments and buildings where a child spends significant time. In addition to these services, the District Offices and local health departments provide general and targeted guidance, technical assistance, and outreach to educate health care

providers, parents and guardians, and the public of lead statutory requirements, lead risks, and lead risk reduction.

The Department disagrees with the audit finding that 37 children did not receive, and 6 children may not have received, follow-up services. It is the role of the child's primary health care provider to provide follow-up services, with local health departments responsible for assuring that appropriate follow-up services were provided. The Department coordinated a review of the paper and on-site electronic case files with the five counties identified in the report and follow-up documentation was provided for 38 of the 43 children in question. In addition, one of the 43 children had a confirmation blood lead test with a result below 10 µg/dL and therefore did not require follow-up services. The Department's review indicated that the assurance of follow-up care was plainly noted in the paper and/or on-site electronic case files, but not duplicated in LeadWeb. The Department is working with the local health department to correct this oversight. The Department asserts that the issue is a matter of documentation, rather than a lack of service to the children.

State Comptroller's Comment - The Department's comments are misleading. As noted in the report, for these 43 cases, at the time of our visits, we could not determine – nor could the five LHDs provide written assurance – that appropriate follow-up services had been provided. As indicated in the Department's response, we met with Department officials on March 19, 2019 to review a list of all the children we had identified during our testing whose LHD case files did not substantiate that required follow-up services had been provided. At that time, for certain cases, Department officials were able to provide satisfactory documentation from LeadWeb showing follow-up services had, in fact, been provided; we removed these cases from our findings. However, during the March meeting, officials were unable to provide evidence that services had been provided for the aforementioned 43 cases. On June 21, 2019, when we asked Department officials for written support for their statements concerning the 43 cases, they replied that their conclusions at the March meeting were based entirely on LeadWeb records only. They further indicated "upon receipt of the draft audit report, the Department reached out to the counties identified in the report to ask whether services were provided and documentation existed on-site for the 43 cases. For 38 of the cases, documentation was available at the counties including in the files or in electronic files retained on-site." Contrary to what their response implies, Department officials merely asked the LHDs whether, for the 43 cases in question, documentation existed to substantiate services had been provided; Department officials themselves did not actually see the documentation. Additionally, they indicated the "documentation however was not included in LeadWeb." It bears emphasizing that LeadWeb is the primary tracking tool used by the LHDs and the Department to monitor and track children with elevated blood lead levels. Inadequate or missing case file documentation in LeadWeb hampers the Department's ability to properly track and ensure treatment for the impacted children. As such, it is essential that LeadWeb contain complete and accurate data.

Further, the Department disagrees with the statement provided in the draft audit report suggesting the Department acknowledged OSC's findings but offered no explanation for why services were not provided or sufficiently documented for the reported 43 cases. On March 19, 2019, the Department met with OSC to review information in LeadWeb for 63 cases (included the 43 cases

reported) to show documentation and/or explain the various reasons why some documentation was not available in LeadWeb.

With respect to the footnote on Page 8, the Department clarifies that while Hamilton County does not seek State grant funding to perform the Lead Poisoning Prevention Program, the County does perform the program using County funds and reports program information including follow-up services to the Department using LeadWeb.

State Comptroller's Comment - We revised the report to reflect this information.

As part of the New York State Fiscal Year (NYS FY) 2020 Enacted Budget, Public Health Law §1370 was amended to require the Department and local health departments to respond to elevated blood lead levels equal to or greater than 5 µg/dL. On May 1, 2019, the Department published a proposed rulemaking to amend Part 67 of Title 10 of the Official Compilation of Codes, Rules, and Regulations of the State of New York (10 NYCRR) to change the definition of an elevated blood lead level and lowered the blood lead levels that trigger health care provider follow-up and environmental management activities to equal to or greater than 5 µg/dL. The proposed rulemaking will significantly increase the number of children receiving services from primary health care providers, the Department (including District Offices), and local health departments.

Recommendation #1

Ensure that the risk of exposure to lead is minimized through compliance with Program monitoring requirements that, at a minimum, includes:

- Working with regional office staff to ensure on-site reviews are completed within the specified time frames and reports are provided as required; and
- Ensuring that LHDs are using all means available to them to ensure follow-up services are provided and tracked when elevated BLLs are detected.

Response #1

The Department strives to reduce the risk of lead exposure to children in NYS. The Lead Poisoning Prevention Program is funded via contracts with local health departments and the Department provides detailed oversight through contract management activities including but not limited to review of contract work plans submitted by the local health departments annually, review of contract quarterly reports, daily review of blood lead results reported by laboratories to the Department, and routine coordination with District Office and local health department staff implementing the program. Contract management also includes performing on-site reviews. The Department is currently revising its on-site review process and tools to ensure reviews are completed by the Department's Regional Offices in a timely manner. The revised procedures include a combination of programmatic and administrative processes performed by the Department's Central Office Lead Poisoning Prevention Program staff. Implementation of the revised procedures are slated to begin with the new local health department contract year on October 1, 2019.

Recommendation #2

Implement the proper internal controls and quality assurance measures to provide adequate assurance that LeadWeb data is complete and accurate.

Response #2

The Department has undertaken a significant effort to upgrade Leadweb. First released in 2004, LeadWeb contains a large volume of individual blood test results including blood lead legacy data from the early 1990's. LeadWeb functions as NYS's childhood blood lead registry and provides care coordination features for both the medical and environmental management of blood lead results. The program has undergone many upgrades since its inception.

In 2017, the NYS Office of Information Technology Services (NYS OITS) identified LeadWeb as an application that required re-write into the JAVA programming language, as the NYS OITS could no longer support its previous platform (Perl/CGI application). The LeadWeb upgrades are being addressed in two phases. The LeadWeb re-write to JAVA was considered Phase 1 and was completed in March 2019. Phase 2 includes significant performance enhancements for improved case matching, improved reporting, and other changes to handle the Public Health Law amendments creating a new definition of an elevated blood lead level. The Phase 2 enhancements will include a new administrative function to generate automated local health department Performance Monitoring Reports to easily identify if local health departments have documented completion of appropriate follow–up services (including environmental assessments), and if activities have been initiated in a timely manner (per guidance). Once available, the Performance Monitoring Reports will be used as a tool during on-site reviews of District Offices and local health departments. Phase 2 enhancements are aimed to be completed in four releases with a completion date of March 31, 2021 and will provide another tool to monitor District Offices and local health departments performing the Lead Poisoning Prevention Program to ensure timely compliance with the Department's requirements.

In the interim and prior to completion of Phase 2, the Department has developed a new quality assurance procedure to monitor District Office and local health department data entry of follow-up services in LeadWeb for children with confirmed elevated blood lead levels. The Department will begin performing the new quality assurance procedure in June 2019 and will review data entered in LeadWeb for children with confirmed elevated blood lead levels reported in the previous quarter. The Department will follow-up with any District Office or local health department when data is missing in LeadWeb. This procedure will be continued quarterly until the Performance Monitoring Reports can be created in LeadWeb to automate this activity.

Recommendation #3

Develop and enforce the regulations requiring LHDs to perform follow-up services for all children with BLLs of 5 µg/dL and above as required by the amended Law.

Response #3

The Department is actively working toward implementing the amendments to Public Health Law §1370. On May 1, 2019, the Department published a proposed rulemaking in the State Register to amend 10 NYCRR Part 67 to change the definition of an elevated blood lead level to equal to or greater than 5 µg/dL and lower the blood lead levels that trigger primary health care provider follow-up and environmental management activities to equal to or greater than 5 µg/dL. The proposed rulemaking is subject to a 60-day public comment period ending on June 30, 2019. If substantive changes are warranted based on public comment, an additional 45-day public comment period is required. The Department is working to engage stakeholders and update guidance for health care providers, local health departments, parents and guardians, and the

public. In addition, the Department is working to secure needed resources (field equipment and laboratory capacity), developing training, and preparing other tools to support implementation of the expanded Lead Poisoning Prevention Program across NYS to ensure children with blood lead levels equal to or greater than 5 µg/dL are provided services to address lead sources and reduce risk.

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