

Louisiana Healthy Homes and Lead Poisoning Prevention Program



Office of Public Health
2011 Annual Lead Report



Introduction

The surveillance component of the Louisiana Healthy Homes and Lead Poisoning Prevention Program, the Healthy Homes and Lead Poisoning Surveillance System, collects information about blood lead tests conducted on child residents of Louisiana between six months and six years of age. Data is collected from several private laboratories that conduct lead analysis for Louisiana children. The Healthy Homes and Lead Poisoning Surveillance System has as its primary goal the collection of all blood lead test results for children in the target age range in Louisiana. The data is compiled and analyzed to support outreach and prevention efforts, screening recommendations and resource allocation.

The Louisiana Healthy Homes and Lead Poisoning Surveillance System's 2011 report presents screening and prevalence of elevated lead levels for state and parishes using data collected from several private laboratories.

This report presents surveillance data for children in Louisiana who had blood lead tests during 2011. Records were included in this analysis if the child was between six months and six years of age, and the record contained residential information indicating the child lived in Louisiana at the time of the test. All addresses were geocoded and county Federal Information Processing Standard (FIPS) codes were assigned using Melissa data. Each child contributed only one lead result to the analysis. For children with multiple lead tests during 2011, the highest lead result was included in the final dataset. Both venous and capillary results are included. In the combined report, 3.4 percent of the samples were venous specimens, 75 percent were capillary specimens, and the specimen type was unknown for 21.6 percent.

Screening estimates were calculated as the number of children screened in an area divided by the population estimate of children six months to six years of age for the same area, obtained from the 2010 Census data. To determine the population of children aged six months to one year of age, the

Census population estimate of children under one year of age was divided in half for each Parish.

The combined dataset for 2011 consists of lead results for 57,278 children, representing an overall screening rate in Louisiana of 16.4 percent. In the dataset, 675 children were found to have an elevated blood lead level greater than 10 micrograms per deciliter ($\geq 10\mu\text{g}/\text{dl}$) of blood.

Screening rates between parishes vary. Parishes with higher screening rates and larger numbers of children screened have more stable estimates of the prevalence of elevated lead levels than those with lower screening rates, or those with very few children screened. Prevalence estimates of elevated lead levels for a parish in which 30 percent of the children were screened are much more reliable than rates for parishes in which only 2 percent of the children were screened. Similarly, an estimate of prevalence of elevated lead levels of 25 percent is much more stable if it represents 100 elevated results out of 400 children screened than if it represents two elevated results out of eight children screened. This issue should be kept in mind when reviewing or interpreting this information. The number of children screened and the screening rate for the parish should be considered when reviewing elevated lead level prevalence by parish.

State of Louisiana

Summary of Activity – 2010 and 2011 Data

	2010 Data	2011 Data
Population of children ⁱⁱⁱ 6 years of age and younger	349,222	349,621
Total children ⁱ screened	73,770	57,278
Proportion of children screened	21.1%	16.4%
Total children elevated ($\geq 10 \mu\text{g/dl}$ ⁱⁱ)	823	675

Characteristic of Childrenⁱ Screened – 2010 and 2011 Data

Characteristic		2010 data (n=73770)		2011 data (n=57278)	
Gender	Male	37,178	50.4%	29,326	51.2%
	Female	34,277	46.5%	26,806	46.8%
	Missing	2,315	3.1%	1,146	2%
Race	Black	14,145	19.2%	10,826	18.9%
	White	10,460	14.2%	7,675	13.4%
	Other	1,560	2.1%	1,890	3.3%
	Missing	47,605	64.5%	36,887	64.4%
Age (Months)	6 to 11	2,187	3.0%	1,823	3.2%
	12 to 35	51,394	69.7%	39,751	69.4%
	36 to 72	20,189	27.3%	15,704	27.4%

ⁱ Children six months to six years of age screened at the Private Labs in 2010 and 2011.

ⁱⁱ $\mu\text{g/dl}$ indicating Microgram per deciliter

ⁱⁱⁱ Population estimates of children six months to six years of age residing in the parish indicated are taken from 2010 American Census Data Summary of the Number of Children with Elevated Blood Lead Levels by Parish 2011 Data

Characteristic of Childrenⁱ with elevated Blood Lead levels – 2010 and 2011 Data

Characteristic		2010 data (n=823)				2011 data (n=675)			
		≥ 10 and <15 µg/dl	≥ 15 and <20 µg/dl	≥ 20 µg/dl	Total	≥ 10 and <15 µg/dl	≥ 15 and <20 µg/dl	≥ 20 µg/dl	Total
Gender	Male	189	187	95	471	212	137	55	404
	Female	201	70	64	335	149	69	37	255
	Missing	8	4	2	14	10	5	1	16
Race	Black	111	45	26	182	81	61	10	152
	White	45	17	16	77	38	21	4	63
	Other	9	1	8	18	10	12	8	30
	Missing	340	95	110	545	242	117	71	430
Age (Months)	6 to 11	5	2	4	11	4	4	1	9
	12 to 35	318	95	112	525	232	132	63	427
	36 to 72	182	61	44	287	135	75	29	239
Total		505	158	160	823	371	211	93	675

ⁱ Children six months to six years of age screened at the Private Labs in 2010 and 2011.

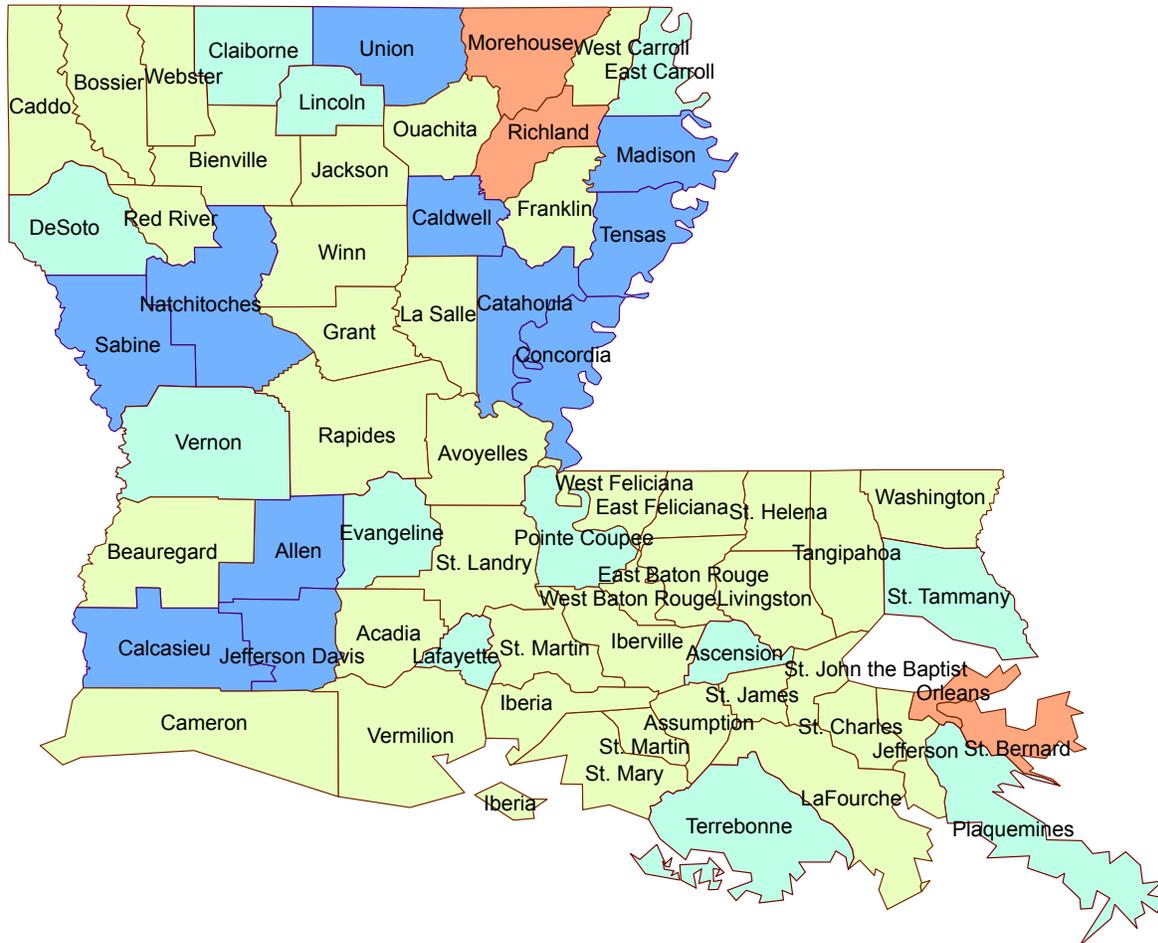
Summary of the Number of Children with Elevated Blood Lead Levels by Parish
2011 Data

Parish	Population of children 0-6 yr	2011 Data						Total elevated %
		Total Tested	Total test (%)	10-14.9	15-19.9	≥20	≥10	
				µg/dl				
Acadia	5,001	570	11.4%	4	3	3	10	1.8%
Allen	1,843	388	21.1%	1	1	0	2	0.5%
Ascension	8,261	562	6.8%	2	2	1	5	0.9%
Assumption	1,510	169	11.2%	1	0	0	1	0.6%
Avoyelles	3,350	473	14.1%	4	4	0	8	1.7%
Beauregard	2,811	312	11.1%	0	1	1	2	0.6%
Bienville	1,216	187	15.4%	1	1	0	2	1.1%
Bossier	9,084	994	10.9%	4	2	2	8	0.8%
Caddo	19,821	2,541	12.8%	11	7	1	19	0.7%
Calcasieu	14,523	3,091	21.3%	4	4	2	10	0.3%
Caldwell	751	160	21.3%	3	2	0	5	3.1%
Cameron	583	85	14.6%	1	1	0	2	2.4%
Catahoula	822	181	22.0%	2	1	0	3	1.7%
Claiborne	1,227	102	8.3%	4	2	0	6	5.9%
Concordia	1,786	382	21.4%	3	1	1	5	1.3%
DeSoto	1,934	175	9.0%	0	1	0	1	0.6%
East Baton Rouge	32,575	5,408	16.6%	29	14	11	54	1.0%
East Carroll	884	85	9.6%	1	1	0	2	2.4%
East Feliciana	1,436	196	13.6%	1	1	0	2	1.0%
Evangeline	3,763	225	6.0%	3	1	0	4	1.8%
Franklin	1,684	334	19.8%	4	4	1	9	2.7%
Grant	1,656	190	11.5%	2	1	2	5	2.6%
Iberia	6,058	624	10.3%	2	2	1	5	0.8%
Iberville	2,305	357	15.5%	4	2	2	8	2.2%
Jackson	1,167	146	12.5%	0	1	1	2	1.4%
Jefferson Davis	2,372	493	20.8%	5	4	2	11	2.2%
Jefferson	30,434	6,029	19.8%	20	12	10	42	0.7%
La Salle	1,017	141	13.9%	2	2	0	4	2.8%
Lafayette	16,413	1,608	9.8%	6	4	1	11	0.7%
Lafourche	6,435	1,088	16.9%	3	2	1	6	0.6%
Lincoln	2,964	274	9.2%	1	2	0	3	1.1%
Livingston	7,881	1,152	14.6%	4	3	1	8	0.7%
Madison	1,285	257	20.0%	1	0	0	1	0.4%

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Parish	Population of children 0-6 yr	2011 Data						Total elevated%
		Total Tested	Total test (%)	10-14.9	15-19.9	≥ 20	≥10	
				µg/dl				
Morehouse	2,080	717	34.5%	8	5	1	14	2.0%
Natchitoches	3,183	689	21.6%	1	2	0	3	0.4%
Orleans	16,797	5,879	35.0%	107	42	10	159	2.7%
Ouachita	12,102	2,143	17.7%	10	7	6	23	1.1%
Plaquemines	1,713	159	9.3%	2	1	0	3	1.9%
Pointe Coupee	1,635	121	7.4%	0	1	0	1	0.8%
Rapides	10,436	1,320	12.6%	10	8	4	22	1.7%
Red River	888	91	10.2%	2	1	0	3	3.3%
Richland	1,539	552	35.9%	5	2	0	7	1.3%
Sabine	1,815	445	24.5%	4	2	0	6	1.3%
St. Bernard	1,533	497	32.4%	3	2	0	5	1.0%
St. Charles	3,842	757	19.7%	1	3	0	4	0.5%
St. Helena	854	150	17.6%	2	1	0	3	2.0%
St. James	1,600	254	15.9%	3	2	0	7	2.8%
St. John the Baptist	3,853	638	16.6%	4	1	3	8	1.3%
St. Landry	7,787	1,278	16.4%	4	4	3	14	1.1%
St. Martin	4,034	473	11.7%	2	1	0	3	0.6%
St. Mary	4,127	709	17.2%	5	2	0	7	1.0%
St. Tammany	16,753	1,589	9.5%	6	4	2	12	0.8%
Tangipahoa	9,549	1,230	12.9%	7	5	1	13	1.1%
Tensas	527	117	22.2%	1	2	0	3	2.6%
Terrebonne	9,126	638	7.0%	4	1	1	6	0.9%
Union	1,647	335	20.3%	1	1	0	2	0.6%
Vermilion	4,186	749	17.9%	1	1	0	2	0.3%
Vernon	4,713	271	5.8%	2	2	0	4	1.5%
Washington	3,464	467	13.5%	3	3	0	6	1.3%
Webster	2,885	506	17.5%	3	0	1	4	0.8%
West Baton Rouge	1,675	199	11.9%	3	0	1	4	2.0%
West Carroll	897	168	18.7%	0	1	1	2	1.2%
West Feliciana	826	122	14.8%	1	0	0	2	1.6%
Winn	1,322	206	15.6%	0	1	0	1	0.5%

Distribution of Blood Lead Screened Rates by Parish 2011 Data



Distribution of Blood Lead Elevated Rates by Parish 2011 Data

