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December 6, 2019

Steven T. James
House Clerk
State House, Room 145
Boston, MA 02133

Michael D. Hurley
Senate Clerk
State House, Room 335
Boston, MA 02133

Dear Mr. Clerk,

Pursuant to Section 85 of Chapter 41 of the Acts of 2019, please find enclosed a report from the Department of Public Health on the Massachusetts Childhood Lead Poisoning Prevention Program (CLPPP).

Sincerely,

Monica Bharel, MD, MPH
Commissioner
Department of Public Health

CC: Rep. John Mahoney, Chair, Joint Committee on Public Health
Sen. Joanne Comerford, Chair, Joint Committee on Public Health
Rep. Mark Cusack, Chair, Joint Committee on Revenue
Sen. Adam Hinds, Chair, Joint Committee on Revenue
Rep. Aaron Michlewitz, Chair, Joint Committee on Ways and Means
Sen. Michael Rodrigues, Chair, Joint Committee on Ways and Means

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Comparative Funding Analysis for the Massachusetts Childhood Lead Poisoning Prevention Program (CLPPP)

November 2019

Massachusetts Department of Public Health

I. Legislative Mandate

The following report is hereby issued pursuant to Section 85 of Chapter 41 of the Acts of 2019 as follows:

> *Notwithstanding any general or special law to the contrary, the department of public health shall conduct an analysis of: (i) surcharges established under section 22 of chapter 482 of the acts of 1993, including projected revenues from the surcharges; (ii) a comparison of actual revenues with the amount of revenue necessary to provide all eligible children with the legally-mandated services and to conduct activities to prevent elevated blood lead levels; and (iii) a comparison of how states with comparable housing stock finance childhood lead poisoning prevention programs. The department shall file its findings with the clerks of the senate and house of representatives, the joint committee on public health, the joint committee on revenue and the senate and house committees on ways and means not later than November 1, 2019.*

II. Executive Summary:

The Massachusetts Childhood Lead Poisoning Prevention Program (CLPPP) within the Department of Public Health (DPH) was established to implement the Massachusetts Lead Law (MGL c. 111, §§ 189A-199B). The MA Lead Law is one of the most comprehensive statutes in the country to ensure the prevention, screening, diagnosis, and treatment of lead poisoning. Under this law, CLPPP is required to provide services to children who are identified with lead poisoning through clinical case management services and environmental code enforcement where that child resides, including mandatory lead inspections, lead abatement activities, and court enforcement, if necessary.

CLPPP activities are funded through a combination of federal grants, state budget appropriations, and surcharges deposited into the Childhood Lead Poisoning Prevention Trust Fund account. In order to comply with Lead Law mandates and to ensure that lead poisoned children receive timely services to reduce their blood lead levels, CLPPP requires approximately $7 million annually. In FY20, CLPPP will receive an estimated $1.82 million in federal grants, $2.70 million in state budget appropriations, and $2.64 million in surcharge revenue.

Other states with similar rates of older housing also finance their childhood lead poisoning prevention activities through both federal and state funding streams; states that provide direct funding from surcharges have varying fee structures.

- Maine and New Jersey adopted a fee per gallon of paint sold and dedicate some or all of those funds to childhood lead poisoning prevention.
- California assesses a fee to businesses operating in the petroleum industry, the paint and coatings industry, and facilities reporting releases of lead into the air.
- Massachusetts collects surcharges from the licensure or certification of certain real estate-related professionals including mortgage lenders, insurance brokers, real estate agents, deleading contractors, and private lead inspectors.

Estimated revenues associated with these fees are: Maine $665,409; New Jersey $7 to $10 million; California $20 million; and Massachusetts $2.6 million.

Childhood Lead Poisoning Prevention Program Highlights

- Massachusetts is one of the few states to require homes to be free from lead hazards regardless of ownership or a child's blood lead level. To support property owners to meet this requirement, CLPPP trains, licenses, and monitors a private sector of lead inspectors, who conduct an average of 8,000 inspections annually.

- Massachusetts has the highest percentage of children who are screened for lead in their blood in the country and was one of the first states to publish lead screening data reports and to use its data to evaluate community specific needs. DPH identifies communities with a higher risk of lead poisoning to better target resources to vulnerable children and to reduce health disparities and racial inequities associated with lead exposure.

- The number of seriously poisoned children (25 µg/dL or greater)[1] in Massachusetts has dropped by 26% since 2017, when CLPPP changed its regulations to allow for state interventions and services at lower blood lead levels. This rapid decrease demonstrates the effectiveness of CLPPP's efforts to identify lead-exposed children and to intervene more quickly to protect children from continued risk.

III. Introduction

The Massachusetts Lead Law (MGL c. 111, §§ 189A-199B) established universal screening (blood lead tests) for childhood lead poisoning and requires landlords and homeowners to eliminate sources of lead in dwellings where children under the age of six years reside, regardless of a child's blood lead level or whether a property is rented or is owner-occupied. The statute also created the Childhood Lead Poisoning Prevention Program (CLPPP) within the Department of Public Health (DPH) to implement its directives. CLPPP is a statewide program for the prevention, screening, diagnosis, and treatment of lead poisoning, and is charged with the elimination of sources of such poisoning through research, educational, epidemiologic, enforcement, and clinical activities.

Childhood lead exposure is a serious public health issue with significant health implications. Exposing a child to even small amounts of lead can cause severe and irreversible damage to mental and physical development.[2] Numerous studies have documented correlations between childhood lead poisoning and future school performance, unemployment, crime, violence, and incarceration.[3] Despite substantial gains made over 45 years of public health and healthcare interventions, lead exposure remains a significant health risk for children in Massachusetts. Lead screening data from calendar year 2018 indicates that

[1] The amount of lead found in a blood sample is measured in micrograms of lead per deciliter of blood (µg/dL).
[2] See Lanphear, BP, "The Conquest of Lead Poisoning: A Pyrrhic Victory," Environmental Health Perspectives, Oct 2007, A484–A485.
[3] See, e.g., Brown, MJ. "Costs and Benefits of Enforcing Housing Policies to Prevent Childhood Lead Poisoning." Medical Decision Making, 2002, 22:482-492; Gould, E. "Childhood Lead Poisoning: Conservative Estimates of the Social and Economic Benefits of Lead Hazard Control." Environmental Health Perspectives, 117(7):1162-1167; Reyes, Jessica, "Environmental Policy as Social Policy? The Impact of Childhood Lead Exposure on Crime." National Bureau of Economic Research, May 2007. *Available at* http://www.nber.org/papers/w13097.

3,086 children had blood lead levels (BLLs) high enough to require case management, according to the Centers for Disease Control and Prevention (CDC) (BLLs ≥5 µg/dL). Of those, 485 children were identified with having BLLs legally considered "lead poisoned" pursuant to Massachusetts regulation (venous BLL of 10 µg/dL or greater).

While lead continues to affect children in all communities across Massachusetts, lead exposure disproportionately impacts gateway and lower income communities making lead exposure a critical health equity issue. In Massachusetts, children living in low income communities are 3 times more likely to have elevated blood lead levels than children living in high income communities; children of color are 1.5 times more likely than white children to have dangerous levels of lead in their blood; and black children are nearly 2.5 times more likely to have lead poisoning than white children.

Impact of Regulatory Changes

In December 2017, DPH amended its regulation under the Lead Law to lower the legal definition of lead poisoning from 25 µg/dL to 10 µg/dL.[4] The definition of lead poisoning is a legal definition that triggers CLPPP activity, rather than a medical one of lead-related diseases. Defining lead poisoning at levels of 10 µg/dL broadened protections for children and increased the number of lead-safe homes; it also led to a resource shortage for CLPPP. Consequently, the number of cases of children identified with dangerous levels of lead dramatically increased and created a backlog of CLPPP case management services for families, including inspections for homes to identify lead hazards. CLPPP saw an approximate 40% increase in families with children requiring services in 2018 as compared to 2017, resulting in a backlog of 160 cases of lead poisoned children whose homes had not had an initial inspection for lead hazards. This backlog increased the risk of additional exposure for lead poisoned children while awaiting home inspection and enforcement.

To address this risk area and ensure CLPPP is able to adequately enforce the Lead Law and protect the children of the Commonwealth from lead exposure, the Massachusetts legislature approved the Governor's budget request for an additional $2.7 million to CLPPP in FY20.

IV. Funding Sources

Historically, CLPPP's programmatic activities have been primarily funded from the Lead Paint Education and Training Trust Account (Lead Trust)[5] and two Federal grants. The Lead Trust receives surcharges from the licensure or certification of certain professionals including mortgage lenders, insurance brokers, real estate agents, and private lead inspectors. The surcharge amounts were established in 1993 and have not been increased since.

[4] The amended regulations also created a Blood Lead Level of Concern of a venous blood lead level from 5-9 µg/dL. Consistent with CDC best practices for children at this BLL, CLPPP developed a service delivery plan to extend voluntary lead exposure prevention and inspection services to families with children identified with BLLs of 5-9µg/dL and enhanced outreach to health professionals on the importance of lead screening and management of BLLs 5-9µg/dL.

[5] Established by Chapter 482, Section 22, of the Acts of 1993.

TABLE A – Surcharge Revenues
The table below shows surcharge revenues collected by CLPPP by payee type for FY18.

FY 18	**Surcharge Amount**	**# of Payees**	**Amount Collected**
Banks/Mortgage Lenders	$100	685	$68,500
Insurance Brokers	$25	64,215	$1,605,375
Real Estate Agents	$25	38,821	$970,525
Private Lead Inspectors	$25	933	$23,325
DPH Lead Inspectors	$25	87	$2,175
		TOTAL	**$2,669,900**

Two Federal grants provided $1,438,499 in total funding to CLPPP for FY19. A CDC Childhood Poisoning Prevention Grant ($445K) supports environmental epidemiologic surveillance, analysis, and reporting of blood lead level data. A CDC Maternal Child Health Block Grant ($838K) funds contracts statewide for community health workers; these staff are part of the case management teams, complete home visits, and provide culturally and linguistically appropriate community and in-service training. Both of these federal grants are subject to annual Congressional appropriations and have been level funded or have decreased in past years.

V. Cost and Revenue Analysis

CLPPP utilizes funding to support a comprehensive program of prevention, intervention, and enforcement:

- Conduct mandated lead inspection and code enforcement for lead poisoned children.
- Provide case management for lead poisoned children and ensure they receive needed services.
- Manage all blood lead reports and analyze surveillance data.
- Implement primary prevention strategies including interagency collaborations, work with healthcare providers, and community stakeholder engagement.
- Maintain a public-facing online portal with address-specific information and resources.
- Maintain a database for blood lead screening and environmental data and for case workflow.

TABLE B – Expenditures
The following provides a breakdown of CLPPP's FY20 expenditures related to these activities and the current source of funding:

Expense	**Cost**	**Funding Source**
Salaries	$2,417,911	Lead Trust
Fringe and Indirect	$1,238,454	Lead Trust
Epidemiology and Surveillance	$445,000	CDC Grant

Community Health Worker Grantees	$837,749	MCH Block Grant
Database management and equipment[6]	$1,829,636	Lead Trust
Legal	$80,000	Lead Trust
Travel, office supplies, IT equipment, space and utilities	$552,916	Lead Trust
TOTAL	**$7,401,666**	

Note: CLPPP FY20 expenditures include one-time costs to purchase testing equipment necessary for home inspections for children with lead poisoning and to finalize the new case management and blood lead surveillance system. These amounts are not incorporated into annual spending projections as expenditures in that category are expected to decrease going forward.

TABLE C – Funding Projections

The table below projects funding and expenses for both FY20 and FY21, where the expenditure amount in FY21 is a more accurate reflection of necessary spending to maintain the current level of operations.

	2020	**2021**
Surcharge Deposits*	$2,636,834	$2,636,834
Trust Appropriation	$2,700,000	$2,700,000**
MCH Grant***	$837,749	$837,749
CDC Grant***	$445,000	$445,000
Total Funding	**$6,619,583**	**$6,619,583**
Trust Expenditures	$6,118,917[7]	$5,696,417
MCH Grant Awards	$837,749	$837,749
CDC Expenditures	$445,000	$445,000
Total Expenditures	**$7,401,666**	**$6,979,166**

* Projection based on average of last 3 years deposits

** Projection based on maintaining current line item funding of $2,700,000

*** Projection based on continued grant amounts at current levels

VI. Funding Comparison Between States

When children are identified with lead poisoning in MA, the source of the exposure is most often through ingestion of dust or soil that is contaminated by loose or deteriorated lead paint, frequently on windows and exteriors, or disturbed by unsafe home renovation work.[8] For this reason, age of housing stock is important when considering the risk of childhood lead poisoning. Massachusetts has some of the country's oldest housing stock, with approximately 70% of housing stock built before 1978. Other states

[7] In FY20, CLPPP invested in needed equipment and a database upgrade by spending from a previous balance.

[8] In 2017, 88% of childhood lead poisoning cases were caused by exposure to lead paint. Alternative sources such as spices or herbal remedies accounted for 9% of cases.

with comparable age of housing include Rhode Island, New York, Connecticut, New Jersey, and Pennsylvania (Comparison States).

a. Funding and Program Comparison

In reviewing how Comparison States finance lead poisoning prevention activities, it is important to identify differences in legal requirements and program activities to understand how those funds are allocated. The MA Lead Law is the most comprehensive and stringent statute to address lead poisoned children, mandating interventions that require significant staff and resources. Lead laws and regulations in Comparison States allow for more discretion in intervention and/or limit program enforcement authority. Therefore, strictly comparing budget allocations cannot determine the amount of funding required to operate CLPPP versus lead programs in Comparison States.

TABLE D – Funding and Program Comparison
The table below provides the approximate funding snapshot for Massachusetts and Comparison States, as well as differences in program mandates and enforcement.

	Total State Funding	Fees Allocated to Lead Program	Budget Appropriation	Mandatory Lead Inspections at > 10 µg/dL	Mandatory Deleading of All Properties if Hazards Identified	Enforcement
MA	$5,345,875	$2,645,875	$2,700,000	Yes	Yes	Criminal Complaint
RI	$347,028	$0	$347,028	No	No	Administrative Penalties
NY	$11,000,000[9]	$0	$11,000,000	Yes	No	Administrative Penalties
CT	$1,082, 120	$0	$1,082, 120	No	No	Administrative Penalties
NJ	$8,000,000	$8,000,000	$0	Yes	Yes	Administrative Penalties
PA	$0	$0	$0	No	N/A	N/A

As discussed above, all Massachusetts children that meet the legal definition of lead poisoning are statutorily required to receive case management and a home inspection and all properties must be deleaded. Except for New Jersey, whose requirements are in regulation only[10], Comparison State requirements are not as comprehensive.[11] For example:

[9] This does not include local funding for lead prevention work, including a requested $2.3 million for the lead program in New York City. See, New York City Council Finance Division. "Fiscal 2020 Preliminary Plan Fact Sheet." https://council.nyc.gov/budget/wp-content/uploads/sites/54/2019/03/Dashboard-Public-Health.pdf.
[10] N.J.A.C. 8:51 (as amended April 12, 2017).
[11] This analysis excludes Pennsylvania, as they have no state lead laws or regulations and provide no state-funded interventions.

- In Connecticut, despite the lead program defining lead poisoning as ≥5 µg/dL, lead inspections are only mandated once the child's BLL is 15≥ µg/dL,[12]
- Rhode Island law does not mandate a lead inspection, regardless of BLL. The lead program offers a referral for a lead inspection, but parents can opt out because there is no mandate.[13]
- New York mandates inspection, but there is no affirmative requirement to delead the property if lead hazards are identified.[14]

Additionally, Comparison States have limited enforcement authority, with property deleading enforced through administrative fines and penalties instead of by criminal complaint through the court system. Administrative fines are often less expensive for property owners than the costs of deleading and the process to enforce does not result in a timely remedy. For example, New Jersey reports that only 62% of ordered abatements were completed in the prior 3 years.[15]

In Massachusetts, CLPPP's ability to enforce through the court system ensures that lead hazards are remedied and the risk to the child eliminated in a short timeframe. CLPPP estimates that it takes approximately 9 months from the day a case is assigned to the completion and certification of property abatement. This authority requires additional staff and resources versus Comparison States but allows CLPPP to ensure properties where lead poisoned children reside are quickly made safer for the children.

b. Funding Structure

States with lead programs generally receive some combination of federal funding for their lead programs from the CDC and the U.S. Department of Housing and Urban Development (HUD) in addition to dedicated state funding. Some states, including Massachusetts, collect certain fees that are allocated to the program, either in lieu of or in addition to line item funding. For instance, Maine and New Jersey adopted a fee per gallon of paint sold and allots some or all of those funds to childhood lead poisoning prevention. Beginning in 2006, a $0.25 per gallon fee was added to the cost of all paint produced or purchased wholesale in Maine, with all revenue deposited into the state Lead Poisoning Prevention Fund for program use.[16] A 2004 New Jersey law requires sales tax revenue of $0.50 from every retail sale of a container of paint to fund a lead trust.[17] While that money has historically been diverted to the general fund for other uses,[18] the NJ state budget recently began allocating $8,000,000 of those funds to the

[12] Connecticut Department of Public Health. "Lead Case Investigation and Management" Fact Sheet. https://portal.ct.gov/-/media/Departments-and-Agencies/DPH/dph/environmental_health/lead/Regs-Statutes/LeadCaseResponseandInvest4pdf.pdf?la=en.
[13]Rhode Island Department of Health. "Childhood Lead Poisoning Prevention Program Referral Intervention Process" Fact Sheet. http://www.health.ri.gov/publications/brochures/provider/LeadScreeningAndReferralInterventionProcess.pdf.
[14] *See* NYS Public Health Law, Title 10 of Article 13 s. 1373. (Commissioner "may" order remediation).
[15] New Jersey Department of Health. *Childhood Lead Exposure in New Jersey Annual Report.* Retrieved from: https://www.nj.gov/health/childhoodlead/documents/reports/childhoodlead2017.pdf.

[16] 22 MRS §1322-F (2005). https://www.mainelegislature.org/legis/statutes/22/title22sec1322-F.html
[17] N.J.S.A. 52:27D-437.11. https://law.justia.com/codes/new-jersey/2009/title-52/52-27d/52-27d-437-11/.
[18] Berger, Staci. "Christie should restore funds to protect children from lead poisoning." *The New Jersey Star Ledger*. 8 Mar. 2016. https://www.naceda.org/index.php?option=com_dailyplanetblog&view=entry&category=bright-ideas&id=45%3Achristie-should-restore-funds-to-protect-children-from-lead-poisoning&Itemid=171;

trust.[19] Maine's lead program collected $665,409 in 2018[20] associated with this fee and New Jersey estimates they have collected $7 to $10 million annually.[21] California assesses a fee to manufacturers and facilities formerly or presently engaged in the sale of products containing lead. That fee is assessed annually to businesses operating in the petroleum industry, the paint and coatings industry, and facilities reporting releases of lead into the air. The amount of the fee is determined based on market share responsibility for environmental lead contamination,[22] and it generates approximately $20 million dollars to the lead fund annually.[23]

Each of these state funding structures ensures a level of sustainability for lead activities, especially as federal funds are reduced or redirected from prevention work essential to ensuring children exposed to lead receive timely and adequate services.

VII. Conclusion

The Lead Trust and its associated surcharges were established to ensure a continued and sustainable source of funding for the Massachusetts Childhood Lead Poisoning Prevention Program. CLPPP's funding structure allowed it to create one of the most comprehensive state lead programs, ensuring children are screened, diagnosed, and treated at greater rates than states relying on federal or other annual funding.

[19] N.J. Senate. P.L.2018, Ch. 53. An Act making appropriations for the support of the State Government and the several public purposes for the fiscal year ending June 30, 2019 and regulating the disbursement thereof (approved July 1, 2018). https://www.state.nj.us/treasury/omb/publications/19veto/FY2019AppropriationsActPL2018c53.pdf
[20] Maine Dept. of Health and Human Services. *Memo to Lead Poisoning Prevention Fund Advisory Board*. June 11, 2018.
https://www.maine.gov/dhhs/mecdc/environmental-health/eohp/lead/documents/LPPFBoardUpdate_06112018.pdf
[21] Bates, Todd. $50M taken from NJ child protection fund . *U.S.A. Today.* 2 January 2015. https://www.app.com/story/news/premium/2015/01/02/nj-lead-hazard-fund-depleted/21193095/.
[22] CA Dept. of Tax and Fee Administration. Childhood Lead Poisoning Prevention Fee – Frequently Asked Questions (FAQs). https://www.cdtfa.ca.gov/taxes-and-fees/childhood-lead-poison-prev-fee-faq.htm
[23]CA Gen. Assembly. AB-74 Budget Act of 2019. http://www.ebudget.ca.gov/2019-20/pdf/Enacted/GovernorsBudget/4000/4265FCS.pdf