

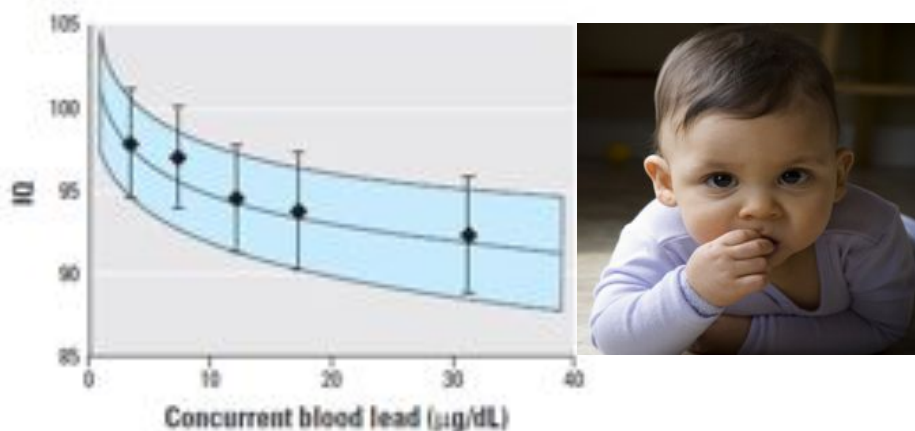
Blood Lead Module for Maine's Immunization Registry (ImmPact)

Andrew Smith, SM, ScD
State Toxicologist

November 15, 2017



Why we STILL care about Lead Poisoning



Lanphear et al., VOLUME 113 | NUMBER 7 | July 2005 • Environmental Health Perspectives

Why we STILL care about Lead Poisoning

PEDIATRICS®

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

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

McLaine et al., VOLUME 131 | NUMBER 6 | June 2013 • Pediatrics

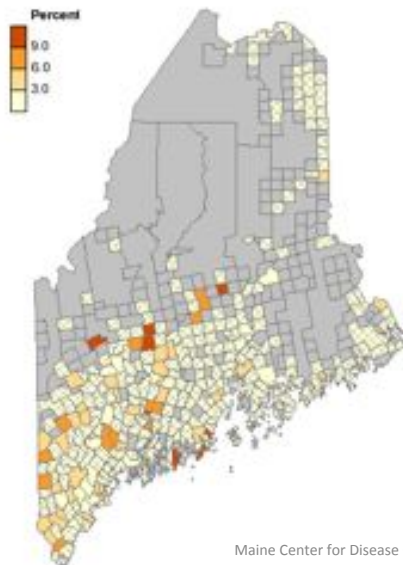
“Reading readiness at the start of kindergarten is independently associated with blood lead levels below 10 ug/dL.”



Maine Center for Disease Control and Prevention

3

Who is most at risk



- MaineCare kids
- Refugee families
- Very oral kids
- Families with work hazards

Maine Center for Disease Control and Prevention

4

It's Mostly About Housing



Mostly pre-1950 housing

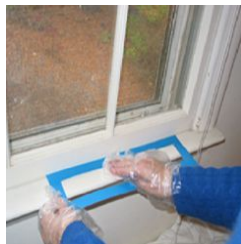


Paint in poor condition

Maine Center for Disease Control and Prevention

5

When we identify a "lead poisoned" child, we inspect all dwelling units in the building




**Test for lead
in paint, dust,
water, soil,
and
sometimes
more**


Maine Center for Disease Control and Prevention

6


If We Find Lead Hazards ...



Post




**Relocate
Family if
needed**



**Order to
Abate Lead
Hazards**

Maine Center for Disease Control and Prevention 7

New Statutory Definition of "Lead Poisoned"



Lead Poisoning
if a confirmed
Blood Lead
Level is
≥ 5 µg/dL

Maine Center for Disease Control and Prevention 8

Role of Providers Screen Children and Confirm Results



Maine Center for Disease Control and Prevention

9

A Problem Low rates of screening high risk children



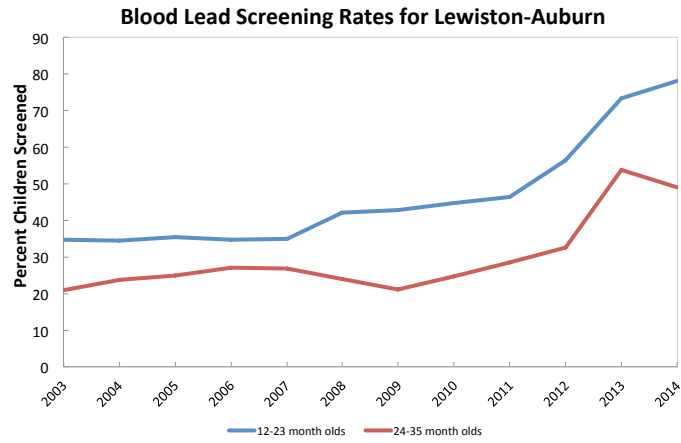
48 %
of 1 year olds on MaineCare

35 %
of 2 year olds on MaineCare

Maine Center for Disease Control and Prevention

10

Higher Screening Rates are Possible!



Maine Center for Disease Control and Prevention

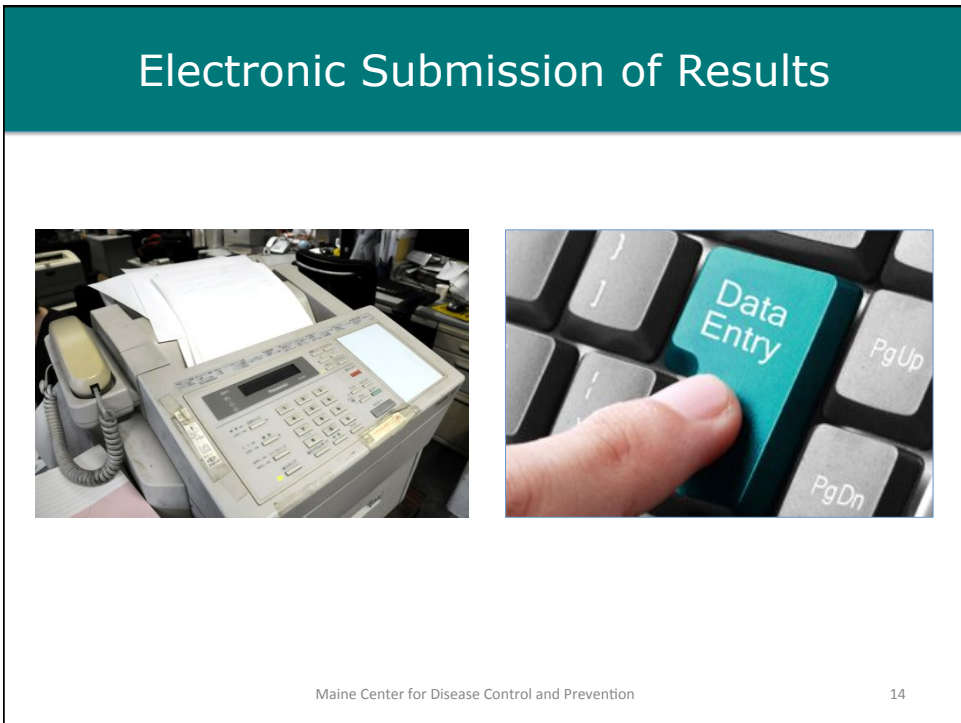
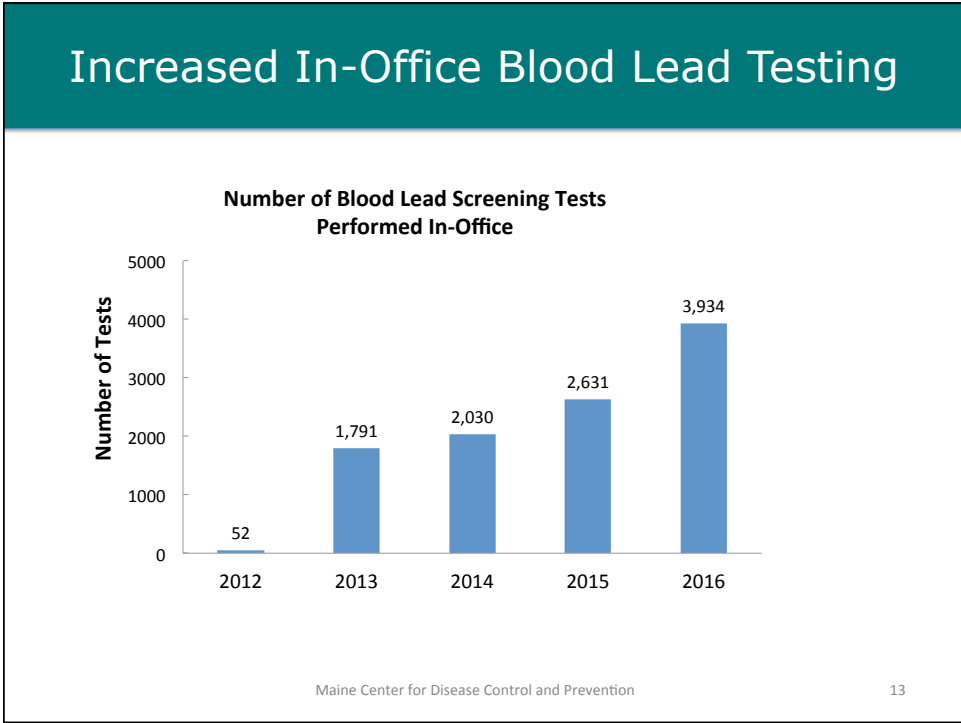
11

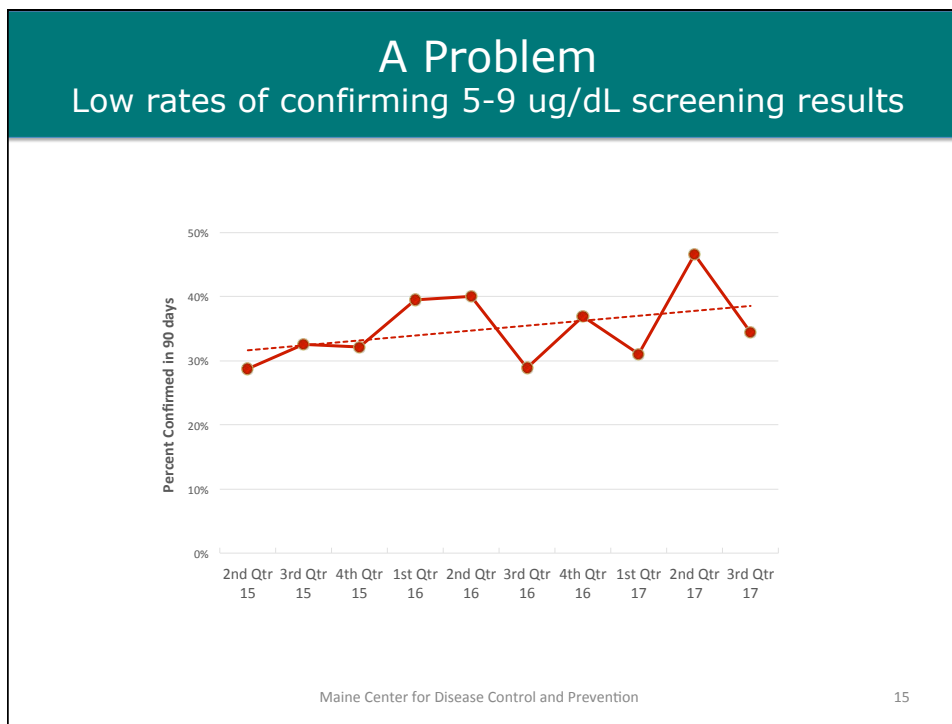
In-Office Blood Lead Testing



Maine Center for Disease Control and Prevention

12





Blood Lead Module for ImmPact

- Supports bi-directional electronic transfer of blood lead test data (in-office vs HETL)
- Eliminates need to fax in-office test results
- Provides prompts when a child needs blood lead screening, confirmation, or follow-up testing
- Allows providers to run queries to identify patients in need of blood lead testing and assess practice performance

Maine Center for Disease Control and Prevention

16

Getting to the Blood Lead Module for ImmPact

Maine Center for Disease Control and Prevention

17

Blood Lead Module

18

Hyperlinks with Info

ImmPact HOME manage access/account related links Logout help desk

Patient Information
 Patient Name (First - MI - Last) DOB Gender Mother's Maiden Medical Record Number
 Address
 Comments

Patient Notes (0) [View or Update notes](#)

Risk Assessment and Lead Test History

Age	Recommendation	Due	Risk Assessment Done	Lead Test Indicated	Date of Test	Status
1 year	Risk Assessment	02/06/2015	Yes	Yes	03/24/2015	Completed
2 years	Risk Assessment	02/06/2016				Maximum Age Exceeded
3 years	Risk Assessment	02/06/2017				Overdue
4 years	Risk Assessment	02/06/2018				Not Due
5 years	Risk Assessment	02/06/2019				Not Due

Maine CDC Childhood Lead Poisoning Prevention Unit

Annual Risk Assessment Questionnaire for Ages One and Two

If a child's parent answers "yes," or "does not know," to one or more of these questions, the child should be given a blood lead test:

- Is your child covered by MaineCare?
- Does your child spend more than 10 hours per week, in any house built before 1950?
- Does your child spend more than 10 hours per week in any house built before 1978 that was renovated or remodeled within the last 6 months?
- Does your child spend time with an adult whose job exposes him/her to lead? (Examples: construction, painting, metalwork)
- Does your child have a sibling or playmate that has been diagnosed with lead poisoning?

maine.gov/healthhomes • 207-287-4311 • TTY: Call Maine Relay 711

19

Hyperlinks with Info

ImmPact HOME manage access/account related links Logout help desk

Patient Information
 Patient Name (First - MI - Last) DOB Gender Mother's Maiden Medical Record Number
 Address
 Comments

Patient Notes (0) [View or Update notes](#)

Risk Assessment and Lead Test History

Age	Recommendation	Due	Risk Assessment Done	Lead Test Indicated	Date of Test	Status
1 year	Risk Assessment	02/06/2015	Yes	Yes	03/24/2015	Completed
2 years	Risk Assessment	02/06/2016				Maximum Age Exceeded
3 years	Risk Assessment	02/06/2017				Overdue
4 years	Risk Assessment	02/06/2018				Not Due
5 years	Risk Assessment	02/06/2019				Not Due

Maine CDC Childhood Lead Poisoning Prevention Unit

Recommended Confirmation and Follow-up Schedule For Pediatric Blood Lead Levels $\geq 5 \mu\text{g/dL}$

The Maine CDC provides a full lead investigation of a child's home environment when a venous blood lead test result is $\geq 5 \mu\text{g/dL}$.

Capillary Lead Test Confirmation Schedule
 Confirm all capillary blood lead levels $\geq 5 \mu\text{g/dL}$ with venous samples, according to the following schedule.

Capillary Blood Lead Level	Confirm with Venous Test Within*
5-9 $\mu\text{g/dL}$	3 months
10-14 $\mu\text{g/dL}$	1 month
15-19 $\mu\text{g/dL}$	48 hours
20-49 $\mu\text{g/dL}$	24 hours
50+ $\mu\text{g/dL}$	Immediately as an emergency test

Venous Lead Test Follow-up Schedule
 For all venous blood lead levels $\geq 5 \mu\text{g/dL}$, conduct follow-up venous blood lead tests, according to the following schedule.

Venous Blood Lead Level	Follow-up Venous Test Schedule	Long-Term Follow-up**	Maine CDC Response
5-9 $\mu\text{g/dL}$	3 months	When 5 resume	<ul style="list-style-type: none"> Environmental investigation Case management by phone
10-14 $\mu\text{g/dL}$	Within 3 months	6-9 months	<ul style="list-style-type: none"> Environmental investigation Case management by phone Offer home visit from public health nurse
15-19 $\mu\text{g/dL}$	Within 2 months	3-6 months	<ul style="list-style-type: none"> Environmental investigation Case management by phone Offer home visit from public health nurse
20-49 $\mu\text{g/dL}$	Within 1 month	1-3 months	<ul style="list-style-type: none"> Environmental investigation Case management by phone Offer home visit from public health nurse


Lead Poisoning Prevention Tips for Families

- Keep children away from peeling or chipping paint.
- Wash children's hands before eating and going to bed.
- Clear floors, windowsills, and tables with wet mop or rag once a week.
- Wash toys once a week and keep toys away from areas with peeling paint.
- Feed your child at a table or in a highchair.
- Soak laundry and rags used in old homes.
- Call Maine CDC or visit our website for more information.

maine.gov/healthhomes • 207-287-4311 • TTY: Call Maine Relay 711

20

View Blood Lead Data



ImmPact Lead 2.2.0.0

Patients

- patient search
- merge patients
- upload list
- check roster status
- manage roster list

Immunizations

- patient search

Reports

- reminder / recall
- check reminder status
- check reminder list
- manage custom letters
- cocasa extract
- check request status
- vaccine stability
- check vaccine elig status
- group patients
- check group status
- assessment report
- check assessment
- benchmark report
- check benchmark
- ad hoc list report
- ad hoc count report
- ad hoc report status
- blang report request
- check billing report
- provider report
- check provider status
- accountability report
- request
- check vaccine
- accountability
- state supplied flu report
- state supplied vaccine report

Age	Recommendation	Date Due	Risk Assessment Done	Lead Test Indicated	Date of Test	Status
1 year	Risk Assessment	07/27/2017			07/27/2017	Completed
2 years	Risk Assessment	07/27/2018				Not Due
3 years	Risk Assessment	07/27/2019				Not Due
4 years	Risk Assessment	07/27/2020				Not Due
5 years	Risk Assessment	07/27/2021				Not Due

*Note: Assumes schedule of routine screening and testing. Elevated blood lead test results require confirmatory venous testing and alternate follow-up schedule. [Review the Maine CDC's Pediatric Blood Lead Screening Guidelines](#) by clicking here or by choosing the link in the Action column below for management recommendations.

Refers	Ordered?	Date Sample Collected	Date Results Reported	Blood Lead Level	Action
		06/23/2017	06/29/2017	40 µg/dL	Review Clinical Report Analyzed by the Maine CDC and Laboratory Testing Laboratory

View Blood Lead Data | Immunization History | Edit Patient | New | Blood Lead Report | Save

If you require an edit to a blood lead test or require access to the Blood Lead Data Entry screen to report lead results, contact the Maine Childhood Lead Poisoning and Prevention Unit at 888-292-3474 or eh@maine.gov

Date Results Reported: 06/26/2017 | Source Type: User Interface
 Sample Accession Number: Z567823201701 | Provider Information in Lead Registry: PPLRN Number: 567
 * Ordering Fraction: Saily, D | * Test Method: GFAA
 * Date Sample Collected: 06/23/2017 | * Date Sample Analyzed: 06/26/2017
 * Sample Type: Capillary | * Blood Lead Level: 40 µg/dL Note µg/dL = mcg/dL | Qualitative Result: High
 Lab Result Comments: | Comment Date:

ImmPact Provider Notes

Maine Center for Disease Control and Prevention

21

Reports Test Due Report



ImmPact Lead 2.2.0.0

Patients

- patient search
- merge patients
- upload list
- check roster status
- manage roster list

Immunizations

- patient search

Blood Lead (State)

- manage list
- limited history report
- limited history status
- outbound file extract
- outbound file extract status
- performance list report
- performance list status
- lead only list report
- lead only status
- follow-up report
- check follow-up status
- test due list report
- check test due status
- age exceeded report
- age exceeded status
- performance report
- performance status

organization CLPP - Maine CDC Lead Program • user Andy Smith • role ImmPact System Manager

Test Due List Report

Select a Report

One Year Old Test
 Two Year Old Test

Select Time Frame

Time Frame: Next 7 Days

The list reports will be populated with ImmPact data according to the selected criteria and time frame up to the date selected. Results are sorted in a chronological order by date of birth, with the oldest child first. In rare instances, a child's record may require manual review by the Maine CDC before it is matched into ImmPact and available for a report.

Copyright © 1999 - 2017 State of Wisconsin. All rights reserved.

Maine Center for Disease Control and Prevention

22

Test Due List

Test Due List Report
One Year Old, today
 11/08/2017
IR Physicians, 2
 Maine CDC Pediatric Blood Lead Screening Guidelines
<https://impact.maine.gov/docs/PBLScreeningGuidelines.pdf>
 To create a hyperlink to the document, click on the URL above twice and then out of the field

Birth Date	Last Name	First Name	Responsible Person	Primary Phone	Street Address	City
08/09/2016	STARK	ARYA			305 E TEST ST.	AUGUSTA
11/10/2016	NEVILLE	ELIZA				
11/10/2016	NINEMONTHS	LESSTHAN			305 E TEST ST.	AUGUSTA
11/15/2016	STARK	BRAN			10 EAST DOTY ST	AUGUSTA
01/10/2017	JONES	GEORGE			305 E TEST ST	AUGUSTA
02/08/2017	JEE	JEE				

Blood_Lead_TestDue

Reports Follow-Up Action Report

Home | manage access/account | related links | logout | help desk

organization: CLPP - Maine CDC Lead Program | user: Andy Smith | role: ImmPact System Manager

Follow-Up Action Needed List Report

Select a Report

- Requires Follow-Up/Management
- Requires Venous Sample Analyzed By the Maine Health and Environmental Testing Laboratory
- Requires Repeat Test
- BLL <= 5 ug/dL

Please select either an Age Range option or a Birth Year.

Select Age Range

- 0 to less than 3 years
- 3 to less than 6 years
- 6 to less than 12 years
- 12 to less than 15 years

Select Birth Year

Year:

The list reports will be populated with ImmPact data according to the selected criteria up to the date the report is generated. In rare instances, a child's record may require manual review by the Maine CDC before it is matched into ImmPact and available for a report.

Generate | Cancel

Follow-Up Action Report

Follow Up Action Needed List Report
Requires Venous Sample Analyzed By the Maine Health and Environmental Testing Laboratory, 0 to 3 years, assoc. w/ IR Physicians
 11/08/2017
 IR Physicians, 2
 Maine CDC Pediatric Blood Lead Screening Guidelines
<https://immfact.maine.gov/docs/PBLScreeningGuidelines.pdf>
 To create a hyperlink to the document, click on the URL above twice and then out of the field

Last Name	First Name	Birth Date	Responsible Person	Primary Phone	Street Address	City
TESTE	PATIENT	02/14/2016			123 MAIN STREET	AUGUSTA
MAE	DAISY	08/07/2016			200 SOUTH AVE	AUGUSTA
PERLMAN	ANDREA	08/12/2015			36 VIVAL ST	WEST ROCKPORT
TEST	PATIENT	07/01/2015		(207) 278-6452	111 MAIN STREET	AUGUSTA

Reports Clinical Performance Report

organization: CLPP - Maine CDC Lead Program • user: Andy Smith • role: ImmPact System Manager

Aggregate Clinical Performance Report

Select a Report

- One Year Old Test
- Two Year Old Test
- Two Years of Age with One Test by Age Two
- Three Years of Age with One Test
- Three Years of Age with Two Tests at Any Time
- Three Years of Age with One Test at or around Ages One and Two

Select Time Frame

Time Increment: Year:

Select Birth Year

- No Birth Year Selection
- Birth year:

A report will be generated with the number and percentage of patients less than six years of age who have had a blood lead test(s) according to the selected criteria and time frame. In rare instances, a child's record may need manual review by Maine CDC before it is matched into ImmPact and available for a report.

Clinical Performance Report

Aggregate Clinical Performance Report		
3 Yr Old One and Two, 2016		
11/8/17 8:19 AM		
IR Physicians, 2		
Birth Year		
Maine CDC Pediatric Blood Lead Screening Guidelines		
https://imm-pact.maine.gov/docs/PEL_Screening_Guidelines.pdf		
To create a hyperlink to the document, click on the URL above twice and then out of the field.		
# in Ass. Range	# Met Criteria	% Met Criteria
6	1	16.67%

When will it be available?

- Target Go-Live data is mid-March, 2018
- Will pilot before with a few health care facilities performing in-office testing
- Offices performing in-office testing will be required to use the ImmPact blood lead module to electronically submit data

If Questions

Andrew Smith, SM, ScD
State Toxicologist

Tel: (207) 287-5189

Email: andy.e.smith@maine.gov

Eric Frohberg, MA
Supervisor, Maine CLPPU

Tel: (207) 287-8141

Email: eric.frohberg@maine.gov

