MARYLAND
Department of the Environment

LEAD POISONING PREVENTION COMMISSION

SUBMITTED ON BEHALF OF THE LEAD POISONING PREVENTION COMMISSION
BY THE
MARYLAND DEPARTMENT OF THE ENVIRONMENT

Prepared for:
Martin O'Malley, Governor
State of Maryland

Anthony G. Brown, Lt. Governor
State of Maryland

2013 ANNUAL REPORT

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard | Baltimore, MD 21230 | http://mde.maryland.gov
410-537-3000 | 800-633-6101 x3000 | TTY Users: 800-735-2258
Martin O'Malley, Governor | Anthony G. Brown, Lt. Governor | Robert Summers, Ph.D., Secretary

MDE

2013
ANNUAL REPORT
LEAD POISONING PREVENTION COMMISSION

CONTENTS

VIII. May 2, 2013
- A. Sign-In Sheets
- B. Agenda
- C. Approved Minutes May 2, 2013

IX. June 13, 2013
- A. Sign-In Sheets
- B. Agenda
- C. Approved Minutes June 13, 2013
- D. Handouts
  1. Mary Jean Brown, ScD, RN - Power Point Presentation – Centers for Disease Control and Prevention and the Federal Strategy for Action on Health Housing
  2. Pat McLaine, Dr.PH, MPH, RN – Power Point Presentation – PEDIATRICS, Elevated Blood Lead Levels and Reading Rediness at the Start of Kindergarten
  3. Rebecca Morley, Executive Director, National Center for Healthy Housing – Power Point Presentation – Federal Healthy Housing Landscape

X. July 11, 2013
- A. Sign-In Sheets
- B. Agenda
- C. Approved Minutes July 11, 2013

XI. August 1, 2013
- A. Sign-In Sheets
- B. Agenda
- C. Approved Minutes August 1, 2013

XII. September 5, 2013
- A. Sign-In Sheets
- B. Agenda
- C. Approved Minutes September 5, 2013
- D. Handouts
  1. Draft – Report - Childhood Blood Lead Surveillance in Maryland Annual 2012 Lead Poisoning Prevention Program
  2. Baltimore Housing Status Report

XIII. October 3, 2013
- A. Sign-In Sheets
- B. Agenda
- C. Approved Minutes October 3, 2013
- D. Handouts
  1. Lead Week Activities – October 20-26, 2013
  2. Baltimore City Lead Hazard Reduction Program Update
  3. Childhood Blood Lead Surveillance In Maryland Annual Report 2012 – Lead Poisoning Prevention Program

XIV. November 7, 2013
- A. Sign-In Sheets
- B. Agenda
- C. Approved Minutes November 7, 2013

XV. December 5, 2013
- A. Sign-In Sheets
- B. Agenda
- C. Approved Minutes December 5, 2013
- D. Handouts
    1. DRAFT - Report to the General Assembly: Task Force on Point of Care Testing for Lead Poisoning – Maryland Department of Mental Hygiene
    2. Letter from Senator Barbara A. Mikulski RE: Appropriations for CDC and Prevention state and local programs for combating childhood lead poisoning
    3. Lead Commission Suggested Priorities for 2014
    4. 2014 Meeting Calendar

MARYLAND DEPARTMENT OF THE ENVIRONMENT

LEAD POISONING PREVENTION COMMISSION OVERVIEW

The Lead Poisoning Prevention Commission, established under Environment Article 6, Subtitle 8, advises the Department of the Environment, the Legislature, and the Governor regarding lead poisoning prevention in Maryland.

COMMISSION MEMBERSHIP

The Lead Poisoning Prevention Commission consists of 19 members. Of the 19 members:

(i) One shall be a member of the Senate of Maryland, appointed by the President of the Senate;
(ii) One shall be a member of the Maryland House of Delegates, appointed by the Speaker of the House; and
(iii) 17 shall be appointed by the Governor as follows:

1. The Secretary or the Secretary's designee;
2. The Secretary of Health and Mental Hygiene or the Secretary's designee;
3. The Secretary of Housing and Community Development or the Secretary's designee;
4. The Maryland Insurance Commissioner or the Commissioner's designee;
5. The Director of the Early Childhood Development Division, State Department of Education, or the Director's designee;
6. A representative of local government;
7. A representative from an insurer that offers premises liability coverage in the State;
8. A representative of a financial institution that makes loans secured by a rental property;
9. A representative of owners of rental property located in Baltimore City built before 1950;
10. A representative of owners of rental property located outside Baltimore City built before 1950;
11. A representative of owners of rental property built after 1949;
12. A representative of child health or youth advocacy group;
13. A health care provider;
14. A child advocate;
15. A parent of a lead poisoned child;
16. A lead hazard identification professional; and
17. A representative of child care providers.

In appointing members to the Commission, the Governor shall give due consideration to appointing members representing geographically diverse jurisdictions across the State.

The term of a member appointed by the Governor is 4 years. A member appointed by the President and Speaker serves at the pleasure of the appointing officer. The terms of members are staggered as required by the terms provided for the members of the Commission on October 1, 1994. At the end of a term, a member continues to serve until a successor is appointed and qualifies. A member who is appointed after a term has begun serves only for the remainder of the term and until a successor is appointed and qualifies. (1994, ch.114, § 1; 1995, ch. 3, § 1; 2001, ch. 707; 2006, ch.44.)

COMMISSION RESPONSIBILITIES

1. The Commission shall study and collect information on:

    - The effectiveness of legislation and regulations protecting children from lead poisoning and lessening risks to responsible property owners;

    - The effectiveness of the full and modified lead risk reduction standards, including recommendations for changes;

    - Availability and adequacy of third-party insurance covering lead liability, including lead hazard exclusion and coverage for qualified offers;

    - The ability of state and local officials to respond to lead poisoning cases;

    - The availability of affordable housing;

    - The adequacy of the qualified offer caps;

    - The need to expand the scope of this subtitle to other property serving persons at risk, including child care centers, family day care homes, and preschool facilities.

2. The Commission may appoint subcommittees to study subjects relating to lead and lead poisoning.

3. The Commission shall give consultation to the Department in developing regulations to implement Environment Article 26.16 (House Bill 760).

4. The Commission will prepare or participate in the preparation of the following reports:

    - Assist MDE and HCD to study and report on methods for pooling insurance risks, with recommendations for legislation as appropriate by January 1, 1995;

    - Develop recommendations in consultation with the Department of Housing and Community Development (HCD) by January 1, 1996, for a financial incentive or assistance program for window replacement in affected properties;

    - Provide an annual review of the implementation and operation of the Lead Poisoning Prevention Program under HB 760, beginning January 1, 1996.

COMMISSION MEETINGS

Frequency, times and places. - The Commission shall meet at least quarterly at the times and places it determines.

Chairman. – From among the members, the Governor shall appoint the Chairman of the Commission.

Quorum. – A majority of the members then serving on the Commission constitutes a quorum.

The Commission may act upon a majority vote of the quorum.

Compensation; expenses. A member of the Commission:
(1) May not receive compensation; but
(2) Is entitled to reimbursement from the Fund for reasonable travel expenses related to attending meetings and other Commission events in accordance with the Standard State Travel Regulations. (1994, ch. 114, § 1.)

LEAD POISONING PREVENTION COMMISSION MEMBERS

NAME/ADDRESS	MEMBER CATEGORY
Patrick T. Connor, President CONNOR Bare Hills Business Center 1421 Clarkview Road Baltimore, MD 21209-2188 Tel: (443) 322-1206 direct dial Cell: (443) 695-3824 Fax: (410) 296-3419 E-mail: pconnor@connorsolutions.com	Lead Hazard Identification Professional
Cheryl Hall Maryland State Dept. of Education Division of Early Childhood Development Office of Child Care – Licensing Branch 200 W. Baltimore Street Baltimore, MD 21202 Tel: 410-767-7811 FAX: 410-333-8699 E-mail: Cheryl.Hall@msde.state.md.us	The Director of the Early Childhood Development Division, State Department of Education, or the Director's designee
Melbourne E. Jenkins, Jr. 1950 Old Gallows Road Suite 600 Vienna, VA 22182 Tel: (703) 902-9487 or 2000 Fax: n/a E-mail: melj@smcmail.com	A representative of owners of rental property located in Baltimore City built before 1950
Ed Landon Dept. of Housing and CD 100 Community Place Crownsville, MD 21032 Tel: (410) 514-7444 Fax: n/a E-mail: Landon@mdhousing.org	Designee for the Secretary of the Department of Housing and Community Development
Patricia McLaine, RN, MPH 5328 Eliots Oak Road Columbia, MD 21044 Tel: (410) 706-5868 Cell: (443) 520-9678 Fax: (410) 706-0253 E-Mail mclaine@son.umaryland.edu	Representative of Child Health/Youth Advocate Group

Barbara Moore, MSN, RN, CPNP Mount Washington Pediatric Hospital 1708 West Rogers Avenue Baltimore, MD 21209 Tel: (410) 578-5172 Fax: (410) 465-3518 E-mail: bmoore@mwph.org and	Health Care Provider
Linda Roberts, Vice President Edgewood Management Corporation Silver Spring Metro Plaza II 8403 Colesville Road, Suite 400 Silver Spring, MD 20910 Tel: (301) 562-1766 Fax: (301) 562-1670 E-mail: lroberts@emcmgmt.com	Representative of owners of rental property built after 1949
Mary Snyder-Vogel Director of Social Work Kennedy Krieger Institute 716 North Broadway – Room 137 Baltimore, MD 21205 Tel: (443) 923-2812 Fax: (443) 923-9575 E-mail: vogel@kennedykrieger.org	Child Advocate
Karen Stakem Hornig Deputy Commissioner Maryland Insurance Administration Office of the Commissioner 200 Saint Paul Place Suite 2700 Baltimore, MD 21202-2004 Tel: (410) 468-2010 Fax: (410) 468-2020 E-mail: khornig@mdinsurance.state.md.us	The Maryland Insurance Commissioner or the Commissioner's designee
VACANT	A representative of Local Government
VACANT	A representative from an insurer that offers premises liability coverage in the State
VACANT	Designee for the Secretary of the Department of Health and Mental Hygiene
VACANT	A representative of a financial institution that makes loans secured by a rental property
VACANT	A representative of owners of rental property located outside Baltimore City built before 1950
VACANT	A representative of child care providers

VACANT	The Secretary's or the Secretary's Designee for MDE
VACANT	Parent of a Lead Poisoned Child
LEGISLATIVE REPRESENTATIVES	
VACANT	Senate of Maryland
Nathaniel Oaks 317 Lowe Office Building 6 Gov. Bladen Boulevard Annapolis, MD 21401 410-841-3283 301-858-3283 Nathaniel.oaks@house.state.md.us Noaks@iwif.com	House of Delegates
DEPARTMENT OF THE ENVIRONMENT STAFF	
John O'Brien Maryland Department of the Environment Land Management Administration Lead Poisoning Prevention Program 1800 Washington Boulevard Baltimore, MD 21230-1719	Tel: (410) 537-3090 Fax: (410) 537-4112 email: jo'brien@maryland.gov
Tracy Smith, Administrative Officer Maryland Department of the Environment Land Management Administration Lead Poisoning Prevention Division 1800 Washington Boulevard Baltimore, MD 21230-1719	Tel: (410) 537-3305 Fax: (410) 537-3002 email: tracy.smith@maryland.gov

ATTENDANCE RECORD 2013: GOVERNOR'S LEAD POISONING PREVENTION COMMISSION

MEMBER NAME	1/3/13	2/7/13	3/7/13	4/4/13	5/2/13	6/6/13	7/11/13	8/1/13	9/5/13	10/3/13	11/7/13	12/5/13	ATTENDANCE AVERAGE
CONNOR, Patrick	P	P	P	A*	P	P (via conference phone)	P	P	A*	P	P-via conference phone	A*	75%
DWYER, Maura / vacant 6/13/13	A*	P	A*	A*	A*								8%
HALL, Cheryl	P	P	P	P	P	A*	A*	P	P-via conference phone	A*	A*	P	66%
HORNIG, Karen Stakem	P	P	P	P	P	P	P	P	P-via conference phone	P	P	P	100%
JENKINS, Melbourne	A*	P	P	A*	A*	A*	P	P	A*	A*	P	A*	42%
LANDON, Edward	P	P	P	P	P	A*	P	P	P	A*	P	P	83%
MCLAINE, Patricia	P	P	P	P	P	P	P	P	P	P	P	P	100%
MOORE, Barbara	P	A*	P	P	P (via conference phone)	A* vacation	A*	P	P	P	P	P-via conference phone	75%
ROBERTS, Linda	A*	P	A*	A*	P	P	P	P	P	P	A*	A*	58%
SNYDER-VOGEL, Mary	A*	A*	A*	A*	A*	A*	A*	A*	A*	P-via conference phone	A*	A*	8%
VACANT - Secretary of the Environment or Desig													
VACANT - Local Government													
VACANT - Parent of a Lead Poisoned Child													
VACANT - Financial Institution													
VACANT - Child Care Providers													
VACANT - Insurer													
VACANT - Property Owner Pre-1950 Outside													
VACANT - Maryland Senate													

P - Present A - Absent A* - excused

JANUARY 3, 2013

LEAD POISONING PREVENTION COMMISSION MEETING

LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

Thursday, January 3, 2013
9:30 AM - 11:30 AM

AQUA Conference Room
Front Lobby
AGENDA

I. Introductions

II. Approval of October and November minutes

III. Future meeting dates:

The next Lead Commission meeting is scheduled for Thursday, February 7, 2013 at MDE, 9:30 am – 11:30 am.

IV. Presentation – Childhood Blood Lead Surveillance in Maryland, 2011 Annual Report - Dr. Ezatollah Keyvan. Please review the 2011 Annual Report, Childhood Blood Lead Surveillance in Maryland which can be found by clicking (ctrl/click) on this link: http://www.mde.state.md.us/programs/Land/LeadPoisoningPrevention/HealthCareProviders/Pages/Programs/LandPrograms/LeadCoordination/healthcare/index.aspx As of December 19, 2012, no questions had been submitted to Tracy Smith.

V. Update on Proposal for Recommendations to DHMH

VII. Agency Updates

A. Maryland Department of the Environment
B. Department of Health and Mental Hygiene
C. Department of Housing and Community Development
D. Baltimore City Health Department
E. Office of Childcare
F. Maryland Insurance Administration
G. Other Agencies

VII. Public Comment

Members

MDE VISITORS' SIGN-IN LOG

Date: 1/3/13

Page _____ of _____

	Printed Name	Signature	LEAD Commission ~~Person Visiting~~ Meeting	Your Company's Name	Arrival Time / Departure Time	Make/ Model of Car or Tag Number	Escort's Signature
1	John Krupinsky	John Krupinsky		MDE			
2	Paula Montgomery	Paula Montgomery		MDE			
3	John C. O'Brien	John C. O'Brien		"			
4	Ron Winemiller	Ron Winemiller		AOBA			
5	Karen Hornig	Karen Hornig		MIA			
6	Patrick T Connor	P T Connor		CONNOR			
7	Ed Landon	DHCD		DHCD			
8	Shaneeta Denson	Shaneeta Denson	GUEST / NON MEMBER	CCLP			
9	Pat Young	Pat Young		Commissioner			
10	Barbara Moore	Barbara A. Moore	Commission Member	MWPH			

MDE VISITORS' SIGN-IN LOG

Date:

Page _____ of _____

	Printed Name	Signature	~~Person Visiting~~ LEAD COMMISSION MEETING	Your Company's Name	Arrival Time / Departure Time	Make/ Model of Car or Tag Number	Escort's Signature
1	CHERYL HALL	Cheryl Hall		MDE	9:30 /		
2	Horacio Tablada			MDE	/		
3	Ken Strong			Baltimore City HCD	10:00 / 11:38		
4	Donna Webster	via conference phone			/		
5					/		
6					/		
7					/		
8					/		
9					/		
10					/		

GOVERNOR'S LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

APPROVED Minutes (2/7/13)
January 3, 2013

Members in Attendance

Patrick Connor, Cheryl Hall, Karen Stakem Hornig, Ed Landon, Pat McLaine, and Barbara Moore.

Members not in Attendance

Dr. Maura Dwyer, Mel Jenkins, Delegate Nathaniel Oaks, Mary Snyder-Vogel, and Linda Roberts.

Guests in Attendance

Shaketta Denson – CECLP, Ron Wineholt – AOBA, Donna Webster – WCHD (via phone), Ken Strong – HCD Baltimore City, Horacio Tablada – MDE, John O'Brien – MDE staff, Paula Montgomery – MDE staff, John Krupinsky – MDE staff.

Introductions

Pat McLaine began the meeting at 9:32 am. Everyone introduced themselves. Minutes from September's meeting were approved after corrections from Cheryl Hall and Ed Landon.

Future Meeting Dates

The next scheduled meeting is Thursday, February 7, 2013 at MDE in the AERIS conference room. The Commission will meet from 9:30am - 11:30am. Pat McLaine and Tracy Smith will establish dates for the calendar year 2013 and send to the Commissioners by email.

Lead Surveillance Report

Dr. Keyvan will attend the February meeting; Pat McLaine requested Commission members provide questions or concerns about the surveillance report in advance to Tracy Smith. A comment was made about breaking out the 5-9µg/dL BLLs as a group; a break out of first time 5-9µg/dL BLLs was provided in the 2011 report.

Horacio Tablada commented that this report (in a similar format) has been issued annually for the last ten (10) years. Commissioners indicated that the report has been typically discussed every fall; a suggestion was made to include a discussion of this report on the agenda for every September. A comment was made about the lag in data that might be used to develop legislation and that the data was at least 8 months old by the time the report was released. It takes time to complete the annual report; reporting sometimes lags and inconsistencies must be checked. A comment was made that it is more important for these reports to be accurate than to try to complete the reports earlier when probability for errors is high. Comments were made about

non-Commission members having these reports before Commissioners were provided access. MDE will have the 2012 report on-line by the middle of August 2013 with a review planned for the September Lead Commission meeting

An inquiry was made about the status of the Maryland Insurance Administration's report. Karen Stakem Hornig noted that this report has been posted on the web.

Approval of October and November Minutes

Ed Landon made a motion to approve October's minutes, seconded by Cheryl Hall; minutes were approved. Ed Landon made a motion to approve November's minutes, seconded by Karen Stakem Hornig; minutes were approved.

Recommendations for DHMH

Pat McLaine reported on the status of the recommendations for DHMH. Pat McLaine has received comments from 3 people on the December 28th draft and votes from only six out of eleven Commission members. Pat McLaine also noted that no specific guidance for historic 5-9 BLLs was discussed during December's meeting and the Commission does not have recommendations in this area

The recommendations include case management for BLLs of 10µg/dL and higher, not for BLLs of 5-9µg/dL. A comment was made about local health departments successfully billing Medicaid for reimbursement. Funding will be needed for primary prevention, based on need. Many laboratory issues were discussed including: accuracy and reliability of State laboratory oversight (including the quality of measured results and detection limits); needs for accuracy going forward; use of wrong tubes for blood draws; use of filter paper; need to re-test all capillary results (a large percent of BLLs in the 5-9µg/dL range were capillary measures).

John Krupinsky commented that there used to be both health and housing subcommittees. Pat McLaine commented that these groups were combined and have been meeting to evaluate progress during the past 2 years. A concern was raised about funding cuts to local level public health.

Patrick Connor commented that CDC's recommendations were not being followed for environmental investigations, specifically Chapter 16 of the HUD Guidelines. Environmental investigations include modified paint inspections and modified risk assessments (structured historically in Chapter 16). MDE staff noted that Chapter 16 was not being implemented due to costs and other constraints. Patrick Connor commented that if only

XRF testing is performed (and not dust and soil testing and Chapter 16 questionnaire), the work cannot be called an environmental investigation. Environmental staff must follow Chapter 16 if they are doing an environmental investigation for a lead poisoned child. Lead poisoning is not always associated with lead paint, dust or soil and the goal of the investigation is to find sources

for lead exposure of the child. Ed Landon indicated that as of 2012, HUD's Chapter 16 guidelines pertain to environmental investigations for any BLL of 5µg/dL or higher. A comment was made about Chapter 5 in the HUD Guidelines, which governs the conduct of paint inspections. Patrick Connor commented about the need to have a standard report. Paula Montgomery commented about approved protocols and comprehensive environmental investigations for BLLs of 10µg/dL and above that meet the Chapter 16 standard. Multiple concerns were raised about definitions and availability of resources. Ed Landon commented about the need to follow federal guidelines, particularly if any Federal money that is spent. The sources for lead exposure and tools for identifying those sources will be similar, no matter what the BLL.

A comment was made about limited resources for case management by public health nurses or investigational staff. Outside of Baltimore City and the lower Eastern shore, most health departments do not provide a nurse case management visit to the home due to limited funding and staffing. This is not the recommended approach nor did the Commissioners know before the November hearing that home visits for lead case management by nurses are now unusual in our state due to lack of staffing.

Barb Moore asked if MDE would conduct environmental inspections for children with BLLs less than 10µg/dL. Paula Montgomery indicated that if a health care provider contacted the department about concerns for an individual child, MDE would conduct an investigation. Comments were raised about multiple sources of lead exposure. Concerns were raised about implications of not performing environmental investigations for children with BLLs of 5-9µg/dL because we would not want the levels to go higher. But given lack of resources at the local level, and experience that many of the addresses provided by the labs are not accurate, there may not be sufficient staffing or resources at the local level to provide even mail outs of material. In addition, there are other issues, for example difficulty scheduling meetings with families and high no-show rates.

One option could be to set up a system to trigger automatic checks of addresses associated with a child with a venous BLL of 5-9µg/dL to (1) determine if the property was rental and (2) if rental, to determine if the property was properly registered and appeared to be in compliance. Letters would be sent to the property owner advising them of the need to comply with the law. This would be expected to improve compliance with EA 6-8, and to improve primary prevention efforts in rental property. Given available resources, this approach would help MDE to identify non-compliant rental properties and to prioritize primary prevention efforts in housing, the focus of our existing law.

Pat McLaine commented that the current draft did not clearly address medical management issues as requested by DHMH. Commissioners discussed the need for better, evidence-based materials to be available to practitioners to assist them with assessment of risks and education of the family about how to stay safe in their home. These materials are not available now, and

should be seen as a critical part of our primary prevention strategy going forward. Changes will be made to the recommendations to incorporate these ideas.

Patrick Connor commented about properly deploying funding. Multiple questions were asked about why agencies are not submitting weekly or monthly invoices for environmental lead investigations. Regardless of reasons, it is unacceptable for environmental investigation visits to be made and no payment received when Medicaid reimbursement should be available. Pat McLaine stated that the Medicaid billing concern needs to be pursued and resolved.

Comments were made about the need for Medicaid reimbursement for nursing case management. This is one of the recommendations from the Commission. Pat McLaine commented that in some states, case management services are billed by time increments, providing flexibility for public health nurses who make home visits and follow up referrals with phone calls. Cheryl Hall commented that knowing the results of environmental investigation and case management for children with blood lead levels above 10µg/dL is critical for planning and funding. That information is not currently provided in the 2011 Annual Report or in any other report. MDE staff cited concerns about HIPAA privacy associated with such a report but information summarizing the investigation results for the group need not jeopardize individual privacy.

Patrick Connor asked what it would take for MDE to conduct environmental investigation services and send a bill for services to the property owner. Horacio Tablada indicated that a few programs within LMA have this authority. For example, hazardous waste and petroleum programs at MDE have law and code and the legal authority to bill back. Could billing back owners of rental properties where a child became poisoned for environmental lead investigation services, including dust wipe samples, be a recommendation from the Commission? Patrick Connor commented that MDE will never truly get back the real cost of these investigations but that this could provide some funding source for environmental investigation. There are models for this in the insurance industry. Maximizing recovery from Medicaid for environmental investigations should be a priority. Pat McLaine commented that MDE can't bill for Medicaid reimbursement since MDE is not a health care provider however the local health departments could bill. Cheryl Hall expressed concern about duplicate billing. The loss of $28 million dollars in Federal funding for CDC's lead program does not impact resources for environmental investigation or case management; both are considered health services for individuals and CDC's program funds cannot be used to pay for individual level services.

A question was posed about whether local health departments could order a property owner to have an environmental investigation performed or whether this would be the responsibility of MDE. This is in discussion with local health departments.

Pat McLaine commented about the need to explore billing options. Paula T. Montgomery suggested that one option might be hiring a 3rd party to perform environmental investigations.

Pat McLaine asked for a volunteer to help her to finish the recommendations next week. Members were reminded that the next meeting will be on February 7th. There was a motion to adjourn and the meeting ended at 11:46 AM.

FEBRUARY 7, 2013

LEAD POISONING PREVENTION COMMISSION MEETING

MEMBERS

Governor's Lead Commission Meeting Attendance Sheet

2/7/13

PLEASE NOTE: This sign-in sheet becomes part of the public record available for inspection by other members of the public.

Name/Signature	Representing	Telephone/Email
CONNOR, Patrick	Hazard ID Professional	
DWYER, M.D.Maura MD	Department of Health and Mental Hygiene	
HALL, Cheryl	Office of Child Care	443-803-8046
HORNIG, Karen Stakem	Maryland Insurance Administration	
JENKINS, Melbourne	Property Owner Pre 1950	
LANDON, Edward	Dept. Housing and Community Dev.	410-514-7449
McLAINE, Patricia PMcLaine	Child Health/Youth Advocate	
MOORE, Barbara	Health Care Provider	
OAKS, Nathaniel (Delegate)	Maryland House of Delegates	
ROBERTS, Linda Lee	Property Owner Post 1949	Same
SNYDER-VOGEL, Mary	Child Advocate	
VACANT	Secretary of the Environment or Designee	
VACANT	Local Government	
VACANT	Parent of a Lead Poisoned Child	
VACANT	Financial Institution	
VACANT	Child Care Providers	
VACANT	Insurer	
VACANT	Property Owner Pre 1950 Outside Baltimore City	
VACANT	Maryland Senate	

GUESTS

Governor's Lead Commission Meeting Attendance Sheet
2/7/13

PLEASE NOTE: This sign-in sheet becomes part of the public record available for inspection by other members of the public.

Name	Representing	Address/Telephone/Email
John Krupinsky	MDE	410-537-3844 JKRUPINSKY@MDE.STATE.MD.US
Shanetta Denson	CECLP	sdenson@leadsafe.org 443 842 5724
Kaitlin Brennan	CECLP	kbrennan@leadsafe.org
Wes Stewart	"	gstewart@leadsafe.org
Korey Rubeling	AMA	KRUBELING@AMACONSULTING.com
Tracy Smith	MDE	
John O'Brien	↓	
Dr. Keyvan	↓	
Maura Duyer	DHMH	maura.duyer@maryland.gov
Paul T. Montgomery	MDE	
Hasan Jeffries	BCHD	
Dana Schmidt	MMHA	

LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

Thursday, February 7, 2013
9:30 AM - 11:30 AM

AERIS Conference Room

AGENDA

I. Introductions

II. Approval of December and January minutes

III. Future meeting dates:

The next Lead Commission meeting is scheduled for Thursday, March 7, 2013 at MDE in the AERIS Conference Room – Front Lobby, 9:30 am – 11:30 am.

IV. Lead Commission Recommendations for DHMH

V. Discussion of the Childhood Blood Lead Surveillance in Maryland Annual Report for 2011 – Dr. Keyvan

VI. Current Legislation:

HB 303 – Task Force to Study Point-of-Care Testing for Lead Poisoning;
HB 389 Lead Safe Income Tax Credit
HB 573 – Environment – Healthy Homes Initiative

VII. Agency Updates

A. Maryland Department of the Environment
B. Department of Health and Mental Hygiene
C. Department of Housing and Community Development
D. Baltimore City Health Department
E. Office of Childcare
F. Maryland Insurance Administration
G. Other Agencies

VII. Public Comment

NOTE: please review the 2011 Annual Report, Childhood Blood Lead Surveillance in Maryland which can be found by clicking (ctrl/click) on this link: http://www.mde.state.md.us/programs/Land/LeadPoisoningPrevention/HealthCareProviders/Pages/Programs/LandPrograms/LeadCoordination/healthcare/index.aspx and send any questions or concerns to Tracy Smith **by Tuesday, February 5, 2013**.

GOVERNOR'S LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

Approved Minutes
February 7, 2013

Members in Attendance

Patrick Connor, Dr. Maura Dwyer, Cheryl Hall, Mel Jenkins, Ed Landon, Pat McLaine, Barbara Moore, Linda Roberts and Karen Stakem Hornig.

Members not in Attendance

Delegate Nathaniel Oaks, and Mary Snyder-Vogel.

Guests in Attendance

Shaketta Denson – CECLP, Donna Webster – WCHD (via phone), Kaitlin Brennan – CECLP, Wes Stewart – CECLP, Korey Rubeling – AMA, Hosanna Asfaw-Means – BCHD, Dana Schmidt – MMHA, John O'Brien – MDE staff, Paula Montgomery – MDE staff, John Krupinsky – MDE staff, Dr. Ezatollah Keyvan-Larijani – MDE staff (presenter), and Tracy Smith – MDE staff.

Introductions

Pat McLaine began the meeting at 9:31 am. Everyone introduced themselves. Edward Landon made a motion to accept the December 6, 2012 minutes, seconded by Mel Jenkins and approved. Patrick Connor requested one correction of the January 5, 2013 minutes. Edward Landon made a motion to accept the January 5, 2013 minutes as corrected, seconded by Karen Stakem Hornig and approved.

Future Meeting Dates

The next Lead Commission meeting is scheduled for Thursday, March 7, 2013 at MDE in the AERIS conference room. The Commission will meet from 9:30am - 11:30am.

Discussion

Pat McLaine reported that she had provided the Lead Commission's recommendations for DHMH to Dr. Joshua Sharfstein and has requested a meeting with Dr.'s Joshua Sharfstein and Clifford Mitchell to discuss the Lead Commission's concerns.

Dr. Ezatollah Keyvan-Larijani (MDE) made a presentation of the Childhood Blood Lead Surveillance in Maryland Report for 2011. The Childhood Lead Registry (CLR) is mandated by state law. Thirty-six (36) labs or clinics analyze blood samples from Maryland children for lead. Eight (8) laboratories submit blood lead laboratory results via either a secure web-site or electronically (approximately 90.3% of BLLs), 16 report by mail and 12 by fax. All blood lead levels $\geq$ 15µg/dL are faxed to MDE within twenty-four (24) hours by Maryland law. Standardized procedures are used for receiving and entering blood lead level results, conversions are processed either electronically or manually. Faxes are entered manually.

The steps for processing data were identified:
Step 1 – review of standard errors. These include type one (All BLLs >60µg/dL, report missing name, DOB, city/zip, date); type two (adult cases, out of state address); type three (non-numerical entry for BLL). In addition, any results reported as "below LOD" are changed to the numeric value of the level of detection for the lab.
Step 2 – geo-coding and address standardization. The data is run through Centrus to standardize the address, assign county code, census tract, and identify latitude and longitude for geomapping.
Step 3 – The file is prepared for import to Stellar (this requires conversion of the data base files into a file that Stellar can read)
Step 4 – import to Stellar. Stellar data is in a relational data base

The Registry conducts several quality control checks on laboratory data.

1. Blood lead lab reports are tracked and checked on a monthly, semi-annual and annual basis.
2. Contact with LEAD Care II users. MDE receives a monthly list of clinics starting to use the Lead Care II instrument from the manufacturer. MDEinforms the new users that they must report and must register with DHMH.
3. Annual match of laboratory lists.
4. The list of reporting labs is matched annually with the list of labs registered with DHMH.
5. Registry check of any report of EBL made by health care provider to make sure it is in the registry.

The Childhood Lead Registry (CLR) was established in 1988, and began in 1989. Electronic data is not available for 1989, 1990 and 1991. The CLR has two data bases, an Historical Data Base, established on January 1, 1992 containing records of blood lead measurements taken through December 31, 1999; and a Current Data Base, with blood lead measurements from January 1, 2000 through current date. Two (2) million blood lead tests have been reported; the Registry contains blood lead data on one (1) million children. On average, 10,500 blood lead reports are processed monthly.

The current Stellar system has advantages: it supports multiple users; has built in criteria; and is good for case management. It also has limitations: processing is slow; MDE can only change one (1) record at a time; the program is written in Clarion, which has been difficult to work with and not very efficient, and it cannot run analyticals.

The CLR data was to be migrated to the National Electronic Disease Surveillance System (NEDSS) but was this plan was changed by CDC in 2005. CDC then developed new software – the Healthy Housing Lead Poisoning Surveillance System (HLPSS), to be used by state programs to manage and report childhood blood lead levels. This is a stand-alone system (lead only). DHMH computers will be used to hold the data, but MDE would own and operate the data. Migration from Stellar to the new system is to be completed by Spring 2013.

Reports on the data can be generated daily, weekly, monthly, yearly, or on an "ad hoc" basis. Case management for children and adults is tied to this laboratory-based reporting system. The CLR is managed by four (4) full-time MDE employees.

Achievements (trends) / graphs

Over the past few years, there has been a massive shift. Both the percentage of children with blood lead levels of > or = to 10µg/dL and the average lead levels of Maryland children have declined. The number of children that were tested in CY '11 did decrease compared to CY'10. The preliminary number of children that were tested in CY '12 is higher than the number tested in CY '11. Trends are more important than the number of tests in a single year.

Dr. Keyvan responded to a large number of questions from Commissioner Cheryl Hall.

- Page 2, the 110 children (old cases) with blood lead levels ≥ 10 µg/dL were tested at that level in a previous year. The 342 children who are new cases in 2011 may have been previously tested but all previous results were below 10µg/dL.

- Regarding the 452 children who theoretically needed case management in 2011, no information was available about how many actually received case management services. Some families may have moved or have been hard to locate. .

- Regarding achievement of case management outcomes (identification of source, lower the BLL, eliminate the hazards), the Commission was informed that outcomes were achieved but no further information was provided.

- Regarding evaluation of successful and unsuccessful case management, which could better inform intervention and policies, the Commission was informed that MDE is not a research organization.

- Regarding the discouraging testing rate of 23%, and what would be a good goal for testing, the Commission was informed that MDE is the custodian of data and does not do enforcement with health care providers. There is no state law **requiring** lead blood testing. Maryland recommends testing of 1 and 2 year olds; Medicaid requires blood lead testing. Approximately 80% of children in Medicaid are tested. Dr. Keyvan reported that providers would use BLL test for children who fail the screening questionnaire. Use of the screening questionnaire is not reported. If children were determined not to be exposed, they would not be tested.

- Regarding which agency is responsible for addressing the testing rate, Commissioners were told that MDE does not have responsibility for this. Medicaid is responsible for oversight of Medicaid children.

- Regarding the question "Can it be expected that health care providers will comply with state law", Commissioners were told that state law recommends but does not require testing and that we hope providers will test children.

- Regarding whether the persistently low numbers reflect a measure of priority given to lead testing, the CLR does not know.

- Regarding whether responses to the risk questionnaire are in the report, because these are not reported to the CLR, they are not in the report. This may reflect the lower rate of testing seen, but it is not possible to know and there is no mechanism to track this.

- Regarding lack of determination of gender for 522 children, this is less than 0.5 of one percent of results reported. If the gender is not marked on the specimen paperwork, the CLR will not have that information.

- MDE processes approximately 10,000 reports a month. Labs, clinics constantly change. MDE does not have enough resources to check each and every entry of each and every report for accuracy and completeness. Nothing is done by MDE for results of < 10µg/dL that are missing sex or race. For children with BLLs of 10+µg/dL, MDE may request this information.

- 12.3% of specimens had no specimen type (listed as "undetermined"). This is not a criteria for rejection and all results were less than 10µg/dL. Because they were <10µg/dL, these tests would not be repeated and there was no requirement for follow-up. The number of "undetermined" BLL samples is an underestimate because MDE corrects any "undetermined" reports of 10µg/dL or higher.

- Page 7, Table 2, the numbers of children tested increased in Montgomery, Queen Anne, and Washington counties. What accounts for this? CLR does not know. There is an annual variation. High risk areas should encourage more BLL testing. This may be a result of personal interest in lead poisoning prevention in the counties.

- Page 12, Table 6: regarding how many of the children were in case management, the CLR does not report case management information. Case management may be more likely in Baltimore City.

- Regarding school-aged children with higher BLLs, these children are less likely to receive case management if they are older than age six. Child exposure for lead is more common at younger ages, and concerns are greater because of the risk of neuro-behavioral problems. Higher BLL at an older age may be associated with lead-contaminated environment or may be a result of earlier exposures and long term storage

of lead in the bone, serving as a source for continued internal exposure to lead. Blood lead exposure and BLL measures are one measure of risk for educational outcomes.

- Regarding who will guarantee that appropriate agencies and schools have been notified, families and local health departments can share information with the local school system or early childhood intervention program.

- Local health departments have access to histories of blood lead tests for children in their jurisdictions.

- If a child is receiving case management, blood lead levels are checked. CDC has an established case management protocol.

Pat McLaine thanked both Dr. Keyvan and Cheryl Hall, who was the only Commission member to submit questions.

Patrick Connor commented about the completeness of data on page 13 (table 7). He also asked if the law requires demographic data to be reported, why MDE would not reject data missing race designation. He asked if the Commission should consider amendment to the law or regulations. Dr. Keyvan indicated that some individuals think race is confidential and do not declare that to the lab. Linda Roberts asked if the lab could check the box when they were drawing blood; Dr. Keyvan indicated he did not know. Race is reported on BLL reports to the CLR 50% of the time. Dr. Clifford Mitchell indicated that 50% reporting for race is good compared to other programs at DHMH. After a question about whether laboratory reports could be rejected due to missing data, Dr. Keyvan commented that Maryland can't punish labs for missing data. Pat McLaine indicated that the issue of racial disparities in lead poisoning is a concern, so reporting by race is of interest to the Commission. Race is difficult to report and there are changes in way people self identify race. This is a problem with other national surveillance registries. Data that is filled out by a nurse or clerk could also inaccurately record race. A comment was made about changing the law. A better understanding of the importance of health care reporting of race is needed.

Commissioner Cheryl Hall asked if there was any requirement for health care providers to perform BLL tests; tests are required for children enrolled in Medicaid. She asked what would happen if parents did not want to test their children. John Krupinsky commented that schools required that proper screening take place, and recommends that children have a BLL test. Children living in at-risk zip codes or positive by questionnaire should have a test. Commissioner Cheryl Hall indicated that the Office of Child Care Licensing requires that all children enrolled in child care have a BLL test.

Commissioner Karen Stakem Hornig asked if there was a plan to mandate submitting forms electronically. Dr. Keyvan stated that some clinics using the hand held devices did not have the

capacity to do electronic reporting and stated that he did not want to discourage testing. The manufacturer's software for reporting for the hand held instruments was insufficient for MDE to process. Commissioner Karen Stakem Hornig indicated that all insurance claims in Maryland are filed electronically. Pat McLaine suggested that with increased use of electronic medical records, we should take another look at how we might be able to do this. It might be possible to use a scan able form to report data, which would be quick, reliable and accurate. Given the many changes in our health care system, this may be timely.

Dr. Keyvan expressed concerns that testing results may be lost from the system if the issue of electronic reporting is pushed. Or clinics, required to purchase reporting software, may stop testing. Commissioner Pat McLaine commented that the reporting of testing has been a national concern since the early 1990's and manufacturers of the hand held instruments have long known what was needed for reporting to state childhood lead programs.

Commissioner Patrick Connor asked how big the problem was. More than 90% of BLLs are reported electronically – 3 laboratories report 85% of Maryland test results. Only 9,000 to 10,000 tests are linked to Lead Care II units. Commissioners asked (1) how many Lead Care II units are in use in Maryland; and (2) how many results are being reported from each of the units in use and in total. Dr. Keyvan indicated that he could obtain that information. 3.3µg/dL is the detection limit for the hand-held units. Dr. Cliff Mitchell commented that DHMH has met with Health Care II people about electronic reporting requirements and expects that this will be addressed in legislation to be developed this summer.

Commissioner Karen Stakem Hornig asked if there was a correlation between the 10,000 manual entries and the problem of errors and missing data points, discussed earlier. Dr. Keyvan said he did not know.

Commissioner Linda Roberts asked if MDE had a mechanism to alert the labs that they have a high percent of missing data. Dr. Keyvan noted that MDE does let the labs know. Commissioner Linda Roberts asked if there is anything on the reporting form that talks about reporting of all fields. Dr. Keyvan indicated that MDE does not provide such a form but does send each lab a copy of the regulation. Commissioner Pat McLaine suggested that compliance with reporting was DHMH's responsibility, not the responsibility of MDE. Commissioner Linda Roberts asked who was doing QA/QC for missing information on the forms.

Paula Montgomery commented that most reporting measures (on page 13) are good. Fifty percent for race is low but above the norm nationally; all other parameters are 100, 94, 100, and 99%. Dr.Keyvan indicated that MDE did follow-up missing guardian name information for BLLs of 10+µg/dL. Race may not be disclosed due to privacy concerns. Pat McLaine commented that the data is good and has improved over time, but it could still be better. . For example, five (5) years ago, basic address information was missing but is now much better. This is part of a bigger issue.

John Krupinsky indicated that he would like to see more attention to getting up to date information on address and contact information. Not having good information makes case management more difficult. Hosanna Asfau-Means from Baltimore City Health Department indicated that MDE has been able to obtain missing guardian information 9 out of 10 times when needed for case management.

Commissioner Pat McLaine commented about the school table on page 12. She suggested adding another column for the number of children in kindergarten in each jurisdiction so that the percentage being screened prior to kindergarten could be estimated. She also suggested that in future years the CLR also report in a similar manner on BLLs 5-9µg/dL by county. Barbara Moore indicated that the data on kindergarten enrollment is retrievable.

Pat McLaine also suggested that the Commission should think about what might be done about ensuring early childhood education for children with confirmed BLLs of 10+µg/dL. Commissioner Cheryl Hall indicated that the Office of Childcare was looking at this.

Commissoner Patrick Connor suggested that the CLR report for 2012 should have breakout by local jurisdiction for BLLs (5-9 and 10+) and age of housing. The 2011 report provides local jurisdiction breakout for 10+µg/dL only (Table Two, page 7) and age of housing data break out for Baltimore City and all counties combined. Pat McLaine indicated she was glad to see the table on page 19 showing first time identified 5-9 BLLs. This represents a 6 fold increase in the number of children identified with BLLs of 10+µg/dL. Earlier estimates, which included new and previously identified children, suggested a 10-fold increase.

Wes Stewart commented about the confidence level for BLLs of 5µg/dL and above. The limits of detection for commercial labs have gone down, but error represents a greater portion of measurement in the lower BLLs. Pat McLaine suggested reviewing the minutes for our July 2012 meeting where these issues were discussed. Although the Commission has requested that personnel from the DHMH labs meet to discuss concerns, we have not yet been able to schedule such a meeting. Pat McLaine referred Commissioners to the copy of a letter sent by the Advisory Committee on Childhood Lead Poisoning Prevention to Kathleen Sibelius, the US Secretary of Health and Human Services, expressing the Committee's concerns about blood lead laboratory issues and offering recommendations for the Clinical Laboratory Improvement Advisory Committee, specifically to tighten performance criteria for BLL testing in proficiency testing programs to ±2µg/dL or ±10%. There will be need for more discussion of laboratory issues this year. Pat McLaine suggested that the Commission may want to consider a legislative recommendation for next year.

Commissioner Patrick Connor commented that limits of detection are a function of the operator as well as the instrument. This also drives the outcome of data. He is very concerned about BLLs. Environmental labs must report the levels of detection and reporting limits for all lab

work (paint, dust) but the standard for BLL reporting is not the same. Limits of detection are different today than years ago; we have no knowledge about how this has changed.

Current Legislation.
Commissioner Edward Landon reviewed three (3) bills; two are lead related and one is for Healthy Homes.

HB 303 - Task force for point of care testing (Delegates Nathan and Pullien). Pat McLaine indicated that she had asked MDE and DHMH to include the Lead Commission as a member of this task force. A hearing on 2/5 was cancelled and rescheduled for 2/12.

HB 389 - Lead-safe income tax credit (Delegates Hogan and Vidal). This is the same bill as last year (HB 544) and in 2011 (HB 527 – hearing but no action). The bill would create a tax credit for qualified lead hazard reduction projects. Hearing is on 2/26. . Similar bills were also submitted in 2006, 2005, 2004, and 1997. HB 1449 did pass in the House in 2006. Similar bills had unfavorable reports and did not make it past the first hearing. Fiscal note is $200,000; vote will likely be unfavorable without a source of revenue.

HB 573 - Healthy Homes initiative (Delegate Glenn). This bill directs the Secretary of the Environment to establish a Healthy Homes initiative with the purpose to protect children and adults from health and safety hazards including lead. Hearing is on 2/20. Commissioner Cheryl Hall inquired what would be the impact on child care. This is not a DHCD or MDE bill. Paula Montgomery commented about HB 879 (which was last year's bill.) Dr. Cliff Mitchell commented that the bill may be responding to CDC's Healthy Homes initiative, for which Federal dollars are no longer available. DHMH has a Healthy Homes program now. Pat McLaine noted that CDC has been talking about a Healthy Homes approach for years and the Baltimore City Health Department has pioneered Healthy Homes programming in Maryland. The Commission has been discussing need for a Healthy Homes approach at MDE for years.

Wes Stewart indicated that the Coalition supports HB 389 which would provide tax credit for window replacement and would like the Commission to also support this bill.

Issue of the Commission supporting current legislation or supporting general principles as we did last year was discussed. Commissioner Karen Stakem Hornig moved that the Commission prepare a general letter of support for issues this year and send the letter to all committees hearing lead legislation. Commissioner Edward Landon seconded the motion. Six Commissioners voted in favor, one opposed, the motion carried. Pat McLaine requested a volunteer to prepare the letter. Tracy Smith will look for additional information including letter sent last year. The specific letter will be subject to approval of Commission members.

Agency updates:

Maryland Insurance Administration - Karen Stakem Hornig presented the Lead group work report to the House Economic Matters Committee. There were virtually no questions from committee members.

HB 754 was dropped and reintroduced. The Commissioners may want to look at this bill.

MDE – Paula Montgomery indicated that MDE is moving forward with RRP. The contractor population is affected and a letter has been sent to the MHIC. Paula may speak at a future MHIC Commission meeting.

DHMH – Dr. Clifford Mitchell reported that DHMH met with the Lead Program at MDE about the new targeting plan. Several different options were considered included universal testing, a revision of the current strategy, a place-based approach, and a fitted model. Rental properties are assumed to be the main source of exposure. DHMH has been making good progress and would like to present the final plan to the Commission at our March meeting. The plan will then be released for public comment. DHMH's goal is to have a strategy adopted by June 2013.

Baltimore City Health Department - No updates

DHCD - No updates

Child Care - No updates

Coalition – Wes Stewart reported that the Department of Energy, HUD, CDC and EPA had released their Healthy Homes Strategic is on the web-site.

HB 754 reintroduces the Qualified Offer, requires tenant testing and a compensation package. The Coalition will oppose this bill.

Wes reported that two Ad Council lead poisoning prevention bill boards have high visibility in our area: the cereal bowl bill board is located near 95 and Eastern Avenue and the paint can bill board can be seen on 895, before Hanover Street.

Commissioner Ed Landon made a motion to adjourn, seconded by Commissioner Cheryl Hall. All commissioners in favor of adjournment.
The meeting was adjourned at 11:40 a.m.

racy Smith - Governor's Lead Poisoning Prevention Commission Recommendations

rom: "McLaine, Pat" <mclaine@son.umaryland.edu>
o: "joshua.sharfstein@maryland.gov" <joshua.sharfstein@maryland.gov>
ate: 2/1/2013 4:52 PM
ubject: Governor's Lead Poisoning Prevention Commission Recommendations
C: "Cliff Mitchell (DHMH)" <cliff.mitchell@maryland.gov>, Horacio Tablada <...
ttachments: Lead Commission Recommendations - Final.doc

ear Secretary Sharfstein,
he Governor's Lead Commission is pleased to be able to provide you with our recommendations regarding questions elated to the CDC's recent publication "Low Level Lead Exposure Harms Children: A Renewed Call of Primary revention". The Commission conducted a public hearing on Thursday, November 8, 2012 and held additional iscussions at both our December 2012 and January 2013 meetings.

am attaching a copy of our recommendations. I would be pleased to meet with you and Cliff Mitchell to discuss them, you are available.

hank you for giving us the opportunity to think critically about these issues. We look forward to hearing from you.

incerely,
at McLaine, DrPH, MPH, RN
hair
iovernor's Lead Poisoning Prevention Commission

at McLaine, DrPH, MPH, RN
ssistant Professor
niversity of Maryland School of Nursing
epartment of Family and Community Health
55 W. Lombard Street, Room 655 B
altimore, MD 21201
10-706-5868 office
43-520-9678 cell
10-706-0253 FAX
iclaine@son.umaryland.edu

Governor's Lead Poisoning Prevention Commission

Recommendations for the Department of Health and Mental Hygiene

Current Situation

- Outside of Baltimore City and Prince George's County, Maryland Department of the Environment (MDE) has been providing environmental investigation of children with BLLs of 10µg/dL and above.

- Due to decreased funding for local level public health, nurse case management home visits are not routinely provided to children with BLLs of 10µg/dL and above in many counties; most counties provide visits if the BLL is 15µg/dL or above. Baltimore City provides visits by Public Health Investigators to all children with BLLs of 10µg/dL and above.

- Although Maryland has a provision for Medicaid reimbursement of environmental investigation for case management of individual children with elevated blood lead levels, there has been no provision for Medicaid reimbursement for nurse case management home visits, as has been recommended by the Centers for Disease Control and Prevention (CDC) for more than 15 years.

- Medicaid reimbursement of Baltimore City Health Department for completed environmental investigations has been problematic and the underlying basis for the problem does not appear to have been resolved.

- Funding for CDC's Lead Poisoning Prevention Branch, which previously funded prevention activities at MDE and in Baltimore City, has been cut from $30 to $2 million; CDC no longer funds state and local lead poisoning prevention programs. For FY2013, MDE has agreed to support the prevention effort that was previously funded by CDC.

- Local health departments do not appear to have sufficient resources to expand their role in lead poisoning prevention efforts, for example, to follow up on situations where a child may be at high risk for environmental exposure.

- Change of the case definition for public health follow-up to BBL of 5µg/dL would increase the number of incident cases to be followed by over 500%, based on MDE's Childhood Lead Registry Report for 2011.[1]

- Maryland has no public health laboratory infrastructure to confirm testing of BLLs or to test environmental samples.

- Given changes in BLL of interest, current State oversight to ensure accuracy, validity and reliability of private laboratory testing is inadequate.

[1] CLR – 2011 new incident cases 10+ = 342; new cases of 5-9 = 2129 (includes 794 capillary samples)

- Lavender Top tube containers for BLL specimens are still being used by collection centers. These containers have been reported by CDC, DHMH and MDE to produce unreliable results. Although the problem has been known for several decades, the problem persists.

- Maryland's primary prevention approach is based on implementation of a housing standard of care for rental housing (currently pre-1950, changing to pre-1978 effective 2015) and standards for Renovation, Repair and Painting (RRP) in all housing. It is possible to identify rental properties that are not in compliance with Maryland law.

- Some educational information is available online from MDE's website, but tools for health care providers to use with families could be improved. Specifically, providers need tools to identify if a child or family is presently at risk from exposure to chipping, peeling, or flaking paint (a situation that would require immediate assessment of the home).

Recommendations

A. Case Management – local level public health

1. Provide case management for BLLs of 10µg/dL and greater and medical referrals as needed.

2. Ensure nurse case management home visits for children with BLLs of 10µg/dL and above.

3. Secure Medicaid reimbursement for nurse case management home visits for children with BLLs of 10µg/dL and above.

4. Provide support to all local health departments seeking Medicaid reimbursement for environmental investigation and nurse case management home visits as needed to ensure successful billing.

5. Find funding to support urgent primary prevention follow up at the local level for children in high risk environments identified by primary care providers (before a child is poisoned). This would include personnel, training, supplies, and translation services.

6. Target funding to local health departments based on need and an updated DHMH Maryland Lead Poisoning targeting plan.

7. Invest in community education programs so families know what to do to stay safe.

8. Ensure standard State requirements, protocols and reporting formats for (1) environmental investigation based on the standards of Chapter 16 of the HUD Guidelines (2012 or as amended); and (2) nurse case management.

9. Ensure adequate resources as needed to conduct nurse case management and environmental investigation.

B. Medical Management - health care providers

1. We envision the basic education of families with children who have BLLs of 5-9µg/dL taking place during provider visits. Providers will need education and high quality materials to use with families.

2. Establish a simple referral mechanism for providers to easily refer high risk environments identified during patient visits for public health evaluation (primary prevention).

3. Develop low literacy educational materials based on evidence-based practice that could be easily downloaded by providers and used with patients in ambulatory settings. A comprehensive needs assessment, with provider input, is needed. Materials should include: simple tools to identify high risk environments, legal rights of tenants, responsibilities of parents/caretakers, how to reduce lead hazards, and how to stay safe in an older home.

4. Develop an educational outreach program for primary care providers, focusing on new CDC guidelines, the importance of BLL testing, Maryland's population health approach, resources available for management of individual children and families.

5. Ensure coverage of all needed follow-up testing by insurers.

C. State Laboratory Oversight

1. Require DHMH Laboratories Administration personnel to provide additional oversight of private labs to ensure accuracy and reliability of all BLL sample results for Maryland children and adults. This would include ensuring clear requirements for testing materials, developing additional measures to ensure quality of measured results, and evaluating lab protocols, equipment issues and reported limits of detection (LOD).

2. Ensure venous BLL testing is performed with proper sampling supplies.

    a. Educate health professionals and laboratory collection centers about the importance of using proper tubes for blood lead collections

    b. Require laboratories to report "unable to test specimen" when samples are submitted for BLL analysis in wrong tube (e.g. lavender top tubes).

3. Establish standards requiring venous confirmation of BLLs of 5 µg/dL and above obtained using filter paper and capillary samples.

4. Require that laboratories include their Limit of Detection on the BLL report for an individual child.

D. MDE enforcement

1. Ensure that the rental residence of any child with a BLL of 5µg/dL or higher is in compliance with State lead laws.

2. Develop and make available interactive educational program on maintenance of lead-safe housing for home owners and rental property owners.

3. Prioritize enforcement and remediation of any property associated with BLL of 10+µg/dL found to be associated with a previous poisoning.

E. Changes to Lead Law

1. Amend Environment Article, § 6-846: change requirement that MDE, upon receiving results, will send notice directly to property owner; the local health department would not be involved.

2. Explore opportunity to bill rental property owners for lead EI services in homes where a child has been identified with a BLL of 10µg/dL and greater

HB0303 **2013 Regular Session**

Entitled: **Task Force to Study Point-of-Care Testing for Lead Poisoning**

Sponsored by: **Delegate Nathan-Pulliam**

Status: **In the House - Hearing 2/05 at 1:00 p.m.**

Synopsis: Establishing the Task Force to Study Point-of-Care Testing for Lead Poisoning; providing for the composition, chair, and staffing of the Task Force; requiring the Task Force to study and make recommendations regarding the use of and reimbursement for point-of-care testing to screen and identify children with elevated blood-lead levels; requiring the Task Force to report its findings and recommendations to the Governor and specified legislative committees on or before January 1, 2014; etc.

Analysis: **Fiscal and Policy Note**

All Sponsors: Delegates **Nathan-Pulliam**, **Oaks**, **Bromwell**, **Burns**, **Costa**, **Cullison**, **Donoghue**, **Elliott**, **Haynes**, **Jones**, **Kach**, **A. Kelly**, **Kipke**, **McDonough**, **Morhaim**, **Murphy**, **Pena-Melnyk**, **Reznik**, **Rosenberg**, **Tarrant**, and **V. Turner**

Additional Facts: Bill File Type: Regular
Effective Date(s): July 1, 2013
Creates a Task Force or Commission

Committee(s): **Health and Government Operations**

Broad Subject(s): **Public Health**

Narrow Subject(s): **Chemical Tests**
Committees and Commissions -see also- Political Committees
Examinations
Hazardous and Toxic Substances -see also- Asbestos; Radiatn
Health -see also- Mental Health
Health and Mental Hygiene, Department of
Minors -see also- Age of Majority; Youth
Reimbursement Rates
Reports
Sunset

Statutes:

HOUSE BILL 303

J1 3lr0838

By: **Delegates Nathan–Pulliam, Oaks, Bromwell, Burns, Costa, Cullison, Donoghue, Elliott, Haynes, Jones, Kach, A. Kelly, Kipke, McDonough, Morhaim, Murphy, Pena–Melnyk, Reznik, Rosenberg, Tarrant, and V. Turner**

Introduced and read first time: January 24, 2013
Assigned to: Health and Government Operations

A BILL ENTITLED

AN ACT concerning

Task Force to Study Point–of–Care Testing for Lead Poisoning

FOR the purpose of establishing the Task Force to Study Point–of–Care Testing for Lead Poisoning; providing for the composition, chair, and staffing of the Task Force; prohibiting a member of the Task Force from receiving certain compensation, but authorizing the reimbursement of certain expenses; requiring the Task Force to study and make recommendations regarding the use of and reimbursement for point–of–care testing to screen and identify children with elevated blood–lead levels; requiring the Task Force to report its findings and recommendations to the Governor and certain legislative committees on or before a certain date; providing for the termination of this Act; and generally relating to the Task Force to Study Point–of–Care Testing for Lead Poisoning.

SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF MARYLAND, That:

(a) There is a Task Force to Study Point–of–Care Testing for Lead Poisoning.

(b) The Task Force consists of the following members:

(1) two members of the Senate of Maryland, appointed by the President of the Senate;

(2) two members of the House of Delegates, appointed by the Speaker of the House;

EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.
[Brackets] indicate matter deleted from existing law.

(3) one representative of the Laboratories Administration and one representative of the Maryland Medical Assistance Program of the Department of Health and Mental Hygiene, appointed by the Secretary of Health and Mental Hygiene; and

(4) the following members, appointed by the Governor:

(i) one representative of the Maryland Chapter of the American Academy of Pediatrics;

(ii) one representative of the Laboratory Advisory Committee;

(iii) one representative of a Medicaid managed care organization;

(iv) two public health experts; and

(v) one representative of the Coalition to End Childhood Lead Poisoning.

(c) The Governor shall designate the chair of the Task Force.

(d) The Department of Health and Mental Hygiene shall provide staff for the Task Force.

(e) A member of the Task Force:

(1) may not receive compensation as a member of the Task Force; but

(2) is entitled to reimbursement for expenses under the Standard State Travel Regulations, as provided in the State budget.

(f) The Task Force shall:

(1) study and make recommendations regarding the use of and reimbursement for point–of–care testing to screen and identify children with elevated blood–lead levels; and

(2) include in its study:

(i) the benefits of point–of–care testing waived under the federal Clinical Laboratory Improvement Amendments;

(ii) the use of point–of–care testing in other states;

(iii) barriers to point–of–care testing, including regulatory barriers related to licensing of medical laboratories;

(iv) appropriate reimbursement for point–of–care testing and reporting; and

(v) any other items the Task Force considers important.

(g) On or before January 1, 2014, the Task Force shall report its findings and recommendations to the Governor and, in accordance with § 2–1246 of the State Government Article, the Senate Finance Committee and House Health and Government Operations Committee.

SECTION 2. AND BE IT FURTHER ENACTED, That this Act shall take effect July 1, 2013. It shall remain effective for a period of 1 year and, at the end of June 30, 2014, with no further action required by the General Assembly, this Act shall be abrogated and of no further force and effect.

HB0389 **2013 Regular Session**

Entitled: **Lead Safe Income Tax Credit**
Sponsored by: **Delegate Hogan**
Status: **In the House - Hearing 2/26 at 1:00 p.m.**

Synopsis: Allowing an individual or a corporation to claim a credit against the State income tax for costs incurred for an approved lead hazard reduction project for qualifying property; providing for the calculation of the credit; providing for the submission of proposals for lead hazard reduction projects to the Department of Housing and Community Development for approval; limiting to $1,000,000 the total amount of credits that the Department may approve for any fiscal year; applying the Act to tax years beginning after December 31, 2012; etc.

Analysis: Fiscal and Policy Note

All Sponsors: Delegates **Hogan** and **Beidle**

Additional Facts: Introduced in a prior session as: **HB0554** Session: 2012 Regular Session
Bill File Type: Regular
Effective Date(s): July 1, 2013

Committee(s): **Ways and Means**

Broad Subject(s): Taxes - Income

Narrow Subject(s): Child Care
Community Facilities and Services
Crimes and Punishments -see also- Penalties and Sentnc; etc.
Elderly Persons
Environmental Matters -see also- Conserv; Nat Resrce; Pollut
Hazardous and Toxic Substances -see also- Asbestos; Radiatn
Housing and Community Development, Department of
Housing -see also- Apartments; Condos; Mobile & Manuf Homes
Income Tax
Inspections -see also- Motor Vehicle Inspection Laboratories
Penalties and Sentences -see also- Death Penalty
Rules and Regulations
Tax Credits -see also- Circuit Breaker

Statutes: Article - Tax - General

(10-733)

HOUSE BILL 389

Q3 3lr1564
HB 554/12 – W&M

By: **Delegates Hogan and Beidle**
Introduced and read first time: January 25, 2013
Assigned to: Ways and Means

A BILL ENTITLED

AN ACT concerning

Lead Safe Income Tax Credit

FOR the purpose of allowing an individual or a corporation to claim a credit against the State income tax under certain circumstances for certain costs incurred for an approved lead hazard reduction project with respect to certain property; providing for calculation of the credit; disallowing the credit for costs for which the taxpayer has received a grant or loan under certain State programs; providing for the carryover of unused credit; providing for submission of proposals for lead hazard reduction projects to the Department of Housing and Community Development for approval; limiting the total amount of credits that the Department may approve for any fiscal year; prohibiting the Department from approving lead hazard reduction projects for a credit after a certain date; prohibiting certain false statements; providing a certain penalty for certain violations; requiring the Department to adopt certain regulations; defining certain terms; providing for the application of this Act; and generally relating to a credit against the State income tax for certain approved lead hazard reduction projects.

BY adding to
Article – Tax – General
Section 10–733
Annotated Code of Maryland
(2010 Replacement Volume and 2012 Supplement)

SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF MARYLAND, That the Laws of Maryland read as follows:

Article – Tax – General

10–733.

EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.
[Brackets] indicate matter deleted from existing law.

(A) (1) IN THIS SECTION THE FOLLOWING WORDS HAVE THE MEANINGS INDICATED.

(2) "DEPARTMENT" MEANS THE DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT.

(3) "EXTERIOR SURFACES" HAS THE MEANING STATED IN § 6–801 OF THE ENVIRONMENT ARTICLE.

(4) "LEAD HAZARD REDUCTION ACTIVITY" HAS THE MEANING STATED IN § 4–701 OF THE HOUSING AND COMMUNITY DEVELOPMENT ARTICLE.

(5) "LEAD–FREE WINDOW" MEANS A WINDOW THAT IS LEAD–FREE OR THAT WAS INSTALLED AFTER 1978.

(6) "QUALIFYING PROPERTY" MEANS A PROPERTY CONSTRUCTED BEFORE 1978 WITH RESPECT TO WHICH A CREDIT UNDER THIS SECTION HAS NOT PREVIOUSLY BEEN GRANTED AND THAT IS:

(I) AN AFFECTED PROPERTY REGISTERED WITH THE DEPARTMENT OF THE ENVIRONMENT UNDER § 6–811 OF THE ENVIRONMENT ARTICLE THAT:

1. CONTAINS LEAD–BASED PAINT;

2. HAS AT LEAST TWO BEDROOMS; AND

3. NOTWITHSTANDING § 6–817 OF THE ENVIRONMENT ARTICLE, AT THE TIME OF APPLICATION AND AT THE TIME OF COMMENCEMENT OF AN APPROVED LEAD HAZARD REDUCTION PROJECT UNDER THIS SECTION, IS IN FULL COMPLIANCE WITH THE REQUIREMENTS OF TITLE 6, SUBTITLE 8 OF THE ENVIRONMENT ARTICLE;

(II) A CHILD CARE CENTER AS DEFINED IN § 5–570 OF THE FAMILY LAW ARTICLE OR A DAY CARE CENTER FOR THE ELDERLY AS DEFINED IN § 14–201 OF THE HEALTH – GENERAL ARTICLE THAT:

1. CONTAINS LEAD–BASED PAINT; AND

2. AT THE TIME OF APPLICATION AND AT THE TIME OF COMMENCEMENT OF AN APPROVED LEAD HAZARD REDUCTION PROJECT

UNDER THIS SECTION, IS IN FULL COMPLIANCE WITH ALL APPLICABLE LICENSING LAWS AND HAS MET ALL INSPECTION REQUIREMENTS OF THE SOCIAL SERVICES ADMINISTRATION OF THE DEPARTMENT OF HUMAN RESOURCES, LOCAL PUBLIC HEALTH DEPARTMENTS, AND ANY OTHER LEGALLY REQUIRED INSPECTIONS; OR

(III) OWNER–OCCUPIED HOUSING THAT:

1. CONTAINS LEAD–BASED PAINT; AND

2. HAS AT LEAST TWO BEDROOMS.

(B) EXCEPT AS OTHERWISE PROVIDED IN THIS SECTION, AN INDIVIDUAL OR A CORPORATION MAY CLAIM A CREDIT AGAINST THE STATE INCOME TAX IN THE AMOUNT DETERMINED UNDER SUBSECTION (C) OF THIS SECTION FOR AN APPROVED LEAD HAZARD REDUCTION PROJECT FOR QUALIFYING PROPERTY.

(C) SUBJECT TO THE LIMITATIONS UNDER SUBSECTION (D) OF THIS SECTION, THE CREDIT ALLOWED UNDER THIS SECTION IS:

(1) FOR RENTAL PROPERTY, 90% OF THE DIRECT COSTS OF AN APPROVED LEAD HAZARD REDUCTION PROJECT INCURRED WITH RESPECT TO A RESIDENTIAL RENTAL UNIT;

(2) FOR A CHILD CARE CENTER OR A DAY CARE CENTER FOR THE ELDERLY, 70% OF THE DIRECT COSTS OF AN APPROVED LEAD HAZARD REDUCTION PROJECT; AND

(3) FOR OWNER–OCCUPIED PROPERTY, 90% OF THE DIRECT COSTS OF AN APPROVED LEAD HAZARD REDUCTION PROJECT.

(D) (1) FOR ANY TAXABLE YEAR, THE TOTAL CREDIT ALLOWED UNDER THIS SECTION MAY NOT EXCEED:

(I) $5,000 PER UNIT; OR

(II) $50,000 TOTAL FOR ANY TAXPAYER.

(2) THE TOTAL CREDIT ALLOWED UNDER THIS SECTION FOR AN APPROVED LEAD HAZARD REDUCTION PROJECT MAY NOT EXCEED THE MAXIMUM CREDIT SPECIFIED BY THE DEPARTMENT IN ITS APPROVAL OF THE LEAD HAZARD REDUCTION PROJECT.

(E) THE CREDIT UNDER THIS SECTION IS ALLOWED FOR THE TAXABLE YEAR IN WHICH AN APPROVED LEAD HAZARD REDUCTION PROJECT IS COMPLETED AND THE REQUIREMENTS OF SUBSECTION (F) OF THIS SECTION ARE SATISFIED.

(F) (1) THE CREDIT UNDER THIS SECTION IS ALLOWED ONLY IF:

(I) ALL LEAD HAZARD REDUCTION ACTIVITIES UNDER AN APPROVED LEAD HAZARD REDUCTION PROJECT ARE PERFORMED IN ACCORDANCE WITH STANDARDS AND PROCEDURES ESTABLISHED IN REGULATIONS ADOPTED BY THE DEPARTMENT OF THE ENVIRONMENT UNDER TITLE 6, SUBTITLES 8 AND 10 OF THE ENVIRONMENT ARTICLE; AND

(II) AT COMPLETION OF THE APPROVED LEAD HAZARD REDUCTION PROJECT:

1. THE FULL RISK REDUCTION STANDARD UNDER § 6–819(A)(2) OF THE ENVIRONMENT ARTICLE IS SATISFIED;

2. ALL EXTERIOR ENTRYWAYS FOR THE PROPERTY HAVE A WALK–OFF FLOOR MAT;

3. ALL EXTERIOR SURFACES ARE FREE OF CHIPPING, PEELING, OR FLAKING PAINT;

4. ALL WINDOWS, OTHER THAN WINDOWS IN AN UNFINISHED BASEMENT AREA NOT USED FOR COOKING, EATING, LIVING, SANITATION, OR SLEEPING, ARE LEAD–FREE WINDOWS; AND

5. THE PROPERTY PASSES THE TEST FOR LEAD–CONTAMINATED DUST UNDER § 6–816 OF THE ENVIRONMENT ARTICLE AND REGULATIONS ADOPTED BY THE DEPARTMENT OF THE ENVIRONMENT.

(2) AN INDEPENDENT INSPECTOR WHO IS ACCREDITED BY THE DEPARTMENT OF THE ENVIRONMENT AND IS NOT A RELATED PARTY AS DEFINED IN § 6–801 OF THE ENVIRONMENT ARTICLE SHALL VERIFY THAT THE REQUIREMENTS OF PARAGRAPH (1) OF THIS SUBSECTION HAVE BEEN SATISFIED AND A STATE–ACCREDITED LABORATORY SHALL PROCESS THE LEAD–CONTAMINATED DUST TEST UNDER PARAGRAPH (1)(II)5 OF THIS SUBSECTION.

(3) WHEN THE REQUIREMENTS OF THIS SUBSECTION HAVE BEEN SATISFIED, THE INDEPENDENT INSPECTOR HIRED BY THE OWNER SHALL ISSUE A CERTIFICATE INDICATING THAT THE TAXPAYER HAS MET THE REQUIREMENTS FOR THE CREDIT UNDER PARAGRAPH (1) OF THIS SUBSECTION.

(4) THE CERTIFICATE ISSUED UNDER PARAGRAPH (3) OF THIS SUBSECTION SHALL BE PROVIDED TO THE COMPTROLLER WITH THE TAXPAYER'S RETURN FOR THE TAXABLE YEAR FOR WHICH THE CREDIT IS CLAIMED.

(G) THE CREDIT UNDER THIS SECTION MAY NOT BE ALLOWED FOR ANY COSTS FOR WHICH THE TAXPAYER HAS RECEIVED A GRANT OR LOAN UNDER THE LEAD HAZARD REDUCTION GRANT AND LOAN PROGRAMS ESTABLISHED UNDER TITLE 4, SUBTITLE 7 OF THE HOUSING AND COMMUNITY DEVELOPMENT ARTICLE.

(H) IF THE CREDIT ALLOWED UNDER THIS SECTION EXCEEDS THE STATE INCOME TAX FOR THE TAXABLE YEAR, THE TAXPAYER MAY APPLY THE EXCESS AS A CREDIT AGAINST THE STATE INCOME TAX FOR SUCCEEDING TAXABLE YEARS UNTIL THE EARLIER OF:

(1) THE FULL AMOUNT OF THE EXCESS IS USED; OR

(2) THE EXPIRATION OF THE FIFTH TAXABLE YEAR AFTER THE TAXABLE YEAR IN WHICH THE APPROVED LEAD HAZARD REDUCTION PROJECT WAS COMPLETED.

(I) (1) FOR EACH FISCAL YEAR, A TAXPAYER MAY SUBMIT TO THE DEPARTMENT FOR APPROVAL A PROPOSAL FOR A LEAD HAZARD REDUCTION PROJECT QUALIFYING FOR THE TAX CREDIT ALLOWED UNDER THIS SECTION.

(2) A PROPOSAL FOR A LEAD HAZARD REDUCTION PROJECT SHALL BE SUBMITTED IN WRITING BEFORE COMMENCEMENT OF THE PROJECT AND SHALL INCLUDE:

(I) A DESCRIPTION OF THE PROPERTY OR PROPERTIES THAT ARE THE SUBJECT OF THE PROPOSED LEAD HAZARD REDUCTION PROJECT, INCLUDING THE CURRENT AND ANTICIPATED USES OF THE PROPERTY;

(II) A DESCRIPTION OF ANY LEAD HAZARD REDUCTION ACTIVITIES OF WHICH THE TAXPAYER IS AWARE THAT HAVE BEEN PERFORMED ON THE PROPERTY;

(III) A DESCRIPTION OF THE LEAD HAZARD REDUCTION ACTIVITIES THAT WILL BE PERFORMED ON THE PROPERTY UNDER THE PROJECT;

(IV) THE ANTICIPATED DIRECT COSTS OF THE PROJECT;

(V) THE ANTICIPATED DATES FOR COMMENCEMENT AND COMPLETION OF THE PROJECT; AND

(VI) ANY OTHER INFORMATION THAT THE DEPARTMENT REQUIRES BY REGULATION.

(3) IN APPROVING OR DISAPPROVING A LEAD HAZARD REDUCTION PROJECT UNDER THIS SUBTITLE AND IN DETERMINING THE MAXIMUM AMOUNT OF CREDITS FOR EACH APPROVED PROJECT, THE DEPARTMENT SHALL:

(I) CONSIDER ANY RELEVANT FACTORS; AND

(II) APPORTION AMONG THE APPROVED PROJECTS THE LIMIT IMPOSED UNDER SUBSECTION (J) OF THIS SECTION ON THE TOTAL TAX CREDITS THAT MAY BE APPROVED FOR THE FISCAL YEAR.

(4) THE DEPARTMENT SHALL APPROVE OR DISAPPROVE AN APPLICATION WITHIN 60 DAYS AFTER IT RECEIVES A COMPLETED APPLICATION.

(5) EACH APPROVAL:

(I) SHALL BE IN WRITING;

(II) SHALL SPECIFY THE MAXIMUM TOTAL AMOUNT OF TAX CREDITS FOR WHICH THE PROJECT IS ELIGIBLE; AND

(III) SHALL ASSIGN A PREAPPROVED VOUCHER NUMBER FOR THE TAX CREDIT.

(6) EACH DISAPPROVAL SHALL STATE IN DETAIL THE REASONS FOR THE DISAPPROVAL.

(J) (1) THE SUM OF THE TAX CREDITS FOR ALL LEAD HAZARD REDUCTION PROJECTS APPROVED FOR EACH FISCAL YEAR MAY NOT EXCEED $1,000,000.

(2) THE DEPARTMENT MAY NOT APPROVE A LEAD HAZARD REDUCTION PROJECT FOR A TAX CREDIT UNDER THIS SECTION AFTER JUNE 30, 2017.

(K) (1) A PERSON MAY NOT KNOWINGLY MAKE OR CAUSE TO BE MADE ANY FALSE STATEMENT OR REPORT IN ANY APPLICATION OR OTHER DOCUMENT REQUIRED TO BE FURNISHED TO THE DEPARTMENT OR THE COMPTROLLER RELATING TO THE TAX CREDIT ALLOWED UNDER THIS SECTION.

(2) A PERSON WHO VIOLATES PARAGRAPH (1) OF THIS SUBSECTION IS GUILTY OF A MISDEMEANOR AND ON CONVICTION IS SUBJECT TO A FINE NOT EXCEEDING $50,000 OR IMPRISONMENT NOT EXCEEDING 2 YEARS OR BOTH.

(L) THE DEPARTMENT, IN COOPERATION WITH THE COMPTROLLER AND THE DEPARTMENT OF THE ENVIRONMENT, SHALL ADOPT REGULATIONS TO CARRY OUT THIS SECTION.

SECTION 2. AND BE IT FURTHER ENACTED, That this Act shall take effect July 1, 2013, and shall be applicable to all taxable years beginning after December 31, 2012.

HB0573 **2013 Regular Session**

Entitled: **Environment - Healthy Homes Initiative**
Sponsored by: **Delegate Glenn**
Status: **In the House - Hearing 2/20 at 1:00 p.m.**

Synopsis: Requiring the Secretary of the Environment to establish a Healthy Homes Initiative in the Department for specified purposes; authorizing the Secretary to apply for specified federal grants; and requiring the Secretary to administer specified grants for specified purposes.

Analysis: Fiscal and Policy Note

All Sponsors: Delegate **Glenn**

Additional Facts: Introduced in a prior session as: **HB0876** Session: 2009 Regular Session
Bill File Type: Regular
Effective Date(s): October 1, 2013

Committee(s): **Environmental Matters**

Broad Subject(s): **Environment**
Public Health

Narrow Subject(s): **Environment, Department of**
Environmental Matters -see also- Conserv; Nat Resrce; Pollut

Federal Government
Grants
Hazardous and Toxic Substances -see also- Asbestos; Radiatn
Health -see also- Mental Health
Housing -see also- Apartments; Condos; Mobile & Manuf Homes
Minors -see also- Age of Majority; Youth
Safety -see also- Occupational Safety

Statutes: **Article - Environment**

(6-855)

HOUSE BILL 573

M3, J1 3lr1999
HB 876/09 – ENV

By: **Delegate Glenn**
Introduced and read first time: January 31, 2013
Assigned to: Environmental Matters

A BILL ENTITLED

AN ACT concerning

Environment – Healthy Homes Initiative

FOR the purpose of requiring the Secretary of the Environment to establish a Healthy Homes Initiative in the Department for certain purposes; authorizing the Secretary to apply for certain federal grants; requiring the Secretary to administer certain grants for certain purposes; and generally relating to the Healthy Homes Initiative.

BY adding to
Article – Environment
Section 6–855 to be under the new part "Part IX. Healthy Homes Initiative"
Annotated Code of Maryland
(2007 Replacement Volume and 2012 Supplement)

SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF MARYLAND, That the Laws of Maryland read as follows:

Article – Environment

6–853. RESERVED.

6–854. RESERVED.

PART IX. HEALTHY HOMES INITIATIVE.

6–855.

(A) (1) THE SECRETARY SHALL ESTABLISH A HEALTHY HOMES INITIATIVE IN THE DEPARTMENT.

EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.
[Brackets] indicate matter deleted from existing law.

(2) THE PURPOSE OF THE HEALTHY HOMES INITIATIVE IS TO PROTECT CHILDREN AND ADULTS FROM HOUSING–RELATED HEALTH AND SAFETY HAZARDS, INCLUDING LEAD EXPOSURE.

(B) THE SECRETARY MAY APPLY FOR FEDERAL GRANTS THROUGH THE HEALTHY HOMES DEMONSTRATION PROGRAM AND HEALTHY HOMES TECHNICAL STUDIES PROGRAM IN THE UNITED STATES DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.

(C) THE SECRETARY SHALL ADMINISTER ANY FEDERAL GRANT MONEY RECEIVED UNDER SUBSECTION (B) OF THIS SECTION FOR ANY PURPOSE THAT IS CONSISTENT WITH THE HEALTHY HOMES INITIATIVE IN THE UNITED STATES DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.

SECTION 2. AND BE IT FURTHER ENACTED, That this Act shall take effect October 1, 2013.

MARCH 7, 2013

LEAD POISONING PREVENTION COMMISSION MEETING

MEMBERS

Governor's Lead Commission Meeting Attendance Sheet

3/7/13

PLEASE NOTE: This sign-in sheet becomes part of the public record available for inspection by other members of the public.

	Name/Signature	Representing	Telephone/Email
✓	CONNOR, Patrick PC	Hazard ID Professional	
X	DWYER, M.D.Maura	Department of Health and Mental Hygiene	
✓	HALL, Cheryl CH	Office of Child Care	
X	HORNIG, Karen Stakem	Maryland Insurance Administration	
✓	JENKINS, Melbourne	Property Owner Pre 1950	
✓	LANDON, Edward EL	Dept. Housing and Community Dev.	
✓	McLAINE, Patricia PM Laine	Child Health/Youth Advocate	
✓	MOORE, Barbara BA Moore	Health Care Provider	
X	OAKS, Nathaniel (Delegate)	Maryland House of Delegates	
X	ROBERTS, Linda Lee	Property Owner Post 1949	
X	SNYDER-VOGEL, Mary	Child Advocate	
	VACANT	Secretary of the Environment or Designee	
	VACANT	Local Government	
	VACANT	Parent of a Lead Poisoned Child	
	VACANT	Financial Institution	
	VACANT	Child Care Providers	
	VACANT	Insurer	
	VACANT	Property Owner Pre 1950 Outside Baltimore City	
	VACANT	Maryland Senate	

GUESTS

Governor's Lead Commission Meeting Attendance Sheet

3/7/13

PLEASE NOTE: This sign-in sheet becomes part of the public record available for inspection by other members of the public.

Name	Representing	Address/Telephone/Email
✓ John Krupinsky	MDE	ext 3844
✓ Shalietta Denson	CECLP	sdenson@ghhi.org 443 8425724
✓ Sybil Wojcio Wojcio	DHMH	Sybil.Wojcio@Maryland.gov
✓ Hosanna Means	BCHD	hosanna.fosaw-means@baltimorecity.gov
✓ Horacio Tablada	MDE	htablada@mde.state.md.us
✓ Dana Schmidt	MMHA	dschmidt@mmhaonline.org
✓ Paula Montgomery	MDE	pmontgomery@mde.state.md.us
✓ Clifford ~~Hatcher~~	DHMH	
✓ John O'Brien	MDE	
✗ NO Donna Webster		

LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

Thursday, March 7, 2013
9:30 AM - 11:30 AM

AERIS Conference Room

AGENDA

I. Introductions

II. Approval of February 2013 minutes

III. Future meeting dates:

The next Lead Commission meeting is scheduled for Thursday, April 4, 2013 at MDE in the AERIS Conference Room – Front Lobby, 9:30 am – 11:30 am.

IV. Follow-up to Commission Recommendations to DHMH

V. Proposed DHMH Targeting Plan – Dr. Clifford Mitchell, DHMH

VI. Current Legislation

VII. Commission letter concerning 2013 Legislation

VIII. Agency Updates

A. Maryland Department of the Environment
B. Department of Health and Mental Hygiene
C. Department of Housing and Community Development
D. Baltimore City Health Department
E. Office of Childcare
F. Maryland Insurance Administration
G. Other Agencies

IX. Public Comment

GOVERNOR'S LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

Approved Minutes
March 7, 2013

Members in Attendance
Patrick Connor, Cheryl Hall, Mel Jenkins, Ed Landon, Pat McLaine, Barbara Moore and Karen Stakem Hornig.

Members not in Attendance
Dr. Maura Dwyer, Delegate Nathaniel Oaks, Mary Snyder-Vogel, and Linda Roberts.

Guests in Attendance
Shaketta Denson – CECLP, Sybil Wojcio – DHMH, Hosanna Asfaw-Means – BCHD, Dana Schmidt – MMHA, Dr. Clifford Mitchell – DHMH, Horacio Tablada – MDE, John O'Brien – MDE staff, Paula Montgomery – MDE staff, John Krupinsky – MDE staff.

Introductions
Pat McLaine welcomed everyone and called the meeting to order at 9:37 AM. Everyone introduced themselves. Today's agenda will be shifted slightly due to scheduling conflicts.

Future Meeting Dates
The next scheduled meeting is Thursday, April 4, 2013 at MDE in the AERIS conference room. The Commission will meet from 9:30 a.m. - 11:30 a.m.

Meeting with DHMH Secretary
Commission members Pat McLaine, Patrick Connor and Barbara Moore will be meeting with Secretary Sharfstein and Dr. Cliff Mitchell tomorrow, March 8th, to discuss the Commission's recommendations to DHMH based on the hearing in November 2012.

Minutes
Cheryl Hall requested a delay until the April meeting so that the February minutes can be reviewed. Ed Landon had a question on p. 9 regarding HB 754 being dropped.

Current Legislation

Horacio Tablada commented that MDE had testified on two (2) bills:

HB 1067, which involves lowering blood lead levels (of concern). Possible amendments include postponing this for one (1) year from 2014 to 2015. MDE will work with DHMH when blood lead level (standard) is lowered from 10 to 5µg/dL.

HB 924, MDE opposed removal of 50-78 housing from authority. MDE may have a letter of information/concerns for other bills. Two (2) hours of (recent) legislative testimony can be heard (via the General Assembly web-site).

Ed Landon reviewed the status of other lead legislation, including:

- **HB 303** - passed on 3/1 (134-2). A Senate hearing is scheduled on 3/27 @ 1:00 P.M. (Finance Committee.) There was a discussion on how the Commission can be added/included to a study group.

- **HB 389 (was previously HB 554) -** Nothing on the web-site since 2/26/13. Commission to respond. No decision or official position. To monitor.

- **HB 573 (Healthy Homes Initiative) –** Unfavorable and was withdrawn.

- **HB 754 –** Hearing 2/22/13; now has a fiscal note.

- **HB 923 and 924 –** Did not have a fiscal note.

- **HB 754, 1048 (no cost), 1067 (Reduction of Lead Risk Blood Lead Levels bill ($230,000 fiscal note), and 1299 (no cost) -** were all heard during a hearing (Environmental Matters) on 2/22. (No action.)

- **HB 947 – I** Karen Stakem Hornig commented that HB 947 will be heard on March 13th in the Judiciary Committee.

Follow-Up to Commission Recommendations to DHMH

Barb Moore discussed recent problems with an insurance company refusing to pay for chelation. Patrick Connor commented about the large number of certified phlebotomists and draw facilities there are if there are currently 30-40 laboratories. Recommendations for DHMH include tubes to be used for blood lead level draws. One major pediatric laboratory in Baltimore is using lav top microtainers as of November 2012.

Pat McLaine noted that the lack of laboratory oversight and the reliability/accuracy of testing/tubes may also be a national issue. The issue of coverage of children's services needs further investigation.

Commission Letter for 2013 Legislation

Karen Stakem Hornig reviewed the draft of the Commission's letter for current lead legislation. Paula Montgomery suggested removal of "Healthy Homes and" on the 3rd line of paragraph 2 on the 2nd page. Barb Moore suggested adding numbers in for the number of children affected by lowering BLLS of concern (342 of 10+ and 2129 for 4+)

Additional changes were changing support for "Wicomico County" to "the lower Eastern Shore" and keeping the focus general. Barb Moore made a motion to approve sending the letter as changed to the chairs of all committees (house and senate)that are hearing bills. The motion was seconded by Karen Stakem Hornig and passed unanimously. Pat McLaine will work with Tracy Smith to get the letters mailed out.

Proposed DHMH Targeting Plan – Dr. Clifford Mitchell

After the Summer Study in 2011, the need to revise Maryland's targeting plan was identified. The plan had not been reviewed since 2004. Sibil Wojcio, MPH, a CDC County,State, Territorial Epidemiologist Fellow working at DHMH has been working on the plan for 2 years. Dr. Clifford Mitchell provided background for the plan. The goal is to finalize the plan next month (April) so that it will be in effect by the next state fiscal year.

Three ways to look at testing data were considered: using distribution of 2005-2009 BLL test results; using revised version of 2000 model with current data; using a universal testing approach (all children to be tested).

Strategy 1 - targeting based on the expected number of children with BLLs of 5+DHMH applied the actual testing results to the entire population, identified the total number expected. Then identified zipcodes with 90%, 75% and 50% at-risk. The problem with this approach is non-random selection. The list identifies target zip codes based on the number of children at risk within a zipcode; smaller zipcodes could be excluded. Also uses 2000 USPS zipcodes – 173 are captured in the top 90%, 95 in the top 75% and 32 in the top 50%.

Strategy 2 – update of the 2000 targeting model. Assumption that historically recognized risk factors continue to influence Maryland children's risk of lead poisoning. Used 2005-2009 registry data, down to the CT level. Plan was modeled on 10+ and on 5+µg/dL levels. Model includes pre-50 housing, 1950-1978 housing, a poverty matrix (female head of household, percent children below poverty, income); median housing value, average percent of children tested. The earlier model was not documented. The binary outcome was never clearly defined. Limitations to the approach include that it is non-random, actual prevalence may be lower or higher, analysis at the CT level, risk strongly influenced by population size, does not account for all individual sources of exposure, CT changes after 2000 are not reflected. Model projects that 17% of Maryland children might have a BLL of 5µg/dL or higher – 7 times higher risk than NHANES.

Strategy 3 – Universal Testing strategy. This approach is based on assumption that there is no child for whom exposure is impossible and new sources are becoming more prevalent. Available data is limited and information on sources of lower exposure is not captured by data. This would be the most costly approach.

A number of questions and comments were raised. CT data was based on the 2005-2009 American Community Survey data, with change applied equally over 10 years from 2000 to 2010. Questions include: do all models show Baltimore City as "at risk"? Should we treat all of Baltimore City as the same? Where are we employing universal screening now? With current plan, can't get a clear sense of testing because testing requirements differ across the state. Could aggregate at-risk areas and look at screening in the CLR. Data is available on less than 400,000 children. (Modeled data is 350,000.) Geo-coding was not previously done and was not reported but now 80 % of addresses are geo-coded.

Draft and ideas will circulate within DHMH and MDE. The next goal is to draft a report to submit for public comment. Pat McLaine requested that any further questions and comments from Commissioners be sent to Tracy Smith, cc to Horacio Tablada before the next meeting.

Agency Updates

MDE – No updates.

DHCD – No updates.

Baltimore City Health Department – The City is still responding to children with 5-9µg/dL BLLs; not a lot of families have been interested in home visits, which are voluntary. The city has also received a lot of provider calls on management of 5 – 9µg/dL BLLs and on children previously having BLLs above 10µg/dL who now have had two BLLs below 10µg/dL..

MDE also has been receiving multiple calls daily from providers and parents. Education materials (including for nutrition) are being mailed out by MDE instead of the local Health Departments. For children who have had higher and longer exposures to lead, getting lead out of bones (and BLLs below 5µg/dL) takes a much longer time.

MDE received a call within the last two (2) weeks about lead in spices from India. Lead exposure is a huge international problem, with very high average population BLLs. Additional information is available in a CDC report on refugees/immigrants.

Child Care – No updates.

Maryland Insurance Administration – No updates.

Commissioners were reminded that our meeting with DHMH is tomorrow, March 8th.

Coalition – No updates.

Parick Connor moved to adjourn the meeting at 11:12 a.m, seconded by Cheryl Hall, and approved.

State of Maryland
Governor's Lead Poisoning Prevention Commission

March 5, 2013

The Honorable Maggie L. McIntosh, Chairperson
Environmental Matters Committee
House Office Building, room 251
6 Bladen Street
Annapolis, Maryland 21401-1991

RE: House Bills 303, 389, 754, 923, 924, 947, 1048, 1067, 1299

Dear Delegate McIntosh,

The Governor's Lead Poisoning Prevention Commission ("the Lead Commission") has reviewed the nine bills referenced above involving lead poisoning, which are currently pending before the General Assembly. While it is likely that these bills will be amended or revised, the Lead Commission would like to share our perspective on the importance of continuing our State's focus on primary prevention.

For the first time since 1991, federal funding from the Centers for Disease Control and Prevention ("CDC") has been eliminated, effective September 2012. Maryland Department of the Environment (MDE) has provided support to continue healthy homes and lead poisoning prevention efforts in Maryland, Baltimore City, and Wicomico County. Based on clear research findings documenting toxicity at levels well below 5µg/dL for children and 2µg/dL for adults, CDC's Advisory Committee on Childhood Lead Poisoning Prevention ("ACCLPP") has recommended a change from the federal blood lead level of concern of 10 µg/dL to the new national reference level, now 5 µg/dL. The Lead Commission estimates that the number of Maryland children ages 0 to 72 months who will be newly identified with blood lead levels (BLLs) at or above the national reference level will be six times higher than the number newly identified with a BLL of 10µg/dL. At present, the majority of local Maryland health departments are unable to provide case management home visiting services to families of children identified with BLLs of 10µg/dL and above as a result of the elimination of community public health nursing positions.

Therefore, in reviewing pending legislation, the Lead Commission encourages the General Assembly to pass bills that will strengthen our state's primary prevention efforts and

provide sufficient funding for local level case management. To that end, the Lead Commission recommends the following:

- focusing on preventing exposure to lead hazards rather than waiting until after a child has been exposed in order to take action;
- improving requirements for lead safety in pre-1950 owner-occupied properties;
- increasing incentives for owners to make older rental and owner-occupied properties lead free;
- improving public access to lead safety information for rental properties;
- improving oversight of laboratories performing BLL testing;
- Improving funding for primary prevention efforts at the State and local levels, including education of parents and health care providers..

We thank you for your support of Maryland's continued progress in protecting children from lead exposure and ensuring adequate funding for necessary public health services.

Sincerely,

Patricia McLaine, DrPH, MPH, RN
Chairperson,
Governor's Lead Poisoning Prevention Commission

State of Maryland
Governor's Lead Poisoning Prevention Commission

March 5, 2013

The Honorable Maggie L. McIntosh, Chairperson
Environmental Matters Committee
House Office Building, room 251
6 Bladen Street
Annapolis, Maryland 21401-1991

RE: House Bills 303, 389, 754, 923, 924, 947, 1048, 1067, 1299

Dear Delegate McIntosh,

The Governor's Lead Poisoning Prevention Commission ("the Lead Commission") has reviewed the nine bills referenced above involving lead poisoning, which are currently pending before the General Assembly. While it is likely that these bills will be amended or revised, the Lead Commission would like to share our perspective on the importance of continuing our State's focus on primary prevention.

For the first time since 1991, federal funding from the Centers for Disease Control and Prevention ("CDC") has been eliminated, effective September 2012. Maryland Department of the Environment (MDE) has provided support to continue healthy homes and lead poisoning prevention efforts in Maryland, Baltimore City, and Wicomico County. Based on clear research findings documenting toxicity at levels well below 5µg/dL for children and 2µg/dL for adults, CDC's Advisory Committee on Childhood Lead Poisoning Prevention ("ACCLPP") has recommended a change from the federal blood lead level of concern of 10 µg/dL to the new national reference level, now 5 µg/dL. The Lead Commission estimates that the number of Maryland children ages 0 to 72 months who will be newly identified with blood lead levels (BLLs) at or above the national reference level will be six times higher than the number newly identified with a BLL of 10µg/dL. At present, the majority of local Maryland health departments are unable to provide case management home visiting services to families of children identified with BLLs of 10µg/dL and above as a result of the elimination of community public health nursing positions.

Therefore, in reviewing pending legislation, the Lead Commission encourages the General Assembly to pass bills that will strengthen our state's primary prevention efforts and

provide sufficient funding for local level case management. To that end, the Lead Commission recommends the following:

- focusing on preventing exposure to lead hazards rather than waiting until after a child has been exposed in order to take action;
- improving requirements for lead safety in pre-1950 owner-occupied properties;
- increasing incentives for owners to make older rental and owner-occupied properties lead free;
- improving public access to lead safety information for rental properties;
- improving oversight of laboratories performing BLL testing;
- Improving funding for primary prevention efforts at the State and local levels, including education of parents and health care providers..

We thank you for your support of Maryland's continued progress in protecting children from lead exposure and ensuring adequate funding for necessary public health services.

Sincerely,

Patricia McLaine, DrPH, MPH, RN
Chairperson,
Governor's Lead Poisoning Prevention Commission

State of Maryland
Governor's Lead Poisoning Prevention Commission

SUMMARY OF PENDING LEGISLATION
MARCH 2013

HB 303

Task Force to Study Point–of–Care Testing for Lead Poisoning

Delegates Nathan-Pulliam, Oaks, Bromwell, Burns, Costa, Cullison, Donoghue, Haynes, Jones, Kach, A. Kelly, Kipke, McDonough, Morhaim, Murphy, Pena-Melnyk, Reznik, Rosenberg, Tarrant, V. Turner, Hammen, Pendergrass, and Hubbard

Establishing the Task Force to Study Point-of-Care Testing for Lead Poisoning to be staff by DHMH. Requiring the Task Force to study and make recommendations regarding the use of and reimbursement for point-of-care testing to screen and identify children with elevated blood-lead levels on or before January 1, 2014.

Fiscal and Policy Note

House: Third Reading Passed – 3/1

HB 389

Lead Safe Income Tax Credit

Delegates Hogan and P. Beidle

Allowing an individual or a corporation to claim a credit against the State income tax for costs incurred for an approved lead hazard reduction project for qualifying property. Providing for the calculation of the credit and for the submission of proposals for lead hazard reduction projects to the DHCD for approval. Limiting to $1,000,000 the total amount of credits that the Department may approve for any fiscal year. Applicable to tax years beginning after December 31, 2012.

Fiscal and Policy Note

House: Hearing Ways and Means – 2/26

HB 754

Environment – Reduction of Lead Risk in Housing – Qualified Offer

Delegates Beidle, Niemann, and Stein

This bill is an attempt to revive the qualified offer contained in Title 6 of the Environment Article, which was struck down by the Court of Appeal in *Jackson v. Dackman Co.*, 422 Md. 357 (2011). It prohibits a person from bringing an action for a lead-related injury against a compliant owner unless the owner has been given written notice of the elevated blood lead level and has had the opportunity to make a qualified offer. The qualified offer under the proposed bill would be increase from a total of $17,500 (which the Court of Appeals

found to be "drastically inadequate compensation") to a total of $100,000. The bill would allow a landlord to require a specified test for elevated blood lead for tenants within a specified period of time.

Fiscal and Policy Note

House: Hearing Environmental Matters – 2/22

HB 923

Certificate of a Qualified Expert – Lead Paint Poisoning Claims

Delegate Niemann

Requiring the court to dismiss a specified claim filed in a circuit court or a United States District Court against a person for injury caused by the ingestion of lead-based paint or lead-contaminated dust unless the claimant has filed a certificate of a qualified expert for each defendant.

Fiscal and Policy Note

House: Hearing Environmental Matters – 2/22

HB 924

Environment – Reduction of Lead Risk in Housing – Applicability and Registration Requirements

Delegates Stein, Beidle, Glenn, Holmes, McMillan, Norman, and Weir

Changes the application requirements for reducing lead risk in housing to apply to specified properties built between January 1, 1950 and December 31, 1977. Provides civil penalties for registration violations. Provides a registration fee for specified property.

Fiscal and Policy Note

House: Hearing Environmental Matters – 2/22

HB 947

Environment – Lead–Based Paint Damages – Manufacturers of Lead Pigment

Delegates Niemann, Oaks, and Carter

Providing that specified manufacturers of lead pigment may be held liable under any legally recognized theory of liability in an action for damages. In an action for damages, a person is not required to prove that a manufacturer manufactured the lead pigment contained in specified lead-based paint that caused the damage to establish the liability of the manufacturer. Requires damages to be apportioned in a specified manner.

House: Hearing Judiciary – 3/13

HB 1048

Real Property – Sale of Property – Lead–Contaminated Dust Test Required

Requiring a vendor of property on which a dwelling built before December 31, 1977 is located to deliver to purchasers the results of a lead-contaminated dust test at least 7 days before settlement of a contract for the sale of the property.

Fiscal and Policy Note

Delegates Niemann, Beidle, Bobo, Carr, Carter, Frush, Glenn, Hubbard, Lafferty, Oaks, S. Robinson, and Stein

House: Hearing Environmental Matters – 2/22

HB 1067

Environment – Reduction of Lead Risk in Housing – Blood Lead Level

Altering to greater than or equal to 5 ug/dl the elevated blood lead level at which an owner of affected property is required to satisfy the modified risk reduction standard to . Also altering the elevated blood lead level at which a local health department is required to notify specified persons to greater than or equal to 5 ug/dl.

Fiscal and Policy Note

Delegates Rosenberg, Carter, Frush, Hubbard, and Oaks

House: Hearing Environmental Matters – 2/22

HB 1299

Lead Poisoning – Risk Reduction Standard – Frequency of Testing

Requires an owner of an affected property with windows that were installed after 1978 to pass the test for lead–contaminated dust: every five years; before a pregnant woman or a child occupies the property; and on notification that an individual occupying the affect property is pregnant.

Fiscal and Policy Note

Delegates McMillan, Beidle, Niemann, Norman, Stein, and Weir

House: Hearing Environmental Matters – 2/22

November 17, 2010

The Honorable Kathleen Sebelius
Secretary
Department of Health and Human Services
200 Independence Avenue, S.W.
Washington, D.C. 20201

Dear Madam Secretary:

The Centers for Disease Control and Prevention (CDC) Advisory Committee on Childhood Lead Poisoning Prevention (the Committee) has been constituted to advise the Secretary of Health and Human Services and the CDC Director on advancements in knowledge regarding childhood lead poisoning, and to recommend improvements in national childhood lead poisoning prevention efforts. The Clinical Laboratory Improvement Advisory Committee (CLIAC) is charged with providing technical advice and guidance to, among other agency heads, the Secretary of Health and Human Services, and the Administrator of the Centers for Medicare and Medicaid Services (CMS), in regard to the need for, and nature of, revisions to the standards under which clinical laboratories are regulated; the impact on medical and laboratory practice of the proposed revisions; and modification of standards in response to technological advances.

Taking note of the need to improve the quality of blood lead data on which clinical and population health decisions are made and the improvements in laboratory technology since the implementation of current standards in 1992, the Committee respectfully offers the following recommendations:

1. CLIAC should make the recommendation that CMS tighten the criteria for assessing acceptable performance for blood lead (BPb) testing in proficiency testing (PT) programs from the current Clinical Laboratory Improvement Amendments of 1988 (CLIA '88) regulatory standard of ±4 µg/dL or ±10% to ±2 µg/dL or ±10%. Decline in United States (U.S.) population blood lead levels (BLLs) over the last few decades is a significant public health success story. Almost two decades ago, the change in previous criteria (from ±6 µg/dL or ±15% to ±4 µg/dL or ±10%) came with the implementation of CLIA '88 in 1992, a time when CDC recommendations were being made at BLLs as low as 10 µg/dL. Focus has now shifted to levels of lead in blood below 10 µg/dL. The geometric mean BPb level in the U.S. population is now below 2 µg/dL and public health recommendations are now being established as low as 5 µg/dL for some

pregnant women. Current CLIA '88 criteria (±4 µg/dL BPb or ±10%) ensure only that laboratories operate within a total error of 8 µg/dL in the 5-10 µg/dL range. That is, a BPb level of 7 µg/dL might be reported as 3 µg/dL by one laboratory and 11 µg/dL by another, and both would be considered acceptable performance under current CLIA '88 criteria. However, this level of uncertainty in the BPb data translates directly to uncertainty in making clinical and public health decisions. Based on the pressing needs of public health programs for preventing low-level, chronic childhood lead poisoning, and the recommendations of peer-reviewed literature, the Committee established a workgroup of experts, the laboratory workgroup (LWG), to address whether blood lead criteria for acceptable performance in PT should be more stringent than the current CLIA '88 standard and if so, what they should be. The workgroup evaluated data from two major BPb PT providers to determine the effect on lab performance of tightening the CLIA criteria yet further. Using ±2 µg/dL or ±10%, 87-90% of all labs would maintain successful PT performance. At ±2 µg/dL or ±10% criteria, successful PT participation among U.S. labs remains high for those using inductively coupled plasma mass spectrometry (ICP-MS, 100%) and graphite furnace atomic absorption spectrometry (GFAAS, 94-97%), but it is much lower for point-of-care (POC) methods based on anodic stripping voltammetry (ASV) such as the LeadCare I (91%) and LeadCare II (78%), and for the bench-top ASV method (ASV 3010B, 75%).

2. CLIAC should request BPb PT programs immediately to begin providing lab performance grades based on performance criteria of ±2 µg/dL or ±10% in addition to the existing ±4 µg/dL or ±10% CLIA criteria. The Committee recognizes that the time required for making a change in federal regulations could be lengthy. Immediate PT program reporting to laboratories at both current and anticipated criteria should encourage labs to make any adjustments deemed necessary to maintain successful PT performance.

To assist them in formulating their own recommendations, the Committee would be happy to provide to CLIAC the results of the evaluation by the Committee's Laboratory Workgroup of PT data from two major BPb PT providers to determine the effect on lab performance of tightening the CLIA criteria.

Respectfully submitted,

George Rhoads MD, MPH
Interim Dean, University of Medicine and Dentistry of New Jersey School of Public Health and
Chair, Advisory Committee on Childhood Lead Poisoning Prevention

Cc: Elissa Passiment, Ed.M., C.L.S (NCA)
Executive Vice President, American Society for Clinical Laboratory Science and
Chair, Clinical Laboratory Improvement Advisory Committee

Thomas Hearn, Ph.D.
Acting Director, National Center for Emerging and Zoonotic Infectious Diseases (proposed), CDC and
Designated Federal Official, Clinical Laboratory Improvement Advisory Committee

Judith Yost, M.A., M.T. (ASCP)
Director, Division of Laboratory Services, CMS and
Ex Officio representative to CLIAC

Donald Berwick, M.D.
Administrator, CMS

APRIL 4, 2013

LEAD POISONING PREVENTION COMMISSION MEETING

MEMBERS

Governor's Lead Commission Meeting Attendance Sheet

4/4/13

PLEASE NOTE: This sign-in sheet becomes part of the public record available for inspection by other members of the public.

Name/Signature	Representing	Telephone/Email
CONNOR, Patrick	Hazard ID Professional	
DWYER, M.D.Maura	Department of Health and Mental Hygiene	
HALL, Cheryl	Office of Child Care	
HORNIG, Karen Stakem KHS	Maryland Insurance Administration	
JENKINS, Melbourne	Property Owner Pre 1950	
LANDON, Edward	Dept. Housing and Community Dev.	410 - 514-7444
McLAINE, Patricia	Child Health/Youth Advocate	
MOORE, Barbara	Health Care Provider	
OAKS, Nathaniel (Delegate)	Maryland House of Delegates	
ROBERTS, Linda Lee	Property Owner Post 1949	
SNYDER-VOGEL, Mary	Child Advocate	
VACANT	Secretary of the Environment or Designee	
VACANT	Local Government	
VACANT	Parent of a Lead Poisoned Child	
VACANT	Financial Institution	
VACANT	Child Care Providers	
VACANT	Insurer	
VACANT	Property Owner Pre 1950 Outside Baltimore City	
VACANT	Maryland Senate	

GUESTS

Governor's Lead Commission Meeting Attendance Sheet

4/4/13

PLEASE NOTE: This sign-in sheet becomes part of the public record available for inspection by other members of the public.

Name	Representing	Address/Telephone/Email
JOHN KROPILNICKY	MDE	JKROPILNICKY@MDE.STATE.MD.US
ARTHUR D. GRAY	DHCD - RCN	STRONG
Paula T. Montgomery	MDE	pmontgomery@mde.state.md.us.
Sybil Wojcio	DHMH	Sybil.Wojcio@Maryland.gov
Hosanna Asfaw-Means	BCHD	Hosanna.AsfawMeans@baltimorecity.gov
Dana Schmidt	MMHA	dschmidt@mmhaonline.org
Shaketta Denson	CECLP	sdenson@gfhi.org 443 842 5724
Tameren Ariles	MVPH	1708 W Royers Ln 410 578-2645
JOHN O'BRIEN	MDE	jobrien@mde.state.md.us
Donna Webster via phone	CWCHD	
Tracy Smith	MDE	MDE Staff

LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

Thursday, April 4, 2013
9:30 AM - 11:30 AM

AERIS Conference Room

AGENDA

I. Introductions

II. Approval of February and March minutes

III. Future meeting dates:

The next Lead Commission meeting is scheduled for Thursday, May 2, 2013 at MDE in the AERIS Conference Room – Front Lobby, 9:30 am – 11:30 am.

IV. DHMH's Targeting Plan

V. 2013 Legislation Review

VI. Agency Updates

A. Maryland Department of the Environment
B. Department of Health and Mental Hygiene
C. Department of Housing and Community Development
D. Baltimore City Health Department
E. Office of Childcare
F. Maryland Insurance Administration
G. Other Agencies

VII. Public Comment

GOVERNOR'S LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

Approved Minutes
April 4, 2013

Members in Attendance

Cheryl Hall, Ed Landon, Pat McLaine, Barbara Moore and Karen Stakem Hornig.

Members not in Attendance

Patrick Connor, Dr. Maura Dwyer, Mel Jenkins Delegate, Nathaniel Oaks, Mary Snyder-Vogel, and Linda Roberts.

Guests in Attendance

Shaketta Denson – CECLP, Donna Webster – WCHD (via phone), Hosanna Asfaw-Means – BCHD, Dana Schmidt – MMHA, Sybil Wojcio – DHMH, Arthur Gray, Tamera Ariles – MWPH, John O'Brien – MDE staff, Paula Montgomery – MDE staff, John Krupinsky – MDE staff, and Tracy Smith – MDE staff.

Introductions

Pat McLaine began the meeting at 9:38 A.M. with introductions.

Future Meeting Dates

The next Lead Commission meeting is scheduled for Thursday, May 2, 2013 at MDE in the AERIS conference room. The Commission will meet from 9:30am - 11:30am.

Approval of Minutes

There were not enough Lead Commission members present to approve minutes. No changes were recommended for the February minutes. March minutes will be sent out for the May meeting. Questions were raised about the requirements for the Commission to make decisions. There are currently eleven (11 Lead Commissioners; six Commissioners (a majority) must support any action of the Commission.

Discussion – DHMH Targeting Plan

Several comments were submitted regarding DHMH's targeting plan. Sibyl Wojcio reported that there are no major updates for this plan which is in the process of being finished.

Mel Jenkins indicated that he is not convinced that rental properties are the main source of exposure. He asked for clarification on the different approaches (universal testing, revision of current strategy, place-based approach and fitted model) and on DHMH's recommended strategy.

Cheryl Hall asked if CHMH models for universal testing assume that the kids tested are representative of all kids 5 and above (they are). With regards to exposure to sources other than

housing, all models are based on age of housing and poverty considerations. There are no models to identify exposure to other sources. Paula Montgomery indicated that MDE had prepared a report on other sources of exposure, beginning in 2005. Pat McLaine asked if any population groups have been identified as at-risk (they have not). Issues associated with changes in both zip codes and census tracts over time were discussed. Universal testing approach would give us a much more accurate representation of results.

Cheryl Hall asked if other variables were in the targeting plan; Sibyl Wojcio indicated that she had considered some known risk factors but information was not sufficient to include them in the model. Karen Stakem Hornig asked at what level we could get data for Baltimore City – is there a way to use the data we have to make sure that resources are as targeted as possible to identify children at greatest risk.

Cheryl Hall noted that targeting assumes you know certain things about a case. Lack of case management outcomes data is a real problem. Paula Montgomery indicated that MDE has looked at distribution of BLLs of 5µg/d and above for Baltimore County, Prince George's County, Allegheny County and Baltimore City, which had the highest percent of children with 5+µg/dL. John Krupinsky suggested that increased outreach may have resulted in increased testing.

Shaketta Denson asked if we have data showing the percent of homes with hazards identified that have been corrected. Hosanna Asfau-Means noted that follow-up in Baltimore City is more aggressive, with earlier follow-up and identified properties abated. However, Baltimore City targets just the one property associated with an EBL; MDE looks globally at all of an owner's properties, not just properties with an EBL, to ensure compliance.

Pat McLaine asked for 2010 and 2011 case management outcomes for identified cases (including rental vs. owner occupied properties; abatements completed per final assessment with dust wipes). John Krupinsky indicated that MDE had completed a property status report for 2010 and 2011 and just needed to pull the post-1950 data. Pat McLaine asked if MDE staff could provide a report on case management outcomes for the May Commission meeting. Paula Montgomery indicated that MDE could provide information that they have. Pat McLaine and Barb Moore agreed to review the report and get comments back to Paula about what else is needed before the report is presented to the Commission.

Barb Moore noted that other sources of exposure are varied. In addition, immigrants and refugees coming into the country are tested on entry, yielding many more cases within these populations.

Cheryl Hall commented about a report referencing BLL and address, noting that where children reside may not be the source of their exposure.

Pat McLaine stated that universal testing for a period of 3 years would be very attractive, but that we would need a huge social marketing and education campaign to make that successful. John Krupinsky noted there would be a cost, but it would give the state a true picture of what is going on. John Krupinsky and Barb Moore both commented about the need for hand held analyzers because of the lack of access to draw stations. In addition, Barb Moore suggested the campaign could employ designated testing days. Cheryl Hall suggested that filter paper testing methods might also be employed although accuracy at lower BLLs may be an issue. Karen Stakem Hornig suggested that cost was still a concern. She indicated the state would need to do a lot of work upfront about the estimated hard costs of universal testing and the long term cost savings as a result of testing, early identification and early intervention. Identifying the health benefits of up-front testing vs. long term costs. Shaketta Denson noted that we have data on what can be saved upfront. Pat McLaine suggested that there may already be a mandate to cover testing by insurers in Maryland. Cheryl Hall suggested that the WIC program could also be used to increase testing.

Maryland might learn from experience of other states. Testing rates in Rhode Island, for example, are much higher, with more than 85% of kindergarteners tested in Providence.

Legislation review:

The Commission's letters were sent on March 13th to chairs of house and senate committees hearing all lead legislation; copies of letters are in today's meeting packet. Ed Landon led an update of 2013 legislation.

HB 303 - passed both chambers. Minor addendum to HB 303 (Finance/government.) Member from the Lead Commission was not added.

HB 389 – Income tax credit – received 1st reading only.

HB 573 - was unfavorable and withdrawn.

HB 754 - unfavorable vote on March 22nd. Four (4) in favor; nineteen (19) unfavorable.

HB 947 unfavorable March 23rd. Two (2) in favor; eighteen (18) unfavorable.

HB's 923, 924, 1048, and 1067- all unfavorable twenty-three (23) delegates unfavorable

HB 1299 - unfavorable. Five (5) in favor; seventeen (17) unfavorable.

In summary, HB303 passed and a task force will be established. The remaining bills never made it out of -committee. The Commission may want to think about discussing legislation concerns with legislators who have shown interest in lead issues. Ed suggested that with such a large number of bills, the likelihood of passing a bill decreases. Although HB303 did not name the

Lead Commission, Karen Stakem Hornig suggested that a Commissioner may be appointed because the bill calls for two public health experts.

March 8th Meeting with DHMH

Commissioners Barbara Moore, Patrick Connor and Pat McLaine met with DHMH Secretary Doctor Josh Sharfstein and Doctors Laura Herrera and Clifford Mitchell from DHMH. The group presented the recommendations of the Commission. Laboratory issues should not be a problem. DHMH was very interested in evaluation of the case management effort. Laura Hererra asked which counties do not have CPHNs making home visits. Point of care testing issues include level of detection and public health reporting. Patrick Connor is preparing a summary suggesting next steps.

The Commission recommends development of a toolkit for providers for families of children with BLLs 5-9µg/dL. John Krupinsky indicated that CDC has three publications available and a coloring book. Shaketta Denson reported that the Coalition is using tenant's rights information and Protect Your Family from Lead; they do not have a specific pamphlet for use with this BLL. Hosanna Asfau-Means indicated that BCHD is using proprietary materials. Barb Moore reported that Mount Washington had asked staff to bring information to a meeting to investigate extent to which materials were based on evidence-based practice. The CDC and HUD pamphlets do not have a date, so Mount Washington cannot use them. Mount Washington cannot use anything older than 5 years.

Paula Montgomery noted that EPA's Renovate Right (2010) publication is very good. Shaketta Denson noted that EPA re-did Protect Your Family from Lead in the past 6-8 months and this pamphlet now has dates.

Barb Moore stated that Mount Washington is seeing about 30 new cases for chelation per year now, with about 150 visits total per year. KKI has an environmental health clinic and can see children. Children's Hospital (in DC) also sees children, but very few chelations are done, most in-patient. John Krupinsky reported that Children's Hospital was doing some out-patient chelation. Barb Moore cautioned the need to examine this issue on health rather than social basis. Children receive a 19 day course of inpatient chelation. If at home, the child can experience a large uptake of lead (increase in exposure) during chelation. Some children have been discharged and placed into a hotel. In addition, the medication smells and tastes nasty. Ed Landon noted that some of the houses have additional housing code violations and these should be identified and orders written. Sometimes, units are identified with problems and nothing is done about them. Shaketta Denson noted that if the landlord is not cooperative, the program needs to take them to court. Ed Landon asked if any children who require chelation are turned down by their insurers. Would the Shriners Hospital take such children? Barb Moore asked if there is a way to track the number of Maryland children being chelated. Private insurers and self-pay families may be "chelated" at levels below 40µg/dL, which is not recommended. This needs further follow-up.

Pat McLaine asked about follow-up on the Medicaid billing by BCHD. Hosanna Asfau-Means indicated there had been no follow-up. Pat McLaine asked the BCHD to report on status of billing in May.

Agency Updates:

MDE – No update.

DHMH – No representative.

DHCD (Baltimore City) – Starting to hire a social services coordinator and a data collector/outreach. A construction position has been filled by Mr. David Fielder. Eight (8) units have been completed to date with a goal of fourteen (14) in the 2nd quarter. On-going meetings with the Baltimore City Health Department and the Coalition. Baby Stat in co-operation with the Baltimore City Health Department.

Baltimore City Health Department – Ms. Laura Fox is the new Director of Chronic Diseases within the Bureau of Environmental Health. Meeting with Housing and the Coalition for 5-9's.

DHCD (State) – New code adoption and property maintenance code is going through. State livability code was adopted by the state; jurisdictions can adopt or make more stringent. Ed Landon recommends that Baltimore City and other jurisdictions consider adopting one or two additional requirements for their livability code to focus on lead. Ed said that 6 or 7 original proposals were submitted. Locals cannot weaken the accessibility or energy codes. Property maintenance is a subset of the livability code.

Barb Moore asked if chipping, flaking, peeling paint was explicitly mentioned in the livability code. Ed said "no, not now", but suggested that Baltimore City could enhance their livability code to include certain provisions, and this would improve the City's capacity to take action. Ed agreed to suggest options for such enhancements to the state livability codes., Paula Montgomery indicated that the Health Department refers Notices of Defects to MDE; Shaketta Denson noted that housing is not referring Notices of Defects to MDE> Ed Landon suggested that if Housing had additional codes to cite, this might improve. Dana Schmidt indicated that Baltimore County is not enforcing their livability codes. Shaketta Denson noted that most counties in Maryland do not provide housing inspections. Barb Moore asked what a family can do to get recourse if they have a child older than 6 years, with an EBLL who has been chelated and the house has lead hazards. Ed Landon noted that even if the family is relocated, the housing department won't order anything for the house. This remains a problem: if hazards are identified on a property but a child moves, there is no ability to get compliance. Commissioners agreed that this issue needs further follow-up. MDE, Baltimore City, and Mount Washington can help identify holes that

need to be addressed further to ensure that we have sufficient regulatory authority to address these issues.

Maryland Insurance Administration – Nothing to report.

Child Care – Nothing to report.

Ed Landon made a motion to adjourn the meeting, seconded by Barb Moore. The meeting was adjourned at 11:26 A.M.

State of Maryland
Governor's Lead Poisoning Prevention Commission

March 13, 2013

The Honorable Thomas M. Middleton
Miller Senate Office Building
3 East Wing
11 Bladen Street
Annapolis MD 21401-1991

The Honorable Peter Hammen, Chairman
Environmental Matters Committee
House Office Building, Room 241
6 Bladen Street
Annapolis MD 21401-1991

RE: *House Bill 303*

Dear Chairmen Middleton and Hammen,

The Governor's Lead Poisoning Prevention Commission ("the Lead Commission") has reviewed the bill referenced above involving lead poisoning, which is currently pending before the General Assembly. While it is likely that this bill will be amended or revised, the Lead Commission would like to share our perspective on the importance of continuing our State's focus on primary prevention.

For the first time since 1991, federal funding from the Centers for Disease Control and Prevention ("CDC") has been eliminated, effective September 2012. Maryland Department of the Environment (MDE) has provided support to continue healthy homes and lead poisoning prevention efforts in Maryland, Baltimore City, and the Lower Eastern Shore. Based on clear research findings documenting toxicity at levels well below 5μg/dL for children and 2μg/dL for adults, CDC's Advisory Committee on Childhood Lead Poisoning Prevention ("ACCLPP") has recommended a change from the federal blood lead level of concern of 10 μg/dL to the new national reference level, now 5 μg/dL. Based on 2011 data[i], the Lead Commission estimates that the number of Maryland children ages 0 to 72 months who will be newly identified with blood lead levels (BLLs) at or above the national reference level (2,129 in 2011) will be six times higher than the number newly identified with a BLL of 10μg/dL (342 in 2011). At present, the majority of local Maryland health departments are unable to provide case management home visiting services to families of children identified with BLLs of 10μg/dL and above as a result of the elimination of community public health nursing positions.

Therefore, in reviewing pending legislation, the Lead Commission encourages the General Assembly to pass bills that will strengthen our state's primary prevention efforts and provide sufficient funding for local level case management. To that end, the Lead Commission recommends the following:

- focusing on preventing exposure to lead hazards rather than waiting until after a child has been exposed in order to take action;
- improving requirements for lead safety in owner-occupied properties;
- increasing incentives for owners to make older rental and owner-occupied properties lead free;

- improving public access to lead safety information for rental properties;
- improving oversight of laboratories performing BLL testing;
- Improving funding for primary prevention efforts at the State and local levels, including education of parents and health care providers.

We thank you for your support of Maryland's continued progress in protecting children from lead exposure and ensuring adequate funding for necessary public health services.

Sincerely,

Patricia M Laine

Patricia McLaine, DrPH, MPH, RN, Chairman
Governor's Lead Poisoning Prevention Commission

---

[i] Childhood Blood Lead Surveillance in Maryland Annual Report, 2011, Lead Poisoning Prevention Program, Maryland Department of the Environment, accessible http://www.mde.state.md.us/programs/Land/Documents/LeadReports/LeadReportsAnnualChildhoodLeadRegistry/LeadReportCLR2011.pdf

State of Maryland
Governor's Lead Poisoning Prevention Commission

March 13, 2013

The Honorable Maggie L. McIntosh, Chairman
Environmental Matters Committee
House Office Building, Room 251
6 Bladen Street
Annapolis MD 21401-1991

RE: *House Bill 754, 923, 924, 1048, 1067, 1299*

Dear Chairman McIntosh,

The Governor's Lead Poisoning Prevention Commission ("the Lead Commission") has reviewed the bills referenced above involving lead poisoning, which are currently pending before the General Assembly. While it is likely that these bills will be amended or revised, the Lead Commission would like to share our perspective on the importance of continuing our State's focus on primary prevention.

For the first time since 1991, federal funding from the Centers for Disease Control and Prevention ("CDC") has been eliminated, effective September 2012. Maryland Department of the Environment (MDE) has provided support to continue healthy homes and lead poisoning prevention efforts in Maryland, Baltimore City, and the Lower Eastern Shore. Based on clear research findings documenting toxicity at levels well below 5µg/dL for children and 2µg/dL for adults, CDC's Advisory Committee on Childhood Lead Poisoning Prevention ("ACCLPP") has recommended a change from the federal blood lead level of concern of 10 µg/dL to the new national reference level, now 5 µg/dL. Based on 2011 data[i], the Lead Commission estimates that the number of Maryland children ages 0 to 72 months who will be newly identified with blood lead levels (BLLs) at or above the national reference level (2,129 in 2011) will be six times higher than the number newly identified with a BLL of 10µg/dL (342 in 2011). At present, the majority of local Maryland health departments are unable to provide case management home visiting services to families of children identified with BLLs of 10µg/dL and above as a result of the elimination of community public health nursing positions.

Therefore, in reviewing pending legislation, the Lead Commission encourages the General Assembly to pass bills that will strengthen our state's primary prevention efforts and provide sufficient funding for local level case management. To that end, the Lead Commission recommends the following:

- focusing on preventing exposure to lead hazards rather than waiting until after a child has been exposed in order to take action;
- improving requirements for lead safety in owner-occupied properties;
- increasing incentives for owners to make older rental and owner-occupied properties lead free;

- improving public access to lead safety information for rental properties;
- improving oversight of laboratories performing BLL testing;
- Improving funding for primary prevention efforts at the State and local levels, including education of parents and health care providers.

We thank you for your support of Maryland's continued progress in protecting children from lead exposure and ensuring adequate funding for necessary public health services.

Sincerely,

Patricia McLaine, DrPH, MPH, RN, Chairman
Governor's Lead Poisoning Prevention Commission

[i] Childhood Blood Lead Surveillance in Maryland Annual Report, 2011, Lead Poisoning Prevention Program, Maryland Department of the Environment, accessible http://www.mde.state.md.us/programs/Land/Documents/LeadReports/LeadReportsAnnualChildhoodLeadRegistry/LeadReportCLR2011.pdf

State of Maryland
Governor's Lead Poisoning Prevention Commission

March 13, 2013

The Honorable Sheila Ellis Hixon, Chairman
Environmental Matters Committee
House Office Building, Room 131
6 Bladen Street
Annapolis MD 21401-1991

RE: *House Bill 389*

Dear Chairman Hixon,

The Governor's Lead Poisoning Prevention Commission ("the Lead Commission") has reviewed the bill referenced above involving lead poisoning, which is currently pending before the General Assembly. While it is likely that this bill will be amended or revised, the Lead Commission would like to share our perspective on the importance of continuing our State's focus on primary prevention.

For the first time since 1991, federal funding from the Centers for Disease Control and Prevention ("CDC") has been eliminated, effective September 2012. Maryland Department of the Environment (MDE) has provided support to continue healthy homes and lead poisoning prevention efforts in Maryland, Baltimore City, and the Lower Eastern Shore. Based on clear research findings documenting toxicity at levels well below 5μg/dL for children and 2μg/dL for adults, CDC's Advisory Committee on Childhood Lead Poisoning Prevention ("ACCLPP") has recommended a change from the federal blood lead level of concern of 10 μg/dL to the new national reference level, now 5 μg/dL. Based on 2011 data[i], the Lead Commission estimates that the number of Maryland children ages 0 to 72 months who will be newly identified with blood lead levels (BLLs) at or above the national reference level (2,129 in 2011) will be six times higher than the number newly identified with a BLL of 10μg/dL (342 in 2011). At present, the majority of local Maryland health departments are unable to provide case management home visiting services to families of children identified with BLLs of 10μg/dL and above as a result of the elimination of community public health nursing positions.

Therefore, in reviewing pending legislation, the Lead Commission encourages the General Assembly to pass bills that will strengthen our state's primary prevention efforts and provide sufficient funding for local level case management. To that end, the Lead Commission recommends the following:

- focusing on preventing exposure to lead hazards rather than waiting until after a child has been exposed in order to take action;
- improving requirements for lead safety in owner-occupied properties;
- increasing incentives for owners to make older rental and owner-occupied properties lead free;

- improving public access to lead safety information for rental properties;
- improving oversight of laboratories performing BLL testing;
- Improving funding for primary prevention efforts at the State and local levels, including education of parents and health care providers.

We thank you for your support of Maryland's continued progress in protecting children from lead exposure and ensuring adequate funding for necessary public health services.

Sincerely,

Patricia McLaine

Patricia McLaine, DrPH, MPH, RN, Chairman
Governor's Lead Poisoning Prevention Commission

---

[i] Childhood Blood Lead Surveillance in Maryland Annual Report, 2011, Lead Poisoning Prevention Program, Maryland Department of the Environment, accessible http://www.mde.state.md.us/programs/Land/Documents/LeadReports/LeadReportsAnnualChildhoodLeadRegistry/LeadReportCLR2011.pdf

State of Maryland
Governor's Lead Poisoning Prevention Commission

March 13, 2013

The Honorable Maggie L. McIntosh, Chairman
Environmental Matters Committee
House Office Building, Room 251
6 Bladen Street
Annapolis MD 21401-1991

The Honorable Joseph F. Vallario, Jr., Chairman
House Judiciary Committee
House Office Building, Room 101
6 Bladen Street
Annapolis MD 21401-1991

RE: *House Bill 947*

Dear Chairmen McIntosh and Vallario,

The Governor's Lead Poisoning Prevention Commission ("the Lead Commission") has reviewed the bill referenced above involving lead poisoning, which is currently pending before the General Assembly. While it is likely that this bill will be amended or revised, the Lead Commission would like to share our perspective on the importance of continuing our State's focus on primary prevention.

For the first time since 1991, federal funding from the Centers for Disease Control and Prevention ("CDC") has been eliminated, effective September 2012. Maryland Department of the Environment (MDE) has provided support to continue healthy homes and lead poisoning prevention efforts in Maryland, Baltimore City, and the Lower Eastern Shore. Based on clear research findings documenting toxicity at levels well below 5µg/dL for children and 2µg/dL for adults, CDC's Advisory Committee on Childhood Lead Poisoning Prevention ("ACCLPP") has recommended a change from the federal blood lead level of concern of 10 µg/dL to the new national reference level, now 5 µg/dL. Based on 2011 data[i], the Lead Commission estimates that the number of Maryland children ages 0 to 72 months who will be newly identified with blood lead levels (BLLs) at or above the national reference level (2,129 in 2011) will be six times higher than the number newly identified with a BLL of 10µg/dL (342 in 2011). At present, the majority of local Maryland health departments are unable to provide case management home visiting services to families of children identified with BLLs of 10µg/dL and above as a result of the elimination of community public health nursing positions.

Therefore, in reviewing pending legislation, the Lead Commission encourages the General Assembly to pass bills that will strengthen our state's primary prevention efforts and provide sufficient funding for local level case management. To that end, the Lead Commission recommends the following:

- focusing on preventing exposure to lead hazards rather than waiting until after a child has been exposed in order to take action;
- improving requirements for lead safety in owner-occupied properties;
- increasing incentives for owners to make older rental and owner-occupied properties lead free;
- improving public access to lead safety information for rental properties;

- improving oversight of laboratories performing BLL testing;
- Improving funding for primary prevention efforts at the State and local levels, including education of parents and health care providers.

We thank you for your support of Maryland's continued progress in protecting children from lead exposure and ensuring adequate funding for necessary public health services.

Sincerely,

Patricia McLaine

Patricia McLaine, DrPH, MPH, RN, Chairman
Governor's Lead Poisoning Prevention Commission

---

[i] Childhood Blood Lead Surveillance in Maryland Annual Report, 2011, Lead Poisoning Prevention Program, Maryland Department of the Environment, accessible http://www.mde.state.md.us/programs/Land/Documents/LeadReports/LeadReportsAnnualChildhoodLeadRegistry/LeadReportCLR2011.pdf

MAY 2, 2013

LEAD POISONING PREVENTION COMMISSION MEETING

MEMBERS

Governor's Lead Commission Meeting Attendance Sheet

5/2/13

PLEASE NOTE: This sign-in sheet becomes part of the public record available for inspection by other members of the public.

Name/Signature	Representing	Telephone/Email
CONNOR, Patrick	Hazard ID Professional	
DWYER, M.D.Maura	Department of Health and Mental Hygiene	
HALL, Cheryl	Office of Child Care	443-332-0815
HORNIG, Karen Stakem	Maryland Insurance Administration	
JENKINS, Melbourne	Property Owner Pre 1950	
LANDON, Edward	Dept. Housing and Community Dev.	410-514-7444
McLAINE, Patricia	Child Health/Youth Advocate	
MOORE, Barbara via phone	Health Care Provider	
OAKS, Nathaniel (Delegate)	Maryland House of Delegates	
ROBERTS, Linda Lee	Property Owner Post 1949	Same
SNYDER-VOGEL, Mary	Child Advocate	
VACANT	Secretary of the Environment or Designee	
VACANT	Local Government	
VACANT	Parent of a Lead Poisoned Child	
VACANT	Financial Institution	
VACANT	Child Care Providers	
VACANT	Insurer	
VACANT	Property Owner Pre 1950 Outside Baltimore City	
VACANT	Maryland Senate	

GUESTS

Governor's Lead Commission Meeting Attendance Sheet

5/2/13

PLEASE NOTE: This sign-in sheet becomes part of the public record available for inspection by other members of the public.

Name	Representing	Address/Telephone/Email
Shaketta Denson	CECLP	sdenson@ghhi.org 443 842 5724
JOHN KRUPINSKY	MDE	JKRUPINSK@MDE.STATE.MD.US
RON WINEHOLT	AOBA	
JOHN O'BRIEN	MDE	jObrien@mde.State.md.us
Hosinna Arfaw Mesfin	BCHD	Hoshanna.Arfaw@baltimorecity.gov
Dana Schmidt	MMHA	dschmidt@mmha online.org
Clifford Mitchell	DHMH	cliff.mitchell@maryland.gov
Ali Golshiri	PGC HD	agolshiri@co.pg.md.us
Ken Strong	Balto City HCD	Ken.Strong@baltimorecity.gov
Horacio Tablada	MDE	
Tracy Smith	MDE (staff)	

LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

Thursday, May 2, 2013
9:30 AM - 11:30 AM

AERIS Conference Room

AGENDA

I. Introductions

II. Approval of February, March and April minutes

III. Future meeting dates:

The next Lead Commission meeting is scheduled for Thursday, June 6, 2013 at MDE in the AERIS Conference Room – Front Lobby, 9:30 am – 11:30 am.

IV. Enforcement Holes: children age six and older with high BLLs

V. Agency Updates

- A. Maryland Department of the Environment
- B. Department of Health and Mental Hygiene
- C. Department of Housing and Community Development
- D. Baltimore City Health Department
- E. Office of Childcare
- F. Maryland Insurance Administration
- G. Other Agencies

VI. Public Comment

GOVERNOR'S LEAD POISONING PREVENTION COMMISSION
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

Approved Minutes
May 2, 2013

Members in Attendance
Patrick Connor, Cheryl Hall, Karen Stakem Hornig, Ed Landon, Pat McLaine, Barbara Moore (via conference phone) and Linda Roberts.

Members not in Attendance
Dr. Maura Dwyer, Mel Jenkins, Delegate Nathaniel Oaks, and Mary Snyder-Vogel.

Guests in Attendance
Shaketta Denson – CECLP, Hosanna Asfaw-Means – BCHD, Dana Schmidt – MMHA, John O'Brien – MDE staff, Ron Wineholt – AOBA, Clifford Mitchell – DHMH, Ali Golshiri – PGCHD, Ruth Ann Norton (via conference phone), Ken Strong – BCHCD, Sibyl Wojcio - DHMH, Horacio Tablada – MDE, John Krupinsky – MDE staff, and Tracy Smith – MDE staff.

Introductions
Pat McLaine started the meeting @ 9:38 a.m. with introductions.

Future Meeting Dates
The next Lead Commission meeting is scheduled for Thursday, June 6, 2013 at MDE in the AERIS conference room. The Commission will meet from 9:30am - 11:30am. There were no other comments.

Approval of Minutes
At this time, there were not enough Lead Commission members to approve three (3) sets of minutes. A plan was discussed with regards to e-mailing Commission members to vote (and attempt to approve) minutes prior to the next meeting (please see page 5).

Discussion
Today's topic is "Enforcement Holes: children age six and older with high BLL's."

Pat McLaine indicated that this topic has come up before; both the Coalition and Barb Moore have had experience with this issue. Hand-to-mouth behavior in children older than the age of six (6) is usually present. According to the Coalition, 50-60 children over age 6 are tested every year in Maryland and about 1.2% of these children have BLLs of 10+µg/dL. Some of the children previously had higher BLLs and are being re-tested as part of follow-up. However, some are being identified with a BLL of 10+µg/dL for the first time.

There is a gap in the law. Environmental investigations are triggered by a child aged 6 and under. EA 6-8 is triggered by child 6 and under, a pregnant woman, or presence of peeling, chipping paint in a rental unit. BCHD lead regulations (Regulation 5) defines a "child at risk" as less than 6 years of age who is also lead poisoned.

The problem, according to Ruth Ann Norton, is that Baltimore City Health Department (BCHD) won't issue a violation notice unless there is a poisoned child under the age of 6. Hosanna Asfau-Means, BCHD, concurred that BCHD performs case management for children who are **under** age 6 but clarified that BCHD does do some follow-up for children age 6 and older, although this is not a priority. Blood tests are rarely performed for children of age 6 and older.

John Krupinsky noted that if the child lived in a rental property, a Notice of Defect could be filed. Although the program focuses on children less than age six, targeting children at risk and trying to prevent further harm, this does not mean that others are not at risk.

Shaketta Denson asked why the home could not be addressed if lead hazards are identified.

Horacio Tablada indicated that if the property was rental, MDE could respond to this using EA 6-8. He indicated that MDE does not want to duplicate enforcement efforts in Baltimore City, but BCHD should refer cases to MDE. In affected properties, MDE can enforce and State authority is adequate. In addition, the State focuses on compliance of affected properties with registration and risk reduction inspection certificates.

Patrick Connor noted that it sounded like the issue was a matter of practice vs regulatory authority. BCHD can issue a violation based on Regulation 5; this is a broad power. The mere presence of LBP is a violation – not deteriorated LBP. This could also be proactive. Patrick Connor requested that BCHD respond to the Commission regarding what is their practice in terms of using regulatory authority. A similar practice is the reluctance to order remediation for owner-occupied properties. The City practices restraint and chooses not to require action (for owner-occupied. But the authority is clear – we should be taking action here.

Shaketta Denson indicated that she did not understand why BCHD won't issue violation notices. She noted that cases are slipping through the cracks, with no action for months.

Follow-up: Baltimore City is requested to make a presentation to the Commission about their practice of enforcement with Regulation 5 (policies/procedures) in owner-occupied properties and their practice of referrals to MDE for enforcement of EA 6-8.

Cheryl Hall asked how the health department prioritized cases. Hosanna Asfau-Means indicated that children with higher BLLs receive faster action (they are fast track cases). Lower level

BLLs get the same follow up and evaluation but within a longer time period. She noted that BCHD staff had recently found a family using lead contaminated pottery from Mexico but no hazards were found in the home. John Krupinsky noted that recently there had been a lot of testing of other items in cases involving older children, including a mouth guard and a water bottle. Barb Moore noted that in one case, peeling flaking paint was found in the basement.

Barbara Moore expressed concern about a child who fell through the cracks. Action is different in the state as opposed to Baltimore City. In this case, the child's BLL had not come down and was still in the 30s. The child had a high BLL since 18 months of age, had a long history of exposure, and had been lost to follow-up for many years. The child was going into kindergarten or first grade and was identified as needing special education services.

At-risk older children, including those with autism and in special education, are now being checked for lead. What actions can be taken when a child turns six? Mount Washington is also receiving many calls about children with BLLs 5-9μg/dL. Cheryl noted that this highlights the need for more information about case management outcomes for the population of children who have been followed previously. Barb Moore seconded the need to look at trending for case management – what interventions are most effective?

Follow-up: MDE to provide a case management report to future meeting, possibly in June, including information about how interventions have affected outcomes.

Cliff Mitchell reported that he is conducting a comprehensive review of the lead program at MDE and at local health departments. He is looking at budgets for counties and looking at outcomes as part of the targeting plan. He is also thinking about where the state should be for BLLs 5-9μg/dL. He indicated that there had not been any review since 2000 and that the issue of lead case management needed to be re-thought. Public health follow-up is changing with the Affordable Care Act. This may not be the best model going forward. Should the Health Department be involved at all? If there are 3-5 times more kids, case management is not feasible. Locus of follow-up should be with the clinician. There may be a role with audit and Medicaid follow-up (testing within 3 months). Cliff suggested that the state should not be bound by an old paradigm for managing cases. Where should the priorities be? What should the case management role be? The Commission needs to provide guidance.

John Krupinsky agreed. Health Department funding has been cut dramatically. We need to look at funding and availability of staff.

Ali Golshiri noted that in Prince Georges County he is the environmental guy – does the investigation, identifies sources and sends a letter with suggestions for follow-up. The nurse, Wendy Boone, works with him. However, there is no follow-up, even on rental properties. The

County checks with MDE to see if a rental property is registered and sends letters to MDE if it is not. Ali reported that recently they had 4 refugees living in the County with two teenagers with high BLs (12 and 14) – what do we do? One of the children had an imbedded fragment from an explosion. There was no lead in the apartment, built in 1966. There may be lead exposure from mini blinds. What are we doing with "case management" for these children?

Pat McLaine noted that issues related to immigrants had been discussed last month and many high BLLs are related to environmental contamination in their home country. Information is available from CDC. Many refugee BLLs may go down over time if no lead hazards are identified in their environments, but this depends on the extent of their lead body burden.

Cliff Mitchell stated that this is a clinical problem, but perhaps clinicians don't know how to address it. The Health Departments need to ensure there are no environmental hazards. The clinician needs to follow the child and family longitudinally. DHMH could have input. Where is 5 – 9 going in respect to case management? Is it appropriate and necessary? It is not going to happen in most cases.

Barb Moore noted that the Commission had discussed the need for a toolbox for PCPs in many follow-up discussions to the hearing held in November 2012 and in written recommendations made to DHMH.

Ed Landon noted that code officials provide regulatory training to update on codes – to 1600 people every year. Does MDE or DHMH do that type of training to bring health departments up to speed to ensure understanding and consistency? There should be oversight and mentorship from the State down.

Ali Golshiri noted that local health departments are losing a lot of things. The state does not help out with lead dust testing. The issue here is cases that do not fit into the current model. We should do something about these levels "in limbo". Ali referred a doctor from Kaiser to John Krupinsky. He indicated that the entire system of case management needs clarification and a new model. What are we actually doing for these families, he asked?

Hosanna Asfau-Means supported the need to work more closely with providers. We don't need to get rid of case management but we can look at it differently. We need to hold providers to higher levels. PCPs need to address this issue differently.

The discussion was re-focused to follow up of children 6 years of age and older.

Follow-up: BCHD lawyer will come to an upcoming Commission meeting to discuss practices of enforcement with owner occupied properties using Regulation 5 and referrals to MDE for enforcement of EA 6-8.

Patrick Connor asked if it was still the practice of BCHD to refer all deteriorated paint to Housing for code violation. Baltimore City's livability standard prohibits peeling, chipping paint. Housing has strong regulation and enforcement power. Public Housing also has the authority to solve this. Connor reiterated that we have the power to solve this problem. We overlook people with the authority to help solve this. The lead program is focused on children but this problem can be solved by code compliance. We can stop the problem before it happens if we eliminate peeling, chipping paint.

Ken Strong indicated that the number of violations of chipping and flaking paint are tracked on a monthly basis. Ken reviews this information monthly.

Follow-up: Ken Strong will invite Billy Lore and Baltimore City housing code officials and officials from the Housing Authority to meet with the Commission.
Barbara Moore asked that the City include a timeline for action taken when a violation was identified. Ken Strong said that a predominance of housing code violations are landlords being sued who ignore violations. We need to strategize how to address these.

Approval of Minutes
Because a sufficient number of Commissioners were present, Pat McLaine asked that the Commissioners vote on acceptance of prior months minutes. A motion was made by Ed Landon, seconded by Linda Roberts to accept the February minutes as written, all approved. A motion was made by Ed Landon, seconded by Linda Roberts to accept the March minutes as written, all approved. There was initially approval for the April minutes, but approval will wait pending suggested edits by Karen Stakem Hornig not now included.

Agency Updates:

MDE – No update.

DHMH
Cliff Mitchell reported that he is doing a top to bottom review of the program and will submit it to the Secretary in two weeks. The review includes fiscal, case management practice, statutes, impact of point of care testing, recommendations for 5-9µg/dL BLLs, and lead testing strategy.

Cliff Mitchell reported that the draft of the lead targeting strategy is now complete and he is editing it. He plans to circulate the draft inside DHMH and at MDE. He indicated he will send copies to the Commission for input. Three strategies, two are similar to current plan: (1) using housing risk as principal risk and updating with current data; (2) using the distribution of BLLs above 5µg/dL and figuring out how best to identify 90-95% of children with BLLs 5-9µg/dL (assuming testing would be the same for children untested as for children tested); (3) universal testing for a period of time.

Cliff indicated he is interested in the cost impacts. What is the cost of lead case management from a clinical point of view? What is the cost of follow-up testing for "false positives" initially? What is the cost of environmental investigation? This is currently reimbursed by Medicaid and estimates of cost were submitted to DHMH by BCHD. The budget allocation for next year will help DHMH determine guidance they offer moving forward.

Point of care lead testing (HB 303) work group – still considering who will be in the workgroup.

DHCD
Ed Landon reported on the Energy Codes conference. The property Maintenance Code updates for 2015 are in. Nineteen (19) proposed changes, including lead-safe work practices, were all defeated. Still no change to include lead-safe worker protection practices in the property maintenance code. The RRP is not listed in the ICC codes and is not even in the existing building code, even as a reference. Ed will follow up with this.

Baltimore City Health Department
Hosanna Asfau-Means reported that Baltimore City is hiring a 3rd party contractor to do all billing for the City Health Department. This may be in-place for FY 2014. No other action has been taken to bill for completed lead environmental investigations.

Child Care Administration - Nothing to report.

Maryland Insurance Administration - Nothing to report.

Baltimore City Housing and Community Development
Ken Strong reported that he is blocking out an entire day with BCHD to see how to make the best use of resources from all agencies. He is trying to think more creatively and assertively (positive development.) The program met HUD production goals (eight (8) units) for the previous quarter; they will complete fourteen (14) during this quarter. The program has reached out to St. Ambrose Housing – many of their properties were treated earlier on and may need additional work now; may get economies of scale. With regards to Green Affordable Homes, program will integrate housing and remediation plus lead plus energy work plus healthy homes into one program, using one (1) application. Program would assess and triage needs for a property, one contractor would perform all the work. Ken reported that the program has also done outreach to Baltimore City's maternal child health program serving pregnant women.

The Coalition to End Childhood Lead Poisoning
A September 13th tour with legislators has been planned for Lead and Healthy Homes.

Mt. Washington Pediatric Hospital
Barbara Moore noted that Mt. Washington was waiting on an appeal for denial of a claim. Venous testing has increased; BLLs are lower.

Other Business
Cliff Mitchell reported that he is putting together the group for HB303 Point of Care Lead Testing and requested suggestions for whom to include in the group. Barbara Moore noted that Mount Washington could do some comparison tested if that was needed.

Patrick Connor noted that the inclusion of properties built 1950-1978 has started to make a change. The rental housing community is becoming more active in identifying potential compliance needs. MDE is doing an excellent job and providing excellent communication. The Department has been very good about getting back to the regulated community. The 2015 implementation is causing many owners to re-evaluate their portfolios. What they think they have, they don't. Some owners think they are lead free, but are not. Patrick wanted to thank the department for an efficient, effective effort.

Ed Landon made a motion to adjourn, seconded by Linda Roberts. The meeting was adjourned @ 11:10 A.M.

JUNE 13, 2013

LEAD POISONING PREVENTION COMMISSION MEETING

MEMBERS

Governor's Lead Commission Meeting Attendance Sheet

June 13, 2013

PLEASE NOTE: This sign-in sheet becomes part of the public record available for inspection by other members of the public.

	Name/Signature	Representing	Telephone/Email
✓	CONNOR, Patrick ✓ phone	Hazard ID Professional	
✓	DWYER, M.D.Maura - Cliff Mitchell	Department of Health and Mental Hygiene	
X	HALL, Cheryl - excused	Office of Child Care	
✓	HORNIG, Karen Stakem	Maryland Insurance Administration	
X	JENKINS, Melbourne - excused	Property Owner Pre 1950	
X	LANDON, Edward - excused	Dept. Housing and Community Dev.	
✓	McLAINE, Patricia PM June	Child Health/Youth Advocate	
X	MOORE, Barbara - vacation	Health Care Provider	
✓	OAKS, Nathaniel (Delegate) N.O.**	Maryland House of Delegates	
✓	ROBERTS, Linda Lee - ✓ phone	Property Owner Post 1949	
X	SNYDER-VOGEL, Mary excused	Child Advocate	
	VACANT	Secretary of the Environment or Designee	
	VACANT	Local Government	
	VACANT	Parent of a Lead Poisoned Child	
	VACANT	Financial Institution	
	VACANT	Child Care Providers	
	VACANT	Insurer	
	VACANT	Property Owner Pre 1950 Outside Baltimore City	
	VACANT	Maryland Senate	

GUESTS

Governor's Lead Commission Meeting Attendance Sheet

June 13, 2013

PLEASE NOTE: This sign-in sheet becomes part of the public record available for inspection by other members of the public.

Name	Representing	Address/Telephone/Email
✓ Michael Shaw	CECLP	2714 Hudson Street, Md. mshaw@ghhi.org
✓ Shaketta Denson	CECLP	" sdenson@ghhi.org
✓ Michael McKnight	CECLP	mmcknight@ghhi.org
Bart Kenner	MilwkH	
✓ John Krupinsky	MDE	-
✓ Hilda C. Nzuwu		
✓ Carolyn Cook	MMHA	Carolyn.cbcConsulting@gmail.com
✓ Horacio Tablada	MDE	
✓ Hosanna Asfaw-Means	BCITD	Hosanna.Asfaw-Means.baltimorecity.gov
✓ Tonii Gnavis	BMS	3501 Sinclair Lane, Baltimore MD toniicnavis@aol.com
✓ Mary Jean Brown (phone)	CDC - PP	Presentation
✓ Debbie Farlow (phone)	Worcester Co.	
✓ Phyllis Burton (phone)	Worcester Co.	
✓ Hye Williams	Rep Cummings	
✓ Clifford Mitchell	DHMH	
✓ Dana Schmidt	MMHA	
~~NATHANIEL OAKS~~	commission member	
✓ Heather Barthel	MDE - Legislative + Governmental Affairs	
✓ Paula Montgomery	MDE -	
✓ Tracy Smith.	MDE	
✓ John O'Brien	MAS	

GUESTS

Governor's Lead Commission Meeting Attendance Sheet

June 13, 2013

PLEASE NOTE: This sign-in sheet becomes part of the public record available for inspection by other members of the public.

Name	Representing	Address/Telephone/Email
✓ Rebecca Morley	NCHH	presenting
✓ Ron Winehold	AOBA	

LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

Thursday, June 13, 2013
9:30 AM - 11:30 AM
AERIS & AQUA Conference Rooms
AGENDA

I. Welcome and Introductions

II. National Estimates of the Problem from MMWR (Mary Jean Brown, CDC – by phone with PP presentation)

III. New Pediatrics Article: Lead and Kindergarten Reading Readiness (Pat McLaine)

IV. National Overview: Impact of Federal Funding Cuts on State and Local CLPPPs, Next Steps in the Federal Process
- National Center for Healthy Housing - Rebecca Morley
- Green & Healthy Homes Initiative - Michael McKnight, Senior Program Officer

V. State Overview: MDE – Impacts Observed on Lost Public Health Infrastructure State Enforcement (especially Public Health Nurse's)
- Maryland Department of the Environment – Horacio Tablada
- Department of Health and Mental Hygiene – Dr. Clifford Mitchell

VI. DHMH – Other Federal and State Support for Lead Case Management and Lead Poisoning Prevention Programs (Clifford Mitchell - DHMH)

VII. Housing Choice Vouchers/Success of Baltimore Program - Coalition to End Childhood Lead Poisoning

VIII. Discussion – Next Steps, What Can the Commission Do To Help?

Other Commission Items:
Approval of February, March, April and May Minutes

Future Meeting Dates: The Next Lead Commission Meeting is Scheduled for Thursday, July 11, 2013 at MDE in the AERIS Conference Room – Front Lobby, 9:30 am – 11:30 am. CORRECTION: PLEASE NOTE THE YEARLY CALENDAR OF MEETING DATES SAYS JULY 13, 2013 – THIS IS INCORRECT

Agency Updates
- A. Maryland Department of the Environment
- B. Department of Health and Mental Hygiene
- C. Department of Housing and Community Development
- D. Baltimore City Health Department
- E. Office of Childcare
- F. Maryland Insurance Administration
- G. Other Agencies

Public Comment

GOVERNOR'S LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

Approved Minutes
June 13, 2013

Members in Attendance

Patrick Connor (via conf. phone), Karen Stakem Hornig, Pat McLaine, Clifford Mitchell, Nathaniel Oaks, and Linda Roberts (via conf. phone).

Members not in Attendance

Cheryl Hall, Melbourne Jenkins, Ed Landon, Barbara Moore, and Mary Snyder-Vogel.

Guests in Attendance

Mary Jean Brown – CDC (presenter/via conference phone), Rebecca Morley – NCHH, Michael Shaw – CECLP, Shaketta Denson – CECLP, Michael McKnight – CECLP, Bart Kennedy – Senator Mikulsi's office, H. C. Nzuwah, Hosanna Asfaw-Means – BCHD, Dana Schmidt – MMHA, Carolyn Cook – MMHA, Toni Chavis – BMS, Ron Wineholt – AOBA, Clifford Mitchell – DHMH, Debbie Farlow – Worcester Co. HD (via conf phone), Phyllis Burton – Worcester Co. HD (via conf phone), Hope Williams – Representative Cummings office, Horacio Tablada – MDE, Heather Barthel – MDE, Paula Montgomery – MDE, John Krupinsky – MDE staff, John O'Brien – MDE staff, and Tracy Smith – MDE staff.

Introductions

Pat McLaine started the meeting @ 9:32 A.M. with introductions. Pat McLaine noted that the purpose for this meeting was to find out what has happened since Federal cuts were made to the Federal Lead poisoning Prevention Program last year and to discuss what the Commission can do about it. MDE funded the Maryland Program for this year.

Future Meeting Dates

The next Lead Commission meeting is scheduled for Thursday, July 11, 2013 at MDE in the AERIS conference room. The Commission will meet from 9:30am - 11:30am.

Approval of Minutes

Minutes were not voted on at this meeting.

Discussion –

Mary Jean Brown from CDC joined the discussion by telephone with a power point presentation about the Federal strategy for action on healthy housing. CDC has discontinued use of the term "level of concern" which had been in effect since 1991. CDC has accepted the term "reference value": the 97.5 percentile of the population blood lead (5μg/dL in 2012). The reference value will be recalculated in 2016 after the next four (4) years of NHANES data are in. There is no threshold level and no safe blood lead level. CDC has always been interested in decreasing BLLs and primary prevention is the only way to do this. We need to intensify measures to

decrease exposure and risk for children. BLLs have gotten lower with time. Case management, lead hazard control, cleaner air and water and less lead in consumer products are having an impact. The group at highest risk remains at very high risk: being Black, poor, on Medicaid and living in older housing are all predictors of increased BLL. The disparities for risk of high BLLs are persistent and stubborn.

Five (5) µg/dL is not the new ten (10); our goal should be for all children to be in lead-safe environments from birth. CDC's budget in 2010 was between $28 – 30 million; the budget for 2012 was $2 million. CDC is no longer funding at either the state or local level (thirty-five (35) state and local entities were funded in 2010.) The focus now is a passive surveillance data collection system. CDC can't enforce data reporting now because there are no contractual arrangements. There are no resources for inspection, home visits, court follow-up, etc. CDC does continue to receive data from some states, which is useful for the targeting of resources.

CDC currently has a staff of seven (7), which is down from thirty-eight (38) people in 2010. CDC continues to support an Advisory Committee since the committee's inception in 1973. There is always something new (immigrants, new (sources of) exposures.) HUD has taken over most of the training functions (i.e. risk assessment / hazard reduction.)

Ms. Brown clarified that the number in Table 1 was in the thousand's. There was a question about the stratification for the age of housing. Presumably, lead exposures in 470,000 houses were constructed since 1978 were not from the house. Examples of possible exposures include lead in plumbing fixtures in the District of Columbia and take home lead in upstate New York and in Puerto Rico (i.e. lead brought into cars and on baby seats).

Pat McLaine presented findings from her research on lead and kindergarten reading readiness, recently published in *Pediatrics*. This is an important measure and on average about 25% of children enter kindergarten not ready to learn to read. This is costly to society; the longer schools wait to provide remediation, the more expensive and the less effective it is. A number of studies have found decreases in reading scores associated with blood lead levels of 3µg/dL and higher. Providence has had excellent BLL testing: 88% of the kindergarten children in 3 year period had been tested for lead. But BLLs in Providence were much higher than the NHANES data suggested: 20% of children in the study had at least one BLL >10µg/dL. The study linked blood lead screening data and reading readiness data at the individual level. The average geometric mean (GM) BLL was 4.2µg/dL and only 31% of the children had all BLLs below 5µg/dL, compared to 93% for NHANES in the same period of time. Children receiving free lunch had higher average BLLs than children who paid for their lunch. Hispanic children had the lowest average GM BLL (4.0); Black children had the highest GM BLL (5.0). Outcome scores for kindergarten reading readiness were adjusted using progressive adjustment (age, kindergarten year, sex, race, child language, and free/reduced lunch status). Reading readiness scores were lower for children with GM BLLs 5-9 and 10+µg/dL. Similar differences were seen for children based on free/reduced lunch status. Compared to children with GM BLLs 0-4µg/dL, children with GM BLLs 5-9 and 10+µg/dL scored 4.5 and 10.1 points lower in reading readiness. In addition, only 49% of children with BLLs of 10+µg/dL were successful in achieving fall benchmarks, compared to 68% of children with BLLs of 0-4µg/dL. Conclusions were that the risks for failing to be ready to read are associated with BLL; the risk doubles for

poor children. The work supports a finding of no safe lead levels. Public health and public schools can benefit from this data sharing approach.

Rebecca Morley and Michael McKnight (Green and Healthy Homes Initiative) provided an update on the national overview of the impact of federal funding cuts on state and local CLPPs. Most states reported problems, many with maintaining basic surveillance functions. Environmental Health tracking grants (Maryland has one) will be cut 30% in the next fiscal year, so this support for state lead programs will also be reduced.

Horacio Tablada reported that Federal funding for Maryland had gone from $1.4 million to $1.2 million to $800K to $600K to $0. In the past, MDE had funded the counties generally. But after the loss of federal funds, MDE funded only Baltimore City and Wicomico and the Lower Eastern Shore. MDE made the case and restored funding to use to continue to support the program for one year with hopes that CDC funding cuts would be restored. John Krupinsky reported that there was minimal support for outreach and education except in Baltimore City. Primary prevention has been through the Reduction of Lead Risk in Housing law, including enforcement efforts in Wicomico and the Lower Eastern shore. In Baltimore, outreach has been done using the lead and healthy homes "party" model, to bring information to communities at risk; John reported that 10-15 people had attended such parties. Baltimore City has also been coordinating outreach and education for children with 5-9µg/dL BLLs as part of HUD program. BCHD does mail outs and makes phone calls if they can't physically get in. On the lower Eastern Shore, HD staff provided education to health care providers on BLLs 5-9µg/dL and also targeted property owners and homeowners. The program ends July 1, 2013. John Krupinsky also reported he had surveyed local HDs regarding their providing case management services; of 24 HDs contacted, 17 report that they provided telephone consultation for 5-9 BLLs and 4 provide home visits. 4 Health departments indicated they had no resources to provide any case management at this level. For case management of children with BLLs 10-14, 9 HD indicated they could provide phone calls but no home visits; 2 HDs reported having only 2 CPH nurses total on staff. At BLLs of 15+, only 4 counties could do a telephone call for CM. In terms of environmental investigation, BCHD inspects at a BLL of 5µ/dL; PG inspects at a level of 10µg/dL; MDE provides inspections for all other counties at BLL of 10µg/dL.

Cliff Mitchell reported the DHMH funds 7 local jurisdictions at $1 million; most of funds go to Baltimore City HD, then to Prince Georges County. None of the funding to the other 5 jurisdictions is large enough to fund a FTE (ranges from $17-30K). Other HDs want to know what the state would recommend, want to know how long doctors should follow a child. Funding is now based on general funds, part of the match to qualify for Title 5 funding. DHMH is formalizing its targeting plan.

Shaketa Denson reported on the Housing Choice Vouchers (Section 8). 75 were allocated in 2007, but Baltimore City now has 200 vouchers. Only 11 vouchers are left at this point. The Coalition has been providing home visits and case management to families for 3 years.

Regarding key elected representatives in Maryland, Dr. Andy Harris holds weight on the Republican side and is a physician. It would be important for him to understand the problems of childhood lead poisoning in Maryland. The suggestion was made to make the personal political,

so that the situation we face is real for all lawmakers. It might be possible to earmark administrative money for home visits. A suggestion was made that home visit guidelines are restrictive. Can DHMH tailor the assessment to funding? What is the average caseload for Baltimore City and Counties? Baltimore has no PHNs – but does have 5 community health investigators. Recommendation was made that the Commission update our letters, requesting support for this issue. The US Conference of Mayors has requested funding at the $50 million level. NACCHO could also support funding increase for the CDC Lead Program.

Patrick Connor asked if there were any issues about gaining access in Baltimore City if the BLL was <10µg/dL. Hosana Asfau-Means replied that the 5-9 program was voluntary but that program staff had to go in if the level was 10+µg/dL.

Patrick Connor asked if a rental property was identified with a child having a BLL 5-9µg/dL, why wouldn't the HD go to the property? Regulation 5 defines an EBL as what CDC has set. Hosana indicated that BCHD lawyer Myra Knowlton could discuss this issue at a future Commission meeting.

Patrick Connor also indicated that he would like to explore the ability to charge for services, particularly charging the property owner for environmental investigation. If we are tight for funding, and also providing services, why aren't we charging? Why don't we have local regulations specifying the charge (for example, EI = $675, dust testing = $375).

Ken Strong indicated that BCHD Housing representatives will attend the July meeting.

Motion was made to end the meeting; the meeting ended at 11:35.

Centers for Disease Control and Prevention and the Federal Stratgey for Action on Healthy Housing

Mary Jean Brown ScD, RN
Healthy Homes/Lead Poisoning Prevention Program
Centers for Disease Control and Prevention
June 13, 2013

National Center for Environmental Health
Healthy Homes Lead Poisoning Prevention Branch

CDC

I. Recommendation: Based on the scientific evidence, the ACCLPP recommends that (a) the term "level of concern" be eliminated from all future agency policies, guidance documents, and other CDC publications, and (b) that current recommendations based on the "level of concern" be updated according to the recommendations contained in this report.

- **CDC concurred with this recommendation**
- **Specific means to address or implement**
  - The CDC Healthy Homes/Lead Poisoning Prevention Branch (HHLPPB) has discontinued the use of the term 'level of concern.' All current and future publications will replace 'level of concern' with the reference value and the date of the National Health and Nutrition Examination Survey (NHANES) used to calculate the reference value.
  - Examples of standard language
    - Used in a Clinical Setting: A level at or above the reference value for blood lead, established as the 97.5 percentile for the distribution of blood lead levels of U.S. children 1-5 years old (5 µg/dL in 2012), is unusual (atypical). Blood lead levels at or above the reference value indicate that a child is exposed to lead above that experienced by most children in the same age group. Further assessment of the child and his/her environment is warranted.
    - Used in Publications: The reference value for U.S. children 1-5 years old is the 97.5 percentile of the population blood lead distribution (5 µg/dL in 2012).
    - Used on a Population (Community) Level: On a community basis, any distribution of blood lead levels that is significantly higher than that of the U.S. childhood population 1-5 years old population indicates that that community has lead sources in the environment that put children living there at higher risk for unusual (atypical) blood lead levels than the general U.S. childhood population.

TABLE 1. Number and percentage of children aged 1–5 years with blood lead levels ≥5 µg/dL, by selected characteristics — United States, National Health and Nutrition Evaluation Survey, 1999–2002, 2003–2006, and 2007–2010

	1999–2002			2003–2006			2007–2010		
Characteristic	No.	%	(95% CI)	No.	%	(95% CI)	No.	%	(95% CI)
Total	1,621	8.6	(6.3–11.3)	1,879	4.1	(2.8–5.7)	1,653	2.6	(1.6–4.0)
Sex									
Boy	851	9.1	(5.9–12.9)	951	3.9	(2.4–5.8)	872	2.5	(1.3–4.1)
Girl	770	8.2	(6.0–10.6)	928	4.3	(2.9–5.9)	781	2.8	(1.6–4.2)
Age group (yrs)									
1–2	779	12.2	(9.1–15.6)	919	5.7	(4.3–7.2)	793	3.1	(2.1–4.4)
3–5	842	6.4	(3.8–9.6)	960	3.0	(1.5–5.1)	860	2.3	(0.9–4.4)*
Race/Ethnicity									
Black, non-Hispanic	454	18.5	(13.7–23.8)	546	12.1	(6.5–19.2)	338	5.6	(3.3–8.4)
Mexican American	541	7.4	(4.7–10.6)	611	2.6	(1.1–4.6)	490	1.9	(0.7–3.7)*
White, non-Hispanic	465	7.1	(3.7–11.5)	540	2.3	(1.4–3.2)	536	2.4	(0.7–5.2)*
Poverty-to-income ratio									
<1.3	817	12.9	(9.5–16.7)	941	8.1	(5.2–11.6)	868	4.4	(3.0–6.2)
≥1.3	677	4.5	(2.6–6.7)	852	1.6	(0.7–2.9)*	642	1.2	(0.1–3.7)*
Age of housing									
Pre-1950	208	18.4	(13.1–24.4)	242	8.8	(5.3–13.2)	264	5.3	(1.1–12.6)*
1950–1977	341	5.3	(2.9–8.4)	413	2.2	(0.8–4.3)*	343	1.3	(0.6–2.4)*
1978 or later	470	2.1	(0.9–3.7)*	528	1.4	(0.6–2.4)*	503	0.4	(0.1–1.0)*
Refused/Don't know	602	15.0	(10.7–19.9)	696	7.5	(3.6–12.6)	543	5.1	(3.3–7.4)
Medicaid enrollment status									
Yes	592	15.1	(11.5–19.1)	740	7.1	(4.5–10.1)	633	4.3	(2.8–6.1)
No	998	6.0	(3.9–8.5)	1127	2.9	(1.9–4.0)	1019	2.0	(0.9–3.4)*

Abbreviation: CI = confidence interval.
* Estimate is statistically unreliable (relative standard error is ≥30).

TABLE 2. Number and geometric mean blood lead levels (GM BLLs) of children aged 1–5 years, by selected characteristics — United States, National Health and Nutrition Evaluation Survey, 1999–2002, 2003–2006, and 2007–2010

	1999–2002			2003–2006			2007–2010		
Characteristic	No.	GM BLL (µg/dL)	(95% CI)	No.	GM BLL (µg/dL)	(95% CI)	No.	GM BLL (µg/dL)	(95% CI)
Total	1,621	1.9	(1.8–2.1)	1,879	1.6	(1.5–1.7)	1,653	1.3	(1.3–1.4)
Sex									
Boy	851	1.9	(1.8–2.1)	951	1.6	(1.5–1.7)	872	1.3	(1.3–1.4)
Girl	770	1.9	(1.8–2.1)	928	1.6	(1.5–1.7)	781	1.3	(1.2–1.4)
Age group (yrs)									
1–2	779	2.2	(2.0–2.4)	919	1.8	(1.7–1.9)	793	1.5	(1.4–1.6)
3–5	842	1.8	(1.6–2.0)	960	1.5	(1.4–1.6)	860	1.2	(1.2–1.3)
Race/Ethnicity									
Black, non-Hispanic	454	2.8	(2.5–3.1)	546	2.43	(2.12–2.78)	338	1.8	(1.6–1.9)
Mexican American	541	1.9	(1.8–2.0)	611	1.57	(1.46–1.69)	490	1.3	(1.2–1.4)
White, non-Hispanic	465	1.8	(1.6–2.0)	540	1.45	(1.35–1.54)	536	1.3	(1.1–1.4)
Poverty-to-income ratio									
<1.3	817	2.4	(2.2–2.7)	941	2.0	(1.8–2.2)	868	1.6	(1.5–1.7)
≥1.3	677	1.6	(1.4–1.7)	852	1.4	(1.3–1.5)	642	1.2	(1.1–1.3)
Age of housing									
Pre-1950	208	2.7	(2.4–3.1)	242	2.1	(1.8–2.3)	264	1.6	(1.4–1.9)
1950–1977	341	1.8	(1.7–2.0)	413	1.5	(1.4–1.7)	343	1.3	(1.2–1.5)
1978 or later	470	1.5	(1.3–1.6)	528	1.3	(1.2–1.4)	503	1.1	(1.0–1.2)
Refused/Don't know	602	2.5	(2.2–2.7)	696	2.0	(1.8–2.3)	543	1.6	(1.5–1.7)
Medicaid enrollment status									
Yes	592	2.6	(2.4–2.8)	740	2.0	(1.8–2.2)	633	1.6	(1.5–1.7)
No	998	1.7	(1.6–1.9)	1,127	1.5	(1.4–1.6)	1,019	1.2	(1.2–1.3)

Abbreviation: CI = confidence interval.

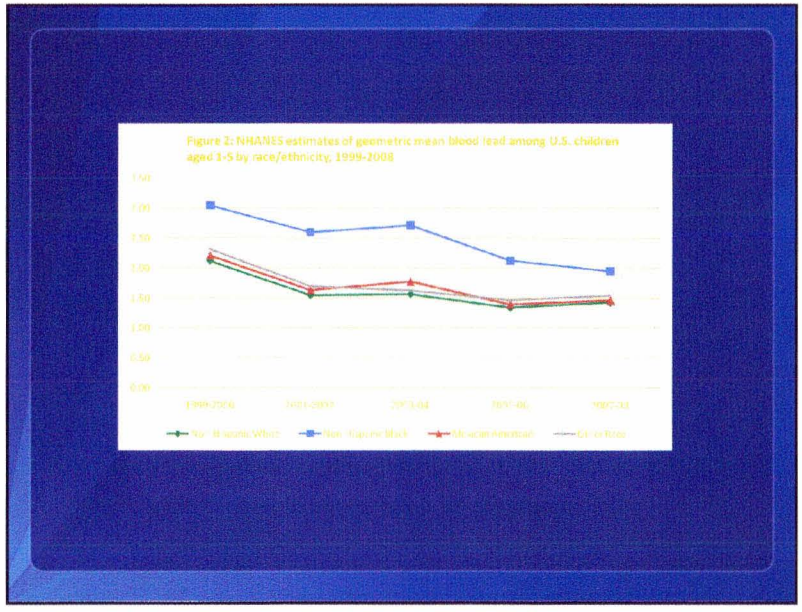


Figure 2: NHANES estimates of geometric mean blood lead among U.S. children aged 1-5 by race/ethnicity, 1999-2008

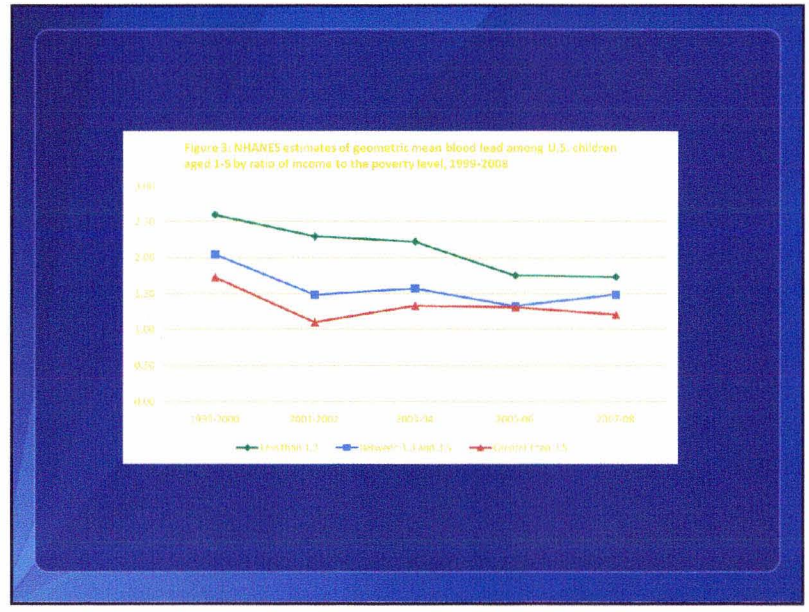
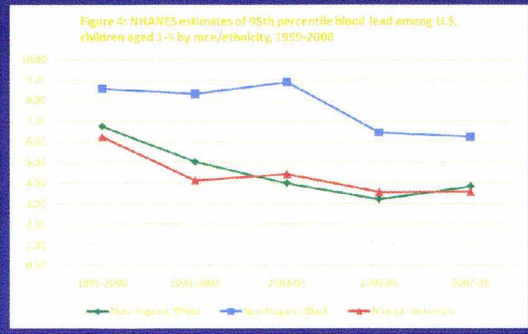


Figure 3: NHANES estimates of geometric mean blood lead among U.S. children aged 1-5 by ratio of income to the poverty level, 1999-2008



For more information please contact Centers for Disease Control and Prevention

1600 Clifton Road NE, Atlanta, GA 30333
Telephone, 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348
E-mail: cdcinfo@cdc.gov Web: www.cdc.gov

National Center for Environmental Health
Place Descriptor Here

PEDIATRICS®
OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Elevated Blood Lead Levels and Reading Readiness at the Start of Kindergarten

Pat McLaine, Ana Navas-Acien, Rebecca Lee, Peter Simon, Marie Diener-West and Jacqueline Agnew

Pediatrics; originally published online May 13, 2013;
DOI: 10.1542/peds.2012-2277

Elevated Blood Lead Levels and Reading Readiness at the Start of Kindergarten

AUTHORS: Pat McLaine, DrPH, MPH, RN,[a,b] Ana Navas-Acien, MD, PhD,[b,c,d] Rebecca Lee, MPP,[e] Peter Simon, MD, MPH,[f] Marie Diener-West, PhD,[g] and Jacqueline Agnew, PhD, RN, FAAN[b]

[a]Department of Family and Community Health, University of Maryland School of Nursing, Baltimore, Maryland; Departments of [b]Environmental Health Sciences, [c]Epidemiology, and [g]Biostatistics, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland; [d]Welch Center for Prevention, Epidemiology and Preventive Medicine, Johns Hopkins Medical Institutions, Baltimore, Maryland; [e]The Providence Plan, Providence, Rhode Island; and [f]Rhode Island Department of Health, Providence, Rhode Island

KEY WORD
lead poisoning, school performance, screening—early childhood

ABBREVIATIONS
BLL—blood lead level
CI—confidence interval
GM—geometric mean
PALS-K—Phonological Awareness Literacy Screening–Kindergarten
PPSD—Providence Public School District
RIDH—Rhode Island Department of Health
SES—socioeconomic status

Dr McLaine contributed to the conception, design, analysis, and interpretation of data and the initial drafting and revisions of the article; Drs Navas-Acien and Agnew contributed to the design, analysis and interpretation of data and participated in the revision of the article; Ms Lee acquired and linked health and education data for this study, oversaw data quality, aided in interpretation of data, and participated in the revision of the article; Dr Simon contributed to the initial concept and design and acquisition and interpretation of data and participated in the revision of the article; and Dr Diener-West contributed to the analysis and interpretation of the data and participated in the revision of the article.

www.pediatrics.org/cgi/doi/10.1542/peds.2012-2277

doi:10.1542/peds.2012-2277

Accepted for publication Feb 26, 2013

Address correspondence to Pat McLaine, DrPH, MPH, RN, University of Maryland School of Nursing, 655 West Lombard St, Room 665B, Baltimore, MD 21201. E-mail: mclaine@son.umaryland.edu

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

(Continued on last page)

WHAT'S KNOWN ON THIS SUBJECT: Blood lead levels well below 10 μg/dL are now recognized as causing adverse cognitive effects, including lower scores on standardized reading and math tests.

WHAT THIS STUDY ADDS: This is the first study to show that reading readiness early in kindergarten is independently associated with blood lead levels well below 10 μg/dL. Results suggest that lead exposure may have a larger impact on urban education than national estimates suggest.

abstract

FREE

OBJECTIVE: To evaluate the relationship between blood lead levels (BLLs) and reading readiness at kindergarten entry, an early marker of school performance, in a diverse urban school population.

METHODS: Kindergarten reading readiness test scores for children attending public kindergarten in Providence, Rhode Island, were linked to state health department records of blood lead testing by using individual identifiers. The study population ($N = 3406$) was 59% Hispanic. For each child, the geometric mean BLL was estimated by using all previously reported BLLs. Analyses were adjusted for gender, age, year enrolled, race, child language, and free/reduced lunch status as a measure of socioeconomic status.

RESULTS: The median geometric mean BLL was 4.2 μg/dL; 20% of children had at least 1 venous BLL ≥10 μg/dL. Compared with children with BLLs <5 μg/dL, the adjusted prevalence ratios (95% confidence interval [CI]) for failing to achieve the national benchmark for reading readiness were 1.21 (1.19 to 1.23) and 1.56 (1.51 to 1.60) for children with BLLs of 5 to 9 and ≥10 μg/dL, respectively. On average, reading readiness scores decreased by 4.5 (95% CI: −2.9 to −6.2) and 10.0 (95% CI: −7.0 to −13.3) points for children with BLLs of 5 to 9 and ≥10 μg/dL, respectively, compared with BLLs <5 μg/dL.

CONCLUSIONS: BLLs well below 10 μg/dL were associated with lower reading readiness at kindergarten entry. The high prevalence of elevated BLLs warrants additional investigation in other high-risk US populations. Results suggest benefits from additional collaboration between public health, public education, and community data providers. *Pediatrics* 2013;131:1081–1089

Childhood lead exposure has detrimental effects on cognition, including IQ, executive function, and delinquency.[1] Adverse effects have been found at levels well below 10 μg/dL, the "level of concern" set by the Centers for Disease Control and Prevention in 1991.[2] Cross-sectional and longitudinal studies have revealed significant effects of lead exposure on learning with the use of standardized school tests and functional measures of school performance, including reading and math test scores, reading at grade level, and graduation from high school.[3–8] This evidence is reflected in Centers for Disease Control and Prevention's recent establishment of a population-based reference value to target children with blood lead levels (BLLs) above the 97.5th percentile, which is currently a BLL of 5 μg/dL.[9]

Learning to read is critical to the entire process of formal education. Children who learn to read in first grade are more likely to be successful in applying their reading skills to other areas of learning[10] and with school performance in higher grades.[11] Learning to read successfully requires proficiency in phonologic processing skills (using the sounds of one's language to process written and oral language) and in the ability to decode new words.[12,13] The lack of these skills, not IQ deficits, has been associated with failure to learn to read.[14,15]

Reading readiness, therefore, is an early measure of a child's capacity to integrate cognitive ability and skills learned from a multitude of educational, enrichment, and environmental exposures. Kindergarten is a critical time for identifying children with poor reading readiness, and most US schools test children when they enter kindergarten in the fall. Many instruments are used to assess reading readiness, including the Phonological Awareness Literacy Screening–Kindergarten (PALS-K) test, used in our study (R. Blackwell-Bullock, MEd, Reading K-12, personal communication, 2009).

Associations between BLLs measured during early childhood and reading readiness in kindergarten have not been previously examined. We had an excellent opportunity to investigate this relationship with the use of public health and education monitoring data from Providence, Rhode Island. Strong partnerships between the Rhode Island Department of Health (RIDH), the Providence Public School District (PPSD), and the Providence Plan, a nonprofit community organization with extensive experience working with public and private databases, have been fostered for years, culminating in agreements to use available data to address larger social issues, such as school readiness. By linking individual data maintained by 2 public systems, health and education, we were able to examine the relationship between kindergarten reading readiness and measures of earlier lead exposure.

METHODS

Study Design and Data Linkage

This population-based study used linked data from children's kindergarten records and health records, including BLLs measured before kindergarten, to examine associations between past lead exposure and reading readiness in the fall of the kindergarten school year. The PPSD obtained 2 school data sets for 5211 children enrolled in kindergarten in Providence, Rhode Island, Public Schools during 3 school years (2004–2005, 2005–2006, and 2006–2007): school enrollment data and measures of kindergarten reading readiness based on results of the PALS-K test. The RIDH provided 2 data sets: blood lead screening data and data routinely collected at the time of birth.

The Providence Plan linked information from the 4 data sets by using a unique identifier (ID) created for each individual and making use of the child's school ID (assigned to each child by the PPSD) and the child's KIDSNET (Rhode Island's confidential, computerized child health information system) ID (assigned by the RIDH to every child for whom public health data are available in the KIDSNET system). Discrepancies were resolved by manual examination of the records and by confirmation with school or health department staff. As a final step, the Providence Plan generated a study ID for each child and provided deidentified data files for this study. The institutional review board of the Johns Hopkins Bloomberg School of Public Health reviewed our proposal and determined that this research was exempt.

Study Population

We excluded 644 children who had no BLL results and 74 who were repeating kindergarten (Fig 1). From the remaining 4493 first-time kindergarten children, we excluded 466 without PALS-K test results and 372 children with only 1 PALS-K score (fall only = 190, spring only = 182). We excluded children missing spring scores to allow for comparability with future analyses. We additionally excluded 3 children whose only lead measurement was an elevated capillary BLL, 173 children taught only in Spanish, 30 children enrolled in special education classes, and 43 inclusion students (special education students who receive instruction in regular education classrooms). The 3406 participants were similar to the original study population in BLLs, PALS-K results, and free/reduced lunch distribution (data not shown).

Demographic and School Data

Data on demographic characteristics (date of birth, gender, birth place, race, child's primary language, and child's status for the federal free and reduced-price school lunch program) and school (elementary school, kindergarten program [regular education, English as a second language, dual language

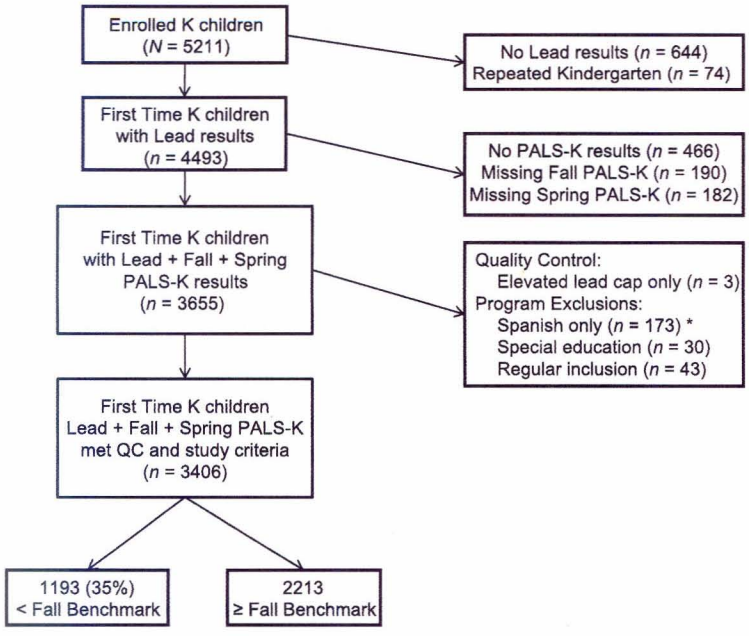


FIGURE 1
Study enrollment. *Including 14 Spanish inclusion students. K, kindergarten; QC, quality control.

programs], and school funding from the Federal Reading First program[16,17]) were collected at the time of the child's registration for school, verified by school officials, and entered directly into the PPSD's electronic data system. Free and reduced-price school lunch program status served as our variable for estimating socioeconomic status (SES), as is common in educational research.[18] Children from families with incomes at or below 130% and between 130% and 185% of the national poverty level are eligible for free or reduced-price lunch as part of the National School Lunch Program.[19]

PALS-K Test Data

The PALS-K test is a screening diagnostic and evaluation tool used to assess children's development of early literacy skills.[20] The cognitive elements examined by PALS-K are decoding, cipher knowledge, letter knowledge, concepts about print, and phonologic awareness.[21] PALS-K is a criterion-referenced assessment.[21] It has been used as the universal screening tool for Virginia since 1997 as well as in some school districts in all other US states and in 6 other countries (R. Blackwell-Bullock, MEd, Reading K-12, personal communication, 2009; ref 22). PALS-K is administered individually and in small groups in English by kindergarten teachers in the early fall and late spring of kindergarten.[20] Students who score below the fall benchmark (28 of 102 points) receive additional in-classroom instruction on a regular basis, focused on the areas of deficiency in specific cognitive elements (or subtests), for the duration of the school year. PALS-K total scores are compiled by summing results of 6 subtests, with a maximum possible score of 102 points.[23] Success at the end of kindergarten is based on a child achieving the spring benchmark (≥81 of 102 points).[24] The PALS-K instrument has been extensively field-tested in Virginia since 1997 across race/ethnicity, gender, and SES and found to provide valid and reliable measures of kindergarten readiness.[20]

The PPSD began use of PALS-K in 2002. Students were typically tested during a 2-week period in October. PALS-K results for individual children were reported electronically to Providence Plan. We checked total score computation, found 87 discrepancies (2.6%), and corrected them by using the PALS-K scoring protocol.[24]

Blood Lead Screening Data

The RIDH recommends annual testing for BLLs for children 9 to 72 months of age.[25,26] Rhode Island children are routinely tested for lead exposure by their primary care providers, and the results of BLL tests are sent by analyzing laboratories to the RIDH's Lead Elimination Surveillance System. Approximately 80% of BLL measurements reported to the RIDH during 1999–2005 were performed by 2 Clinical Laboratory Improvement Amendments–approved laboratories with a 1-μg/dL limit of detection for lead (A. Cardoza, Associates Degree in Computer Science, personal communication, 2009). BLL measurements reported as "below the minimal detection limit" (n = 553) were assigned blood lead values by using their respective laboratory minimal detection limit divided by square root of 2.[27] BLLs were available for 88% of children enrolled in the 3 kindergarten cohorts.

Blood lead samples were coded as venous (n = 15 326), capillary (n = 1212), or not coded (n = 11). Not coded samples were determined to most likely be venous samples and were retained in analyses. We evaluated the accuracy of capillary blood lead measurements ≥10 μg/dL (n = 206) by comparing them to venous BLLs drawn within 3 months. Less than half were retested, and only 26% of capillary values were confirmed. We removed all capillary BLLs ≥10 μg/dL from the data set, resulting in the removal of 3 children who had no other BLL reported. We kept capillary BLLs <10 μg/dL because these values were considered acceptable in clinical practice. Our data set consisted of 11 196 BLLs for 3406 children who were tested, on average, 3 times before

kindergarten (mean [SD] = 3.2 [2.0]; range = 1–26). Most children (2899; 85%) had ≥2 BLL measures.

Birth Data

Birth data (birth weight, gestational age, maternal age and education, marriage status, and payer of record for the child's delivery), routinely abstracted from each child-mother pair's records by community health nurses who visit maternity hospitals 5 days per week, were available for a total of 3651 children.

Data Analysis

We used Stata 10.1 (StataCorp, College Station, TX) for the analyses. The geometric mean (GM) of BLLs for each child was estimated by using all of his or her blood lead measures available. We calculated median GM BLLs for all covariates, stratifying on fall benchmark status (fall PALS-K score above or below the benchmark).

We used linear regression models to estimate mean differences in PALS-K scores by GM BLLs. We also used Poisson regression with robust SEs to estimate the prevalence ratio of scoring below the PALS-K benchmark in the fall by GM BLLs. We modeled GM BLLs on the basis of dummy variables by using frequently used categories (<5, 5–9, and ≥10 μg/dL), refined categories (<2, 2, 3, 4, 5, 6, 7, 8, 9, and ≥10 μg/dL), and also on the basis of $\log_2$ transformations to evaluate changes in associations with a twofold increase in BLL, assuming a log-linear relationship. Models were adjusted for covariates known to affect reading readiness, including child characteristics (age, gender, race, child language), SES (free and reduced lunch status), and year of kindergarten (2004–2005, 2005–2006, 2006–2007). We conducted several sensitivity analyses including examining summary metrics of BLL (highest BLL at youngest age, a time-weighted average of BLL for children with ≥2 BLLs available,

TABLE 1 BLLs and Fall PALS-K Total Test Score by Study Population Characteristics

	N	%	GM BLL, Median (IQR), μg/dL	Mean (SD) Fall PALS-K Total Test Score
Study population characteristics				
Entire group	3406	100	4.2 (2.9–6.0)	41.2 (24.0)
BLL categories				
<5 μg/dL	2091	61.5	3.1 (2.2–4.0)	42.9 (23.9)
5–9 μg/dL	1098	32	6.3 (5.5–7.5)	39.5 (23.9)
≥10 μg/dL	217	6.5	11.7(10.8–14.2)	33.8 (23.3)
Individual demographic characteristics				
Gender				
Female	1679	49	4.2 (2.9–6.0)	42.5 (23.7)
Male	1727	51	4.2 (2.8–6.0)	40.1 (24.2)
Age at start of kindergarten				
<5 years, 3 months	901	26	4.2 (2.9–6.0)	37.1 (22.6)
5 years, 3 months, to <5 years, 6 months	881	26	4.0 (2.7–5.5)	39.7 (23.7)
5 years, 6 months, to <5 years, 9 months	888	26	4.2 (2.8–6.0)	43.7 (23.6)
≥5 years, 9 months	736	24	4.6 (3.1–6.6)	45.4 (25.2)
Race				
White	442	13	4.2 (2.7–6.0)	50.3 (25.1)
Black	707	21	5.0 (3.2–7.0)	46.9 (23.0)
Hispanic	2021	59	4.0 (2.7–5.6)	37.3 (23.0)
Other[a]	236	7	4.5 (3.0–6.5)	41.1 (24.2)
Child language				
English	2074	61	4.3 (3.0–6.1)	46.0 (24.0)
Spanish	1219	36	4.0 (2.7–5.5)	33.9 (21.9)
Other[b]	98	3	5.0 (3.5–8.0)	32.1 (21.9)
Missing	15	<1	3.9 (2.4–6.6)	43.3 (21.3)
Birthplace				
Rhode Island	2796	82	4.2 (2.9–6.0)	42.0 (23.8)
Other US state	424	12	4.0 (2.7–6.0)	39.1 (24.9)
Central/South America	100	3	3.9 (2.9–5.7)	31.2 (21.1)
Other country	57	2	6.3 (3.6–9.9)	38.4 (23.9)
Missing	29	1	4.0 (2.7–5.7)	44.1 (22.7)
School characteristics				
Kindergarten year				
2004–2005	870	26	4.0 (2.7–6.0)	37.9 (22.5)
2005–2006	1272	37	4.2 (2.9–6.0)	42.1 (24.3)
2006–2007	1264	37	4.3 (2.9–6.1)	42.7 (24.4)
Kindergarten program				
Dual language	115	3	3.9 (2.9–5.7)	36.2 (17.9)
English as a second language	568	17	4.2 (2.9–6.2)	25.2 (17.6)
Regular	2723	80	4.2 (2.8–6.0)	44.8 (23.9)
Reading First school				
Yes	891	26	4.2 (2.9–6.0)	40.9 (24.7)
No	2515	74	4.2 (2.9–6.0)	41.4 (24.4)
SES				
Free/reduced/pay lunch status				
Free	2713	80	4.3 (3.0–6.1)	39.3 (23.4)
Reduced	357	10	3.8 (2.5–5.2)	45.5 (24.5)
Pay	336	10	3.9 (2.3–5.6)	52.2 (24.5)
Birth data				
Birth weight category				
<1500 g	42	1	4.0 (2.8–6.0)	37.4 (21.4)
1500–2499 g	175	5	4.6 (2.8–6.0)	43.6 (25.8)
≥2500 g	2479	73	4.2 (2.9–6.0)	41.9 (23.7)
Missing	710	21	4.0 (2.8–6.0)	38.7 (24.4)
Gestational age				
<34 weeks	66	2	4.1 (3.0–5.7)	38.3 (23.4)
34–36 weeks	200	6	4.5 (3.0–6.2)	43.5 (25.3)
≥37 weeks	2430	71	4.2 (2.9–6.0)	41.9 (23.7)
Missing	710	21	4.0 (2.8–6.0)	38.7 (24.4)

TABLE 1 Continued

	N	%	GM BLL, Median (IQR), μg/dL	Mean (SD) Fall PALS-K Total Test Score
Maternal high school education				
No	1164	34	4.6 (3.1–6.5)	35.6 (22.3)
Yes	1437	42	4.0 (2.7–5.8)	46.8 (23.9)
Missing	805	24	4.0 (2.7–6.0)	39.4 (24.2)
Public insurance at birth				
No	608	18	3.9 (2.5–5.5)	48.3 (23.6)
Yes	2088	61	4.4 (3.0–6.2)	40.1 (23.5)
Missing	710	21	4.0 (2.8–6.0)	38.7 (24.4)
Parents married at child's birth				
Yes	731	21	3.8 (2.5–5.4)	46.0 (24.2)
No	1965	58	4.5 (3.0–6.2)	40.4 (23.5)
Missing	710	21	4.0 (2.8–6.0)	38.7 (24.4)

N = 3406. IQR, interquartile range.
[a] Asians comprise 92% of "other."
[b] Asian languages comprise 80% of "other."

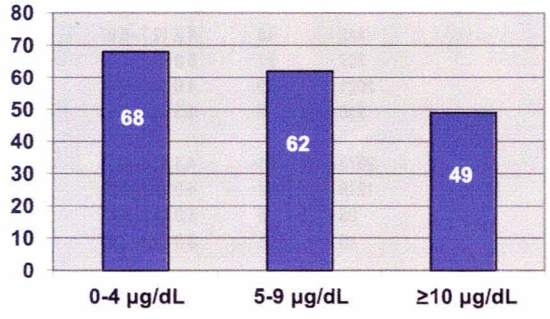


FIGURE 2
Proportion of children scoring above the fall PALS-K benchmark, by BLL.

BLL at 5 years) by using blood lead quartiles, adjusting for additional measures of SES in children with birth data (maternal education, public insurance at birth, and whether parents were married at birth), and evaluating potential effect modification by using interaction terms between BLLs and participant characteristics (all model covariates). Results based on an area under the curve approach were similar to those of GM BLLs (data not shown).

RESULTS

PPSD students represented a diversity of backgrounds, with 59% being Hispanic (Table 1). Although 61% of students spoke English as their primary language, >1 language was spoken in the homes of 43% of students. More than 90% of students qualified for the federal free or reduced-price school lunch program.

The median (interquartile range) GM BLLs were 4.2 (2.9–6.0) μg/dL (Table 1). Nearly 20% of the children had at least 1 BLL ≥10 μg/dL, and 69% had at least 1 BLL as high as 5 μg/dL, compared with national prevalence estimates of 1.4% and 7.4%, respectively.[28] BLLs were highest in blacks and lowest in Hispanics. BLLs were higher in children who spoke languages other than English or Spanish (80% of Asian descent), had measures of lower SES, and had total PALS-K fall scores below the benchmark. No trends in BLLs were observed by birth weight or gestational age.

Approximately 35% of students failed to achieve PALS-K benchmarks in the fall of the kindergarten school year (Table 1). Total fall scores were consistently lower for children who were male, of Hispanic ethnicity, enrolled in the English as a second language program, spoke Spanish or other languages, received free lunch, and had a GM BLL of ≥10 μg/dL. Total PALS-K fall scores were lower for children whose mothers had not graduated from high school or who had public insurance at the time of the child's birth and for children in the lowest birth weight and gestational age categories. PALS-K scores increased with kindergarten year and with age and were higher in white and black children than in Hispanic and other children. A total of 68% of children with BLLs <5 μg/dL achieved the PALS-K benchmark compared with 49% of children with BLLs ≥10 μg/dL (Fig 2).

In the fully adjusted linear regression model, we observed significant decreases in reading readiness of 4.5 points (95% confidence interval [CI]: −2.9 to −6.2) for children with GM BLLs of 5 to 9 μg/dL and of 10.1 points (95% CI: −7.0 to −13.3) for children with GM BLLs of ≥10 μg/dL, compared with children with GM BLLs <5 μg/dL (Table 2, model 5). The fully adjusted associations between other model covariates and the fall PALS-K summary score are shown in Table 3. The decrease in reading readiness in children with free lunch versus those who paid for lunch was 10.3 points (95% CI: −7.7 to −12.9), which is similar in magnitude to the difference between the highest and lowest BLL categories.

Compared with participants with BLLs <2 μg/dL, increasing BLLs resulted in progressive decreases in PALS-K scores (Table 2, Fig 3) with no evidence of a threshold. Children with BLLs of ≥10 μg/dL had a PALS-K score that was 13 points lower (corresponding to half of the SD of PALS-K scores) compared with children with BLLs <2 μg/dL.

The fully adjusted prevalence ratios for scoring below the fall PALS-K benchmark (score = 28) were 1.21 for children

TABLE 2 Mean Difference (95% CI) in Fall PALS-K Scores by BLL

	Group Size, *n*		Model 1	Model 2	Model 3	Model 4	Model 5
	Below Fall BM	Above Fall BM					
GM BLL categories	1193	2213					
0–4 μg/dL	668	1423	0.00 (Reference)	0.00 (Reference)	0.00 (Reference)	0.00 (Reference)	0.00 (Reference)
5–9 μg/dL	415	683	−3.4 (−5.2 to −1.7)	−3.8 (−5.5 to −2.1)	−4.9 (−6.6 to −3.2)	−4.8 (−6.5 to −3.1)	−4.5 (−6.2 to −2.9)
≥10 μg/dL	110	107	−9.1 (−12.5 to −5.8)	−9.9 (−13.2 to −6.6)	−11.7 (−15.0 to −8.5)	−11.1 (−14.3 to −7.9)	−10.1 (−13.3 to −7.0)
P trend			<.001	<.001	<.001	<.001	<.001
r^2			0.0109	0.0380	0.0904	0.1150	0.1345
Refined GM BLL categories[a]	1193	2213					
1 μg/dL	83	213	0.00 (Reference)	0.00 (Reference)	0.00 (Reference)	0.00 (Reference)	0.00 (Reference)
2 μg/dL	197	416	−2.6 (−5.9 to 0.8)	−2.1 (−5.4 to 1.2)	−2.4 (−5.6 to 0.8)	−2.8 (−5.9 to 0.4)	−2.7 (−5.8 to 0.5)
3 μg/dL	209	409	−3.8 (−7.1 to −0.5)	−3.6 (−6.8 to −0.3)	−3.8 (−7.0 to −0.7)	−4.1 (−7.3 to −1.0)	−3.3 (−6.5 to −0.2)
4 μg/dL	179	385	−2.7 (−6.0 to 0.7)	−2.6 (−5.9 to 0.7)	−3.2 (−6.4 to 0.04)*	−3.6 (−6.8 to −0.4)	−2.7 (−4.9 to 4.7)
5 μg/dL	148	272	−4.4 (−7.9 to −0.8)	−4.6 (−8.1 to −1.1)	−5.6 (−9.0 to −2.2)	−5.6 (−9.0 to −2.3)	−5.0 (−8.4 to −1.7)
6 μg/dL	130	193	−6.7 (−10.5 to −3.0)	−6.7 (−10.4 to −3.0)	−8.4 (−12.1 to −4.8)	−9.0 (−12.6 to −5.4)	−8.1 (−11.7 to −4.5)
7 μg/dL	56	91	−6.4 (−11.1 to −1.6)	−7.2 (−11.9 to −2.6)	−8.9 (−13.5 to −4.4)	−9.3 (−13.8 to −4.9)	−8.2 (−12.7 to −3.8)
8 μg/dL	55	79	−8.5 (−13.3 to −3.6)	−8.5 (−13.3 to −3.7)	−10.0 (−14.7 to −5.3)	−10.3 (−14.9 to −5.6)	−9.3 (−13.9 to −4.7)
9 μg/dL	26	48	−7.1 (−13.1 to −1.0)	−6.8 (−12.8 to −0.8)	−8.0 (−13.9 to −2.2)	−7.9 (−13.7 to −2.2)	−7.0 (−12.7 to −1.3)
≥10 μg/dL	110	107	−11.7 (−15.9 to −7.5)	−12.3 (−16.4 to −8.1)	−14.5 (−18.5 to −10.4)	−14.1 (−18.1 to −10.1)	−12.7 (−16.6 to −8.7)
P trend			<.001	<.001	<.001	<.001	<.001
r^2			0.0135	0.0402	0.0933	0.1187	0.1372
Log_2 GM BLL doubling model, per twofold increase	1193	2213	−3.2 (−4.2 to −2.3)	−3.5 (−4.4 to −2.5)	−4.1 (−5.0 to −3.1)	−4.0 (−4.9 to −3.0)	−3.5 (−4.4 to −2.6)
P			<.001	<.001	<.001	<.001	<.001
r^2			0.0129	0.0394	0.0911	0.1165	0.1343

N = 3406. Model 1 was unadjusted; model 2 was adjusted for age at start of kindergarten, gender, and year; model 3 was additionally adjusted for race; model 4 was additionally adjusted for child language; model 5 was additionally adjusted for free/reduced lunch status. BM, benchmark.

[a] Refined GM BLL categories: 1 μg/dL = 0.7–1.99; 2 μg/dL = 2.0–2.99; 3 μg/dL = 3.0–3.99; 4 μg/dL = 4.0–4.99; 5 μg/dL = 5.0–5.99; 6 μg/dL = 6.0–6.99; 7 μg/dL = 7.0–7.99; 8 μg/dL = 8.0–8.99; 9 μg/dL = 9.0–9.99.

* *P* = .053.

with GM BLLs of 5 to 9 μg/dL (95% CI: 1.19–1.23) and 1.56 for children with GM BLLs of ≥10 μg/dL (95% CI: 1.51–1.60), compared with children with GM BLLs of <5 μg/dL (Table 4, model 5).

DISCUSSION

This is the first study of the association between childhood lead exposure and reading readiness at the start of kindergarten. We found a clear dose-response relationship between exposure to lead in early childhood, measured by the GM of multiple blood lead measures, and reading readiness at the beginning of kindergarten, measured by the total PALS-K score. The negative association of blood lead with kindergarten reading readiness remained strong after adjustment for demographic factors, language, and SES. Associations were observed well below 10 μg/dL, with no evidence of a threshold. Other studies[3–5] have reported that the change in the BLL-reading score relationship is not linear. Like Miranda et al's[8] observations of end-of-grade test scores, the magnitude of the difference in fall PALS-K scores associated with lead exposure in our study was similar to the difference associated with eligibility for free and reduced lunch, a measure of low SES.

Race and language are important predictors of reading and reading readiness in the United States. Student populations of urban school districts like Providence are very diverse, with white students often in the minority and many students speaking languages other than English. This diversity, coupled with poverty, creates unique challenges for educators who wish to narrow the gap in educational performance. Most educational researchers have focused attention on differences between black and white children without examining the size of the achievement gap for other racial or ethnic groups, notably Hispanic or Asian children.[29] Because we had data on language, race/ethnicity, and birthplace

TABLE 3 Adjusted Mean Difference (95% CI) in Fall PALS-K Summary Score by Participant Characteristics From a Multiple Linear Regression Model

	Mean Difference	95% CI
BLL		
0–4 μg/dL	0.00	Reference
5–9 μg/dL	−4.51	−6.16 to −2.85
≥10 μg/dL	−10.13	−13.30 to −6.96
Gender		
Female	0.00	Reference
Male	−2.80	−4.31 to −1.30
Year		
2004–2005	0.00	Reference
2005–2006	3.53	1.58 to 5.49
2006–2007	3.71	1.74 to 5.69
Age group		
<5 years, 3 months	0.00	Reference
5 years, 3 months, to <5 years, 6 months	2.68	0.60 to 4.77
5 years, 6 months, to <5 years, 9 months	6.57	4.49 to 8.65
≥5 years, 9 months	8.26	6.03 to 10.49
Race		
Hispanic	0.00	Reference
White	6.85	4.23 to 9.47
Black	6.05	3.77 to 8.32
Other	2.51	−1.18 to 6.20*
Language		
English	0.00	Reference
Spanish	−8.43	−10.41 to −6.44
Other	−12.74	−17.91 to −7.57
Free/reduced/pay lunch status		
Pay for lunch	0.00	Reference
Reduced lunch	−4.18	−7.56 to −0.80
Free lunch	−10.31	−12.91 to −7.71
Constant[a]	50.41	46.37 to 54.45
R^2	0.1345	

Final model adjusted for GM BLL category, gender, year, age at time of test, race, child language, and free/reduced lunch status.

[a] Refers to the average score for a 5- to 5-1/4-year-old Hispanic female, speaking English, who pays for lunch, and with a BLL of 0 to 4 μg/dL in 2004–2005.

* $P = .182$.

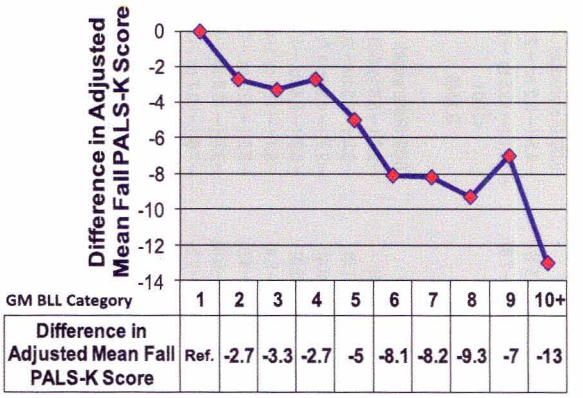


FIGURE 3

Adjusted differences in mean fall PALS-K scores between refined GM BLL categories compared with the reference category (<2 μg/dL). Linear regression model was adjusted for age at the start of kindergarten, gender and year, race, child language, and free/reduced lunch status.

available at the individual child level, it was possible to examine the association of lead and reading readiness within this diverse urban population without excluding children on the basis of race/ethnicity.

One in 5 (20%) Providence public school kindergarteners in our study had at least 1 BLL ≥10 μg/dL; 67% had at least 1 BLL ≥5 μg/dL. These results are markedly higher than NHANES estimates from the same time[28] and suggest that national population estimates may seriously underestimate the lead problem in urban schools.

Exposure to lead in older housing may help to explain some of the disparities in reading readiness seen in at-risk urban children in the United States. The higher BLLs seen in this study may be associated with living in lower quality housing, higher maternal lead levels, higher exposure to secondhand smoke,[30] or other unmeasured factors. Children eligible for a free school lunch would more likely live in lower quality housing compared with children paying for their lunch. Our results suggest the need to continue to emphasize primary prevention efforts focused on older housing and to evaluate the effectiveness of these public health measures in protecting young children.

We were able to conduct this study because of the following: (1) the high level of BLL screening penetration in Providence and (2) the ongoing relationships and strong cooperation between the state health department, local public schools, and a local community data provider, which made data linkage possible. Such relationships provide opportunities to link existing health and education data sets and to potentially identify other critical associations between environmental factors, health, and educational success at a relatively low cost.

The high rate of lead screening among kindergarten students (88%) suggests that Rhode Island's public health leadership and partnership with private providers have been successful. Unlike other states, the RIDH maintains childhood lead screening information in a central registry (KIDSNET) that also includes individual child data on 9 public health programs, including child immunization records.[31] Having online access to blood lead testing results for individual children may encourage more screening of at-risk children, particularly children who move and change providers frequently.

Our results suggest the need to evaluate current screening approaches for early reading intervention and to determine whether adding a history of elevated BLL could improve targeting of children who are at risk of school failure and are not presently being captured in that system. The use of a population-based approach to target additional early childhood education opportunities to communities where large proportions of children have elevated BLLs might be cost-effective.

TABLE 4 Prevalence Ratio of Scoring Below the PALS-K Fall Benchmark (95% CI) by BLL Categories

	Group Size, *n*		Model 1	Model 2	Model 3	Model 4	Model 5
	Below Fall BM	Above Fall BM					
GM BLL categories	1193	2213					
0–4 μg/dL	668	1423	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)
5–9 μg/dL	415	683	1.18 (1.16–1.21)	1.20 (1.18–1.22)	1.23 (1.21–1.25)	1.22 (1.20–1.25)	1.21 (1.19–1.23)
≥10 μg/dL	110	107	1.58 (1.54–1.63)	1.62 (1.57–1.66)	1.66 (1.62–1.71)	1.61 (1.56–1.65)	1.56 (1.51–1.60)
Log GM BLL doubling model, per twofold increase	1193	2213	1.18 (1.17–1.19)	1.19 (1.18–1.20)	1.20 (1.19–1.21)	1.19 (1.18–1.21)	1.17 (1.16–1.19)
P			<.001	<.001	<.001	<.001	<.001

N = 3406. Model 1 was unadjusted; model 2 was adjusted for age at start of kindergarten, gender, and year; model 3 was additionally adjusted for race; model 4 was additionally adjusted for child language; model 5 was additionally adjusted for free/reduced lunch status. All values were significant at *P* = .001. BM, benchmark.

Strengths of this study include the following: the sample size; the availability of multiple BLL tests for each child; the quality of school enrollment data, birth data, and measurements of kindergarten reading readiness; and high-quality linkage of multiple data sets. However, data were originally collected for other purposes. Limitations include the few measures of reliability for BLL surveillance data and the availability of PALS-K in English only; a Spanish version of PALS-K was undergoing field testing during our study.[32] Our limited measures of SES and indicators of the enrichment of the child's early education and home environment, important for future studies,[20] may inadvertently result in residual confounding.

CONCLUSIONS

These results suggest that lead exposure at levels well below 10 μg/dL contributes to decreased reading readiness at kindergarten entry. The finding of a high prevalence of elevated BLLs in this urban school district warrants attention to other potentially high-risk urban populations. We linked kindergarten reading readiness and child health data to evaluate a diverse population of schoolchildren. The successful collaboration between public health and public education agencies and community data providers presents a model for other jurisdictions to consider. Future evaluation of student performance on end-of-grade tests later in elementary school (third and fourth grades) in this diverse cohort could help us to better understand the long-term impacts of both kindergarten reading readiness and childhood lead exposure on school success.

REFERENCES

1. US Environmental Protection Agency, Environmental Criteria and Assessment Office. *Air Quality Criteria for Lead.* Research Triangle Park, NC: US Environmental Protection Agency, Office of Research and Development, Office of Health and Environmental Assessment, Environmental Criteria and Assessment Office; 1986
2. Lanphear BP, Hornung R, Khoury J, et al. Low-level environmental lead exposure and children's intellectual function: an international pooled analysis. *Environ Health Perspect.* 2005;113(7):894–899
3. Lanphear BP, Dietrich K, Auinger P, Cox C. Cognitive deficits associated with blood lead concentrations <10 microg/dL in US children and adolescents. *Public Health Rep.* 2000;115(6):521–529
4. Miranda ML, Kim D, Galeano MA, Paul CJ, Hull AP, Morgan SP. The relationship between early childhood blood lead levels and performance on end-of-grade tests. *Environ Health Perspect.* 2007;115(8):1242–1247
5. Miranda ML, Kim D, Reiter J, Overstreet Galeano MA, Maxson P. Environmental contributors to the achievement gap. *Neurotoxicology.* 2009;30(6):1019–1024
6. Fergusson DM, Horwood LJ, Lynskey MT. Early dentine lead levels and educational outcomes at 18 years. *J Child Psychol Psychiatry.* 1997;38(4):471–478
7. Fergusson DM, Horwood LJ. The effects of lead levels on the growth of word recognition in middle childhood. *Int J Epidemiol.* 1993;22(5):891–897
8. Miranda ML, Kim D, Hull AP, Paul CJ, Galeano MA. Changes in blood lead levels associated with use of chloramines in water treatment systems. *Environ Health Perspect.* 2007;115(2):221–225
9. Centers for Disease Control and Prevention Advisory Committee on Childhood Lead Poisoning Prevention. Low level lead exposure harms children: a renewed call for primary prevention. Atlanta, GA: US Centers for Disease Control and Prevention; January 4, 2012. Available at: www.cdc.gov/nceh/lead/ACCLPP/Final_Document_030712.pdf. Accessed July 11, 2012
10. Bellinger DC, Rappaport L. Developmental assessment and interventions. In: Harvey B, ed. *Managing Elevated Blood Lead Levels Among Young Children: Recommendations From the Advisory Committee on Childhood Lead Poisoning Prevention.* Atlanta, GA: Centers for Disease Control and Prevention: 277–295
11. International Reading Association; National Association for the Education of Young Children. Learning to read and write. *Read Teach.* 1998;52(2):193–216
12. Wren S. The cognitive foundations of learning to read: a framework. Southwest Educational Development Laboratory (SEDL), 2000. Available at: www.sedl.org/reading/framework/framework.pdf. Accessed January 2, 2010 and March 31, 2013
13. Wagner RK, Torgesen JK. Nature of phonological processing and its causal role in the acquisition of reading skills. *Psychol Bull.* 1987;101(2):192–212

14. Felton RH. Effects of instruction on the decoding skills of children with phonological-processing problems. *J Learn Disabil.* 1993; 26(9):583–589
15. Noble KG, Tottenham N, Casey BJ. Neuroscience perspectives on disparities in school readiness and cognitive achievement. *Future Child.* 2005;15(1):71–89
16. Reading First—Rhode Island. Available at: www.ride.ri.gov/instruction/rireadingfirst.aspx. Accessed January 2, 2010
17. US Department of Education. Reading First program. Available at: www.ed.gov/programs/readingfirst/index.html. Accessed January 2, 2010
18. Alexander K, Wall A. Adequate funding of education programs for at-risk children: an econometric application of research-based cost differentials. *J Educ Finance.* 2006; 31(3):297–319
19. National School Lunch Program Web site. Available at: www.fns.usda.gov/cnd/Lunch/. Accessed January 2, 2010
20. Invernizzi M. Early literacy screening in kindergarten. *J Literacy Res.* 2004;36(4):479–500
21. Reading Assessment Database–SEDL Reading Resources. Available at: www.sedl.org/reading/rad/. Accessed January 2, 2010
22. Maki M. Curry professor champions child literacy. Available at: www.oscar.virginia.edu/researchnews/x8635.xml. Accessed December 2, 2009
23. Invernizzi M, Landrum TJ. *PALS-K Phonological Awareness Literacy Screening for Kindergarten 2005-2006: Technical Report of Annual Screening Results.* Charlottesville, VA: University of Virginia; 2006
24. Invernizzi M, Juel C, Swank L, Meier J. *PALS-K Technical Reference, Form A.* Charlottesville, VA: University of Virginia, Curry School of Education; 2005–2006
25. Lead Poisoning Prevention Act [R23-24.6-PB]. Rhode Island General Law ch 24.6. Available at: http://www2.sec.state.ri.us/dar/regdocs/released/pdf/DOH/4806.pdf. Accessed January 3, 2010
26. Rhode Island Lead Screening and Referral Guidelines 2007. Available at: www.health.ri.gov/lead/professionals-screening.php. Accessed January 3, 2010
27. Centers for Disease Control and Prevention. *Third National Report on Human Exposure to Environmental Chemicals.* Atlanta, GA: Centers for Disease Control and Prevention; 2005. Available at: http://www.jhsph.edu/research/centers-and-institutes/center-for-excellence-in-environmental-health-tracking/Third_Report.pdf. Accessed January 3, 2010
28. Jones RL, Homa DM, Meyer PA, et al. Trends in blood lead levels and blood lead testing among US children aged 1 to 5 years, 1988-2004. *Pediatrics.* 2009;123(3). Available at: www.pediatrics.org/cgi/content/full/123/3/e376
29. Wang AH. Pre-kindergarten achievement gap? Scope and implications. *Online Submission, US-China Education Review.* 2008; 5(9):23–31
30. Apostolou A, Garcia-Esquinas E, Fadrowski JJ, McLain P, Weaver VM, Navas-Acien A. Secondhand tobacco smoke: a source of lead exposure in US children and adolescents. *Am J Public Health.* 2012;102(4): 714–722
31. Hall K, Zimmerman A, Simon PR, Samos J, Hollinshead WH. Coordinating care for children's health: a public health integrated information systems approach. *Am J Prev Med.* 1997;13(Suppl):32–36
32. Newswise (University of Virginia). University launches program for reading skills of Spanish-speaking kids. Available at: www.newswise.com/articles/view/523037/. Accessed January 3, 2010

(Continued from first page)

FINANCIAL DISCLOSURE: *The authors have indicated they have no financial relationships relevant to this article to disclose.*

FUNDING: Dr McLaine's doctoral education and this research were supported (in part) by funding from the National Institute for Occupational Safety and Health Education and Research Center for Occupational Safety and Health at the Johns Hopkins Bloomberg School of Public Health (T42-OH 008428). Portions of this study were supported by contract 200-2006-15969-93 from the Centers for Disease Control and Prevention, US Department of Health and Human Services.

Elevated Blood Lead Levels and Reading Readiness at the Start of Kindergarten

Pat McLaine, Ana Navas-Acien, Rebecca Lee, Peter Simon, Marie Diener-West and Jacqueline Agnew

Pediatrics; originally published online May 13, 2013;
DOI: 10.1542/peds.2012-2277

The Impact of Blood Lead Levels on Reading Readiness in Kindergarten

Maryland Lead Commission
June 13, 2013
Pat McLaine, DrPH, MPH, RN

PEDIATRICS®
OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Elevated Blood Lead Levels and Reading Readiness at the Start of Kindergarten

Pat McLaine, Ana Navas-Acien, Rebecca Lee, Peter Simon,
Marie Diener-West and Jacqueline Agnew

Originally published online May 13, 2013

DOI: 10.1542/peds.2012-2277

Background

- Lead associated with cognitive effects in children
  - Decreased IQ
  - Poor school performance
    - Lower scores on end of grade exams (reading, math)
    - Failure to graduate from high school
  - Reading disability
  - Increased attentional dysfunction
  - Increased aggression
  - Increased delinquency
- Early deficits may persist.
- No threshold.

Reading Readiness

- About 25% of US children enter kindergarten not ready to learn to read
- Reading readiness predicts
  - success in school
  - later employment opportunities
- **Early** educational intervention is more effective
  - 80% if before 3rd grade
  - 10-15% if after 5th grade

Factors Associated with Reading

- SES – parents' education and occupation
- Family risk factors – stress, depression, hunger, single parent
- Quality of home environment
- Child's age
- Language

Enriched/Nurturing Environment

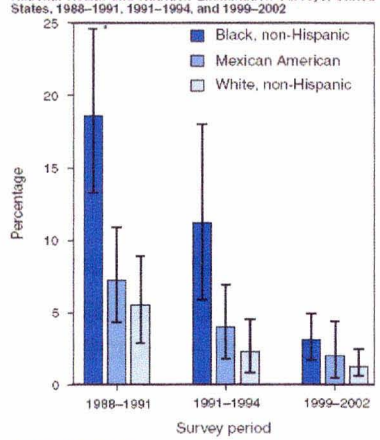
Animal Studies

- Stimulation and exercise improve behavior and learning
  - Toys
  - Exercise wheels
  - Other rats
- Improvements associated with changes in:
  - Brain size, weight, structures
  - Changes in neuro-circuitry
  - Increases in synaptic plasticity
- Continuous exposure to enriched environment necessary to maintain gains

Human Studies

- Stimulation, higher SES and increased environmental control improve academic performance.
  - Books and materials
  - Parent involvement
  - Nurturing relationships
- Stress associated with decreased brain size, structures
- School intervention for poor readers associated with changes in brain neuro-circuitry
- Reading interventions must continue during vacation to maintain progress

FIGURE. Percentage of children aged 1–5 years with blood lead levels ≥10 µg/dL, by race/ethnicity and survey period — National Health and Nutrition Examination Surveys, United States, 1988–1991, 1991–1994, and 1999–2002



*95% confidence interval.

NHANES: Children's Blood Lead Levels - United States, 1988-1991, 1991-1994, 1999-2002.
MMWR. 2005; 54(20):513-516 http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5420a5.htm

Effects of Blood Lead <5 µg/dL on Standardized Tests

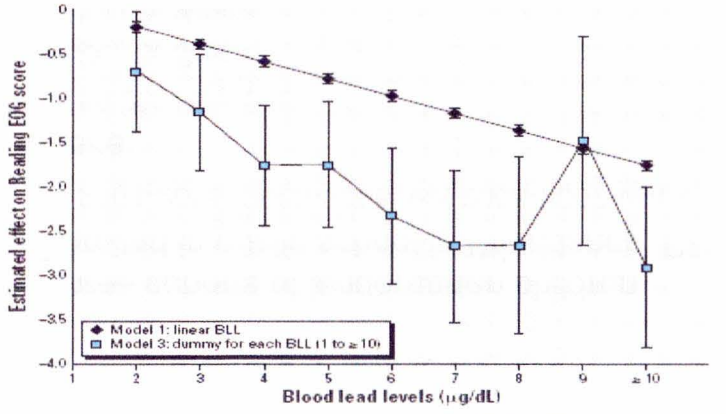
NHANES III, n=4,853, ages 6-16 years

Current Blood lead	Math Test Adjusted mean	Reading Test Adjusted mean
≤1 µg/dL	95.8	94.5
1.1-1.9 µg/dL	94.0	93.3
2.0-3.0 µg/dL	94.7	93.0
>3.0 µg/dL	91.4	88.2
	p<0.0001	p<0.0001

Lanphear et al. *Public Health Reports* 2000;115:521-9

Lead and Reading Scores

~8,600 children



Miranda et al. EHP 2007;115(8):1242-1247

Methods

Study Population

- Three cohorts of kindergarten children enrolled in public school in Providence, RI
  - 2004-2005, 2005-2006 and 2006-2007 years
- Race:
  - 59.3% Hispanic
  - 20.7% Black
  - 13.0% White
  - 7.0% Other – primarily Asian

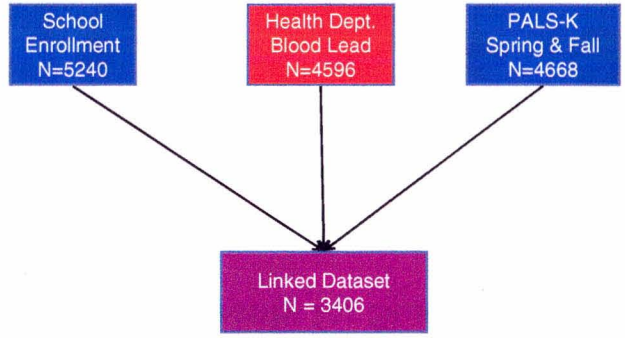
Lead Exposure

- Geometric mean (GM) blood lead level, calculated for each child using all blood lead measures reported to Rhode Island Department of Health surveillance system
  - Excluded capillary BLL $\geq$10µg/dL
  - Average 3.3 samples/child
  - About 88% of kindergarten population tested
  - Blood lead <5µg/dL, 5-9µg/dL & 10+µg/dL

Outcome Assessment

- Phonological and Literacy Screening – Kindergarten (PALS-K) Test
  - Reading readiness test administered in fall and spring of kindergarten
  - Screening, diagnostic & evaluation tool
  - Total score benchmarks set (intervention)
    - Fall = 28/102 points
    - Spring = 81/102 points
  - Study measures
    - Total score
    - Achievement of benchmark (yes/no)

Data Sources and Sample Size



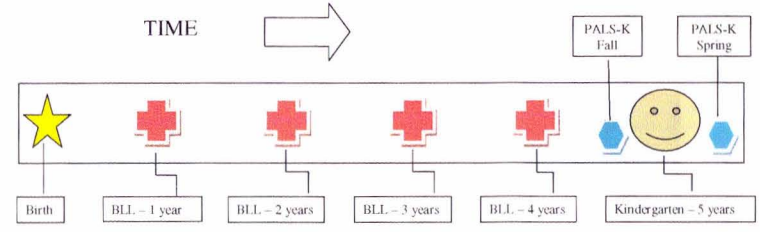
Inclusion Criteria

- Enrolled for first time in full time kindergarten
  - Regular program (English)
  - Dual language (English and Spanish)
  - English as a second language (English)

  Excluded children in Spanish-only and Special Education Programs

- Fall and spring PALS-K test results available
- At least one blood lead level test available

Time Line of Events for Study Participants

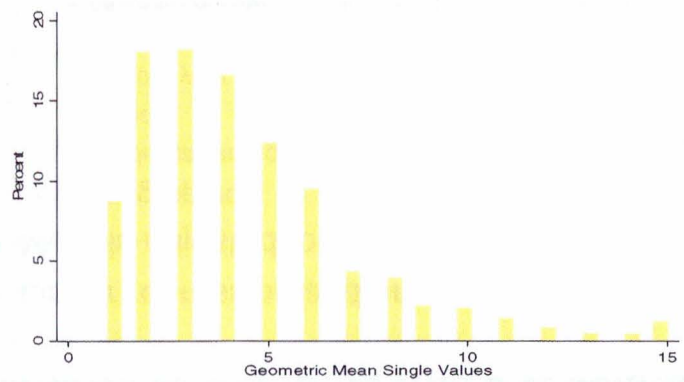


Methods to examine this association

- Linear regression and prevalence ratios
- Models adjusted for:
  - Demographics
    - Kindergarten age
    - Gender
    - School year
    - Race
    - Child language
  - Socio-economic status
    - Free/reduced lunch status

Results

Distribution of GM Blood Lead Levels



Geometric Mean Blood Lead Levels

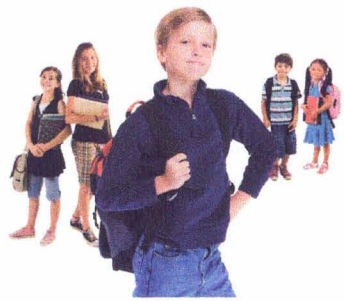
Variable	N (%)	Median GM BLL	IQR	p-value
Total Group	3406 (100)	4.2	2.9-6.0	
Gender				0.34
Female	1679 (49)	4.2	2.9-6.0	
Male	1727 (51)	4.2	2.8-6.0	
Lunch Status*				<0.0001
Pay	336 (10)	3.9	2.3-5.6	
Reduced	357 (10)	3.8	2.5-5.2	
Free	2713 (80)	**4.3**	3.0-6.1	

* Measure of SES

Geometric Mean Blood Lead Levels

Variable	N (%)	Median GM BLL	IQR	P-value
Race				<0.0001
White	442 (13)	4.2	2.7-6.0	
Black	707 (21)	5.0	3.2-7.0	
Hispanic	2021 (59)	**4.0**	2.7-5.6	
Other	236 (7)	4.5	3.0-6.5	
Child Language				<0.0001
English	2074 (61)	4.3	3.0-6.1	
Spanish	1219 (36)	**4.0**	2.7-5.5	
Other	98 (3)	5.0	3.5-8.0	
Missing	15 (-)	3.9	2.4-6.6	

Prevalence of BLLs ≥10µg/dL in Providence kindergarten students



- 20% - one in five - had at least one BLL ≥10µg/dL.
- NHANES 1999-2004: 1.4% of 1-5 year olds had BLL ≥10µg/dL.

PALS-K Fall Scores

Variable	N (%)	Mean	SD	P-value
Blood Lead Category				<0.0001
BLL<5ug/dL	2091 (61.5)	42.9	23.9	
BLL5-9ug/dL	1098 (32)	39.5	23.9	
BLL10+ug/dL	217 (6.5)	33.8	23.3	
Free/Reduced Lunch Status*				<0.0001
Pay	336 (10)	52.2	24.5	
Reduced	357 (10)	45.5	24.5	
Free	2713 (80)	39.3	23.4	

* Measure of SES

PALS-K Fall Scores

Variable	N (%)	Mean	SD	P-value
Race				<0.0001
White	442 (13)	50.3	25.1	
Black	707 (21)	46.9	23.0	
Hispanic	2021 (59)	37.3	23.0	
Other	236 (7)	41.1	24.2	
Child Language				<0.0001
English	2074 (61)	46.0	24.0	
Spanish	1219 (36)	33.9	21.9	
Other	98 (3)	32.1	21.9	
Missing	15 (-)	43.3	21.3	

Difference in PALS-K Fall Score (95%CI)

	Model 1	Model 3	Model 5
GM BLL Category			
0-4ug/dL	0.0 (Reference)	0.0 (Reference)	0.0 (Reference)
5-9ug/dL	-3.4 (-5.2,-1.7)	-4.9 (-6.6,-3.2)	**-4.5** (-6.2,-2.9)
10+ug/dL	-9.1 (-12.5,-5.8)	-11.7 (-15.0,-8.5)	**-10.1** (-13.3,-7.0)
p-trend	<0.001	<0.001	<0.001
Per 2-fold increase	-3.2 (-4.2,-2.3)	-4.1 (-5.0,-3.1)	-3.5 (-4.4,-2.6)
p-value	<0.001	<0.001	<0.001

Model 1: Lead only
Model 3: Adjusted for age at start of kindergarten, year, sex, race
Model 5: Further adjusted for child language, free/reduced lunch status

Association of Other Covariates with PALS-K Summary Score (Model 5)

Covariate	Difference in Fall PALS-K Summary Score (95% CI)
Gender	
Female	Reference
Male	-2.80 (-4.31, -1.30)
Free/Reduced Lunch Status	
Pay for lunch	Reference
Reduced lunch	-4.18 (-7.56, -0.80)
Free lunch	**-10.31** (-12.91, -7.71)
Child Language	
English	Reference
Spanish	**-8.43** (-10.41, -6.44)
Other	**-12.74** (-17.91, -7.57)

Final model was adjusted for blood lead level, gender, year, age at time of test, race, child language, free/reduced lunch status.

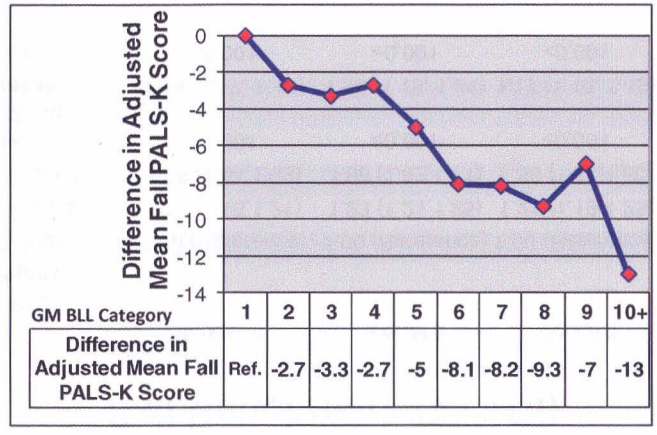
Lead and Reading Readiness in Fall of Kindergarten

- Compared to students with BLL 0-4µg/dL, fall scores were:
  - **4.5** points lower if BLL was **5-9µg/dL**
  - **10.1** points lower if BLL was **10+µg/dL**

Lead and Reading Readiness in Fall of Kindergarten

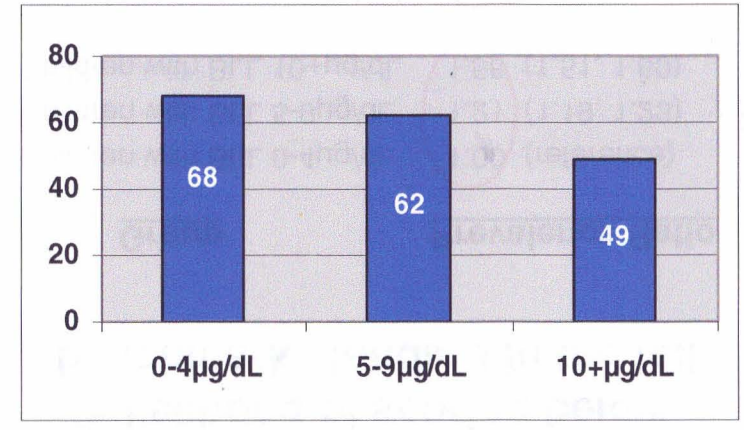
- Compared to students with BLL 0-4µg/dL, fall scores were:
  - **4.5** points lower if **BLL** was **5-9µg/dL**
  - **10.1** points lower if **BLL** was **10+µg/dL**
- Compared to students who paid for their lunch, fall scores were:
  - **4.2** points lower if eligible for **reduced lunch**
  - **10.3** points lower if eligible for **free lunch**

Differences in Mean Fall PALS-K Scores between Refined GM BLL Category & Reference Category



GM BLL Category	1	2	3	4	5	6	7	8	9	10+
Difference in Adjusted Mean Fall PALS-K Score	Ref.	-2.7	-3.3	-2.7	-5	-8.1	-8.2	-9.3	-7	-13

% Above Fall PALS-K Benchmark by Blood Lead Level



Prevalence Ratios of Scoring Below Fall Benchmark (95%CI)

	Model 1	Model 3	Model 5
GM BLL Category			
0-4ug/dL	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)
5-9ug/dL	1.18 (1.16,1.21)	1.23 (1.21,1.25)	**1.21** (1.19,1.23)
10+ug/dL	1.58 (1.54,1.63)	1.66 (1.62,1.71)	**1.56** (1.51,1.60)
p-trend	<0.001	<0.001	<0.001
Per 2-fold increase	1.18 (1.17, 1.19)	1.20 (1.19, 1.21)	**1.17** (1.16, 1.19)
p-value	<0.001	<0.001	<0.001

Model 1: Lead
Model 3: Adjusted for age at start of kindergarten, year, sex, race
Model 5: Further adjusted for child language, free/reduced lunch status

Likelihood of scoring below benchmark standard in the fall

Group	Prevalence Ratio
Children with BLL 0-4µg/dL	1.00 (reference)
Children with BLL 5-9µg/dL	1.21 (1.19, 1.23)
Children with BLL 10+µg/dL	1.56 (1.51, 1.60)
Doubling model – log BLL	1.17 (1.16, 1.19)

Discussion

Success in highly exposed

- No information to explain why half of children with highest BLLs achieved fall benchmark
  - Limited SES measures
  - No information about enriched home environment
  - No data on early childhood education – increasing early educational investments here might help

Study Strengths

- Multiple measures of BLL = better estimate of average lead exposure
  - 88% of kindergarten population tested
- Longitudinal measurements for reading readiness: fall and spring of kindergarten
- Diverse population: school data on race and language, no exclusions
- High quality data and data linkage
- On-going partnerships and commitment to using data to improve outcomes for kids

Study Limitations

- Data originally collected for other purposes
- Some unknowns:
  - Early childhood education
  - Home environment
  - Parental IQ
  - Parental education
  - Other SES measures
  - Iron status

Conclusions

Readiness at the start of Kindergarten

- Increased BLLs are associated with lower levels of reading readiness over the entire range of BLLs with no evidence of a threshold.
- The magnitude of the association is comparable to that observed for free and reduced lunch, our measure of SES.
- Higher BLLs were associated with increased likelihood of failure to achieve reading readiness benchmark standard in the fall.
- The risk of not being ready **doubles** if children are both poor and have higher BLLs.

Overall Conclusions

- Lead exposure contributes to disparities observed for reading readiness.
- Data support that there is no "safe" lead level.
- Targeting children with elevated BLLS for early educational opportunities may help.
- Evaluation in diverse urban populations is feasible and desirable.
- Public health & public schools could benefit from additional data linkage approaches.
- Advocacy for resources and approaches that work will be critical.

Possible Next Steps

- Should we examine the relationship between lead exposure and school outcomes in Maryland?
- Are Maryland's investments in early care and education aligned well for children who are at-risk due to poverty, behavioral and developmental problems and lead exposure?
- Does Maryland's current referral system for Early Intervention identify children with elevated BLLs?
- Are Maryland children with higher BLLs more successful in school if they participated in Early Intervention programs?

Thank you!

- Rhode Island Health Department
- Providence Plan
- Providence Public School District
- Johns Hopkins Education & Research Center for Occupational Safety & Health (NIOSH)
- Centers for Disease Control and Prevention

Portions of this study were supported by contract # 200-2006-15969-93 from the Centers for Disease Control and Prevention, U.S. Department of Health and Human Services.

Special thanks to:

- Peter Simon, MD, RI Department of Health
- Rebecca Lee, Providence Plan
- Jim Lucht, Providence Plan
- Amy Pettine, RI Public Transit Authority
- Sharon Contreras, Providence Public Schools
- Sandy Rainone, Providence Public Schools
- Abraham Williams, Providence Public Schools
- Lou DiPaola, Providence Public Schools
- Beth Graziano, RN, VNA of Care New England
- Donna Strabino, JHSPH

Thanks to the "Behind the Scenes Team"

- The Lead Team:
  - Magaly Angeloni
  - Bob Vanderslice
  - Daniela Quilliam
  - Anne Primeau-Faubert
- KIDSNET Team:
  - Sam Viner Brown
  - Ellen Amore
- Kristene Campagna
- Bill Hollinshead, MD, Medical Director (retired)
- Ana Novais, Executive Director

National Center for Healthy Housing

LEAD POISONING PREVENTION COMMISSION

Thursday, June 13, 2013
9:30 AM - 11:30 AM

Rebecca Morley
Executive Director
National Center for Healthy Housing

National Center for Healthy Housing

FEDERAL HEALTHY HOUSING LANDSCAPE:

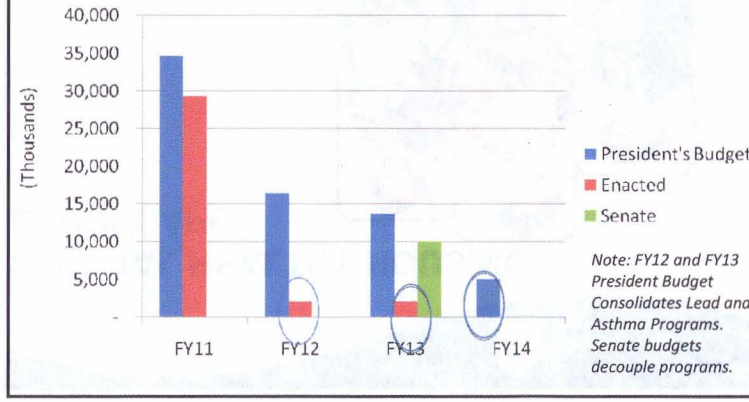
:

National Center for Healthy Housing

THE UGLY…

National Center for Healthy Housing

CDC's Healthy Homes/Lead Poisoning Prevention Program Budget Snapshot



Note: FY12 and FY13 President Budget Consolidates Lead and Asthma Programs. Senate budgets decouple programs.


USA TODAY
"Funds for screening kids dwindle as lead threat increases"
THE PLAIN DEALER
"Tougher lead poisoning rules: Less money to treat more kids CDC mulls stricter standards as states face funding cuts"
The New York Times
"Drastic Cuts to Lead Poisoning and Prevention Funds"
Greenwire
"Programs to screen, treat lead poisoning in children face budget ax"
CQ WEEKLY
"A Thinner Coat of Funding"
THE BUSINESS JOURNALS
A DIVISION OF ACBJ
"Congress Delivers Lump of Lead to Our Nation's Children"
CLEVELAND.COM
"Federal cuts to lead poisoning prevention programs concern city, state officials"
USA TODAY
"Lower lead levels harmful for kids, yet preventive funds dwindle"


C.D.C. Lowers Recommended Lead-Level Limits in Children
By ANEMONA HARTOCOLLIS
Published: May 16, 2012
The New York Times
Thursday, May 17, 2012
CDC adopts tougher rules about lead poisoning in kids
Detroit Free Press
A GANNETT COMPANY
CDC lowers lead poisoning threshold
A sixfold increase in Maryland children potentially at risk
THE BALTIMORE SUN
CDC Cuts Lead-Poisoning Limit For Kids
npr
Lead Poisoning Threshold Lowered By CDC, Five Times More Children Now Considered At Risk
THE HUFFINGTON POST

National Center for Healthy Housing

THE BAD

National Center for Healthy Housing

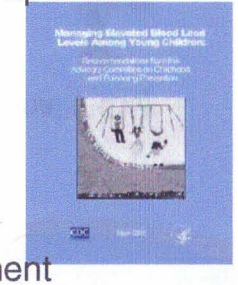
CDC Defunding Impact Survey

- CLPPP State Administrators from 34 States
  - 17 responded
- Local Subgrantees
  - 8 local programs responded

National Center for Healthy Housing

Program Impacts

- Loss of approx 345 positions nationwide
- Program elements severely impacted:
  - Education and outreach
  - Surveillance
  - Program evaluation
  - Direct services
- Largest staff reductions in epidemiology & data management



National Center for Healthy Housing

CLPPP Program Survival

- State Level (n=17)
  - 100% CLPPP still exists
  - 76.5% had staff eliminated or shifted
- Subgrantees (n=8)
  - 88% CLPPP still exists
  - 38% had staff eliminated or shifted

National Center for Healthy Housing

CLPPP Positions Most Affected

- State Positions Eliminated
  - Environmental Health Professional (46%)
  - Case Managers/Others (40%)
  - Health Educators (36%)
- State Positions Shifted
  - Program Coordinators (78%)
  - Surveillance/Data Management (56%)
  - Case Managers/Others (50%)

National Center for Healthy Housing

CLPPP Program Components

- State Components Eliminated
  - Education/Outreach
    - to General Public (78%)
    - to Professionals (67%)
  - Primary Prevention activities (56%)
  - Surveillance/Data Management (11%)

National Center for Healthy Housing

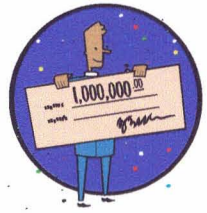
CLPPP Replacement Funding

- State (n=17)
  - None (12%)
- Local (n=8)
  - None (75%)

National Center for Healthy Housing

CLPPP Reimbursement

- By Medicaid
  - For Investigations
    - State (50%)
    - Local (38%)
  - For Case Management
    - State (29%)
    - Local (12.5%)
- By Private Insurance (0%)



National Center for Healthy Housing

CLPPP 5-9 µg/dL Follow-up

- State Follow-up Services (n=16)
  - Phone (44%)
  - Partnership, Mail, Other (31%)
  - No services (19%)
  - Inspection (13-19%)
- Local Follow-up Services (n=8)
  - Phone (63%)
  - Mail, No services (50%)
  - Partnership (25%)
  - Inspection (13%)

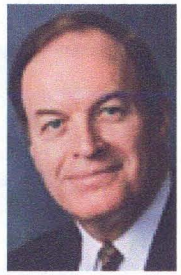
National Center for Healthy Housing

THE GOOD

National Center for Healthy Housing

Senate Committee on Appropriations

Sen. Barbara Mikulski (D-MD) - Chair



Sen. Richard Shelby (R-AL) – Ranking Member

National Center for Healthy Housing

Senate Subcommittee on Labor, HHS, and Education

Sen. Tom Harkin (D-IA) - Chair

Democrats

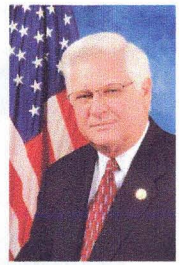
- Senator Tom Harkin (Chairman) (IA)
- Senator Patty Murray (WA)
- Senator Mary Landrieu (LA)
- Senator Dick Durbin (IL)
- Senator Jack Reed (RI)
- Senator Mark Pryor (AR)
- Senator Barbara Mikulski (MD)
- Senator Jon Tester (MT)
- Senator Jeanne Shaheen (NH)
- Senator Jeff Merkley (OR)

Republicans

- Senator Jerry Moran (Ranking) (KS)
- Senator Thad Cochran (MS)
- Senator Richard Shelby (AL)
- Senator Lamar Alexander (TN)
- Senator Lindsey Graham (SC)
- Senator Mark Kirk (IL)
- Senator Mike Johanns (NE)
- Senator John Boozman (AR)

National Center for Healthy Housing

House Committee on Appropriations



Rep. Hal Rogers
(R-KY) - Chair

Rep. Norm Dicks
(D-WA) – Ranking Member

National Center for Healthy Housing

House Subcommittee on Labor, HHS, and Education

Jack Kingston
(R-GA) - Chair

Rep. Rosa DeLauro (D-CT) – Ranking Member

Republicans
Jack Kingston, Georgia, Chairman
Rodney Alexander, Louisiana
Mike Simpson, Idaho
Steve Womack, Arkansas
Chuck Fleischmann, Tennessee
David Joyce, Ohio
Andy Harris, MD, Maryland

Democrats
Rosa DeLauro, Connecticut, Ranking Member
Lucille Roybal-Allard, California
Barbara Lee, California
Mike Honda, California

National Center for Healthy Housing

Rebecca Morley

National Center for Healthy Housing

in Columbia, MD and Washington DC

rmorley@nchh.org

www.nchh.org

(t) 443.539.4159

JULY 11, 2013

LEAD POISONING PREVENTION COMMISSION MEETING

Lead Commission Members
Sign-in Sheet
Thursday July 11, 2013

	Name	Agency	Email Address	Phone Number
✓	Ed Lawson	DHCD	Lawsone@md.hy.org	410-514-7444
✓	KAREN HORNIG	MIA	Karen.hornig@maryland.gov	410-468-5010
Next	Tonii Chavis	UMB	tonii.chavis@bmsi.org	410-558-4077
✓	MEL JENKINS	SMC	meljenkins@smcmail.com	703-902-2000
	~~N. COLOCS~~	~~HABC~~	~~VICK.CALAGE@HABC.ORG~~	
✓	PJ CONNOR	CONNOR	PJCONNOR@CONNORSOLUTIONS.	443 695 3824
✓	Linda Roberts	EMC	lroberts@emcmgmt.com	301-562-1766
✓	Pat McLaine	UMSON	mclaine@son.umaryland.edu	

Lead Commission Guest
Sign-in Sheet
Thursday July 11, 2013

	Name	Agency	Email Address	Phone Number
✓	Shakêtta Denson	CEDP	sdenson@ghhi.org	4438425724
✓	William Locher	HABC	William.Locher@habc.org	443.984.2224
✓	GREGORY HARR	HABC	GREGORY.HARR@HABC.ORG	443-984-2216
✓	JOHN KRUPINSKY	MDE	JOHN.KRUPINSKY@MARYLAND.GOV	410-537-3844
✓	Dana Schmidt	MMHA	dschmidt@mmhaonline.org	410 825 6868
✓	Ken Strong	Balto. City HCD	ken.strong@baltimorecity.gov	410-396-3474
✓	N. CALACE	HABC	NICK.CALACE@HABC.ORG	443-984-2224
✓	Clifford [illegible]	DHMH	cliff.[illegible]@maryland.gov	410 767 7458
✓	Paula T. Montgomery	MDE	paula.montgomery@Maryland.gov	
✓	John O'Brien	"	jobrien@maryland.gov	(410)537-3825

LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

Thursday, July 11, 2013
9:30 AM - 11:30 AM
STAT ~~AERIS Conference~~ **Rooms**
AGENDA

I. Welcome and Introductions

II. Old Business – follow up on impacts of Federal elimination of funding for CDC's Lead Poisoning Prevention Program

III. Baltimore City Housing – efforts to ensure lead safe rental properties and to pursue housing code violations related to lead paint poisoning risks
- Ken Strong, Deputy Commissioner, Division of Green, Healthy & Sustainable Homes
- Jason Hessler, Housing Community Development Assistant Commissioner for Code Enforcement – Legal Affairs
- Corliss Alston – Section 8 Program Administrator

IV. Agency Updates:
A. Maryland Department of the Environment
B. Department of Health and Mental Hygiene
C. Department of Housing and Community Development
D. Baltimore City Health Department
E. Office of Childcare
F. Maryland Insurance Administration
G. Other Agencies

V. Public Comment

FUTURE MEETING DATE: The Next Lead Commission meeting is scheduled for Thursday, August 1, 2013, in the AERIS Conference Room – Front Lobby, 9:30 to 11:30 AM.

GOVERNOR'S LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

Approved Minutes (11/7/13)
July 11, 2013

Members in Attendance
Patrick Connor, Karen Stakem Hornig, Melbourne Jenkins, Edward Landon, Pat McLaine, Barbara Moore, and Linda Roberts.

Members not in Attendance
Cheryl Hall, Nathaniel Oaks and Mary Snyder-Vogel.

Guests in Attendance
Shaketta Denson – CECLP, Dana Schmidt – MMHA, Tonii Chavis – BMS, William Loehr – HABC, Gregory Hare – HABC, Ken Strong – Baltimore City HCD, Nick Callase – HABC, Dr. Clifford Mitchell – DHMH, Paula Montgomery – MDE, John Krupinsky – MDE staff, and John O'Brien – MDE staff.

Introductions
The meeting began at 9:38 a.m. with introductions.

Old Business - Sending letters to Senators and Congressmen – insufficient number of Commissioners present. Karen Stakem Hornig offered to assist with the letter. Drafts will be sent out to Commissioners by e-mail.

Future Meeting Dates
The next Lead Commission meeting is scheduled for Thursday, August 1, 2013 at MDE in the AERIS conference room. The Commission will meet from 9:30am - 11:30am.

Approval of Minutes
Minutes were not voted on at this meeting due to lack of a quorum.

New Business – Baltimore City Housing Department
Ken Strong introduced Jason Hessler and Michael Braverman from Baltimore City Code Enforcement and Nick Callase who heads the Section 8 Housing Choice Voucher Program.

The Baltimore City Department of Housing and Community Development (BCDHCD) met the goal of fourteen (14) houses for the past quarter that ended on June 30, 2013. The BCDHCD has struggled to identify eligible houses given grant constrictions. They are working with the Health Department and other sources to identify potential houses.

Ken Strong indicated that BCDHCD is restructuring but is way ahead of the rest of the country with regards to emphasis on green, healthy and energy-efficient homes. The Public Service Commission has recently received %52.8 million, to go to 4 city agencies ($19.8 million will go to Green and Healthy Housing). This will enable the program to provide a coordinated approach to housing being targeted. Ken Strong indicated that he is waiting for the Public Service Commission funds before he hires more staff. He indicated that 50% of applicants who wanted weatherization services needed major capital improvements, such as plumbing or roofs. There will be a single

portal at BCDHCD. Green and Healthy Homes is opening a bid for contractors to do lead, roofing and plumbing repairs so work can be streamlined; the bid for contractors will be opening today at 1:00 P.M.

Ken Strong reported that eight (8) community aides being hired to bring in more qualified applicants using CBGD dollars. Paula Montgomery asked if BCHD lead outreach workers would be considered for funding using these moneys. John Krupinsky also noted that BCHD had recently lost two inspector positions with city budget cuts and a 3rd position. Pat McLaine commented that positions at risk at the Baltimore City Health Department are very familiar with lead, are a good quality work force, and are people that should be considered for hiring.

Ken Strong stated that the plan to employ community aides is short term, with funding for one year, based on application made to PSC. The guidelines are very strict. Green and Healthy Housing program held a boot camp with the Coalition, focused on making the HUD grant successful. Community aides would be paid $12/hour and no benefits. The PSC and the Mayor have indicated that these are new services in a coordinated program and the moneys cannot be used to fill in for budget cuts. Sending people to resources hasn't worked in the past, according to Ken Strong.

Jason Hessler reported on progress with Code enforcement. Code Enforcement is working with the Coalition, MDE and BCHD to change processes. The Code Enforcement inspector enters the following information into their data system: if a property is rental, if anyone has been lead poisoned or is at risk, if paint is peeling or chipping. The information about peeling, chipping paint is shared with MDE. Code Enforcement notices with this information serve as a Notice of Defect. Code Enforcement follows up with a letter to the landlord with information about the finding and information on rights of tenants. Jason Hessler stated that he pulls all peeling, chipping paint notices quarterly and sends to MDE for follow-up. MDE then opens a case on the Notice of Defect on an affected property.

Permitting has information on guidelines on lead based paint, which were updated in the last 6 month in accordance with RRP. Contractors must sign to indicate that they are in compliance with RRP.
Paula Montgomery indicated that MDE will have the authority to enforce once regulations are promulgated in January 2014.

MDE indicated that these cases (from Code Enforcement) do not have as high a priority as lead-poisoned children. MDE's priority is: (1) lead poisoned child; (2) complaints including a child; (3) Notice of Defect; (4) Housing Code Enforcement notices.

Owners have thirty (30) days to correct. The date of finding is the date the violation is identified. Fines are based on the length of time of non-compliance: immediately - $ 1,000 fine; letter in six (6) months - $ 40,000 fine. Liens may be taken on the property.

Ken Strong noted that he also plans to offer training for new housing inspectors, based on funding availability. Ken Strong indicated that the community aids will help families and owners comply with the current "torturous" state loan application process". They will scan documents in the home. They are also a Level Two administrator for MERP and would like to qualify as a Level Two administrator for lead.

Patrick Connor asked for additional information about the process, including a flow chart. The BCDHCD will provide this to the Commission.

Patrick Connor also asked how many people were rejected at permitting for not having EPA-certified renovators on staff. And how many fraudulent numbers (EPA certification) had been identified so far. Were forms being submitted with information left blank? Patrick Connor asked if Permitting was doing any checks on validation of the firms with accreditation number.

Jason Hessler indicated that they have been doing this for 6-12 months but haven't been checking any information; they are just adding information to the form.

A comment was made that there apparently is no benefit (in getting a permit) other than filling out a form. Would the City revoke the permit if the information provided was fraudulent? Jason Hessler commented that this could result in being banned for five (5) years.

A comment was made about the importance of having teeth for enforcement.

Jason Hessler said that good relationships existed between City and State agencies and that lawyers from MDE, BCHD, BCDHCD and the Coalition were meeting quarterly to discuss legal issues. BCDHCD requires compliance with all Federal, State and local laws.

Paula Montgomery asked if there was any way to check to see if the persons are properly accredited:

Patrick Connor said he would like to see the numbers. He asked what was required on the form – information about a person or a firm? Jason Hessler indicated he would provide a copy of the Permit Application to the Commission at their next meeting.

Patrick Connor indicated that based on EPA's website, less than 5,000 firms in Maryland have a number, about 20% of the 25,000 firms that are supposed to be in compliance based on Trade Association information. 20,000 – 25,000 disturb paint and fit bill. MDE needs this list. How has the process

worked? Has it encouraged more contractors to comply? How many permits did the City reject last week because the contractors lacked proper numbers or submitted incorrect numbers?

Jason Hessler indicated that there has been no collection of that kind of data. He will talk with the Permit staff and see what their thoughts are on this.

Paula Montgomery indicated that the RRP regulations were published and out for comment, due November 2013.

Ed Landon noted that clear connections with RRP definitively need to be in place by November.

Pat McLaine commented that having a permitting process in place will improve compliance with the law.

Ed Landon asked whether applications are kicked out if there is a lead violation notice on the property when loan applications are submitted. Ken Strong indicated that that is how the HUD lead monies are applied, and that work is coordinated with a single contractor.

Ed Landon suggested that Baltimore City should bring the State Housing attorney generals into regular legal discussions.

Patrick Connor noted that Baltimore City Code Enforcement is sending information to MDE regarding rental properties with defective paint. But 30-35% of EBLs are in privately owned, owner occupied properties. Is anything being done about information concerning peeling flaking paint in owner occupied properties? Jason Hessler said that Code Enforcement does not get entrance into owner-occupied property. Evaluation is exterior only – including high grass, weeds, vacant, broken windows. However, inspectors could still cite deteriorated paint.

Patrick Connor asked where deteriorated paint notices went for owner occupied properties. Jason Hessler indicated that the City could issue citations or could turn the matter over to Legal, where criminal charges or civil injunctions could be filed.

Ken Strong indicated that his program wanted low income families with violations they could not afford to fix. Jason indicates that he does ID and refer properties where children with BLLs of 5μg/dL live.

Patrick Connor asked how much of the HUD money was for owner-occupied properties. Ken Strong indicate there were no set asides. PSC wants weatherization, but they look at both rental and owner occupied. Ken Strong indicated that the program is reaching out to Section 8 tenants and renters and that the program intends to do a lot of work in these properties.

Patrick Connor noted that the program has two separate funding sources: PSC, approximately 20 million for each of 3 years, and HUD, which are leveraged and connected. Are the program requirements for both programs the same?

Ken Strong noted that both HUD and State HCD allowed funding where occupants were at 80% of area median income while PSC funding was for 200% of poverty. Other loan funds being used are between these two requirements. The program will provide stats next month at the August Commission meeting.

Pat McLaine asked if the program checked to see if a property is registered with MDE for lead.
Jason Hessler said no, that they did not have access to that information on-line. All non-owner occupied properties must be registered with the City. Multi-units must be licensed and registered (Part C certification is required). Beginning August 1, 2013, when the City's regulatory year starts, the City will be able to collect better data on forms and will have better oversight. Jason Hessler indicated that it would be useful to have access of the list of properties registered by MDE. The City does its own enforcement on licensing – they go through the list, cite people who don't get licenses (didn't pay, didn't allow inspection, didn't turn in lead certificate form) with a $1,500 fine; certification has greatly increased. Jason Hessler said that he was also reaching out to data pools to make sure everyone who is licensed is in fact in compliance.

Dr. Cliff Mitchell asked if the City provided routine feedback to BCHD if concerns about occupant health were identified (for example, asthma). Ken Strong said that this was done on a case by case basis. He said that he was doing a review of health concerns to see to whom they can refer on these issues. They have referred senior citizens for care. One of their partners has a $1.6 million fall/injury proposal in for funding at Weinberg Foundation with results to be announced August 1 2013 . Ken Strong indicated that the program had evolved its own fall checklist based on information available from HUD and the Coalition and agreed to provide a copy of that list to the Commission.

Ed Landon noted that the 2012 Energy Code standards must be met and that the program must prove 90% compliance with the Energy Code. PSC will definitely care about this. Maryland will start adopting the 2013 code next year. Ken Strong reported that the program is ahead of game and that these goals are achievable.

Jason Hessler reported that information on the Baltimore Housing Code web-site could be searched by address, including information on licenses and the last inspection. Pat McLaine asked if lead registration information could be layered on top of Baltimore City property registration information. Jason Hessler indicated yes, this would be very easy if the City had a way to pull data in regularly and if the data was tied in with the City's block and lot numbers.

Paula Montgomery indicated that the Lead Program is trying to fit into MDE's TEMPO program, but the lead database has too much information. So, the program is subcontracting with an IT vendor who will re-do the lead databases. The Registration and Certification data will be connected. However, a lot of data cleaning is needed. Paula Montgomery indicated that MDE's rental registration will be accessible via the web in the next 5 months. The Certification data is still not ready to go up. Homesteader's tax credit information will be used to help with enforcement.

Pat McLaine commented that it appeared there was a great opportunity to build onto the City's database.

Nick Callase spoke about the Section 8 program. He has only been with the City for 4 weeks but has a long history with non-profits, specifically St. Ambrose, and has worked with 10 housing authorities. He had previously managed a temporary house for families moving out of leaded homes. He indicated that the initial Section 8 inspection identifies peeling/flaking paint, the owner identifies the age of the property. The owner can obtain a lead free certification. If flaking/peeling paint is identified, this must be corrected before certification is issued. Most owners do comply. The assessment is repeated annually. Limited lead-free exteriors are re-evaluated every two (2) years.

A comment was made about remaining 19 Section 8 vouchers (181/200 have been assigned) left that were set aside for emergencies. A comment was made that this is not the same number as the Coalition's list of eleven (11) houses left. A comment was made about expanding this program Statewide because families in this program stay in the homes and safe housing protects children. (This data has been looked at for years.)

Nick Callase asked what happened if kids aged out (were over 6 years of age): should the families keep their voucher? The program has no criteria for aging out and families get to keep the voucher as long as they continue to comply with the program.

One issue - there is a need outside of Baltimore City. Other housing authorities do not have this type of program. When families move out of the City to the County, their voucher goes to the County. When the voucher renews, it is tagged as a lead paint voucher. The program does not have any information about who has ported out of the City. If the family ports to the County, Nick Callase indicated that the Housing Authority could commit to replace the voucher for Baltimore City so the 200 vouchers are maintained.

Paula Montgomery reported that MDE has worked with Bill Loehr for many years. They ensure that the property is in compliance with MDE lead laws before accepting it into the program. Paula Montgomery noted that she has

tried to get other Section 8 agencies in the state on board with lead law compliance, but has not been successful. Paula Montgomery asked if there was an active list of statewide Section 8 properties.

Ed Landon said that Bill Tamborino could provide a list of such properties. Nick Callace indicated that the information was also available from HUD. He clarified that the voucher moves with the person.

Shaketta Denson asked what the requirements were for getting a lead certificate as part of the inspection process. Bill Loehr said that the property must be registered with MDE, and the owner must present an inspection by a licensed inspector and certification showing that the property is in compliance with MDE laws. Nick Callase added that the City has 12,000 vouchers, 12,000 units, 7-8,000 properties and every one of these properties has information.

Patrick Connor indicated that every Section 8 administrator knows the properties they are responsible for. Baltimore City Housing Authority finally realized what they needed to do based on work with the Housing Subcommittee – they are responsible to collect the Section 1018 real estate disclosure form and must have the Maryland inspection certificate attached.

Patrick Connor asked how often the Housing Authority found that EBL kids were living in Section 8 housing in Baltimore City, and if a report could be provided to the Commission.

Bill Loehr indicated that the Housing Authority gets a list every month from the Health Department and that 1 or 2 out of 100 properties might be in Section 8. A comment was made that this is useful information. Bill Loehr indicated that Baltimore has a strong process of ensuring that properties are registered and certified by MDE before they can accept a Section 8 voucher. Other counties may not have information on the built dates of properties.

Patrick Connor requested that information on the number of Section Eight properties associated with lead poisoned children be provided to the Commission. A comment was made about every housing agency in the state functioning like Baltimore City.

After discussion, a motion was made by Karen Stakem Hornig, seconded by Barbara Moore, that in the next 60 days, the Commission send a letter to every housing authority in the state requesting them to (1) report on compliance with 24CFRpart 35 to the extent they are communicating with the local Health Department and cross indexing Federally Supported Housing to children with EBLLs and (2) report on compliance of Federally supported housing with state laws requiring registration and certification of these properties for lead. This information would be included in the annual report to the Governor. The motion passed - Seven (7) in favor, zero (0) opposed.

Karen Stakem Hornig introduced a motion to send a letter to Senators and Representatives about the Federal budget cuts to the CDC lead program. Motion was seconded by Mel Jenkins, and passed seven (7) in favor, zero (0) opposed.

DHMH Update – Dr. Cliff Mitchell reported that DHMH and MDE have almost completed their review of the Targeting Plan. DHMH will bring the plan back to the Commission for review once the two departments have signed off, possibly as soon as the September meeting. With regards to the Point of Care Lead Testing Workgroup – names have been provided to the Governor and DHMH hopes to begin meetings in September.

The meeting was adjourned at 11:34 am..

AUGUST 1, 2013

LEAD POISONING PREVENTION COMMISSION MEETING

MEMBERS

Governor's Lead Commission Meeting Attendance Sheet

August 1, 2013

PLEASE NOTE: This sign-in sheet becomes part of the public record available for inspection by other members of the public.

Name/Signature	Representing	Telephone/Email
CONNOR, Patrick	Hazard ID Professional	
~~DWYER, M.D.Maura~~ Cliff Mitchell	Department of Health and Mental Hygiene	
HALL, Cheryl	Office of Child Care	
HORNIG, Karen Stakem	Maryland Insurance Administration	
JENKINS, Melbourne	Property Owner Pre 1950	
LANDON, Edward	Dept. Housing and Community Dev.	
McLAINE, Patricia	Child Health/Youth Advocate	
MOORE, Barbara	Health Care Provider	
OAKS, Nathaniel (Delegate)	Maryland House of Delegates	
ROBERTS, Linda Lee via phone	Property Owner Post 1949	
SNYDER-VOGEL, Mary	Child Advocate	
VACANT	Secretary of the Environment or Designee	
VACANT	Local Government	
VACANT	Parent of a Lead Poisoned Child	
VACANT	Financial Institution	
VACANT	Child Care Providers	
VACANT	Insurer	
VACANT	Property Owner Pre 1950 Outside Baltimore City	
VACANT	Maryland Senate	

VACANT Dept. of Hlth + Mental Hygiene

Cliff Mitchell - not official yet.

GUESTS

Governor's Lead Commission Meeting Attendance Sheet

August 1, 2013

PLEASE NOTE: This sign-in sheet becomes part of the public record available for inspection by other members of the public.

	Name	Representing	Address/Telephone/Email
✓	SHAKETTA DENSON	CECLP/GHHI	sdenson@ghhi.org 4438425724
✓	Laura Fox	BCHD	Laura.fox@BaltimoreCity.gov 410-361-9604
✓	JOHN O'BRIEN	MDE	jobrien@mdeyland.gov (410) 537-3825
✓	Pat Montgomery	MDE	
✓	Jeff Fretwell	MDE	Jeffrey.fretwell@mdyhd.gov. 410-537-3537
✓	Knowlton	BCHD	
✓	Dana Schmidt	MMHA	dschmidt@mmha online.org
✓	Horacio Tablada	MDE	
✓	Tracy Smith	MDE (staff)	
	Arthur J. Gray	DHCD (City)	
✓	Hosanna Asfaw Means Asfaw-Means		

LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

Thursday, August 1, 2013
9:30 a.m. - 11:30 a.m.
AERIS Conference Room
AGENDA

I. Welcome and Introductions

II. Old business

III. Baltimore City HUD Program – Arthur Gray

Other Commission Items:

Future Meeting Dates: The next Lead Commission Meeting is scheduled for Thursday, September 5, 2013 at MDEStat Conference Room – Front Lobby, 9:30 a.m – 11:30 a.m.

Agency Updates

A. Maryland Department of the Environment
B. Department of Health and Mental Hygiene
C. Department of Housing and Community Development
D. Baltimore City Health Department
E. Office of Childcare
F. Maryland Insurance Administration
G. Other Agencies

Public Comment

GOVERNOR'S LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

APPROVED Minutes
August 1, 2013

Members in Attendance
Patrick Connor, Cheryl Hall, Karen Stakem Hornig, Ed Landon, Melbourne Jenkins, Pat McLaine, Dr. Clifford Mitchell, Barbara Moore, and Linda Roberts (via conference phone).

Members not in Attendance
Delegate Nathaniel Oaks, and Mary Snyder-Vogel.

Guests in Attendance
Shaketta Denson – CECLP, Hosanna -Means – BCHD, Dana Schmidt – MMHA, Laura Fox – BCHD, Myra Knowlton – BCHD, Arthur Gray, DHCD (City), John O'Brien – MDE staff, Horacio Tablada – MDE, John Krupinsky – MDE staff, Paula Montgomery – MDE Staff, Jeff Fretwell – MDE Legislative Office, and Tracy Smith – MDE staff.

Introductions
Pat McLaine started the meeting at 9:41 a.m. with introductions.

Future Meeting Dates
The next Lead Commission meeting is scheduled for Thursday, September 5, 2013 at MDE in the MDEStat conference room. The Commission will meet from 9:30am - 11:30am.

Approval of Minutes
The minutes for May were reviewed and corrections made to pages 1 and 2. Mr. Ed Landon made a motion to approve the minutes; Ms. Cheryl Hall seconded the motion, the minutes were approved unanimously.

The minutes for May were reviewed and one correction made to page 4. Ms. Karen Stakem Hornig made a motion to approve the minutes, Ms. Barbara Moore seconded the motion, the minutes were approved unanimously.

The minutes for July were not available. Changes to the April minutes were discussed; the April minutes will be sent out by email for approval.

Discussion
Old Business - Copies of the letters to senators and representatives were discussed. Pat McLaine checked with Rebecca Morley with regards to status of funding at the Federal level. Thanks to Senator Mikulski, a bill is out of a committee but there is still no budget for CDC's lead program. In June, CDC's lead program staff went from 38 to 8. There is no mandate for data collection and arrangements have not been made for data to be sent in from states. A bill is

pending in the House that would provide funding at the Federal level but not for state or local governments.

Ms. Karen Stakem Hornig commented that the Commission's letters should be more specific about why funding is critical. What doesn't happen if money is not there? Does lack of state-backed funding have a negative impact on a particular congressional district? Case management efforts by local health department nurses have suffered because nurses are no longer able to provide home visits for follow-up.

MDE has stepped up financially and there has not been a critical meltdown of the program in Maryland. Horacio Tablada commented that MDE will continue funding for the program and would like to do more but cannot.

Pat McLaine agreed about the need to be specific in the letters about the number of children with BLLs of 10+ and 5-9µg/dL – a unique letter for each Congressman. Karen Stakem Hornig and Pat McLaine will work on new language to customize the letters and send out to the Commissioners by email for approval.

Baltimore City HUD Program - Arthur Gray made the presentation, representing Ken Strong. Everyone received a copy of the Quarterly Progress Report. Ed Landon asked about additional detail of the work being done. He asked if there was a table that would show matching funds used in addition to HUD monies and what was the result of case management. Ed also asked if the reports showed in which part of the city the work was being done in and what kinds of add-ons were part of the package. Regarding BLL, table C8 shows that most children have BLLs <10µg/dL. Eight units were completed in the first quarter; 14 units were completed in the second quarter. Tracy Smith will e-mail additional documents to Commissioners.

Comments included:

a.) A list of addresses would be helpful.
b.) Were matching funds used?
c.) Roofing, other needs? What and how much? [i.e. The kinds of add-ons and more details on fourteen (14) units requested.]
d.) Any direct results of case management?
e.) Does the Health Department or Coalition interview families with children having BLLs between five (5) and nine (9) µg/dL?
f.) In what part of the city were properties located?
g.) Amount of money exceeding the grant. How does this tie into grant?
h.) Income eligible. Rehab/other work? Interior, exterior?
i.) Is there a strategy to deal with soil that has elevated lead levels?
j.) Are windows being replaced?

Pat McLaine noted that she would be interested in seeing the area of the city but not the specific addresses.

Barb Moore requested a breakdown of children's blood lead levels.

Section C8 of the report indicates that in the last quarter, 17 children had been tested and had BLLs less than 10µg/dL and one child had not been tested.

Questions following up last month's meeting with Baltimore City Officials were raised: a copy of the permit application for Baltimore City had been promised. Shaketta Denson reported that Jason Hessler had told her that he had misspoken at the July meeting and that there was no information on the permit about an RRP number. Patrick Connor stated that he had not been able to identify any contractor who provided any documentation about RRP training status along with the permit application. The Commission will follow up with Jason Hessler and ask him to get back to us with new permit form and plan to monitor at our next meeting.

Shaketta Denson noted that the Coalition no longer does window replacement. Ed Landon commented that he and Jim Keck (BCHD) had tried to tie lead into permitting in the late 1980s. A comment was made about permits back in the 1980's for demolitions - the Project Designer license. This was not tied in with RRP. The 2013 permits are needed for major renovations state-wide.

In addition to the permit issue, the Commission also wants additional information on Section 8 properties with lead poisoned children.

Agency updates

MDE – Staff are finalizing draft to annual report within the next week (or two) Pat McLaine commented that the Commission would like to review this report at the September meeting. MDE is in budget preparations for 2015. They are amending regulations for RRP and will be funding Baltimore City again for the next fiscal year. Pat McLaine expressed appreciation for MDE's continuing support of this program.

With regards to the HELPS System (CDC's new screening and case management system): CDC has offered no additional money or technical assistance to support this effort and there are many glitches.

DHMH – No representative was present.

DHCD–Ed Landon
The Agency is starting to review legislative issues for 2014. There have been 13or 14 House bills for lead every year and very few have passed. Ed Landon suggested that it would be good for the Commission to know about prospective bills in advance so that help could be provided.

There is a need to consolidate efforts – it is difficult to secure support two (2) months after the legislative session has started.

Baltimore City Health Department – Hosanna Asfaw-Means

Issue of Medicaid Billing - Hosanna -Means reported that between 2011 and December 2012, BCHD has submitted 300 claims for Medicaid reimbursement; only 4 claims have been accepted and BCHD has received a total of $333. The contract for Medicaid reimbursement was written a long time ago but recently expired. The City is trying to set up electronic billing. There is a real interest in making billing work. The City will hold a meeting with contract personnel concerning this process. Some of the problems were related to start and end dates for Medicaid beneficiaries. Also, BCHD needed to submit bills to the MCOs where the child was covered rather than submitting directly to Medicaid.

Barbara Moore commented that by not billing on a monthly basis, more claims will be rejected due to billing errors. Laura Fox indicated that she had met with the CFO and would be meeting soon with State Medicaid about this matter. Paula Montgomery asked that MDE be part of this meeting. MDE will send DHMH a copy of the file on costs developed prior to approval of reimbursement process. Barb Moore suggested that the meeting should include all MCOs. Pat McLaine suggested that BCHD should do a new cost analysis for environmental investigation (EI) now – for August 2013 – so that they would be prepared for the meetings with Medicaid. $333 is probably less than the cost for services in 2013. Hosanna Asfaw-Means indicated that BCHD has to call and confirm an Electronic Verification Status (EVS) on every child for whom EI services have been provided. Status must be verified on the first of the month. Pat McLaine suggested that perhaps funding for EI should be considered as a "carve out". BCHD indicated that they will be setting up a new contract, which will take a little bit of time. Medicaid reimbursement for these services was required by CDC for all funded state and local programs.

Pat McLaine commented that MDE was involved in securing funding for environmental investigations but that MDE cannot bill for services because the Agency is not a health care provider.

A comment was made that this is a big issue that pertains to the whole state and money is being left on the table.

A question was raised: at what point (if any) does the City call it quits. The problem has been going on for four years. Perhaps they should restart the process.

The suggestion was made to bill property owners for the environmental investigation; this work isn't free. The issue of follow up for children with BLLs 5-9μg/dL was raised; the Commission has recommended that children with a BLL in this range not receive full case management services.

Issue of Regulation 5 - Commissioners asked about how the City's Regulation 5 would apply for children aged 6 and older with high BLLs. There is the perception that children over six (6) and over with high BLLs are falling between the cracks and City Regulation 5 is not being used for children whom are six (6) or older.

BCHD lawyer, Myra Knowlton, clarified that BCHD's policy and practice is to equally enforce against rental and owner-occupied properties. She was not aware of any cases in 2013 where a Baltimore child with a BLL of 10+µg/dL was identified and Baltimore City did not enforce. According to Ms. Knowlton, **investigation** is based on a child being age 6 and under. Barb Moore stated that she has had patients living in Baltimore City for whom follow-up services were denied because they had turned 6 years of age. Ms. Knowlton indicated that she would get this clarified.

Paula Montgomery asked if the level for enforcement of owner occupied properties is the same as for rentals. Myra Knowlton indicated yes. She noted that the City can't issue orders to do work if the family receives SSI but she can require them to apply for grants. However, the owners often have existing liens on the property.

Cheryl Hall was asked about a case where an individual provided childcare in a house with hazards; Ms. Hall agreed to check on the status for that child care facility.

A question was raised about why cases were not reported to the Coalition. Pat McLaine explained that this follow up is part of the public health follow-up system.

Hosanna Asfaw-Means indicated that if a BLL was equal to or greater than 5µg/dL and the child lived in a rental property, BCHD was issuing a Notice of Defect and submitting it to MDE.

Paula Montgomery indicated that MDE takes action on children with BLLs of 10µg/dL and higher living in rental property in Baltimore City. She indicated that MDE is responding to the 5-9 referrals received from BCHD. Wicomico County was issuing a Notice of Defect for children with BLLs of 5-9µg/dL but the program will no longer be funded. MDE is looking at the Stellar data base for security needs.

Shaketta Denson said the Coalition is getting referrals from many counties because resources are not available from MDE; she is going to Hagerstown tomorrow. Paula Montgomery indicated that 300 cases are active and currently at the AG's office.

Maryland Office of Childcare – Cheryl Hall - nothing to report

Maryland Insurance Agency – Karen Stakem Hornig - nothing to report

Ed Landon announced that the State of Maryland Housing Conference is scheduled for September 27; they are looking for more participants and the cost is $75. Ed was asked if RRP was on the agenda; Paula will follow-up with an email requesting to be on the conference agenda to speak about RRP.

Barb Moore noted that the Point of Care testing had been discussed at earlier meetings. She asked when the Point of Care testing meetings would be taking place. Last month, individuals had been identified to serve but have not yet been appointed by the Governor. No representative of DHMH was present to address this issue.

Ed Landon made a motion to adjourn the meeting at 11:20 a.m.; the motion was seconded by Patrick Connor, all Commissioners in favor of adjourning the meeting. The meeting was adjourned.

.

SEPTEMBER 5, 2013

LEAD POISONING PREVENTION COMMISSION MEETING

MEMBERS

Governor's Lead Commission Meeting Attendance Sheet

September 5, 2013

PLEASE NOTE: This sign-in sheet becomes part of the public record available for inspection by other members of the public.

Name/Signature	Representing	Telephone/Email
CONNOR, Patrick	Hazard ID Professional	
HALL, Cheryl phone	Office of Child Care	
HORNIG, Karen Stakem phone	Maryland Insurance Administration	
JENKINS, Melbourne	Property Owner Pre 1950	
LANDON, Edward	Dept. Housing and Community Dev.	410-514-7444
McLAINE, Patricia PM Proxie	Child Health/Youth Advocate	
MITCHELL, Dr. Clifford	Department of Health and Mental Hygiene	
MOORE, Barbara	Health Care Provider	
OAKS, Nathaniel (Delegate)	Maryland House of Delegates	
ROBERTS, Linda Lee	Property Owner Post 1949	same
SNYDER-VOGEL, Mary	Child Advocate	
VACANT	Secretary of the Environment or Designee	
VACANT	Local Government	
VACANT	Parent of a Lead Poisoned Child	
VACANT	Financial Institution	
VACANT	Child Care Providers	
VACANT	Insurer	
VACANT	Property Owner Pre 1950 Outside Baltimore City	
VACANT	Maryland Senate	

GUESTS

Governor's Lead Commission Meeting Attendance Sheet

September 5, 2013

PLEASE NOTE: This sign-in sheet becomes part of the public record available for inspection by other members of the public.

Name	Representing	Address/Telephone/Email
Shanetta Denson	GHHI	sdenson@ghhi.org 443 842 5734
Ron Wineholt	AOBA	rwineholt@aoba-metro.org 301-261-1466
Su Mon	JHH, SON	smon1@jhu.edu
Ruki Avery	JHH, SON	ravery1@jhu.edu
Lea Faraone	JHU SON	lfaraon2@jhu.edu
Chrissy Diffenderffer	JHU SON	cdiffen3@jhu.edu
Susanna Epstein	JHU SON	sepstei6@jhu.edu
Shu Zhang	JHU SON	szhang40@jhu.edu
Jacqueline Clark	JHU SON	jclark10@jhu.edu
Jesse Sommerlatt	JHU SON	jsommer7@jhu.edu
Paula Montgomery	MDE	paula.montgomery@maryland.gov.
Hosanna Asfaw-Means Asfaw-Means	BCHD	Hosanna.Asfaw-Means@baltimorecity.gov
Arthur D. Gray	DHCD	arthur.gray@baltimorecity.gov
Dana Schmidt	MMHA	dschmidt@mmhaonline.org
Tonii Charis	umson	toniicharis@aol.com
John O'Brien	MDE	
John Krupinsky	MDE	
Jeff Fretwell	MDE - Leg Office	
Tracy Smith	MDE	

LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

Thursday, September 5, 2013
9:30 AM - 11:30 AM
MDEStat Conference Room
AGENDA

I. Welcome and Introductions

II. Old business

III. 2012 Lead Surveillance Report

Other Commission Items:

Future Meeting Dates: The next Lead Commission Meeting is scheduled for Thursday, October 3, 2013 at Aeris Conference Room – Front Lobby, 9:30 am – 11:30 am.

Agency Updates

A. Maryland Department of the Environment
B. Department of Health and Mental Hygiene
C. Department of Housing and Community Development
D. Baltimore City Health Department
E. Office of Childcare
F. Maryland Insurance Administration
G. Other Agencies

Public Comment

GOVERNOR'S LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

September 5, 2013
MDEStat Room

Approved Minutes (11-7-13)

Members in Attendance

Cheryl Hall (via phone), Karen Stakem Hornig (via phone), Ed Landon, Pat McLaine, Barbara Moore, and Linda Roberts.

Members not in Attendance

Patrick Connor, Melbourne Jenkins, Delegate Nathaniel Oaks, and Mary Snyder-Vogel.

Guests in Attendance

Shaketta Denson – CECLP, Hosanna Asfaw-Means – BCHD, Dana Schmidt – MMHA, Arthur Gray, DHCD (City), Ron Wineholt – AOBA, Tonii Chavis – UMSON, Su Mon – JHH-SON, Led Faraone – JHU-SON, Chrissy Diffenderffer – JHH-SON, Susanna Epstein – JHU-SON, Shu Zhang – JHH-SON, Jacqueline Clark – JHU-SON, Jesse S.-JHH-SON, R. A. – JHH-SON, John O'Brien – MDE staff, John Krupinsky – MDE staff, Paula Montgomery – MDE Staff, Jeff Fretwell – MDE Legislative Office, and Tracy Smith – MDE staff.

Introductions

Pat McLaine started the meeting at 9:30 a.m. Three or four Commission members were present at the beginning of the meeting.

Future Meeting Dates

The next Lead Commission meeting is scheduled for Thursday, October 3, 2013 at MDE in the AERIS conference room. The Commission will meet from 9:30 a.m. - 11:30 a.m.

Approval of Minutes

Corrections to the August minutes will be provided to Tracy Smith. Minutes will not be voted on until next month. A comment was made if Jason Hessler was redacted on purpose. (No.)

Discussion

Old Business - Letters to Maryland Senators and Congressional representatives have been approved. Copies of signed letters will be e-mailed. Karen Stakem Hornig and Patrick Connor had questions about resources. This is a separate issue. Nothing to worry about – MDE is providing funding to program. Letters are about national importance (won't affect funding at the national level.)

MDE agreed to (fund) in the interim. May end up being the solution. Funding is not for the Shore or for 5-9's. Maryland is more fortunate than some states. Paula Montgomery said that the (annual) report is being finalized.

Welcome/Introductions - Students from Johns Hopkins University were in attendance. Surveillance report. Dr. Keyvan to discuss in October. Best to let Commissioners look at report before (being) presented. There should be a press release (and the report on the web) within the next day or so. Blood lead levels (are) going down in the state. New instances post-1949. 1950 – 1978 will have to comply in 2015. Instances go down.

CDC (federally) has gone from $ 29 million to 2 million. MDE restored Baltimore City and lower Eastern shore funding (medical case management.) Copies of report?

Testing summary. More introductions. There was an increase in testing of 1,005 children statewide in 2011. There was a decrease of 88 children from 2011 of prevalent cases > 10 from 2011 (452 in 2011; 364 in 2012.)

There was a decrease of 87 cases vs. 2011 of 1st time incidence cases (venous/cap.) (343 in 2011; 255 in 2012.)

Statewide confirmed venous blood lead levels > 10 (1st time) decreased by 56. Nurses and environmental inspections. CDC reporting case. 292 cases in 2011; 236 cases in 2012.

City vs. counties. Pre-1950, Post-1950. Owner occupied. Lower reference level. Level of 10 since 1991. Last year is 5.

2012 5 – 9's (1,792 children.)
2011 5-9's (2,129 children.)

Lots of numbers. Testing in state went up. Testing in counties went up.

There was a decrease of 332 children (under the age of 6) vs. 2011 that were tested in Baltimore City. Overall, 18,717 children (33%) were tested in Baltimore City in 2012. 19,049 children (34.2%) were tested in Baltimore City in 2011.

There was a decrease of 39 children (vs. 2011) of prevalent cases in Baltimore City. 219 (1.2% tested) in 2012; 258 (1.4% tested) in 2011.

Incidence cases (1st time > 10 venous/cap.) A decrease of 34 vs. 2011 in Baltimore City. 148 (0.8% tested) in 2012; 182 (1.0% tested) in 2011.

Confirmed cases. An increase of 14 vs. 2011 in Baltimore City. 144 in 2012; 130 in 2011. 68% (98 children) lived in pre-1950 rental properties. Pre-1950 (no laws?) most likely to contain lead based on national survey's (1990's?)

Government law. Allowable lead is 0.06 % built after 1978. This is not a health hazard. Post-1950 rental (1 child in Baltimore City.) Owner-occupied (45) children (31%.) Pre-1950, post-1950 are not in the report.

There was an increase of 1,337 children (under the age of 6) that were tested in the counties. 91,822 (20%) in 2012 vs. 90485 in 2011.

There was a decrease of 49 prevalent cases for children in 2012. 145 cases in 2012 vs. 194 cases in 2011.

There was a decrease of 53 incidence cases for children in 2012. 107 cases in 2012 vs. 160 cases in 2011.

1st two (2) pages of the annual report. There was a decrease of seventy (70) confirmed cases vs. 2011. 92 in 2012; 162 in 2011.

Pre-1950 rentals – 16 % [Fifteen (15) children]
Post-1949 rentals – 40 % [Thirty-seven (37) children]
Owner-occupied – 44% [Forty (40) children]

Paula Montgomery stated that a bulk of older housing in Baltimore City and that there is not a lot of post-1950 housing in Baltimore.

After the war. Apartment complexes (Baltimore and Montgomery counties.) There are more post-1950 properties in counties.

Break down. Prince George's County. Will have owner occupied numbers next time.

A comment was made about being aware of risks. What can be done on the prevention side? 31 % in Baltimore City; 44% in counties (testing.) Help in what to propose.

Paula Montgomery commented about the RRP being in effect. MDE has the legislative authority to order abatements in owner occupied properties. Baltimore City. Yes; collects construction dates.

Post-1950 – other than paint. Spices. International stores, jewelry, kahl religious/ceremonial/Middle Eastern.)

Child (Iran.) Six (6) months old [level of forty (40).] Not crawling. Kahl under eyes. Gentle tapping of this product on floor (99% lead.) Prime investigators. Lower levels. What caused. Potential hazard(s)? Looking at other things besides housing. Always open to new and additional information for next year's report. (Ages of owner occupied properties. Break down of hazards.) Deplorable conditions. Paint/dust in Baltimore City properties. Hard to tell 99% paint hazards unless lead-free. Problems go away.

Not sure if this report can be sent out electronically. To ask HT to formally release. No questions from either Karen Stakem Hornig or Cheryl Hall.

Anything else. Walk through 5 -9. Somerset, Baltimore City, Allegany, Worcester (34%). All at risk.

Providers know what to do vs. at risk zip codes. Page 10 (table.) Page 18 (jurisdiction.)

0 – 35 (?) months. Blood testing required. 30% compliance statewide; 43.5% Baltimore City (testing?)

Page 13, table 4. At risk. Non at risk.

Ed Landon commented about old cases in Carroll County (page 19.)

Manchester. Exterior housing. Steps.

Chart does not identifying at risk areas. Not indicative of children who are supposed to be tested. Who tested. Not who is required (to be tested.)

Alarming at risk (if universal testing.)

Pat McLaine commented that no even 50% of children are tested in Baltimore City.

Dr. Keyvan received the end of last week. Not enough time.

50 – 60% Medicaid (Tony.) Screening data is higher than what is shown.

Linda Roberts commented if are penalties that are associated with not testing.

Pat McLaine commented that there was a case in the 1990's where a physician had been sued.

Medicaid not paying. Targeting the provider. Incentives. MCO's. Provide incentives. Penalized. Don't get money back.

Baltimore Medical System. State requirement. Help providers (numbers.) MCO's – lots of outreach. Have to hit numbers.

A comment was made about owner occupied 5 – 9's . Answer is no. Individual look up.

Question for Patrick. Ways to look for. 1,700 look ups. Year built. Rental?

Percentages 10 and above? (A comment from the Coalition.)
Working on system. Tax assessors dB. Wouldn't be 100%. Might be 90%.

Other questions. Continued lowering of high blood lead levels. Expect to see. Always concerned with anomalies.

Pat McLaine commented about CDC news (interest level of 5-9's.) Surprised not seeing more. City and state. Lots of calls for testing.
Dr. Keyvan likes questions. Couldn't make today's meeting. Include in next month's presentation. Send questions to Tracy Smith. Tracy will send an email reminder to all Commissioners.

Don't share with anyone. Report to be released shortly. Want to be more forthcoming. More questions for Dr. Keyvan. 10 days from now. Opportunities to address.

Old business = no.

Agency updates

MDE – Paula Montgomery
Nothing new. Nurses rotation. Community outreach. Healthy Homes initiative. Other ½ needle exchange program. Thank you for the nurse's work. (Annual) report to be released shortly with a press release. Tomorrow?

Regulations. RRP. Prior to 2012. Pre-1950 rentals. Renovations (all properties.) Lead was banned in 1978. 2012 legislation. Commercial. Decisions/regulations. 2015 post-1950 properties meeting standards.

DHMH – No representative

DHCD (State) – Ed Landon
Upcoming housing conference. September 27th. 9 – 4 (all day.) $75. Legislative round table. Break out sessions.

Baltimore City Health Department – Hosanna Asfaw-Means
BCHD Lead week (3rd week in October.) MDE assistance. Public libraries. Healthy Homes gathering. Friday (Park West Medical Center.) Lead testing provided. Won't be heavily advertised. Establish medical home. Reach out.

Medicaid updates. In conversation with CFO. Old analysis. Cost of environmental investigations. Meeting scheduled with the state Medicaid office with MDE present.

Paula Montgomery made a comment that libraries are great (for Lead Week.) MDE inspector list? Tenant's rights? Press release?

Loss of outreach. MDE. None. Doesn't mean that MDE can't do something (including providing information to tenants.)

Lower testing areas. Sweep next year?

Pat McLaine commented that libraries were targeted statewide ten (10) years ago. Billboards. Materials, packets. Electronic information.

Texting services for mothers. Target (and keep sending) lead testing. CDC. Up to twelve (12) months. Had been privately started. Can be extended.

DHMH – lead? Great for increasing (testing?) rates. Draws. John Krupinsky commented about the transportation piece.

Low priority in Baltimore City. One (1) year old not tested. Many competing issues (no sick leave.)

10 years ago. Eastern shore (Wicomico County.) Not finding children with EBL's. 5-9 additional concerns.

Linda Roberts commented about a mobile health van in Baltimore City. Free? Insulin, HIV.

Public health landscape. Medical homes (direction.) Billing issue? Pay now or pay later.

Filter paper. $ 10/test. No insurance. Directly bill. The Baltimore City Health Department used to offer testing every Wednesday or Thursday but stopped this approximately five (5) years ago due to losing funding.

Linda Roberts commented about private funding.

Pat McLaine commented about linking with medical home.
Lead Commission Meeting

Screening – what is really needed. A comment was made that Johns Hopkins has four (4) places in Baltimore City. Trailer. Walk in's and appointments. Mainly adults and not children. Working with Park West. Model. Medical home.

Tonii Chavis - BMS
Follow through of patients. Self management. Some testing on-site. Not as cut and dry.

Baltimore City Housing and Community Development - Arthur Gray
Three (3) page handout. This month's benchmark. Twenty-four (24) by the end of the month. Park West. Mid-range plan next two (2) quarters. Page (3) has long-range (year) for Healthy Homes.

A comment was made about number of contractors preventing exposure. July permit application (no RRP number.) Report next month. Progress being made? Rental properties accredited. Number on permit?

Political subdivision to require two (2) years for outreach and education. Another unfunded mandate. No number, no permit. Baltimore City (1980's.) Putting down a number. Getting pass the gatekeeper/clerk. Fine (if don't have.) Can't track. Part of primary prevention. Permit (substantial, housing/renovation.) Sign-off (RRP training.) Federal law. City's hand to enforce. Work safely. Federal and state requirements.

Housing safe. Inadvertently poison adults and children.

Child Care Administration – Cheryl Hall (via phone) – Nothing to report.

Maryland Insurance Administration – Karen Stakem Hornig – Nothing to report.

Coalition – Shaketta Denson Nothing (to report.)

Items. Minutes? Updates? Corrections/clarifications

Ed Landon made a motion to accept August's meeting notes with changes. (Linda Roberts seconded this.) No one opposed.

Motion to adjourn by Ed Landon. Seconded by Linda Roberts. The meeting adjourned at 10:54 a.m.

MARYLAND

Department of the Environment

Childhood Blood Lead Surveillance in Maryland

Annual Report 2012

Lead Poisoning Prevention Program

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard | Baltimore, MD 21230 | www.mde.state.md.us/recycling
410-537-3314 | 800-633-6101 x3314 | TTY Users: 800-735-2258
Martin O'Malley, Governor | Anthony G. Brown, Lt. Governor | Robert Summers, Ph.D., Secretary

MDE

MARYLAND CHILDHOOD LEAD REGISTRY

ANNUAL SURVEILLANCE REPORT 2012

EXECUTIVE SUMMARY

The Maryland Department of the Environment's ("MDE" or "Department") statewide Childhood Lead Registry (CLR) performs childhood blood lead surveillance for Maryland. The CLR receives the reports of all blood lead tests done on Maryland children 0-18 years of age, and the CLR provides blood lead test results to the Department of Health and Mental Hygiene including Medicaid and local health departments as needed for case management and planning.

Since 1995, the CLR has released a comprehensive annual report on statewide childhood blood lead testing. This current report presents the childhood blood lead test results for calendar year (CY) 2012. All numbers are based on blood lead testing (venous or capillary) on children. The CLR does not receive any reports on lead screening based on the lead risk assessment questionnaire. With few exceptions all numbers referred to children 0-72 months of age.

Maryland CY 2012 Surveillance Highlights:

Statewide

- During Calendar Year ("CY") 2012 a total of 110,539 (21.7%) children were tested out of 509,885 children 0-72 months of age; as identified in the Maryland census population for 2010. This in an **increase** of 1,005 children tested over the "CY"11 for children tested 109,534 (21.9%) out of a population of 500,702. Not all children in Maryland are required to be blood lead tested. Based on Maryland's "Targeting Plan for Areas at Risk for Childhood Lead Poisoning", children are required to have a blood lead test at ages 1 and 2 years if they meet any of the following criteria; (a) Live in an identified "at-risk" zip code, (b) Participate in Maryland's "Medicaid" EPSTD Program, (c) Positive response to "Risk Assessment Questionnaire" conducted on children up to age six years of age, as required.

- Of those 110,539 children tested, 364 (0.3%) were identified with a blood lead level ≥10 µg/dL (Prevalence). This was a **decrease** of 88 Prevalence cases compared to 452 (0.4%) during "CY"11.

- Of the 364 children identified with a blood lead level ≥10 µg/dL, 255 (0.2%) were indentified with their first venous or capillary blood lead level ≥ 10 µg/dL (Incidence). This resulted in a **decrease** of 87 Incidence cases compared to 342 (0.3%) in "CY"11.

- Of the 255 incident cases statewide, a total of 236 cases met the criteria for medical and environmental case management (Confirmed Case). This was a **decrease** of 56 Confirmed Cases compared to the "CY"11 total of 292.

- In 2012, 1,792 children had their first venous or capillary blood lead level of 5-9 µg/dL compared to 2,129 children in 2011.

- The highest testing rates for children 0-72 months were found in jurisdictions that require testing of all children at age 1 and 2 years. These include: Somerset County (34.3%), Baltimore City (33%), Allegany County (27.2%), and Worcester County (26.4%).

Baltimore City

- During Calendar Year "CY" 2012 a total of 18,717 (33%) children were tested out of 56,701 children 0-72 months of age; as identified in the Maryland census population for 2010. This was a **decrease** of 332 children tested compared to "CY"11 where 19,049 (34.2%) children were tested out of a population of 55,681.

- Of those 18,717 children tested in "CY"12; 219 (1.2%) were identified with a venous or capillary blood lead level ≥10 µg/dL (Prevalence). This was a **decrease** of 39 Prevalence cases compared to 258 (1.4%) during "CY"11.

- Children identified with a first time (Incidence) venous or capillary blood lead level ≥ 10 µg/dL during "CY"12 totaled 148 (0.8%). This was a **decrease** of 34 Incidence cases compared to 182 (1.0%) in "CY"11.

- In Baltimore City, 144 children with a first venous blood lead level ≥ 10 µg/dL (Confirmed Case) received medical and environmental case management. This was an **increase** of 14 Confirmed cases over "CY" 2011 where 130 children were identified.

- Of the 144 Confirmed Cases approximately 98 (68%) of these cases children were living in a pre-1950 residential rental dwelling "Affected Property". In the remaining 46 cases, 1 (1%) children were living in a post 1949 residential rental dwelling and 45 (31%) were living in an owner occupied property ("Non-Affected").

Maryland Counties (0utside of Baltimore City)

- In Maryland Counties, during Calendar Year "CY" 2012 a total of 91,822 (20%) children were tested out of 453,184 children 0-72 months of age; as identified in the Maryland census population for 2010. This was an **increase** of 1,337 children tested compared to "CY"11 where 90,485 (20%) children were tested out of a population of 445,021.

- Of those 91,822 children tested in "CY"12; 145 (0.2%) were identified with a venous or capillary blood lead level ≥10 µg/dL (Prevalence). This was a **decrease** of 49 Prevalence cases compared to 194 (0.2%) during "CY"11.

- Children identified with a first time (Incidence) venous or capillary blood lead level ≥ 10 µg/dL during "CY"12 totaled 107 (0.1%). This was a **decrease** of 53 Incidence cases compared to 160 (1.0%) in "CY"11.

- In Maryland Counties, 92 children with the first venous blood lead level ≥ 10 µg/dL (Confirmed Case) received medical and environmental case management. This was a **decrease** of 70 Confirmed cases over "CY" 2011 where 162 children were identified.

- Of the 92 Confirmed Cases approximately 15 (16%) of these cases children were living in a pre-1950 residential rental dwelling ("Affected Property"). In the remaining 77 cases, 37 (40%) children were living in a post 1949 residential rental dwelling and 40 (44%) were living in an owner occupied property ("Non-Affected").

- In 2012, CLR received blood lead reports from 40 laboratories nationwide. Number of reports for the whole year varied from as low as 2 from one laboratory to more than 68,000 from another laboratory. More than 84% of reports however are from three major laboratories. These and five other laboratories sent their reports electronically (90.8%). The average reporting time, from the time sample is drawn to the time the result enters the CLR database is about 6 days. The average time for elevated blood lead results (≥10 µg/dL) is approximately 30 hours.

LEAD NEWS

"Targeting Plan Evaluated"

Not all children in Maryland are required to be blood lead tested. Based on Maryland's "Targeting Plan for Areas at Risk for Childhood Lead Poisoning" ("Targeting Plan"), children are required to have a blood lead test at ages 1 and 2 years if they meet any of the following criteria; (a) Live in an identified "at-risk" zip code, (b) Participate in Maryland's "Medicaid" EPSTD Program, (c) Positive response to "Risk Assessment Questionnaire" conducted on children up to age six years of age, as required. Currently the Department of Health and Mental Hygiene (DHMH) and MDE are evaluating the impact of these new recommendations on the State's lead poisoning prevention strategy, including the "Targeting Plan," management practices for lead exposed children, and resource requirements.

"Funding Loss"

With the loss of the Center for Disease Control ("CDC") funding, MDE continues to be able to provide oversight of medical case management. The Department also continues to perform environmental investigations when a child is diagnosed with a blood lead level of ≥10 µg/dL or greater. During 2012 MDE restored the funding, once provided by a pass through grant from CDC to MDE, to Wicomico County and the Baltimore City Health Department.

"Universe of Affected Properties to Increase in 2015"

On January 1, 2015 Maryland will be expanding the universe of Affected Properties under the Environment Article Title 6, Subtitle 8 to also include residential rental dwelling units built 1950-1978. Because the residential use of lead based paint was not banned until 1978, the amendment to the law that was passed during the 2012 legislative session seeks to expand the primary prevention aspects of the existing lead law that previously only mandated compliance for rental dwelling units built prior to 1950.

"Owners of Affected Properties Required Meeting a Higher Standard"

Effective January 1, 2012 an owner subject to Maryland Lead Laws, is required to meet a more stringent standard when a child living in their rental property is diagnosed with a blood lead level of ≥10 µg/dL or greater. Currently, MDE regulates pre-1950 residential rental properties ("Affected Properties").

When an owner receives a Notice of Elevated Blood Lead Level or Notice of Defect on their Affected Property they are now required to meet the Modified Risk Reduction Standard. The standard requires dust testing and nine treatments followed by a visual inspection. The treatment must be performed and signed-off on by an accredited MDE lead supervisor.

Once completed, a visual inspection, treatment verification and dust samples are performed by an Accredited MDE inspector. Upon passing the inspection the owner will receive a certificate indicating that they met the Modified Risk Reduction Standard.

Confirmed Cases and Property Type by Jurisdiction

Table One
Lead Poisoning Prevention Program: Childhood Lead Registry
Property Status of New Cases ≥ 10 µg/dL for Calendar Year 2012
By Jurisdiction

County	Number Properties	Owner-Occupied		Affected Property		Non-affected Property	
		Number	Percent	Number	Percent	Number	Percent
Allegany	5	0	0%	3	60%	2	40%
Anne Arundel	4	2	50%	0	0%	2	50%
Baltimore	24	10	42%	1	4%	13	54%
Baltimore City	**144**	**45**	**31%**	***98**	**68%**	**1**	**1%**
Calvert	1	1	100%	0	0%	0	0%
Caroline	2	2	100%	0	0%	0	0%
Carroll	0	0	0%	0	0%	0	0%
Cecil	0	0	0%	0	0%	0	0%
Charles	3	3	100%	0	0%	0	0%
Dorchester	1	1	100%	0	0%	0	0%
Frederick	3	3	100%	0	0%	0	0%
Garrett	0	0	0%	0	0%	0	0%
Harford	5	2	40%	2	40%	1	10%
Howard	4	1	25%	0	0%	3	75%
Kent	2	1	50%	1	50%	0	0%
Montgomery	11	6	55%	0	0%	5	45%
Prince George's	16	6	38%	4	24%	6	38%
Queen Anne's	1	0	0%	0	0%	1	100%
Saint Mary's	1	1	100%	0	0%	0	0%
Somerset	1	0	0%	1	100%	0	0%
Talbot	2	0	0%	2	100%	0	0%
Washington	0	0	0%	0	0%	0	0%
Wicomico	4	1	25%	1	25%	2	50%
Worcester	2	0	0%	0	0%	2	100%
Counties' Total	*92*	*40*	*44%*	*15*	*16%*	*37*	*40%*
Statewide	**236**	**85**	**36%**	**113**	**48%**	**38**	**16%**

Notes:
*Eleven properties in Baltimore City with construction year unavailable are assumed to be rental properties constructed prior to 1950.

Statistical Report

In calendar year 2012, a total of 110,539 children 0-72 months were tested for lead exposure statewide. Table One provides a summary of statewide statistics of blood lead testing in 2012.

Table Two
Calendar Year (CY) 2012 Statistical Report[1]

Item	Number	Percent (%)
All Children		
Number of tests	127,735	
Number of children	122,799	
Children 0-72 Months		
Number of tests	115,210	
Number of children	110,539	100.0
Age		
Under One	10,115	9.2
One Year	37,114	33.6
Two Years	30,721	27.8
Three Years	12,094	10.9
Four Years	11,967	10.8
Five Years	8,498	7.7
Sex		
Female	54,069	48.9
Male	56,036	50.7
Undetermined	434	0.4
Highest Blood Lead Level (µg/dL)		
≤4	107,800	97.5
5-9	2,375	2.1
10-14	233	0.2
15-19	81	0.1
≥20	50	0.1
Mean BLL (Geometric mean)	1.40	
Blood Specimen		
Capillary	19,397	17.5
Venous	78,384	70.9
Undetermined[2]	12,783	11.6

1. For detailed analysis and breakdown of numbers refer to Supplementary Data Tables 1-5.
2. In supplementary data tables blood tests with sample type unknown were counted as capillary.

Findings

Childhood lead exposure further declined, both in the extent and the severity from 2011 to 2012 (Figures One & Two).

Figure One
Number of Children 0-72 Months Tested for Lead and Number Reported to Have Blood Lead Level ≥10 µg/dL: 1995-2012

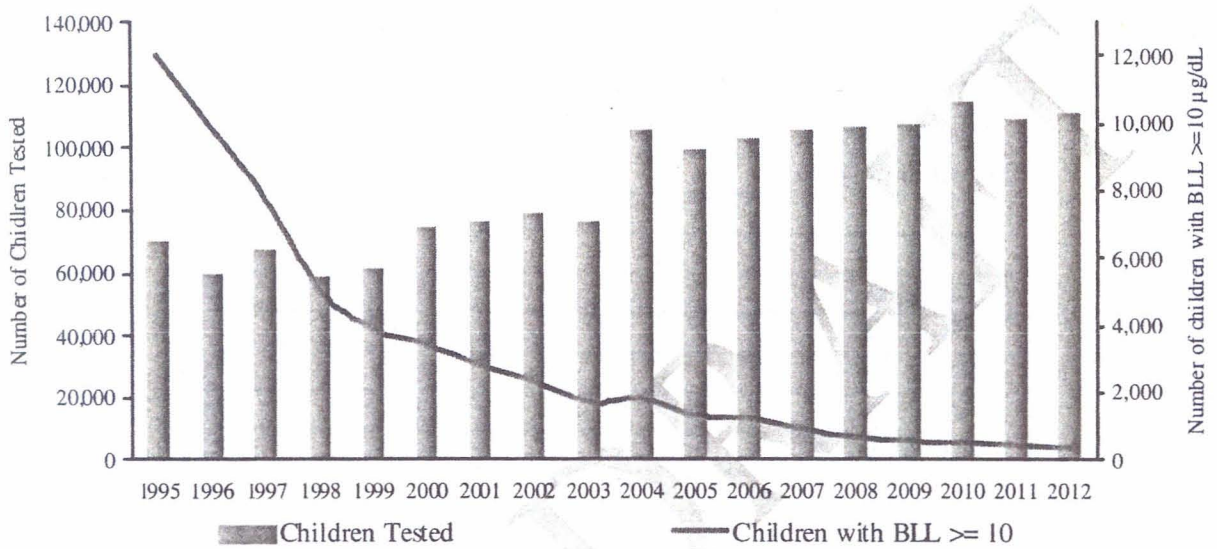
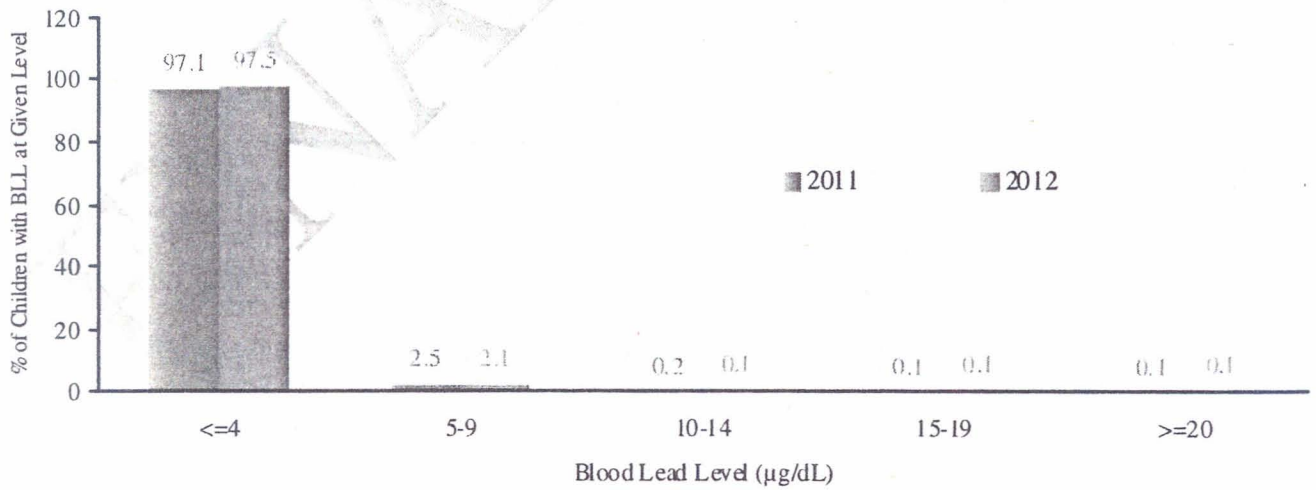


Figure Two
Blood Lead Distribution of Children 0-72 Months Tested for Lead in 2011 and 2012



The decline in lead exposure is further demonstrated by decline in percent of children tested for lead and had the highest blood lead level of 5-9 µg/dL (Figure Three.)

Figure Three
Percent of Children 0-72 Months Tested for Lead with the Highest Blood lead Level of 5-9 µg/dL: 2000-2012

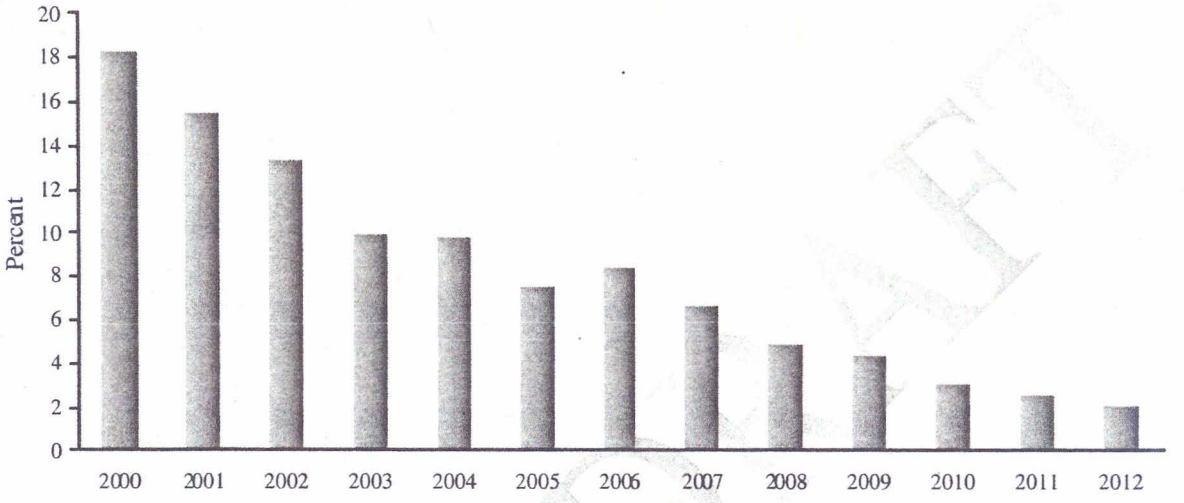


Table Three (page 10) provides the breakdown of blood lead testing and the status of children with respect to lead exposure by jurisdiction in 2012.

Table Three

Blood Lead Testing of Children 0-72 Months by Jurisdiction in 2012[1]

County	Population of Children[2]	Children Tested		Children with BLL 5-9 µg/dL						Children with BLL >=10 µg/dL					
				Old Cases[3]		New Cases[4]		Total		Old Cases[5]		New Cases[6]		Total	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Allegany	4,853	1,320	27.2	14	1.1	40	3.0	54	4.1	4	0.3	8	0.6	12	0.9
Anne Arundel	48,260	8,338	17.3	10	0.1	64	0.8	74	0.9	0	0.0	5	0.1	5	0.1
Baltimore	67,225	16,329	24.3	28	0.2	174	1.1	202	1.2	8	0.0	26	0.2	34	0.2
Baltimore City	56,701	18,717	33.0	424	2.3	800	4.3	1,224	6.5	71	0.4	148	0.8	219	1.2
Calvert	7,159	715	10.0	0	0.0	7	1.0	7	1.0	0	0.0	1	0.1	1	0.1
Caroline	3,234	773	23.9	1	0.1	13	1.7	14	1.8	0	0.0	2	0.3	2	0.3
Carroll	13,047	1,247	9.6	9	0.7	18	1.4	27	2.2	3	0.2	1	0.1	4	0.3
Cecil	9,047	1,221	13.5	2	0.2	12	1.0	14	1.1	0	0.0	0	0.0	0	0.0
Charles	13,254	1,963	14.8	1	0.1	11	0.6	12	0.6	0	0.0	3	0.2	3	0.2
Dorchester	2,797	694	24.8	3	0.4	15	2.2	18	2.6	0	0.0	1	0.1	1	0.1
Frederick	20,976	3,039	14.5	3	0.1	23	0.8	26	0.9	4	0.1	3	0.1	7	0.2
Garrett	2,225	427	19.2	1	0.2	5	1.2	6	1.4	1	0.2	0	0.0	1	0.2
Harford	21,100	2,979	14.1	5	0.2	29	1.0	34	1.1	1	0.0	5	0.2	6	0.2
Howard	24,707	2,500	10.1	1	0.0	24	1.0	25	1.0	3	0.1	3	0.1	6	0.2
Kent	1,406	243	17.3	1	0.4	6	2.5	7	2.9	0	0.0	2	0.8	2	0.8
Montgomery	89,202	20,515	23.0	18	0.1	151	0.7	169	0.8	9	0.0	15	0.1	24	0.1
Prince George's	81,273	20,417	25.1	26	0.1	196	1.0	222	1.1	3	0.0	17	0.1	20	0.1
Queen Anne's	3,868	494	12.8	0	0.0	13	2.6	13	2.6	0	0.0	2	0.4	2	0.4
Saint Mary's	10,618	1,634	15.4	2	0.1	26	1.6	28	1.7	0	0.0	1	0.1	1	0.1
Somerset	1,774	608	34.3	5	0.8	13	2.1	18	3.0	0	0.0	2	0.3	2	0.3
Talbot	2,648	606	22.9	2	0.3	6	1.0	8	1.3	1	0.2	2	0.3	3	0.5
Washington	12,691	2,675	21.1	17	0.6	102	3.8	119	4.4	0	0.0	0	0.0	0	0.0
Wicomico	8,582	2,154	25.1	9	0.4	35	1.6	44	2.0	0	0.0	4	0.2	4	0.2
Worcester	3,240	856	26.4	1	0.1	6	0.7	7	0.8	0	0.0	2	0.2	2	0.2
County Unknown[7]		75		0		3		3		1		2		3	
Total	**509,885**	**110,539**	**21.7**	**583**	**0.5**	**1,792**	**1.6**	**2,375**	**2.1**	**109**	**0.1**	**255**	**0.2**	**364**	**0.3**

1. The table is based on the selection of the highest venous or the highest capillary in the absence of any venous test.
2. Adapted from Maryland census population 2010, provided by the Maryland Data Center, Maryland Department of Planning, www.planning.maryland.gov/msdc.
3. Children with a history of a blood lead level of 5-9 µg/dL. These children may have carried over from 2011 or had a blood lead level of 5-9 µg/dL in previous years. Any child with a history of blood lead test of ≥10 µg/dL is not counted in this column
4. Children with the very first blood lead level of 5-9 µg/dL in 2012. These children were either not tested in the past or their blood lead levels were below 5 µg/dL. If a child had a blood lead test of ≥10 µg/dL in 2012 or in the past is not counted in this column.
5. Children with a history of a blood lead level ≥10 µg/dL. These children may have carried over from 2011 or had a blood lead test of ≥10 µg/dL in previous years.
6. Children with the very first blood lead test of ≥10 µg/dL in 2011. These children were either not tested in the past or their blood lead levels were below 10 µg/dL. This definition may not necessarily match the criteria for the initiation of case management.
7. Includes cases with out-of-state residence address at the time of the highest blood lead test.

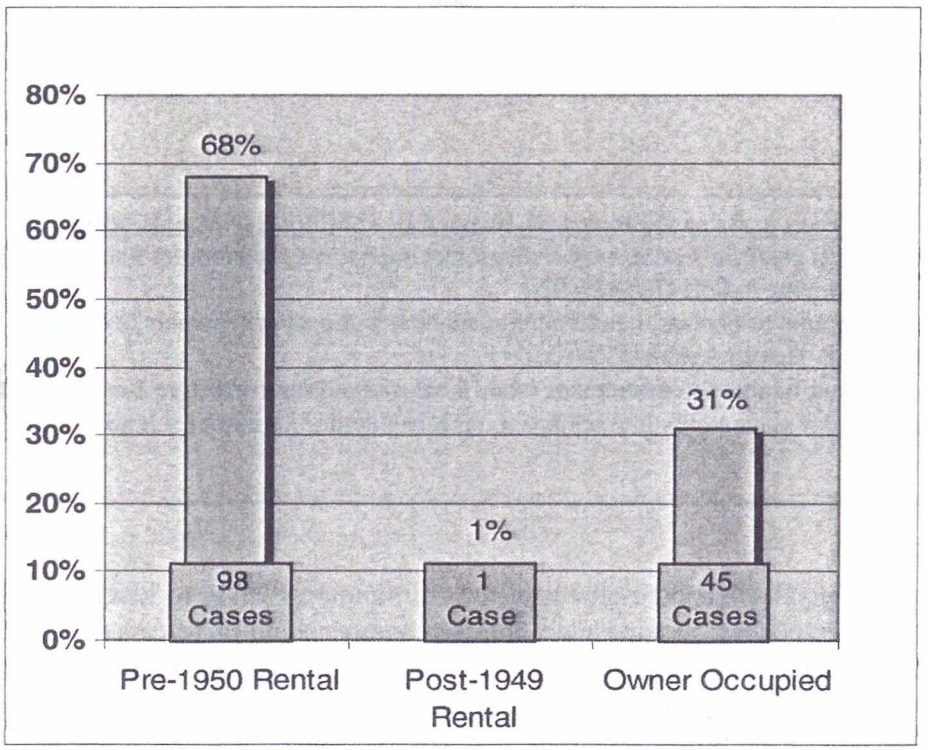
Statewide activities to reduce (eliminate) childhood lead poisoning

The State Elimination Plan calls for zero new cases of EBL. The plan focuses on primary prevention (removal and elimination of lead hazards prior to child access) while maintaining well-established secondary prevention (identifying children who may be at risk of lead exposure) and tertiary prevention (case management of children exposed to lead) efforts in the state.

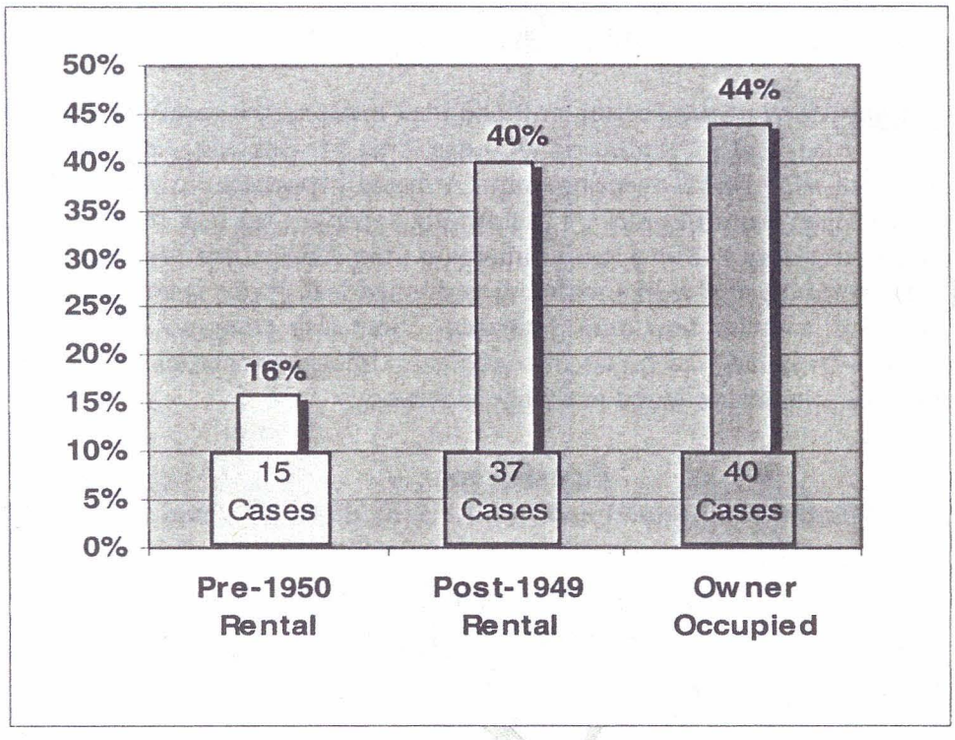
Primary Prevention: Much of the decline in blood lead levels is the result of implementation and enforcement of Maryland's "Reduction of Lead Risk in Housing Act" (Act). The Act requires owners of pre-1950 rental dwelling units (Affected Properties) to reduce the potential for child exposure to lead paint hazards by performing specific lead risk reduction treatments prior to each change in tenancy. The State Elimination Plan 2010 called for zero new cases of EBL. Though the percentage of children with elevated blood lead levels is consistently lowering in Maryland, there still remains new case incidence. There also continues to be reduction in children indentified with blood lead levels in compliant Affected Properties that have meet the required risk reduction standard required at change in tenancy.

Figures Four

Percent of Children 0-72 Months with Blood Lead Level ≥10 ug/dL in 2012 and Age of the Housing



Housing Type Statewide*
Confirmed Cases CY 2012
(92 Cases)



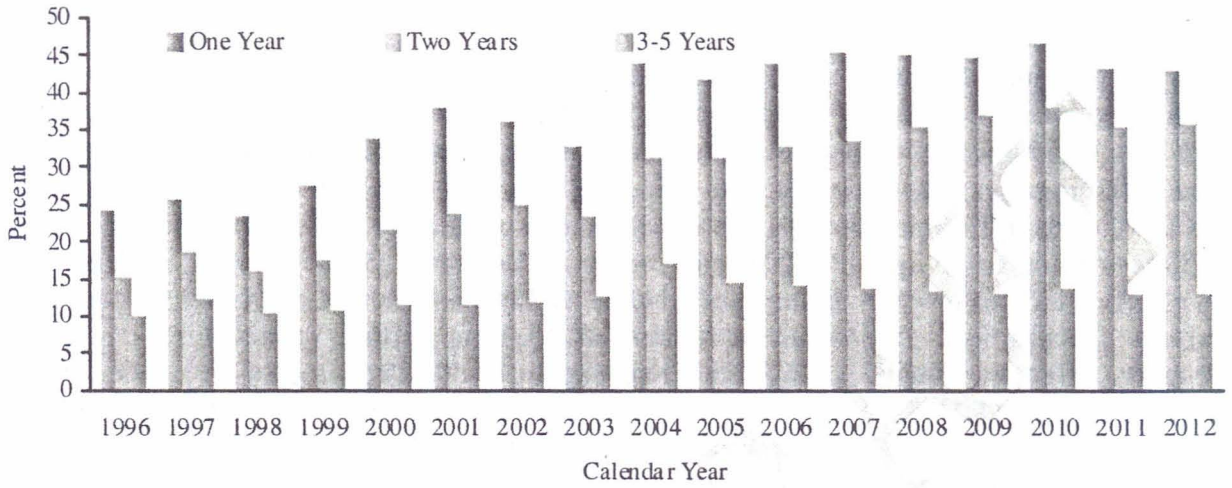
* Excluding Baltimore City

State laws and regulations with impact on childhood lead poisoning

- ✓ Requirements to perform lead hazard reduction at each turnover in rental housing built before 1950. [Environment Article (EA) §6-8]
- ✓ Outreach programs to parents, health care providers, and property owners, especially in at-risk areas. [EA§ 6-8, Health Article §18-106]
- ✓ The Department, health departments or other local jurisdictions effective June 1, 2012 have the authority to order abatements in response to an investigation report of a lead poisoned person at risk.

Secondary Prevention: The second element of the Elimination Plan is to identify children who may be at risk of lead exposure. In particular, children ages one and two years are more likely to be exposed to lead because of their hand to mouth behavior. Maryland requires that children at ages one and two years who are enrolled in the Medicaid, Early Periodic Screening, Diagnosis, and Treatment (EPSDT) Program or who currently live or have ever lived in one of Maryland's "at-risk" zip codes identified by the "Targeting Plan" should be tested. The percentage of one and two year old children tested for lead has increased substantially since 2004 (Figure Five).

Figure Five
Percent of Children One and Two Years Old Tested for Lead vs. Children of Other Ages



Furthermore, children living in "at-risk" areas, areas with high proportion of pre 1950 housing units are more likely to be exposed to lead than children living in other areas. State has a targeted plan that identifies "At-Risk" areas. Universal blood lead testing applies to Baltimore City children (City Ordinance 20 effective July 2000). Table Four presents blood lead testing in the At-risk and Not At-risk areas of the state. At-risk area includes Baltimore City, Allegany, Caroline, Dorchester, Frederick, Garrett, Somerset, Washington, Wicomico, and Worcester counties.

Table Four
Blood Lead Testing and Blood Lead Level of 5-9 and ≥10 µg/dL in At-Risk and Not At-Risk Areas in 2012

		Children Tested		Children with BLL 5-9 µg/dL		Children with BLL ≥10 µg/dL	
Area	Population	Number	Percent	Number	Percent	Number	Percent
At-Risk	112,220	29,943	26.7	1,476	4.9	238	0.8
Not At-Risk	397,665	80,521	20.2	896	1.1	123	0.2
Statewide*	**509,885**	**110,539**	**21.7**	**2,375**	**2.1**	**364**	**0.3**

* Statewide numbers include county unknown and out of state cases

Another at risk population for lead poisoning is children enrolled in Maryland's Medical Assistance Program. MDE provides childhood blood lead data to the Maryland Department of Health and Mental Hygiene, Office of Medicaid Administration (DHMH), on a quarterly and annual basis to be matched with a list of children enlisted in the states Medical Assistance Program. Based on data provided, DHMH prepares and distributes an annual report of blood lead testing of children under Maryland's Medicaid Program.

Identifying Children with Lead Exposure

The main goal in preventing childhood lead poisoning is to limit exposure. However, early detection is crucial when a child is identified with an elevated blood lead level. Because there are no specific clinical symptoms, a blood lead test is the most reliable technique to identify children with elevated blood lead levels.

Tertiary Prevention: Maryland's Lead Poisoning Prevention Program has well-established case management guidelines and environmental investigation protocols for follow-up of children with elevated blood lead level. A venous blood lead test ≥10 µg/dL initiates case management and an environmental investigation. Currently, one venous or two capillary blood lead tests ≥10 µg/dL triggers the Notice of Elevated Blood Lead Level (Notice of EBL) to be sent to the owner of a Pre-1950 residential dwelling unit (Affected Property). Under the "Reduction of Lead Risk in Housing Act" (Act), an owner who receives a Notice of Elevated Blood Lead Level is required to perform specific lead risk reduction treatments to limit further exposure to a child. Furthermore, effective June 1, 2012 the Department, health departments or other local jurisdictions have the authority to order abatements in response to an investigation report of a lead poisoned person at risk. Tables Five and Six outline the State's protocol for diagnostic and follow up blood lead testing.

Table Five
Blood Lead Diagnostic and Follow-Up: Confirmation of a Capillary Blood Lead Test

BLL (µg/dL)	Confirm with venous blood lead test within
≤9	Routine blood lead test according to protocol
10 –19	3 months
20 – 44	1 week to 1 month*
45 – 59	48 hours
60-69	24 hours
≥70	Immediately as an emergency lab test

* The higher the BLL, the more urgent the need for confirmatory testing.

Table Six

Blood Lead Diagnostic and Follow-Up: Follow-Up for Venous Blood Lead Testing[1]

BLL (µg/dL)Venous	Early follow-up(First 2-4 tests after identification)	Late follow-up (After BLL begins to decline)
≤9	3 months	
10 - 14	3 months [2]	6 – 9 months
15 - 19	1 - 3 months [2]	3 – 6 months
20 - 24	1 - 3 months [2]	1 – 3 months
25 - 44	2 weeks – 1 month	1 month
≥45	As soon as possible	Chelation with subsequent follow-up

1. Seasonal variation of BLLs exists and may be more apparent in colder climate areas. Greater exposure in the summer months may necessitate more frequent follow-up.
2. Some case managers or health care providers may choose to repeat blood lead tests on all new patients within a month to ensure that their BLL level is not rising more quickly than anticipated.

Tables adapted from: *Centers for Disease Control and Prevention. Managing Elevated Blood Lead Levels Among Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention. Atlanta: CDC, 2002.*

Predictability of Blood Lead Level of 5-9 for BLL≥10

The CDC adoption of blood lead level of 5 µg/dL as "Reference Value" raised the issue of follow up and case management protocol for children with blood lead level 5-9 µg/dL. The state and local programs (including Maryland) are looking into this matter. In the meantime, it was of interest to find whether the blood lead level of 5-9 µg/dL can be an indicator of later blood lead level ≥10 µg/dL. We looked at this from two points of view: 1) whether children with the very first Blood lead level ≥10 µg/dL in 2012 had any previous blood lead test of 5-9 (retrospective view), and 2) whether children with the very first blood lead level of 5-9 in 2006 will have later BLL 10+ (prospective view)

Looking retrospectively, of children 0-72 months old tested for lead in 2012, 256 had the very first blood lead level ≥10 µg/dL. Of these, 149 children had no any blood lead test in the past. Of 107 children with previous blood lead test, in 79 (73.8%) children the blood lead level of previous blood lead test (with average of 17.2 months ago) was ≤4 µg/dL and in only 28 (26.2%) children the blood lead level of previous blood lead test (with average of 16.3 months ago) was 5-9 µg/dL.

Looking prospectively, 6,896 children 0-72 months had the very first blood lead level 5-9 µg/dL in 2006. Of these children, only 3,183 (46.2%) had a later blood lead test. Table Seven summarizes the history of blood lead test of these children.

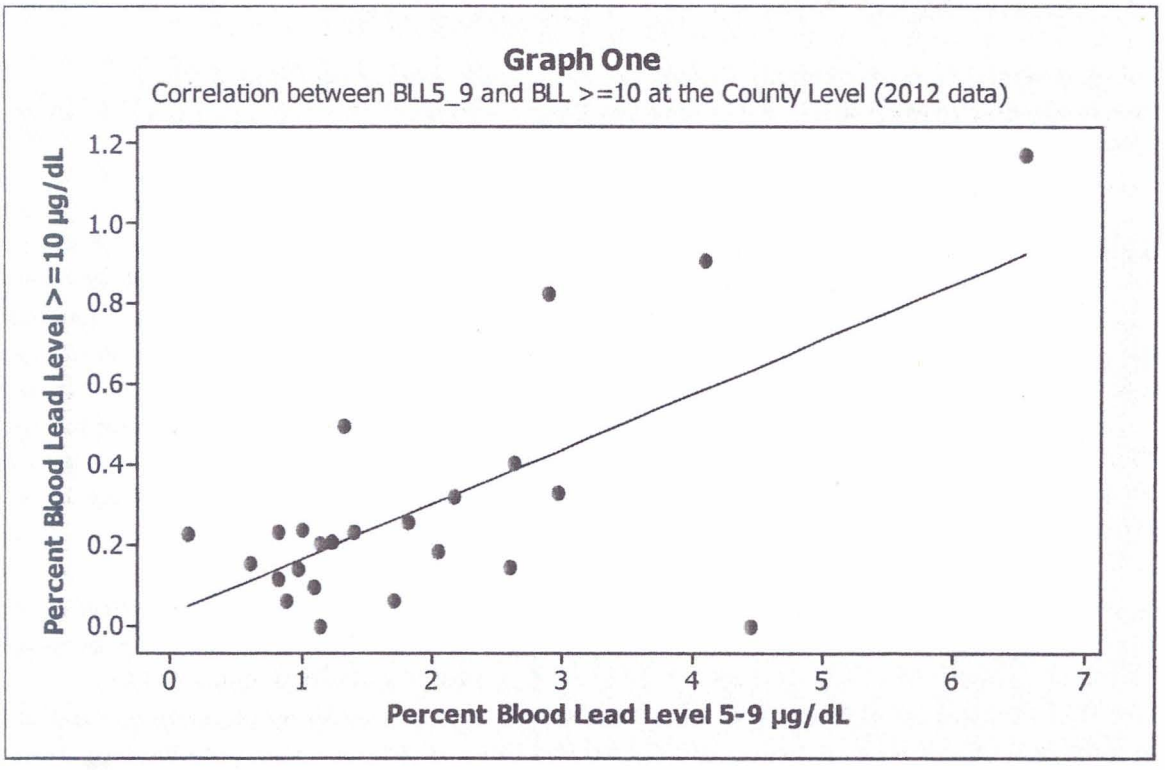
Table Seven

History of blood lead test of children with blood lead level 5-9 µg/dL in 2006

Blood lead level of later up test	Children tested		Average blood lead level (µg/dL)	Time interval between the two tests (Months)
	Number	Percent		
≤4	2,346	73.7	2.3	22.8
5-9	746	23.4	6.2	15.6
≥10	91	2.9	13.8	14.3
Total	3,183	100.0	3.5	20.9

Limitations of data necessarily do not allow for concrete conclusion. However, the findings do not seem to support predictability of blood lead level 5-9 for future elevated blood lead level.

At the aggregate (county) level, however, there was highly significant correlation ($r = 0.683$, p value = 0.000) between percentage of blood lead level 5-9 and percentage of blood lead level ≥10 µg/dL (Graph One). But the correlation did not stand at the zip code level ($r = -0.016$, p vlaue = 0.705).



Data Quality

The CLR is maintained in the "Systematic Tracking of Elevated Lead Levels and Remediation" (STELLAR) surveillance system, obtained from CDC Lead Poisoning Prevention Program. CLR staff makes all efforts to further improve data quality with respect to completeness, timeliness, and accuracy. Staff keep daily track of laboratory reporting to make sure laboratories are reporting all blood lead tests no later than biweekly. The law requires blood lead results ≥20 µg/dL to be reported (fax) within 24 hours after result is known. However, upon CLR request, laboratories agreed to report (fax) the result of all blood lead test ≥10 µg/dL within 24 hours. For all blood lead tests ≥10 µg/dL, staff checks the completeness of data in particular with respect to child's and guardian's name, address, and telephone number.

In 2012, more than 90% of blood lead tests were reported to the registry electronically. The average reporting time, from the time sample is drawn to time the result enters the CLR database is approximately 6 days. The average time for elevated blood lead results (≥10 µg/dL) is approximately 30 hours.

Blood Lead Laboratory Reporting Requirement

The amended law and regulations* of 2001 and 2002 require that:

1-The following child's demographic data should be included in each blood lead test reported:

- Date of Birth
- Sex
- Race
- Address
- Test date
- Sample type
- Blood lead level
- Guardian Name

2-Blood lead results ≥20 µg/dL to be reported (fax) within 24 hours after result is known. All other results to be reported every two weeks.

3-Reporting format should comply with the format designed and provided by the Registry.

4-Data should be provided electronically.

* EA §6-303, Blood lead test reporting (COMAR 26.02.01, Blood lead test reporting)

Table Eight
Completeness of Data for 2012

ITEM	% Completed
Child's name[1]	100.0
Date of Birth[1]	100.0
Sex/Gender	99.6
Race	49.6
Guardian's name	52.7
Sample type	88.5
Blood lead level	100.0
Address (geocoded)	88.6
Telephone Number[2]	86.7

1. Reports with missing (wrong) name and/or date of birth are held by the program until they are corrected.
2. Quality control for telephone umber started in 2009.

Migration into New System

The Maryland Department of the Environment has partnered with the Maryland Department of Health and Mental Hygiene in evaluation of CDC's: "Healthy Homes and Lead Poisoning Surveillance System (HHLPSS)". Implementation of the HHLPSS database is currently being evaluated for its functionality and ability to meet the needs of the states Childhood Lead Registry.

Appendix A

Blood Lead Testing of Children 0-72 Months by Major Age Group and Jurisdiction in 2012

Age Group	Population of Children	Children Tested		Blood Lead Level 5-9 µg/dL						Blood Lead Level ≥10 µg/dL					
				Old Cases		New Cases		Total		Old Cases		New Cases		Total	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Allegany County															
0-35 Months	2,452	1,128	46.0	8	0.7	36	3.2	44	3.9	1	0.1	7	0.6	8	0.7
36-72 Months	2,401	192	8.0	6	3.1	4	2.1	10	5.2	3	1.6	1	0.5	4	2.1
Total	4,853	1,320	27.2	14	1.1	40	3.0	54	4.1	4	0.3	8	0.6	12	0.9
Anne Arundel County															
0-35 Months	24,728	6,025	24.4	6	0.1	52	0.9	58	1.0	0	0.0	3	0.0	3	0.0
36-72 Months	23,532	2,313	9.8	4	0.2	12	0.5	16	0.7	0	0.0	2	0.1	2	0.1
Total	48,260	8,338	17.3	10	0.1	64	0.8	74	0.9	0	0.0	5	0.1	5	0.1
Baltimore County															
0-35 Months	34,388	12,581	36.6	18	0.1	139	1.1	157	1.2	4	0.0	24	0.2	28	0.2
36-72 Months	32,836	3,748	11.4	10	0.3	35	0.9	45	1.2	4	0.1	2	0.1	6	0.2
Total	67,225	16,329	24.3	28	0.2	174	1.1	202	1.2	8	0.0	26	0.2	34	0.2
Baltimore City															
0-35 Months	30,465	13,246	43.5	151	1.1	627	4.7	778	5.9	36	0.3	112	0.8	148	1.1
36-72 Months	26,235	5,471	20.9	273	5.0	173	3.2	446	8.2	35	0.6	36	0.7	71	1.3
Total	56,701	18,717	33.0	424	2.3	800	4.3	1,224	6.5	71	0.4	148	0.8	219	1.2
Calvert County															
0-35 Months	3,422	584	17.1	0	0.0	3	0.5	3	0.5	0	0.0	1	0.2	1	0.2
36-72 Months	3,737	131	3.5	0	0.0	4	3.1	4	3.1	0	0.0	0	0.0	0	0.0
Total	7,159	715	10.0	0	0.0	7	1.0	7	1.0	0	0.0	1	0.1	1	0.1
Caroline County															
0-35 Months	1,599	616	38.5	0	0.0	10	1.6	10	1.6	0	0.0	2	0.3	2	0.3
36-72 Months	1,635	157	9.6	1	0.6	3	1.9	4	2.5	0	0.0	0	0.0	0	0.0
Total	3,234	773	23.9	1	0.1	13	1.7	14	1.8	0	0.0	2	0.3	2	0.3

Appendix A

Blood Lead Testing of Children 0-72 Months by Major Age Group and Jurisdiction in 2012

Age Group	Population of Children	Children Tested		Blood Lead Level 5-9 µg/dL						Blood Lead Level ≥10 µg/dL					
				Old Cases		New Cases		Total		Old Cases		New Cases		Total	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Carroll County															
0-35 Months	6,100	948	15.5	5	0.5	14	1.5	19	2.0	1	0.1	1	0.1	2	0.2
36-72 Months	6,946	299	4.3	4	1.3	4	1.3	8	2.7	2	0.7	0	0.0	2	0.7
Total	13,047	1,247	9.6	9	0.7	18	1.4	27	2.2	3	0.2	1	0.1	4	0.3
Cecil County															
0-35 Months	4,577	817	17.9	1	0.1	7	0.9	8	1.0	0	0.0	0	0.0	0	0.0
36-72 Months	4,470	404	9.0	1	0.2	5	1.2	6	1.5	0	0.0	0	0.0	0	0.0
Total	9,047	1,221	13.5	2	0.2	12	1.0	14	1.1	0	0.0	0	0.0	0	0.0
Charles County															
0-35 Months	6,682	1,440	21.5	1	0.1	10	0.7	11	0.8	0	0.0	1	0.1	1	0.1
36-72 Months	6,571	523	8.0	0	0.0	1	0.2	1	0.2	0	0.0	2	0.4	2	0.4
Total	13,254	1,963	14.8	1	0.1	11	0.6	12	0.6	0	0.0	3	0.2	3	0.2
Dorchester County															
0-35 Months	1,464	517	35.3	2	0.4	12	2.3	14	2.7	0	0.0	1	0.2	1	0.2
36-72 Months	1,334	177	13.3	1	0.6	3	1.7	4	2.3	0	0.0	0	0.0	0	0.0
Total	2,797	694	24.8	3	0.4	15	2.2	18	2.6	0	0.0	1	0.1	1	0.1
Frederick County															
0-35 Months	10,274	2,098	20.4	1	0.0	16	0.8	17	0.8	2	0.1	3	0.1	5	0.2
36-72 Months	10,702	941	8.8	2	0.2	7	0.7	9	1.0	2	0.2	0	0.0	2	0.2
Total	20,976	3,039	14.5	3	0.1	23	0.8	26	0.9	4	0.1	3	0.1	7	0.2
Garrett County															
0-35 Months	1,073	310	28.9	0	0.0	5	1.6	5	1.6	1	0.3	0	0.0	1	0.3
36-72 Months	1,152	117	10.2	1	0.9		0.0	1	0.9	0	0.0	0	0.0	0	0.0
Total	2,225	427	19.2	1	0.2	5	1.2	6	1.4	1	0.2	0	0.0	1	0.2

Appendix A

Blood Lead Testing of Children 0-72 Months by Major Age Group and Jurisdiction in 2012

Age Group	Population of Children	Children Tested		Blood Lead Level 5-9 µg/dL						Blood Lead Level ≥10 µg/dL					
				Old Cases		New Cases		Total		Old Cases		New Cases		Total	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Harford County															
0-35 Months	10,412	2,043	19.6	3	0.1	20	1.0	23	1.1	1	0.0	3	0.1	4	0.2
36-72 Months	10,688	936	8.8	2	0.2	9	1.0	11	1.2	0	0.0	2	0.2	2	0.2
Total	21,100	2,979	14.1	5	0.2	29	1.0	34	1.1	1	0.0	5	0.2	6	0.2
Howard County															
0-35 Months	12,072	1,712	14.2	1	0.1	13	0.8	14	0.8	2	0.1	3	0.2	5	0.3
36-72 Months	12,635	788	6.2	0	0.0	11	1.4	11	1.4	1	0.1	0	0.0	1	0.1
Total	24,707	2,500	10.1	1	0.0	24	1.0	25	1.0	3	0.1	3	0.1	6	0.2
Kent County															
0-35 Months	707	189	26.8	1	0.5	5	2.6	6	3.2	0	0.0	1	0.5	1	0.5
36-72 Months	699	54	7.7	0	0.0	1	1.9	1	1.9	0	0.0	1	1.9	1	1.9
Total	1,406	243	17.3	1	0.4	6	2.5	7	2.9	0	0.0	2	0.8	2	0.8
Montgomery County															
0-35 Months	45,297	14,148	31.2	7	0.0	108	0.8	115	0.8	2	0.0	12	0.1	14	0.1
36-72 Months	43,905	6,367	14.5	11	0.2	43	0.7	54	0.8	7	0.1	3	0.0	10	0.2
Total	89,202	20,515	23.0	18	0.1	151	0.7	169	0.8	9	0.0	15	0.1	24	0.1
Prince George's County															
0-35 Months	42,313	12,805	30.3	8	0.1	114	0.9	122	1.0	2	0.0	11	0.1	13	0.1
36-72 Months	38,960	7,612	19.5	18	0.2	82	1.1	100	1.3	1	0.0	6	0.1	7	0.1
Total	81,273	20,417	25.1	26	0.1	196	1.0	222	1.1	3	0.0	17	0.1	20	0.1
Queen Anne's County															
0-35 Months	1,884	377	20.0	0	0.0	9	2.4	9	2.4	0	0.0	2	0.5	2	0.5
36-72 Months	1,984	117	5.9	0	0.0	4	3.4	4	3.4	0	0.0	0	0.0	0	0.0
Total	3,868	494	12.8	0	0.0	13	2.6	13	2.6	0	0.0	2	0.4	2	0.4

Appendix A

Blood Lead Testing of Children 0-72 Months by Major Age Group and Jurisdiction in 2012

Age Group	Population of Children	Children Tested		Blood Lead Level 5-9 µg/dL						Blood Lead Level ≥10 µg/dL					
				Old Cases		New Cases		Total		Old Cases		New Cases		Total	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Saint Mary's County															
0-35 Months	5,287	1,340	25.3	2	0.1	24	1.8	26	1.9	0	0.0	0	0.0	0	0.0
36-72 Months	5,331	294	5.5	0	0.0	2	0.7	2	0.7	0	0.0	1	0.3	1	0.3
Total	10,618	1,634	15.4	2	0.1	26	1.6	28	1.7	0	0.0	1	0.1	1	0.1
Somerset County															
0-35 Months	935	403	43.1	4	1.0	6	1.5	10	2.5	0	0.0	1	0.2	1	0.2
36-72 Months	839	205	24.4	1	0.5	7	3.4	8	3.9	0	0.0	1	0.5	1	0.5
Total	1,774	608	34.3	5	0.8	13	2.1	18	3.0	0	0.0	2	0.3	2	0.3
Talbot County															
0-35 Months	1,343	507	37.7	1	0.2	5	1.0	6	1.2	1	0.2	1	0.2	2	0.4
36-72 Months	1,305	99	7.6	1	1.0	1	1.0	2	2.0	0	0.0	1	1.0	1	1.0
Total	2,648	606	22.9	2	0.3	6	1.0	8	1.3	1	0.2	2	0.3	3	0.5
Washington County															
0-35 Months	6,337	1,800	28.4	8	0.4	80	4.4	88	4.9	0	0.0	0	0.0	0	0.0
36-72 Months	6,354	875	13.8	9	1.0	22	2.5	31	3.5	0	0.0	0	0.0	0	0.0
Total	12,691	2,675	21.1	17	0.6	102	3.8	119	4.4	0	0.0	0	0.0	0	0.0
Wicomico County															
0-35 Months	4,424	1,654	37.4	4	0.2	26	1.6	30	1.8	0	0.0	2	0.1	2	0.1
36-72 Months	4,158	500	12.0	5	1.0	9	1.8	14	2.8	0	0.0	2	0.4	2	0.4
Total	8,582	2,154	25.1	9	0.4	35	1.6	44	2.0	0	0.0	4	0.2	4	0.2
Worcester County															
0-35 Months	1,648	644	39.1	0	0.0	3	0.5	3	0.5	0	0.0	1	0.2	1	0.2
36-72 Months	1,591	212	13.3	1	0.5	3	1.4	4	1.9	0	0.0	1	0.5	1	0.5
Total	3,240	856	26.4	1	0.1	6	0.7	7	0.8	0	0.0	2	0.2	2	0.2

Blood Lead Testing of Children 0-72 Months by Major Age Group and Jurisdiction in 2012

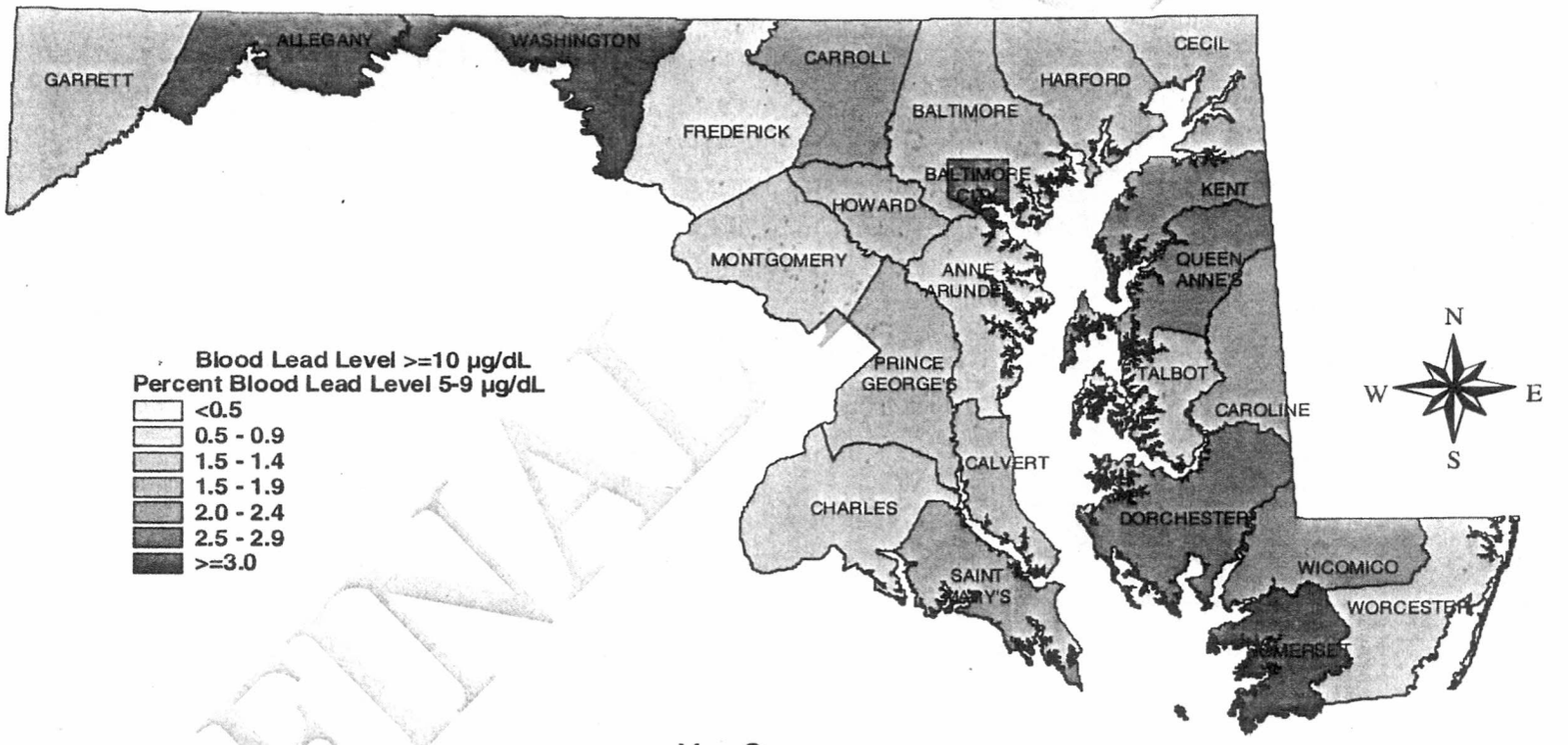
Age Group	Population of Children	Children Tested		Blood Lead Level 5-9 µg/dL						Blood Lead Level ≥10 µg/dL					
				Old Cases		New Cases		Total		Old Cases		New Cases		Total	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
County Unknown															
0-35 Months		48				1		1		1				1	
36-72 Months		27				2		2				2		2	
Total		75				3		3		1		2		3	
Statewide															
0-35 Months	259,885	77,980	30.0	232	0.3	1,345	1.7	1,577	2.0	54	0.1	192	0.2	246	0.3
36-72 Months	250,000	32,559	13.0	351	1.1	447	1.4	798	2.5	55	0.2	63	0.2	118	0.4
Total	509,885	110,539	21.7	583	0.5	1,792	1.6	2,375	2.1	109	0.1	255	0.2	364	0.3

Appendix B
Blood Lead Testing of Children 0-72 Months: 2005-2012

Calendar Year		Population	Blood Lead Tests		Prevalence		Incidence	
			Number	Percent	Number	Percent	Number	Percent
2005								
	Baltimore City	53,626	17,943	33.5	854	4.8	534	3.0
	Counties	401,888	80,848	20.1	463	0.6	382	0.5
	County Unknown		357		14		0	
	Statewide	**455,514**	**99,148**	**21.8**	**1,331**	**1.3**	**916**	**0.9**
2006								
	Baltimore City	54,547	18,363	33.7	843	4.6	573	3.1
	Counties	408,784	84,611	20.7	431	0.5	363	0.4
	County Unknown		199		21		20	
	Statewide	**463,331**	**102,974**	**22.2**	**1,274**	**1.2**	**936**	**0.9**
2007								
	Baltimore City	55,142	17,670	32.0	624	3.5	435	2.5
	Counties	413,248	87,760	21.2	267	0.3	218	0.2
	County Unknown		278		1		1	
	Statewide	**468,390**	**105,708**	**22.6**	**892**	**0.8**	**654**	**0.6**
2008								
	Baltimore City	55,959	18,622	33.3	468	2.5	302	1.6
	Counties	418,941	87,830	21.0	245	0.3	187	0.2
	County Unknown		69		0		0	
	Statewide	**474,900**	**106,452**	**22.4**	**713**	**0.7**	**489**	**0.5**
2009								
	Baltimore City	56,431	19,043	33.7	347	1.8	214	1.1
	Counties	422,488	88,368	20.9	206	0.2	165	0.1
	County Unknown		5					
	Statewide	**468,390**	**107,416**	**22.4**	**553**	**0.5**	**379**	**0.4**
2010								
	Baltimore City	57,937	19,702	34.0	314	1.6	229	1.2
	Counties	433,661	94,650	21.8	217	0.2	170	0.2
	County Unknown		477		0		0	0.0
	Statewide	**491,598**	**114,829**	**23.4**	**531**	**0.5**	**399**	**0.3**
2011								
	Baltimore City	55,681	19,049	34.2	258	1.4	182	1.0
	Counties	445,021	90,481	20.3	194	0.2	160	0.2
	County Unknown		4		0		0	
	Statewide	**500,702**	**109,534**	**21.9**	**452**	**0.4**	**342**	**0.4**
2012								
	Baltimore City	56,701	18,717	33.0	219	1.2	148	0.8
	Counties	453,184	91,747	20.2	143	0.2	104	0.1
	County Unknown		75		2		3	
	Statewide	**509,885**	**110,539**	**21.7**	**364**	**0.3**	**255**	**0.2**

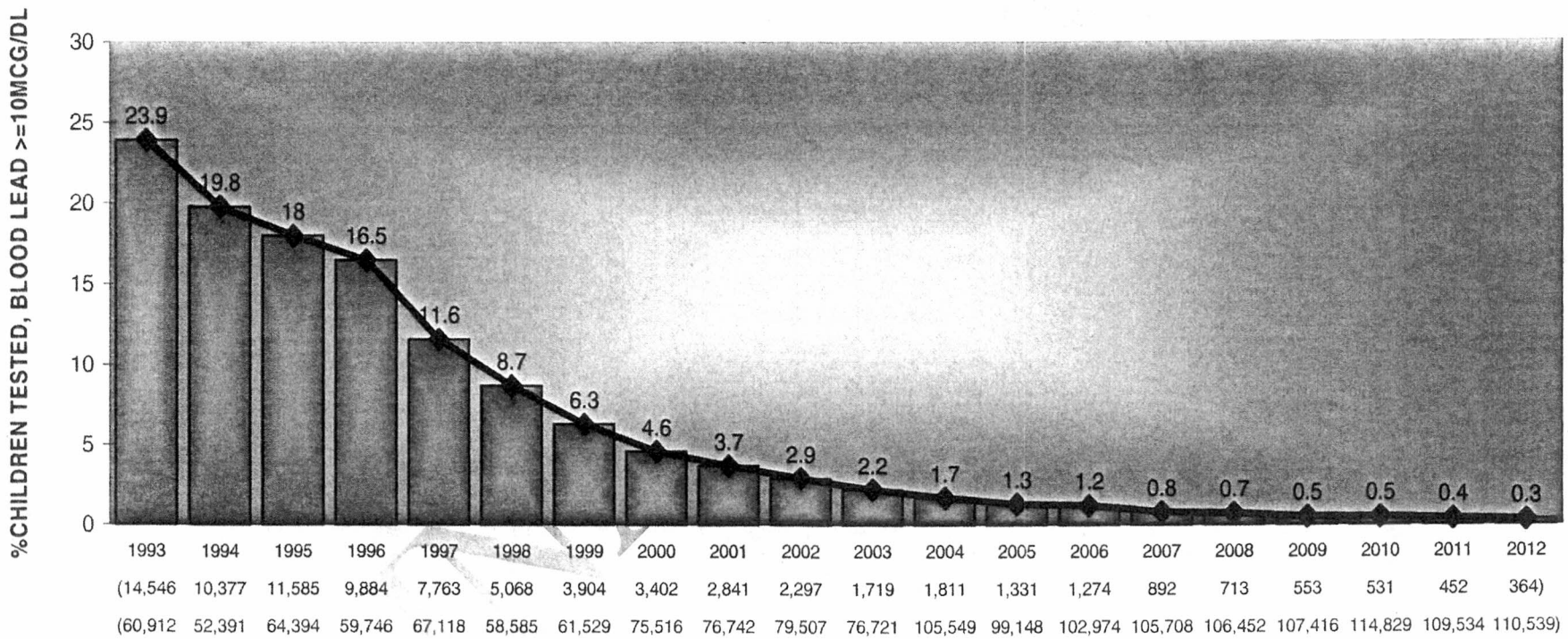
MARYLAND DEPARTMENT OF THE ENVIRONMENT
Lead Poisoning Prevention Program

Percent of Children 0-72 Months with Blood Lead Level 5-9 µg/dL, and
Distribution of Children 0-72 Months with Blood Lead Level >=10 µg/dL
Childhood Blood Lead Surveillance: 2012



Map One

MARYLAND DEPARTMENT OF THE ENVIRONMENT
CHILDHOOD BLOOD LEAD SURVEILLANCE
STATEWIDE 1993-2012

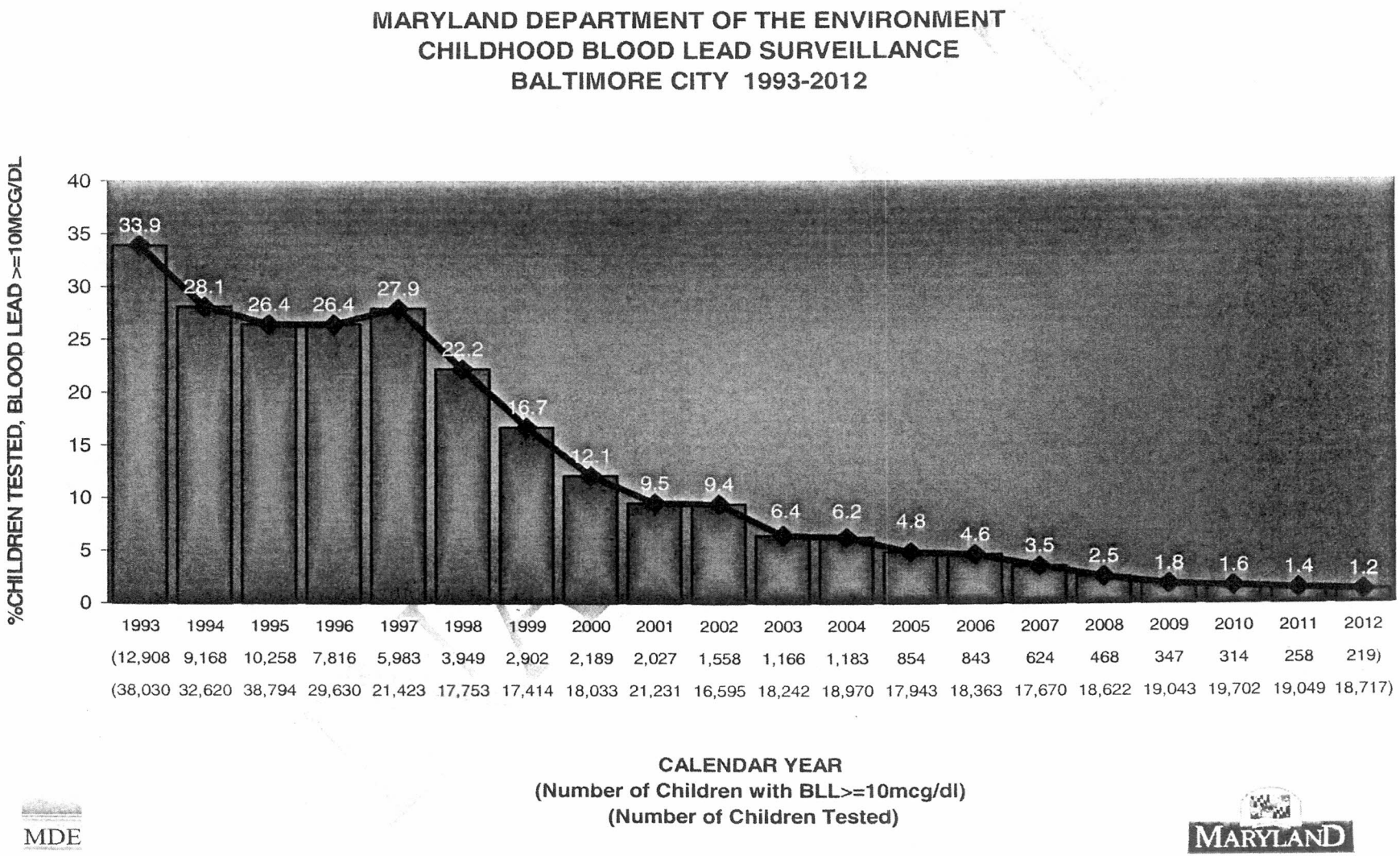


CALENDAR YEAR
(Number of Children with BLL>=10mcg/dl)
(Number of Children Tested)

MDE

MARYLAND

Appendix C


MARYLAND DEPARTMENT OF THE ENVIRONMENT
CHILDHOOD BLOOD LEAD SURVEILLANCE
BALTIMORE CITY 1993-2012
%CHILDREN TESTED, BLOOD LEAD >=10MCG/DL
40
35
30
25
20
15
10
5
0
33.9
28.1
26.4
26.4
27.9
22.2
16.7
12.1
9.5
9.4
6.4
6.2
4.8
4.6
3.5
2.5
1.8
1.6
1.4
1.2
1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012
(12,908 9,168 10,258 7,816 5,983 3,949 2,902 2,189 2,027 1,558 1,166 1,183 854 843 624 468 347 314 258 219)
(38,030 32,620 38,794 29,630 21,423 17,753 17,414 18,033 21,231 16,595 18,242 18,970 17,943 18,363 17,670 18,622 19,043 19,702 19,049 18,717)
CALENDAR YEAR
(Number of Children with BLL>=10mcg/dl)
(Number of Children Tested)
MDE
MARYLAND

Baltimore Housing Status Report

MARYLAND LEAD POISONING PREVENTION COMMISSION

Ken Strong, Deputy Commissioner
HCD Division of Green, Healthy and Sustainable Homes
Department of Housing and Community Development
September 5, 2013

I. Current Quarter HUD Benchmark Challenge of 24 – What we're doing to meet the mark by September 30th.

- Completed 9, 1 in progress, 8 ready to start, 5 going to settlement, 3 waiting for State check, others being submitted for State approval. No margin for error.
- Coordinating 4 cases where roofing work by either the Rehab Office or the Energy office is a pre-requisite to lead hazard reduction.
- Establishing blood lead level testing with Park West Health System on urgent basis, with planning for longer term relationship. 5 cases are held up in our pipeline because the family has not been able to obtain blood lead level test results.
- Reaching out to the families impacted by Jewish holidays in the month of September to strongly encourage relocation to relatives homes. Largely successful but may lose one or two cases this month.
- Approved overtime and comp time for key staff prepping and submitting cases.
- Two new cases with full documentation recently submitted by LIGHT team Social Service Coordinators.

- HCD Lead program staffing up – additional underwriter starting mid-September, lateral filling of Social Service Coordinator position underway by October 1st.
- Will implement food vouchers for families relocated
- Culling Rehab Program database for potential lead cases
- Maryland DHCD to provide underwriting training for all city staff in the new Lending Unit
- City and State to go through all documentation requirements to see if documentation can be lowered.
- Purchasing XRF machine to share with Baltimore City Health Department

III. Longer-range improvements to the whole Division of Green, Healthy and Sustainable Homes

- Division Reorganization – more staff in focused functional units (Intake/Case management, Field, Lending, Lead and Fiscal). New Division Chief for LIGHT program (Intake/Case Management Unit) starting in mid-October.
- Modernization of systems – Electronic eligibility files, Client Track as part of CREATES,ipads and fieldwork feeding into computer, complex but complete accounting of direct and leveraged funds.
- Evaluation of energy, health, quality of life and neighborhood stability
- Support from CREATES sister agencies – Mayor's Office of Human Services and Baltimore Energy Challenge
- Cross training division staff with Baltimore City housing code inspectors.

OCTOBER 3, 2013

LEAD POISONING PREVENTION COMMISSION MEETING

MEMBERS

Governor's Lead Commission Meeting Attendance Sheet

October 3, 2013

PLEASE NOTE: This sign-in sheet becomes part of the public record available for inspection by other members of the public.

Name/Signature	Representing	Telephone/Email
√ CONNOR, Patrick PC	Hazard ID Professional	
X HALL, Cheryl SL - excused	Office of Child Care	
√ HORNIG, Karen Stakem KSH	Maryland Insurance Administration	
X JENKINS, Melbourne excused	Property Owner Pre 1950	
X LANDON, Edward excused	Dept. Housing and Community Dev.	
√ McLAINE, Patricia PM	Child Health/Youth Advocate	
√ MITCHELL, Dr. Clifford GM	Department of Health and Mental Hygiene	
√ MOORE, Barbara BM	Health Care Provider	
X OAKS, Nathaniel (Delegate)	Maryland House of Delegates	
√ ROBERTS, Linda Lee LR	Property Owner Post 1949	Same
√ SNYDER-VOGEL, Mary (proxy)	Child Advocate	
VACANT	Secretary of the Environment or Designee	
VACANT	Local Government	
VACANT	Parent of a Lead Poisoned Child	
VACANT	Financial Institution	
VACANT	Child Care Providers	
VACANT	Insurer	
VACANT	Property Owner Pre 1950 Outside Baltimore City	
VACANT	Maryland Senate	

GUESTS

Governor's Lead Commission Meeting Attendance Sheet
October 3, 2013

PLEASE NOTE: This sign-in sheet becomes part of the public record available for inspection by other members of the public.

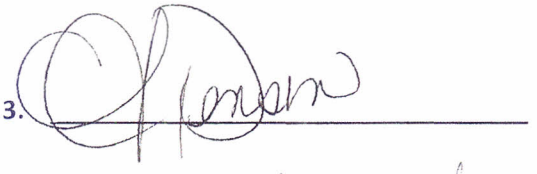
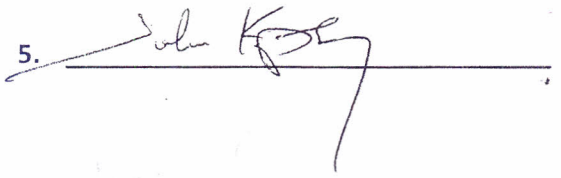
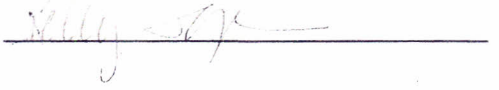
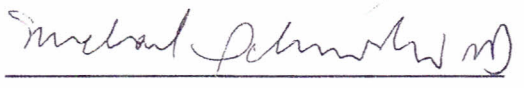
	Name	Representing	Address/Telephone/Email
✓	Shaketta Denson	GHHI	sdenson@ghhi.org 443 842 5724
✓	John Krupinsky	MDE	John.Krupinsky@maryland.gov
✓	Tina Wiesand	DHMH	tina.wiesande maryland.gov 410-767-6099
✓	Kelly Sage	DHMH	kelly.sage@maryland.gov 410-767-0750
✓	Caroline Grossman	Mirero IX LLC	caroline.grossman@gmail.com 781.771.5579
✓	Jonathan Kerman	MDE	
✓	Laura Fox	BCHD	Laura.Foxe baltimorcity.gov 410-361-9609
✓	Meghan Ulrich	MDE	Megan.ulrich@maryland.gov
✓	Paula T. Montgomery	MDE	
	Michael Ichniowski	MD-AAP	michich23@hotmail.com
✓	Tonii Chavis	wmson	toniichavis@aol.com 410-558-4077
✓	Hosanna Asfaw-Means	BCHD	Hosanna.Asfaw-Means@baltimorecity.gov
✓	John C. O'Brien	MDE	jo'brien@maryland.gov
	Ken Strong	Balt. City HCD	Ken.strong@baltimorecity.gov
✓	Horacio Tablada	Director-	LMA - MDE

POC Task force

October 3rd, 2013

SIGN IN Sheet --

NAME:

1. Nancy Servatius
2. Pat McGinnis
3. 
4. Tina Wiegand
5. 
6. 
7. Caroline Grossman
8. 
9. 
10. _____

LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

Thursday, October 3, 2013
9:30 AM - 11:30 AM
AERIS Conference Room
AGENDA

I. Welcome and Introductions

II. Old Business

III. 2012 Lead Surveillance Report – Dr. Keyvan presenting

IV. Discussion - Lead Point of Care Workgroup

Other Commission Items:

Future Meeting Dates: The next Lead Commission Meeting is scheduled for Thursday, November 7, 2013 in the Aeris Conference Room – Front Lobby, 9:30 am – 11:30 am.

Agency Updates

A. Maryland Department of the Environment
B. Department of Health and Mental Hygiene
C. Department of Housing and Community Development
D. Baltimore City Health Department
E. Office of Childcare
F. Maryland Insurance Administration
G. Other Agencies

Public Comment

GOVERNOR'S LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

AERIS Conference Room
October 3, 2013

Approved Minutes (11-7-13)

Members in Attendance

Patrick Connor, Karen Stakem Hornig, Pat McLaine, Barbara Moore, Linda Roberts, and Mary Snyder-Vogel (via phone).

Members not in Attendance

Cheryl Hall, Melbourne Jenkins, Ed Landon, and Delegate Nathaniel Oaks.

Guests in Attendance

Dr. Clifford Mitchell – DHMH, Shaketta Denson – CECLP, Hosanna Asfaw-Means – BCHD, Tonii Chavis – UMSON, Tina Wiegand – DHMH, Kelly Sage – DHMH, Caroline Grossman – Mirenolx, LLC, Laura Fox, BCHD, Ken Strong, Baltimore City Housing Department, Megan Ulrich – MDE, Michael Ichonowski – MD/AAP, Horacio Tablada – MDE, Ezatollah Keyvan – MDE, John O'Brien – MDE staff, John Krupinsky – MDE staff, Paula Montgomery – MDE Staff, and Tracy Smith – MDE staff.

Introductions

Pat McLaine started the meeting at 9:33 a.m. with introductions.

Future Meeting Dates

The next Lead Commission meeting is scheduled for Thursday, November 7, 2013 at MDE in the AERIS conference room. The Commission will meet from 9:30 a.m. - 11:30 a.m.

Approval of Minutes

Approval of minutes was deferred because too few Commissioners were in attendance.

Discussion

Dr. Keyvan presented the annual Childhood Blood Lead Surveillance in Maryland Annual Report for 2012. The Childhood Lead Registry (CLR) began in 1984 and includes computerized data from 1992 forward. Nearly 11,700 reports are received per month and blood lead level (BLL) test results are maintained on over 1.2 million children. Quality checks are performed monthly and semi-annually. The CLR receives a monthly list of establishments using the Lead Care point of care equipment. The DHMH list of approved laboratories is assessed on an annual basis to ensure that reports are being received. Reports are sent daily to the counties, weekly to the City, quarterly to CDC and Medicaid. A semi-annual match is done with the Maryland Refugees Program. Annual reports are prepared for the CLR, CDC and Medicaid. Information is also provided to counties and interested parties by request or when by subpoena.

Casual reports of elevated blood lead levels are occasionally reported by health care providers.
Dr. Keyvan estimates that 99+% of BLL tests are reported. For case management, daily reports of elevated blood lead levels are provided to counties. The CLR staff persons coordinate with nurse case managers, health care providers and refer for environmental inspections/investigations. If needed, support services, including legal, are identified.

Labs are followed up with daily tracking of blood lead reports. MDE also maintains an adult heavy metal laboratory reporting system, with regular reports made to CDC and NIOSH.

Subpoenas, once very few in number, are now a very large part of the routine daily work – sometimes the work of one full time person is needed. MDE has seen both an increase in the number of subpoenas and an increase in the extent of information requested. MDE processed more than 3,710 subpoenas in 2012. Processing used to take two (2) minutes but now takes seven (7) minutes on average to complete.

MDE continues to use Stellar, which is good for case management, with built in checks for duplications and quality control and a wide range of reports. However, Stellar is slow, only allows editing of one record at a time, uses Clarion software, and requires lengthy processing of CLR data before data can be imported into Stellar. Stellar is not able to provide analytical analyses. Although migration to the new CDC HHLPSS system has been planned for several years, HHLPSS is still not in place, the process to migrate data has been terminated and the CLR is now looking for other options.

In 2012, 88.7% of the reports were from 7 labs, all reporting electronically. One more lab accounted for another 2% of data, also electronically reported. Hard copies are received for about 10% of reports, from 32 labs, most by fax and some by mail. In addition, labs report any BLL of 10+µg/dL by fax, although the law says labs must report at 15µg/dL and higher.

An average of 22% of Maryland children under 6 years of age are being tested, with 0.3% of children having a BLL of 10µg/dL or higher. One third of addresses queried had no age of housing; the highest percentage of children with BLLs 5-9µg/dL lived in pre-1950 housing.

The number of children with BLLs 10+ and 5-9µg/dL went down in 2012 compared to 2011.

Dr. Keyvan looked at the history of 255 children with a first BLL identified equal to or higher than 10µg/dL in 2012. Of the 255 children, 148 had no previous test. Among 107 with a prior test, 28 had a 5-9µg/dL and 79 had BLLs <4µg/dL. Dr. Keyvan reported on the Lead Care I (Medically complex) and Lead Care II (CLIA-waived) machines. The number of establishments using this technology increased from 12 in 2010 to 16 in 2012. The number of tests per year (percent of all reported tests) rose from 4832 (3.6%) in 2010 to 6660 (5.0%) in 2012. Both types of equipment require manual processing; a reporting form developed by Lead Care does not match the report format used by MDE. Very few BLLs of 10+ have been reported.

MDE was asked how the CDC funding cuts had impacted the registry work. Horacio Tablada reported that MDE is using special fees and registration money to offset these losses. MDE will be developing its own software and hopes to have an RFP out in 2013. Patrick Connor noted that housing addresses were bad if 1/3 of queries did not match property on the tax assessor's data base. The refugee health blood lead assessment was not done this year; Dr. Clifford Mitchell indicated he would follow up. Amy Resnick asked why 75% of at-risk children were not screened. What about children living on the border of two states? Pat McLaine asked about screening reports for Medicaid recipients; she would like to see a report with matched data included in the Annual Report. Dr. Keyvan indicated that he was not as comfortable with the matched Medicaid data because he was not involved in the matching.

Dr. Clifford Mitchell indicated that DHMH is working to roll out the Affordable Care Act. He suggested that MDE should engage internally with DHMH on a regular basis to do the match. The Point of Care Taskforce might be

able to look at the question of screening. The "value based purchasing measure" is different from NCQA's HEDIS measure. Does DHMH align with HEDIS?

Carolyn Grossman indicated that Wisconsin had a very strong program with matching and a working relationship with Medicaid. Wisconsin set up a program to improve testing of one and two year olds (required) through WIC and improved by ten percent.

Ken Strong asked to what extent health insurance covers the initial and subsequent blood lead tests.
Barbara Moore indicated that she has not heard about any problems with BLL testing. Ken Strong indicated that some families will not get their children tested because it is "too soon" or they have no insurance coverage.
Pat McLaine noted that without state infrastructure for testing, we no longer have capacity to provide such testing.
John Krupinsky indicated that Tamarak had offered to charge $10 for filter paper testing if family was uninsured.
Carolyn Grossman indicated that Connecticut had passed legislation setting reimbursement rate for all blood lead tests.

Pat McLaine suggested that more information on outcomes associated with case management as well as factors associated with cases was needed as a part of the Annual Report.

Patrick Connor stated that laboratory quality control was a problem, citing many problems on use of proper tubes by laboratories as had been previously discussed with Paul Celli. Clifford Mitchell suggested that this would be an opportunity to engage with all labs about the proper testing equipment. John Krupinsky indicated that Quest had reported that the problem was due to use of lavender top tubes for heavy metals testing. No one knows how many of the tests reported to the CLR were done in lavender top tubes. Patrick Connor asked if DHMH supplied tubes in Maryland. Tina Wiegand indicated that DHMH did once supply tubes when the DHMH lab analyzed blood lead specimens. A limited number of manufacturers make tubes for blood lead analyses. Tina Wiegand noted that the DHMH lab had done many checks on lavender type tubes and never found increased lead from these tubes, although some capillary tubes had a very little. John Krupinsky noted that if the lab intended to conduct multiple tests on one tube of blood, that was a problem. If the lead test is done first, it would probably be OK. Otherwise, the tube could be contaminated. Tina Wiegand indicated that DHMH had done that, noting that it is possible to contaminate a sample any time you open a device (tube), although venous tube is better.

John Krupinsky noted other problems: two labs failing to report capillary or venous on the results and false positive result (capillary, reported as venous) that led to chelation. Dr. Keyvan asked what could be done with labs to encourage them to handle samples properly? Regulation or enforcement? Dr. Clifford Mitchell indicated that the approach by DHMH would probably be communication not regulation. This could be done as part of communication with the labs doing blood lead testing.

Other points from the review:
* Children in pre-1950 housing more likely to have elevated blood lead levels
*2012 saw another drop in the number of children with BLLs of 10µg/dL and higher
* CDC's Reference Value has been 5µg/dL since March 2012

The next part of the meeting included discussion with the members of the Point of Care Testing Task Force who were present for this day's meeting. Dr. Clifford Mitchell indicated that the Task Force is interested in hearing about challenges and opportunities; ideas about with whom the Task Force should talk; and whether the Commission wants to take a position or vote on the Task Force Recommendations.

Patrick Connor asked how reliable the Point of Care testing equipment was, since the level of detection (LOD) was 3.3µg/dL. Is there a QC program for these instruments?

Tina Wiegand indicated that Wisconsin has a proficiency testing program specifically for users of point of care testing equipment and that Maryland users must participate.

Barbara Moore asked if the manufacturers have correlated results across the spectrum of results.
Dr. Clifford Mitchell indicated that Wisconsin has done this and that the data looks good. Carolyn Grossman noted that this is considered a screening device and the user must confirm any result of 10µg/dL and above with a venous test analyzed at a regular laboratory. The CDC Working Group recommends proficiency testing. Wisconsin offers two proficiency testing programs: one for CLIA approved equipment (5 samples, 3 times a year) and one specifically for point of care screening devices (3 samples, two times per year), the latter recommended by the CDC Working Group.

Dr. Clifford Mitchell asked if there was an opportunity or advantage of widespread point of care testing. Laura Fox indicated that providers had noted problems when a lab was not co-located with a pediatric practice and families did not go elsewhere to get their child tested. Tonii Chavis noted that for Baltimore Medical System, reimbursement for tests is also an issue. If they have to send families elsewhere for a venous, this is a problem. Costs can be high – a cartridge to do A1-C tests (also CLIA waived) is $6,000. Patrick Connor asked if the challenge was the blood draw or being able to analyze on site. Tonii Chavis indicated that she felt it would be better if information was available, noting that all sites do not have a phlebotomist. Barbara Moore indicated that many sites have personnel who are cross-trained. Primary care providers may not have all services available for all times.

Carolyn Grossman noted that Maryland does not recognize the CLIA waiver, meaning that providers must be licensed as a lab and must perform daily QC. Maryland is among a small group of state requiring this level of oversight (others include NJ, Massachusetts and Pennsylvania). The biggest improvement that would be expected is the increase in screening. Wisconsin has screened in WIC clinics and Head Starts with good results. Physician's offices have been among the biggest buyers. Filter paper testing improves the testing rates, but a large number of individuals do not return to get their results and so are lost to follow-up.

Reporting to MDE is required but is a manual process and may be time consuming for staff. There may be some potential for developing some compatibility for electronic reporting in the future, but it does not exist now.

Pat McLaine noted that WIC testing has long been an interest of the Commission. Barbara Moore asked about the CLIA waiver: if a hospital has a waiver, can a clinic associated with that hospital be covered by the hospital's waiver?

Barbara Moore noted that as a new process, education for providers is needed and this is a fantastic opportunity to provide education about the importance of screening. However, if the LOD is 3.3 and all BLLS of 5 and over need to be re-tested, how much will we gain?

Carolyn Grossman indicated that CDC uses the system a lot and has identified lower LODs. This may be something the manufacturers may be able to address in the future.

Patrick Connor asked about costs: Carolyn Grossman indicated that upfront cost was $2400 or less depending on how many testing kits were bundled in with the purchase. Reimbursement is an issue, particularly where EPSDT lab costs are bundled and based on a state contract rather than being billed separately. New York State requires Medicaid Health Plans to reimburse $15 for each test. In Wisconsin, providers are reimbursed $32 for the fingerstick, analysis and counseling for results. This was very useful for WIC when the markets changed and the Medicaid payment was able to help fund continuation of the program. Next month, the Task Force will speak with three states about their programs - Texas, Wisconsin, and Massachusetts. Clifford Mitchell invited Commissioners who were interested to join the next Task Force meeting by phone.

Pat McLaine thanked everyone for their input. The Commission will review recommendations made by the Task Force at a future meeting.

Announcements: Lead Poisoning Prevention Week: Laura Fox announced that BCHD was organizing lead testing on October 25 at Park West and also at the SE Anchor Library. Shaketa Denson indicated that the Coalition would be involved with the testing effort at Park West, at Story time in Wicomico County, at Mondawmin Mall and possibly at an event in Hagerstown.

Ken Strong passed out an update report on the Baltimore HUD project.

Minutes will be reviewed at the next meeting in November.

At 11:45 a.m. Patrick Connor moved to adjourn, seconded by Barbara Moore, all in favor - the meeting was adjourned.

Lead Week Activities
October 20-26, 2013

Baltimore City Lead Week Activities:

10/22 - Healthy Homes Gathering at the Penn Ave Enoch Pratt

10/24 - Healthy Homes Gathering at the SE Anchor Enoch Pratt

10/24 10 am to 12 noon - Health Fair at the William S. Baer School

10/25 - Park West Medical Center Health Fair (lead testing will be provided)

In addition to the above activities, lead health education materials will be provided/displayed in all Enoch Pratt locations throughout Baltimore City.

Coalition Lead Week Activities:

10/22	2 - 2:30 pm	EPA Press Conference – Time and Location TBD
10/23	10:30 am - 12:30 pm	Wicomico County Public Library 122 S. Division Street, Salisbury, MD 21801
10/24	11 am - 1 pm	Dereck the Dinosaur Tour Greenbelt Children's Center 7600 Hanover Pkwy #100 Greenbelt, MD 20770
10/25	9 am – 2 pm	BCHD Free Lead Testing 3319 W. Belvedere Ave, Baltimore, MD 21215
10/25	9 am – 3 pm	Take a Loved One to the Doctor Day Mondawmin Mall 2401 Liberty Heights Ave, Baltimore, MD 21215

BALTIMORE CITY

LEAD HAZARD REDUCTION PROGRAM UPDATE

October 3, 2013

- The Baltimore City Lead Hazard Reduction Program met its HUD quarterly benchmark completing 24 units by 9/30/13. Meeting this goal was critical to being in good standing with HUD. The Coalition and our other contractors did a great job.

- An agreement for blood lead level testing has been reached with Park West community health center, thanks to the advocacy of the Baltimore City Health Department.

- Baltimore City Health Commissioner Barbot is signing a letter that essentially designates the Baltimore City Department of Housing and Community Development as a "public health authority" for the purposes of the Lead Hazard Reduction Program eliminating barriers to the sharing of information about children and families we can jointly help.

- Eight (8) Community Aides will be starting this month to assist with outreach and applicants; two assigned to the health department, two with the Coalition and four with housing. They have been selected and are going through HR processing.

- The housing department is planning to purchase an XRF machine to be shared by health and housing once storage and security questions have been answered.

- The City and the State have agreed to review the documentation burdens of State-funded lead cases with an eye toward lowering that burden. The State will also provide training to City underwriters of lead and rehab cases

- Two new staff members started with the Lead Hazard Reduction Program this past month, one underwriter and one Social Service Coordinator.

- Commissioners will receive copies of our quarterly report to HUD

MARYLAND

Department of the Environment

Childhood Blood Lead Surveillance in Maryland

Annual Report 2012

Lead Poisoning Prevention Program

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard | Baltimore, MD 21230 | www.mde.state.md.us/recycling
410-537-3314 | 800-633-6101 x3314 | TTY Users: 800-735-2258
Martin O'Malley, Governor | Anthony G. Brown, Lt. Governor | Robert Summers, Ph.D., Secretary

MARYLAND CHILDHOOD LEAD REGISTRY

ANNUAL SURVEILLANCE REPORT 2012

EXECUTIVE SUMMARY

The Maryland Department of the Environment's ("MDE" or "Department") statewide Childhood Lead Registry (CLR) performs childhood blood lead surveillance for Maryland. The CLR receives the reports of all blood lead tests done on Maryland children 0-18 years of age, and the CLR provides blood lead test results to the Department of Health and Mental Hygiene including Medicaid and local health departments as needed for case management and planning.

Since 1995, the CLR has released a comprehensive annual report on statewide childhood blood lead testing. This current report presents the childhood blood lead test results for calendar year (CY) 2012. All numbers are based on blood lead testing (venous or capillary) on children. The CLR does not receive any reports on lead screening based on the lead risk assessment questionnaire. With few exceptions all numbers referred to children 0-72 months of age.

Maryland CY 2012 Surveillance Highlights:

Statewide

- During Calendar Year ("CY") 2012 a total of 110,539 (21.7%) children were tested out of 509,885 children 0-72 months of age; as identified in the Maryland census population for 2010. This in an **increase** of 1,005 children tested over the "CY"11 for children tested 109,534 (21.9%) out of a population of 500,702. Not all children in Maryland are required to be blood lead tested. Based on Maryland's "Targeting Plan for Areas at Risk for Childhood Lead Poisoning", children are required to have a blood lead test at ages 1 and 2 years if they meet any of the following criteria; (a) Live in an identified "at-risk" zip code, (b) Participate in Maryland's "Medicaid" EPSTD Program, (c) Positive response to "Risk Assessment Questionnaire" conducted on children up to age six years of age, as required.

- Of those 110,539 children tested, 364 (0.3%) were identified with a blood lead level ≥10 µg/dL (Prevalence). This was a **decrease** of 88 Prevalence cases compared to 452 (0.4%) during "CY"11.

- Of the 364 children identified with a blood lead level ≥10 µg/dL, 255 (0.2%) were indentified with their first venous or capillary blood lead level ≥ 10 µg/dL (Incidence). This resulted in a **decrease** of 87 Incidence cases compared to 342 (0.3%) in "CY"11.

- Of the 255 incident cases statewide, a total of 236 cases met the criteria for medical and environmental case management (Confirmed Case). This was a **decrease** of 56 Confirmed Cases compared to the "CY"11 total of 292.

- In 2012, 1,792 children had their first venous or capillary blood lead level of 5-9 µg/dL compared to 2,129 children in 2011.

- The highest testing rates for children 0-72 months were found in jurisdictions that require testing of all children at age 1 and 2 years. These include: Somerset County (34.3%), Baltimore City (33%), Allegany County (27.2%), and Worcester County (26.4%).

Baltimore City

- During Calendar Year "CY" 2012 a total of 18,717 (33%) children were tested out of 56,701 children 0-72 months of age; as identified in the Maryland census population for 2010. This was a **decrease** of 332 children tested compared to "CY"11 where 19,049 (34.2%) children were tested out of a population of 55,681.

- Of those 18,717 children tested in "CY"12; 219 (1.2%) were identified with a venous or capillary blood lead level ≥10 µg/dL (Prevalence). This was a **decrease** of 39 Prevalence cases compared to 258 (1.4%) during "CY"11.

- Children identified with a first time (Incidence) venous or capillary blood lead level ≥ 10 µg/dL during "CY"12 totaled 148 (0.8%). This was a **decrease** of 34 Incidence cases compared to 182 (1.0%) in "CY"11.

- In Baltimore City, 144 children with a first venous blood lead level ≥ 10 µg/dL (Confirmed Case) received medical and environmental case management. This was an **increase** of 14 Confirmed cases over "CY" 2011 where 130 children were identified.

- Of the 144 Confirmed Cases approximately 98 (68%) of these cases children were living in a pre-1950 residential rental dwelling "Affected Property". In the remaining 46 cases, 1 (1%) children were living in a post 1949 residential rental dwelling and 45 (31%) were living in an owner occupied property ("Non-Affected").

Maryland Counties (0utside of Baltimore City)

- In Maryland Counties, during Calendar Year "CY" 2012 a total of 91,822 (20%) children were tested out of 453,184 children 0-72 months of age; as identified in the Maryland census population for 2010. This was an **increase** of 1,337 children tested compared to "CY"11 where 90,485 (20%) children were tested out of a population of 445,021.

- Of those 91,822 children tested in "CY"12; 145 (0.2%) were identified with a venous or capillary blood lead level ≥10 µg/dL (Prevalence). This was a **decrease** of 49 Prevalence cases compared to 194 (0.2%) during "CY"11.

- Children identified with a first time (Incidence) venous or capillary blood lead level ≥ 10 µg/dL during "CY"12 totaled 107 (0.1%). This was a **decrease** of 53 Incidence cases compared to 160 (1.0%) in "CY"11.

- In Maryland Counties, 92 children with the first venous blood lead level ≥ 10 µg/dL (Confirmed Case) received medical and environmental case management. This was a **decrease** of 70 Confirmed cases over "CY" 2011 where 162 children were identified.

- Of the 92 Confirmed Cases approximately 15 (16%) of these cases children were living in a pre-1950 residential rental dwelling ("Affected Property"). In the remaining 77 cases, 37 (40%) children were living in a post 1949 residential rental dwelling and 40 (44%) were living in an owner occupied property ("Non-Affected").

- In 2012, CLR received blood lead reports from 40 laboratories nationwide. Number of reports for the whole year varied from as low as 2 from one laboratory to more than 68,000 from another laboratory. More than 84% of reports however are from three major laboratories. These and five other laboratories sent their reports electronically (90.8%). The average reporting time, from the time sample is drawn to the time the result enters the CLR database is about 6 days. The average time for elevated blood lead results (≥10 µg/dL) is approximately 30 hours.

LEAD NEWS

"Targeting Plan Evaluated"

Not all children in Maryland are required to be blood lead tested. Based on Maryland's "Targeting Plan for Areas at Risk for Childhood Lead Poisoning" ("Targeting Plan"), children are required to have a blood lead test at ages 1 and 2 years if they meet any of the following criteria; (a) Live in an identified "at-risk" zip code, (b) Participate in Maryland's "Medicaid" EPSTD Program, (c) Positive response to "Risk Assessment Questionnaire" conducted on children up to age six years of age, as required. Currently the Targeting Plan is being re-evaluated by MDE and the Maryland Department of Health and Mental Hygiene.

"Funding Loss"

With the loss of the Center for Disease Control ("CDC") funding, MDE continues to be able to provide oversight of medical case management. The Department also continues to perform environmental investigations when a child is diagnosed with a blood lead level of ≥10 µg/dL or greater. During 2012 MDE restored the funding, once provided by a pass through grant from CDC to MDE, to Wicomico County and the Baltimore City Health Department.

"Universe of Affected Properties to Increase in 2015"

On January 1, 2015 Maryland will be expanding the universe of Affected Properties under the Environment Article Title 6, Subtitle 8 to also include residential rental dwelling units built 1950-1978. Because the residential use of lead based paint was not banned until 1978, the amendment to the law that was passed during the 2012 legislative session seeks to expand the primary prevention aspects of the existing lead law that previously only mandated compliance for rental dwelling units built prior to 1950.

"Owners of Affected Properties Required Meeting a Higher Standard"

Effective January 1, 2012 an owner subject to Maryland Lead Laws, is required to meet a more stringent standard when a child living in their rental property is diagnosed with a blood lead level of ≥10 µg/dL or greater. Currently, MDE regulates pre-1950 residential rental properties ("Affected Properties").

When an owner receives a Notice of Elevated Blood Lead Level or Notice of Defect on their Affected Property they are now required to meet the Modified Risk Reduction Standard. The standard requires dust testing and nine treatments followed by a visual inspection. The treatment must be performed and signed-off on by an accredited MDE lead supervisor.

Once completed, a visual inspection, treatment verification and dust samples are performed by an Accredited MDE inspector. Upon passing the inspection the owner will receive a certificate indicating that they met the Modified Risk Reduction Standard.

Confirmed Cases and Property Type by Jurisdiction

Table One
Lead Poisoning Prevention Program: Childhood Lead Registry
Property Status of New Cases ≥ 10 µg/dL for Calendar Year 2012
By Jurisdiction

County	Number Properties	Owner-Occupied		Affected Property		Non-affected Property	
		Number	Percent	Number	Percent	Number	Percent
Allegany	5	0	0%	3	60%	2	40%
Anne Arundel	4	2	50%	0	0%	2	50%
Baltimore	24	10	42%	1	4%	13	54%
Baltimore City	**144**	**45**	**31%**	***98**	**68%**	**1**	**1%**
Calvert	1	1	100%	0	0%	0	0%
Caroline	2	2	100%	0	0%	0	0%
Carroll	0	0	0%	0	0%	0	0%
Cecil	0	0	0%	0	0%	0	0%
Charles	3	3	100%	0	0%	0	0%
Dorchester	1	1	100%	0	0%	0	0%
Frederick	3	3	100%	0	0%	0	0%
Garrett	0	0	0%	0	0%	0	0%
Harford	5	2	40%	2	40%	1	10%
Howard	4	1	25%	0	0%	3	75%
Kent	2	1	50%	1	50%	0	0%
Montgomery	11	6	55%	0	0%	5	45%
Prince George's	16	6	38%	4	24%	6	38%
Queen Anne's	1	0	0%	0	0%	1	100%
Saint Mary's	1	1	100%	0	0%	0	0%
Somerset	1	0	0%	1	100%	0	0%
Talbot	2	0	0%	2	100%	0	0%
Washington	0	0	0%	0	0%	0	0%
Wicomico	4	1	25%	1	25%	2	50%
Worcester	2	0	0%	0	0%	2	100%
Counties' Total	*92*	*40*	*44%*	*15*	*16%*	*37*	*40%*
Statewide	**236**	**85**	**36%**	**113**	**48%**	**38**	**16%**

Notes:
*Eleven properties in Baltimore City with construction year unavailable are assumed to be rental properties constructed prior to 1950.

Statistical Report

In calendar year 2012, a total of 110,539 children 0-72 months were tested for lead exposure statewide. Table One provides a summary of statewide statistics of blood lead testing in 2012.

Table Two
Calendar Year (CY) 2012 Statistical Report[1]

Item	Number	Percent (%)
All Children		
Number of tests	127,735	
Number of children	122,799	
Children 0-72 Months		
Number of tests	115,210	
Number of children	110,539	100.0
Age		
Under One	10,115	9.2
One Year	37,114	33.6
Two Years	30,721	27.8
Three Years	12,094	10.9
Four Years	11,967	10.8
Five Years	8,498	7.7
Sex		
Female	54,069	48.9
Male	56,036	50.7
Undetermined	434	0.4
Highest Blood Lead Level (µg/dL)		
≤4	107,800	97.5
5-9	2,375	2.1
10-14	233	0.2
15-19	81	0.1
≥20	50	0.1
Mean BLL (Geometric mean)	1.40	
Blood Specimen		
Capillary	19,397	17.5
Venous	78,384	70.9
Undetermined[2]	12,783	11.6

1. For detailed analysis and breakdown of numbers refer to Supplementary Data Tables 1-5.
2. In supplementary data tables blood tests with sample type unknown were counted as capillary.

Findings

Childhood lead exposure further declined, both in the extent and the severity from 2011 to 2012 (Figures One & Two).

Figure One
Number of Children 0-72 Months Tested for Lead and Number Reported to Have Blood Lead Level ≥10 µg/dL: 1995-2012

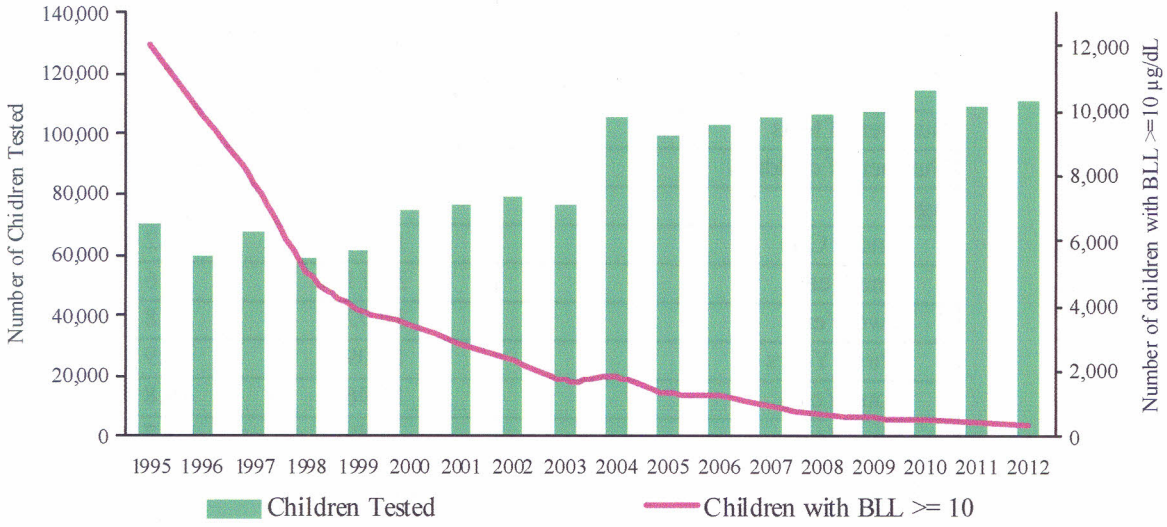
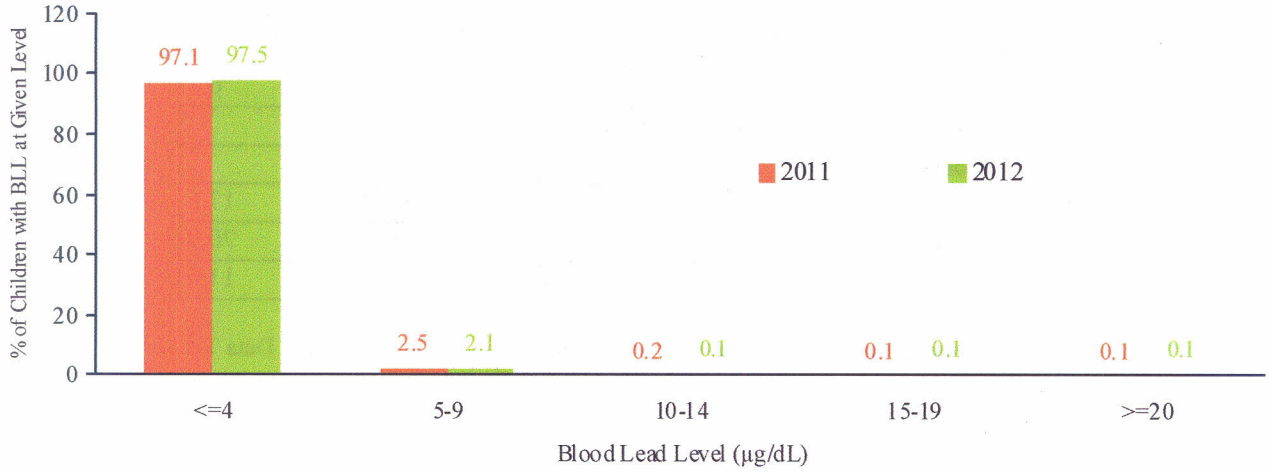


Figure Two
Blood Lead Distribution of Children 0-72 Months Tested for Lead in 2011 and 2012



The decline in lead exposure is further demonstrated by decline in percent of children tested for lead and had the highest blood lead level of 5-9 µg/dL (Figure Three.)

Figure Three

Percent of Children 0-72 Months Tested for Lead with the Highest Blood lead Level of 5-9 µg/dL: 2000-2012

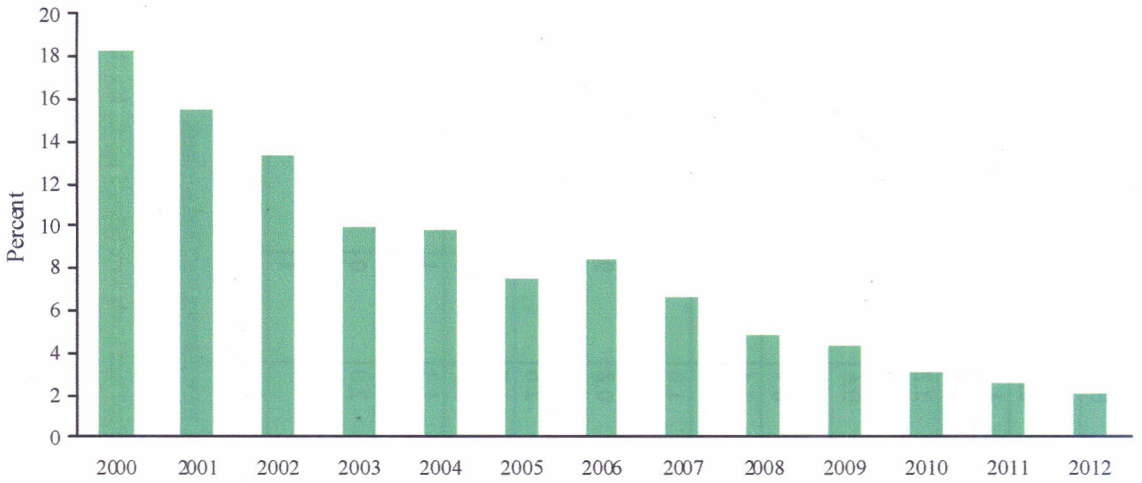


Table Three (page 8) provides the breakdown of blood lead testing and the status of children with respect to lead exposure by jurisdiction in 2012.

Table Three

Blood Lead Testing of Children 0-72 Months by Jurisdiction in 2012[1]

County	Population of Children[2]	Children Tested		Children with BLL 5-9 µg/dL						Children with BLL >=10 µg/dL					
				Old Cases[3]		New Cases[4]		Total		Old Cases[5]		New Cases[6]		Total	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Allegany	4,853	1,320	27.2	14	1.1	40	3.0	54	4.1	4	0.3	8	0.6	12	0.9
Anne Arundel	48,260	8,338	17.3	10	0.1	64	0.8	74	0.9	0	0.0	5	0.1	5	0.1
Baltimore	67,225	16,329	24.3	28	0.2	174	1.1	202	1.2	8	0.0	26	0.2	34	0.2
Baltimore City	56,701	18,717	33.0	424	2.3	800	4.3	1,224	6.5	71	0.4	148	0.8	219	1.2
Calvert	7,159	715	10.0	0	0.0	7	1.0	7	1.0	0	0.0	1	0.1	1	0.1
Caroline	3,234	773	23.9	1	0.1	13	1.7	14	1.8	0	0.0	2	0.3	2	0.3
Carroll	13,047	1,247	9.6	9	0.7	18	1.4	27	2.2	3	0.2	1	0.1	4	0.3
Cecil	9,047	1,221	13.5	2	0.2	12	1.0	14	1.1	0	0.0	0	0.0	0	0.0
Charles	13,254	1,963	14.8	1	0.1	11	0.6	12	0.6	0	0.0	3	0.2	3	0.2
Dorchester	2,797	694	24.8	3	0.4	15	2.2	18	2.6	0	0.0	1	0.1	1	0.1
Frederick	20,976	3,039	14.5	3	0.1	23	0.8	26	0.9	4	0.1	3	0.1	7	0.2
Garrett	2,225	427	19.2	1	0.2	5	1.2	6	1.4	1	0.2	0	0.0	1	0.2
Harford	21,100	2,979	14.1	5	0.2	29	1.0	34	1.1	1	0.0	5	0.2	6	0.2
Howard	24,707	2,500	10.1	1	0.0	24	1.0	25	1.0	3	0.1	3	0.1	6	0.2
Kent	1,406	243	17.3	1	0.4	6	2.5	7	2.9	0	0.0	2	0.8	2	0.8
Montgomery	89,202	20,515	23.0	18	0.1	151	0.7	169	0.8	9	0.0	15	0.1	24	0.1
Prince George's	81,273	20,417	25.1	26	0.1	196	1.0	222	1.1	3	0.0	17	0.1	20	0.1
Queen Anne's	3,868	494	12.8	0	0.0	13	2.6	13	2.6	0	0.0	2	0.4	2	0.4
Saint Mary's	10,618	1,634	15.4	2	0.1	26	1.6	28	1.7	0	0.0	1	0.1	1	0.1
Somerset	1,774	608	34.3	5	0.8	13	2.1	18	3.0	0	0.0	2	0.3	2	0.3
Talbot	2,648	606	22.9	2	0.3	6	1.0	8	1.3	1	0.2	2	0.3	3	0.5
Washington	12,691	2,675	21.1	17	0.6	102	3.8	119	4.4	0	0.0	0	0.0	0	0.0
Wicomico	8,582	2,154	25.1	9	0.4	35	1.6	44	2.0	0	0.0	4	0.2	4	0.2
Worcester	3,240	856	26.4	1	0.1	6	0.7	7	0.8	0	0.0	2	0.2	2	0.2
County Unknown[7]		75		0		3		3		1		2		3	
Total	**509,885**	**110,539**	**21.7**	**583**	**0.5**	**1,792**	**1.6**	**2,375**	**2.1**	**109**	**0.1**	**255**	**0.2**	**364**	**0.3**

1. The table is based on the selection of the highest venous or the highest capillary in the absence of any venous test.
2. Adapted from Maryland census population 2010, provided by the Maryland Data Center, Maryland Department of Planning, www.planning.maryland.gov/msdc.
3. Children with a history of a blood lead level of 5-9 µg/dL. These children may have carried over from 2011 or had a blood lead level of 5-9 µg/dL in previous years. Any child with a history of blood lead test of ≥10 µg/dL is not counted in this column
4. Children with the very first blood lead level of 5-9 µg/dL in 2012. These children were either not tested in the past or their blood lead levels were below 5 µg/dL. If a child had a blood lead test of ≥10 µg/dL in 2012 or in the past is not counted in this column.
5. Children with a history of a blood lead level ≥10 µg/dL. These children may have carried over from 2011 or had a blood lead test of ≥10 µg/dL in previous years.
6. Children with the very first blood lead test of ≥10 µg/dL in 2011. These children were either not tested in the past or their blood lead levels were below 10 µg/dL. This definition may not necessarily match the criteria for the initiation of case management.
7. Includes cases with out-of-state residence address at the time of the highest blood lead test.

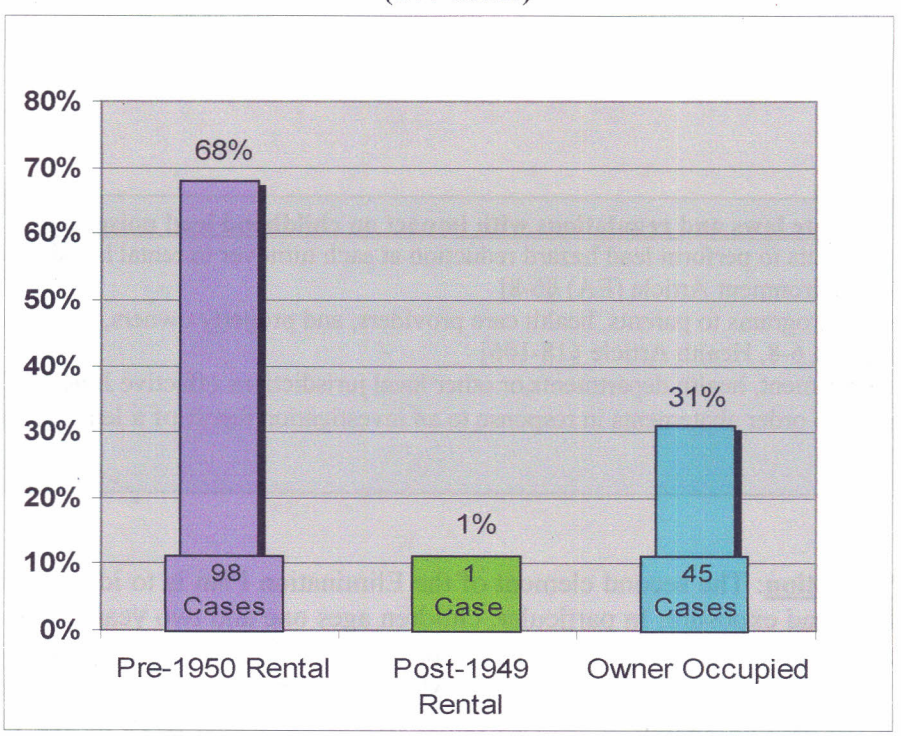
Statewide activities to reduce (eliminate) childhood lead poisoning

The State Elimination Plan calls for zero new cases of EBL. The plan focuses on primary prevention (removal and elimination of lead hazards prior to child access) while maintaining well-established secondary prevention (identifying children who may be at risk of lead exposure) and tertiary prevention (case management of children exposed to lead) efforts in the state.

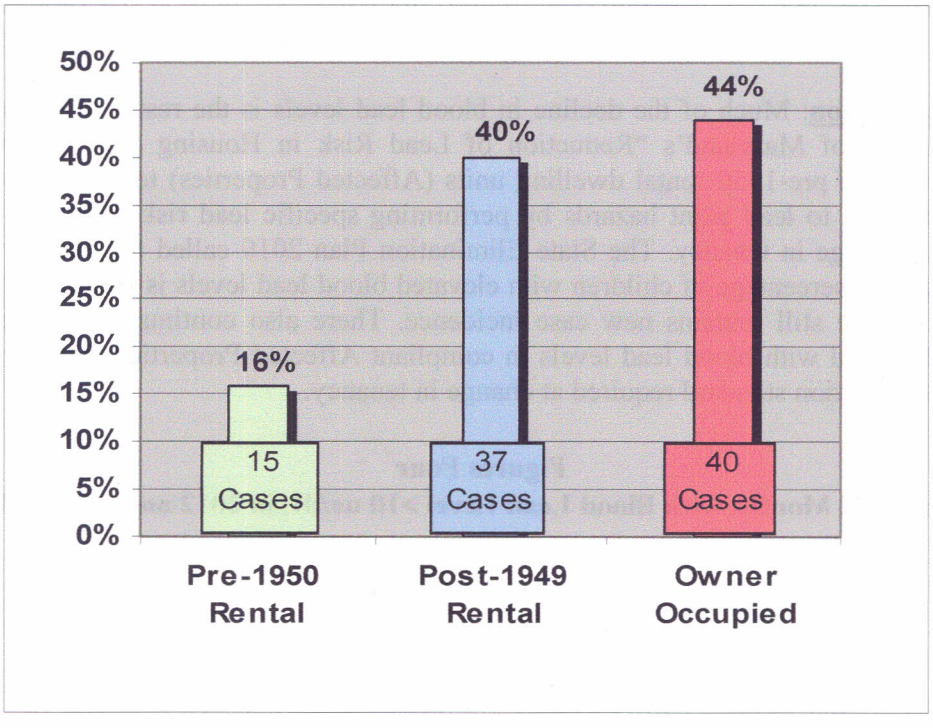
Primary Prevention: Much of the decline in blood lead levels is the result of implementation and enforcement of Maryland's "Reduction of Lead Risk in Housing Act" (Act). The Act requires owners of pre-1950 rental dwelling units (Affected Properties) to reduce the potential for child exposure to lead paint hazards by performing specific lead risk reduction treatments prior to each change in tenancy. The State Elimination Plan 2010 called for zero new cases of EBL. Though the percentage of children with elevated blood lead levels is consistently lowering in Maryland, there still remains new case incidence. There also continues to be reduction in children indentified with blood lead levels in compliant Affected Properties that have meet the required risk reduction standard required at change in tenancy.

Figures Four

Percent of Children 0-72 Months with Blood Lead Level >10 ug/dL in 2012 and Age of the Housing



Housing Type Statewide*
Confirmed Cases CY 2012
(92 Cases)



* Excluding Baltimore City

State laws and regulations with impact on childhood lead poisoning

- ✓ Requirements to perform lead hazard reduction at each turnover in rental housing built before 1950. [Environment Article (EA) §6-8]
- ✓ Outreach programs to parents, health care providers, and property owners, especially in at-risk areas. [EA§ 6-8, Health Article §18-106]
- ✓ The Department, health departments or other local jurisdictions effective June 1, 2012 have the authority to order abatements in response to an investigation report of a lead poisoned person at risk.

Secondary Prevention: The second element of the Elimination Plan is to identify children who may be at risk of lead exposure. In particular, children ages one and two years are more likely to be exposed to lead because of their hand to mouth behavior. Maryland requires that children at ages one and two years who are enrolled in the Medicaid, Early Periodic Screening, Diagnosis, and Treatment (EPSDT) Program or who currently live or have ever lived in one of Maryland's "at-risk" zip codes identified by the "Targeting Plan" should be tested. The percentage of one and two year old children tested for lead has increased substantially since 2004 (Figure Four).

Figure Five
Percent of Children One and Two Years Old Tested for Lead vs. Children of Other Ages

Furthermore, children living in "at-risk" areas, areas with high proportion of pre 1950 housing units are more likely to be exposed to lead than children living in other areas. State has a targeted plan that identifies "At-Risk" areas. Universal blood lead testing applies to Baltimore City children (City Ordinance 20 effective July 2000). Table Three presents blood lead testing in the At-risk and Not At-risk areas of the state. At-risk area includes Baltimore City, Allegany, Caroline, Dorchester, Frederick, Garrett, Somerset, Washington, Wicomico, and Worcester counties.

Table Four
Blood Lead Testing and Blood Lead Level of 5-9 and ≥10 µg/dL in At-Risk and Not At-Risk Areas in 2012

		Children Tested		Children with BLL 5-9 µg/dL		Children with BLL ≥10 µg/dL	
Area	Population	Number	Percent	Number	Percent	Number	Percent
At-Risk	112,220	29,943	26.7	1,476	4.9	238	0.8
Not At-Risk	397,665	80,521	20.2	896	1.1	123	0.2
Statewide*	**509,885**	**110,539**	**21.7**	**2,375**	**2.1**	**364**	**0.3**

* Statewide numbers include county unknown and out of state cases

Another at risk population for lead poisoning is children enrolled in Maryland's Medical Assistance Program. MDE provides childhood blood lead data to the Maryland Department of Health and Mental Hygiene, Office of Medicaid Administration (DHMH), on a quarterly and annual basis to be matched with a list of children enlisted in the states Medical Assistance Program. Based on data provided, DHMH prepares and distributes an annual report of blood lead testing of children under Maryland's Medicaid Program.

Identifying Children with Lead Exposure

The main goal in preventing childhood lead poisoning is to limit exposure. However, early detection is crucial when a child is identified with an elevated blood lead level. Because there are no specific clinical symptoms, a blood lead test is the most reliable technique to identify children with elevated blood lead levels.

Tertiary Prevention: Maryland's Lead Poisoning Prevention Program has well-established case management guidelines and environmental investigation protocols for follow-up of children with elevated blood lead level. A venous blood lead test ≥10 µg/dL initiates case management and an environmental investigation. Currently, one venous or two capillary blood lead tests ≥10 µg/dL triggers the Notice of Elevated Blood Lead Level (Notice of EBL) to be sent to the owner of a Pre-1950 residential dwelling unit (Affected Property). Under the "Reduction of Lead Risk in Housing Act" (Act), an owner who receives a Notice of Elevated Blood Lead Level is required to perform specific lead risk reduction treatments to limit further exposure to a child. Furthermore, effective June 1, 2012 the Department, health departments or other local jurisdictions have the authority to order abatements in response to an investigation report of a lead poisoned person at risk. Tables Four and Five outline the State's protocol for diagnostic and follow up blood lead testing.

Table Five
Blood Lead Diagnostic and Follow-Up: Confirmation of a Capillary Blood Lead Test

BLL (µg/dL)	Confirm with venous blood lead test within
≤9	Routine blood lead test according to protocol
10 –19	3 months
20 – 44	1 week to 1 month*
45 – 59	48 hours
60-69	24 hours
≥70	Immediately as an emergency lab test

* The higher the BLL, the more urgent the need for confirmatory testing.

Table Six

Blood Lead Diagnostic and Follow-Up: Follow-Up for Venous Blood Lead Testing[1]

BLL (µg/dL)Venous	Early follow-up(First 2-4 tests after identification)	Late follow-up (After BLL begins to decline)
≤9	Routine blood lead test according to protocol	
10 - 14	3 months [2]	6 – 9 months
15 - 19	1 - 3 months [2]	3 – 6 months
20 - 24	1 - 3 months [2]	1 – 3 months
25 - 44	2 weeks – 1 month	1 month
≥45	As soon as possible	Chelation with subsequent follow-up

1. Seasonal variation of BLLs exists and may be more apparent in colder climate areas. Greater exposure in the summer months may necessitate more frequent follow-up.
2. Some case managers or health care providers may choose to repeat blood lead tests on all new patients within a month to ensure that their BLL level is not rising more quickly than anticipated.

Tables adapted from: *Centers for Disease Control and Prevention. Managing Elevated Blood Lead Levels Among Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention. Atlanta: CDC, 2002.*

Predictability of Blood Lead Level of 5-9 for BLL≥10

The CDC adoption of blood lead level of 5 µg/dL as "Reference Value" raised the issue of follow up and case management protocol for children with blood lead level 5-9 µg/dL. The state and local programs (including Maryland) are looking into this matter. In the meantime, it was of interest to find whether the blood lead level of 5-9 µg/dL can be an indicator of later blood lead level ≥10 µg/dL. We looked at this from two points of view: 1) whether children with the very first Blood lead level ≥10 µg/dL in 2012 had any previous blood lead test of 5-9 (retrospective view), and 2) whether children with the very first blood lead level of 5-9 in 2006 will have later BLL 10+ (prospective view)

Looking retrospectively, of children 0-72 months old tested for lead in 2012, 256 had the very first blood lead level ≥10 µg/dL. Of these, 149 children had no any blood lead test in the past. Of 107 children with previous blood lead test, in 79 (73.8%) children the blood lead level of previous blood lead test (with average of 17.2 months ago) was ≤4 µg/dL and in only 28 (26.2%) children the blood lead level of previous blood lead test (with average of 16.3 months ago) was 5-9 µg/dL.

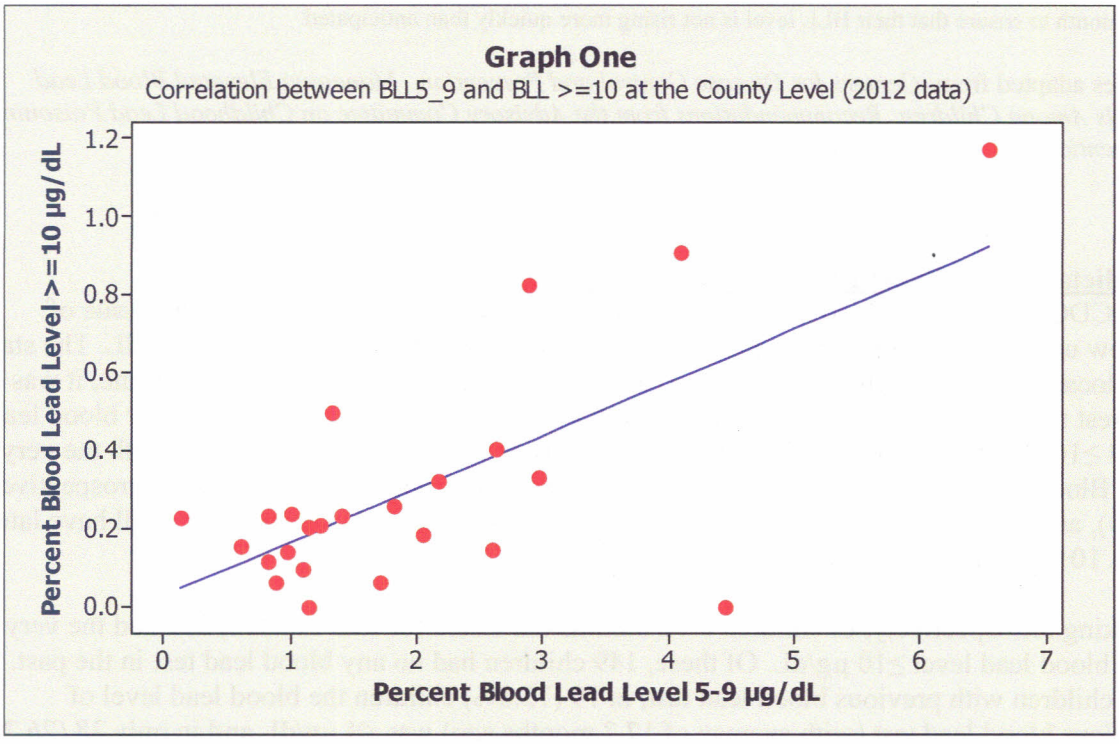
Looking prospectively, 6,896 children 0-72 months had the very first blood lead level 5-9 µg/dL in 2006. Of these children, only 3,183 (46.2%) had a later blood lead test. Table Five summarizes the history of blood lead test of these children.

Table Seven
History of blood lead test of children with blood lead level 5-9 µg/dL in 2006

Blood lead level of later up test	Children tested		Average blood lead level (µg/dL)	Time interval between the two tests (Months)
	Number	Percent		
≤4	2,346	73.7	2.3	22.8
5-9	746	23.4	6.2	15.6
≥10	91	2.9	13.8	14.3
Total	3,183	100.0	3.5	20.9

Limitations of data necessarily do not allow for concrete conclusion. However, the findings do not seem to support predictability of blood lead level 5-9 for future elevated blood lead level.

At the aggregate (county) level, however, there was highly significant correlation ($r = 0.683$, p value = 0.000) between percentage of blood lead level 5-9 and percentage of blood lead level ≥10 µg/dL (Graph One). But the correlation did not stand at the zip code level ($r = -0.016$, p vlaue = 0.705).



Data Quality

The CLR is maintained in the "Systematic Tracking of Elevated Lead Levels and Remediation" (STELLAR) surveillance system, obtained from CDC Lead Poisoning Prevention Program. CLR staff makes all efforts to further improve data quality with respect to completeness, timeliness, and accuracy. Staff keep daily track of laboratory reporting to make sure laboratories are reporting all blood lead tests no later than biweekly. The law requires blood lead results ≥20 µg/dL to be reported (fax) within 24 hours after result is known. However, upon CLR request, laboratories agreed to report (fax) the result of all blood lead test ≥10 µg/dL within 24 hours. For all blood lead tests ≥10 µg/dL, staff checks the completeness of data in particular with respect to child's and guardian's name, address, and telephone number.

In 2012, more than 90% of blood lead tests were reported to the registry electronically. The average reporting time, from the time sample is drawn to time the result enters the CLR database is approximately 6 days. The average time for elevated blood lead results (≥10 µg/dL) is approximately 30 hours.

Blood Lead Laboratory Reporting Requirement

The amended law and regulations* of 2001 and 2002 require that:

1-The following child's demographic data should be included in each blood lead test reported:

- Date of Birth
- Sex
- Race
- Address
- Test date
- Sample type
- Blood lead level
- Guardian Name

2-Blood lead results ≥20 µg/dL to be reported (fax) within 24 hours after result is known. All other results to be reported every two weeks.

3-Reporting format should comply with the format designed and provided by the Registry.

4-Data should be provided electronically.

* EA §6-303, Blood lead test reporting (COMAR 26.02.01, Blood lead test reporting)

Table Eight
Completeness of Data for 2012

ITEM	% Completed
Child's name[1]	100.0
Date of Birth[1]	100.0
Sex/Gender	99.6
Race	49.6
Guardian's name	52.7
Sample type	88.5
Blood lead level	100.0
Address (geocoded)	88.6
Telephone Number[2]	86.7

1. Reports with missing (wrong) name and/or date of birth are held by the program until they are corrected.
2. Quality control for telephone umber started in 2009.

Migration into New System

The Maryland Department of the Environment has partnered with the Maryland Department of Health and Mental Hygiene in evaluation of CDC's: "Healthy Homes and Lead Poisoning Surveillance System (HHLPSS)". Implementation of the HHLPSS database is currently being evaluated for its functionality and ability to meet the needs of the states Childhood Lead Registry.

Appendix A

Blood Lead Testing of Children 0-72 Months by Major Age Group and Jurisdiction in 2012

Age Group	Population of Children	Children Tested		Blood Lead Level 5-9 µg/dL						Blood Lead Level ≥10 µg/dL					
				Old Cases		New Cases		Total		Old Cases		New Cases		Total	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Allegany County															
0-35 Months	2,452	1,128	46.0	8	0.7	36	3.2	44	3.9	1	0.1	7	0.6	8	0.7
36-72 Months	2,401	192	8.0	6	3.1	4	2.1	10	5.2	3	1.6	1	0.5	4	2.1
Total	4,853	1,320	27.2	14	1.1	40	3.0	54	4.1	4	0.3	8	0.6	12	0.9
Anne Arundel County															
0-35 Months	24,728	6,025	24.4	6	0.1	52	0.9	58	1.0	0	0.0	3	0.0	3	0.0
36-72 Months	23,532	2,313	9.8	4	0.2	12	0.5	16	0.7	0	0.0	2	0.1	2	0.1
Total	48,260	8,338	17.3	10	0.1	64	0.8	74	0.9	0	0.0	5	0.1	5	0.1
Baltimore County															
0-35 Months	34,388	12,581	36.6	18	0.1	139	1.1	157	1.2	4	0.0	24	0.2	28	0.2
36-72 Months	32,836	3,748	11.4	10	0.3	35	0.9	45	1.2	4	0.1	2	0.1	6	0.2
Total	67,225	16,329	24.3	28	0.2	174	1.1	202	1.2	8	0.0	26	0.2	34	0.2
Baltimore City															
0-35 Months	30,465	13,246	43.5	151	1.1	627	4.7	778	5.9	36	0.3	112	0.8	148	1.1
36-72 Months	26,235	5,471	20.9	273	5.0	173	3.2	446	8.2	35	0.6	36	0.7	71	1.3
Total	56,701	18,717	33.0	424	2.3	800	4.3	1,224	6.5	71	0.4	148	0.8	219	1.2
Calvert County															
0-35 Months	3,422	584	17.1	0	0.0	3	0.5	3	0.5	0	0.0	1	0.2	1	0.2
36-72 Months	3,737	131	3.5	0	0.0	4	3.1	4	3.1	0	0.0	0	0.0	0	0.0
Total	7,159	715	10.0	0	0.0	7	1.0	7	1.0	0	0.0	1	0.1	1	0.1
Caroline County															
0-35 Months	1,599	616	38.5	0	0.0	10	1.6	10	1.6	0	0.0	2	0.3	2	0.3
36-72 Months	1,635	157	9.6	1	0.6	3	1.9	4	2.5	0	0.0	0	0.0	0	0.0
Total	3,234	773	23.9	1	0.1	13	1.7	14	1.8	0	0.0	2	0.3	2	0.3

Appendix A

Blood Lead Testing of Children 0-72 Months by Major Age Group and Jurisdiction in 2012

Age Group	Population of Children	Children Tested		Blood Lead Level 5-9 µg/dL						Blood Lead Level ≥10 µg/dL					
				Old Cases		New Cases		Total		Old Cases		New Cases		Total	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Carroll County															
0-35 Months	6,100	948	15.5	5	0.5	14	1.5	19	2.0	1	0.1	1	0.1	2	0.2
36-72 Months	6,946	299	4.3	4	1.3	4	1.3	8	2.7	2	0.7	0	0.0	2	0.7
Total	13,047	1,247	9.6	9	0.7	18	1.4	27	2.2	3	0.2	1	0.1	4	0.3
Cecil County															
0-35 Months	4,577	817	17.9	1	0.1	7	0.9	8	1.0	0	0.0	0	0.0	0	0.0
36-72 Months	4,470	404	9.0	1	0.2	5	1.2	6	1.5	0	0.0	0	0.0	0	0.0
Total	9,047	1,221	13.5	2	0.2	12	1.0	14	1.1	0	0.0	0	0.0	0	0.0
Charles County															
0-35 Months	6,682	1,440	21.5	1	0.1	10	0.7	11	0.8	0	0.0	1	0.1	1	0.1
36-72 Months	6,571	523	8.0	0	0.0	1	0.2	1	0.2	0	0.0	2	0.4	2	0.4
Total	13,254	1,963	14.8	1	0.1	11	0.6	12	0.6	0	0.0	3	0.2	3	0.2
Dorchester County															
0-35 Months	1,464	517	35.3	2	0.4	12	2.3	14	2.7	0	0.0	1	0.2	1	0.2
36-72 Months	1,334	177	13.3	1	0.6	3	1.7	4	2.3	0	0.0	0	0.0	0	0.0
Total	2,797	694	24.8	3	0.4	15	2.2	18	2.6	0	0.0	1	0.1	1	0.1
Frederick County															
0-35 Months	10,274	2,098	20.4	1	0.0	16	0.8	17	0.8	2	0.1	3	0.1	5	0.2
36-72 Months	10,702	941	8.8	2	0.2	7	0.7	9	1.0	2	0.2	0	0.0	2	0.2
Total	20,976	3,039	14.5	3	0.1	23	0.8	26	0.9	4	0.1	3	0.1	7	0.2
Garrett County															
0-35 Months	1,073	310	28.9	0	0.0	5	1.6	5	1.6	1	0.3	0	0.0	1	0.3
36-72 Months	1,152	117	10.2	1	0.9		0.0	1	0.9	0	0.0	0	0.0	0	0.0
Total	2,225	427	19.2	1	0.2	5	1.2	6	1.4	1	0.2	0	0.0	1	0.2

Appendix A

Blood Lead Testing of Children 0-72 Months by Major Age Group and Jurisdiction in 2012

Age Group	Population of Children	Children Tested		Blood Lead Level 5-9 µg/dL						Blood Lead Level ≥10 µg/dL					
				Old Cases		New Cases		Total		Old Cases		New Cases		Total	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Harford County															
0-35 Months	10,412	2,043	19.6	3	0.1	20	1.0	23	1.1	1	0.0	3	0.1	4	0.2
36-72 Months	10,688	936	8.8	2	0.2	9	1.0	11	1.2	0	0.0	2	0.2	2	0.2
Total	21,100	2,979	14.1	5	0.2	29	1.0	34	1.1	1	0.0	5	0.2	6	0.2
Howard County															
0-35 Months	12,072	1,712	14.2	1	0.1	13	0.8	14	0.8	2	0.1	3	0.2	5	0.3
36-72 Months	12,635	788	6.2	0	0.0	11	1.4	11	1.4	1	0.1	0	0.0	1	0.1
Total	24,707	2,500	10.1	1	0.0	24	1.0	25	1.0	3	0.1	3	0.1	6	0.2
Kent County															
0-35 Months	707	189	26.8	1	0.5	5	2.6	6	3.2	0	0.0	1	0.5	1	0.5
36-72 Months	699	54	7.7	0	0.0	1	1.9	1	1.9	0	0.0	1	1.9	1	1.9
Total	1,406	243	17.3	1	0.4	6	2.5	7	2.9	0	0.0	2	0.8	2	0.8
Montgomery County															
0-35 Months	45,297	14,148	31.2	7	0.0	108	0.8	115	0.8	2	0.0	12	0.1	14	0.1
36-72 Months	43,905	6,367	14.5	11	0.2	43	0.7	54	0.8	7	0.1	3	0.0	10	0.2
Total	89,202	20,515	23.0	18	0.1	151	0.7	169	0.8	9	0.0	15	0.1	24	0.1
Prince George's County															
0-35 Months	42,313	12,805	30.3	8	0.1	114	0.9	122	1.0	2	0.0	11	0.1	13	0.1
36-72 Months	38,960	7,612	19.5	18	0.2	82	1.1	100	1.3	1	0.0	6	0.1	7	0.1
Total	81,273	20,417	25.1	26	0.1	196	1.0	222	1.1	3	0.0	17	0.1	20	0.1
Queen Anne's County															
0-35 Months	1,884	377	20.0	0	0.0	9	2.4	9	2.4	0	0.0	2	0.5	2	0.5
36-72 Months	1,984	117	5.9	0	0.0	4	3.4	4	3.4	0	0.0	0	0.0	0	0.0
Total	3,868	494	12.8	0	0.0	13	2.6	13	2.6	0	0.0	2	0.4	2	0.4

Appendix A

Blood Lead Testing of Children 0-72 Months by Major Age Group and Jurisdiction in 2012

Age Group	Population of Children	Children Tested		Blood Lead Level 5-9 µg/dL						Blood Lead Level ≥10 µg/dL					
				Old Cases		New Cases		Total		Old Cases		New Cases		Total	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Saint Mary's County															
0-35 Months	5,287	1,340	25.3	2	0.1	24	1.8	26	1.9	0	0.0	0	0.0	0	0.0
36-72 Months	5,331	294	5.5	0	0.0	2	0.7	2	0.7	0	0.0	1	0.3	1	0.3
Total	10,618	1,634	15.4	2	0.1	26	1.6	28	1.7	0	0.0	1	0.1	1	0.1
Somerset County															
0-35 Months	935	403	43.1	4	1.0	6	1.5	10	2.5	0	0.0	1	0.2	1	0.2
36-72 Months	839	205	24.4	1	0.5	7	3.4	8	3.9	0	0.0	1	0.5	1	0.5
Total	1,774	608	34.3	5	0.8	13	2.1	18	3.0	0	0.0	2	0.3	2	0.3
Talbot County															
0-35 Months	1,343	507	37.7	1	0.2	5	1.0	6	1.2	1	0.2	1	0.2	2	0.4
36-72 Months	1,305	99	7.6	1	1.0	1	1.0	2	2.0	0	0.0	1	1.0	1	1.0
Total	2,648	606	22.9	2	0.3	6	1.0	8	1.3	1	0.2	2	0.3	3	0.5
Washington County															
0-35 Months	6,337	1,800	28.4	8	0.4	80	4.4	88	4.9	0	0.0	0	0.0	0	0.0
36-72 Months	6,354	875	13.8	9	1.0	22	2.5	31	3.5	0	0.0	0	0.0	0	0.0
Total	12,691	2,675	21.1	17	0.6	102	3.8	119	4.4	0	0.0	0	0.0	0	0.0
Wicomico County															
0-35 Months	4,424	1,654	37.4	4	0.2	26	1.6	30	1.8	0	0.0	2	0.1	2	0.1
36-72 Months	4,158	500	12.0	5	1.0	9	1.8	14	2.8	0	0.0	2	0.4	2	0.4
Total	8,582	2,154	25.1	9	0.4	35	1.6	44	2.0	0	0.0	4	0.2	4	0.2
Worcester County															
0-35 Months	1,648	644	39.1	0	0.0	3	0.5	3	0.5	0	0.0	1	0.2	1	0.2
36-72 Months	1,591	212	13.3	1	0.5	3	1.4	4	1.9	0	0.0	1	0.5	1	0.5
Total	3,240	856	26.4	1	0.1	6	0.7	7	0.8	0	0.0	2	0.2	2	0.2

Blood Lead Testing of Children 0-72 Months by Major Age Group and Jurisdiction in 2012

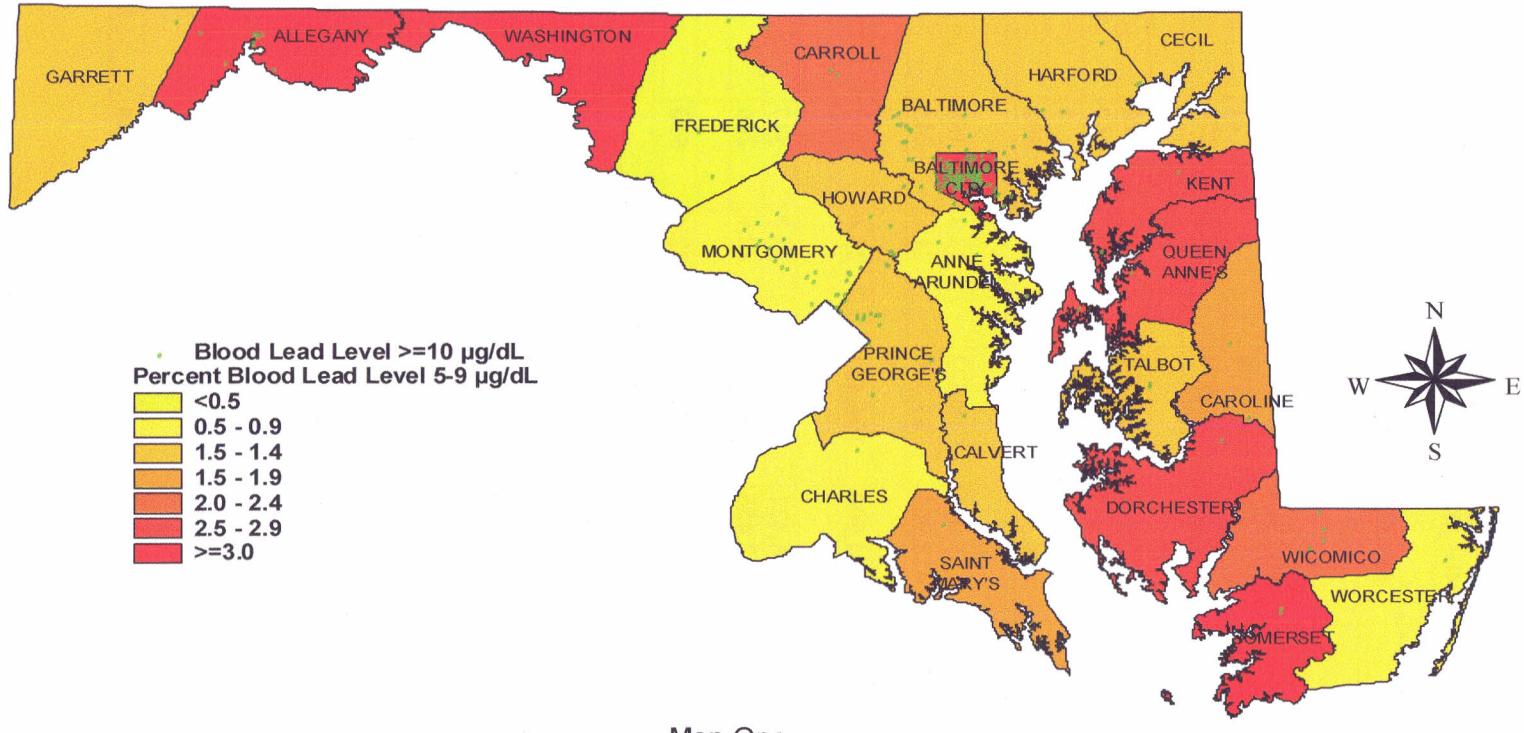
Age Group	Population of Children	Children Tested		Blood Lead Level 5-9 µg/dL						Blood Lead Level ≥10 µg/dL					
				Old Cases		New Cases		Total		Old Cases		New Cases		Total	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
County Unknown															
0-35 Months		48				1		1		1				1	
36-72 Months		27				2		2				2		2	
Total		75				3		3		1		2		3	
Statewide															
0-35 Months	259,885	77,980	30.0	232	0.3	1,345	1.7	1,577	2.0	54	0.1	192	0.2	246	0.3
36-72 Months	250,000	32,559	13.0	351	1.1	447	1.4	798	2.5	55	0.2	63	0.2	118	0.4
Total	509,885	110,539	21.7	583	0.5	1,792	1.6	2,375	2.1	109	0.1	255	0.2	364	0.3

Appendix B
Blood Lead Testing of Children 0-72 Months: 2005-2012

Calendar Year		Population	Blood Lead Tests		Prevalence		Incidence	
			Number	Percent	Number	Percent	Number	Percent
2005								
	Baltimore City	53,626	17,943	33.5	854	4.8	534	3.0
	Counties	401,888	80,848	20.1	463	0.6	382	0.5
	County Unknown		357		14		0	
	Statewide	**455,514**	**99,148**	**21.8**	**1,331**	**1.3**	**916**	**0.9**
2006								
	Baltimore City	54,547	18,363	33.7	843	4.6	573	3.1
	Counties	408,784	84,611	20.7	431	0.5	363	0.4
	County Unknown		199		21		20	
	Statewide	**463,331**	**102,974**	**22.2**	**1,274**	**1.2**	**936**	**0.9**
2007								
	Baltimore City	55,142	17,670	32.0	624	3.5	435	2.5
	Counties	413,248	87,760	21.2	267	0.3	218	0.2
	County Unknown		278		1		1	
	Statewide	**468,390**	**105,708**	**22.6**	**892**	**0.8**	**654**	**0.6**
2008								
	Baltimore City	55,959	18,622	33.3	468	2.5	302	1.6
	Counties	418,941	87,830	21.0	245	0.3	187	0.2
	County Unknown		69		0		0	
	Statewide	**474,900**	**106,452**	**22.4**	**713**	**0.7**	**489**	**0.5**
2009								
	Baltimore City	56,431	19,043	33.7	347	1.8	214	1.1
	Counties	422,488	88,368	20.9	206	0.2	165	0.1
	County Unknown		5					
	Statewide	**468,390**	**107,416**	**22.4**	**553**	**0.5**	**379**	**0.4**
2010								
	Baltimore City	57,937	19,702	34.0	314	1.6	229	1.2
	Counties	433,661	94,650	21.8	217	0.2	170	0.2
	County Unknown		477		0		0	0.0
	Statewide	**491,598**	**114,829**	**23.4**	**531**	**0.5**	**399**	**0.3**
2011								
	Baltimore City	55,681	19,049	34.2	258	1.4	182	1.0
	Counties	445,021	90,481	20.3	194	0.2	160	0.2
	County Unknown		4		0		0	
	Statewide	**500,702**	**109,534**	**21.9**	**452**	**0.4**	**342**	**0.4**
2012								
	Baltimore City	56,701	18,717	33.0	219	1.2	148	0.8
	Counties	453,184	91,747	20.2	143	0.2	104	0.1
	County Unknown		75		2		3	
	Statewide	**509,885**	**110,539**	**21.7**	**364**	**0.3**	**255**	**0.2**

MARYLAND DEPARTMENT OF THE ENVIRONMENT
Lead Poisoning Prevention Program

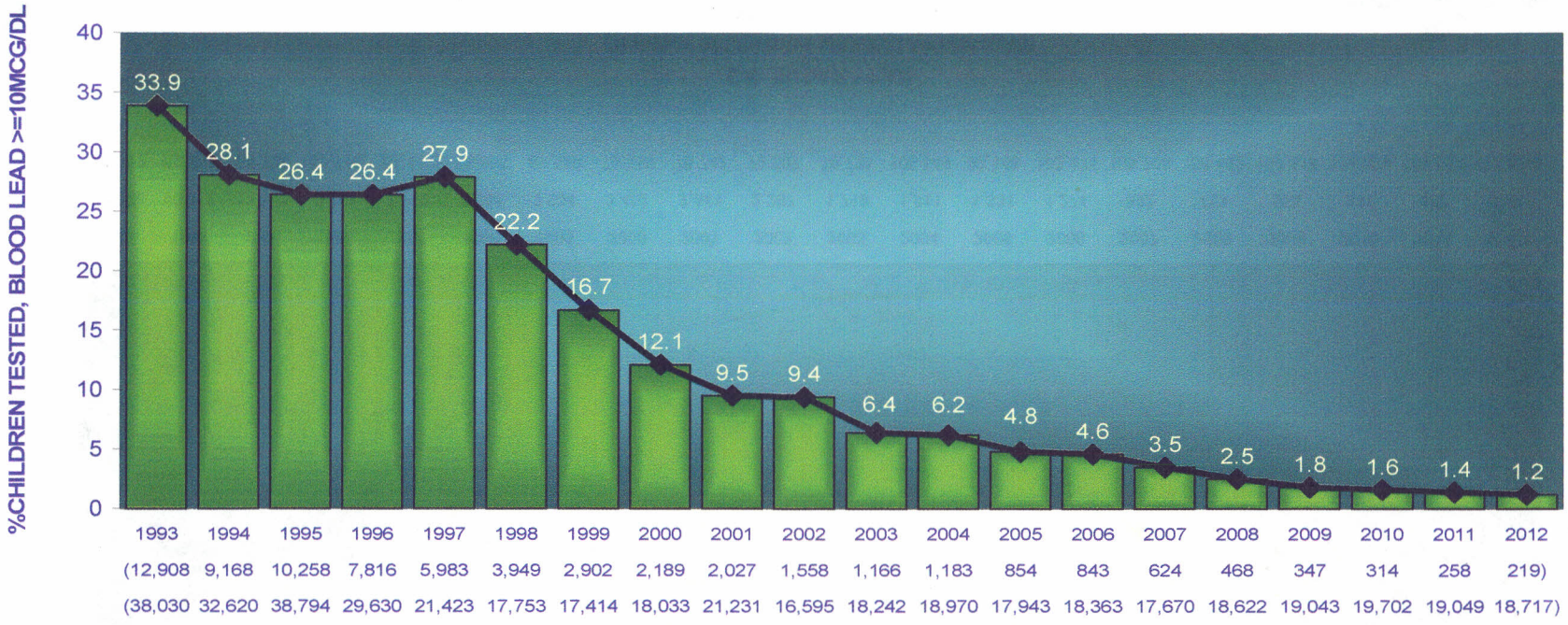
Percent of Children 0-72 Months with Blood Lead Level 5-9 µg/dL, and
Distribution of Children 0-72 Months with Blood Lead Level >=10 µg/dL
Childhood Blood Lead Surveillance: 2012



Map One

Appendix C

MARYLAND DEPARTMENT OF THE ENVIRONMENT
CHILDHOOD BLOOD LEAD SURVEILLANCE
BALTIMORE CITY 1993-2012

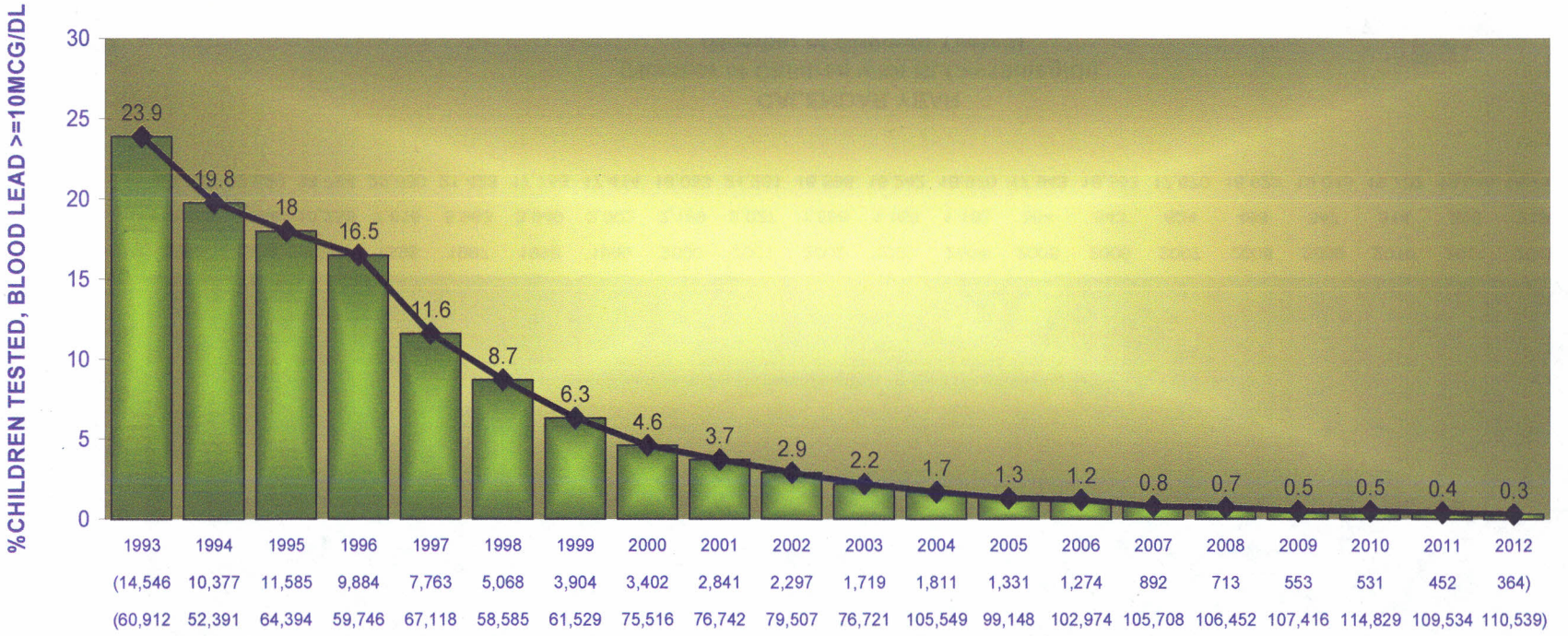


CALENDAR YEAR
(Number of Children with BLL>=10mcg/dl)
(Number of Children Tested)

MDE

MARYLAND

MARYLAND DEPARTMENT OF THE ENVIRONMENT
CHILDHOOD BLOOD LEAD SURVEILLANCE
STATEWIDE 1993-2012



CALENDAR YEAR
(Number of Children with BLL>=10mcg/dl)
(Number of Children Tested)

MDE

MARYLAND

NOVEMBER 7, 2013

LEAD POISONING PREVENTION COMMISSION MEETING

MEMBERS

Governor's Lead Commission Meeting Attendance Sheet

November 7, 2013

PLEASE NOTE: This sign-in sheet becomes part of the public record available for inspection by other members of the public.

	Name/Signature	Representing	Telephone/Email
	CONNOR, Patrick via phone	Hazard ID Professional	
X	HALL, Cheryl	Office of Child Care	
	HORNIG, Karen	Maryland Insurance Administration	
	JENKINS, Melbourne	Property Owner Pre 1950	
	LANDON, Edward	Dept. Housing and Community Dev.	
	McLAINE, Patricia	Child Health/Youth Advocate	
	MOORE, Barbara	Health Care Provider	
X	OAKS, Nathaniel (Delegate)	Maryland House of Delegates	
X	ROBERTS, Linda Lee	Property Owner Post 1949	
X	SNYDER-VOGEL, Mary	Child Advocate	
	, Clifford		
	VACANT	Secretary of the Environment or Designee	
	VACANT	Local Government	
	VACANT	Parent of a Lead Poisoned Child	
	VACANT	Financial Institution	
	VACANT	Child Care Providers	
	VACANT	Insurer	
	VACANT	Property Owner Pre 1950 Outside Baltimore City	
	VACANT	Maryland Senate	

GUESTS

Governor's Lead Commission Meeting Attendance Sheet

November 7, 2013

PLEASE NOTE: This sign-in sheet becomes part of the public record available for inspection by other members of the public.

Name	Representing	Address/Telephone/Email
Andrew BONIC	MMHA	abonic@mmhaonline.org 443-322-1104
Megan Ulrich	MDE	Megan.Ulrich@Maryland.gov
RON WINEBOLT	~~AOBA~~	rwinebolt@aoba-metro.org
Shavétta Denson	GHHI	sdenson@ghhi.org 443 842 5724
Eldesia Granger	DHMH	eldesia.granger@maryland.gov
JOHN O'BRIEN	MDE	jobrien@Maryland.gov
Jody Johnson	self	johnsonjody05@gmail.com 443 841.4644
Arthur D. Gray	DHMH	arthur.gray@baltimorecity.gov
Paula Montgomery	MDE	[redacted] paula.montgomery@maryland.gov
Hosanna Afaw-Means	BCHD	Hosanna Afaw-Means@baltimorecity.gov

LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

Thursday, November 7, 2013
9:30 AM - 11:30 AM
AERIS Conference Room
AGENDA

I. Welcome and Introductions

II. Old business
- Approval of minutes from July, September and October
- letters to housing authorities re compliance with 24CFR part 35

Other Commission Items:

Future Meeting Dates: The next Lead Commission Meeting is scheduled for Thursday, September 5, 2013 at MDEStat Conference Room – Front Lobby, 9:30 am – 11:30 am.

Agency Updates
- A. Maryland Department of the Environment
- B. Department of Health and Mental Hygiene
- C. Department of Housing and Community Development
- D. Baltimore City Health Department
- E. Office of Childcare
- F. Maryland Insurance Administration
- G. Other Agencies

Public Comment

GOVERNOR'S LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

Approved Minutes
AERIS Conference Room
November 7, 2013

Members in Attendance

Patrick Connor (via phone), Karen Hornig, Melbourne Jenkins, Ed Landon, Pat McLaine, and Barbara Moore.

Members not in Attendance

Cheryl Hall, Delegate Nathaniel Oaks, Linda Roberts, and Mary Snyder-Vogel.

Guests in Attendance

Dr. Clifford Mitchell – DHMH, Shaketta Denson – CECLP, Hosanna Asfaw-Means – BCHD, Arthur Gray, Baltimore City Housing Department, Megan Ulrich – MDE, Ron Wineholt – AOBA, Eldesia Granger – DHMH, Jody Johnson – self, John O'Brien – MDE staff, John Krupinsky – MDE staff, Paula Montgomery – MDE Staff, and Tracy Smith – MDE staff.

Introductions

Pat McLaine started the meeting at 9:38 a.m. with introductions.

Future Meeting Dates

The next Lead Commission meeting is scheduled for Thursday, December 5, 2013 at MDE in the AERIS conference room. The Commission will meet from 9:30 a.m. - 11:30 a.m.

Approval of Minutes

Approval of minutes was deferred because too few Commissioners were in attendance.

Discussion

Dr. Cliff Mitchell asked if Commission letters had been sent to Congress concerning funding for the CDC Lead Poisoning Prevention Program. Letters were sent by FAX and mail on September 6, 2013.

Pat McLaine noted the Commission's interest in sending a letter to Housing Authorities regarding compliance with 24 CFR 35. This letter has not yet been drafted but will be circulated via email.

Agency updates

MDE – Paula Montgomery reported that MDE is finalizing the proposal to move forward with RRP. Most other states have just adopted RRP but they did not have similar work practices in place. Maryland is melding RRP in with current Maryland risk reduction requirements. This has been a concern for the regulated community and there has been some confusion but MDE believes that workable solutions can be found that do not jeopardize safe work practices and will

continue to prevent lead exposures. MDE hopes to have draft RRP regulations by April. The abatement regulations, approved by EPA, will stay the same.

Ms. Montgomery reported that MDE is overhauling all of the Department's lead data bases, which are now in Fox-pro. Maryland Environmental Systems (MES) has been sub-contracted to do this work. Accreditation data bases will be up and running first and screen mock-ups are being finalized now. The next step will be the certification data base. Once the data bases are web-based, MDE will have the capacity to provide citizens access to compliance information,

Karen Hornig inquired about budget resources available for the updates. Ms. Montgomery noted that the rental registration fees were raised from $15 to $30, based on recommendations from a 2010 study. In addition, penalties and accreditation funds will be available to the program. Per the law, these funds go directly to MDE.

Pat McLaine noted that data is not static and regular updates will be necessary for the system to be accurate. Ms. Montgomery reported that she developed a survey (Survey Monkey) for MDE's 400 inspection contractors to assess their ability to upload certification information on-line. Currently, inspectors are issued fifty (50) paper certification forms in triplicate after being accredited.

Pat McLaine commented about issues related to the changeover from paper to on-line. Ed Landon commented about searching for certs on-line. Ms. Montgomery indicated that certs will be entered on-line (both data and forms) for searching. MDE is working on specific applications.

Ed Landon inquired if the system will be tied to GIS. Ms. Montgomery commented that the main link will be DAT (property numbers.); MES has better data. Mr. Landon commented that all state agencies are converting to GIS and are supposed to link to Maryland's "Do IT" GIS technology.

DHMH – Dr. Cliff Mitchell introduced Eldesia Granger who will be working on clinical management guidelines. He asked:

a) What are other states doing for follow-up of 5-9 BLLs; how long will the children be followed?
b) What case management is recommended for BLLs of 5-9?

The Point of Care Task Force is meeting next week. The Task Force has looked at the economics of testing and is also concerned about surveillance and reporting. The report is due on or before January 1, 2014. The Task Force has heard from other states using Point of Care testing – this does improve the patient experience and follow-up. There are issues associated with reimbursement (Medicaid and private insurance), administrative costs and professional testing.

Pat McLaine inquired if Commissioners had additional follow-up questions or concerns following last month's discussion. Pat McLaine noted that expanded use of Point of Care testing could increase screening, a long-time concern of the Commission.

Dr. Mitchell indicated that the Targeting Plan is still an internal document under review by DHMH and MDE but will be available for the Commission to review in January; this will be added to the January agenda. With regards to MDE surveillance data, DHMH is working with MDE to facilitate matching the Registry and Medicaid lead testing data. Commissioners indicated the need to continue to increase testing rates, an on-going discussion.

Barbara Moore asked what incentives were available to providers who did Point of Care testing. Dr. Mitchell indicated that providers using the technology feel they get much better follow-up and clients are pleased. Manufactures have provided incentives for purchase and rent. Reimbursement rates are an issue; in some situations, the blood draw, analysis and counseling are reimbursed separately. Fiscal incentives have not been discussed by the state. The current Medicaid contracts for laboratory testing bundle payments for lead testing with other tests. Pat McLaine commented that testing with WIC providers had been successful in Wisconsin.

DHCD (State) – Ed Landon indicated that he attended the International Code hearing. The International Property Maintenance Code for 2015 will be adopted for Maryland. There are still no worker protection items in the code. The national committee of 13 persons did not include references to RRP in the document. Jane Malone, National Center for Healthy Housing, is now on the committee. The ICC will publish all codes in April 2014; DHCD would adopt effective January 1, 2015. Maryland adopts the updated code every 3 years. More information is available at the website iccsafe.org .

Ed Landon reported that there was no legislation about lead yet this year.
Patrick Connor noted that the IPMC people try to keep the code focused on their needs but are supportive of RRP.

Approval of Minutes
Sufficient members now being present, there were motions to approve minutes:

July minutes –Ed Landon moved, Mel Jenkins seconded, all in favor.
September minutes – Ed Landon moved, Karen Hornig seconded, all in favor.
October minutes – Ed Landon moved, Barbara Moore seconded, all in favor.

There was no discussion or opposition to approval of the minutes.

Baltimore City Health Department – Hosanna Asfaw-Means reported that the City just finished Lead Week activities, conducted with Park West, a Federally Qualified Health Center. Thirty (30) people were tested at the West End Community Health Fair. BCHD worked with partners in housing to provide screening. Health literature was placed in all public libraries, in English and Spanish. Two community events were held at libraries for parents of toddlers (Mother on the Goose program) and were well received. Families were engaged.
BCHD is still working on BLL 5- 9 cases, making home visits and telephone follow-up as requested. They mail literature out and encourage repeat testing within 3-6 months. Many families do not want home visits. Providers are telling families to come back in 6 – 9 months for re-testing, which was the OLD CDC recommendation, before the 2012 Recommendations.

The City had an increase in BLLs greater than 10µg/dL in the first quarter of FY 14; reasons are not known, possibly warmer weather.
The City's goal is to have a more strategic plan for testing, education and outreach. The problem areas in the City are the same for many diseases.

Medicaid Reimbursement – BCHD is trying to set up a meeting with DHMH. The City is losing money; 70 inspections have been performed this year. Pat McLaine commented that the Commission is concerned and that this is definitely on everyone's radar.

Child Care Administration – No one present.

Maryland Insurance Administration – Nothing to report.

Baltimore City Housing – Nothing to report

Other Business
Barbara Moore noted that she had received four phone calls in the last month; two from Pennsylvania and two from Maryland regarding provider contacts for adults with high BLs and recommendations for treatment. Most elevated BLLs are occupationally related. Dr. Mitchell indicated DHMH wanted to hear about such cases.

MDE is running an adult registry (Dr. Keyvan). CDC has eliminated the ABLES program for adult BLL surveillance; there is no longer funding to MDE for this work. MDE does not receive blood lead reports for adults by statute (EBL reporting goes through MOSH, reported by the employer). However, all labs report BLLLs to MDE. Dr. Keyvan and Dr. Mitchell communicate about this on a regular basis.

With regards to occupational reporting, Pat McLaine commented on MOSH's rules. Employers must monitor employees and maintain an OSHA 300 log. MOSH does not maintain surveillance data. Clinical resources for adult care for individuals with high BLLs include Dr. Brian Schwartz @ Johns Hopkins and Dr. Melissa McDiarmid @ the University of Maryland's Occupational Health Program.

Shaketta Denson from the Coalition reported she was at Park West for the screening of children; they did venous testing. The Coalition also went to a library in Wicomico County, where they also went on a school tour and worked with Head Start using their Derek the Dinosaur coloring books. Shaketta Denson noted that many more people are getting tested for pre-school, but there appear to be major barriers reaching out to the Latino population, possibly due to their immigration status. The Coalition notes difficulties with follow-up and lack of response to phone calls. There are also problems with language barriers. There are immigration settlement programs and some protection is afforded. Karen Hornig asked if local governments were required to report immigration concerns to local police. Concerns were expressed about legal retaliation.

Patrick asked if someone was submitting Notice of Defects (NODs) in cases involving Hispanic families. BCHD and the Coalition are doing this and landlords are calling because they have a NOD. Patrick asked if owners were responding in 30 days. Shaketta Denson indicated they were

not, and were threatening families and putting them out. Paula Montgomery noted that NOD triggers a modified risk reduction, which can be satisfied by moving a tenant out or getting the risk reduction done. In cases with EBLLs, BCHD also has authority to order abatement. MDE can now go directly to circuit court to take action.

Shaketta Denson indicated that landlords are using status to evict or intimidate tenants. By the time that MDE gets involved, the family is already moved out. Patrick Connor asked if the house was identified, does the City follow up? Hosanna Asfaw-Means indicated that if there was an open violation, the City does a drive by every 3 months to see if the property is occupied. Patrick Connor noted that he thought the City had a green sticker that was put on a building with violations. Under Baltimore City Health ordinance, if there is an outstanding violation, a notice must be posted on the property. Patrick will check with Myrna Knowlton. Paula Montgomery noted that there was a need to clean up reporting and follow-up of vacant properties.

Karen Hornig indicated that with regards to undocumented immigrants, there was probably very little we can do to solve this problem. The population exists off the grid in many ways and is very vulnerable. Without community service workers speaking Spanish and helping with case management, we will probably be unable to make inroads.

A motion was made to adjourn by Ed Landon at 11:05, seconded by Karen Hornig, all in favor. The meeting adjourned at 11:02.

DECEMBER 5, 2013

LEAD POISONING PREVENTION COMMISSION MEETING

MEMBERS

Governor's Lead Commission Meeting Attendance Sheet

December 5, 2013

PLEASE NOTE: This sign-in sheet becomes part of the public record available for inspection by other members of the public.

Name/Signature	Representing	Telephone/Email
CONNOR, Patrick	Hazard ID Professional	
HALL, Cheryl CH.	Office of Child Care	410-332-0815
HORNIG, Karen KSH	Maryland Insurance Administration	
JENKINS, Melbourne	Property Owner Pre 1950	
LANDON, Edward EL	Dept. Housing and Community Dev.	410-514-7449
McLAINE, Patricia PM	Child Health/Youth Advocate	4435209678
MOORE, Barbara BM via phone	Health Care Provider	
OAKS, Nathaniel (Delegate)	Maryland House of Delegates	
ROBERTS, Linda Lee LL	Property Owner Post 1949	Same
SNYDER-VOGEL, Mary	Child Advocate	
VACANT	Secretary of the Environment or Designee	
VACANT	Local Government - will be Ken Strang	
VACANT	Parent of a Lead Poisoned Child	
VACANT	Financial Institution	
VACANT	Child Care Providers	
~~VACANT~~ keep	~~Insurer~~	
~~VACANT~~ keep	~~Property Owner Pre 1950 Outside Baltimore City~~	
VACANT	Maryland Senate	

MMHA - pre + post

GUESTS

Governor's Lead Commission Meeting Attendance Sheet

December 5, 2013

PLEASE NOTE: This sign-in sheet becomes part of the public record available for inspection by other members of the public.

	Name	Representing	Address/Telephone/Email
✓	Christina Peusch	Child Care	409 David Ct Bel Air MD 21015 mscca
✓	Shalletta Denson	GHHI	2714 Hudson St sdenson@ghhi.org
✓	RON WINEHOLT	AOSA	
✓	Eldesia Granger	DHMH	eldesia.granger@maryland.gov
✓	Paula Montgomery	MOE	
	Andrew Bonk	MMHA	abonk@mmhaonline.org
✓	Hosanna Afaw-Means	BCHD	
	Annalyn O'Grady	Connor	1421 Clarkview Rd Baltimore, MD [redacted] aogrady@connorsolutions.com
✓			Clifford Rush
✓	JOSEPHINE JOHNSON	SELF	johnsonjody05@gmail.com

LEAD POISONING PREVENTION COMMISSION

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore MD 21230

Thursday, December 5, 2013
9:30 a.m. - 11:30 a.m.
AERIS Conference Room
AGENDA

I. Welcome and Introductions

II. Old business
- letters to housing authorities re compliance with 24CFR part 35
- Point of Care Testing Task Force – review of recommendations
- Letter from Senator Mikulski

III. New Business
- Schedule and Priorities for 2014

IV. Future Meeting Dates: The next Lead Commission Meeting is scheduled for Thursday, January 9, 2014 at MDE in the AERIS Conference Room – Front Lobby, 9:30 a.m. – 11:30 a.m.

V. Agency Updates
- A. Maryland Department of the Environment
- B. Department of Health and Mental Hygiene
- C. Department of Housing and Community Development
- D. Baltimore City Health Department
- E. Office of Childcare
- F. Maryland Insurance Administration
- G. Other Agencies

VI. Public Comment

Governor's Lead Commission Meeting
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230

APPROVED Minutes (2/6/14)

AERIS Conference Room
December 5, 2013

Members In Attendance
Cheryl Hall, Karen Hornig, Ed Landon, Pat McLaine, Barbara Moore (via phone) and Linda Roberts.

Members Not In Attendance
Patrick Connor, Melbourne Jenkins, Delegate Nathaniel Oaks, and Mary Snyder-Vogel.

Guests In Attendance
Dr. Clifford Mitchell – DHMH, Shaketta Denson – CECLP, Hosanna Asfaw-Means – BCHD, Ron Wineholt – AOBA, Eldesia Granger – DHMH, Josephine Johnson – self, Christina Peusch – Child Care, Annalyn O'Grady – Connor, Andrew Bonic – MMHA, Paula Montgomery – MDE Staff, and Tracy Smith – MDE staff.

Introductions
Pat McLaine called to order at 9:38 AM with introductions.

Future Meeting Dates
The next Lead Commission meeting is scheduled for Thursday, January 9, 2014 at MDE in the AERIS conference room. The Commission will meet from 9:30 to 11:30 AM.

Approval of Minutes
Minutes from November 2013 meeting – motion by Ed Landon, seconded by Karen Staken Hornig to accept the minutes. All commissioners in favor and the minutes were accepted.

Old Business
Letters to Housing Authorities – a draft of the letter has not been prepared.
Letter from Barbara Mikulski was reviewed, with copies distributed to members.

New Business – Schedule and Priorities for 2014
Meeting dates for 2014 were distributed. Commissioners were asked to suggest priorities for 2014. Ed Landon indicated that he remains concerned about funding for all LPP activities in Maryland. He would like information to be provided in a table so the Commission can see where we were, where we are, and where we need to be. Such a table had been developed as part of 2010 review committee. Paula Montgomery stated that she felt we know where we are at: LPPP is a sustainable program, now this is a housing issue. Health has no funding but housing has not

lost funding. Risk assessment (including continued assessment of at-risk properties) and primary prevention need to be funded. We may need to revamp some of our standards. Paula said she felt terrible for BCHD – there are huge expectations but no money and the City must rely on partners to get by. This has been a problem for years. Could some of the $58 million in housing dollars be provided to the Health Department? Ed noted that although the state gets lots of funding for codes, money does not all go for that. Paula indicated that the $58 million was for energy and for lead. Linda Robertson noted this was an issue and asked if this money could be redistributed. Paula indicated that Maryland has lost $1 million in CDC funding and is now moving to blood lead levels of 5μg/dL and pre-1978 housing. It is not possible to forecast penalties. Ed Landon indicated that grants for housing do not allow us to address issues associated with primary care.

Barbara Moore indicated that two of her key priorities were Medicaid reimbursement for case management and home inspections.

Ken Strong suggested focus on green and healthy homes initiatives, specifically the combination of healthy homes with energy. The State does not focus on investment in that area. A focus on lead poisoning and asthma would promote complementary funding integration of funding streams.

Cheryl Hall said the targeting plan for Maryland was a priority. We need to increase screening, particularly of Medicaid recipients, and need improved guidelines for testing and information for parents, particularly parents of children with BLLs 5-9μg/dL. In addition, targeted education is needed for primary care providers, child care providers, and parents in general. Barbara Moore suggested that tool boxes could be prepared for target groups.

Pat McLaine suggested further focus on lead exposure and educational outcomes.
Pat McLaine also suggested looking at what could be gained from better oversight/enforcement of existing regulations, beginning in Baltimore City. Paula Montgomery noted that contractors are already required to be RRP trained but suggested that we may need legislation to allow permitting jurisdiction to visit jobsite and ask who has been trained on the job and verify that contact information is correct. Ed Landon indicated that contractors are required to register and that a check could be done by the AG's office, possibly DLLR as part of the oversight of homebuilders. Karen Stakem Hornig indicated that this may be a regulatory issue. Pat McLaine suggested that a meeting might be needed to determine if this is in fact a regulatory, legislative or administrative issue.

Ken Strong suggested that the Affordable Care Act may open more doors to health care and housing that could be more fully explored.

Barbara Moore indicated that Point of Care testing and lead testing by the WIC program are both of interest to the Commission.

Pat McLaine suggested that several healthy homes issues might be examined including asthma, asthma triggers and carbon monoxide. Cliff Mitchell indicated that MDE and DHMH will be focusing on healthy homes next year and he would be happy to have input from the Commission. He indicated that the Children's Environmental Health and Protection Advisory Council has some similar interests to the Lead Commission.

Cliff Mitchell indicated that DHMH was working on three lead issues: clinical case management guidelines (Cliff assisted by Dr. Granger), the state's targeting plan, and point of care testing. He indicated that he would like DHMH to release all three at the same time. Cliff also suggested that the Commission may want to think about other at-risk groups that may have impact on children, with pregnant women being one example.

Another suggestion was to look at statutory mandates for green and healthy homes.
A list of ideas will be distributed at the January meeting and priorities established for 2014.

Point of Care Task Force Draft Report

A copy of the draft report was distributed to Commissioners. Pat McLaine will serve as the point of content for Commissioners, who were requested to send comments as soon as possible. The report is due to the Legislature on January 1, 2014, so input is needed quickly. Cliff Mitchell indicated that the group had identified legal concerns as well as practical opportunities and barrier. Dr. Keyvan and Barbara Moore have both been very helpful to the task force. Highlights from the report include: (1) we only know about individuals we test; compared to other states, Maryland is not doing well. (2) Point of Care testing has usually been introduced with incentives and legal requirements and has resulted in the improvement of testing rates.(3) Point of care provides greater ease of testing with increased patient comfort and increased patient follow-up; this is clearly advantageous, with quicker results, decreased need for additional visits and better follow-up. (4) Point of Care testing presents a challenge to reporting; some practices report directly by FAX. No electronic reporting mechanism has been established. Results need to be manually entered into the registry. An electronic interface is needed or the opportunity for the provider to directly enter information for MDE or for an immunization registry; Wisconsin is doing this now – health care providers enter both immunization and blood lead levels. Paula Montgomery indicated that regulations might be needed to report BLLs through the internet.

Cliff Mitchell noted there was also no direct connection with the electronic medical record either. Jody Johnson asked what percent of patients got venous tests. Barbara Moore indicated that many children are not tested; from the perspective of the patient, it would be better to have capillary testing than no testing at all.

Cliff Mitchell reported that the economics look good, even under the current reimbursement rates. The break-even point is 434 tests in the first year and 429 tests in the 2nd year. Providers did not lose money if they did testing with the current reimbursement rates. The problem comes when lead testing is bundled with other tests. Reimbursement for the blood draws is of interest to providers.

The Laboratory Administration said that lead point of care testing is not on the "accepted" list because no one asked for a ruling. This issue will go through the Lab Advisory Committee.

Ed Landon asked what percent of children on Medicaid are tested; Cliff indicated that about 50% of Medicaid children were tested now and that we need to identify strategies to increase testing, including opportunities to test children enrolled in WIC. Pat McLaine suggested that the Task Force could also consider thinking about testing at age 3, based on experience of other states. Cliff Mitchell agreed that could be added to the recommendations. Cliff suggested Maryland may also want to increase testing of children above age 7 and of pregnant women.

Tracy Smith will send out an email to all Commissioners today, including those not at today's meeting, along with a copy of the draft report, requesting commissioners provide comments to Pat McLaine and Tracy Smith. Commissioners were requested not to share the draft report since it is not a final version

Agency Updates

MDE – nothing to report

DHMH – nothing more to report

DHCD – nothing to report

BCHD – Hosanna Asfaw-Means reported that the BCHD lead program is also physically relocating their office. Hosanna reported that a meeting has been set up with DHMH to discuss plans for case management of children with BLLs of 5-9µg/dL and Medicaid reimbursement for environmental investigation. The City has brought in the Fiscal Office and will have a program to do electronic billing. Currently, BCHD does not have a contract for reimbursement with Medicaid. BCHD also needs to bring MCOs to the table since there is no carve-out for Medicaid reimbursement for lead at DHMH. This is part of a bigger push to increase billable services within the Health Department. The Commission supports Medicaid reimbursement for case management and environmental investigation. Hosanna also noted that December 27 is her last day with BCHD; she is taking a position with Care First.

Child Care Administration – Cheryl Hall reported that the Executive Director for Childcare is applying for appointment to the Commission. Cheryl indicated that the Office of Childcare has

20 professionals in the child care licensing offices who meet with childcare providers to improve child care quality. The office is fully operational and providers get reimbursed for compliance.

Maryland Insurance Agency – nothing to report
Ed Landon raised the issue of appointment to the Commission; this is the third time that many Commissioners have submitted paperwork for appointment. Karen Stakem Hornig noted that by statute, the Insurance Commissioner or his representative is a member of the Commission and asked why she needed to apply for a position. She did send in a resume but did not complete a form. She is not a volunteer; serving as the representative of MIA is part of her job.
A motion was made to adjourn by Ed Landon at 11 AM, seconded by Linda Roberts, with all commissioners in favor.

The meeting adjourned at 11 AM.

Report to the General Assembly:

Task Force on Point of Care Testing for Lead Poisoning

Maryland Department of Health and Mental Hygiene

January, 2014

Table of Contents

Executive Summary

Background and Introduction

Chapter 365 (House Bill 303), enacted by the 2013 General Assembly, established a Task Force to Study Point of Care Testing for Lead Poisoning. Exposure to lead remains the most significant and widespread environmental hazard for children in Maryland (MD). While the prevalence of elevated blood lead levels in children has declined significantly over the years, there are still children who continue to be exposed to lead through a variety of exposure sources. With the recognition that there are no "safe levels" of lead in the body, and in light of CDC's new recommendations, the challenge is how to best target testing of MD children. The goal of the task force is to study and make recommendations regarding the use of and reimbursement for point-of-care testing to screen and identify children with elevated blood-lead levels to be included in the study:

- The benefits of point-of-care testing waived under the federal Clinical Laboratory Improvement Amendments;
- The use of point-of-care testing in other states;
- Barriers to point-of-care testing, including regulatory barriers related to licensing of medical laboratories;
- Determining appropriate reimbursement for point-of-care testing and reporting; and
- Any other items the task force considers important relating to point-of-care testing.

The membership and meeting schedule of the Task Force are shown in Appendices 1 and 2.

Lead Poisoning and Lead Testing in Maryland

Lead poisoning and lead exposure remain significant public health problems in Maryland. In 2011,110,539 Maryland children aged 0 – 72 months were tested for blood lead levels, of whom 364 (0.3%) were identified with a blood lead level ≥10micrograms per deciliter (µg/dL).[1]Overall, this represents a testing rate of 21.7% of the children born during this period who would be in the eligible age-range, state-wide. The highest testing rates for children 0-72 months were found in jurisdictions that requiretesting of all children at age 1 and 2 years, including Somerset County (34.3%),Baltimore City (33%), Allegany County (27.2%), and Worcester County (26.4%).A detailed breakdown of testing rates by jurisdiction is provided in Appendix 3.

A statute enacted by the Maryland 2000 General Assembly requires testing of children at 12 and 24 months of age residing in "at risk" areas of the state.[2] Additionally, all children living in Baltimore City or children receiving Medicaid services, regardless of their residence in the State,

---

[1] Source: Maryland Department of the Environment. *Childhood Blood Lead Surveillance in Maryland, Annual Report 2012* ("MDE Annual Surveillance Report"). Accessed November 28, 2013 at: http://mde.maryland.gov/programs/Land/Documents/LeadReports/LeadReportsAnnualChildhoodLeadRegistry/LeadReportCLR2012.pdf.

[2] Md. Code Ann., Health-General § 18-106

where designated as "at risk" and are required to be tested. A lead exposure risk assessment questionnaire, assessing children for exposures to known sources of lead is also required of all children at their 12 and 24-month visits. In addition, a 2003, law requires the parent of a child that resides in or previously lived in an "at risk" area must provide documentation of lead testing at first enrollment into pre-kindergarten, kindergarten, or first grade.[3] Under MD law, a child under six years of age must have evidence of appropriate screening within 30 days of entering a child care center, family child care home, or nonpublic nursery school.

Concern about the overall state testing rate, and about testing rates in specific areas and populations, have been the focus of discussions in the Maryland Lead Poisoning Prevention Commission, and have also prompted DHMH to reassess the targeting strategy used to identify "at risk" areas.

Clinical Laboratory Improvement Amendments and the Waiver Process

Paul Celli --

Technology of Point of Care Lead Testing

Lead exposure and lead poisoning are classically measured through the blood lead level (BLL). This test measures the amount of lead in blood. The test involves the following components:

- Sample collection – blood is obtained through a venipuncture sample (*venous*), which generally takes place in a provider office or commercial laboratory site; a collection with a *capillary* tube (again typically in provider office, it has the advantage of requiring a much smaller blood sample); or the collection of a blood spot on filter paper, which can take place in virtually any setting. An important factor in test accuracy at this stage are use of appropriate cleaning techniques, to prevent lead dust on the surface of either the skin or the sample collection equipment from contaminating and falsely elevating the reported lead result.
- Sample analysis – lead in the blood is measured by various techniques, commonly in commercial diagnostic laboratories by graphite furnace atomic absorption spectrometry. Important aspects of the test are the laboratory's internal quality analysis and quality control (QA/QC), as well as *proficiency testing*, which refers to a program in which an external agency sends an unknown sample periodically to the diagnostic laboratory for testing, thus providing a source of external quality checks on the diagnostic laboratory.
- Reporting –Once analyzed, the results must be reported to the health care provider. This can be done in some cases electronically directly from the instrument to a provider through electronic messaging; typically, it is through a fax or mailed (paper) report. Alternatively, the results may be displayed by the instrument and require transcription. In addition to reporting to the provider, in Maryland all lead tests for children must be reported to the Childhood Lead Registry, based at the Maryland Department of the Environment.

Point of care (POC) testing commonly refers to testing in which the test takes place in the location where the patient is being seen, although a distinction must be made between the

[3]Maryland Family Law Article 5-556.1

collection of a sample and the processing of the test to determine the results of the test. Generally, POC testing refers to a system whereby the sample is collected, analyzed, and the results delivered all in the same location and same time that the patient is being evaluated. An example would be a urine dipstick test done in the physician office while the patient is in the office.

In the case of blood lead tests, there are two systems commonly used for POC testing, although one only involves collection of the sample at the site, and so is not a true POC test as described above. This test, available from Tamarac Medical, Inc., involves collection of a small amount of blood on a filter paper, which is then sent to a laboratory for analysis and reporting. In this respect, although sample collection is simplified compared with either venous or capillary samples, there are still test attributes that resemble other non-POC tests – the sample must be sent to an offsite laboratory for analysis, then reported back to the provider.

The only FDA-approved POC test in use today in the United States is manufactured by Magellan Diagnostics of Billerica, MA, currently being marketed as the LeadCare II. This device is a CLIA-waived POC test that involves collection of a blood sample (either capillary or venous), testing of a drop of blood by anodic stripping voltammetry, and direct reporting to the operator by a visual display panel. Blood is collected either in a capillary tube or by venipuncture, then mixed with some reagents and placed in the machine. The results are displayed directly by the machine.

It is important to recognize that the LeadCare II is intended as a *screening* test only; if an elevated BLL is detected, the provider must confirm the results through a different test method.

Potential Benefits of Point of Care Testing in Maryland

The Task Force heard from a number of health care providers and others about some of the advantages of POC testing. These included:

- ✓ In the absence of POC testing, patients must receive a provider order for a lab test, go to the lab, have blood drawn, wait for the sample to be sent to the lab, processed, and the results reported to the provider, and then wait for the provider to contact them or see them back again. With POC testing, the entire process takes place during the office visit, so if the BLL is not of concern, the patient learns the results immediately, and if the BLL is of concern, the patient can be informed immediately and referred for a confirmatory test, thus improving follow-up and reducing the time required to act on a confirmed elevated BLL.
- ✓ Because the number of separate provider and lab visits is less, the cost to the patient or insurer is ultimately less as well. There is also less administrative staff time involved in contacting patients and arranging for follow-up visits. **Question about rate of repeat

visits, costs of commercial lab tests, rate of voided office visits, etc. – this may qualify whether the insurance company realizes a savings**

- ✓ Improved compliance in getting the blood lead test done in the first place
- ✓ Point-of-care tests can improve patient flow through busy clinics and emergency departments. ** This may affect overall patient flow only if it saves on getting test, but probably doesn't improve patient flow, might actually slow it done**

Barriers to Point of Care Testing in Maryland

Technological Barriers

The Task Force identified a number of potential technical barriers, although it appears there are solutions for all of them. With respect to the accuracy of the test, it appears that the test has sufficient accuracy under normal operating conditions, when used as called for by the manufacturer, to serve as a valid screening device. The issues identified by the Task Force include:

Quality Assurance and Quality Control (QA/AC) – The reagent test kits come with sufficient reagent to do two QA/QC tests per 48-test kit. Questions were raised by Task Force members about whether the QA/QC tests would be applicable and sufficient if the test kits were used slowly over a long period of time. Nothing was offered by other states or presenters that indicated this was a problem, but it might be an issue to be addressed in standard operating procedures or laboratory guidance.

Proficiency Testing –Proficiency testing is a way of ensuring the ongoing reliability of testing procedures. There is no proficiency test requirement from the FDA in its CLIA waiver for the device, but a number of states do require proficiency testing. A proficiency test requirement might slightly alter the economic and practice decisions of some providers, but probably not a large number.

Reporting –The Task Force noted that there is no direct electronic reporting capacity which would allow the test results to be reported directly to the Maryland Childhood Lead Registry. The software package developed by the manufacturer has a number of limitations which may make it problematic for practices to consider using, and this raises an issue for the expansion of POC tests. One solution would be to require reports to be faxed by providers to the CLR, but this would entail a significant data entry increase for the CLR, requiring additional personnel and increasing the opportunity for data entry errors. Another possibility would be for the State to provide a direct data entry platform for provider offices, analogous to the immunization registry system provided by DHMH (**this is also an advantage for people who switch providers**). **This is done in Rhode Island, MI, WI, NJ.** Registry may have an issue with providers entering lead data directly into the immunization registry, but may be comfortable with the idea of accessing lead data through an immunization registry directly. Yet a third possibility, integration of lead reporting within provider electronic health records (EHRs) which could then be accessed directly by the CLR, would require a series of technological and statutory innovations that are not yet available.

Economic Barriers

The Task Force members solicited input from the practice community and other stakeholders to develop some rough cost figures for analysis of implementing and maintaining a POC test program within a clinical practice. According to this information, the costs of running a POC program, including the cost of the machine ($1,850 ** Ichniowski price quote), CLIA waiver registration ($150/2 years), the Maryland application ($100/2 years) and Laboratory fee for lead testing ($200/2 years), possible proficiency testing ($460 first year, $390 second year), test kits ($2,928), and staff time ($893), could total approximately $6,581 in the first year of the program, and $5,363 in the second year of the program. Based on these assumptions, the Task Force estimates that with current Medicaid reimbursement rates of $12.52 per test, a practice would break even with 434 tests in the first year and 429 tests in the second year. With either a higher reimbursement rate or additional reimbursement for the sample collection, the breakeven point would occur even sooner. Additional details of the economic analysis are presented in an appendix.

Based on input from Task Force members, other states, and clinical practitioners, the testing could be incorporated in typical practices without significant difficulty or alteration of patient flow. One clinician noted that he was able to send all of his POC test results to the Maryland Childhood Lead Registry by fax, and the CLR was then able to enter the data manually. It should be noted that while it is likely that practices would be able to submit faxed reports to the CLR, it is not clear that the CLR has sufficient personnel to enter the additional test results, and there is also the issue of additional transcription/data entry errors with manual data entry.

[Discussion of VBP, HEDIS measures, and Medicaid reimbursement]

Can we get data from the commercial reimbursement rates?

Does Medicare pay? [$16.89 from CMS?]

Need to distinguish for counseling between that which occurs in a HCP office and in some place like a WIC office (99211 is the code) – can only do well child care office visit in some locations where HCPs exist – but can't use do E&M codes at the same time (VT, Richardson)

Regulatory Barriers (including licensure)

Paul Celli to explain rationale for current status

- ✓ FDA should hold manufacturers accountable for incorporating QC and PT into waived test device design, and HCFA should identify and address providers' noncompliance with manufacturers' instructions
- ✓ Reporting to surveillance programs
- ✓ Challenges in test coding/reporting

Barriers (Buy-In) at the Level the Provider

WIC
Definition of Actual Standard of Care
Opportunity Reports by MCO managed care organization to providers – MCOs have limited traction with providers (one of 13 VBP measures that could be barriers).

Use of Point of Care Testing in Other States

The Task Force dedicated an entire meeting to hearing from other states, and also looked at data from other states that was publicly available. The experience of these states is instructive.

Wisconsin-- In 2005, less than one-third of Wisconsin Medicaid children received their mandatory tests for lead at one and two years of age. Heath care providers in Wisconsin started to use POC testing in 2008, Medicaid managed care organizations (MCOs) worked together with WIC to pay for lead testing at WIC clinics. Some of the considerations that went into WIC's decision to adopt POC testing:

1. The WIC clinics were able to bill separately for blood draws for lead tests, doubling their reimbursement. They were also able to bill for the POC lab test, although this required discussions with Medicaid.
2. They were not always able to participate in proficiency training.
3. Transmitting all of the lead test results to the state lead registry was a hurdle that had to be overcome.

The state still identifies some ongoing challenges, but overall the results have been extremely positive and their Medicaid testing rates have increased by 40%. Wisconsin reported that one of the biggest factors in improving testing rates has been to issue "report cards" on testing rates to every Medicaid provider, individually. In addition, Wisconsin found it very helpful to "marry" lead test data to their immunization registry, so that providers had access to both registries in a single application.

Texas – Texas also has testing through the WIC program; the regulations were only changed within the past year. Medicaid put in an amendment for reimbursement rates, and although all providers are supposed to report their test results to the Lead Registry, billing data shows that there is more billing for tests than are reported to the Registry. Medicaid is planning some corrective actions regarding reporting requirements. Because the LeadCare II does not have the capability to directly report results to the registry electronically, TX sends a letter to providers about reporting; physicians send in paper reports, and many agencies (Head Starts, etc.) send a big batch of results July – October during school enrollment. The health department lead program is working with TX Medicaid to increase reporting, but thus far have not hit upon a solution. They have seen an increase in lead levels, but don't know whether levels of 15 µg/dLand above levels are real or user error in performing the test. One of the issues they have noted is that some POC tests are being confirmed with the same venous sample used for the original POC test (rather than a separate venipuncture). TX does not have a requirement for proficiency testing, but they do encourage staff training.

Massachusetts – There are approximately 60 POC users in MA. Very few are using POC testing for screening in the office; in most cases samples are batch tested at a central location. MA is

confident about reporting, but is also insisting on proficiency testing. The test is currently considered to be a moderately complex test by state lab, similar to MD. They have found reporting (of lab test results to the Lead Registry) is similar to other (POC) systems. One problem they have identified is that it is difficult to distinguish a clinical lab with a LeadCare II device from a commercial laboratory provider. MA has also identified the need a universal laboratory reporting system for electronic reporting. The software currently available for the LeadCare II system is free reporting for the providers, but there were limitations. For example, the field for lead test results allowed only three characters, which in some cases required rounding decimal results (for example, 24.7 became 24.) Ordinarily, MA would consider that results to be 25µg/dL, but it was rounded down in data base. Magellan was not interested in expanding or updating the software. Adding data by providers is a burden, so software upgrades would be very helpful. Generally, MA's experience is that 75 – 80% of children are between the age of 9 – 48 months (the MA requirement). MA has very good compliance, in part because children can not be enrolled in group or family day care without lead testing. MA uses a standard that is different from the Academy of Pediatrics and the CDC recommendations because MA determined that for agesgreater than 2 years old, there were enough children poisoned after age 2 to require testing up to age 4. MA is not necessarily supporting the use of POC testing with the LeadCare II, because of concerns about the lack of proficiency testing.

New Jersey– New Jersey requires testing at 12 months, 24 months, and any child between three and six years of age who has never previously been screened. With respect to POC tests, NJ is moving cautiously because of costs of testing and a desire to have administrative procedures in place. Currently, they are not treating the test as CLIA-waived, and require three rounds of proficiency tests. The NJ labs are considering a waiver in addition to two rounds of required proficiency tests, and started a pilot project in May, 2012, when they were able to trade Lead Care I for Lead Care II machines. The State Laboratories have also provided some standard operating procedures (SOPs), which they are reviewing with clinical laboratories. The State is also doing memoranda of understanding (MOUs) with some local health department (LHD) pilot sites. According to these MOUs, a medical director must be onsite at the LHD; there are also requirements for venous confirmation of elevated test results. NJ has been working with the manufacturer (Magellan)regarding reagent expiration. They also have some issues with reporting, involving de-duplication of test results by date of birth. In addition, they are working with the NJ Medicaid program on reimbursement rates, confirmation of Medicaid participants. Generally, they have found the provider community to be very receptive to POC testing, and are planning to expand their pilot to look at children under 6 and adults participating in recovery/reconstruction using post-hurricane Sandy funds. In summary, NJ is planning to expand the use of POC testing, but is working on specific issues/requirements:

- Proficiency testing – they currently require three rounds, but are moving towards requiring two rounds of testing;
- Results reporting to the State registry – they do know roughly where the machines are, but don't always know who is doing the testing or who is getting a test (name, DOB confirmation are issues).

Rhode Island – the Task Force did not hear directly from Rhode Island, but did receive information regarding the program.

Reimbursement (public health agencies in conversation) not sharing the data yet, working with Medicaid – are they really Medicaid Pilot sites required, but nervous at State levels Overall thoughts (we will adopt CLIO) required proficiency test – for the roll out memorandum there will be 2 rounds.

Options and Recommendations for Reimbursement of Point of Care Testing and Reporting

The Task Force considered a number of options in making its recommendations. The options included:

Option 1: No Change to Current Law/Status

Option 2: Unrestricted POC Testing

Option 3: Partial Allowance of POC Testing

In addition, the Task Force looked at some issues that were raised in the course of the meetings:

Reporting to the Maryland Childhood Lead Registry
Proficiency Testing
Quality Assurance/Quality Control
Standard Operating Procedures
Reimbursement Policies

Point of Care Testing and Surveillance

Findings and Recommendations

Finding 1: Point of care testing has been used successfully in Maryland and other states

The Task Force heard consistently that POC testing has been used successfully in other states and in Maryland as a test to screen patients for lead exposure. There appear to be no significant issues regarding its reliability or validity, and it has obtained approval from the FDA as a CLIA-waived test.

Finding 2: When used in conjunction with other incentives, POC testing appears to encourage testing

The Task Force heard from other states some striking examples of programs that successfully used POC testing, in combination with other measures (outreach to providers, use of POC tests

in WIC clinics, alterations in reimbursement formulas, report cards to providers on their individual testing rates), to increase the rate of lead testing for children. There is no reason to assume the same measures would not have similar effects in Maryland.

Finding 3: The current status of POC testing for lead in Maryland with the LeadCare II device, as a non-excepted CLIA-waived test, is more restrictive than necessary to assure patient safety, and serves as a deterrent to widespread POC testing for lead in the State.

Ask JenniferNewman regarding the current status --

Finding 4: Any decision to encourage the wider use of POC testing for lead with the LeadCare II should be made in conjunction with policies that address quality assurance/quality control, proficiency testing, and mandatory reporting to the Maryland Childhood Lead Registry.

Finding 5: The widespread use of POC testing may necessitate increased resources for the Maryland Childhood Lead Registry to enter data manually, or some mechanism developed by either the manufacturer, a third party, or the State to facilitate direct data entry by practices at the POC. One example would be the Maryland Immunization Registry, operated by DHMH.

Recommendation 1: Maryland should encourage the use of POC testing for lead.

Recommendation 2: The Task Force encourages the Laboratories Administration to consider ways of promoting the wider use of POC tests for lead, particularly by making it easier for providers to implement POC testing using either a LeadCare II CLIA-waived test or a filter paper Tamarac™test. In so doing, however, the Task Force recognizes the importance of incorporating direction or guidance on the following issues:

- Reporting to the Maryland Childhood Lead Registry
- Proficiency Testing
- Quality Assurance/Quality Control
- Standard Operating Procedures
- Reimbursement Policies

Recommendation 3: The Task Force urges DHMH and MDE to consider additional practices to increase testing rates, including the following:

- Promotion of testing in WIC clinics
- Work with Medicaid and private insurers to make testing easier through reimbursement for sample collection, as well as looking at reimbursement rates and costs
-

Recommendation 4: Any decision to promote more widespread use of POC testing should be accompanied by an active outreach to providers, parents, members of the public, payors and

others, to actively promote the use of the POC testing to increase testing rates, and to explain why increased testing is important in eradicating lead exposure and lead poisoning.
The task force noted that the State might want to consider revising its requirements for testing at ages 12 and 24 months to require testing beyond age 24 months for children who have not previously been tested, as well as the issue of pregnant women. The use of POC testing, the Task Force noted, would make it easier for FQHCs and other ambulatory care centers to extend testing to other at-risk populations, including older children and pregnant women.

Other – lead screening, QA/QC, Tamarac testing/filter paper

Appendix 1. Membership of the Task Force on Point of Care Testing for Lead Poisoning

Appendix 2. Meeting Schedule of the Task Force

Appendix 3.Testing Rates for Children Ages 0 – 72 Months by Jurisdiction, 2012.

Blood Lead Testing of Children 0-72 Months by Jurisdiction in 2012[1]

County	Population of Children[2]	Children Tested		Children with BLL 5-9 µg/dL						Children with BLL >=10 µg/dL					
				Old Cases[3]		New Cases[4]		Total		Old Cases[5]		New Cases[6]		Total	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Allegany	4,853	1,320	27.2	14	1.1	40	3.0	54	4.1	4	0.3	8	0.6	12	0.9
Anne Arundel	48,260	8,338	17.3	10	0.1	64	0.8	74	0.9	0	0.0	5	0.1	5	0.1
Baltimore	67,225	16,329	24.3	28	0.2	174	1.1	202	1.2	8	0.0	26	0.2	34	0.2
Baltimore City	56,701	18,717	33.0	424	2.3	800	4.3	1,224	6.5	71	0.4	148	0.8	219	1.2
Calvert	7,159	715	10.0	0	0.0	7	1.0	7	1.0	0	0.0	1	0.1	1	0.1
Caroline	3,234	773	23.9	1	0.1	13	1.7	14	1.8	0	0.0	2	0.3	2	0.3
Carroll	13,047	1,247	9.6	9	0.7	18	1.4	27	2.2	3	0.2	1	0.1	4	0.3
Cecil	9,047	1,221	13.5	2	0.2	12	1.0	14	1.1	0	0.0	0	0.0	0	0.0
Charles	13,254	1,963	14.8	1	0.1	11	0.6	12	0.6	0	0.0	3	0.2	3	0.2
Dorchester	2,797	694	24.8	3	0.4	15	2.2	18	2.6	0	0.0	1	0.1	1	0.1
Frederick	20,976	3,039	14.5	3	0.1	23	0.8	26	0.9	4	0.1	3	0.1	7	0.2
Garrett	2,225	427	19.2	1	0.2	5	1.2	6	1.4	1	0.2	0	0.0	1	0.2
Harford	21,100	2,979	14.1	5	0.2	29	1.0	34	1.1	1	0.0	5	0.2	6	0.2
Howard	24,707	2,500	10.1	1	0.0	24	1.0	25	1.0	3	0.1	3	0.1	6	0.2
Kent	1,406	243	17.3	1	0.4	6	2.5	7	2.9	0	0.0	2	0.8	2	0.8
Montgomery	89,202	20,515	23.0	18	0.1	151	0.7	169	0.8	9	0.0	15	0.1	24	0.1
Prince George's	81,273	20,417	25.1	26	0.1	196	1.0	222	1.1	3	0.0	17	0.1	20	0.1
Queen Anne's	3,868	494	12.8	0	0.0	13	2.6	13	2.6	0	0.0	2	0.4	2	0.4
Saint Mary's	10,618	1,634	15.4	2	0.1	26	1.6	28	1.7	0	0.0	1	0.1	1	0.1
Somerset	1,774	608	34.3	5	0.8	13	2.1	18	3.0	0	0.0	2	0.3	2	0.3
Talbot	2,648	606	22.9	2	0.3	6	1.0	8	1.3	1	0.2	2	0.3	3	0.5
Washington	12,691	2,675	21.1	17	0.6	102	3.8	119	4.4	0	0.0	0	0.0	0	0.0
Wicomico	8,582	2,154	25.1	9	0.4	35	1.6	44	2.0	0	0.0	4	0.2	4	0.2
Worcester	3,240	856	26.4	1	0.1	6	0.7	7	0.8	0	0.0	2	0.2	2	0.2
County Unknown[7]		75		0		3		3		1		2		3	
Total	**509,885**	**110,539**	**21.7**	**583**	**0.5**	**1,792**	**1.6**	**2,375**	**2.1**	**109**	**0.1**	**255**	**0.2**	**364**	**0.3**

1. The table is based on the selection of the highest venous or the highest capillary in the absence of any venous test.
2. Adapted from Maryland census population 2010, provided by the Maryland Data Center, Maryland Department of Planning, www.planning.maryland.gov/msdc.
3. Children with a history of a blood lead level of 5-9 µg dL. These children may have carried over from 2011 or had a blood lead level of 5-9 µg dL in previous years. Any child with a history of blood lead test of ≥10 µg dL is not counted in this column
4. Children with the very first blood lead level of 5-9 µg dL in 2012. These children were either not tested in the past or their blood lead levels were below 5 µg dL. If a child had a blood lead test of ≥10 µg dL in 2012 or in the past is not counted in this column.
5. Children with a history of a blood lead level ≥10 µg dL. These children may have carried over from 2011 or had a blood lead test of ≥10 µg dL in previous years.
6. Children with the very first blood lead test of ≥10 µg dL in 2011. These children were either not tested in the past or their blood lead levels were below 10 µg dL. This definition may not necessarily match the criteria for the initiation of case management.
7. Includes cases with out-of-state residence address at the time of the highest blood lead test.

Thanks to other state partners for giving their time:

- Wisconsin: Chuck Warzecha (Director, Environmental Health), Margie Coons (Director Lead Screening Program)
- Massachusetts: Paul Hunter (Director, MA Childhood Lead Poisoning Prevention Program), Fran Medaglia (Clinical Coordinator)
- New Jersey: Crystal Owensby (Coordinator, Child Health Program)
- Texas: (Teresa Willis, Blood Lead Surveillance, Environmental and Injury Epidemiology and Toxicology Unit)
- Rhode Island (Peter Simon, verbal report)

BARBARA A. MIKULSKI
MARYLAND

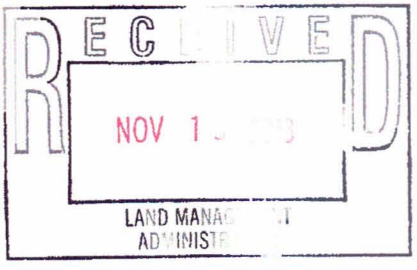
SUITE 503
HART SENATE OFFICE BUILDING
WASHINGTON, DC 20510–2003

(202) 224–4654
TDD: (202) 224–5223

United States Senate

WASHINGTON, DC 20510–2003

October 25, 2013



Dr. Pat McLaine
Chair
Lead Poisoning Prevention Commission
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, Maryland 21230-1701

Dear Dr. McLaine:

Thank you for getting in touch with me. It's nice to hear from you.

I appreciate your contacting me about appropriations for the Center for Disease Control and Prevention state and local programs for combating childhood lead poisoning. Knowing of your this program is very helpful to me.

In the past, I have worked aggressively for programs that benefit Maryland and our country and will continue to do so. I believe federal revenues should be prudently invested to create jobs today and jobs tomorrow for all Americans, provide a safety net for our children and our seniors, and encourage self-help.

My goal is to help people meet their day-to-day needs while preparing the country for the challenges of the future. As Chairwoman of the Senate Appropriations Committee, you can be sure that I will give your request full consideration as I continue my work on appropriations this year.

Thanks again for getting in touch with me. If I can be of further assistance, please do not hesitate to let me know.

Sincerely,

Barbara A. Mikulski

Barbara A. Mikulski
United States Senator

BAM:pkm

SUITE 310
901 SOUTH BOND STREET
BALTIMORE, MD 21231
(410) 962–4510

SUITE 202
60 WEST STREET
ANNAPOLIS, MD 21401–2448
(410) 263–1805

SUITE 406
6404 IVY LANE
GREENBELT, MD 20770–1407
(301) 345–5517

ROOM 203
32 WEST WASHINGTON STREET
HAGERSTOWN, MD 21740–4804
(301) 797–2826

SUITE 200
1THE GALLERY PLAZA BUILDING
212 MAIN STREET
SALISBURY, MD 21801-2403
(410) 546–7711

http://mikulski.senate.gov/

Lead Commission Suggested Priorities for 2014

Follow up with Housing Authorities (compliance with 24 CFR 35)

Funding for LPPP activities

Funding for lead abatement

Medicaid reimbursement for case management and environmental investigation of homes

Increasing lead screening of Maryland children

- Targeting plan for lead screening
- Compliance for Medicaid children
- Improved guidelines for testing
- Targeted education of primary care providers, child care providers, parents
- Tool boxes
- Point of care testing
- WIC Screening (possibly using point of care testing devices)

Lead exposure and school outcomes

Clinical lead case management guidelines

- PCP
- Public health case management

Screening of other at-risk groups

- Pregnant women
- Children age 7 and older

Improved oversight/enforcement of existing laws/regulations (regulatory, legislative, administrative)

- Registration and EA-6-8
- RRP

Opportunities presented by the Affordable Care Act

Healthy Homes

- Green and healthy homes initiatives, particularly healthy energy efficient homes
- Asthma, asthma triggers, CO
- Statutory mandates for green and healthy homes

Support/testimony for 2014 Legislation

GOVERNOR'S LEAD COMMISSION MEETINGS FOR CY 2014

DATE	LOCATION	TIME
Thursday, January 9, 2014	AERIS Conference Room	9:30 a.m. - 11:30 a.m.
Thursday, February 6, 2014	AERIS Conference Room	9:30 a.m. - 11:30 a.m.
Thursday, March 6, 2014	AERIS Conference Room	9:30 a.m. - 11:30 a.m.
Thursday, April 3 2014	AQUA Conference Room	9:30 a.m. - 11:30 a.m.
Thursday, May 1, 2014	AERIS Conference Room	9:30 a.m. - 11:30 a.m.
Thursday, June 5, 2014	AERIS Conference Room	9:30 a.m. - 11:30 a.m.
Thursday, July 10, 2014	AERIS Conference Room	9:30 a.m. - 11:30 a.m.
Thursday, August 7, 2014	AQUA Conference Room	9:30 a.m. - 11:30 a.m.
Thursday, September 4, 2014	AERIS Conference Room	9:30 a.m. - 11:30 a.m.
Thursday, October 2, 2014	AERIS Conference Room	9:30 a.m. - 11:30 a.m.
Thursday, November 6, 2014	AERIS Conference Room	9:30 a.m. - 11:30 a.m.
Thursday, December 4, 2014	AERIS Conference Room	9:30 a.m. - 11:30 a.m.