



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

2009 Annual Report

Adult Blood Lead Levels in Texas

2009 Data Summary

In 2009, 30,675 blood lead reports were received for 27,906 individuals 15 years of age and older in Texas (Table 1). Of those, 29,892 (97.45%) were below 25 µg/dL, and 783 (2.55%) were above this level (Figure 1). The majority of individuals with blood lead levels greater or equal to 25 µg/dL were male (Table 2); 35 years of age or older (Table 3); and were exposed to lead at work (Table 4).

Race and ethnicity information is largely unknown. Among the 30,675 reports received in 2009, 86.41% had no race information (Table 5), and 80.33% had no ethnicity information (Table 6).

Occupational settings remain the predominant source of exposure for reported elevated (25 µg/dL or higher) blood levels in Texas. Industries with the highest number of reported elevated blood lead test results are primary metal manufacturing, computer and electronic product manufacturing, heavy and civil engineering construction, specialty trade contractors, fabricated metal product manufacturing, and chemical manufacturing (Figure 2).

Non-occupational exposures also occur. The most frequently reported sources of exposure in a non-occupational setting are shooting and/or reloading bullets, pica behavior, unspecified childhood exposure, imported canned goods, clay pottery and non-traditional home remedies (Table 7). Individuals may report more than one type of exposure at a time.

During 2009, follow-up activity was conducted for individuals with blood lead levels of 25 µg/dL or higher. Individuals were contacted via mail and/or telephone and provided educational information related to lead exposure and prevention methods. Additionally, healthcare providers and employers were often contacted. DSHS referred 9 employers to the Occupational Safety and Health Administration (OSHA) for investigations of worksites to reduce/eliminate the source of exposure to employees.

The ABLES program works closely with the Texas Childhood Lead Poisoning Prevention Program (TX CLPPP) when families are affected by lead poisoning. In 2009, ABLES and TX CLPPP combined resources to provide case management for several families with children and parents with elevated blood lead levels, and for adults with elevated blood lead levels with children in the home. Additionally, ABLES and TX CLPPP identified at least two pregnant women with elevated blood lead levels and provided educational outreach, case management and health care provider guidance.

Table 1. Reported blood lead tests for individuals 15 years of age and older in Texas, 2009

Number of reports	Number of individuals	Range of reported results	Mean blood lead level	Median blood lead level
30,675	27,906	0 - 122 µg/dL	3.48 µg/dL	2 µg/dL

Figure 1. Distribution of blood lead levels among individuals 15 years of age and older in Texas, 2009

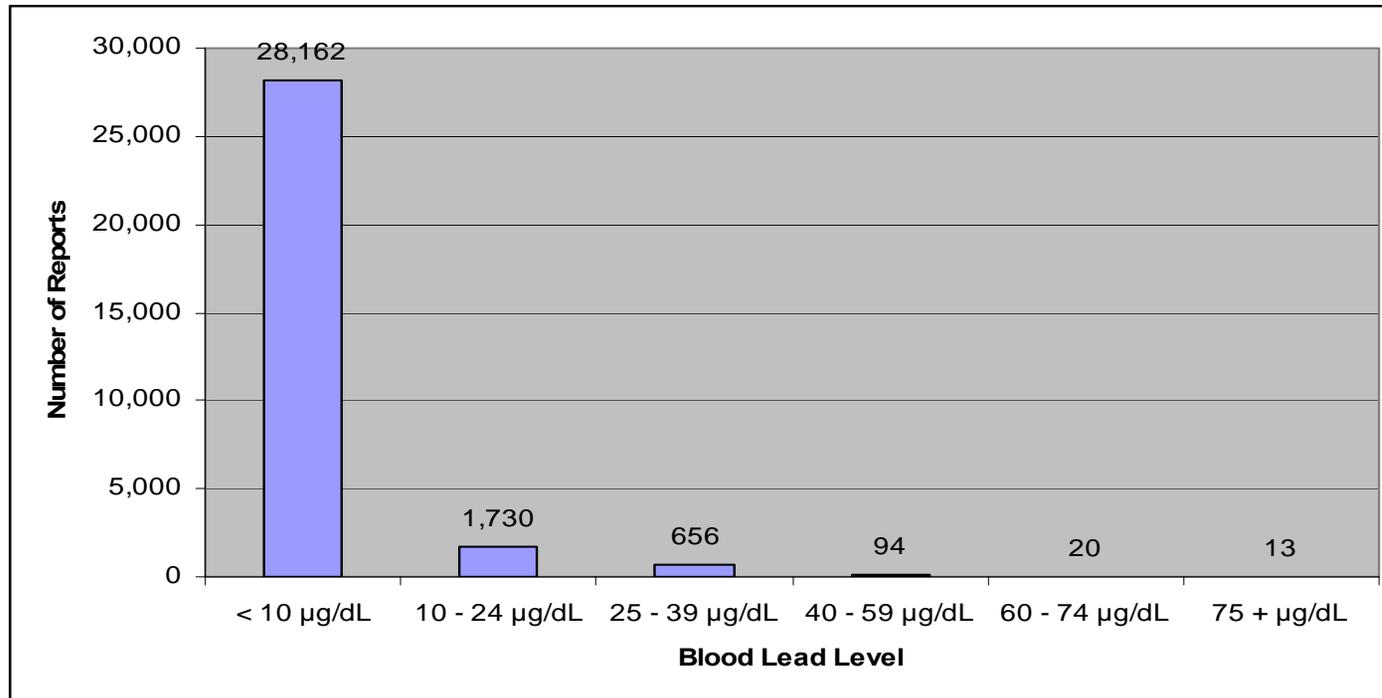


Table 2. Distribution of gender by blood lead test result for individuals 15 years of age and older in Texas, 2009

<u>Gender</u>	<u>All Blood Lead Levels</u>		<u>Blood Lead Levels \geq 25 μg/dL</u>		<u>Blood Lead Levels \geq 40 μg/dL</u>	
	<u>Number of reports</u>	<u>Percent</u>	<u>Number of reports</u>	<u>Percent</u>	<u>Number of reports</u>	<u>Percent</u>
Male	20,618	67.21	739	94.38	102	80.31
Female	9,987	32.56	44	5.62	25	19.69
Unknown	70	0.23	0	0	0	0
Total	30,675	100	783	100	127	100

Table 3. Distribution of age by blood lead test result for individuals 15 years of age and older in Texas, 2009

<u>Age</u>	<u>All Blood Lead Levels</u>		<u>Blood Lead Levels \geq 25 μg/dL</u>		<u>Blood Lead Levels \geq 40 μg/dL</u>	
	<u>Number of reports</u>	<u>Percent</u>	<u>Number of reports</u>	<u>Percent</u>	<u>Number of reports</u>	<u>Percent</u>
15 - 17 years	7,188	23.43	9	1.15	2	1.57
18 - 24 years	3,373	11.00	61	7.79	14	11.02
25 - 34 years	4,721	15.39	141	18.01	24	18.9
35 - 44 years	5,272	17.19	210	26.82	33	25.98
45 - 54 years	4,975	16.22	246	31.42	27	21.26
55 - 64 years	2,866	9.34	64	8.17	8	6.3
65 + years	2,274	7.41	51	6.51	19	14.96
Unknown	6	0.02	1	0.13	0	0
Total	30,675	100	783	100	127	100

Table 4. Work-relatedness among reported blood lead tests for individuals 15 years of age and older in Texas, 2009

<u>Work-relatedness</u>	All Blood Lead Levels		Blood Lead Levels \geq 25 μg/dL		Blood Lead Levels \geq 40 μg/dL	
	<u>Number of reports</u>	<u>Percent</u>	<u>Number of reports</u>	<u>Percent</u>	<u>Number of reports</u>	<u>Percent</u>
Occupational	4,460	14.54	678	86.59	74	58.27
Non-occupational	134	0.44	81	10.34	42	33.07
Both occupational and non-occupational	3	0.01	2	0.26	0	0.00
Unknown	26,078	85.01	22	2.81	11	8.66
Total	30,675	100.00	783	100.00	127	100.00

Table 5. Distribution of race by blood lead test result for individuals 15 years of age and older in Texas, 2009

Race	All Blood Lead Levels		Blood Lead Levels \geq 25 μg/dL		Blood Lead Levels \geq 40 μg/dL	
	Number of reports	Percent	Number of reports	Percent	Number of reports	Percent
American Indian/Alaskan Native	70	0.23	10	1.28	3	2.36
Asian	266	0.87	1	0.13	0	0
Black	1,678	5.47	84	10.73	10	7.87
White	1,281	4.18	242	30.91	36	28.35
Hawaiian/Pacific Islander	1	0	0	0	0	0
Other	873	2.85	228	29.12	6	4.72
Unknown	26,506	86.41	218	27.84	72	56.69
Total	30,675	100	783	100	127	100

Table 6. Distribution of ethnicity by blood lead test result for individuals 15 years of age and older in Texas, 2009

Ethnicity	All Blood Lead Levels		Blood Lead Levels \geq 25 μg/dL		Blood Lead Levels \geq 40 μg/dL	
	Number of reports	Percent	Number of reports	Percent	Number of reports	Percent
Hispanic	5,377	17.53	382	48.79	56	44.09
Not Hispanic	657	2.14	190	24.27	29	22.83
Unknown	24,641	80.33	211	26.95	42	33.07
Total	30,675	100	783	100	127	100

Figure 2. Texas industries with the highest number of blood lead test results $\geq 25 \mu\text{g/dL}$ in individuals 15 years of age and older in Texas, 2009

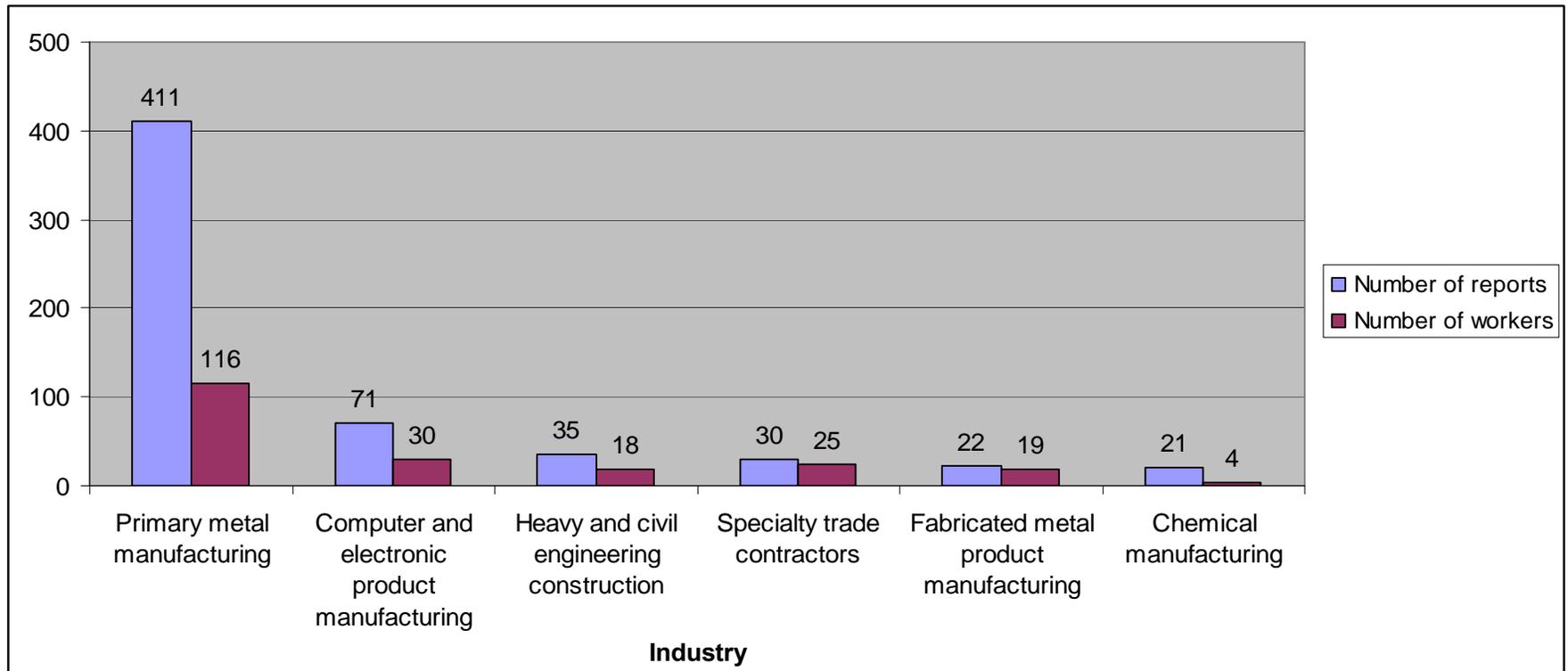


Table 7. Types of non-occupational exposures among individuals 15 years of age and older with elevated blood lead levels in Texas, 2009

<u>Source of Exposure</u>	<u>Number of reports</u>	<u>Number of Individuals</u>
Shooting and/or reloading	28	16
Pica	10	5
Childhood exposure	7	2
Canned goods	1	1
Clay pottery	22	1
Home remedies	14	1
Gunshot wound	1	1

Table 8. Counties with the highest number of resident individuals with blood lead levels $\geq 25 \mu\text{g/dL}$ in individuals 15 years of age and older, 2009

<u>County</u>	<u>Number of reports</u>	<u>Number of Individuals</u>
Harris	156	65
Denton	145	25
Collin	141	32
Dallas	45	27
Kaufman	40	13