



*Louisiana Department of Health & Hospitals/Office of Public Health/Section of Environmental Epidemiology & Toxicology/
Occupational Health & Injury Surveillance Program*

The following tables summarize heavy metal laboratory results reported to Louisiana's Occupational Health & Injury Surveillance Program. Louisiana Law requires that healthcare providers, including clinical laboratories, report all laboratory tests for lead, mercury, cadmium, and arsenic. Test results above the action threshold are investigated to determine the source of exposure. The action threshold for each heavy metal is listed below each table. Detailed documents describing occupational and non-occupational exposure sources, toxicity and susceptible populations, medical monitoring guidelines and result standards are available at www.seet.dhh.la.gov.

For more information about the heavy metal surveillance program or this report, contact 504.568.8160 or oph.seetweb@la.gov.

Adult Blood Lead Laboratory Surveillance

	2007		2008		2009		2010		2011		Annual Average (2007-2011)	
	#	%	#	%	#	%	#	%	#	%	#	%
Number of tests received	5572		5453		5641		5932		6496		5819	
Number of patients tested	4458		4350		5007		5298		5502		4923	
Sex												
Male	3569	80%	3476	80%	3956	79%	4341	82%	4616	84%	3992	81%
Female	889	20%	874	20%	1051	21%	957	18%	886	16%	931	19%
Blood lead level (µg/dL)												
0 to < 10	4060	91%	3922	90%	4625	92%	4979	94%	5193	94%	4556	93%
10 to <25	228	5%	241	6%	246	5%	271	5%	250	5%	247	5%
25 to < 45	145	3%	158	4%	123	2%	43	1%	48	1%	103	2%
>45	25	1%	29	1%	13	0%	5	0.1%	11	0.2%	17	<1%

The blood lead action thresholds are based on the goals outlined in the CDC's "Healthy People 2010" for improving health and preventing and preventing illness and injury. The CDC aims to reduce blood lead levels of all exposed workers to < 25 µg/dL, with a long-term target of <10 µg/dL. The action level for women of childbearing age is 10 µg/dL.

Mercury Laboratory Surveillance

	2007		2008		2009		2010		2011		Annual Average 2007 - 2011	
	#	%	#	%	#	%	#	%	#	%	#	%
Number of tests received	1706		1898		2432		2571		1788		2079	
Number of patients tested	1410		1423		1998		2088		1519		1688	
Test Results: Adults (>=16 years)	1351	96%	1344	94%	1918	96%	2019	97%	1423	94%	1611	95%
URINE	815	60%	449	33%	541	28%	751	37%	369	26%	585	36%
≥35 µg/g creatinine-adjusted	36	4%	33	7%	0	0%	3	0%	1		18	3%
BLOOD	536	40%	895	67%	1377	72%	1268	63%	1054	74%	1026	64%
>10 µg/L	19	4%	21	2%	34	2%	27	2%	12		25	2%
Test Results: Child (< 16 years)	59	4%	79	6%	80	4%	69	3%	96	6%	77	5%
URINE	33	56%	17	22%	20	25%	18	26%	19	20%	21	28%
>10 µg/L	2	6%	0		0		0		0		1	2%
BLOOD	26	44%	62	78%	60	75%	51	74%	77	80%	55	72%
>10 µg/L	1	4%	1	2%	0	0%	1	2%	0		1	1%

Mercury blood and mercury urine action thresholds correspond to the biological exposure index (BEI) levels established by the American Conference of Industrial Hygienists for the evaluation of occupational exposures in workers. The mercury blood and urine action thresholds for children are the values recommended in CDC's Case Definitions for Chemical Poisoning.

Arsenic Laboratory Surveillance

	2007		2008		2009		2010		2011		Annual Average 2007-2011	
	#	%	#	%	#	%	#	%	#	%	#	%
Number of tests received	1512		1236		2301		2350		1597		1799	
Number of patients tested	990		906		1335		1463		1230		1185	
Test Results:												
URINE	525	53%	317	35%	405	30%	499	34%	413	34%	432	36%
≥35 µg/L (inorganic & methylated metabolites)	0		0		1		1		2	<1%	1	<1%
≥50 µg/g creatinine-adjusted (organic)	0		0		0		0		0		0	
BLOOD	465	47%	589	65%	930	70%	964	66%	817	66%	753	64%
≥70 µg/L	0		0		0		0		0		0	

The arsenic threshold for adults corresponds to the biological exposure index (BEI) level established by the American Conference of Industrial Hygienists for occupational exposures. The blood action level for adults and children corresponds to the value cited by CDC/ATSDR for use by primary care practitioners.

Cadmium Laboratory Surveillance

	2007		2008		2009		2010		2011		Annual Average 2007 - 2011	
	#	%	#	%	#	%	#	%	#	%	#	%
Number of tests received	445		648		1038		912		873		783	
Number of patients tested	288		451		577		615		619		510	
Test Results:												
URINE	159	55%	172	38%	173	30%	198	32%	172	28%	175	34%
≥3 µg/g creatinine-adjusted	0		0		0		1	1%	0		0	
BLOOD	129	45%	279	62%	404	70%	417	68%	447	72%	335	66%
≥5 µg/L	3	2%	1	<1%	1	<1%	0		0		1	<1%

The cadmium blood and urine action thresholds are based on requirements established by OSHA for medical surveillance of workers with occupational cadmium exposure.