ANNUAL SURVEILLANCE SYSTEM REPORT

Louisiana Healthy Homes and Childhood Lead Poisoning Prevention Program (LHHCLPPP)

2017

Louisiana Department of Health | Office of Public Health | Bureau of Family Health

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LOUISIANA DEPARTMENT OF HEALTH

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Executive Summary

The purpose of the Louisiana Healthy Homes and Childhood Lead Poisoning Prevention Program (referred to as the Lead Prevention Program throughout this report) is to eliminate childhood lead poisoning in Louisiana by preventing lead poisoning and managing elevated blood lead levels (BLLs) in children.

Since 2008, the Louisiana Administrative Code 48:V§ 7005 requires blood lead testing for all children 6 months to 6 years of age who spend more than 10 hours a week in Louisiana. It is recommended by the American Academy of Pediatrics (AAP) that children get screened at age 1 and again at age 2. There is no legislative mandate to enforce lead testing at this time, so many providers do not perform it. Because of this, provider education, outreach, and training are the main strategies for increasing rates of lead testing. Data on BLLs is collected, analyzed, and distributed to the Centers for Disease Control and Prevention (CDC) and the public via reports such as this.

While rates of lead exposure and lead poisoning have decreased over the years among those tested, there is still a lot of work to be done. Current rates of testing in Louisiana for children in this age group are less than 15%, despite the fact that BLL tests are covered by Medicaid and most private health insurance companies. The CDC's standard for state leading testing is 25% rather than 100% due to the fact that not all children ages 6 months to 6 years of age are expected to receive testing every year.

Highlights from 2017

- Of the 433,439 children ages 6 months to 6 years (72 months) in Louisiana, 14.8% (64,020) were screened for elevated BLLs. This was a slight increase from 2016, when 14.7% were screened, but a decrease since 2015 when 18.5% were screened. This rate is lower than both the national average of 17%, and the CDC's standard measure of lead testing (25%).
- Most children received a lead screening when they were 1-2 years old; 35.6% (22,557) of 1-year-olds and 28.9% (18,215) of 2-year-olds were tested for lead poisoning among the total population of children 1 year of age (63,362) and 2 years of age (63,031).
- While there has been a slight increase in the rate of children tested in 2017 compared to 2016, there has been a 0.7 decrease in percentage points of children found with elevated BLLs (5-9.9 µg/dL) and a 0.3 decrease in the percentage points of those with an extra elevated BLL (≥10 µg/dL).
- Of the 64,020 children tested for lead poisoning statewide, 1,577 (2.5%) children had an elevated BLL (5-9.9 µg/dL), and 631(1%) were found to have an extra elevated BLL (≥10 µg/dL).
- All 2,208 cases that required case management and follow-up screening received it.
- Lead screening rates varied greatly by parish with rates ranging from 2.1% to 26.5%.
- The parishes with the highest rates of screening were Claiborne (26.5%), East Carroll (24.1%), De Soto (22.4%), Orleans (21.4%), and Washington (20.5%).
- Concordia Parish had the highest cumulative testing rate for children at 1 year and 2 years of age at 57.6%.
- BLL reports were received from 98 establishments (laboratories, clinics, medical offices and hospital labs).
- Average reporting time, from the time the sample was drawn to the time results were entered into the Lead Poisoning Surveillance System database, was 14 days. The average time for reporting elevated BLL ≥10 µg/dL was approximately 48 hours.

Overview

Lead is a heavy metal commonly found in the environment that can be inhaled, ingested, or absorbed into the skin and cause harm to the human body. Exposure to lead is a significant and widespread environmental hazard for children in Louisiana. It is most dangerous to infants and toddlers because it can harm their developing brains. Children under age 2 are particularly susceptible to lead poisoning due to their hand-mouth behaviors and increasing mobility.[1] Because lead poisoning often presents without any symptoms, it is important for all children to get tested to determine if they are being exposed to lead. Following identification, it is important to find the source of lead and remove as much of it as possible.

The Centers for Disease Control and Prevention (CDC) has found that even a low blood lead level (BLL) can cause lifelong health effects. Up until 2012, 10 micrograms of lead per deciliter of blood (µg/dL) was used to indicate that a child's BLL was of concern. Since then, research has shown that cognitive and behavioral issues can occur in children with BLLs greater than or equal to 5 µg/dL, making it the new reference number to identify children who have been exposed to lead and require case management [1]. Now that the indicator is lower, more children will likely be identified as having been exposed to lead. Chelation therapy is the recommended medical treatment to help lower BLLs in severe cases of lead poisoning (BLL greater than 45 µg/dL). This treatment is an oral medication that binds with lead in the body so that it is excreted in urine.

The Lead Prevention Program has released an annual report on statewide childhood blood lead testing since 2000. The report includes blood lead data by age, jurisdiction, blood lead levels, and trends over time. These results are shared with other state agencies including Environmental Epidemiology, Bureau of Nutrition Services, Department of Education, and local health departments. Additional data are available upon request to third parties for research.

Data Quality

In 2011, the Lead Prevention Program expanded its surveillance system to become a comprehensive, population-based system. The program successfully implemented and used the CDC-based Healthy Homes and Lead Poisoning Surveillance System (HHLPSS) to collect, compile, and track information about blood lead testing rates and lead hazards found among child residents of Louisiana. The Lead Program Surveillance System includes the collection of all blood lead tests conducted on children 6 months to 6 years of age, coordination of environmental investigations, and documentation of the source of lead poisoning for children with BLLs higher than 5 µg/dL.

All numbers in this report are based on blood lead testing (venous* or capillary** blood) on children 6 months to 6 years (72 months) of age from calendar year 2017, unless otherwise noted. The populations for ages 6 months to 1 year was estimated by counting half of all children in the 0-1 age group. The CDC's standard for state leading testing is 25% rather than 100% due to the fact that not all children ages 6 months to 6 years of age are expected to be tested every year. A child is counted only once for each year in which he or she is tested and has a confirmed elevated BLL. Once a child has had one confirmed elevated BLL if, in subsequent years, he or she has another elevated test result, that child is included in the counts showing the number of children with confirmed elevated BLLs for each year that child continues to have an elevated BLL test result.

Lead Prevention Program staff work to further improve data quality with respect to completeness, timeliness, and accuracy. Staff track reporting to assure labs are reporting all blood lead tests bi-weekly, and check the completeness of demographic data collected. Screening rates between parishes vary in both estimation and reliability. Parishes with higher screening rates had more stable and reliable estimates for the prevalence of elevated lead levels than those with lower screening rates or with very few children screened.

[1] *AAP COUNCIL ON ENVIRONMENTAL HEALTH. Prevention of Childhood Lead Toxicity. Pediatrics. 2016;138(1):e20161493*
**Venous: deoxygenated blood collected by a direct puncture of the vein*
***Capillary: a mixture of arterial and venous blood collected by a dermal puncture of the fingertip or heel*

Findings

Blood Lead Testing

The goal of the Lead Prevention Program is to identify children who may be at risk for lead exposure so that preventive actions can be implemented. Since 2008, Louisiana law requires blood lead testing for all children 6 months to 6 years of age who spend more than 10 hours a week in Louisiana. Because of their hand-mouth behavior, children ages 1 and 2 are most likely to be exposed to lead. The program strives to increase rates of screening for this population in particular.

Testing for Children Under Age 6

Of the 433,439 children ages 6 months to 6 years living in Louisiana in 2017, 14.8% (64,020) were screened for elevated blood lead levels (BLLs). This was a slight increase from 2016, when 14.7% were screened. Distribution across genders was equal. This rate is lower than both the national average of 17%, and the CDC's standard measure of lead testing. The CDC's standard for state leading testing is 25% rather than 100% due to the fact that not all children ages 6 months to 6 years of age are expected to receive testing every year. BLL screening rates for children under age 6 varied greatly across parishes with rates ranging from 26.5% to 2.1%. The highest screening rates were found in Claiborne (26.5%), East Carroll (24.1%), De Soto (22.4%), Orleans (21.4%), and Washington (20.5%) (Map 1).

Testing for Children Under Ages 1-2

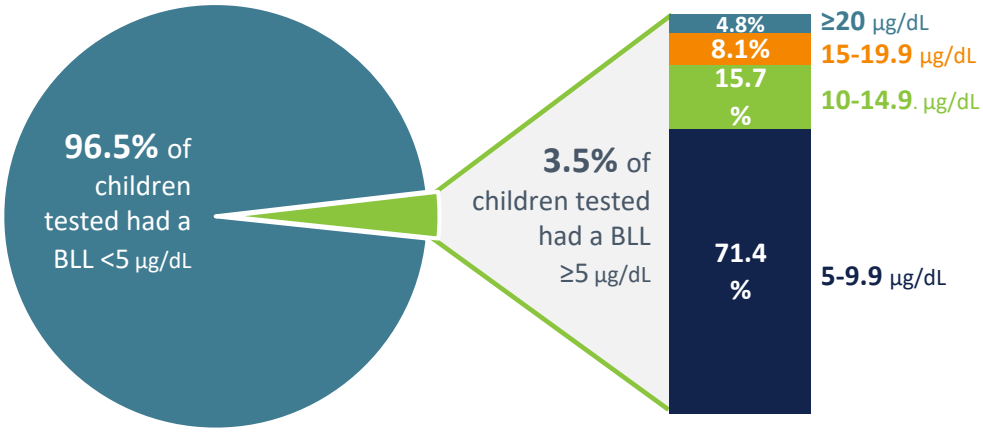
Of children tested for lead poisoning, 80% received testing when they were 1-2 years old. **35.6% of 1-year-olds, and 28.9% of 2-year-olds were tested for lead poisoning among total population of children 1 year of age (63,362) and 2 years of age (63,031)**. Parish specific testing rates for this age group were as high as 57.6%, in Concordia parish.

Barriers to Testing

Low rates can be partially explained by looking at key barriers to testing. Some of the most common barriers to receiving a lead screening before age 6 include:

- Physician and parent compliance
- Lack of education and awareness around lead poisoning, so people don't ask about testing
- Lack of follow-up testing after age 2
- Lead testing is not offered at all clinics

Blood Lead Levels



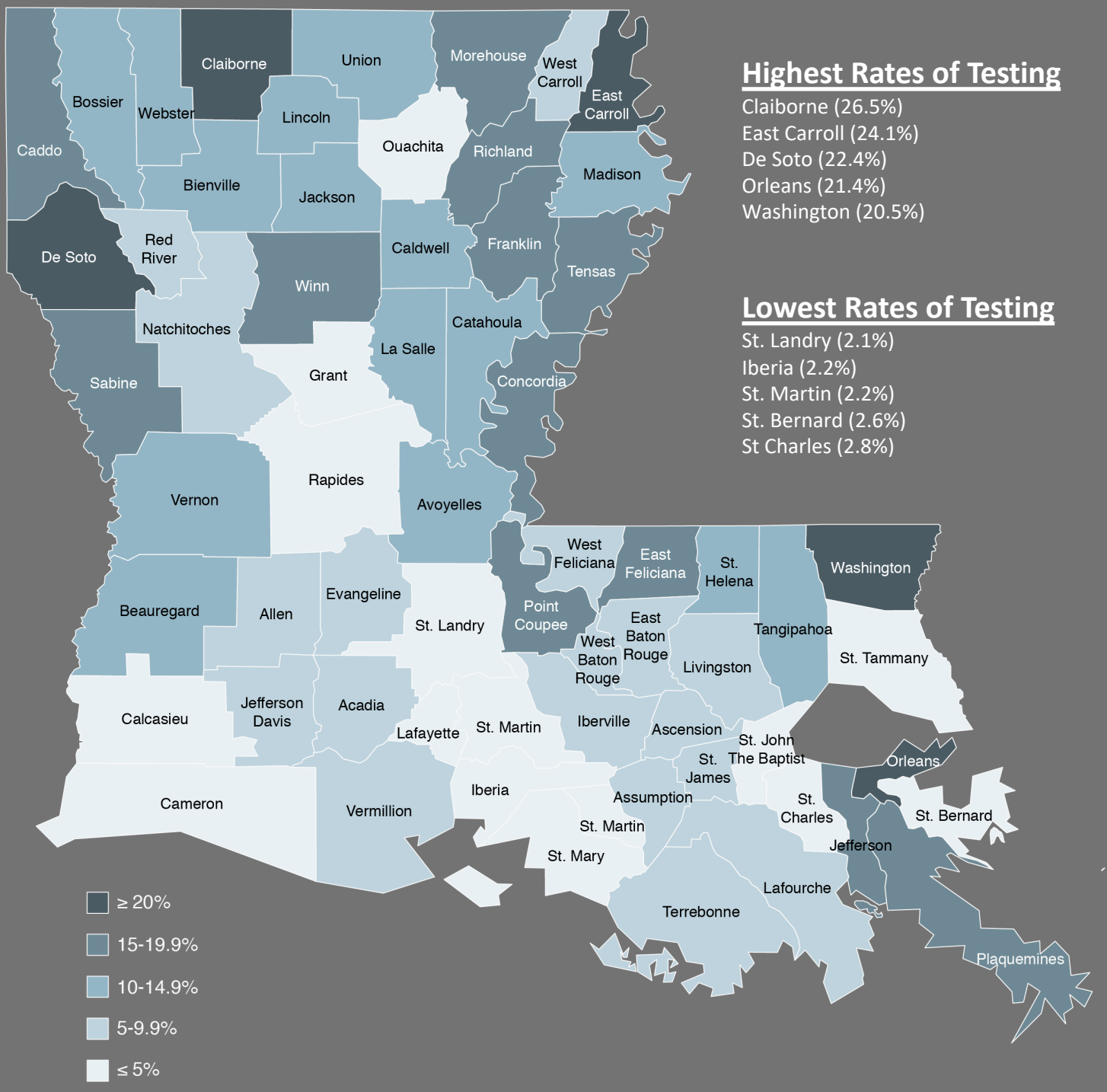
Of the 64,020 children tested in Louisiana, 3.5% (2,208) had a BLL greater than or equal to 5 µg/dL. Most of those children (71.4%) had a BLL less than 10 µg/dL, and 4.8% had a BLL greater than 20 µg/dL.

The mean BLL for all children tested was 1.97 µg/dL. Only 1% of the total population of children who received blood lead testing had a result greater than 10 µg/dL.

Map 1: Percent of Children Under Age 6 Tested for Lead Poisoning, 2017

(See Table 7 in the Appendix for more information)

The map below shows the geographic trends for the percentage of children tested for lead in Louisiana.



Highest Rates of Testing

Claiborne (26.5%)
East Carroll (24.1%)
De Soto (22.4%)
Orleans (21.4%)
Washington (20.5%)

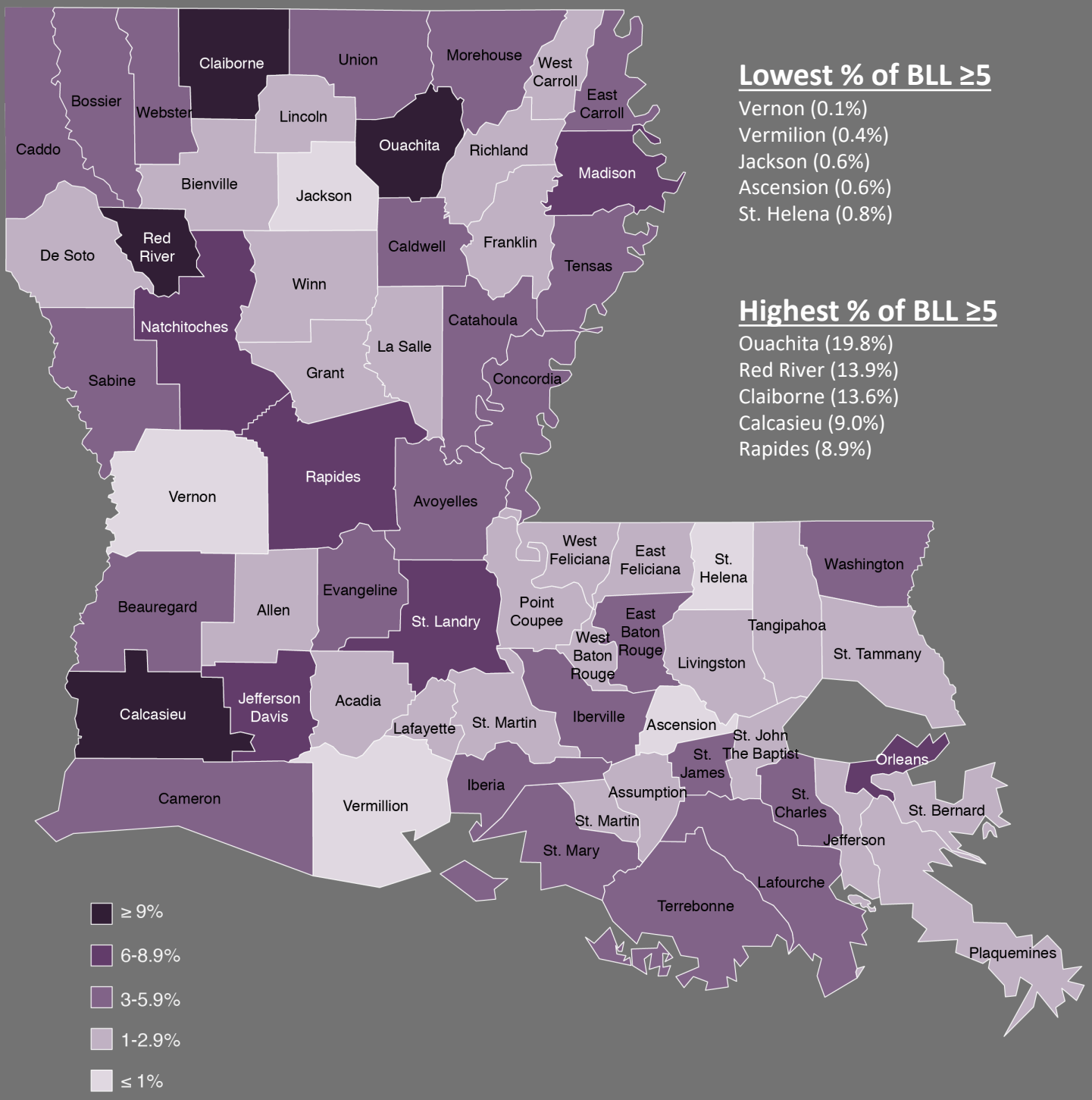
Lowest Rates of Testing

St. Landry (2.1%)
Iberia (2.2%)
St. Martin (2.2%)
St. Bernard (2.6%)
St Charles (2.8%)

Map 2: Percent of Children Under Age 6 With Elevated Blood Lead Levels (≥5 µg/dL), 2017

(See Table 8 in the Appendix for more information)

The map below shows the geographic trends for children with a BLL great than 5 µg/dL in Louisiana. Data for children with BLLs greater than 10 µg/dL showed similar trends. The highest percentage of children with BLL greater than 10 µg/dL were Claiborne (5.4%), Ouachita (4.2%), Iberville (2.6%), Natchitoches (2.6%), and Madison (2.4%).



Lowest % of BLL ≥5

Vernon (0.1%)
Vermilion (0.4%)
Jackson (0.6%)
Ascension (0.6%)
St. Helena (0.8%)

Highest % of BLL ≥5

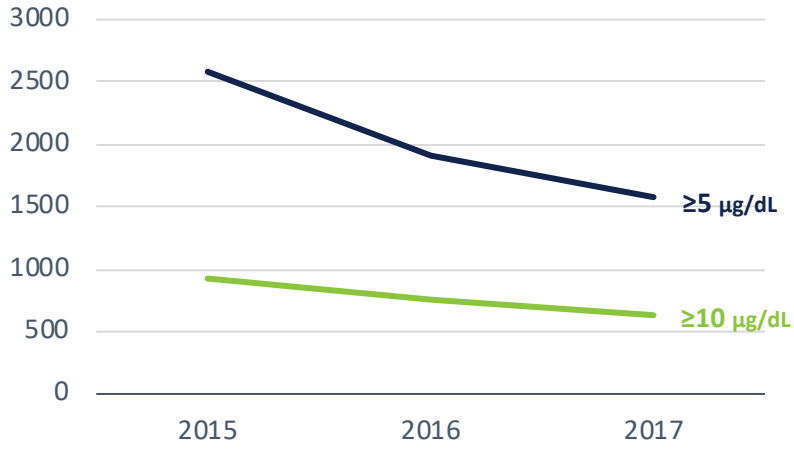
Ouachita (19.8%)
Red River (13.9%)
Claiborne (13.6%)
Calcasieu (9.0%)
Rapides (8.9%)

Trends Over Time

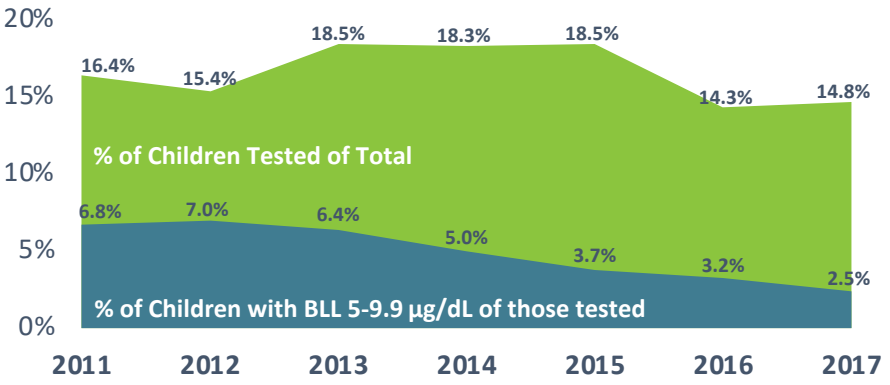
The graph on the right shows changes in the number of children with elevated BLLs in Louisiana over 3 years. The most significant change can be seen in the children with a BLL greater than or equal to 5 µg/dL. This drop represents a 38.8% decrease in the number of children with an elevated BLL over the 3 years.

The rate for children with a BLL between 5-9.9 decreased by 1.2. R percentage point,rates for children with BLLs between 10-14.9 decreased by 0.3percentage point, and those above 15 µg/dL stayed relatively level over the 3-year period. The percent of children with a BLL less than 5 µg/dL hovered around 95% from 2015-2017.

Louisiana saw a 38.8% decrease in the number of children with a BLL ≥5 µg/dL from 2015 to 2017



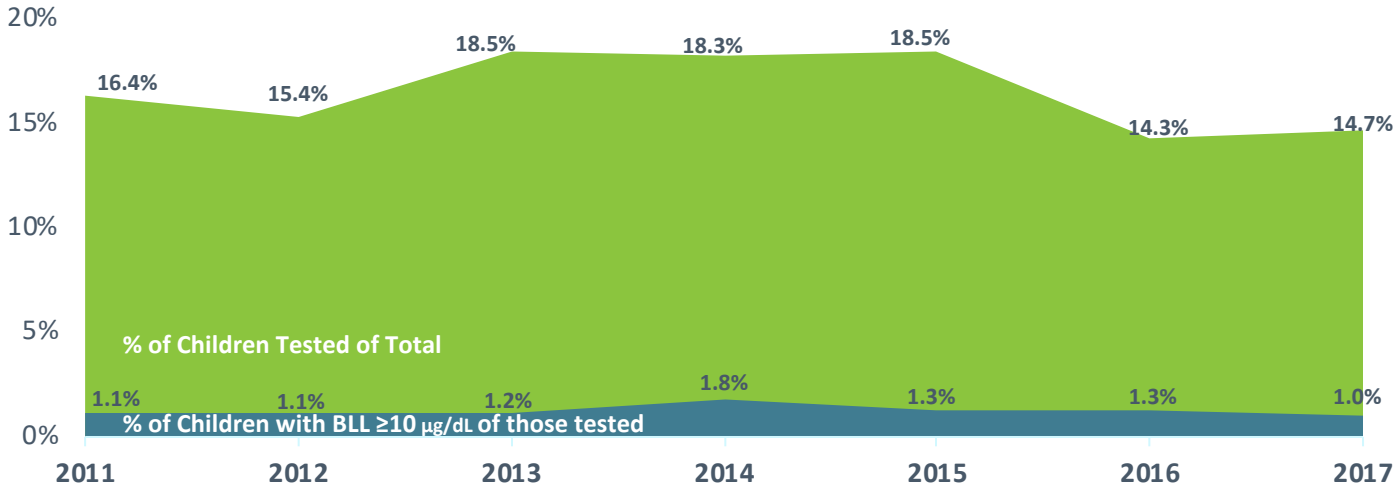
There has been a decrease in the overall proportion of children with elevated BLLs, 2011-2017



The graph to the left shows the percentages of children with a BLL between 5-9.9 µg/dL of the total percent of children tested. There has been a decrease in the overall proportion of children found with elevated BLLs. Rates have decreased by 4.3 percentage points since 2011.

The graph below shows the percent of children found to have a BLL greater than or equal to 10 µg/dL of all children tested since 2011. Both the number and proportion of children with BLLs greater than or equal to 10 µg/dL decreased in 2017. Rates went from 1.3% in 2016 to 1% in 2017 and have decreased by 0.7 percentage points since 2014.

Percent of children tested and found to have a BLL greater than or equal to 10 µg/dL, 2011-2017



Healthy Louisiana/Medicaid-Eligible Children

Lead testing for children under age 6 is required and covered by Medicaid and the Children's Health Insurance Program (CHIP). The Louisiana Early Periodic Screening and Diagnostic Testing (EPSDT) Periodicity Schedule provides guidelines for the timing and frequency of various health and developmental screenings, measurements, and assessments, and indicates which screenings require follow up in the event of a positive result. Follow up and treatment for lead are required in the event of a positive screen. The EPSDT schedule outlines requirements for lead assessment and blood lead screening in keeping with the Louisiana public health rule LAC 48:V. 7005-7009 and the Medicaid Professional Services Manual, "Public Health Surveillance Mandates" section. More information of the EPSDT Periodicity Schedule can be found on the Louisiana Medicaid website.

Medicaid requirements regarding screening for lead are:

- Administer a risk assessment questionnaire at every well child visit.
- Use a blood test to screen all children at 1 year of age and 2 years of age, or at any time from 3 years of age to 6 years of age, if they have not been previously screened.
- Use a venous blood sample to confirm results when finger stick samples indicate blood lead levels greater than or equal to 15ug/dl.
- Medical providers must report a positive lead case (BLL results greater than or equal to 5 µg/dL) to the Lead Prevention Program within 24 working hours.

As the patient population ages, the overall rate of children who have been screened at least once will increase, as is expected. The table below shows the summary of 2017 lead screening among Medicaid-eligible children under age 6.

Table 1: Lead Screening in Medicaid Eligible Population 0-6 Years of Age, 2017[1]

Age	Medicaid-Eligible Children Tested	Medicaid-Eligible Total Population	Percent of Medicaid Population Tested
<1	281	43,110	0.7%
1	20,579	45,973	44.8%
2	17,435	46,366	37.6%
3	7,957	45,303	17.6%
4	5,607	44,244	12.7%
5	2,818	43,910	6.4%
Total	**54,677**	**268,906**	**20.3%**

[1]Medicaid data analysis obtained from the Office of Public Health, Bureau of Health Informatics

Key data points and trends:

- In 2017, 20% of children under age 6 in the Medicaid population were screened for lead poisoning.
- It is clear that the yearly screening rate decreases among eligible patients after a child turns 2.
- When cumulative lead screening history is considered, the rate of children who have ever been tested increase as patient age increases. When looking at data tracked over a 6 year period, **approximately 70% of the Medicaid population received a lead screening at least once by age 6**.

Statewide Activities to Eliminate Lead Poisoning

The Lead Prevention Program recognizes the need to increase screening rates in order to identify children with or at risk for lead poisoning and eliminate the sources of lead from their homes. Along with creating materials to raise awareness about the importance of lead testing, the program focuses their efforts on the following activities to address lead poisoning in children.

1. Testing at WIC Clinics

Pilot testing to increase lead screening rates by testing in WIC clinics began in Orleans Parish on October 1, 2014. The program has since expanded testing in WIC clinics to other areas of Region 1 (Jefferson, Orleans, Plaquemines and St. Bernard parishes), and is working with other regions in Louisiana to make it a statewide strategy. Children who are certified to receive WIC services currently have testing done to check their iron levels. Because lead and iron testing are both blood tests, the pilot aims to get providers to perform both tests at the same time.

All participating WIC site staff were trained when the pilot began. Follow-up training is provided when new staff are hired or when retraining is requested. Training includes background information on lead poisoning, an explanation of the importance of screening children, and a demonstration on how to set up and perform the test using the lead screening kit. Lead screening kits are provided to WIC sites though Tamarac Lab free of charge.

Clinics report their progress on a quarterly basis and follow-up with the Lead Prevention Program epidemiologist to review data. Approximately 82% of the 49 children screened in WIC clinics in 2017 were receiving testing for the first time. Six children needed to be retested, and 17 had a result of quality not sufficient (QNS). Despite training and education, pilot clinics testing rates were low. The program will continue to work with clinics to decrease barriers to testing and increase rates. Regional outreach specialists will be hired using CDC funds to train WIC staff on how to test for lead and to educate parents on the importance of lead screening. The program also has a contract with the Louisiana State University Ag Center to provide educational trainings and outreach on the importance of lead testing. The Lead Prevention Program will monitor the data to determine the impact of this activity.

Table 2: Blood Lead Testing in WIC clinics, 2017

Clinic name	Total	1year	2years	3years	>=4years	QNS	Retest
Children's Medical Center Gretna WIC	**2**	2	0	0	0	1	0
Crescent City WIC Services	**0**	0	0	0	0	0	0
Daughters of Charity Carrollton	**20**	20	0	0	0	14	0
Daughters of Charity St. Cecilia	**6**	5	1	0	0	2	1
Ida Hymel WIC Clinic	**0**	0	0	0	0	0	0
Jefferson Parish Marrero Health Unit	**0**	0	0	0	0	0	0
Jefferson Parish Metairie Health Unit	**9**	9	7	0	0	0	2
New Orleans East Family Health	**0**	0	0	0	0	0	0
St. Bernard WIC Clinic	**0**	0	0	0	0	0	0
St. Charles Community Health Center	**1**	1	0	0	0	0	0
Edna Pilsbury WIC Clinic	**9**	7	2	0	0	0	3
Children's Medical Center WIC Clinic Westwego	**2**	2	0	0	0	0	0
TOTAL	**49**	**46**	**10**	**0**	**0**	**17**	**6**

2. Case Management:

The Lead Prevention Program provides case management services for children with elevated BLLs. Case management services ensure proper follow-up testing and help families lessen the effects of lead exposure and reduce lead hazards in their homes. All 2,209 cases that required follow-up in 2017 received it.

Medical providers and laboratories are required to report all BLL test results to the Lead Prevention Program, regardless of the result, within 24 business hours. BLLs of 5 µg/dL or greater should be reported immediately. Medical providers are required to submit the Lead Case Reporting Form and the Request for Environmental Lead Investigation Form (both forms can be found in the Appendix).

In 2017, the Lead Prevention Program received blood lead reports from 98 entities (laboratories, clinics, medical offices and hospital labs). About 90% of reports (from 82 entities) were received electronically, and the remaining 10% of reports (from 16 entities) were received via fax or mail. The average reporting time – from the time the sample was drawn to the time the results were entered into the Lead Poisoning Surveillance System database – was about 14 days. The average time for reporting elevated BLLs greater than or equal to 10 µg/dL was approximately 48 hours.

All capillary BLL results greater than or equal to 5 µg/dL should be confirmed with a venous blood test. All children under the age of 6 with a lead level of greater than or equal to 5 µg/dL (venous and capillary) receive case management and resources from the Lead Prevention Program. The table below shows the recommended medical follow-up based on BLLs as well as the number of cases that received follow-up in 2017. The Lead Prevention Program follows-up on all confirmed cases by providing:

- Follow-up BLL monitoring
- An environmental investigation to identify lead sources in the home and property
- Lead education and nutrition counseling for families

In addition, any child with a confirmed BLL greater than or equal to 45 µg/dL also receives a referral for developmental screening. Children with severe elevated BLLs (greater than or equal to 45 µg/dL) are at an increased risk of experiencing developmental delays.

Table 3: Management for Follow-Up Blood Lead Testing, 2017

Blood Lead Level µg/dL	Medical Follow-Up	Number of Cases Receiving Follow-up
5-9.9	Venous test within 3 months until result is <5 µg/dL	1,577
10-14.9	Venous test every 3 months until result is <5 µg/dL	346
15-19.9	Venous test every 2 months until result is <5 µg/dL	179
20-44.9	Venous test every month until result is <5 µg/dL, hemoglobin lab work, treat low iron levels	99
45-69.9	Venous test every month until result is <5 µg/dL, chelation therapy, hemoglobin lab work, treat low iron levels	6
≥70	Venous test every month until result is <5 µg/dL, chelation therapy, hemoglobin lab work, treat low iron levels	1
	Total	2,208

3. Environmental Investigations & Abatement

Any child with a venous BLL test result greater than or equal to 5 µg/dL qualifies to receive an environmental investigation to identify the source of lead in the home or other places the child frequents. The Lead Prevention Program will contact families of children who had an elevated blood level to offer the environmental investigation free of charge. If a family wants to have their home inspected, a Certified Lead Risk Assessor is contacted to inspect the property and complete a report. They will perform a full lead and healthy homes inspection, which includes dust, soil, and water sampling, as well as paint analysis to identify lead hazards. The Risk Assessor also inspects the home for other health hazards such as mold and asbestos.

The table below reflects the number of homes assessed and the sources of lead that were found. Families can decline, which explains why the number of investigations is lower than the number of referrals. Lead may have been found in multiple sources per investigation. The major sources of lead exposure are:

- Lead-based paint, especially in homes built before 1978
- Dust and soil
- Less common items include fishing sinkers, fishing weights, bullets, pottery, spices, and cosmetics

Table 4: Sources of Lead Based on Environmental Investigations, 2012-2017

	2012	2013	2014	2015	2016	2017	Totals
Number of Referrals	23	18	21	48	71	125	**306**
Number of Investigations	13	13	12	37	46	58	**179**
Paint	13	9	12	30	19	40	**123**
Dust	9	6	7	25	22	31	**100**
Soil	9	9	6	13	13	14	**64**
Other*	0	1	0	0	4	5	**10**
No Lead Found	9	7	5	10	12	13	**56**

*Sources in “Other” include fish sinkers, fishing weights, bullets, pottery, spices, turmeric powder, and cosmetics.

The Lead Prevention Program collaborates with the Department of Housing and Urban Development (HUD) to offer lead abatement services in the home at no cost to homeowners, landlords, and tenants who qualify. To receive these services, an application is completed by the occupant and/or homeowner and approved by the Lead Prevention Program. Qualifications for lead abatement require residents to:

- Own or reside in a privately owned home that was built before 1978
- Reside in one of the 17 target parishes (Beauregard, Caddo, Caldwell, Catahoula, Claiborne, Concordia, De Soto, East Carroll, East Feliciana, Jefferson Davis, Morehouse, Orleans, Plaquemines, St. Mary, Tensas, West Carroll, or Winn)
- Have a lead-based paint hazard(s) identified in the home
- Income eligible: 80% of HUD's FY2017 Area Median Income (AMI) limits or below

Once the home has been identified as having lead hazards and the enrollment process is complete, a lead abatement contractor is hired by the program to perform the Lead and Healthy Homes Control Work and remove the sources of lead.

Appendix

Table 5: Number and Percent of Children Tested Age 6 Months to 6 Years Old, 2017
N=433,439

Item	Number of tests	Percent of total population
Total number of tests	64,020	14.8%
Age		
Under 1 Year	1,902	3%
1 Year	29,653	46.3%
2 Years	21,564	33.7%
3 Years	7,203	11.3%
4 Years	6,400	10.0%
5 Years	2,573	3.9%
6 Years	216	0.2%
Gender		
Female	30,482	47.6%
Male	31,233	48.8%
Unknown	2,305	3.6%

Table 6: Blood Lead Levels of Children Tested Age 6 Months to 6 Years Old, 2017
N=433,439

Item	Number of tests	Percent of total population
Total number of tests	64,020	14.8%
Blood Lead Level µg/dL		
<5	61,812	96.6%
5-9.9	1,577	2.5%
10-14.9	346	0.5%
15-19.9	179	0.3%
≥20	106	0.2%
Mean BLL	1.97	
Blood Specimens		
Capillary	34,224	53.5%
Venous	2,122	3.3%
Unknown	27,668	43.2%

Table 7: Lead Screening Rates by Region/Parish, 2017

Parish	Population of Children 6 and under[1]	Total Tested (n)	Total tested (%)
REGION 1	**77,839**	**14,008**	**18%**
Jefferson	38,279	6,536	17.1%
Orleans	32,423	6,938	21.4%
Plaquemines	2,258	408	18.1%
St. Bernard	4,879	126	2.6%
REGION 2	**61,438**	**5,775**	**9.4%**
Ascension	11,966	1,121	9.4%
E. Baton Rouge	40,264	3,615	9%
East Feliciana	1,366	229	16.8%
Iberville	2,757	229	8.3%
Pointe Coupee	1,979	303	15.3%
West Baton Rouge	2,363	207	8.8%
West Feliciana	743	71	9.6%
REGION 3	**38,412**	**2,089**	**5.4%**
Assumption	1,906	145	7.6%
Lafourche	8,927	701	7.9%
St. Charles	4,825	134	2.8%
St. James	1,877	165	8.8%
St. John the Baptist	4,145	173	4.2%
St. Mary	5,037	169	3.4%
Terrebonne	11,695	602	5.1%
REGION 4	**60,201**	**2,365**	**3.9%**
Acadia	6,616	544	8.2%
Evangeline	3,358	248	7.4%
Iberia	7,592	169	2.2%
Lafayette	22,525	629	2.8%
St. Landry	8,850	182	2.1%
St. Martin	5,258	118	2.2%
Vermilion	6,002	475	7.9%
REGION 5	**28,007**	**1,815**	**6.5%**
Allen	2,284	196	8.6%
Beauregard	3,330	447	13.4%
Calcasieu	18,945	886	4.7%
Cameron	546	26	4.8%
Jefferson Davis	2,902	260	9%
REGION 6	**29,185**	**2,525**	**8.7%**
Avoyelles	3,150	444	14.1%
Catahoula	859	86	10%
Concordia	1,891	367	19.4%
Grant	1,933	68	3.5%
La Salle	1,255	151	12%

Parish	Population of Children 6 and under[1]	Total Tested (n)	Total tested (%)
Rapides	12,535	484	3.9%
Vernon	6,240	721	11.6%
Winn	1,322	204	15.4%
REGION 7	**52,232**	**7,596**	**14.5%**
Bienville	1,142	117	10.2%
Bossier	12,538	1,597	12.7%
Caddo	24,705	3,806	15.4%
Claiborne	1,196	317	26.5%
De Soto	2,602	583	22.4%
Natchitoches	3,518	348	9.9%
Red River	843	79	9.4%
Sabine	2,156	333	15.4%
Webster	3,532	416	11.8%
REGION 8	**33,546**	**3,044**	**9.1%**
Caldwell	861	89	10.3%
East Carroll	543	131	24.1%
Franklin	2,111	371	17.6%
Jackson	1,383	176	12.7%
Lincoln	3,769	434	11.5%
Madison	1,174	167	14.2%
Morehouse	2,702	435	16.1%
Ouachita	15,629	530	3.4%
Richland	1,951	330	16.9%
Tensas	480	79	16.5%
Union	1,972	234	11.9%
West Carroll	971	68	7%
REGION 9	**52,579**	**4,436**	**8.4%**
Livingston	13,364	1,255	9.4%
St. Helena	950	120	12.6%
St. Tammany	21,517	756	3.5%
Tangipahoa	12,583	1,453	11.5%
Washington	4,165	852	20.5%

Table 8: Lead Screening and Elevated Blood Lead Level Rates by Region, 2017

REGION 1: New Orleans Area

Testing Rates

# of children tested / population of children: 14,008 / 77,839 = 18% tested

Blood Lead Levels (BLLs)

BLL (µg/dL)	# of children
5-9.9	425
10-14.9	109
15-19.9	46
≥20	21

4.3% (601) of tested pop **BLL ≥5**

1.3% (176) of tested pop **BLL ≥10**

REGION 2: Baton Rouge Area

Testing Rates

# of children tested / population of children: 5,775 / 61,438 = 9.4% tested

Blood Lead Levels (BLLs)

BLL (µg/dL)	# of children
5-9.9	166
10-14.9	35
15-19.9	15
≥20	11

3.9% (227) of tested pop **BLL ≥5**

1.1% (61) of tested pop **BLL ≥10**

REGION 3: Houma Area

Testing Rates

# of children tested / population of children: 2,089 / 38,412 = 5.4% tested

Blood Lead Levels (BLLs)

BLL (µg/dL)	# of children
5-9.9	47
10-14.9	13
15-19.9	5
≥20	3

3.3% (68) of tested pop **BLL ≥5**

1.0% (21) of tested pop **BLL ≥10**

REGION 4: Lafayette Area

Testing Rates

# of children tested / population of children: 2,365 / 60,201 = 3.9% tested

Blood Lead Levels (BLLs)

BLL (µg/dL)	# of children
5-9.9	50
10-14.9	9
15-19.9	2
≥20	2

2.7% (63) of tested pop **BLL ≥5**

0.6% (14) of tested pop **BLL ≥10**

Table 8: Lead Screening and Elevated Blood Lead Level Rates by Region, 2017 (continued)

REGION 5: Lake Charles Area

Testing Rates

# of children tested / population of children: 1,815 / 28,007 = 6.5% tested

Blood Lead Levels (BLLs)

BLL (µg/dL)	# of children
5-9.9	94
10-14.9	11
15-19.9	7
≥20	6

6.5% (118) of tested pop BLL ≥5

1.3% (24) of tested pop BLL ≥10

REGION 6: Alexandria Area

Testing Rates

# of children tested / population of children: 2,525 / 29,185 = 8.7% tested

Blood Lead Levels (BLLs)

BLL (µg/dL)	# of children
5-9.9	67
10-14.9	14
15-19.9	5
≥20	4

3.6% (90) of tested pop BLL ≥5

0.9% (23) of tested pop BLL ≥10

REGION 7: Shreveport Area

Testing Rates

# of children tested / population of children: 7,596 / 52,232 = 14.5% tested

Blood Lead Levels (BLLs)

BLL (µg/dL)	# of children
5-9.9	273
10-14.9	48
15-19.9	15
≥20	9

4.5% (345) of tested pop BLL ≥5

0.9% (72) of tested pop BLL ≥10

REGION 8: Monroe Area

Testing Rates

# of children tested / population of children: 3,044 / 33,546 = 9.1% tested

Blood Lead Levels (BLLs)

BLL (µg/dL)	# of children
5-9.9	136
10-14.9	29
15-19.9	7
≥20	6

5.8% (178) of tested pop BLL ≥5

1.4% (42) of tested pop BLL ≥10

Table 8: Lead Screening and Elevated Blood Lead Level Rates by Region, 2017 (continued)

REGION 9: Hammond/Slidell Area

Testing Rates

of children tested / population of children = **4,436 / 52,579** = **8.4%** tested

Blood Lead Levels (BLLs)

BLL (µg/dL)	# of children
5-9.9	79
10-14.9	18
15-19.9	7
≥20	7

2.5% **(111)** of tested pop **BLL ≥5**

0.7% **(32)** of tested pop **BLL ≥10**

Table 9: Blood Lead Testing of Children One and Two Years Old by Parish, 2017

Parish	1 Year Old			2 Years Old			Total 1 and 2 Years Old		
	Children Population	Children Tested		Children Population	Children Tested		Children Population	Children Tested	
		Number	Percent		Number	Percent		Number	Percent
REGION 1									
Jefferson	5,755	2,834	49.2%	5,590	1,914	34.2%	1,1345	4,748	41.9%
Orleans	5,091	2,431	47.8%	4,945	1,815	36.7%	10,036	4,246	42.3%
Plaquemines	429	164	38.2%	417	180	43.2%	846	344	40.7%
St Bernard	761	39	5.1%	739	26	3.5%	1,500	65	4.3%
REGION 2									
Ascension	1,864	575	30.8%	1,810	202	11.2%	3,674	777	21.1%
East Baton Rouge	6,007	1,216	20.2%	5,834	987	16.9%	11,841	2,203	18.6%
East Feliciana	263	89	33.8%	255	66	25.9%	518	155	29.9%
Iberville	379	65	17.2%	368	37	10.1%	747	102	13.7%
Pointe Coupee	284	74	26.1%	276	85	30.8%	560	159	28.4%
West Baton Rouge	351	65	18.5%	341	29	8.5%	692	94	13.6%
West Feliciana	125	29	23.2%	122	20	16.4%	247	49	19.8%
REGION 3									
Assumption	238	47	19.7%	231	26	11.3%	469	73	15.6%
Lafourche	1,303	366	28.1%	1,265	145	11.5%	2,568	511	19.9%
St. Charles	666	49	7.4%	647	33	5.1%	1,313	82	6.2%
St. James	309	12	3.9%	300	18	6.0%	609	30	4.9%
St. John the Baptist	577	22	3.8%	560	10	1.8%	1,137	32	2.8%
St. Mary	790	20	2.5%	767	13	1.7%	1,557	33	2.1%
Terrebonne	1,757	316	18.0%	1,707	144	8.4%	3,464	460	13.3%
REGION 4									
Acadia	1,084	236	21.8%	1,053	150	14.2%	2,137	386	18.1%
Evangeline	560	110	19.6%	544	92	16.9%	1,104	202	18.3%
Iberia	1,100	81	7.4%	1,068	44	4.1%	2,168	125	5.8%
Lafayette	3,521	315	8.9%	3,419	190	5.6%	6,940	505	7.3%
St. Landry	1,438	87	6.1%	1,397	47	3.4%	2,835	134	4.7%
St. Martin	802	10	1.2%	779	9	1.2%	1,581	19	1.2%
Vermilion	911	220	24.1%	884	159	18.0%	1,795	379	21.1%
REGION 5									
Allen	291	63	21.6%	283	36	12.7%	574	99	17.2%
Beauregard	503	84	16.7%	488	56	11.5%	991	140	14.1%
Calcasieu	3,020	228	7.5%	2,934	153	5.2%	5,954	381	6.4%
Cameron	61	16	26.2%	60	10	16.7%	121	26	21.5%
Jefferson Davis	464	84	18.1%	450	86	19.1%	914	170	18.6%

Table 9: Blood Lead Testing of Children One and Two Years Old by Parish, 2017 (continued)

Parish	1 Year Old			2 Years Old			Total 1 and 2 Years Old		
	Children Population	Children Tested		Children Population	Children Tested		Children Population	Children Tested	
		Number	Percent		Number	Percent		Number	Percent
REGION 6									
Avoyelles	599	164	27.4%	582	131	22.5%	1,181	295	25.0%
Catahoula	120	31	25.8%	116	19	16.4%	236	50	21.2%
Concordia	219	170	77.6%	213	79	37.1%	432	249	57.6%
Grant	248	58	23.4%	241	41	17.0%	489	99	20.2%
LaSalle	194	68	35.1%	189	41	21.7%	383	109	28.5%
Rapides	2,056	171	8.3%	1,997	163	8.2%	4,053	334	8.2%
Vernon	1,078	29	2.7%	1,047	32	3.1%	2,125	61	2.9%
Winn	167	69	41.3%	162	50	30.9%	329	119	36.2%
REGION 7									
Bienville	196	66	33.7%	190	33	17.4%	386	99	25.6%
Bossier	1,920	645	33.6%	1,865	523	28.0%	3,785	1,168	30.9%
Caddo	4,108	1,552	37.8%	3,990	1,090	27.3%	8,098	2,642	32.6%
Claiborne	206	107	51.9%	200	115	57.5%	406	222	54.7%
De Soto	413	255	61.7%	401	164	40.9%	814	419	51.5%
Natchitoches	589	163	27.7%	572	103	18.0%	1,161	266	22.9%
Red River	138	40	29.0%	134	29	21.6%	272	69	25.4%
Sabine	364	148	40.7%	354	91	25.7%	718	239	33.3%
Webster	611	190	31.1%	593	153	25.8%	1,204	343	28.5%
REGION 8									
Caldwell	56	28	50.0%	55	24	43.6%	111	52	46.8%
East Carroll	76	18	23.7%	74	12	16.2%	150	30	20.0%
Franklin	289	153	52.9%	280	119	42.5%	569	272	47.8%
Jackson	201	80	39.8%	195	55	28.2%	396	135	34.1%
Lincoln	626	212	33.9%	608	95	15.6%	1,234	307	24.9%
Madison	214	70	32.7%	208	24	11.5%	422	94	22.3%
Morehouse	365	160	43.8%	354	81	22.9%	719	241	33.5%
Ouachita	2,464	215	8.7%	2,393	155	6.5%	4,857	370	7.6%
Richland	319	132	41.4%	310	63	20.3%	629	195	31.0%
Tensas	65	19	29.2%	63	15	23.8%	128	34	26.6%
Union	286	104	36.4%	278	64	23.0%	564	168	29.8%
West Carroll	149	38	25.5%	144	26	18.1%	293	64	21.8%
REGION 9									
Livingston	2,176	522	24.0%	2,114	260	12.3%	4,290	782	18.2%
St. Helena	117	18	15.4%	113	12	10.6%	230	30	13.0%
St. Tammany	3,099	330	10.6%	3,010	150	5.0%	6,109	480	7.9%
Tangipahoa	2,358	1,124	47.7%	1,621	887	54.7%	3,979	2,011	50.5%
Washington	700	358	51.1%	680	212	31.2%	1,380	570	41.3%

Table 10: Blood Lead Levels of Children 6 Month to 6 Years by Major Age Group and High Risk Parishes*, 2017

*Parishes are identified as high risk based on % of children with elevated BLLs, low % of screening rates, and high % of houses built before 1978.

State Target Parishes	Population		Total Tests	Percent Tests	BLL 5-9.9 µg/dL		BLLs ≥10 µg/dL	
					Number	Percent	Number	Percent
Louisiana	Under 2 years old	16,9401	50,035	29.5%	1,202	2.4%	548	1.1%
	3 years and older	26,4038	13,985	5.3%	375	2.7%	83	0.6%
Avoyelles	Under 2 years old	1,343	295	22.0%	9	3.1%	2	0.7%
	3 years and older	1,807	149	8.2%	5	3.4%	2	1.3%
Bossier	Under 2 years old	6,176	1,168	18.9%	21	1.8%	9	0.8%
	3 years and older	6,362	428	6.7%	16	3.7%	4	0.9%
Caddo	Under 2 years old	9,498	2,642	27.8%	81	3.1%	15	0.6%
	3 years and older	15,207	1164	7.7%	66	5.7%	7	0.6%
Claiborne	Under 2 years old	511	222	43.4%	15	6.8%	10	4.5%
	3 years and older	685	95	13.9%	11	11.6%	7	7.4%
Iberville	Under 2 years old	1,049	132	12.6%	2	1.5%	5	3.8%
	3 years and older	1,708	97	5.7%	1	1.0%	1	1.0%
Jefferson Davis	Under 2 years old	1,147	168	14.6%	13	7.7%	2	1.2%
	3 years and older	1,755	92	5.2%	3	3.3%	0	0.0%
Lafourche	Under 2 years old	3,342	511	15.3%	11	2.2%	6	1.2%
	3 years and older	5,585	190	3.4%	6	3.2%	2	1.1%
Orleans	Under 2 years old	13,401	4,246	31.7%	189	4.5%	74	1.7%
	3 years and older	19,022	2,692	14.2%	106	3.9%	54	2.0%
Ouachita	Under 2 years old	6,976	370	5.3%	39	10.5%	15	4.1%
	3 years and older	8,653	160	1.8%	24	15.0%	7	4.4%
St. Martin	Under 2 years old	1,798	77	4.3%	1	1.3%	1	1.3%
	3 years and older	3,460	41	1.2%	1	2.4%	0	0.0%
St. Mary	Under 2 years old	1,890	115	6.1%	5	4.3%	0	0.0%
	3 years and older	3,148	54	1.7%	1	1.9%	1	1.9%
Tensas	Under 2 years old	155	43	27.7%	1	2.3%	0	0.0%
	3 years and older	325	36	11.1%	1	2.8%	1	2.8%
Terrebonne	Under 2 years old	4,939	460	9.3%	11	2.4%	3	0.7%
	3 years and older	6,756	142	2.1%	4	2.8%	2	1.4%
Webster	Under 2 years old	1,469	343	23.3%	5	1.5%	4	1.2%
	3 years and older	2,063	73	3.5%	6	8.2%	3	4.1%
Winn	Under 2 years old	523	119	22.8%	3	2.5%	2	1.7%
	3 years and older	799	85	10.6%	0	0.0%	0	0.0%

John Bel Edwards
GOVERNOR

Dr. Courtney N. Phillips
SECRETARY

State of Louisiana

Louisiana Department of Health
Office of Public Health

Louisiana Healthy Homes and Childhood Lead Poisoning Prevention Program (LHHCLPPP)

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 (504) 568-8253.

PATIENT INFORMATION

1. LAST NAME:_____ **2**. FIRST:_____ **3.** MI:_____
4. SSN:_____ **5.** MEDICAID NUMBER (if any):_____
6. DATE OF BIRTH:_____ **7.** SEX: FEMALE MALE
8. RACE: Black White Other_____ **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 AND LAB INFORMATION

18. BLOOD LEAD RESULT:_____ **19.** DATE COLLECTED: _____
20. Please circle one: CAPILLARY VENOUS
21. Please circle one: FIRST ANNUAL REPEAT
22. LAB NAME: _____

REPORTING PROVIDER INFORMATION

23. PROVIDER NAME:_____
24. CONTACT PERSON:_____
25. ADDRESS:_____
26. CITY:_____ **27.** STATE:_____ **28.** ZIP:_____
29. PARISH/COUNTY:_____
30. TELEPHONE:_____ **31.** FAX:_____

LOUISIANA HEALTHY HOMES and CHILDHOOD LEAD POISONING PREVENTION PROGRAM
1450 Poydras Street Suite 2046 ▪ New Orleans, Louisiana 70112
Phone #: 504/568-8254 ▪ Fax #: 504/568-8253 ▪ *WWW.DHH.LA.GOV*
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Dr. Courtney N. Phillips
SECRETARY

State of Louisiana

Louisiana Department of Health

Office of Public Health

Louisiana Healthy Homes and Childhood Lead Poisoning Prevention Program (LHHCLPPP)

REQUEST FOR ENVIRONMENTAL LEAD INVESTIGATION

Please fill out Parts I, II, & III completely. Complete Part IV if residence is rental. The information is necessary for a proper investigation to be arranged, to complete documents needed for Medicaid reimbursement, and for a thorough inspection to help identify the source of lead poisoning. **FAX this form to 504-568-8253**

I. REQUESTER INFORMATION

Date of Request:_____ Requested by: _____ Telephone:_____

Provider Name:_____ Fax:_____

Address:_____City:_____State:____Zip:_____Parish:_____

II. PATIENT INFORMATION

Name: _____ Birth Date: _____ Sex: ____ Race: _____

Social Security No.:_____ Medicaid No.: _____

Home Address: _____ (P.O. Box not acceptable) Rent___ Own___

City: _____ Zip Code: _____ Phone: _____

Parent/Guardian Name: _____ Work Phone: _____

Other residence where patient spends time:

Occupant Name: _____ Phone: _____

Address: _____ City: _____ State: _____ Zip Code: _____

Owner/Agent Name: _____ Phone: _____

Address: _____ City: _____ State: _____ Zip Code: _____

III. PATIENT'S LEAD TEST HISTORY

Provide initial test date and result. Circle type, either venous (V) or capillary(C):

Initial Test Date: _____ Result: ____ug/dl Type: C or V

Provide most recent follow-up test dates and results. Circle type, either venous (V) or capillary (C):

Date: _____ Result: _____ ug/dl Type: C or V Date: _____ Result: _____ ug/dl Type: C or V

Date: _____ Result: _____ ug/dl Type: C or V Date: _____ Result: _____ ug/dl Type: C or V

Attach copies of laboratory reports for all results listed.

IV. RENTAL RESIDENCE INFORMATION

Owner/Agent Name: _____ Phone: _____

Address: _____ City: _____ State: _____ Zip Code: _____

Risk Assessor Information: