



# **Childhood Lead Poisoning Prevention Program Operations**

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Prepared by the Legislative Reference Bureau

**A Review of the Milwaukee Health Department's  
Elevated Blood Lead Level Program 2012 - 2018**

**July, 2018**

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**CHILDHOOD LEAD POISONING PREVENTION  
PROGRAM OPERATIONS**

City of Milwaukee, Wisconsin  
July, 2018

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## TABLE OF CONTENTS

I. INTRODUCTION .....	6
II. BACKGROUND .....	7
III. LEGISLATIVE REFERENCE BUREAU REVIEW .....	8
A. Primary Prevention .....	9
B. Secondary Prevention .....	10
C. Service Delivery Data Sources .....	11
D. Enforcement Power Failures .....	12
E. Timeline of Events .....	15
IV. EARLY DATA.....	18
V. SERVICE DELIVERY FAILURES .....	20
VI. LACK OF INITIATIVE .....	26
VII. CONCLUSIONS AND RECOMMENDATIONS .....	28
VIII. ACRONYMS .....	30

## I. INTRODUCTION

This memorandum outlines how the Childhood Lead Poisoning Prevention Program (CLPPP) was being managed by the Milwaukee Health Department (MHD) prior to January 17, 2018, when the Mayor Tom Barrett reported preliminary data to the Steering and Rules Committee suggesting services had not been properly provided to Milwaukee children with elevated levels of lead in their blood during the 3-year period from 2015 to 2017.

On January 29, 2018, the Health Department published a self-assessment of CLPPP in which it revealed the discovery of system-wide inadequacies in various aspects of both its primary and secondary prevention programs, including “program capacity, operations, staff training and policies.”

On May 31, 2018 the Wisconsin Department of Health Services (DHS) published its “*Report on the Review of the City of Milwaukee Health Department, Childhood Lead Poisoning Prevention Program*,” in which it states that the aforementioned “MHD Self-Assessment” itself contained intervention information that indicated MHD’s intervention policy was not in compliance with statutory requirements.

## II. BACKGROUND

Knowledge of several fundamental concepts and definitions related to Wisconsin's Childhood Lead Poisoning Prevention Program (WCLPPP) is a pre-requisite to a comprehensive understanding of potential service delivery failures.

Lead-based paint in older homes is the primary source of lead exposure in children's environments. Because of the high prevalence of older housing in the city of Milwaukee, the Wisconsin Blood Lead Screening Recommendations include the universal testing of all children who live in the city of Milwaukee. Due to the high risk of lead poisoning associated with older housing, it is recommended that each child in the city of Milwaukee have a blood lead test three times before age 3; at 12 months, 18 months and 24 months.

A list of acronyms and definitions commonly used in a discussion of childhood lead-poisoning is attached as a reference.

### III. LEGISLATIVE REFERENCE BUREAU REVIEW

Although the LRB is aware of problems in the operations of CLPPP's Primary Prevention program, resulting in an order by HUD to temporarily suspend funding of Milwaukee abatements, this review focuses primarily on the Health Department's EBLL program, officially known as the Secondary Prevention Program, for two reasons.

First, it is the data from this program that Mayor Barrett provided to the Common Council in January, 2018 that suggested possible inadequacies and failures in the delivery of intervention services to children with EBLLs. Secondly, it is at the point of a confirmed EBLL that the Health Department becomes obligated to abate a lead hazard. State-mandated abatement of properties linked to children with a confirmed EBLL is the most substantive action the City has to treat a "lead-poisoned child."

According to s. 254.11(5m)(a) and (b), Wis. Stats., an elevated blood lead-level means a level of lead in the blood that is (a)  $\geq 20$   $\mu\text{g}/\text{dL}$  (micrograms/deciliter) as confirmed by a single venous blood test or (b) 2 confirmed blood lead-level tests  $\geq 15$   $\mu\text{g}/\text{dL}$  (micrograms/deciliter), 90 days apart. Therefore, the City's EBLL program focuses on those children whose BLLs are 3 and 4 times the level needed to be considered "lead-poisoned."

State law mandates the following intervention services on behalf of a child who is found to have an EBLL:

1. Monitor the development and growth of a lead-poisoned child until the child's blood-lead level tests below 15  $\mu\text{g}/\text{dL}$  twice in venous tests at least six months apart.
2. Inspect any property for lead hazards linked to a lead-poisoned child including the child's domicile, or any property regularly frequented by the child and thereby suspected of contributing to the child's lead-poisoning.
3. Ensure properties linked to a lead-poisoned child that are found to have lead hazards are abated.



It should be noted that the DHS audit of May 31, 2018 found that, without explanation, the CLPPP stopped providing nursing and inspection services to children with EBLLs  $\geq 15$   $\mu\text{g/dL}$ . Consequently, the review undertaken was further limited to confirmed EBLLs that were  $\geq 20$   $\mu\text{g/dL}$ . Except in the most extreme cases, i.e., EBLLs  $\geq 45$   $\mu\text{g/dL}$ , nothing is done to directly treat the lead-poisoned child and reduce the level of lead contamination in the blood.

Prevailing public health wisdom is to abate the lead hazards in the child's environment, and by so doing, eliminate the chance for further lead-poisoning. The child's natural body function is expected to process the excess lead out of the child's bloodstream over time. In EBLL cases where the lead-level is  $\geq 45$   $\mu\text{g/dL}$ , the child is treated through a medical process known as chelation to immediately reduce the amount of lead in the bloodstream. CLPPP protocols stipulate that a post-chelated child can only be released from the hospital to a lead-safe domicile.

### **A. Primary Prevention**

The Health Department has developed 2 distinct strategies to combat childhood lead poisoning: primary and secondary. "Primary prevention involves actions to mitigate (sic) lead hazards before a child becomes exposed in order to reduce the risk to children who reside in the dwelling now and in the future."

Primary Prevention lead abatement is a strictly voluntary program, primarily funded through HUD grants and other funding sources. Property owners wishing to get financial assistance to abate lead hazards in their properties voluntarily apply to the program. If a property owner qualifies for assistance, a team of 2 certified Lead Risk Assessors (LRA's) inspects the property for lead hazards. Staff interviews indicated the following past practices concerning the Primary Prevention Program if lead hazards were found. The property owner was directed to abate the known hazards in the property, other than windows, at his or her own expense, and once abatement was completed, the Health

Department would arrange to have the windows replaced, or the lead otherwise abated. Typically, the property owner was assessed a per-window fee equal to approximately 10% of the total cost of the window replacements or abatement treatment. The remainder of costs would subsequently be funded through various grants, including HUD grants.

Abatements of properties linked to children with EBLL ( $\geq 15$   $\mu\text{g}/\text{dL}$ ) are mandatory. State statute requires lead hazards found in any property linked to a lead-poisoned child be abated. Based on staff interviews, it appears that under longstanding CLPPP policy, these abatements have been the sole financial responsibility of property owners, and have never been funded in whole or in part with HUD monies. Occasionally, indigent property owners have been encouraged to apply for HUD funding through the Primary Prevention program, but this has been the exception and not the rule. In fact, the Health Department indicates in its self-assessment report of January 2018 that potential grantees seeking to abate sources of lead in their domiciles are denied funding because the Health Department requires compliance with conditions that are not necessarily required by the lender. (pg. 20)

State statutes mandate that an LRA conduct an inspection of any property linked to a child with an EBLL. Orders for the property owner to abate must be issued if the LRA identifies a lead hazard, and hazards must be abated within 30 days. If the hazard is deemed egregious, the abatement must occur within 5 days. If a property owner denies access or fails to comply with abatement orders, the MHD has the enforcement authority to conduct inspections, issue abatement orders, and issue citations for failures to timely comply with the orders.

## **B. Secondary Prevention**

Secondary prevention strategies “focus on mitigating lead hazards and minimizing adverse effects on health after a child has been reported as lead poisoned.” (City of Milwaukee Health Department | Childhood Lead Poisoning Prevention Program, January 29, 2018, Section 3, pg. 6)

Under Wisconsin State Statute 254.166, the MHD is obligated upon receipt of a report of a child under the age of 6 with single elevated blood lead level (EBLL) of 20 ug/dL or above, or two venous blood lead level of 15 ug/dL or above taken at least 90 days apart, to perform a thorough environmental investigation of the child's dwelling or premises in order to attempt to identify the source of the lead.

### **C. Service-delivery Data Sources**

The most reliable indicators of services MHD failed to provide for lead-poisoned children come from 3 sources:

1. An audit by MHD of physical inspection files maintained by the LRA inspectors.
2. An audit conducted by the Wisconsin Department of Health Services (DHS).
3. Data extrapolated by LRB from semi-independent STELLAR sources.

Table 4.6 in MHD's January 31<sup>st</sup> report to the Steering and Rules Committee provided the first reliable indication of possible failures to deliver services to lead-poisoned children. LRA inspectors are required to maintain physical, paper files for all cases of lead-poisoned children assigned to them. MHD staff used a STELLAR-generated list of 320 properties that should have been inspected by an LRA under State statute between 2015 and 2017, and then searched the physical records for corresponding paper files. No paper files were found for 119 properties, suggesting that 37% of properties mandated by State law for inspection were never inspected. MHD has revised the number of uninspected properties slightly upward to 122.

DHS audited CLPPP operations from 2012 to 2017 after MHD's January 31<sup>st</sup> report was made public. The audit identified 491 cases of lead-poisoned children during the 6-year period. DHS sampled 108 cases for audit, 83 from 2012 to 2017 and 25 EBLL cases  $\geq 20\mu\text{g/dL}$  from May through December, 2017. Among the audit's service delivery conclusions were:

1. Lead hazards were identified in 13 (18%) of the 72 LRA inspection files reviewed, yet no abatement orders were issued.
2. No Public Health Nurse (PHN) site visits were conducted for 21 (19%) of the 108 EBLL properties reviewed.
3. Seven (6%) of the 108 EBLL nursing cases requested for review had neither a paper file nor an entry in STELLAR.

Finally, while this review concluded in its findings that possible CLPPP service-delivery failures could not be verified based on data available to LRB, LRB did analyze “raw data” from 2 somewhat separate “sub” databases within the larger STELLAR system in an attempt to discover if any service-delivery failures occurred. The analysis suggested 27% of lead-poisoned child cases that should have been assigned to an inspector were never assigned, 39 properties identified as having lead hazards in 2015 and 2016, had not been abated by yearend 2017, and 140 properties slated for inspection during the 3 years had no indication of whether lead hazards had been found or not found.

#### **D. Enforcement Power Failures**

MHD is obliged under State statute to ensure the domicile of a lead-poisoned child, and every other property suspected of contributing to the child’s lead-poisoning, is abated within 5 days, if the risk of lead-poisoning is egregious, and 30 days otherwise. State statute and Milwaukee code give MHD considerable enforcement powers to fulfill this obligation.

Once a property has been linked to a lead-poisoned child, the Health Department must inspect the property for lead hazards, and issue orders to abate any lead hazard found. If ordered abatements are not made, MHD may issue citations to gain compliance.

At each stage, MHD has enforcement powers LRB has determined were consistently not exercised during the 3 years under review.

A CLPPP program manager and several LRAs indicated that inspectors were regularly denied entry to properties linked to children with EBLLs by tenants afraid of eviction, or by uncooperative landlords.

One LRA explained that he tried to gain entry to a property by emphasizing the health risks of lead poisoning; however, if the tenant or landlord denied entry, the only recourse was to abandon interior inspection.

Orders to abate exterior lead hazards the LRA could identify without entry could be issued, but nothing could be done about hazards that might have been discovered inside. The fact is, the Health Department has the power and authority under State statutes and the Code of Ordinances to obtain a warrant for entry to any EBLL- related property for inspection.

MHD's issuance of EBLL abatement orders has declined over the last 3 years, with 77 issued in 2015, 51 in 2016 and 34 in 2017, despite the fact orders must be written if lead hazards are identified, and the number of EBLL properties per year has not declined. LRB obtained specifics on how many orders were issued each year from a MHD office assistant who maintains a spreadsheet for her own records. LRB does not believe CLPPP management has ever done any analysis of the program's order-issuing activity.

MHD's citation issuance has declined even more sharply than order issuance over the past 3 years. Citations were issued for 46 properties in 2015, 19 in 2016, and only one property in 2017.

An LRA indicated that he was told by the program manager in the summer of 2017 to stop issuing citations because another inspector had overstepped his authority with a property owner. Another LRA pointed out that she was told not to issue citations after CLPPP's "legal liaison" retired in March, 2017, and there was no one to represent the

Health Department in court. The program manager maintained during interviews that there was no point to issuing citations because property owners “never paid them”, and citations did not result in order compliance. The program manager emphasized CLPPP’s strategy of working with property owners over time to persuade them to abate was more effective than citations. No data was offered to support this contention.

Among the properties cited, many were cited on more than one date. For example, 13 of the 19 properties cited in 2016 were cited 3 or more times. In one case, a single property was cited 7 times in the 2-year period between January, 2015, and November, 2016, racking up more than \$11,000 in fines. In the end, the property owner was allowed to discharge the \$11,000 in fines with an \$8,000 payment. Because the information on this property was obtained from the Municipal Court, LRB did not attempt to discover through MHD if this property was ever abated, and if so, whether it was a direct-administered (City) abatement or abated by the property owner.

MHD’s ultimate enforcement power is “direct administered” abatement. If an EBLL property owner fails to comply with abatement orders within 30 days, MHD may obtain a warrant to enter the property, have the abatement performed and charge the cost to the property owner’s property tax bill. Records kept by an MHD billing program assistant show MHD billed for 12 direct-administered abatements in 2013, 3 each in 2014 and 2015, and none in 2016 or 2017. STELLAR records for EBLL properties assigned to an LRA indicated only 2 direct- administered abatements were conducted in 2015.

The Program Manager did not appear to realize that the pace of direct- administered abatements had fallen off. When pressed to explain this decline, she reiterated her faith in working cooperatively with property owners to obtain abatement-order compliance, and suggested the decline in direct-administered abatements demonstrated the effectiveness of this cooperative approach. When requested, she was unable to provide any data to support this contention.

When the former Program Director was informed that direct-administered abatements had declined to zero during the latter years of his tenure he noted that knowing how many direct-administered abatements were being done was not part of his management responsibilities.

### **E. Timeline of Events**

The following is a synopsis of the events leading to the Mayor's January 17, 2018 presentation of preliminary data to the Steering and Rules Committee suggesting that services had not been properly provided to Milwaukee children with elevated blood-lead levels during the 3-year period from 2015 to 2017.

1. August, 2017 A "near miss" chelation service-delivery failure came to the attention of the Health Director of Disease Control and Environmental Health who had, until this revelation, been focused on suspected deficiencies in CLPPP's Primary Prevention program.
2. October 6, 2017 The director concluded that the August, 2017 "near-miss" service-delivery was due to inadequate nurse training, and unidentified steps were taken to cure the lack of training.
3. November 20, 2017 The director provided her supervisor, the Health Operations Administrator, with preliminary data she believed indicated significant EBLL service-delivery failures.
4. November 21/22, 2017 The data and spreadsheet suggesting EBLL service-delivery failures were provided to the former Commissioner who questioned the reliability of the data, and directed the data be verified.
5. December 11, 2017 Data suggesting service-delivery failures was presented to the former Commissioner a second time. The Commissioner continued to question the reliability of the data and made a second directive to verify the data.
6. December 13, 2017 An "AIM" report slide of a spreadsheet suggesting EBLL failures in the delivery of intervention services was removed

on a directive from the former commissioner. No explanation for the removal was provided.

Two slides included in this AIM report concerning Primary Prevention abatements and funding “greatly agitated” the Mayor, according to his testimony before Steering and Rules on January 17<sup>th</sup>. According to the Mayor, this was his first “inkling” there might be something wrong with any part of MHD’s lead-poisoning prevention program.

7. January 4, 2018      Mayoral Chief of Staff was informed of the possible EBLL service-delivery failures and subsequently briefed the Mayor.

8. January 5, 2018      Mayoral and Health Department staff met to discuss concerns of possible EBLL service-delivery failures. The former Commissioner, who was invited to this meeting, did not attend.

After a staff meeting, the Mayor’s Chief of Staff confirmed the Mayor’s understanding that although the data is “a work-in-progress”, there definitely were problems with EBLL service-delivery on some level. The Chief of Staff charged the MHD to “clean up” the numbers in preparation for a meeting with the Mayor on Monday, January 8, 2018.

9. January 6-7, 2017      The data reportedly could not be verified because it would have required an audit of thousands of paper files by hand, one-by-one.

10. January 8, 2018      A meeting was held between the Mayor, the Commissioner and their respective staffs. The Commissioner held a meeting of the Health Department’s senior management prior to meeting with the Mayor to declare an Incident Command Structure was to be initiated to mobilize MHD resources for an “emergency” response to correct all possible EBLL service-delivery failures.

The LRB was not privy to the information that was provided to Mayor on January 8, 2018.



11. January 11, 2018 The Health Commissioner resigned at approximately 4:30 p.m.
15. January 11-12, 2018 Results from capillary tests were separated from venous tests, suggesting an EBLL failure to deliver intervention services of approximately 3.8%, not 55.1% as initial data suggested.

## IV. EARLY DATA

While data eventually surfaced that appears to substantiate failures in the delivery of intervention services to households of lead-poisoned children, early data presented to the Mayor by MHD seems inconclusive. This early data, taken exclusively from MHD's STELLAR database, suggested the possibility of deficiencies in CLPPP's electronic recordkeeping, but no concrete conclusions concerning actual service-delivery failures could be drawn.

This early data, which had been compiled by the Director of Disease Control and Immunization, was inherently flawed. While LRB was unable to determine exactly what data was presented in early meetings with the Mayor's Office through interviews with attendees, it is presumed the data presented approximates a slide that the Director proposed for the December AIM report which was "pulled" based on a directive from the former Commissioner.

The greatest deficiency with this early data was that the number of children reported as having EBLLs included both capillary and venous blood-lead level test results. Capillary, "finger-prick", results are considered preliminary. Capillary results must be confirmed by a venous blood draw before the delivery of lead-poisoned child services is required. This shortcoming in the data tended to exaggerate service-delivery failure. The Program Director's proposed AIM slide suggests, for example, only 73 of the 171 children reported with EBLLs  $\geq 20$   $\mu\text{g/dL}$  in 2016 were seen by a PHN, or had their domiciles inspected by an LRA, a 57% failure rate, while some portion of the 171 reported EBLLs were most certainly capillary test results for which no response was required.

Several meetings in the Mayor's Office were held to refine the data presented between the Mayor's initial January 8<sup>th</sup> meeting with the Health Department, and the former Commissioner's late-afternoon resignation on January 11<sup>th</sup>. It was not possible to determine exactly what refinements were made; however, notes kept by frequent meeting attendees (from the Mayor's office) suggest that by January 11<sup>th</sup> or 12<sup>th</sup>

preliminary capillary results had been separated from confirmed venous results. Accordingly, the notes indicate there were 158 confirmed EBLL cases between 20 and 39 µg/dL reported for the years 2015 through 2017 which required action, and of these cases, 152 were referred to a PHN and an LRA, suggesting a service-delivery failure of 3.8%. By comparison, the Director's AIM slide indicated a service-delivery failure rate of 55.1% for reported EBLs  $\geq 20$  µg/dL over the 3-year period.

The apparent service-delivery failure rate for EBLs  $\geq 20$  µg/dL in MHD's January 17<sup>th</sup> and 31<sup>st</sup> presentations before the Steering and Rules Committee was 1.6% for the 3-year period.

## V. SERVICE DELIVERY FAILURES

This review suggests services for lead-poisoned children failed due in large measure to 3 broad deficiencies in the delivery of services:

1. Ignorance, or disregard, for State-mandated obligations.
2. Misguided policy decisions.
3. Deficiencies in management.

CLPPP management's apparent ignorance, or disregard, for MHD's obligations under State statute included:

1. CLPPP management informed LRB that property owners were exempt by State law from performing ordered abatements during the winter, which is half true. Property owners are exempt from complying with orders to abate exterior lead hazards within 30 days if the order was written between October 1<sup>st</sup> and May 1<sup>st</sup>. There is no exemption for interior abatements during the winter.
2. A policy decision to stop dispatching PHN's and LRA's to cases when 2 venous blood-lead level tests 90 days apart registered between 15-19 µg/dL, and send a Health Services Assistant instead. It was explained to LRB that this policy change was an attempt to deal with personnel shortages. Management was oblivious to, or simply ignored, the fact that State law defines these children as lead-poisoned, and demands they receive all lead-poisoned child services.
3. A policy for PHN's to close and cease to monitor cases when a lead-poisoned child's blood-lead level "began to trend nicely downward". State statute stipulates monitoring of lead-poisoned children must be maintained until two venous blood tests six months apart register the child's blood-lead levels below 15µg/dL.
4. CLPPP staff did not utilize MHD's enforcement power to enter a property linked to a lead-poisoned child and inspect for lead hazards against the property owner's will.

Examples of misguided policy decisions include:

1. LRA inspectors were instructed by CLPPP management to cease issuing citations to property owners for failing to complete ordered abatements of lead hazards because citations did not result in order compliance. CLPPP management maintained that property owners never paid citations, and persuasion was more effective than citation issuance in getting lead hazards

abated.

2. CLPPP policy was not, it seems, to use MHD's enforcement power to enter a property linked to a lead-poisoned child and ensure lead hazards identified during inspection were abated against the property owner's will through a "direct administered" abatement.

LRB has concluded that significant management deficiencies, beginning with the former Health Commissioner and flowing down the chain of management, contributed significantly to CLPPP failures to deliver services to the households of lead-poisoned children. The impact of these deficiencies was exacerbated by an apparent focus of energies and resources on abating properties enrolled in the CLPPP's Primary Prevention program to the detriment of the program serving lead-poisoned children.

The principal management deficiency noted was a near complete lack of reporting of program results. At each level, managers failed to demand timely and meaningful reports of program results from subordinates, and, because such reporting was not required, failed to provide similar management reports to superiors. Subordinates set the agendas for meetings with their supervisors. Instead of monitoring program operations through robust and regular reporting of program results, managers appear to have overseen under a subjective form of management by exception. Subordinates appear to have been expected to simply and subjectively identify "exceptions" and self-report program service problems and shortcomings. Management by exception, however, is an effective management tool only when program results are gathered and reported. The exception brought to the attention of a supervisor must be objective, based on a discrepancy between an actual, reported result, and a projected, expected result.

It is instructive to note that the former Health Commissioner, at a meeting with MHD directors just prior to MHD's first formal meeting with the Mayor on January 8<sup>th</sup>, announced the immediate implementation of an Incident Command System (ICS) to deal with the possible CLPPP service-delivery failures. The former Commissioner

expressed confidence that an ICS, a standardized response to an emergency, could contain and rectify within 10 days whatever “emergency” had developed in CLPPP. All MHD needed was to marshal its resources in an ICS and respond as if the CLPPP service-delivery failure was a form of natural disaster like a tornado or flash flood. It is LRB’s impression that problems in the CLPPP, when they did surface, were generally dealt with as mini-emergencies. The goal seemed to be to fix the problem as quickly as possible in a kind of emergency response, without addressing possible underlying causes, as if the problem itself was just some nature disaster, beyond management’s control.

Another management deficiency is management’s longstanding reliance on STELLAR, the State’s blood-lead level testing data reporting database, as the program’s primary data management tool. LRB’s review of CLPPP operations has been severely hampered by a near total lack of reliable data. Fundamental program data, like how many children were confirmed as lead-poisoned in a given year requiring lead abatement of properties linked to them, and how many of these properties were in fact abated, were frustratingly unobtainable. Data, when provided, often prompted as many questions concerning accuracy and meaning as they answered. MHD is required to maintain STELLAR by the State, but according to all sources, STELLAR is clunky and cantankerous at best, far too cumbersome to use directly to track EBLL program results. Management should have long ago developed workarounds to extract the relevant data from STELLAR, and populate spreadsheets or other data management resources to analyze and report program results. Although LRB did not seek confirmation of the statements of a former manager of CLPPP from its inception in 1992 to 2007, data maintained during her tenure was in fact downloaded from STELLAR and extensively analyzed to both monitor program results and improve service delivery. Management’s failure in recent years to maintain similar “offline” tools to analysis CLPPP results created a dearth of usable and meaningful data, making the lack of reporting among managers mentioned above all but moot. There appeared to be no meaningful data available to report.

Principal CLPPP oversight management during the 2015-2017 period reviewed included:

1. City Administration, which oversaw MHD through quarterly Accountability in Management (AIM) reports.
2. Former Health Commissioner
3. Health Operations Administrator, who oversaw MHD directors responsible for managing all programs which delivery services directly to residents.
4. Director of Disease Control and Environmental Health, who retired in May, 2017. The position oversaw CLPPP, the TB, Communicable Disease and Immunization Division, MHD Sexually Transmitted Disease Clinics and the Environmental Health & Emergency Preparedness.
5. Program Manager, responsible for CLPPP's day-to-day operations.
6. Field Supervisor responsible for supervising Primary Prevention LRA inspectors and independent contractors performing HUD-funded abatements.

Although management deficiencies appear pervasive enough in CLPPP to constitute a complete system failure, the following is a sampling of individual shortcomings:

1. The Administration's AIM program appears to have been too trusting to detect CLPPP shortcomings. MHD seems to have "guided" the Administration's attention during AIM presentations with "views" of its lead-poisoning prevention efforts from "30,000 feet" highlighting MHD's grand lead epidemiology management strategy without ever getting into the specifics of services and abatements MHD was required under State law to provide.
2. According to the Health Operations Administrator, the Health Commissioner was disinclined to meet directly with MHD Directors concerning program operations, and preferred these matters be "filtered" through her office.
3. The Health Operations Administrator described herself as a kind of management consultant advising Commissioner Baker. While she met somewhat regularly with the Health Department reporting to her, the agendas for these meetings were set by the directors. Based on her position, LRB would have expected the Health

Operations Administrator to familiarize herself with the salient operational issues of MHD program operations, and institute reporting standards for the directors who reported to her to monitor effective program service delivery. However, LRB could not determine during interviews that she undertook these basic management measures.

4. The former Director of Disease Control and Environmental Health maintained that his position was responsible for the bigger picture of lead epidemiology monitoring and policy formulation and that he left the details of EBLL service delivery to the program manager who he described as very “professional”. He had no reporting requirement for the program manager, and confirmed he set agendas for meetings with his supervisor, the Health Operations Administrator. He described himself as a “senior” manager in the Health Department, sought after to formulate policy and to whom more junior staff often looked for advice and guidance. He speculated that the Health Commissioner struggled to meet his responsibilities because the Commissioner did not have the right education for the job.
5. The Program Manager did not meet regularly with her staff, or require regular reports on program results. Instead, she maintained that physical proximity to the staff she supervised kept her informed on program operations. Her overriding attitude toward CLPPP management was that every case, whether it was a lead-poisoned child or a Primary Prevention case, was unique, so different that no data could be aggregated to discover trends or determine if a class of services was being properly provided. In her opinion, the only way to manage was to somehow “organically” identify case problems as they cropped up and solve them individually.

The Program Manager seemed unconcerned that policy was at times in conflict with State statute. For example, when asked why property owners were given 45 days to comply with abatement orders when State law stipulates a maximum of 30 days, she merely maintained 45 days was longstanding MHD policy. She also stated that working cooperatively with property owners was more effective than writing citations or doing direct administered abatements, because “citations simply piled up unpaid”. She was not concerned such a cooperative approach might delay for months, abatements that should have been done in 30 days.

At times she seemed to struggle to manage situations that appeared elementary. It was her contention that the decline in Primary Prevention abatements was in part due to absences of the program’s only application in-take person, who was



frequently away on family medical leave. She was unable to provide an explanation LRB could understand as to why the absence of this mission-critical staff person was not simply “covered” in some way to prevent an interruption in Primary Prevention application processing.

6. A Field Supervisor’s management approach seemed dogmatic and illogical at times. When the pipeline of Primary Prevention, HUD-funded abatements began to run dry, jeopardizing the HUD grant, this supervisor was adamant HUD funds should not be used for EBLL abatements in an effort to protect the HUD grant by meeting grant abatement benchmarks, because it would “sent the wrong message” to landlords who were “disinvesting” in their properties. The Field Supervisor also argued that as the Primary Prevention abatement pipeline dried up, ostensibly because of the frequent absences of the program’s sole application in-take person, he had too few LRA inspectors to keep up with the declining demand. Apparently, despite having too few inspectors to meet abatement demand, the supervisor re-tasked inspectors in 2017 to go door-to-door to replenish the Primary Prevention pipeline by recruiting potential Primary Prevention abatement prospects.

## VI. LACK OF INITIATIVE

In addition to noting specific management deficiencies during its review, LRB observed a general lack of management initiative in CLPPP operations. Below are listed 3 examples of this problem.

1. MHD's January 31<sup>st</sup> presentation before Steering and Rules indicated 193 of the 519 children reported as lead-poisoned between 2015 and 2017 with elevated blood-lead levels  $\geq 20$   $\mu\text{g}/\text{dL}$  were confirmed through venous tests, and therefore entitled to MHD's full complement of lead-poisoned child services. The remaining 326 children, fully 63% of the total, were considered only possibly lead-poisoned, and entitled to no lead-poisoned child services at all, because they had been given a capillary, "finger prick" test, which is viewed as inconclusive. EBLL program protocols stipulate a PHN attempt to contact the family of a potentially lead-poisoned child to have the child retested with a venous blood-lead level test to verify whether the child is lead-poisoned or not. Site visits are even attempted in cases of preliminary test results  $\geq 40\mu\text{g}/\text{dL}$ , but if contact cannot be made, MHD simply mails a letter.

LRB is unaware of the expected percentage of "false positive" capillary blood-lead level test results, but assuming 65% of venous retests fail to confirm and result in an elevated blood-lead level lower than the preliminary capillary test result, 114 of the 326 potentially lead-poisoned children were in fact lead-poisoned, yet were denied lead-poisoned child services. When LRB pointed out the high percentage of "preliminary" test results, and expressed concerns some portion of these children must be lead-poisoned and were being denied services because their blood-lead level tests were not confirmed, CLPPP management maintained these children were transient and could not be located, or their parents failed to follow through with retesting. No suggestions were made on how MHD might get more "preliminary" children retested.

2. Similarly, a constant refrain heard from CLPPP management was that the EBLL program was unable to provide service for lead-poisoned children confirmed EBLL test results because the population was so transient these children could not be located. While CLPPP management and staff claimed herculean measures were employed to find these children, it seemed an accepted given that a significant portion would be impossible to find. No strategies were offered to restructure, or even change, operations to locate more of the children who had been confirmed as lead-poisoned.

3. While LRB has been highly frustrated over the near total lack of meaningful analytical data on EBLL operations, CLPPP management seems oblivious to the shortcoming, and its impact on operations. Consequently, no one in management offered any suggestion on how to build a “workaround” data analysis system to improve operations and make service delivery more effective. Instead, management seems content with using the STELLAR database required by the State, a system LRB believes to be woefully unsuited as a management tool, as CLPPP’s primary data analysis resource.

## VII. CONCLUSIONS and RECOMMENDATIONS

Per the Committee's request, LRB offers the following suggestions on how operations of the EBLL program might be improved.

1. Direct program managers to require specific monthly and year-to-date reports from subordinates to better monitor program results.
2. Use an investigator to locate difficult-to-find children to ensure more lead-poisoned children receive the full complement of lead-poisoned child services. Evening and weekend staff assignments should be considered to help realize this goal.
3. Issue orders to abate property that are linked to a child with an EBLL so that the property remains subject to the abatement order in the event the child vacates the premises.
4. Institute measures to increase the number of reported preliminary test results the Health Operations Administrator  $\geq 15$   $\mu\text{g}/\text{dL}$  that are retested to verify the test results, through a venous retest if the initial test result was from a capillary test  $\geq 20$   $\mu\text{g}/\text{dL}$ , a second venous test at least 90 days after an initial venous test result of 15-19  $\mu\text{g}/\text{dL}$ , or two venous tests 90 days apart if the initial test result was from a capillary test result of 15-19  $\mu\text{g}/\text{dL}$ .

LRB suggests CLPPP consider a "community activism" approach of site visits by employees or independent agencies to increase the program's retesting rate.

LRB was told, but was unable to verify, that two capillary blood-lead level tests within two weeks were considered confirmatory. If this can be confirmed, LRB recommends MHD dispatch staff to perform onsite capillary tests of children whose preliminary test results suggest potential lead-poisoning.

MHD's original CLPPP director claims research reported by MHD and published by the Centers for Disease Control in the 90's "proved" a properly administered capillary test confirms an EBLL, and that during Ms. Murphy's tenure, staff was dispatched to perform capillary tests as necessary. MHD should verify the veracity of the claim, and if true, take steps to use this information to increase its "confirmation rate" of children reported as potentially lead-poisoned.

5. Develop protocols and procedures to quickly identify uncooperative owners of properties linked to lead-poisoned children who deny property entry, or fail to comply with abatement orders, and to promptly and fully utilize enforcement powers to get these properties inspected and abated for any lead hazards found.

6. Using a “community activism” approach, CLPPP should launch evening and weekend door-to-door campaigns in areas where the incidence of lead-poisoned children is high to encourage blood-lead level testing of children in these areas.
7. Conduct an educational campaign for landlords in areas where the incidence of lead-poisoned children is high to promote the “advantage” of having the blood-lead levels of tenant children tested. The “advantage” being the possibility of a HUD-funded abatement, essentially a free property improvement for the landlord.
8. Hire a grant administrator to oversee all MHD grant applications and compliance with grants awarded. This administrator should also seek out and apply for new public and private grants to fund MHD’s full public health mission.
9. Investigate the possibility of using non-nursing personnel to make initial site visits to lead-poisoned children, and to monitor these children until their blood-lead levels decline to State-mandated thresholds. This would add flexibility to CLPPP hiring.
10. Install more window liners rather than doing only window replacements as a strategy to abate more properties with the same amount of grant dollars. Window liners, which are often in “historic” properties, are cheaper, and just as effective as window replacements in abating lead hazards.

## VIII. ACRONYMS

<b>AIM</b>	Accountability in Management. Reporting system used to provide updates related to Department Operations to the Mayor.
<b>BLL</b>	The blood lead level is the amount of lead in a child’s blood is known as a blood lead-level or BLL. Wis. Stats. § 254.11(9), defines “lead poisoning or lead exposure” to mean a level of lead in the blood of 5 or more micrograms per 100 milliliters of blood.
<b>Chelation</b>	Medical procedure (therapy) that involves the administration of chelating agents to remove heavy metals from the body.
<b>DHS</b>	Wisconsin Department of Health Services.
<b>EBLL</b>	Elevated blood lead level as defined in Wis. Stat. ch. 254 (one venous blood test of $\geq 20$ Mcg/dL, or two venous blood tests of $\geq 15$ mcg/dL taken at least 90 days apart).
<b>HSA</b>	Health Services Assistant, a Milwaukee Health Department paraprofessional worker tasked with the provision of education services and
<b>LHD</b>	Local Health Department
<b>Mcg (<math>\mu</math>g)/dL</b>	Micrograms per deciliter, units used to measure the amount of lead in blood
<b>MHD</b>	City of Milwaukee Health Department
<b>MHD CLPPP</b>	City of Milwaukee Health Department Childhood Lead Poisoning Prevention Program
<b>PHN</b>	Public Health Nurse
<b>STELLAR</b>	Systematic Tracking of Elevated Lead Levels and Remediation, the electronic database that houses blood lead test results, nursing case management, and environmental investigation activities.

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