DOCUMENT RESUME

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Surveillance Report, 1999.

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PUB DATE 2000-07-00

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IDENTIFIERS African Americans; Environmental Problems; Household Risks;

*Illinois; *Lead (Metal)

ABSTRACT

In order to highlight the importance of identifying children with elevated blood lead levels, the Illinois Department of Public Health produces its surveillance report to present state and county level data on the number of children screened for and identified with lead poisoning. In Illinois, all children between 6 and 84 months of age must be assessed for lead poisoning at least once before entering a licensed day care center, preschool, or kindergarten. This report provides information from 1998 and 1999 on screening tests conducted on children 15 years old or younger. The report indicates that in 1999, 11 percent of those tested had at least 1 blood lead test result greater than or equal to 10 mcg/dL. African American children are over three times more likely to be affected by lead poisoning than Caucasian children. Hispanic children were nearly twice as likely to have lead poisoning as Caucasian children. Much of the group differences were attributed to the fact that minority groups were more likely to live in older housing in high-risk areas. The age at which children should be screened is discussed, and requirements for screening children living in high-risk areas is presented. The report concludes with a list of organizational sources for information about lead poisoning prevention. (KB)



GET THE

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Illinois Childhood Lead Poisoning Surveillance Report

1999

Illinois Department of Public Health



Illinois Department of Public Health Childhood Lead Risk Assessment Questionnaire

ALL CHILDREN 6 MONTHS THROUGH 6 YEARS OF AGE SHOULD BE ASSESSED FOR LEAD POISONING.

Today's date Child	i's name			
Child's age In wh	at ZIP code does the child currently live?		-	
If the child has moved within the last 12 mo	onths, in what ZIP code(s) did he/she previous	ly live?		
Respond to the following questions by circl	ing the appropriate answer.		RESI	PONSE
1. Are any of the above ZIP codes listed or	n the back of the questionnaire?	Yes	No	Don't Know
2. Does this child live in a home built before	re 1950 (older than 50 years)?	Yes	No	Don't Know
3. Does this child live in or regularly visit a before 1978?	home, school, or day-care built	Yes	No	Don't Know
If so				
Does it have peeling or chipp	oing paint?	Yes	No	Don't Know
Is it being repaired or remode	eled?	Yes	No	Don't Know
4. Is this child eligible for or enrolled in Med	dicaid, Head-Start, Kid Care or WIC?	Yes	No	Don't Know
Does this child live with someone who he (for example, building renovation or repa furniture refinishing, or work with automo leaded glass, lead shots, bullets or lead	air, bridge construction, plumbing, obile batteries or radiators, lead solder,	Yes	No	Don't Know
6. At any time, has this child lived near a fa (for example, a lead smelter or a paint		Yes	No	Don't Know
 Has this child ever been to Mexico, Cent country where exposure to lead from cel (for example, cosmetics, home remedie) 	rtain items could have occurred?	Yes	No	Don't Know
If a child's parent(s) or guardian(s) has any the child's health care provider. The child	questions or concerns about these questions may have been exposed to lead.	, he or she sho	uld dis	cuss them with
Children with brothers or sisters who have	elevated blood lead levels should have a blood	d lead test.		
	go a blood lead test at 12 months of age and 2 been previously tested, a blood lead test should			child between
If you have questions or need more information	ation, call			;
•	Illinois Department of Public Health dhood Lead Poisoning Prevention Program 800-545-2200 or 217-782-0403			··
	(hearing impaired use only) 800-547-0466	_		
Reviewed by	Provider's Signature	Date		



GETTING THE WORD OUT ON LEAD

July 2000

The Illinois Department of Public Health (IDPH) recommends that all children be assessed for lead poisoning at 1 and 2 years of age. If neither one indicates the child is lead-poisoned, another assessment is needed only if the child moves or has a change in environment that would present a risk for lead poisoning. If a child has a lead-poisoned sibling or lives in a home with lead paint, a blood lead test at 6 months of age is appropriate. Detailed recommendations are in IDPH's *Guidelines for the Detection and Management of Lead Poisoning for Physicians and Health Care Providers*.

There are two ways a child may be assessed for lead poisoning - by a questionnaire or by a blood lead test. The appropriate assessment depends on where the child lives and on the probability that the child has been exposed to lead. Illinois ZIP codes have been designated "high-risk" or "low-risk" depending on the age of housing and the percentage of low-income families living there. *Children who live in high-risk ZIP codes must be assessed for lead poisoning using a blood lead test.* In low-risk ZIP codes, doctors ask questions about the possibility of the child being exposed to lead. If any responses are positive, exposure is likely and a blood lead test should be conducted.

Recently, the assessment questionnaire was revised. The new questionnaire, printed on the opposite page, is simpler than the previous version. Any child with a "yes" or "don't know" response should have a blood lead test. The revised questionnaire also emphasizes that Medicaid-enrolled children should receive a blood lead test at 1 and 2 years of age, regardless of whether they live in a high-risk or low-risk ZIP code. This testing schedule for Medicaid-enrolled children is required by federal policy, since children in low-income families are at higher risk for lead poisoning.

At a minimum, all children between 6 and 84 months of age must be assessed for lead poisoning at least once before entering a licensed day care center, preschool or kindergarten. These institutions need to receive proof that an assessment has been done. A completed assessment questionnaire, signed by a doctor, is sufficient if a child lives in a low-risk ZIP code and has no identified risk factors. Proof of a blood lead test is required if the child lives in a high-risk ZIP code or if exposure to lead is suspected.

For more information about lead poisoning, its sources and prevention, or about Illinois legislation, call the Childhood Lead Poisoning Prevention Program at 217-785-9464. For information regarding licensed lead inspectors and lead abatement contractors or to receive pamphlets on lead abatement, call the IDPH Lead Abatement Program at 217-782-3517. Information may also be obtained by dialing TTY (hearing impaired only) 800-547-0466.

John R. Lumpkin, M.D., M.P.H. Director of Public Health



Highlights

Some Interesting Numbers

Detailed breakdowns of the numbers of children screened and those with elevated results are given in the following pages.

Here are some other interesting highlights of blood lead testing in 1999:

- * 272,343 blood lead tests were reported on 238,365 Illinois children.
- * 26,384 children (11 percent) had at least one blood lead test result ≥10 mcg/dL.
- * 9,386 children (4 percent) had at least one blood lead test result ≥ 15 mcg/dL.
- * 230 children were identified with severe lead poisoning (≥45 mcg/dL).

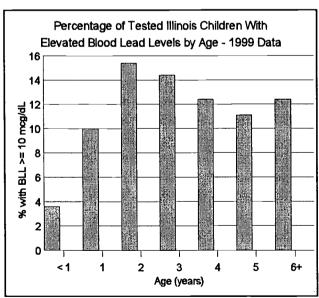


Figure 2

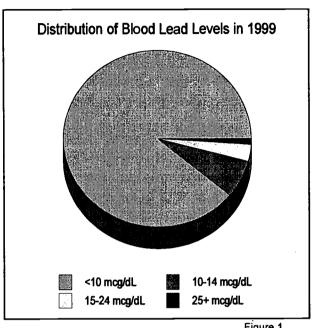


Figure 1

At what age should children be screened?

Illinois law requires that children between 6 and 84 months of age who live in high-risk areas be screened before attending day care, preschool or kindergarten. Early detection is important since damage from lead poisoning can be prevented or minimized when it is discovered early in an affected child's development.

As Figure 2 suggests, children are most likely to become lead poisoned once they are able to crawl and walk. Therefore, IDPH recommends that children be tested at 1 and 2 years of age. In addition, federal policies require that Medicaid-enrolled children be tested at 1 and 2 years of age.



Highlights

Elevated Results in High-Risk Areas

Illinois screening data for 1997 - 1999, shown in Figure 3, indicate that children living in highrisk ZIP codes are indeed more likely to be lead-poisoned than children living in low-risk ZIP codes.

This demonstrates that targeted screening -- use of the assessment questionnaire in low-risk areas -- is an appropriate and efficient way to identify children at risk for lead poisoning.

Although the assessment questionnaire was recently revised, a review of blood test results in the high- and low-risk ZIP codes determined that no change in risk designation was needed. The high- and low-risk designations were introduced for targeted screening in 1995.

Percentage of Children With Elevated Blood Lead Levels By Race - 1999 Data 25 15 10 Hispanic Caucasian African American Other Asian

Figure 4

Lead Poisoning and Race

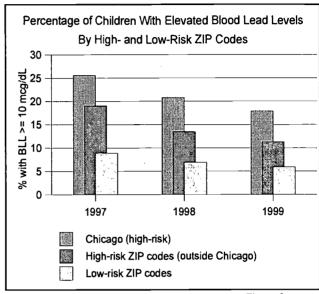


Figure 3

Figure 4 demonstrates the differential in lead poisoning across races. African-American children are more than three times as likely to be affected by lead poisoning than Caucasian children. Hispanic children face nearly twice the risk.

Most of this difference is attributed to the fact that minorities are more likely to live in the older housing of high-risk ZIP codes. While lead paint is the source of most lead poisoning cases, folk remedies and pottery made outside the United States may also contribute to the higher lead poisoning rates of minority children.

Efforts must continue to eliminate the preventable effects of lead poisoning among children of all races.



Summary Report

Summary of 1998 Activity									
*Total children screen	ed	234,417							
Number with results >	10 mcg/dL	32,611							
Number with results ≥									
Numbers ≥ 15 mcg/dL	by geographic reg	ion							
Chicago	8,771	(73%)							
Downstate	3,191	(27%)							

Summary of 1999 Activity									
*Total children screened		238,365							
Number with results > 10	mcg/dL	26,384							
Number with results ≥ 15	5 mcg/dL	9,386							
Numbers > 15 mcg/dL b	y geographic reg	ion							
Chicago	6,905	(74%)							
Downstate .	2,481	(26%)							

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	1990			1998	3		- 4.1		i grade di Lingui	1999	9		3
County	Population of Children 6	Total	10-14	15-19	20-24	25-44	45 ÷	Total	10-14	15-19	20-24	25-44	45 +
p - · · · · · · · · · · · · · ·	and Under	Tested		<u> </u>	ncg/dL	- , - ,		Tested		r	ncg/dL	(3	,
Adams	6,664	722	82	20	14	11	1	61 <u>5</u>	57	19	7	6	2
Alexander	1,166	278	39	4	3	1	0	139	16	6	6	4	0
Bond	1,431	239	6	6	0	1	0	288	14	5	. 2	2	0
Boone	3,344	357	23	4	5	7	1	362	19	12	0	2	1
Brown	465	27	5	1	1	0	0	12	1	1	0	0	0
Bureau	3,516	432	13	4	3	0	0	429	4	5	3	1	1
Calhoun	544	52	4	1	0	0	0	53	5	0	1	0	0
Carroll	1,522	155	14	6	2	2	0	227	15	4	0	0	0
Cass	1,246	161	8	4	1	0	0	136	10	3	1	1	0
Champaign	16,730	962	28	7	4	4	0	960	33	6	2	0	0
Christian	3,428	461	25	2	3	1	0	376	15	- 5	1	3	0
Clark	1,491	52	1	0	0	0	0	41	3	0	0	0	0
Clay	1,316	182	7	4	0	. 1	0	191	9	0	0	0	0
Clinton	3,394	41	5	1	0	1	0	67	2	0	0	0	0
Coles	4,154	125	9	5	3	3	0	92	11	1	_1	1	0
Cook w/o Chicago	239,334	20,018	1,014	298	89	116	17	19,556	861	240	88	110	10
Chicago	296,408	111,410	14,173	4,749	2,034	1,734	254	105,641	11,914	3,763	1,510	1,452	180
Crawford	1,832	101	3	2	0	1	0	93	1	0	0	0	0
Cumberland	1,152	53	1	0	0	0	0	43	1	2	0	0	0
DeKalb	6,953	371	28	8	4	4	0	380	21	6	2	2	0



Summary Report

	1990			1998	3					1999	3		
County	Population of Children 6	Total	10-14	15-19	20-24	25-44	45+	Total	10-14_	15-19	20-24	25-44	45÷
	and Under	Tested		n	ncg/dL			Tested	 -	n	ncg/dL		
DeWitt	1,545	233	38	8	4	3	1	172	18	5	3	2	0
Douglas	2,038	94	5	1	1	0	0	103	6	0	0	0	0
DuPage	89,010	2,429	75	18	9	8	0	3,114	145	28	12	7	0
Edgar	1,717	207	10	2	3	1	2	225	21	4	_2	2	0
Edwards	674	64	6	4	0	0	0	48	6	3	1	1	0
Effingham	3,876	87	5	1	2	0	0	83	3	0	1	0	0
Fayette	1,937	351	21	5	3	0	0	280	9	6	0	0	0
Ford	1,376	163	6	2	0	1	0	162	8	0	2	0	0
Franklin	3,440	362	13	6	0	2	0	336	14	3	1	1	0
Fulton	3,284	353	31	5	3	3	0	383	33	7	0	3	0
Gallatin	569	93	4	0	0	0	0	107	4	3	0	0	
Greene	1,568	196	37	12	0	2	0	182	28	11	0	2	
Grundy	3,369	217	14	1	<u> </u>	2	0	238	4	3	1	1	0
Hamilton	750	83	8	2	0	0	0	101	13	0	0	0	0
Hancock	1,970	334	53	10	0	2	0	307	35	3	1	5	0
Hardin	425	32	0	0	0	0	0	36	1	0	0	2	0
Henderson	738	104	9	1	2	1	0	114	8	2	0	1	0
Henry	4,937	413	60	23	7	5	0	225	32	11	1	1	1
Iroquois	2,945	364	21	3	0	6	0	302	16	2	1	1	0
Jackson	4,697	621	31	10	2	0	0	612	27	9	0	0	0
Jasper	1,178	44	2	1	0	0	<u> 0</u>	62	4	0	0	1	0
Jefferson	3,841	337	9	6	3	0	0	406	15	3	2	1	0
Jersey	2,116	170	3	0	0	1	<u> </u>	159	4	1	2	1 1	0
Jo Daviess	2,158	124	16	3	1	<u></u>	0 0	153	7	3	1	1 1	0
Johnson	818	50	0	0			0	44	0	1	0		0
Kane	39,441	5,421	508	155	56	46	8	4,986	390	107	33	30	5
Kankakee	10,635	2,893	320	79	23	29	1	2,280	225	72	16	21	2



Summary Report

	1990		-	1998	3			χ.	:	1999	9		-
County	Population of Children 6	Total	10-14	15-19	20-24	25-44	45+	Total	10-14	15-19	20-24	25-44	45+
and the second of the second o	and Under	Tested		r	ncg/dL	· · · · · · · ·		Tested		n	ncg/dL		
Kendall	4,448	228	9	1	0	0	0	244	4	2	0	0	0
Knox	4,931	830	52	11	7	4	0	798	36	13	3	1	3
Lake	61,257	5,940	168	48	21	18	1	5,976	104	41	14	14	4
La Salle	10,376	1,068	52	14	9	3	1	1,082	40	10	9	6	0
Lawrence	1,435	328	18	1	2	0	0	326	9	4	0	0	0
Lee	3,404	134	11	6	0	2	0	247	6	1	1	2	0
Livingston	3,922	899	47	12	· 3	2	0	829	44	8	1	1	0
Logan	2,842	268	18	.a 1	3	2	1	292	18	4	0	2	0
McDonough	2,463	261	34	9	1	0	0	204	17	6	0	0	0
McHenry	22,241	946	50	8	. 9	3	1	918	28	9	· 2	3	1
McLean	12,280	1,993	72	26	9	11	5	1,849	51	15	4	8	0
Macon	11,304	2,598	323	110	42	25	2	1,913	233	83	24	27	4
Macoupin	4,475	431	25	5	1	1	0	450	18	4	4	0	0
Madison	25,426	1,370	100	30	13	6	1	1,562	124	25	5	11	1
Marion	4,168	427	12	5	2	1	3	350	10	5	3	3	0
Marshall	1,127	83	10	3	0	3	. 0	127	10	5	1	1.31	0
Mason	1,481	209	9	2	0	0	0	240	11	2	0	2	0
Massac	1,302	78	2	1	1	1	0	68	4	1	1	0	0
Menard	1,092	59	6	0	0	0	0	67	2	0	0	0	0
Mercer	1,647	235	12	3	6	3	0	256	12	9	2	1	0
Monroe	2,379	74	4	0	1	0	0	63	1	1	0	1	0
Montgomery	2,982	526	25	5	5	4	2	427	21	6	3	2	0
Morgan	3,290	273	28	9	7	2	0	263	18	3	2	2	0
Moultrie	1,301	107	2	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0	0	0	71	0	0	0	0	
Ogle	4,801	228	13	4	4	1	_ 1	419	13	3	2	2	0
Peoria	18,252	2,374	308	99	39	38	0	2,106	246		25	18	0
Perry	2,112	103	13	4	3	0	0		5		1	1	0



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Summary Report

	1990			1998				-		1999	———)		
County	Population of Children 6	Total	10-14	15-19	20-24	25-44	45+	Total	10-14	15-19	20-24	25-44	45+
	and Under	Tested		n	ncg/dL			Tested		n	ncg/dL		
Piatt	1,432	137	8	5	0	1	0	85	6	0	0	0	0
Pike	1,611	350	22	7	3	0	0	319	15	8	2	2	0
Pope	299	_35	2	0	0	0	0	16	0	0	0	0	0
Pulaski	795	125	16	9	3	1	0	67	12	2	1	1	0
Putnam	596	70	3	0	0	0	0	72	0	0	0	0	0
Randolph	3,109	314	22	. 1	3	0	0	309	<u>.</u> 17	2	0	, 1	0
Richland	1,629	96	5	2	1	0	0	102	8	3	0	0	0
Rock Island	14,688	2,699	287	75	26	23	2	2,380	237	72	24	21	1
St. Clair	29,386	5,409	604	140	34	30	2	4,848	505	121	36	27	2
Saline	2,356	504	32	3	1	0	0	450	19	3	1	0	0
Sangamon	18,225	1,989	163	79	18	18	1	2,022	144	49	24	11	1
Schuyler	685	27	2	. 1	. 0	0	0	23	1	1	0	0	0
Scott	571	30	0	0	0	0	0	47	2	0	0	0	0
Shelby	2,137	174	. 11	3	1	0	0	103	3	3	1	0	0
Stark	598	72	11	1	1	1	0	64	5	0	2	3	0
Stephenson	4,988	602	123	51	22	20	₹2	666	98	53	10	12	2
Tazewell	12,321	1,199	19	5	4	5	0	1,359	21	2	6	3	0
Union	1,472	151	11	3	0	0	0	132	10	0	1	1	0
Vermilion	8,689	1,154	88	29	12	13	3	813	51	20	12	6	2
Wabash	1,282	167	18	6	0	1	0	158	11	4	1	1	0
Warren	1,856	245	10	6	2	3	0	210	10	2	1	3	0
Washington	1,408	40	1	0	0	0	0	23	2	0	0	. 0	0
Wayne	1,589	438	9	3	1	1	0	417	11	5	1	0	0
White	1,581	223	21	2	0	1	0	247	15	3	2	0	0
Whiteside	<u>6,</u> 011	731	44	16	3	7	0	866	35	9	6	3	0
Will	42,170	2,513	165	32	12	20	4	2,398	134	23	12	10	0
Williamson		269	6	1	0	0	0	292	5	1	0	1	0



Summary Report

	1990	_	1998					1999						
County	Population of Children 6	Total	10-14	15-19	20-24	25-44	45÷	Total	10-14	15-19	20-24	25-44	45+	
	and Under	Tested		mcg/dL			Tested	mcg/dL						
Winnebago	27,077	3,394	290	81	34	32	5	3,455	154	49	16	23		
Woodford	3,350	163	8	4	0	3	0	108	0	2	0	0	0	
Unknown		36,989	432	134	39	39	2	50,187	294	94	32	18	0	
TOTAL	1,201,118	234,417	20,649	6,597	2,693	2,348	324	238,365	16,998	5,231	2,002	1,923	230	

[†] The 1990 population of children ages 6 and younger is based on 1990 census data.

The information contained in this report is gathered by the Illinois Department of Public Health's Childhood Lead Poisoning Prevention Program. Elevated blood lead levels (≥ 10 mcg/dL) are reported by laboratories, physicians, hospitals and other health care providers. Non-elevated results (< 10 mcg/dL) are reported by laboratories. Results on all children 15 years old or younger are included in this report. Almost all tests (94 percent) are performed on children 6 years old or younger. The *total number* of *children screened* in the activity summary boxes and *total tested* column for 1998 and 1999 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 is selected.

Results of all blood lead tests must be reported to the Illinois Department of Public Health's Childhood Lead Poisoning Prevention Program by the directors of laboratories performing the analyses. Blood lead levels greater than or equal to 10 mcg/dL also must be reported by physicians, hospital administrators, local health department administrators and directors of laboratories that do not perform blood lead analyses. In either case, results must be reported to the Department's Childhood Lead Poisoning Reporting System at 217-785-9464.

The *Illinois Childhood Lead Poisoning Surveillance Report* provides information by county on the number of children screened and identified with lead poisoning. The U.S. Centers for Disease Control and Prevention recommends that children with lead levels at or exceeding 15 mcg/dL be provided follow-up services; these include medical management and case management. The Illinois Department of Public Health or delegate agencies (local health departments) provide these services to children residing in Illinois. Environmental investigations and management may be provided for children with lead levels at or exceeding 25 mcg/dL, for those with blood lead levels that persistently lie between 15 and 24 mcg/dL, or at the request of the child's physician.



SOURCES FOR INFORMATION ABOUT LEAD POISONING PREVENTION

Illinois Department of Public Health Childhood Lead Poisoning Prevention Program	217-785-9464	Web Sites
Ciliditood Lead Folsofiling Frevention Freguent		www.idph.state.il.us
Illinois Department of Human Services Information And Referral Hotline	800-323-4769 voice and TTY	www.cdc.gov/nceh/lead
	(hearing impaired use)	, and the second
Illinois Department of Public Health	217-782-0403	www.hud.gov/lea
Childhood Lead Poisoning Clearinghouse	800-547-0466 - TTY (hearing impaired only)	www.epa.gov/lead
Illinois Department of Public Health Division of Environmental Health	217-782-3517	www.lead-safeamerica.net
National Lead Information Center Hotline	800-LEAD-FYI	
National Lead Information Center Clearinghouse	800-424-LEAD	
Alliance to End Childhood Lead Poisoning	202-543-1147	
Safe Drinking Water Hotline (U.S. EPA)	800-426-4791	
Toxic Substances Control Act Assistance Information Service	202-554-1404	

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