

Screening for Safety: The Role of Blood Lead Testing in Childhood Lead Poisoning Prevention

Madison Puzdrakiewicz, MPH, Health Communications Specialist

Louisiana Childhood Lead Poisoning Prevention Program | New Orleans, Louisiana

Jonathan Whipple, Program Monitor

Louisiana Childhood Lead Poisoning Prevention Program | New Orleans, Louisiana

Join the Q&A and answer MOC questions at slido.com with the code #CENLApotpourri



Speaker Disclosure(s) Option 1 No Relevant Relationships

I have no relevant financial relationships with manufacturers of any commercial products and/or providers of commercial services discussed in this CME activity.

I do not intend to discuss an unapproved/investigative use of a commercial product/device in my presentation.

I have not used artificial intelligence in the development of this presentation.



Objectives

- At the conclusion of this activity, learners will be able to:
 - Explain the importance of blood lead testing.
 - Identify patients who need a blood lead test.
 - Apply CDC's guidelines for follow-up testing.
 - Implement blood lead test reporting of all blood lead test results.





Sources of Lead

- Lead in the home
 - Paint, soil, drinking water, foods and medicines













Sources of Lead

- Lead in consumer products
- Jobs and hobbies with exposures

















Effects of Lead in Children

- Low levels of lead
 - Learning and behavior problems
- High levels of lead
 - Neurological symptoms
 - Chelation for BLLs of ≥ 45 µg/dL







Targeting High-Risk Populations

- Children who...
- Pregnant and breastfeeding women who...





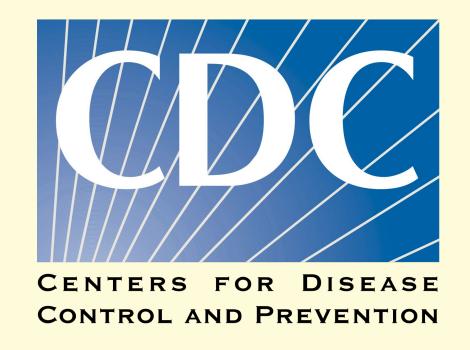






CDC Guidelines

- Test children living in highrisk areas at ages 1 and 2
- Test all children at increased risk







CDC Guidelines: Recommended Schedule for Obtaining a Confirmatory Venous Sample

Blood Lead Level (μg/dL)	Time to Confirmation Testing
≥3.5-9	Within 3 months
10-19	Within 1 month
20-44	Within 2 weeks
≥45	Within 48 hours





CDC Guidelines: Schedule for FollowUp Blood Lead Testing

Venous blood lead levels (µg/dL)	Early follow up testing (2-4 tests after initial test above specific venous BLLs)	Later follow up testing after BLL declining
≥3.5-9	3 months	6-9 months
10-19	1-3 months	3-6 months
20-44	2 weeks-1 month	1-3 months
≥45	As soon as possible	As soon as possible





Our Program

- Team members
- Mission
- Vision
- CDC Grant







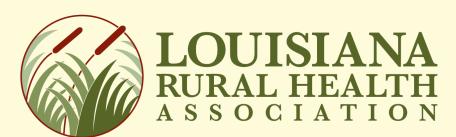




Program Services

- Surveillance
- Case management
- Outreach









Testing and Reporting

- State laws govern our program
- Reporting to our program
 - Fax or electronic laboratory reporting (ELR)







State of Louisiana

Louisiana Department of Health Office of Public Health

Louisiana Childhood Lead Poisoning Prevention Program (LCLPPP) Lead Case Reporting Form

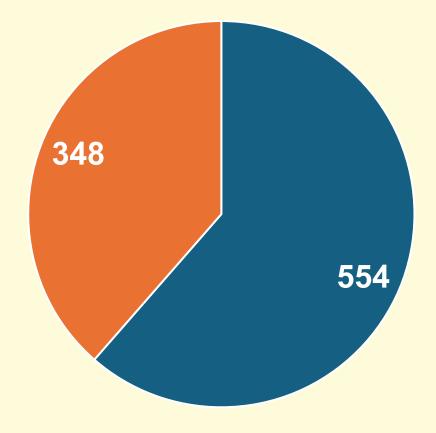
Copies of the following form can be used to report lead results. As stated in the Louisiana Childhood Lead Poisoning Prevention Program Rule (LAC 48:V.7001-7007), please provide all of the following information. Please print all information, use separate forms for each patient and fax the completed form to 225-242-0496.

PATIENT INFORMATION			
1 LOST NAME.	2. FIRST:3. MI:		
	9. ETHNICITY:		
PARENT'S OR GUARDIAN'S INFORMATION			
10. PARENT'S OR GUARDIAN'S FULL NAME:			
11. MOTHER'S FULL NAME:	12. PHONE NUMBER:		
13. ADDRESS:			
14. CITY:	15. STATE: 16. ZIP:		
17. PARISH/COUNTY:			
BLOOD LEAD INFORMATION			
18. BLOOD LEAD RESULT:			
20. CIRCLE ONE: CAPILLARY VENOUS	CIRCLE ONE: FIRST ANNUAL REPEAT		
21. NEXT SCHEDULED BLOOD LEAD TEST DATE:			
REPORTING PROVIDER OR LABORATORY INFORMATION			
22. PROVIDER/LAB NAME:			
24. ADDRESS:			
	26. STATE:27. ZIP:		
28. PARISH/COUNTY:			
	30. FAX:		



Preliminary Data

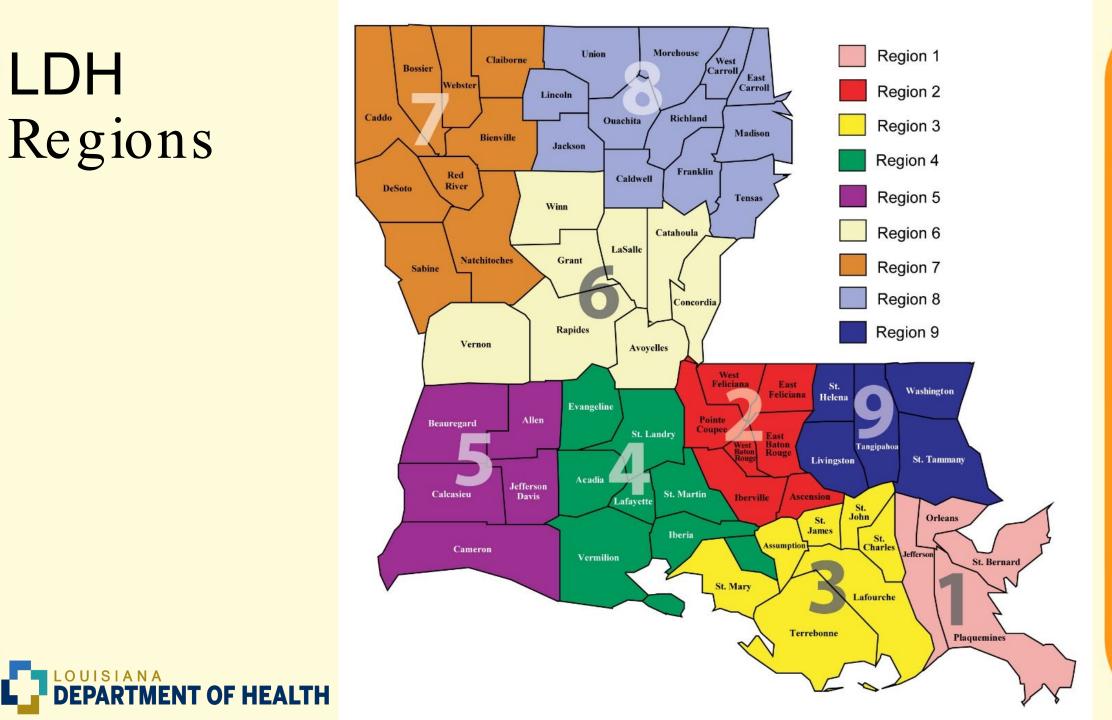
Number of Children with Confirmed BLLs at or above BLRV June 2023 – May 2024





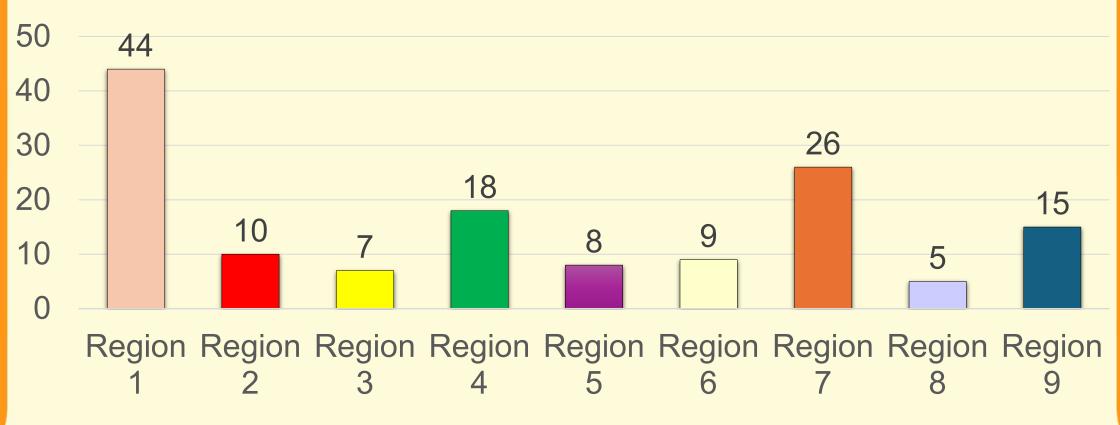


LDH Regions



Preliminary Data

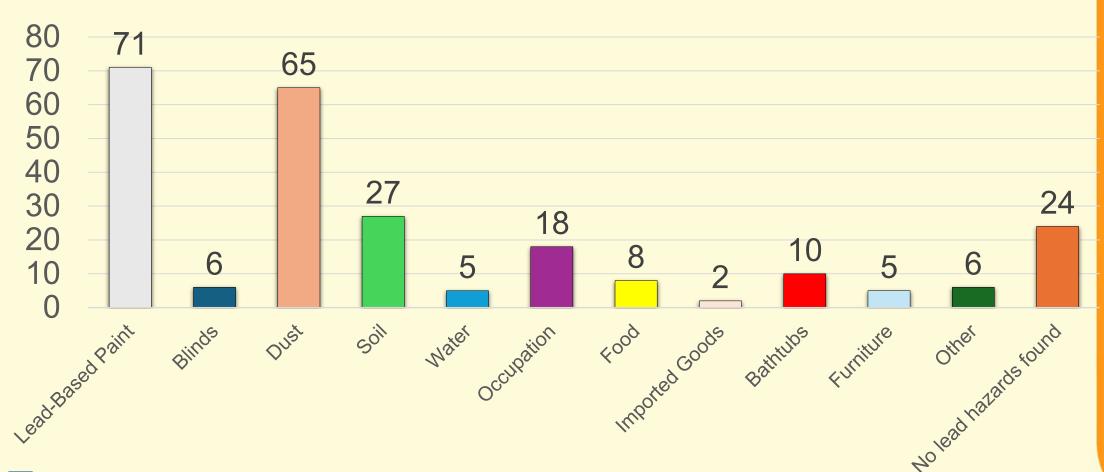
Number of Environmental Investigations Completed by Region June 2023 – May 2024





Preliminary Data

Number of Cases by Exposure Source Found in Environmental Investigations June 2023 – May 2024





WanaBana Cases

• Total number of cases: 22

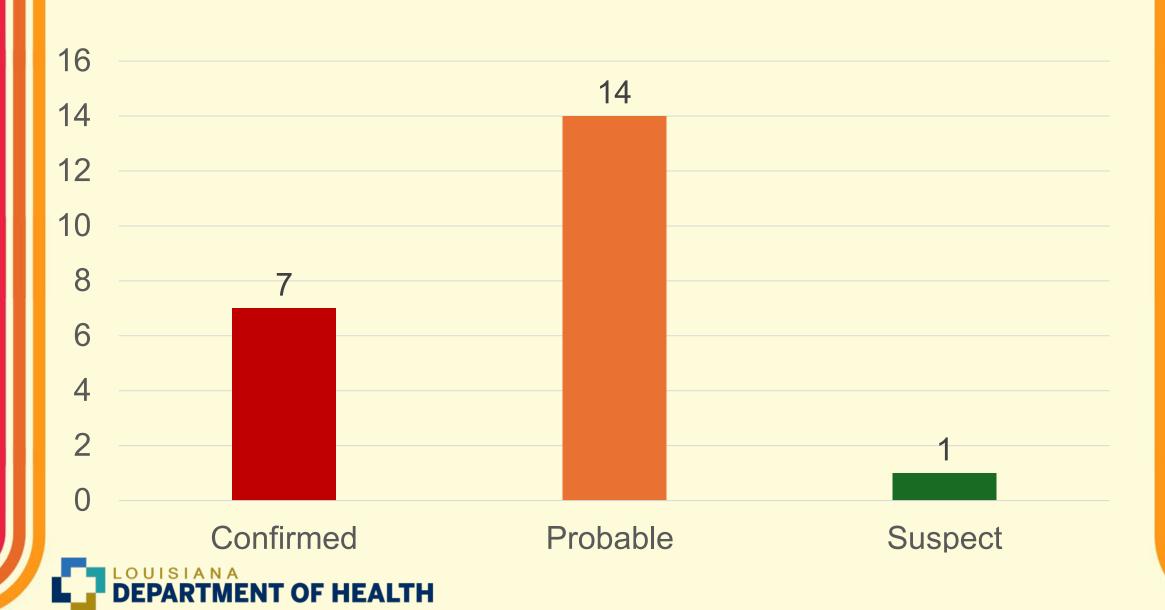
• Age range: 10 months – 2 years

• **BLL range**: 3.7 – 11.5 μg/dL (venous)

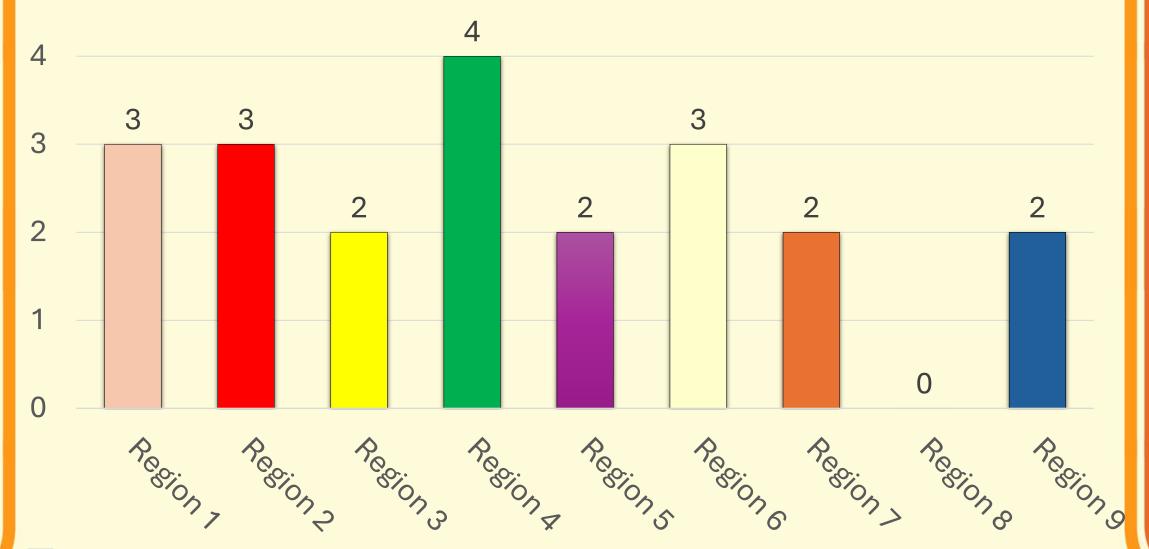




WanaBana Cases by Case Definition



WanaBana Cases by Region





MOC Questions in Slido (3 slides)

Chapter staff will add these slides to your presentation





Action Items

- Screening
- Testing
- Reporting







References

- Agency for Toxic Substances and Disease Registry. (2023, May 24). Lead (PB) toxicity: What is the biological fate of lead in the body? Environmental Health and Medicine Education. https://www.atsdr.cdc.gov/csem/leadtoxicity/biologic_fate.html Centers for Disease Control and Prevention. (2006, March 23). Death of a child after ingestion of a metallic charm --- Minnesota, 2006. Morbidity and Mortality Weekly Report. https://www.cdc.gov/mmwr/preview/mmwrhtml/mm55d323a1.htm
- Centers for Disease Control and Prevention. (2024, April 3). *About lead in soil*. Childhood Lead Poisoning Prevention. https://www.cdc.gov/lead-prevention/prevention/soil.html
- Centers for Disease Control and Prevention. (2024, April 10). *About lead in drinking water*. Childhood Lead Poisoning Prevention. https://www.cdc.gov/lead-prevention/prevention/drinking-water.html
- Centers for Disease Control and Prevention. (2024, April 10). *Lead exposure symptoms and complications*. Childhood Lead Poisoning Prevention. https://www.cdc.gov/lead-prevention/symptoms-complications/index.html
- Centers for Disease Control and Prevention. (2024, April 10). *People at increased risk for childhood lead poisoning*. Childhood Lead Poisoning Prevention. https://www.cdc.gov/lead-prevention/risk-factors/index.html
- Centers for Disease Control and Prevention. (2024, April 16). *About lead in consumer products*. Childhood Lead Poisoning Prevention. https://www.cdc.gov/lead-prevention/prevention/prevention/prevention/consumer-products.html
- Centers for Disease Control and Prevention. (2024, April 16). *Testing for lead poisoning in children*. Childhood Lead Poisoning Prevention. https://www.cdc.gov/lead-prevention/testing/index.html
- Centers for Disease Control and Prevention. (2024, April 17). Lead and chromium poisoning outbreak linked to cinnamon applesauce pouches. Childhood Lead Poisoning Prevention. https://www.fda.gov/food/outbreaks-foodborne-illness/investigation-elevated-lead-chromium-levels-cinnamon-applesauce-pouches-november-2023
- Centers for Disease Control and Prevention. (2024, April 17). Recommended actions based on blood lead level. Childhoo Poisoning Prevention. https://www.cdc.gov/lead-prevention/hcp/clinical-guidance/index.html



References

- Centers for Disease Control and Prevention. (2024, June 13). *About lead in foods, cosmetics, and medicines*. Childhood Lead Poisoning Prevention. https://www.cdc.gov/lead-prevention/prevention/foods-cosmetics-medicines.html
- Centers for Disease Control and Prevention. (2024, June 13). About lead in jobs, hobbies, or other activities. Childhood Lead Poisoning Prevention. https://www.cdc.gov/lead-prevention/prevention/prevention/jobs-hobbies-activities.html
- Centers for Disease Control and Prevention. (2024, July 8). Are you pregnant? Childhood Lead Poisoning Prevention. https://www.cdc.gov/lead-prevention/communication-resources/are-you-pregnant.html
- Department of Public Health. (2024, April 11). *Alert Hemorrhoid Ointment from Vietnam*. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHIB/Pages/EIS/Alert-Hemorrhoid-Ointment-from-Vietnam.aspx
- Food and Drug Administration. (2024, June 20). *Investigation of elevated lead & chromium levels: Cinnamon applesauce pouches*. FDA. https://www.fda.gov/food/outbreaks-foodborne-illness/investigation-elevated-lead-chromium-levels-cinnamon-applesauce-pouches-november-2023
- Louisiana Administrative Code 48:V.7005, 7007, 7009 (2000 & rev. 2008). https://www.doa.la.gov/media/52pfpizc/48v2.pdf
- Louisiana Administrative Code 51:IV.101-111. (2002). ttps://ldh.la.gov/assets/oph/Center-PHCH/C
- Louisiana Revised Statute 40:1285.1 1285.10 (2018). https://www.legis.la.gov/legis/Laws Toc.aspx?folder=114&title=40
- Organization of Teratology Information Specialists (OTIS). (2023, April 1). Lead. Mother to Baby | Fact Sheets NCBI Bookshelf. https://www.ncbi.nlm.nih.gov/books/NBK582785/
- Sample, J. A. (2024, July 1). *UpToDate* (M. M. Burns, S. M. Misra, & Wiley II, Eds.). UpToDate. https://www.uptodate.com/contents/childhood-lead-poisoning-management?csi=21574c75-709b-4590-b2bc-a5cc4a47cdaf&source=contentShare





Contact Information

TOLL-FREE: 888-293-7020

FAX: 225-242-0496

EMAIL: Leadinfo@la.gov

Idh.la.gov/lead-poisoning-prevention



