



State of Illinois
Illinois Department of Public Health

Illinois Lead Program Annual Surveillance Report

2009



Inside front cover.

Inside front cover.



Pat Quinn, Governor
Damon T. Arnold, M.D., M.P.H., Director

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January 2011

Dear Colleagues:

The Illinois Lead Program is pleased to present the 2009 annual surveillance report. The report provides information on childhood lead poisoning prevention activities within the state.

Illinois still leads the nation in the number of lead poisoned children. In 2009, a total of 1,396 newly confirmed cases of lead poisoned children were identified in the state. Deteriorated lead paint is the primary source of lead poisoning and about 2 million Illinois pre-1978 housing units are estimated to have lead-based paint. The irreversible health effects of lead poisoning include learning disabilities and behavior problems.

In collaboration with local health departments, advisory groups and federal partners, the Illinois Lead Program has been working diligently to achieve its goal of eliminating childhood lead poisoning in Illinois. In 2009, case management services were provided to 3,171 lead poisoned children and 2,624 environmental investigations were initiated.

In accordance with the U.S. Centers for Disease Control and Prevention (CDC), the Illinois Lead Program has begun a new approach in addressing additional health hazards in homes. According to CDC, the goal of the new approach is to identify, eliminate or mitigate health and safety issues in the home environment.

As we work together to eliminate childhood lead poisoning and prevent other hazards affecting children in their home environment, we look forward to a continued collaboration with our partners at the federal, state and local levels.

Sincerely,

A handwritten signature in cursive script that reads "Damon T. Arnold, M.D., M.P.H.".

Damon T. Arnold, M.D., M.P.H.
Director

Improving public health, one community at a time

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Illinois Lead Program Annual Surveillance Report **2009****Prepared by**

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**To report the results of all blood lead tests or
for more information about the elimination of childhood lead poisoning, contact the
Illinois Lead Program at 866-909-3572 or 217-782-3517**

or visit

<http://www.idph.state.il.us/envhealth/ehpublications.htm#lead>

The deaf or hard of hearing may dial 800-547-0466.

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Introduction

Illinois leads the nation with the highest number of lead poisoned children¹. Between 1993 and 2009, more than 2 million Illinois children have been tested for blood lead poisoning, with more than 10 percent confirmed as lead poisoned cases. In 2009 alone, there were 3,720 known Illinois children with elevated levels of 10 micrograms of lead per deciliter of blood.

Childhood lead poisoning can lead to irreversible health problems ranging from reduced IQ to learning and behavioral problems. Lead poisoning is one of the most preventable environmental health hazards that can affect any family regardless of race, socioeconomic status or education. The major source of lead poisoning is lead-based paint, common in pre-1978 housing units. There are more than 3.5 million pre-1978 housing units in Illinois and about 2 million are estimated to contain lead-based paint.

The mission of the Illinois Lead Program is to eliminate childhood lead poisoning. The Illinois Lead Program is committed to the Healthy People goal of eliminating elevated lead levels in children. Illinois law requires that all blood lead test results on children 15 years of age or younger be reported to the program. The vast majority of 2009 tests (92 percent) were performed on children younger than 6 years of age. According to the *Get the Lead Out Program*, it costs, on average, about \$9,000 to \$11,000 to remediate the home of a lead poisoned child in Illinois compared to the national cost range of \$1,200 to \$10,800 per housing unit².

The information contained in this report is compiled by the Illinois Department of Public Health's Illinois Lead Program. This report is intended to serve as a standard reference for legislators, community-based organizations, city, state and federal agencies, as well as health researchers who seek information on childhood lead poisoning in Illinois.

- 1 CDC National Surveillance Data downloaded on November 2010.
http://www.cdc.gov/nceh/lead/data/StateConfirmedByYear_1997_2007Web.htm
- 2 Gould, E., 2009, Childhood Lead Poisoning: Conservative Estimates of the Social and Economic Benefits of Lead Hazard Control. *Environ Health Perspect* 117:1162-1167

Illinois Statistics on Childhood Lead Poisoning for Calendar Year 2009

Table I. Summary Statistics on Illinois Childhood Lead Poisoning for Calendar Year 2009

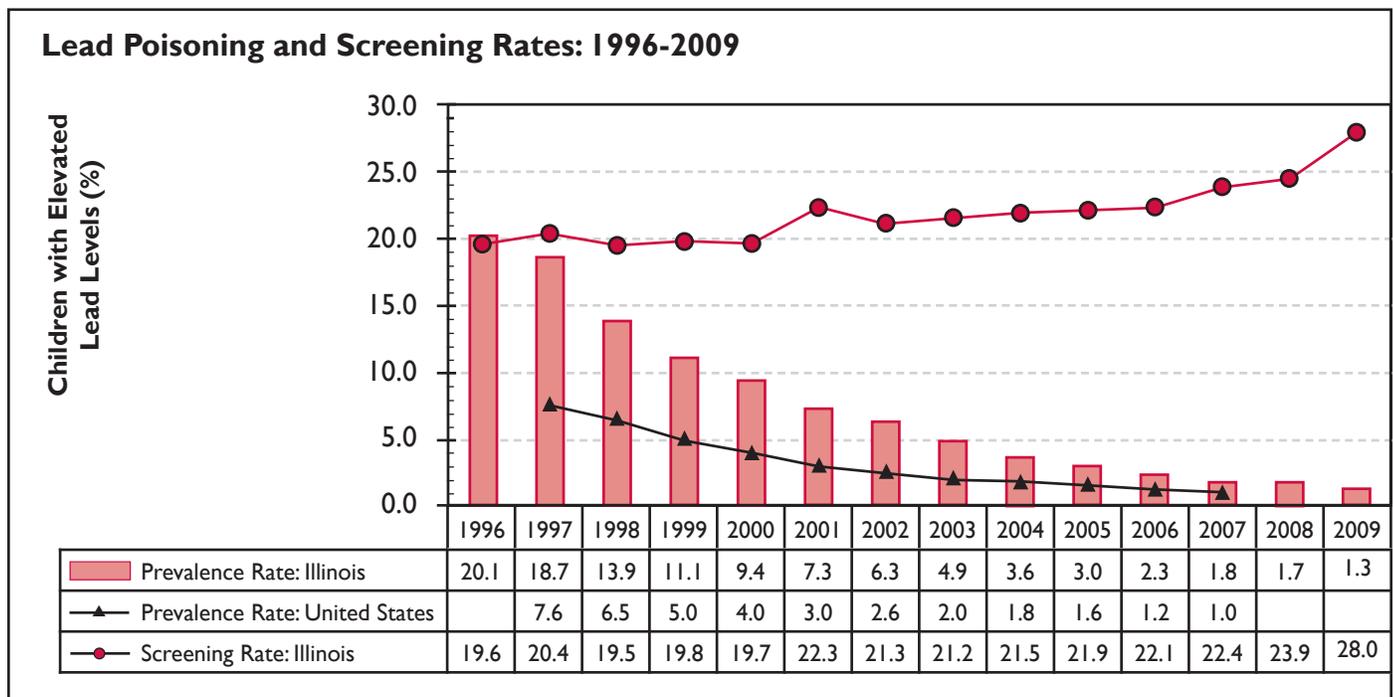
Variable	Total Tested		Elevated Blood Lead Levels of 10 Micrograms per Deciliter or Greater (%)
	Number (N)	Percentage (%)	
Total number of blood lead tests ^a	332,084		
Total number of children tested	297,227	28.0 ^b	1.3
Age (years)			
Younger than 1	37,193	13.0	0.6
1	68,779	23.0	1.4
2	50,103	17.0	1.8
3	43,024	14.0	1.5
4	39,409	13.0	1.1
5	33,019	11.0	0.8
6 and older	23,771	8.0	1.0
Gender			
Female	142,480	48.0	1.1
Male	147,620	50.0	1.3
Undetermined	7,127	2.0	1.3
Known Racial/Ethnic Distribution of Blood Lead Levels^c			
African American	17,108	5.8	4.0
White	29,820	10.0	2.1
Hispanic	8,202	2.8	1.2
Asian	1,337	0.4	2.1
Blood Specimen Type			
Capillary	107,860	36.3	0.3
Venous	189,157	63.6	0.9
Undetermined	210	0.1	Less than 0.1
Laboratories Reporting Results	130		
Records With Missing Addresses	14,423	4.9	0.2
Blood Lead Levels in Micrograms per Deciliter ($\mu\text{g}/\text{dL}$)			
≤ 4	252,560	Source: Illinois Lead Program Surveillance Data, 2009 a. Data includes multiple tests per child b. The most current available National Center for Health Statistics 2008 estimated population of Illinois children younger than 6 years of age was 1,069,506. c. Collection of race and ethnicity data remains a challenge	
5-9	40,947		
≥ 10	3,720		
10-14	2,298		
15-19	732		
20-24	293		
≥ 25	397		

Illinois Lead Poisoning and Screening Rates: 1996 - 2009

The significant decrease in the blood lead poisoning rate in Illinois children from 20.1 percent in 1996 to 1.3 percent in 2009 is a public health success story. Figure 1 illustrates the screening and lead poisoning rates in Illinois children. The lead poisoning rate is based on the percentage of children tested with blood lead levels of 10 micrograms per deciliter or greater. The Illinois Lead Program is truly committed to the Healthy People 2010 goal of eliminating elevated blood lead levels in children. Since 1993, the program has successfully addressed childhood lead poisoning, overseeing the delivery of services to Illinois children with elevated blood lead levels and fostering programs and partnerships to reduce exposure to lead.

Despite the significant decline in lead poisoned children, the percentage of Illinois children with elevated lead levels exceeds the national estimate. In 2009, approximately 3,720 children were identified in Illinois with elevated lead levels. According to 2007 data from CDC, 1.0 percent of children in the United States are lead poisoned compared to 1.8 percent in Illinois in 2007.

Figure 1



Source: Illinois Lead Program Surveillance Data, 1996-2009, The United States average is based on the data reported by the U.S. Centers for Disease Control and Prevention (CDC) at: <http://www.cdc.gov/nceh/lead/data/national.htm>

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Notes: Screening rate was calculated as the total number of children younger than 6 years (72 months) of age tested for blood lead levels divided by total number of children younger than 6 years of age, based on U.S. Census data per 100 populations. The testing rate for blood lead poisoning has remained fairly constant with an increase from less than 20 percent in 1996 to 28 percent in 2009. Nationally, CDC reported a 13 percent testing rate for 2007 compared to 24 percent testing rate in Illinois in 2007.

Lead poisoning rate was calculated as the total number of children younger than 6 years of age with elevated lead levels of 10 micrograms per deciliter divided by total number of children 6 years of age tested for blood lead.

Mission

The mission of the Illinois Lead Program is to eliminate the incidence of childhood lead poisoning.

Vision

Provide a lead safe environment for all Illinois Children

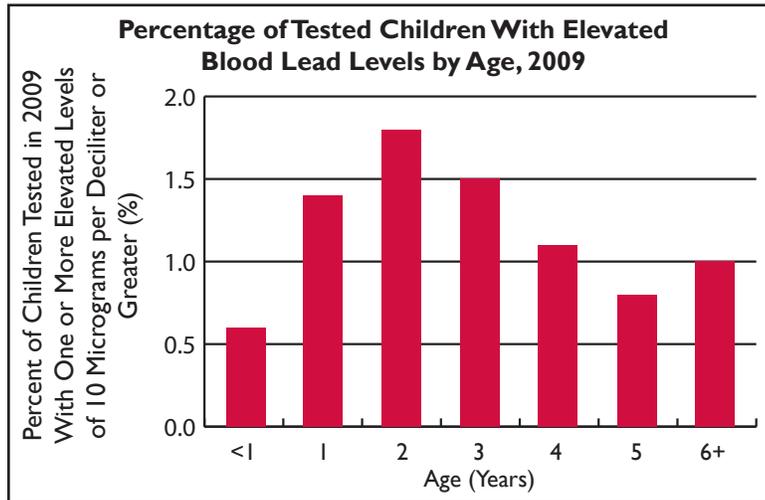
Goal

- Prevent childhood lead poisoning through community education and public awareness campaigns
- Identify lead poisoned children and provide prompt interventions to reduce blood lead levels and improve health and developmental outcomes



Blood Lead Levels by Age: Age at Which Children Should be Tested

Figure 2



Source: Illinois Lead Program Surveillance Data, 2009

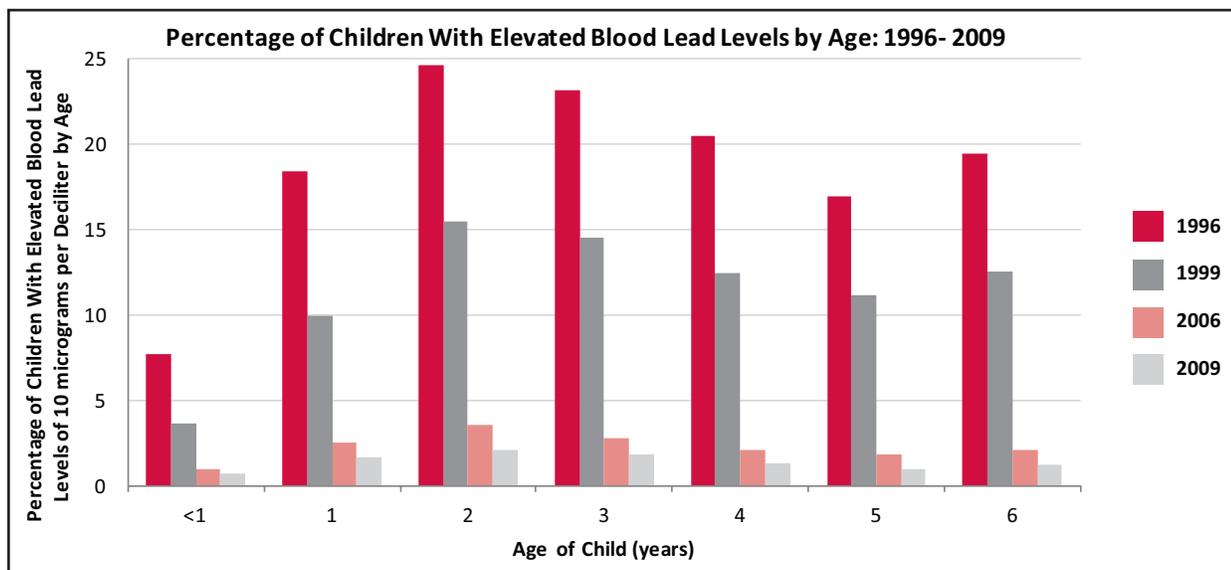
living in a high-risk area for pediatric blood lead poisoning. The Illinois Department of Public Health, the American Academy of Pediatrics and the U.S. Centers for Disease Control and Prevention recommend that children be tested at 1 and 2 years of age for lead poisoning.

Figure 2 indicates that Illinois children between the ages of 1 and 3 are at highest risk for lead poisoning. This may be attributed to their frequent hand-to-mouth activities.

Illinois law requires physicians to screen children 6 months through 6 years of age who live in high risk areas for lead poisoning.

Before attending a licensed daycare, kindergarten or school, Illinois law also requires parents or legal guardians to provide a statement from a physician or health care provider that the child has been assessed for lead risk if residing in a low-risk area, or screened if

Figure 3

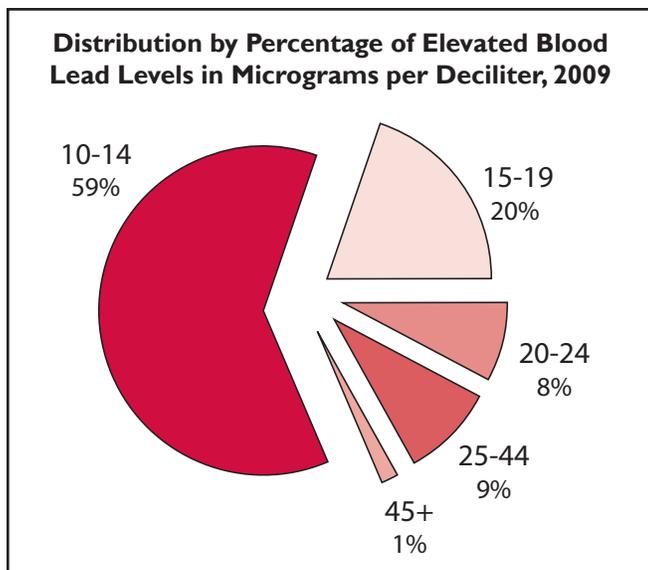


Source: Illinois Lead Program Surveillance Data, 1996-2009

Figure 3 shows that although the number of children with elevated lead levels has steadily declined across time, children 2 and 3 years of age have the highest levels of lead irrespective of the year of age of exposure.

Distribution of Elevated Blood Lead Levels and Adverse Effects

Figure 4



Although the level of concern is primarily equal to or greater than 10 µg/dL, the persistence of lead levels less than 10 µg/dL in blood may lead to developmental delays, learning problems or lower attention span. Figure 4 shows that 59 percent of lead poisoned children in Illinois have moderate lead levels between 10 and 14 micrograms per deciliter. Moderate levels may result to constipation, abdominal pain, poor appetite, or anemia. High levels of lead in the body can lead to vomiting, irritability, lethargy, seizures and even death.

Source: Illinois Lead Program Surveillance Data, 2009

Table 2. Blood Lead Levels as Percentage of Illinois Children Tested by Levels: 1996 – 2009

Year	Total Number of Children Tested	Elevated Blood Lead Levels as Percentage of Illinois Children Tested by Year and Levels: 2000 – 2009					
		5-9 µg/dL	10-14 µg/dL	15-19 µg/dL	20-24 µg/dL	25-44 µg/dL	45+ µg/dL
1996	235,290	38.3	11.8	4.7	1.8	1.7	0.19
1997	245,093	37.3	11.1	4.3	1.7	1.5	0.19
1998	234,417	35.1	8.8	2.8	1.1	1.0	0.14
1999	239,571	32.7	7.2	2.2	0.8	0.8	0.10
2000	244,442	31.7	6.1	1.9	0.8	0.6	0.08
2001	277,788	29.4	4.7	1.5	0.6	0.5	0.07
2002	263,069	28.5	4.1	1.3	0.5	0.4	0.06
2003	267,997	25.2	3.2	1.0	0.4	0.3	0.05
2004	272,757	22.7	2.4	0.7	0.2	0.2	0.03
2005	275,108	21.6	2.0	0.6	0.2	0.2	0.03
2006	278,078	19.9	1.6	0.4	0.2	0.2	0.03
2007	296,998	16.2	1.1	0.3	0.2	0.2	0.03
2008	304,807	14.6	1.0	0.3	0.1	0.2	0.03
2009	297,227	13.8	0.7	0.2	0.1	0.1	0.02

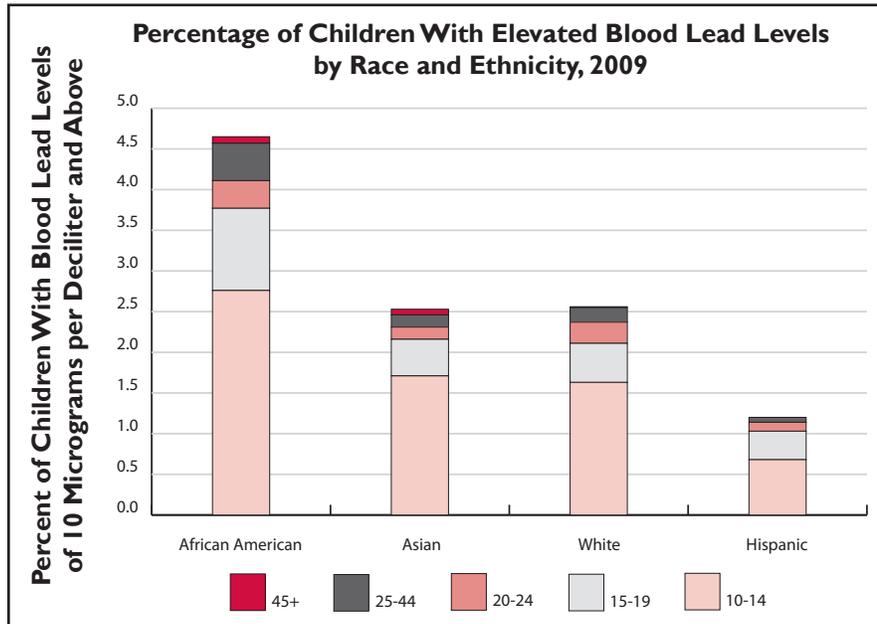
Source: Illinois Lead Program Surveillance Data, 1996-2009

¹Roberts et al. J.Tox Clin Tox 2001

The number of children with severe levels of blood lead has decreased with time (Table 2). In 2009, 61 children (0.05 percent) had lead levels of 45 micrograms per deciliter and higher compared to 445 children in 1996 (0.19 percent). It usually takes about 24 months for half of the blood lead levels of more than 25 micrograms per deciliter to drop to 10 micrograms per deciliter¹.

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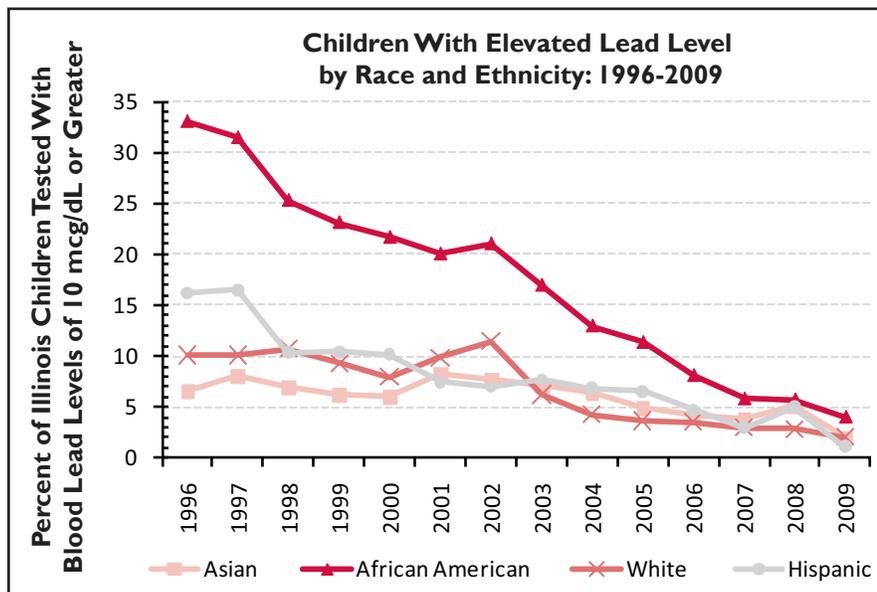
Figure 5



Source: Illinois Lead Program Surveillance Data, 2009

Figure 5 indicates that African-American children are twice as likely to be affected by lead poisoning compared to white children (4.01 versus 2.1 percent). Of the 1,337 known Asian children tested, 2 percent were lead poisoned. About 1.2 percent known cases of Hispanic children exhibited elevated levels of lead.

Figure 6



Source: Illinois Lead Program Surveillance Data, 1996-2009

Figure 6 demonstrates the difference in lead poisoning by race and ethnicity across time. Although efforts to continue the elimination of the preventable causes of lead poisoning among children of all races is highly recommended, the remarkable disparity in lead poisoned children is cause for concern. Collection of race and ethnicity data remains a challenge. Figures 5 and 6 reflect the elevated blood lead levels of children whose racial status were revealed.

Lead Screening Activities in Illinois, Chicago and United States: 2006-2009

Table 3. Lead Screening Activities in Illinois, Chicago and United States: 2006 - 2009¹

	2006		2007		2008		2009	
Illinois								
Total number of children tested	278,078	22%	296,998	24%	304,807	25%	297,227	28%
5-9 µg/dL	55,315	20%	48,102	16%	44,445	15%	40,947	14%
Lead poisoning rate (≥ 10 µg/dL)	6,460	2.3%	5,270	1.8%	5,126	1.7%	3,720	1.3%
Illinois Excluding Chicago								
Total number of children tested	175,231		148,176		162,968		190,718	
5-9 µg/dL	25,326	14%	21,207	14%	16,428	10%	14,679	8%
Lead poisoning rate (≥ 10 µg/dL)	3116	1.8%	2,643	1.8%	2,439	1.5%	2,213	1.2%
Chicago								
Total number of children tested	102,847		105,788		116,164		116,372	
5-9 µg/dL	29,989	29%	26,895	25%	28,017	24%	26,268	23%
Lead poisoning rate (≥ 10 µg/dL)	3,344	3.2%	2,627	2.5%	2,306	2.0%	1,617	1.4%
United States								
Total number of children tested	3,262,866		3,136,843					
Lead poisoning rate (≥ 10 µg/dL)	39,526	1.2%	31,524	1.0%				

Source: Illinois Lead Program Surveillance Data, 2006-2009 and Centers for Disease Control and Prevention (CDC) Blood Lead Surveillance Data, 2006-2007

¹The Illinois data includes capillary and venous tests to account for all children whose blood lead results were reported to the Department. Blood lead test results were reported for children up to the age of 15 with 92 percent from children 6 years of age and younger. This report also accounts for tests results obtained with hand-held analyzers. There were 25,675 records in 2008 and 14,423 records in 2009 with incomplete addresses making classification of all the data in Illinois challenging.

Note. ²At this time, 2006 and 2007 are the most recent available data from the Centers for Disease Control and Prevention (CDC).

Illinois Lead Program Annual Surveillance Report **2009****Population of Children, Number Tested and Blood Lead Levels by County: 2008-2009****Table 4. Estimate of 2008 Population of Children, Number of Children Tested and Blood Lead Levels by County: 2008-2009**

County	2008 Estimated Population of Children Younger Than 6 Years of Age	Total Tested	2008					Total Tested	2009				
			5-9	10-14	15-19	20-24	25+		5-9	10-14	15-19	20-24	25+
			µg/dL						µg/dL				
Adams	4,894	807	73	26	6	4	2	678	71	18	7	0	2
Alexander	674	139	9	1	0	0	0	134	17	3	1	0	1
Bond	1,231	279	28	4	0	0	1	317	48	2	1	2	0
Boone	4,707	763	87	10	4	1	1	1,071	86	4	2	2	1
Brown	343	77	5	2	0	2	0	77	6	2	0	1	0
Bureau	2,538	371	57	9	1	0	0	361	36	2	1	0	1
Calhoun	329	58	7	1	0	0	1	71	8	1	0	0	0
Carroll	941	293	49	10	3	0	0	273	55	1	1	1	0
Cass	1,146	417	37	4	1	0	0	424	42	10	2	0	0
Champaign	14,031	2,372	108	13	3	1	3	2,646	102	12	3	0	3
Christian	2,400	660	46	10	4	1	0	696	41	9	4	2	1
Clark	1,140	286	15	3	1	0	0	260	17	0	0	0	0
Clay	1,010	271	30	2	1	2	0	286	43	5	1	0	1
Clinton	2,558	367	17	3	1	1	0	435	22	1	0	0	0
Coles	3,299	912	96	15	3	1	2	792	76	14	4	0	1
Cook w/o Chicago	201,102	48,446	4,756	252	75	41	67	47,757	4,417	226	82	30	47
Chicago	254,918	116,164	28,017	1,242	417	159	228	116,372	26,268	996	312	124	185
Crawford	1,127	285	16	1	1	0	0	246	13	3	0	1	0
Cumberland	764	159	15	3	1	2	0	187	17	2	0	1	1
DeKalb	7,945	842	65	4	2	0	2	1,103	82	8	1	1	5
DeWitt	1,162	311	37	3	1	0	3	278	36	4	1	0	1
Douglas	1,693	321	23	5	0	0	0	319	29	4	1	0	1
DuPage	72,393	7,364	412	21	5	4	5	8,335	383	11	7	5	3
Edgar	1,246	252	24	2	0	1	1	232	23	2	3	1	0
Edwards	423	123	8	0	0	0	0	99	7	1	1	0	0
Effingham	2,708	656	19	1	2	0	0	837	39	6	0	0	0
Fayette	1,459	427	30	6	1	1	1	455	37	2	1	0	1
Ford	1,012	75	8	1	0	0	0	92	5	1	2	0	0
Franklin	2,888	473	37	3	6	0	1	484	40	3	0	1	0
Fulton	2,375	391	48	9	2	2	0	368	47	5	1	0	1
Gallatin	367	147	3	2	0	0	0	124	6	0	0	0	0
Greene	967	337	18	4	1	1	0	367	28	2	1	2	0
Grundy	4,340	432	21	0	1	0	1	465	17	3	1	0	0
Hamilton	506	136	15	0	1	0	0	125	9	1	0	0	0

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County	2008 Estimated Population of Children Younger Than 6 Years of Age	Total Tested	2008					Total Tested	2009				
			5-9	10-14	15-19	20-24	25+		5-9	10-14	15-19	20-24	25+
			µg/dL						µg/dL				
Hancock	1,222	428	71	4	4	0	0	361	49	10	2	0	0
Hardin	254	44	2	1	0	0	0	44	3	0	0	0	0
Henderson	351	112	12	1	4	0	0	128	19	0	1	0	0
Henry	3,360	892	110	12	4	0	1	1,020	155	7	2	2	3
Iroquois	2,071	348	28	9	7	0	0	307	28	4	1	0	0
Jackson	3,929	1,025	37	1	0	3	1	1,025	39	3	2	1	0
Jasper	691	126	7	2	0	0	0	111	4	1	0	0	0
Jefferson	2,838	574	29	4	1	2	0	532	22	2	0	0	0
Jersey	1,505	397	22	2	1	1	0	468	32	0	1	0	0
Jo Daviess	1,338	141	15	2	0	0	2	149	20	1	1	1	0
Johnson	771	109	4	0	0	0	0	132	8	0	0	0	0
Kane	52,117	12,415	1,185	166	61	30	42	12,181	937	127	31	19	14
Kankakee	9,513	3,182	259	58	22	7	12	2,650	198	16	4	0	2
Kendall	11,419	731	14	8	1	0	0	832	23	5	0	0	0
Knox	3,368	1,082	163	22	5	3	5	1,080	165	20	8	6	3
Lake	61,022	10,961	404	49	10	9	9	11,380	331	17	13	5	2
LaSalle	8,367	1,606	439	26	12	1	2	1,348	291	20	4	1	4
Lawrence	931	352	26	4	3	1	0	338	27	3	2	1	0
Lee	2,340	194	22	5	3	1	0	207	9	6	0	1	1
Livingston	3,019	790	149	17	4	0	1	890	131	17	5	2	1
Logan	1,950	421	28	5	1	0	0	403	37	4	0	2	2
McDonough	1,662	346	34	3	1	0	2	390	43	9	1	1	0
McHenry	26,262	2,439	124	12	2	4	0	2,596	96	7	2	1	0
McLean	13,270	2,411	214	21	9	5	1	2,558	199	10	9	0	2
Macon	8,189	2,932	300	66	24	10	20	3,170	424	56	16	3	6
Macoupin	3,361	706	41	12	5	0	1	776	51	10	2	2	4
Madison	20,527	3,401	258	43	8	5	10	4,115	351	34	4	2	6
Marion	2,949	793	63	7	3	3	1	947	73	2	0	2	1
Marshall	864	185	38	2	2	0	5	259	39	2	2	2	0
Mason	1,048	304	26	2	0	1	0	370	36	2	0	0	0
Massac	1,165	215	13	0	0	0	0	198	7	1	0	0	0
Menard	818	176	8	0	0	0	0	174	10	1	0	0	0
Mercer	1,050	370	57	5	3	1	1	339	58	3	2	0	0
Monroe	2,380	249	14	1	0	0	0	253	9	0	0	0	0
Montgomery	1,929	580	61	6	2	1	0	560	52	5	0	1	0
Morgan	2,323	659	60	6	1	0	5	744	61	13	2	0	3
Moultrie	1,065	104	7	0	2	0	0	122	4	1	2	0	2
Ogle	3,774	426	39	5	1	0	1	465	33	1	1	0	2
Peoria	15,660	3,154	626	96	34	11	10	2,765	488	102	39	12	10
Perry	1,514	400	28	1	1	0	1	457	31	6	2	0	0
Piatt	1,141	225	13	1	0	1	4	179	5	3	1	0	0

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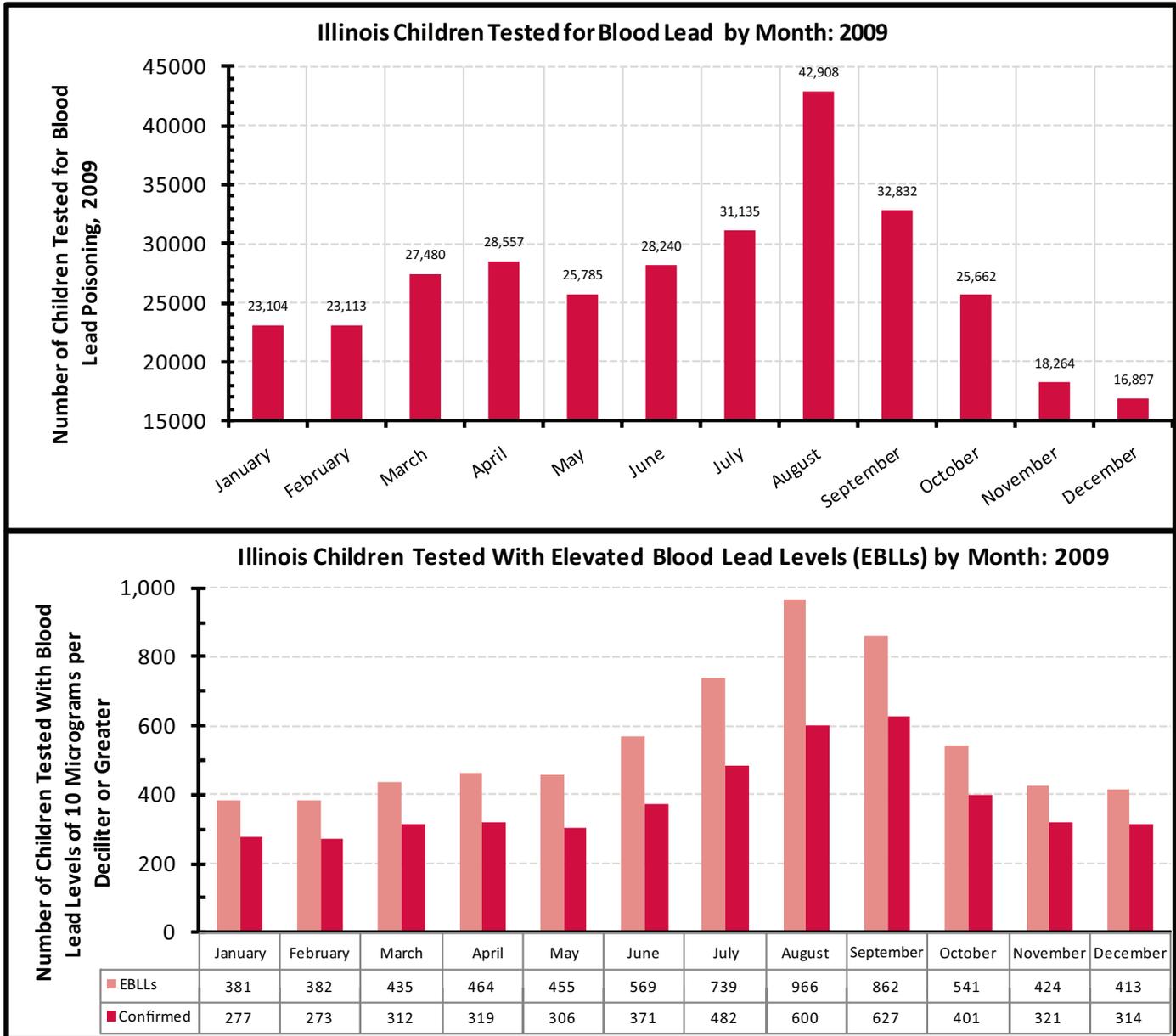
County	2008 Estimated Population of Children Younger Than 6 Years of Age	Total Tested	2008					Total Tested	2009				
			5-9	10-14	15-19	20-24	25+		5-9	10-14	15-19	20-24	25+
			µg/dL						µg/dL				
Pike	1,116	340	29	4	1	2	1	341	28	5	1	2	0
Pope	197	30	4	0	0	0	0	40	0	0	0	0	0
Pulaski	487	114	12	0	1	0	0	144	11	0	0	0	0
Putnam	356	72	13	1	0	0	1	54	7	1	1	0	0
Randolph	2,211	460	26	3	1	0	0	441	25	4	0	0	0
Richland	1,097	236	15	2	0	0	0	278	18	1	0	0	0
Rock island	11,529	4,329	579	70	24	11	13	4,113	719	84	25	10	10
St. Clair	22,269	7,582	678	100	29	10	9	7,704	639	57	21	5	7
Saline	1,883	758	55	4	4	1	0	681	47	2	0	0	0
Sangamon	15,192	3,505	293	71	16	9	6	3,093	246	35	11	7	5
Schuyler	451	126	23	2	0	0	0	147	8	0	0	1	0
Scott	354	118	10	4	0	0	1	95	9	1	0	0	0
Shelby	1,499	314	19	2	1	0	1	291	18	5	1	1	0
Stark	401	121	17	6	1	1	0	109	18	4	0	1	0
Stephenson	3,261	1,290	246	42	18	9	6	1,278	240	24	10	4	4
Tazewell	9,962	1,398	200	15	6	2	7	1,832	219	12	4	5	2
Union	1,329	447	31	2	1	1	1	433	25	3	1	0	1
Vermilion	6,392	1,313	144	20	8	7	3	1,151	88	15	8	1	2
Wabash	845	294	26	8	1	2	8	225	44	3	4	0	2
Warren	1,203	264	42	2	4	0	1	363	39	5	2	0	0
Washington	1,049	157	17	2	3	1	0	174	9	3	1	0	1
Wayne	1,152	435	22	1	0	0	0	344	23	2	0	0	0
White	1,037	351	26	4	0	0	0	331	26	1	1	0	0
Whiteside	4,324	1,387	116	10	10	1	10	1,375	95	13	4	2	1
Will	63,397	7,075	306	34	20	4	7	6,933	293	20	7	2	3
Williamson	4,774	678	39	5	2	2	0	556	29	1	2	0	0
Winnebago	24,687	4,196	517	54	26	8	21	6,101	570	72	21	10	9
Woodford	2,789	324	34	7	2	0	0	388	37	3	1	0	0
Unidentified		25,675	1,620	190	86	38	67	14,423	646	27	3	1	2
Illinois Total	1,069,506	304,807	44,445	3,024	1,050	433	619	297,227	40,947	2,298	732	293	336
County Median	1,883	397	30	4	1	1	1	390	37	3	1	0	0
County Mean	10,381	2,971	416	28	9	4	5	2,746	391	22	7	3	4

Source: Illinois Lead Program Surveillance Data, 2006-2009 and Illinois Center for Health Statistics

Note: The total number of children tested or screened on Tables 3 and 4 for 2008 and 2009 are the actual numbers reported to the Department. These numbers include children tested for the first time, as well as those being retested. Where a child has multiple tests, the highest venous result is selected. If there is no venous test, the highest capillary result is selected. The vast majority of 2009 tests (92 percent) were performed on children younger than 6 years of age.

Blood Lead Screening Activities by Month in 2009

Figure 7: Children Tested With Elevated Lead Levels by Month in 2009



Source: Illinois Lead Program Surveillance Data, 2009

Most screening for blood lead poisoning occurs during the summer months with a peak in August. Testing slows down during the winter months especially during November and December. Figure 7 indicates that identification of lead poisoned children increases with increased testing rates. Illinois law requires physicians to assess or test children 6 months through 6 years of age and provide written statements to their parents or legal guardians.

Pre-1978 Housing Units and Lead Poisoned Children Younger Than 3 Years of Age

Table 5: Estimated Pre-1978 Housing Units and Lead Poisoning Data of Children Younger Than 3 Years of Age in 2009

County	American Community Survey 2006-2008 Known Estimate (pop > 20,000)**	Estimated 2008 Population of Children Younger Than 3 Years of Age	Number and Population of Children Younger Than 3 Years of Age Tested		Lead Poisoning Rate Based on Number of Children Younger Than 3 Years of Age Tested
			n	%	%
Adams	76	2,522	401	15.9	5.5
Alexander		329	61	18.5	3.3
Bond		636	245	38.5	2.0
Boone	47	2,395	627	26.2	1.3
Brown		176	46	26.1	2.2
Bureau	83	1,243	177	14.2	1.7
Calhoun		173	47	27.2	2.1
Carroll		470	129	27.4	1.6
Cass		562	207	36.8	2.9
Champaign	59	7,357	1,939	26.4	0.8
Christian	79	1,194	513	43.0	1.6
Clark		578	197	34.1	0.0
Clay		506	214	42.3	2.8
Clinton	63	1,319	341	25.9	0.3
Coles	68	1,694	574	35.2	2.6
Cook (w/o Chicago)		102,331	24,264	23.7	0.9
Chicago*	86	130,359	57,904	44.4	1.5
Crawford		563	202	35.9	1.5
Cumberland		384	143	37.2	1.4
DeWitt		569	162	28.5	3.1
DeKalb	56	4,085	471	11.5	1.9
Douglas		838	227	27.1	2.2
DuPage	57	35,512	4,450	12.5	0.3
Edgar		637	138	21.7	0.7
Edwards		211	62	29.4	0.0
Effingham	62	1,395	367	26.3	1.1
Fayette	80	732	387	52.9	0.8
Ford		515	45	8.7	2.2
Franklin	76	1,444	251	17.4	0.4
Fulton	83	1,209	149	12.3	2.7
Gallatin		197	82	41.6	0.0
Greene		503	214	42.5	1.9
Grundy	48	2,261	213	9.4	1.4

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County	American Community Survey 2006-2008 Known Estimate (pop > 20,000)**	Estimated 2008 Population of Children Younger Than 3 Years of Age	Number and Population of Children Younger Than 3 Years of Age Tested		Lead Poisoning Rate Based on Number of Children Younger Than 3 Years of Age Tested
			Number	Percentage	
Grundy	48	2,261	213	9.4	1.4
Hamilton		253	77	30.4	0.0
Hancock		648	257	39.7	3.9
Hardin		130	11	8.5	0.0
Henderson		174	65	37.4	0.0
Henry	82	1,725	614	35.6	1.0
Iroquois	79	1,053	140	13.3	1.4
Jackson	65	2,077	768	37.0	0.9
Jasper		344	91	26.5	1.1
Jefferson	61	1,458	443	30.4	0.2
Jersey	68	775	347	44.8	0.3
Jo Daviess	63	655	81	12.4	3.7
Johnson		376	46	12.2	0.0
Kane	52	26,257	6,783	25.8	1.7
Kankakee	65	4,876	1,552	31.8	0.8
Kendall	31	5,780	439	7.6	0.5
Knox	84	1,641	724	44.1	3.9
LaSalle	74	4,223	760	18.0	1.8
Lake	49	30,122	5,242	17.4	0.5
Lawrence		453	256	56.5	1.6
Lee	79	1,218	111	9.1	4.5
Livingston	77	1,538	528	34.3	3.8
Logan	84	990	292	29.5	2.1
Macon	80	4,193	1,944	46.4	2.7
Macoupin	69	1,707	530	31.0	1.9
Madison	68	10,360	2,380	23.0	1.1
Marion	70	1,538	695	45.2	0.3
Marshall		430	152	35.3	2.0
Mason		506	213	42.1	0.5
Massac		588	58	9.9	1.7
McDonough	77	859	292	34.0	3.4
McHenry	41	13,191	1,378	10.4	0.3
McLean	55	6,722	1,777	26.4	0.8
Menard		406	136	33.5	0.0
Mercer		527	203	38.5	2.0
Monroe	44	1,187	171	14.4	0.0
Montgomery	75	975	431	44.2	0.9
Morgan	77	1,176	476	40.5	3.4

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County	American Community Survey 2006-2008 Known Estimate (pop > 20,000)**	Estimated 2008 Population of Children Younger Than 3 Years of Age	Number and Population of Children Younger Than 3 Years of Age Tested		Lead Poisoning Rate Based on Number of Children Younger Than 3 Years of Age Tested
			Number	Rate	
Moultrie		553	54	9.8	5.6
Ogle	69	1,915	237	12.4	0.4
Peoria	79	8,016	1,804	22.5	4.7
Perry	76	753	263	34.9	2.3
Piatt		565	122	21.6	3.3
Pike		587	246	41.9	2.8
Pope		112	15	13.4	0.0
Pulaski		251	58	23.1	0.0
Putnam		185	32	17.3	6.3
Randolph	72	1,099	327	29.8	0.9
Richland		534	205	38.4	0.5
Rock Island	83	5,872	2,045	34.8	4.1
Saline	70	928	379	40.8	0.3
Sangamon	62	7,581	2,077	27.4	1.8
Schuyler		239	79	33.1	0.0
Scott		183	67	36.6	1.5
Shelby	76	765	216	28.2	2.8
St. Clair	63	11,372	4,313	37.9	1.1
Stark		200	53	26.5	5.7
Stephenson	76	1,701	778	45.7	3.9
Tazewell	74	5,107	1,206	23.6	1.4
Union		687	200	29.1	0.5
Vermilion	81	3,286	549	16.7	2.2
Wabash		416	147	35.3	2.7
Warren		642	201	43.5	1.0
Washington		550	71	12.9	2.8
Wayne		582	228	39.2	0.4
White		542	227	41.9	0.9
Whiteside	79	2,173	918	42.2	2.0
Will	39	31,366	3,230	10.3	0.6
Williamson	62	2,392	260	10.9	0.0
Winnebago	68	12,478	3,629	29.1	1.9
Woodford	69	1,429	269	18.8	1.1
Unidentified			7,587		0.3
Illinois Total		541,091	158,004	29.2	1.3
County Median			246		1.5

Source: Illinois Lead Program Surveillance Data 2009; National Center for Health Statistics 2008 Vintage NCHS; ** 2006-2008 American Community Survey Three-Year Estimates Available for geographic areas with populations of 20,000 or more, *city of Chicago from the Illinois Center for Health Statistics, 2008

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The data for pre-1978 housing unit was calculated from the U.S. Census Bureau 2006-2008 American Community Survey Three-Year Estimates of year structure was built (B25034) and represents areas with populations of 20,000 or more.

In 2009, the lead poisoning rate of Illinois children younger than 3 years of age was 1.3 percent with a range of 0 to 6 based on 158,004 (29 percent) children tested. Table 5 indicates that 55 counties exhibited lead poisoning rates above 1.3 percent for children younger than 3 years of age.

Table 6: Estimate of the Number of Housing Units in Illinois With Lead Hazards

Age of Housing ¹	U.S. Estimate	Illinois Estimate	Illinois (excluding Chicago) Estimate	% With Lead ²	Illinois Units With Lead	Illinois (excluding Chicago) With Lead
Pre-1978 ³	72,311,831	3,571,700	2,564,733	59%	2,113,179	1,517,412
Pre-1950	25,930,637	1,593,122	930,128	82%	1,318,608	764,271
Built 1970 to 1979	21,261,171	781,493	696,300	24%	187,558	167,112
Built 1960 to 1969	14,745,292	642,913	526,130	24%	154,299	126,271
Built 1950 to 1959	14,626,965	710,471	551,435	69%	490,225	380,490
Built 1940 to 1949	7,529,057	374,487	249,666	69%	258,396	172,270
Built 1939 or earlier	18,401,580	1,218,635	680,462	87%	1,060,212	592,002
Total # of Units	127,762,925	5,240,942	4,058,616			
% Occupied	88	91	92			

Source: ¹Illinois Lead Program from U.S. Census Bureau, 2006-2008 American Community Survey three-year estimate, Table B25034; ²National Survey of Lead and Allergens in Housing, Volume I: Analysis of Lead Hazards, FINAL REPORT, Revision 7.1, October 31, 2002. ³For pre-1978 calculations, the authors assume equal numbers of houses were built yearly between 1970 and 1979. <http://www.nchh.org/Portals/0/Contents/Article0356.pdf>

Based on Table 6, more than 3.6 million homes in Illinois were built before 1978 comprising 5 percent of the total number of pre-1978 housing units in the nation. More than 2 million homes in Illinois are estimated to have lead based-paint.

Factors Affecting Cost of Lead Poisoning Abatement or Remediation

The vision of the Illinois Lead Program is to provide a lead safe environment for all Illinois children. According to the “Get the Lead Out Program,” it averages about \$9,000 to \$11,000 to abate the home of a lead poisoned child in Illinois compared to the national cost range of \$1,200 - \$10,800 per housing unit. The variation in the cost of lead hazard abatement/ remediation is dependent on varied factors like:

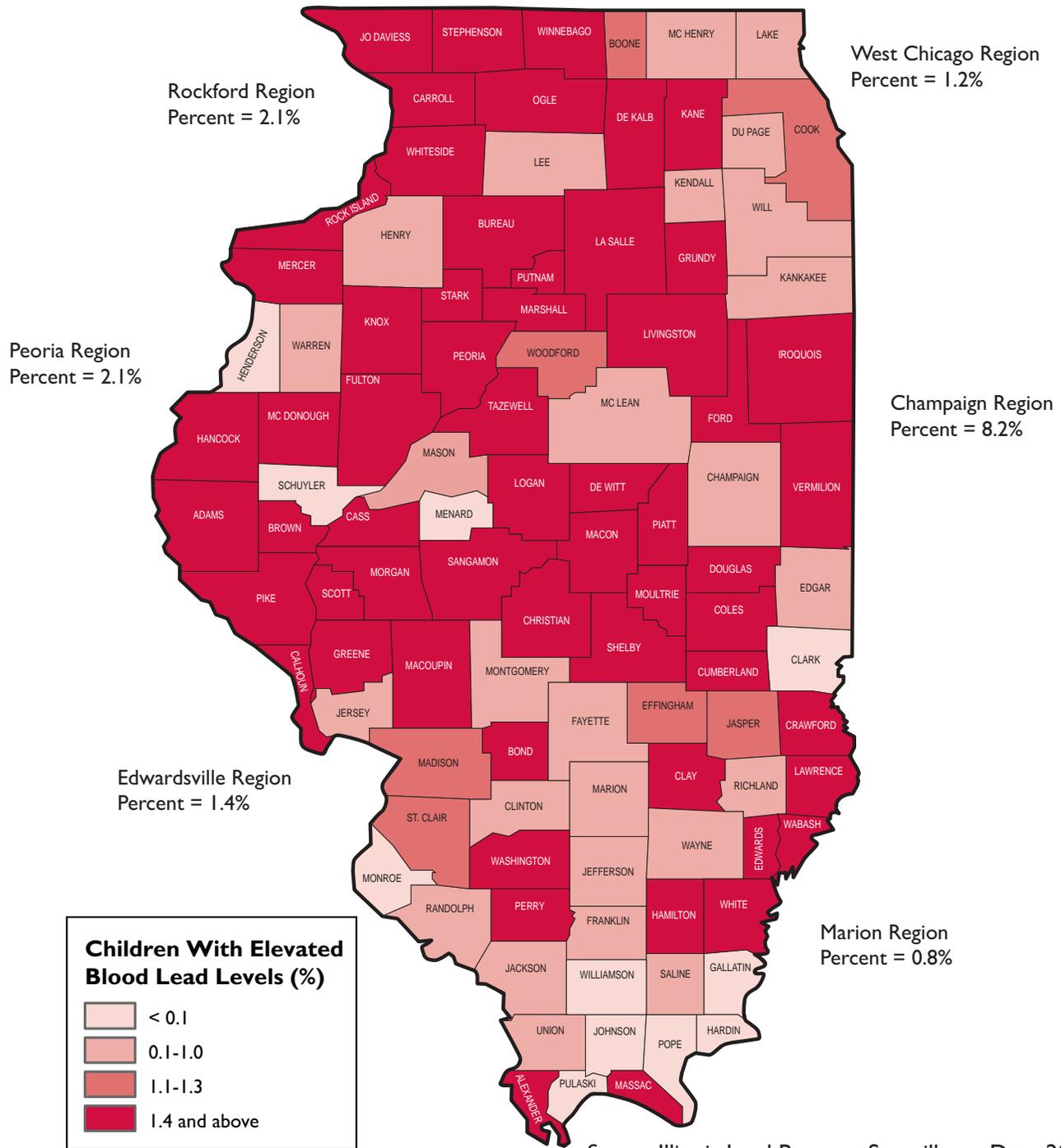
- Size of the unit,
- Extent of the lead hazards,
- Type of abatement or remediation,
- Socioeconomic issues,
- Availability of resources,
- Value of the structure and
- Other structural problems.

For example, a three-story Victorian house with ornate wood painted with lead paint throughout the structure will cost more to abate or remediate. Conversely, a small apartment with only a few lead hazards will cost less.



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Figure 8: Percentage of Children Younger Than 3 Years of Age With Elevated Blood Lead Levels in 2009 by County Based on Number of Children Tested.

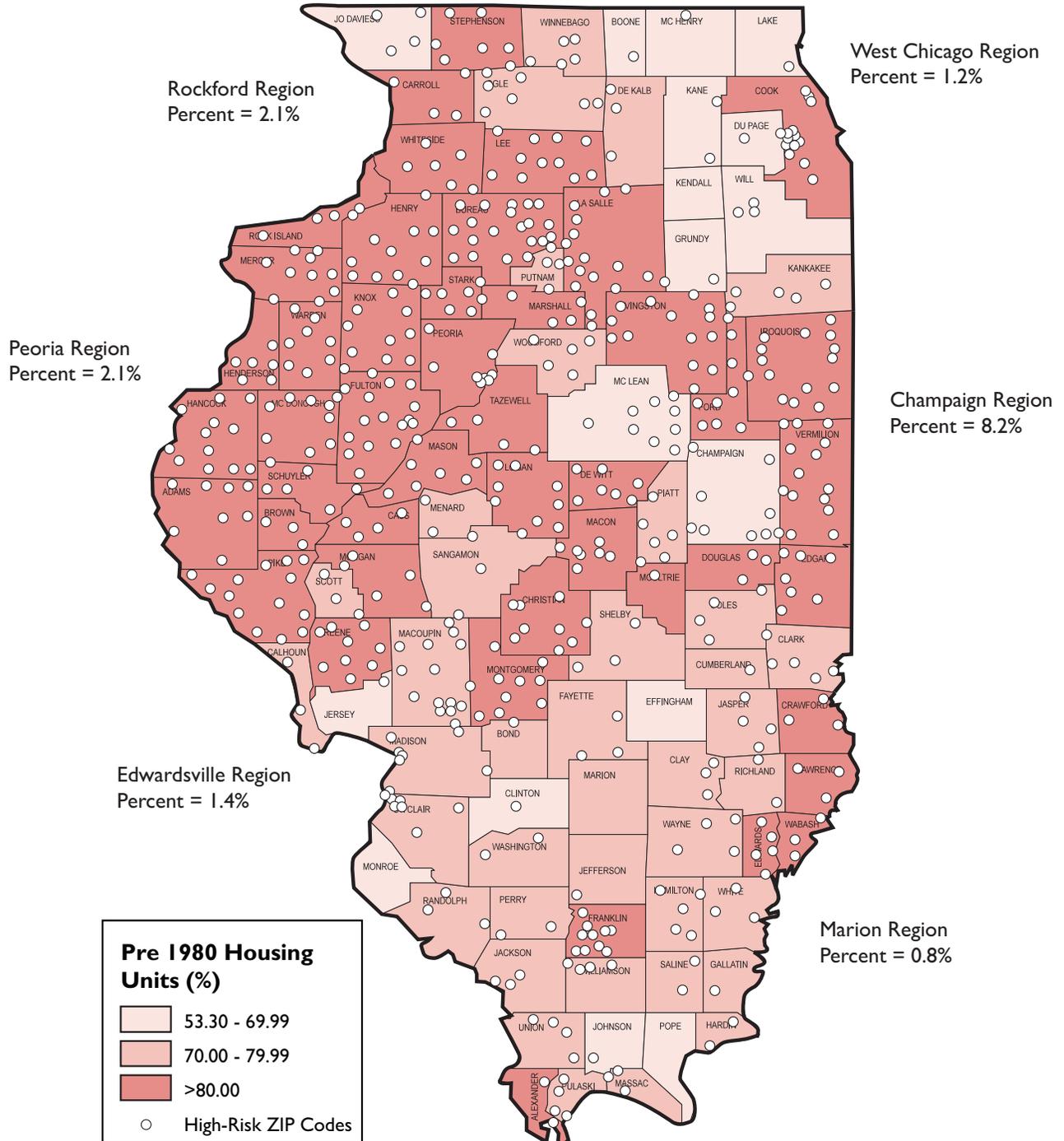


Source: Illinois Lead Program Surveillance Data, 2009

Note: The national average number of lead poisoned children as of 2007 is 1.0 percent. (CDC 2007 data). The Illinois average number of lead poisoned children is 1.3 percent in 2009 and was 1.8 percent in 2007.

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Figure 9: Percentage of Children Living in Housing Units Built Before 1980 by County.



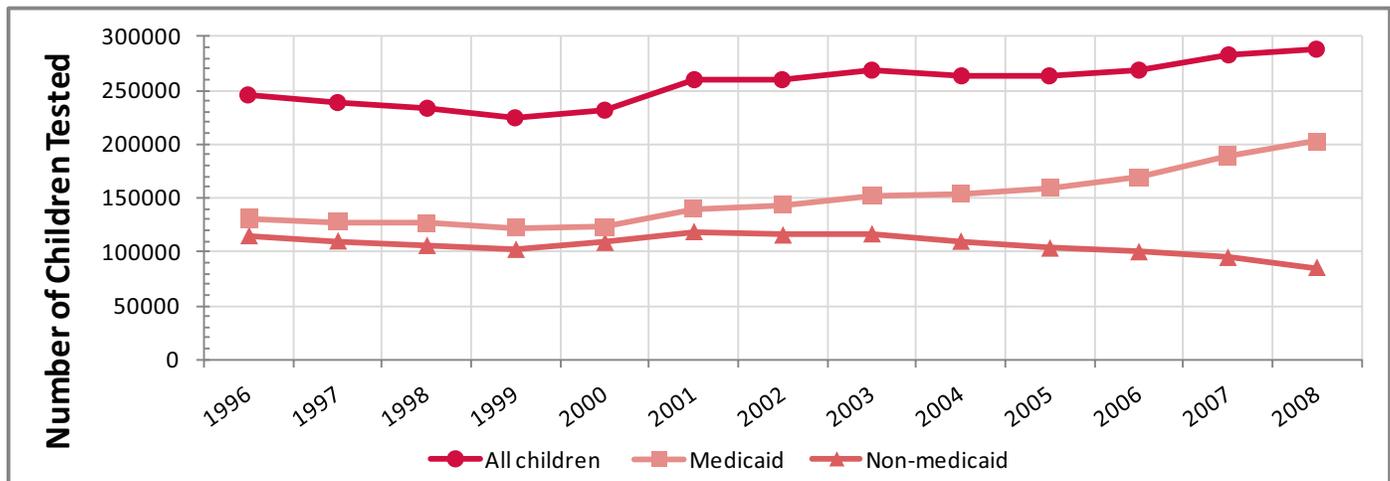
Source: 2000 Census data, high-risk ZIP codes revised by Illinois Lead Program in 2005.

Lead Poisoning and Medicaid Enrolled Children

Blood Lead Screening and Medicaid-eligible Children

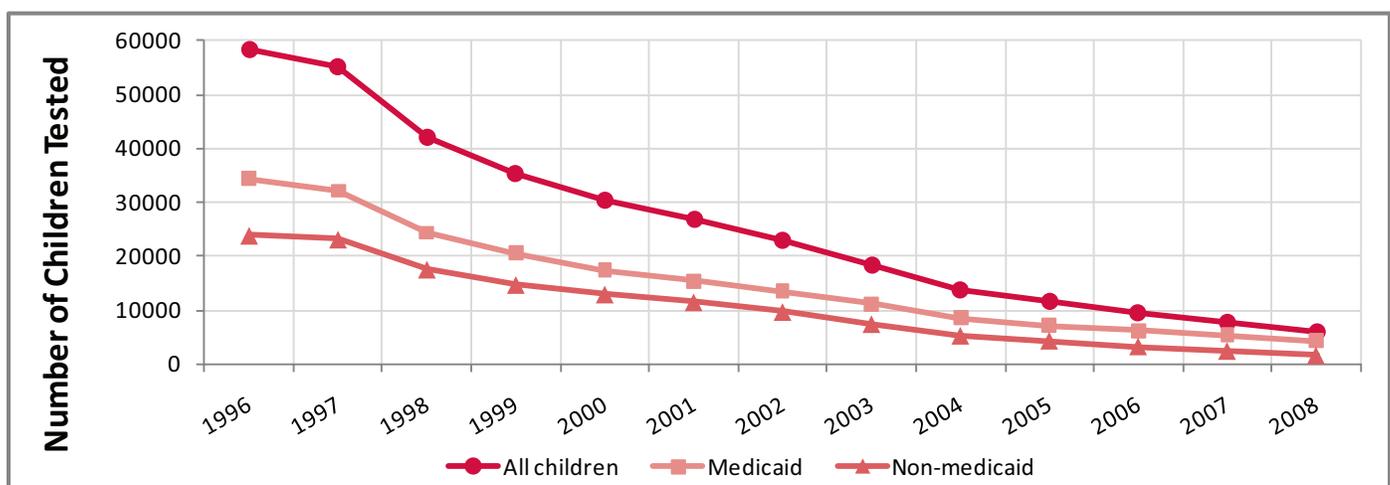
Medicaid is used as a proxy for poverty. Data shows that lead poisoning is related to poverty, logically because old houses occupied by low-income families are less likely to be remediated or abated of leaded paint hazards.

Figure 10: Medicaid and Non-Medicaid Children Tested for Blood Lead Poisoning: 1996-2008



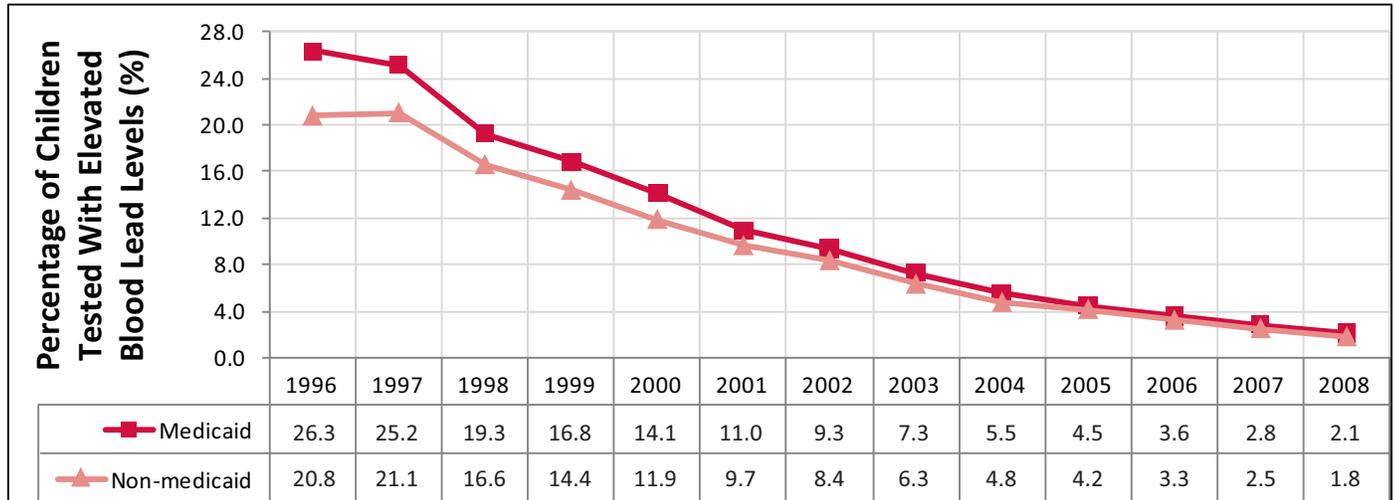
Data Source: Illinois Department of Public Health-Illinois Lead Program Surveillance Database: 1995-2008 and the Illinois Department of Healthcare and Family Services Medical Data Warehouse

Figure 11: Medicaid and Non-Medicaid Children Tested With Elevated Lead Levels of 10 Micrograms per Deciliter or Greater: 1996-2008

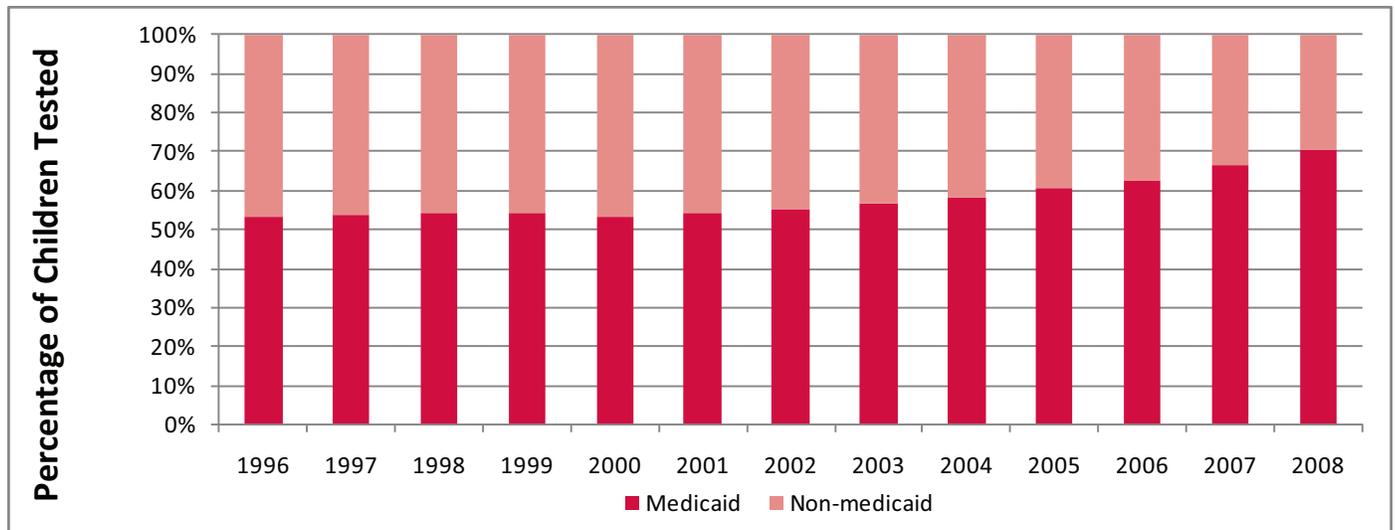


Data Source: Illinois Department of Public Health-Illinois Lead Program Surveillance Database: 1995-2008 and the Illinois Department of Healthcare and Family Services Medical Data Warehouse

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Figure 12: Percentage of Illinois Children Tested With Elevated Blood Lead Levels by Medicaid and Non-Medicaid Status: 1996 - 2008

Data Source: Illinois Department of Public Health-Illinois Lead Program Surveillance Database: 1995-2008 and the Illinois Department of Healthcare and Family Services Medical Data Warehouse

Figure 13: Percentage of New Cases of Lead Poisoned Children by Medicaid and Non-Medicaid Status: 1996-2008

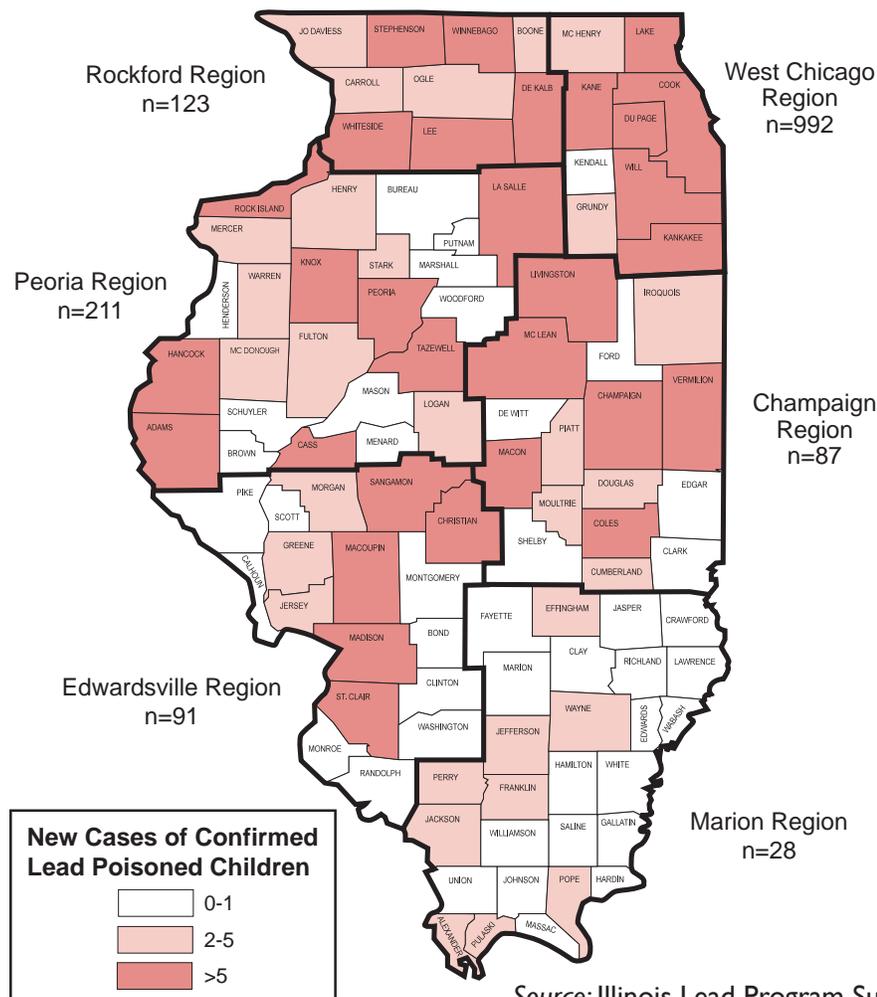
Data Source: Illinois Department of Public Health-Illinois Lead Program Surveillance Database: 1995-2008 and the Illinois Department of Healthcare and Family Services Medical Data Warehouse

Regional Distribution of Lead Poisoned Children Identified in 2009

The Illinois Department of Public Health has been partitioned into six environmental regions with an office for each region. Each regional office has environmental specialists who conduct home inspections for lead poisoned children with venous or confirmatory lead levels of 10 micrograms per deciliter or greater.

A total of 1,532 children were identified with confirmed venous elevated blood lead levels of 10 micrograms per deciliter in Illinois. The West Chicago region had the most cases of (992) compared to the Marion Region with the least number of cases (28) as shown on Figure 14.

Figure 14: Confirmed (Venous) Cases of Lead Poisoned Children Identified for the First Time in 2009



Source: Illinois Lead Program Surveillance Data, 2009

Note: National average number of lead poisoned children as of 2007 was 1.0 percent (CDC 2007 data). Illinois lead poisoning rate is 1.5 percent in 2009 and was 1.8 percent in 2007.

Case Management and Healthy Homes Tips for Lead Poisoned Children

By Kate Abitogun: Case Management Administrator, Illinois Lead Program

Comprehensive case management is initiated for children younger than 36 months of age with a venous blood lead level of 10 µg/dL or greater and children 36 months of age and older with a confirmed venous blood lead level of 20 µg/dL or greater. Once a child is identified, a Public Health Nurse (PHN) visits the child's residence and other dwellings where the child spends a significant amount of time (CDC recommends a minimum of two home visits). The PHN will assess factors that may impact the child's blood lead levels such as sources of lead, nutrition, access to services, family interaction and caregiver understanding. The PHN assesses the activities of the case management team, develops and implements a plan of care and evaluates the success of the plan of care.

The Illinois Department of Public Health continues to have grant agreements with 87 local health departments to provide case management visits for lead poisoned children in 92 of 102 counties. Services provided to all children residing in grantees geographical boundaries include:

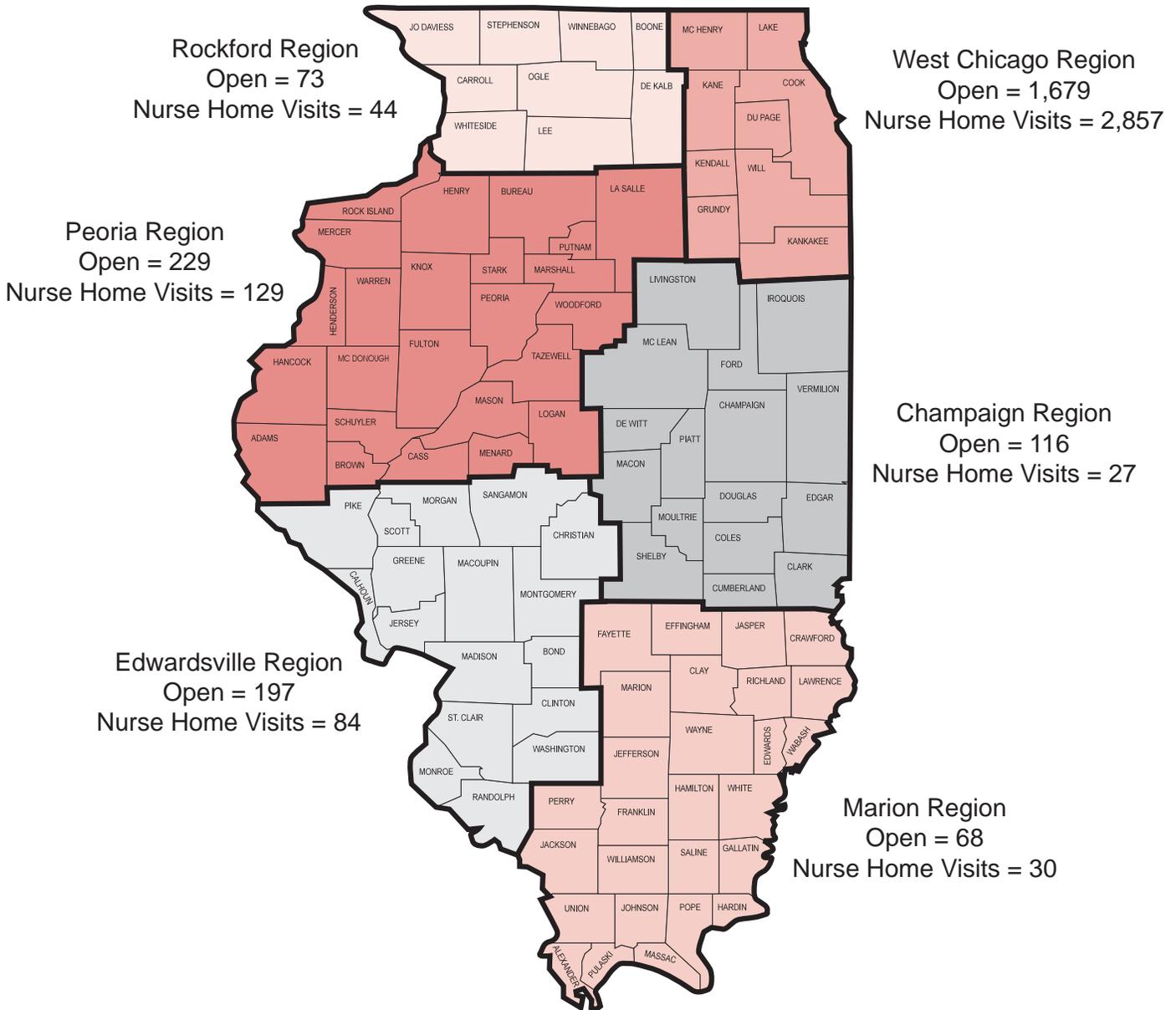
- Assessments, testing and nurse home visits
- Case management and social service referrals
- Medical evaluation
- Environmental investigation or referrals for environmental investigation
- Education and Outreach

A home visit for a lead poisoned child is triggered by a confirmed elevated blood lead level based on the specific age at which the exposure occurred. The specific purposes of a nurse home visit are to:

1. Provide the parent or guardian with information regarding the health status of the child
2. Assess the condition of the child, as well as the condition of his/her environment
3. Educate the parent or guardian on clean indoor air qualities, safety and home health
4. Assess the child's nutritional status and provide counseling
5. Instruct the parent or guardians as to follow-up procedures and to set up specific appointments as needed,
6. Initiate appropriate referral to a physician,
7. Initiate referral for environmental investigation,
8. Initiate social service referrals,
9. Provide information on hazard reduction and
10. Evaluate if proper action by parent(s) or guardian(s) has been taken.

Figure 15 indicates nurse home visits for case management services. The Illinois Lead Program and local health departments provided follow-up medical case management services to 3,171 confirmed new and existing cases of lead poisoned children in 2009 alone. These cases included newly identified lead poisoned children and follow-up cases. In Chicago, a home visit is triggered at blood lead levels of 5 micrograms per deciliter and greater. Overall, 2,362 cases were opened in 2009. Public health nurses conducted home visits to educate the affected families on ways to lower the blood lead level, including proper nutrition, hygiene and housekeeping.

Figure 15: Number of Lead Poisoned Cases Managed by Department and Delegate Agency Staff in 2009



Source: Illinois Lead Program Surveillance Data, 2009

Note: Eighty-Seven delegate agencies and two regional nurse consultants provide medical case management services for new and existing cases. Chicago opens a case when a child exhibits lead levels of 5 micrograms per deciliter and above. All other cases are opened at 10 micrograms per deciliter and above. Open refers to the actual number of children with confirmed elevated lead levels of 10 micrograms per deciliter or above who require case management follow-up or referral.

The Public Health Home Visit for Environmental Health and Lead Assessment form should be completed during the home visit.

A Nurse Care Plan is also recommended at the time of visit to raise awareness of a healthy homes approach, to provide the parent/guardian assistance in understanding the instructions given regarding prevention actions of home hazards and positive actions regarding needed caregiver support. This will reflect nurse home visit activities and intervention for the children with elevated blood lead levels and potentially at-risk children. The Nurse Care Plan will help improve documentation of case management services.

Case management of children with elevated blood lead levels (EBLLs) involves coordinating, providing and overseeing the services required to reduce their EBLLs to less than the level of concern of 10 µg/dL. Please refer to, *Time Frames for Case Management and Environmental Investigation of Children with Confirmatory EBLLs* (Table 7). It is based on the effort of the multi-disciplinary team that includes the child's caregiver. According to CDC, a hallmark of effective case management is communication and education with the caregivers and other service providers and a cooperative approach to solving any problem that may arise during the effort to decrease the child's EBLL and eliminate lead hazards from the child's environment.

Case management activities include community educational outreach to health care providers, families of lead poisoned children and the general public. Each of the delegate agencies will start using HHLPSS (Healthy Homes and Lead Poisoning Surveillance System) as soon as the conversion and transition from STELLAR (Systematic Tracking of Elevated Lead Levels and Remediation) is completed. The local health departments without a delegate agency agreement remain as non-delegate agencies. There are currently 10 non-delegate agencies where case management services are provided by the Illinois Lead Program regional nurse consultants.

In collaboration with the Department and the medical providers, the Illinois Lead Program has developed a new reference tool for physicians, *Guidelines for the Detection and Management of Lead Poisoning for Physicians and Health Care Providers*, a two-sided poster that offers medical providers quick access to screening and medical management decision-making information (Table 8 and Figure 16).

The U.S. Department of Housing and Urban Development (HUD); Office of Healthy Homes and Lead Hazard Control also developed seven tips for maintaining healthy homes:

- **Keep it dry:** Prevent water from entering your home through leaks in roofing systems, rain water from entering your home due to poor drainage and check your interior for any leaks.
- **Keep it clean:** Control the source of dust and contaminants by creating smooth and cleanable surfaces, reducing clutter and using an effective wet cleaning method.
- **Keep it safe:** Store poisons out of the reach of children and in well-labeled containers. Secure loose rugs and keep children's play areas free of hard or sharp surfaces. Install smoke and carbon monoxide detectors and keep fire extinguishers on hand.
- **Keep it well-ventilated:** Ventilate bathrooms and kitchens and use whole house ventilation for supplying fresh air to reduce the concentration of contaminants in the home.
- **Keep it pest-free:** All pests look for food, water and shelter. Seal cracks and openings throughout the home; store food in pest-resistance containers. If needed, use sticky traps and baits in closed containers, along with the least toxic pesticides such as boric acid.
- **Keep it contaminant-free:** Reduce lead-related hazards in pre-1978 homes by fixing deteriorated painted surfaces and keeping floors and window areas clean by using a wet-cleaning approach. Test your home for radon, a naturally occurring dangerous gas that enters homes through soil, crawl-spaces and foundation cracks. Install a Radon removal system if Radon is detected at a level greater than the EPA action-level.
- **Keep it well-maintained:** Inspect, clean and repair your home routinely. Take care of minor repairs and problems before they become large problem and repairs (www.hud.gov/offices/lead).

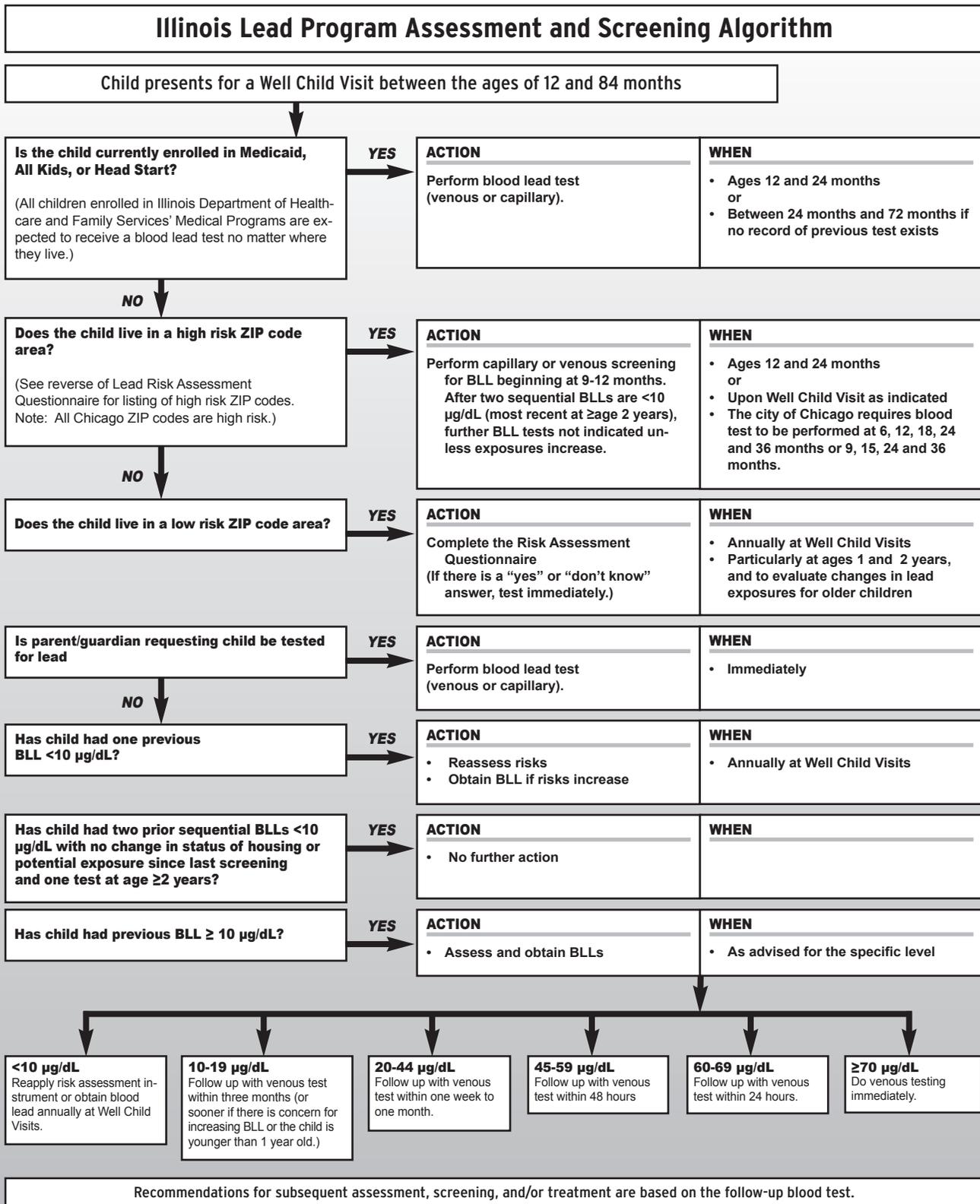
Table 7 represents the medical management of lead poisoned children based on symptoms and blood lead concentration. Figure 16 illustrates the lead poisoning assessment and treatment pathway for a child present for a well child visit between the ages of 12 and 84 months.

Table 7: Medical Management Based on Symptoms and Blood Lead Concentration

 <p style="text-align: center;">CHOICE OF MEDICAL MANAGEMENT BASED ON SYMPTOMS AND BLOOD LEAD CONCENTRATION Guidelines for the Detection and Management of Lead Poisoning for Physicians and Health Care Providers Illinois Lead Program • 866-909-3572</p>		
ASYMPTOMATIC CHILDREN BEFORE TREATMENT, MEASURE VENOUS BLOOD LEAD		
Clinical Presentation	Treatment	Comments
BLL 1 - 4 µg/dL	<ul style="list-style-type: none"> As recommended by guidelines 	<ul style="list-style-type: none"> Ensure that all blood lead test results are reported to Illinois Department of Public Health
BLL 5 - 9 µg/dL	<ul style="list-style-type: none"> Consider repeat BLL sooner than annually based on risks 	<ul style="list-style-type: none"> Consider repeating the blood lead test especially for a child aged <2 years (blood lead is likely to be on the rise in this age group), or if testing was done in winter or spring (when blood lead results are generally lower)
BLL 10 - 14 µg/dL	<ul style="list-style-type: none"> Medical evaluation Monitor BLLs every three to six months or more often, as indicated Screen for iron deficiency 	<ul style="list-style-type: none"> Provide education regarding nutrition and cleanliness and information for source identification and avoidance Refer to public health department for environmental investigation and public health nurse visit as required by law All Illinois children aged 36 months and younger with confirmed blood lead levels ≥ 10 µg/dL are to receive a home inspection
BLL 15 - 19 µg/dL	Above actions, plus: <ul style="list-style-type: none"> Monitor BLLs every one to three months or more often, as indicated 	All above actions
BLL 20 - 44 µg/dL	Above actions, plus: <ul style="list-style-type: none"> Monitor BLLs monthly until stable and falling, and lead hazards have been identified and remediated, then can lengthen testing intervals 	All above actions, plus: <ul style="list-style-type: none"> Refer to latest CDC and American Academy of Pediatrics recommendations related to chelation management
BLL 45 - 69 µg/dL	Above actions, plus: <ul style="list-style-type: none"> Succimer (oral, 350 mg/m²/dose) or CaNa₂EDTA (IV, 1000 mg/m²/day x 5 days, in divided doses) Abdominal radiograph to check for lead chips, evacuate bowel as needed Hospitalize, as necessary, to ensure lead-safe environment and medical management 	All above actions, plus: <ul style="list-style-type: none"> Hospitalize if acute symptoms are present and monitor BLLs Additional treatment may be needed depending on blood lead level rebound
BLL ≥ 70 µg/dL	Above actions, plus: <ul style="list-style-type: none"> Hospitalize and monitor BLLs Begin management with BAL (IM, BAL 450 mg/m²/day, Q4 hours, x up to three days; four hours after first BAL dose initiate CaNa₂EDTA (this transiently increases blood lead levels, while BAL does not) Ensure adequate hydration Monitor urine for heme 	All above actions, plus: <ul style="list-style-type: none"> Do not start iron therapy if on CaNa₂EDTA Additional treatment may be needed depending on blood lead level rebound
SYMPTOMATIC CHILDREN	Above actions with these modifications: <ul style="list-style-type: none"> Use BAL, as above x three days and CaNa₂EDTA 1500 mg/m²/day x five days Interrupt therapy for two days and repeat treatment, as necessary 	All above actions, plus: <ul style="list-style-type: none"> Additional treatment may be needed depending on blood lead level rebound

NOTE: For more comprehensive treatment guidelines, refer to the *Preventing and Screening for Childhood Lead Poisoning – A Reference Guide for Physicians and Health Care Providers*.
Some local health departments may conduct nurse home visits and/or refer and conduct home inspections at lower levels.

Figure 16:



Environmental Investigations and Follow-up of Lead Poisoned Children

Pursuant to the Illinois Lead Poisoning Prevention Act, inspections of dwellings and common areas occupied by a person screening positive for lead is performed by a licensed representative of the Department, or delegate agency personnel, for the purpose of determining the source of lead poisoning.

The Illinois Department of Public Health has grant agreements with 18 delegate agencies to provide environmental investigation services in addition to case management services. Environmental services include home inspections, risk assessment and case management services. Remediation is required by law when a lead hazard has been identified in a home where a lead poisoned child lives or regularly visits. Local health departments not covered by a delegate agency agreement are served by the Illinois Lead Program regional environmental health specialists located in the six regional offices of the Illinois Department of Public Health.

Environmental remediation is a high priority because medical treatment is ineffective when the child returns to a harmful environment. Homes of children who exhibit elevated blood lead levels are inspected and a report of existing lead hazards is provided. Safe work and cleanup procedures are provided as all identified hazards are required to be controlled or eliminated.

In accordance with the Illinois Lead Poisoning Prevention Act, a total of 2,624 investigations were initiated at dwellings and common areas of children with a confirmatory blood lead tests of 10 $\mu\text{g}/\text{dL}$ or greater in order to determine the source of lead poisoning (Table 8). Regional environmental investigations, mitigations, abatements and educational activities performed in 2009 are shown on Table 9.

There were a total of three cases for enforcement found in Edwardsville and Peoria. West Chicago and Peoria performed 15 enforcements and one local health departments' field trainings, respectively.



Table 8: Number of Housing Units Referred for Inspection That Were Remediated and Passed Lead Clearance Testing in 2009

Number of Housing Units Referred for Inspection*	Number of Housing Units That Received an Inspection		Number of Housing Units Identified With Lead hazards		Number of Housing Units With Lead Hazards Remediated		Number of Housing Units Remediated That Passed Lead Clearance Testing	
	N	%	N	%	N	%	N	%
3,180	2,624	83	2,374	90	1,565	66	1,565	100

*According to the Lead Poisoning Prevention Act amended in 2006, Illinois initiates inspection of dwelling and common areas of children younger than 3 years of age with lead levels of 10 microgram per deciliter or greater.

Table 9: Regional Environmental Lead Investigation, Mitigation or Abatement Activities in 2009

Action	Central Office	Champaign	Edwardsville	Marion	Peoria	Rockford	West Chicago	Totals
Number of Housing Units Investigated ¹	244	165	226	276	216	200	1,297	2,624
Total Mitigation/Abatement Complete - Certificate of Compliance Issued	0	40	47	41	88	68	763	1049
Total Cases Completed for Other Reasons ²	0	10	7	4	1	5	20	52
Public Presentations/Meetings	16	0	0	26	1	14	9	64

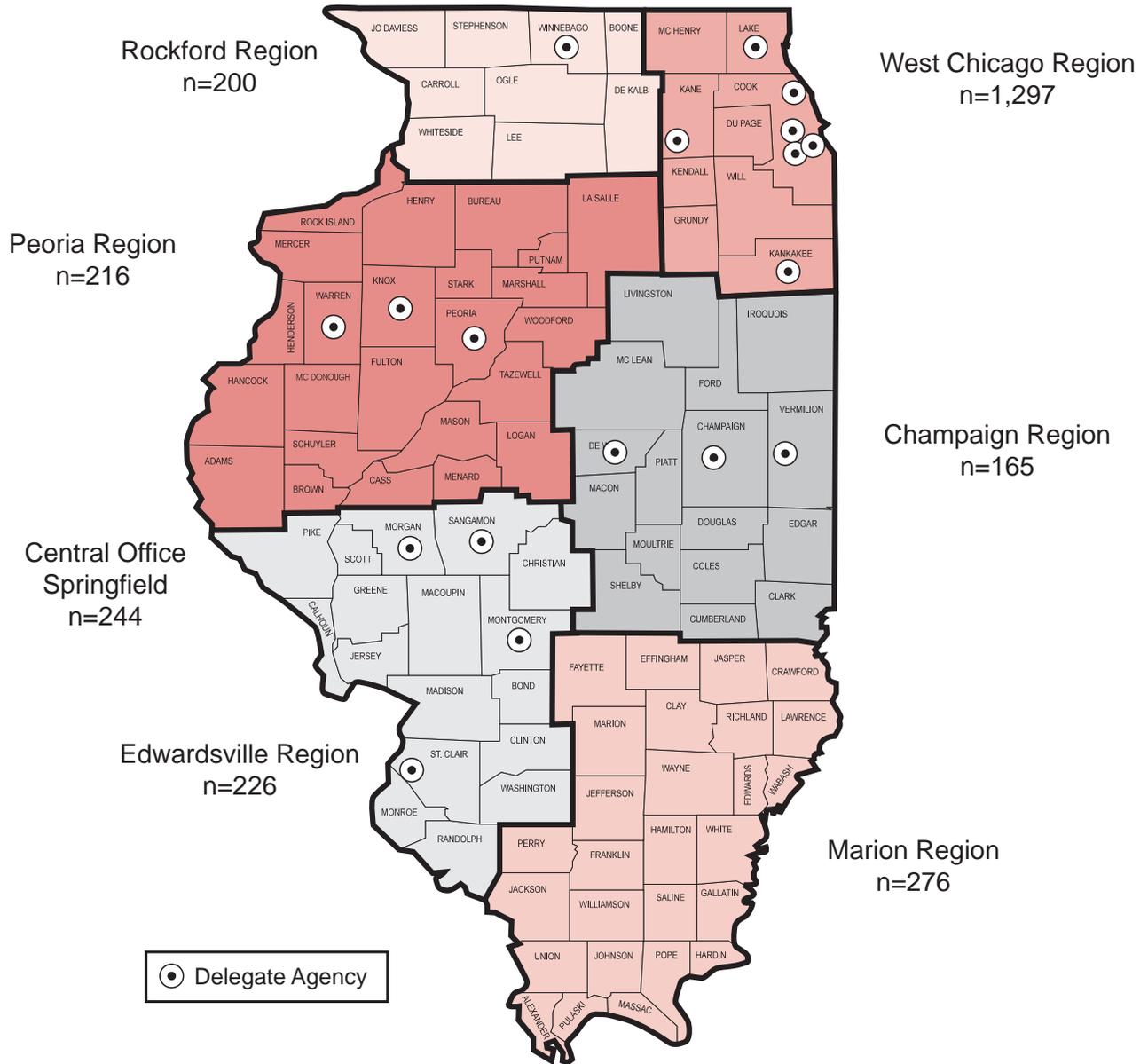
Note: ¹Total investigations conducted include primary dwellings, secondary dwellings, follow-up investigations, complaints and on-site contractor investigations.

²Cases were closed or mitigated because:

1. No lead hazard was identified.
2. There was no child with a confirmed elevated lead level.
3. Other dwelling was investigated instead.
4. Dwelling or occupant cannot be located.
5. Dwelling was demolished.

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Figure 17: Number of Environmental Investigations for Lead Poisoning by the Department and Delegate Agency Staff in 2009



Source: Illinois Lead Program Surveillance Data, 2009
 Note: Regional offices provide nurse consultations and environmental investigations. Eighteen delegate agencies also provide environmental inspection services.

Educational Activities to Prevent Lead Poisoning in Illinois

Primary prevention is the most reliable low-cost method to reduce childhood lead poisoning and improve health. The Illinois Lead Program conducted one-day lead poisoning prevention training sessions at all six regional offices of the Illinois Department of Public Health. All lead training sessions were held from 8:30 a.m. – 3:30 p.m. A total of 54 healthcare professionals were trained on lead poisoning in 2009. Continuing Education Credits (CEUs) were accorded to qualifying participants. Topics covered in the training included:

- Lead poisoning case follow-up
- Health effects and treatment of lead poisoning
- Specimen handling and analysis at the Department's Division of Laboratories
- STELLAR – Systematic Tracking of Elevated Lead Levels and Remediation
- Compliance investigations by the Illinois Department of Public Health
- Environmental case follow-up for lead poisoned children
- Healthy homes initiatives. The sessions also addressed potential risk factors and housing hazards in the homes.



Healthy Homes Initiatives

What is the Healthy Homes Initiative?

The Healthy Homes Initiative as defined by the Centers for Disease Control and Prevention is a coordinated, comprehensive and holistic approach to preventing diseases and injuries that result from housing-related hazards and deficiencies.

Goal: The goal of the initiative is to identify, eliminate or mitigate home-related health problems.

In June 2009, the Surgeon General launched the Call to Action to Promote Healthy Housing, a holistic approach to establishing a healthy home. Further information may be accessed on the call to action at: (<http://www.surgeongeneral.gov/topics/healthyhomes/calltoactiontopromotehealthyhomes.pdf>).

In the United States today, the leading preventable causes of death, disease and disability are asthma, lead poisoning, deaths in house fires, falls on stairs and from windows, burns and scald injuries and drowning in bathtubs and pools.

Surgeon General 2009, Call to Action to Promote Healthy Housing.

The purpose of Healthy Homes Surveillance, according to the Centers for Disease Control and Prevention (CDC), is to:

- Identify and track housing-related risk factors and outcomes
- Generate research questions related to housing and health
- Generate intervention strategies related to housing and health
- Evaluate the long-term effectiveness of these strategies

According to CDC, childhood lead poisoning, injuries, respiratory diseases such as asthma and quality of life issues have been linked to the more than 6 million substandard housing units nationwide.

<http://www.cdc.gov/nceh/lead/healthyhomes.htm>

More information about the Healthy Homes Initiatives will be published in subsequent reports.

Illinois Lead Elimination Advisory Council

The program continues to recruit and build capacity and competency among members of its Childhood Lead Poisoning Elimination Advisory Council whose mission is to foster a creative partnership and implement a comprehensive statewide strategic plan. The advisory council is composed of a diverse network of dedicated stakeholders like physicians, public health nurses, health educators, nutritionists, demographers, environmental public health practitioners, epidemiologists, clinical providers, housing specialists and allied health professionals. The council is divided into subcommittees who identify or address goals and objectives related to the elimination of childhood lead poisoning:

- education awareness,
- evaluation,
- primary prevention,
- resources and
- screening plan.

Each committee has a facilitator who reports the progress made toward the completion of the goals and activities during meetings.

For more information on the Childhood Lead Poisoning Elimination Advisory Council, contact the Illinois Department of Public Health.



Illinois Lead Poisoning Prevention Internet Resources

Illinois Lead Poisoning Prevention Act

www.ilga.gov/legislation/ilcs/ilcs2.asp?ChapterID=35
410 ILCS 45/Lead Poisoning Prevention Act.

Administrative Code

www.ilga.gov/commission/jcar/admincode/077/07700845sections.html
www.ilga.gov/commission/jcar/admincode/077/07700665sections.html

Lead Risk Assessment Questionnaire

www.idph.state.il.us/a-zlist.htm#L
Select L for Lead
Select Lead Programs Forms
Select Childhood Lead Risk Assessment Questionnaire and Guidelines - En Español - En français

This document also includes **Guidelines for Lead Risk Assessment Questionnaire** as the second page and the high-risk ZIP code list as the third page.

Pediatric High-Risk ZIP Code Areas

www.idph.state.il.us/HealthWellness/LeadHighRiskZIPcodes04.pdf

Child Health Certificate of Examination

www.ilga.gov/commission/jcar/admincode/077/07700665sections.html (law)
www.idph.state.il.us/pdf/cert_child_health05.pdf (English)
www.idph.state.il.us/pdf/officialpxS05.pdf (Spanish)

Educational Brochures Order Form

www.idph.state.il.us/envhealth/pdf/Lead_Pub_Order_Form.pdf

Contact Information

Illinois Department of Public Health
Illinois Lead Program
525 West Jefferson Street
Springfield, Illinois 62761
Telephone: 866-909-3572 or 217-782-3517
The hearing impaired can dial 800-547-0466
Web site: <http://www.idph.state.il.us/envhealth/lead.htm>

U.S. Centers for Disease Control and Prevention (CDC)
Web site: <http://www.cdc.gov/lead/>

National Lead Information Center
Telephone: 800-424-LEAD (5323)
Web site: www.epa.gov/lead

National Center for Healthy Housing
Web site: <http://www.centerforhealthyhousing.org/>

Office of Healthy Homes and Lead Hazard Control
U.S. Department of Housing and Urban Development
Telephone: (202) 708-1112 TTY: (202) 708-1455
Web site: <http://www.hud.gov/offices/lead/>

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