INDIANA CHILDHOOD LEAD POISONING PREVENTION PROGRAM

Report to the Legislature for Calendar Year 2006

Submitted

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This report addressing state lead poisoning activities is required by IC 16-41-39.4-5, as follows:

IC 16-41-39.4-5
Annual report

Sec. 5. (a) The state department shall, in cooperation with other state agencies, collect data under this chapter and, before March 15 of each year, report the results to the general assembly for the previous calendar year. A copy of the report shall be transmitted in an electronic format under IC 5-14-6 to the executive director of the legislative services agency for distribution to the members of the general assembly.

(b) The report transmitted under subsection (a) must include for each county the following information concerning children who are less than seven (7) years of age:

(1) The number of children who received a blood lead test.

(2) The number of children who had a blood test result of at least ten (10) micrograms of lead per deciliter of blood.

(3) The number of children identified under subdivision (2) who received a blood test to confirm that they had lead poisoning.

(4) The number of children identified under subdivision (3) who had lead poisoning.

(5) The number of children identified under subdivision (4) who had a blood test result of less than ten (10) micrograms of lead per deciliter of blood.

(6) The average number of days taken to confirm a blood lead test.

(7) The number of risk assessments performed for children identified under subdivision (4) and the average number of days taken to perform the risk assessment.

(8) The number of housing units in which risk assessments performed under subdivision (7) documented lead hazards as defined by 40 CFR 745.

(9) The number of housing units identified under subdivision (8) that were covered by orders issued under IC 13-14-10-2 or by another governmental authority to eliminate lead hazards.

(10) The number of housing units identified under subdivision (9) for which lead hazards have been eliminated within thirty (30) days, three (3) months, and six (6) months

Indiana Childhood Lead Poisoning Prevention Program
2006 Annual Report

The mission of the Indiana Childhood Lead Poisoning Prevention Program (ICLPPP) is to eliminate lead poisoning as a public health problem in Indiana by 2010. To accomplish this mission the program focuses on primary and secondary prevention goals set forth in the lead elimination plan. Primary prevention of lead poisoning includes the identification and remediation of environmental lead hazards, eliminating the source of the disease before children are poisoned. Secondary prevention consists of screening and testing of children for lead, followed by case management activities that have been the traditional strength of the program. In recent years, ICLPPP has increased its emphasis on the primary prevention of lead poisoning in an effort to head off the disease before it strikes. In partnership with local county health departments, ICLPPP pursues the most appropriate approach to both prevention and treatment of childhood lead poisoning in communities throughout Indiana.

Lead poisoning is a silent menace which often does not manifest itself until the damage is done. The disease can permanently and irreversibly damage the developing brains and other organs of young children. Serious effects can include lowered intelligence, behavior disorder, and slowed physical development. Once poisoned, a young child's chances for academic, social and occupational success are significantly diminished.

Indiana tests children who are less than seven years old, and who present *any* of five at-risk factors. The five questions used to screen for at-risk children are:

- Is the child living in or regularly visiting, or has the child lived in or regularly visited, a house or child care center built before 1978?
- Does the child have a sibling or playmate that has or has had lead poisoning?
- Does the child frequently come in contact with an adult who works in an industry or has a hobby that uses lead?
- Is the child (a) a recent immigrant – or – (b) a member of a minority – or – (c) enrolled in Hoosier Healthwise?
- Does anyone in the family use folk remedies or ethnic cosmetics?

Children, who have a confirmed elevated blood lead level (CEBLL) at ten (10) micrograms per deciliter of blood, or above, are considered to be lead poisoned. Confirmation of the blood lead level depends upon the initial testing method. A blood test may be completed by the capillary method, where the child's finger is pricked and the blood is collected in a capillary tube, or daubed onto filter paper. Or the blood can be taken by the venipuncture method, where the sample is drawn directly from the vein into a syringe. Since the venous draw is more reliable, an elevated blood level by that method needs no further confirmation. However, if the initial test is by the less reliable capillary method, a follow-up test is required to actually confirm that the child has lead poisoning. This is significant because the capillary method is used more often as it is less invasive to the child. The problem comes in trying to get the child back for the confirmatory test that the capillary method requires. Thus, two key numbers on the county chart below show that of 573 children who initially had a capillary test indicating blood lead poisoning, 307 never returned for the confirmatory test. This number could significantly increase

the number of lead poisoned children if confirmed. Follow-up on these children is very important.

Deteriorated lead-based paint in the child's home environment is the primary source of lead poisoning. Young children, who are most vulnerable to the affects of lead poisoning, pick up lead dust from the floor and ingest it through hand to mouth activity. In recent years other sources of lead poisoning have come to prominence. Consumer products, such as children's toys or inexpensive jewelry, often imported from countries where there are few restrictions on the use of lead, have resulted in some notorious cases of lead poisoning and even death. All of these factors must be looked at, in addition to the presence of lead-based paint.

In the summer of 2004, under the guidance of the Elimination Plan Advisory Committee (EPAC), ICLPPP submitted a Childhood Lead Poisoning Elimination Plan to CDC with two long term goals.

GOAL 1: PRIMARY PREVENTION

Primary Prevention efforts are directed toward an increase in the number of housing units and child occupied facilities where lead hazards are identified and remediated. This goal also includes activities to reduce hazards from non-structural, non-paint sources of lead poisoning.

The age of the home is one of the leading indicators for the possibility of lead poisoning. Indiana ranks eleventh nationally in the percentage of older homes, with 717,111 or 28% of its total housing units built prior to 1950. Progress toward the primary prevention goal has been made this year in the following areas:

A.) ICLPPP has provided training and technical assistance to local health departments and other agencies to assist them in increasing the financial resources available for locating and remediating lead hazards.

As a result of a concerted effort in 2006, two new areas of the state, Allen County and St. Joseph County were awarded HUD Lead Hazard Control grants totaling nearly six million dollars. Additionally, Indiana Black Expo, Inc. was awarded a $300,000 HUD Outreach grant which over the next two years will be applied to activities to increase the awareness of lead poisoning by utilizing the network of IBE affiliations in targeted cities around Indiana.

B.) ICLPPP has coordinated efforts with Indiana Department of Environmental Management (IDEM) and local health departments to increase the number of licensed professionals dealing with lead.

There are now 222 licensed lead risk assessors in the state. About half are in private environmental businesses. The others are employed by local health departments, community action agencies, public housing authorities, and other governmental or non-profit entities. Over 3,000 risk assessments were reported in the program's latest CDC report. Of those, 48 were contracted to private risk assessors by the ISDH and 877 were conducted by, or contracted by local health departments.

C.) ICLPPP, IDEM, and various risk assessors have produced a standardized risk assessment form and a corresponding prototype web-based application that, once operational, will assure consistency and quality in the environmental inspection of units for lead hazards. The project has progressed to a 'beta' version to be field tested and implemented in the new year.

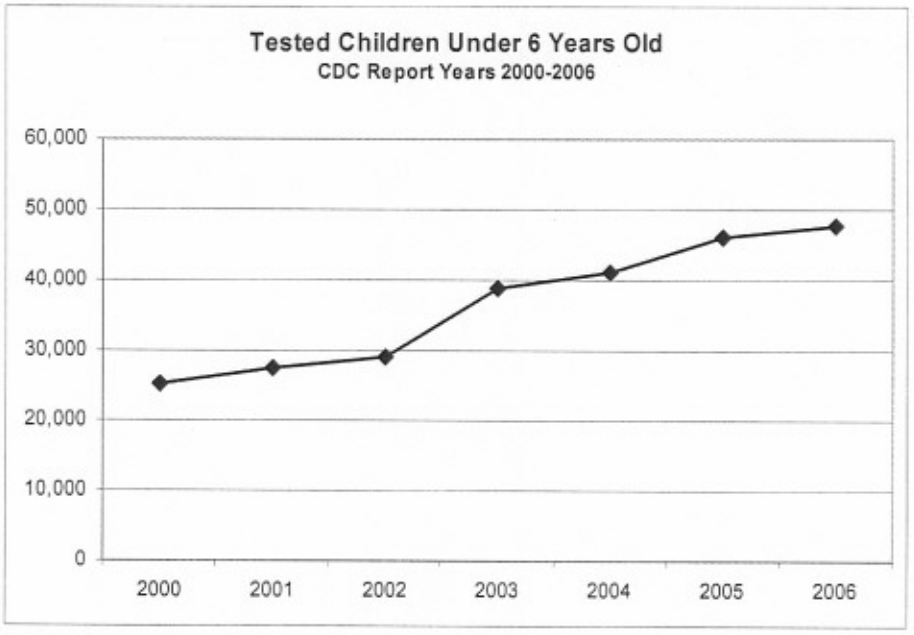
GOAL 2: SECONDARY PREVENTION

Secondary prevention efforts of ICLPPP work to increase the identification of lead poisoned children followed by treatment of the disease and case management where the child already has an elevated blood lead level.

The CDC predicts that 13,800 young children may be lead poisoned at any given time in Indiana. Progress on Goal 2 has been made this year in the following areas:

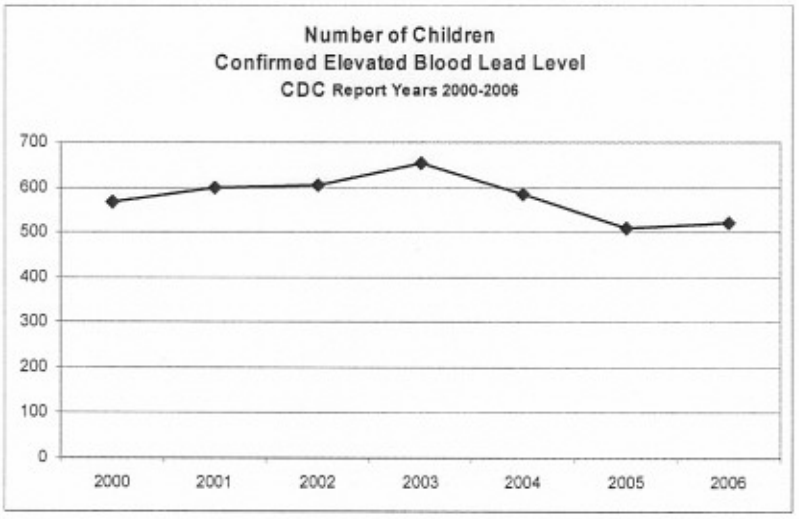
A.) The number of children tested is displayed for each Indiana county in the charts included in this report. The overall number of children tested improved significantly over the total reported in last year's legislative report. The number of tested children under seven years old increased from 43,120 in last year's 2005 legislative report to 53,708 children for calendar year 2006.

In fact, the number of children tested for blood lead levels has increased steadily over the last six years, as indicated in this chart based on the reports to Centers for Disease Control and Prevention (CDC) for July of 1999 through June of 2006:



Note: Indiana requires reporting for children under seven years old while CDC requires reporting on children under six.

B.) The number of confirmed lead-poisoned children under 7 years old in calendar year 2006 was 628. It is important to remember that the effects of an elevated blood lead level are generally irreversible. So, the accumulated number of poisoned children is important in gauging the scope of the problem. Over the last seven years 4,035 children (under six) have been discovered by screening, as indicated in the following chart for the CDC report periods from July of 1999 through June of 2006:



C.) ICLPPP has worked with local health departments to improve tracking and increase the case management follow-up on screened children. All screened children and their families are to receive education on lead poisoning. The five to six hundred screened children who are confirmed to have lead poisoning receive in-depth case management services including a home visit, a nutritional assessment, and a developmental evaluation. In the 2006 CDC report, the program was able to report case management follow-ups which all exceeded the target for that year:

Elevated Blood Lead Level Range µg/ dL	Rate of Follow-up July 1, 2005- June 30, 2006	Number of Children *receiving case management*
10-19.9	89%	587of 660 children
20-44.9	100%	101of 101 children
≥45	100%	7 of 7 children

D.) ICLPPP has worked with local health departments and other agencies to ensure that all children with elevated blood lead levels have an environmental inspection of their surroundings to determine the cause of the lead poisoning. In the 2006 CDC report, ICLPPP was able to show the following rates of environmental follow-ups which all exceeded the target for that year:

Elevated Blood Lead Level Range µg/ dL	Rate of Follow-up July 1, 2005- June 30, 2006	Number of Children *receiving environmental case management activities*
10-19.9	54%	356 of 660 children
20-44.9	96%	96 of 101 children
≥45	100%	7 of 7 children

E.) Nearly half of all children in Indiana are enrolled in Medicaid. As poverty is one of the major risk factors indicating lead poisoning, ICLPPP has joined with the Office of Medicaid Policy and Planning (OMPP) in an ongoing work group whose several initiatives are designed to increase testing rates among children under the requirements of the Hoosier Healthwise program. Increased testing of Medicaid children will significantly increase the overall testing rates.

In the last annual report to the CDC, the program was able to establish that 12.1% of Medicaid children were lead tested over the year. While this is up from the prior year's rate (11.3%), it is still a small percentage considering that lead testing is a requirement under the federal Medicaid EPSDT program (Hoosier Healthwise).

Progress was made by the ICLPPP/ OMPP workgroup on several projects that will ultimately have the effect of increasing Medicaid screening rates. OMPP has finalized a Request for Services (RFS) which will establish a vendor for filter paper testing supplies to be used by Medicaid providers making the testing of children more convenient and immediate. This should encourage Medicaid providers to test more children. OMPP has not yet let the RFS, however.

In conformance to PL 135-2005, the ICLPPP/ OMPP workgroup has designed an "MCO Report Card" which will be published on the OMPP website. The report will show the relative progress and testing rates of each MCO. In addition, OMPP has established fiscal incentives for MCOs to improve their testing rates. A prototype report has been designed but OMPP has not yet published the first report.

In conclusion, progress has been made on many fronts to eliminate lead poisoning as a public health problem. However, many challenges also remain in implementing policies and procedures to assure effective case management and treatment of poisoned children, as well as the prevention of the disease through the detection and remediation of environmental lead hazards.

The following chart is offered under Indiana Code 16-41-39.5 to detail the results of extensive work by the Indiana Childhood Lead Poisoning Prevention Program, local health departments, and the many program partners in each county in Indiana.

INDIANA STATE DEPARTMENT OF HEALTH
Indiana Childhood Lead Poisoning Program (ICLPPP)
LEGISLATIVE REPORT
Calendar Year 2006

	1. Number of Children Tested	2. Children Any Test ≥ 10 µg/ dL	3. Children Venous Tested ≥ 10 µg/ dL	4. Children Capillary Tested ≥ 10 µg/ dL	5. Children Confirm Tested Capillary ≥ 10 µg/ dL	6. Number of Lead Poisoned Children	7. False Positives	8. Children Lost to Follow-up	9. Avge days to confirm initial capillary	10. EBLL units risk assessed	11. Avge number of risk assess days
STATEWIDE	**53,708**	**1,189**	**573**	**784**	**55**	**628**	**224**	**307**			

NOTES ON COLUMNS

1.) Number of children under seven (7) tested in calendar year 2006.
2.) Number of children tested with a result ≥ 10 µg/ dL (whether confirmed or unconfirmed)
3.) Number of children tested by venipuncture with a result ≥ 10 µg/ dL (confirmed)
4.) Number of children tested by capillary test with a result ≥ 10 µg/ dL (requires add'l comfirmatory test)
5.) Number of children who were confirmed with a second caplillary test with a result ≥ 10 µg/ dL
6.) Number of lead poisoned children who were confirmed with an elevated blood lead level with a result ≥ 10 µg/ dL
7.) Number of false positive tests where the initial capillary test results were not confirmed by a second test result
8.) Number of children who were intially capillary tested but lost to a follow-up confirmatory test, usually unable to locate
9.) Average number of days to confirm an initial elevated capillary blood lead test result (statewide not available)
10.) Number of risk assessments performed for confirmed elevated blood lead levels (statewide not available)
11.) Average number of days to perform a risk assessment (statewide not available)

GENERAL NOTES

All counts are of individual children under seven (7) years old who received any test in 2006.
A test is considered to be in 2006 based on the date the blood was drawn.
Counts pertaining to individuals, which total less than five, are shown as "<5" according to ISDH confidentiality policy.
An elevated blood lead level (EBLL) is a level equal to or greater than ten micrograms of lead per deciliter of blood (≥ 10 µg/ dL).
EBLL may be confirmed by any elevated venipuncture test result, or by a second elevated capillary test result.
The source of the data is the ISDH STELLAR and STELLAR "mirror" databases.
Unknown county designation indicates no county was assigned to the child in the STELLAR database

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ADAMS	**161**	<5	<5	<5	<5	**<5**	<5	<5	not available	0	not applicable
ALLEN	**3,882**	117	61	71	6	**67**	19	29	46	62	20
BARTHOLOMEW	**362**	<5	<5	<5	<5	**<5**	<5	<5	not available	<5	1
BENTON	**69**	<5	<5	<5	<5	**<5**	<5	<5	49	<5	3
BLACKFORD	**116**	<5	<5	<5	<5	**<5**	<5	<5	not available	<5	18
BOONE	**250**	<5	<5	<5	<5	**<5**	<5	<5	47	0	not applicable
BROWN	**50**	<5	<5	<5	<5	**<5**	<5	<5	not available	<5	4
CARROLL	**104**	<5	<5	<5	<5	**<5**	<5	<5	41	0	not applicable
CASS	**466**	16	11	10	<5	**11**	<5	<5	28	<5	4
CLARK	**496**	6	<5	5	<5	**<5**	<5	<5	not available	<5	1
CLAY	**185**	<5	<5	<5	<5	**<5**	<5	<5	not available	0	not applicable
CLINTON	**442**	16	<5	15	<5	**<5**	5	6	43	<5	34
CRAWFORD	**117**	<5	<5	<5	<5	**<5**	<5	<5	27	0	not applicable
DAVIESS	**96**	7	<5	<5	<5	**<5**	<5	<5	48	0	not applicable
DEARBORN	**101**	<5	<5	<5	<5	**<5**	<5	<5	not available	<5	1
DECATUR	**177**	<5	<5	<5	<5	**<5**	<5	<5	116	<5	9
DEKALB	**290**	<5	<5	<5	<5	**<5**	<5	<5	not available	0	not applicable
DELAWARE	**1,095**	27	11	20	<5	**13**	5	10	54	5	8
DUBOIS	**48**	<5	<5	<5	<5	**<5**	<5	<5	not available	0	not applicable
ELKHART	**2,761**	112	27	103	19	**46**	32	35	42	23	10
FAYETTE	**170**	<5	<5	<5	<5	**<5**	<5	<5	21	0	not applicable
FLOYD	**679**	18	<5	15	<5	**8**	7	<5	52	0	not applicable
FOUNTAIN	**131**	7	5	<5	<5	**5**	<5	<5	11	<5	13
FRANKLIN	**186**	<5	<5	<5	<5	**<5**	<5	<5	not available	<5	4
FULTON	**71**	<5	<5	<5	<5	**<5**	<5	<5	not available	0	not applicable
GIBSON	**193**	<5	<5	<5	<5	**<5**	<5	<5	60	0	not applicable
GRANT	**775**	11	<5	10	<5	**<5**	<5	7	70	<5	9
GREENE	**212**	<5	<5	<5	<5	**<5**	<5	<5	32	0	not applicable
HAMILTON	**580**	8	6	<5	<5	**7**	<5	<5	71	<5	3
HANCOCK	**108**	<5	<5	<5	<5	**<5**	<5	<5	not available	0	not applicable
HARRISON	**342**	<5	<5	<5	<5	**<5**	<5	<5	not available	0	not applicable
HENDRICKS	**374**	<5	<5	<5	<5	**<5**	<5	<5	not available	0	not applicable

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HENRY	218	<5	<5	<5	<5	<5	<5	<5	20	0	not applicable
HOWARD	1,063	15	7	9	<5	7	<5	5	60	6	37
HUNTINGTON	134	7	<5	6	<5	<5	<5	<5	not available	0	not applicable
JACKSON	256	<5	<5	<5	<5	<5	<5	<5	1	0	not applicable
JASPER	168	<5	<5	<5	<5	<5	<5	<5	not available	0	not applicable
JAY	133	<5	<5	<5	<5	<5	<5	<5	40	7	19
JEFFERSON	317	<5	<5	<5	<5	<5	<5	<5	not available	0	not applicable
JENNINGS	327	5	<5	5	<5	<5	<5	<5	37	0	not applicable
JOHNSON	227	<5	<5	<5	<5	<5	<5	<5	not available	0	not applicable
KNOX	163	9	<5	8	<5	<5	<5	<5	7	0	not applicable
KOSCIUSKO	304	<5	<5	<5	<5	<5	<5	<5	not available	0	not applicable
LAGRANGE	53	<5	<5	<5	<5	<5	<5	<5	not available	0	not applicable
LAKE	4,610	105	58	61	<5	61	13	27	52	13	16
LAPORTE	404	9	<5	7	<5	<5	<5	<5	47	<5	33
LAWRENCE	543	14	<5	11	<5	<5	<5	6	36	<5	11
MADISON	922	10	8	<5	<5	8	<5	<5	70	<5	20
MARION	13,022	301	179	173	9	188	50	53	54	419	not available
MARSHALL	293	11	5	6	<5	5	<5	<5	34	<5	4
MARTIN	84	<5	<5	<5	<5	<5	<5	<5	18	0	not applicable
MIAMI	219	<5	<5	<5	<5	<5	<5	<5	14	<5	16
MONROE	1,206	8	<5	7	<5	<5	5	<5	27	0	not applicable
MONTGOMERY	222	<5	<5	<5	<5	<5	<5	<5	7	<5	8
MORGAN	292	6	<5	5	<5	<5	<5	<5	36	<5	4
NEWTON	40	<5	<5	<5	<5	<5	<5	<5	not available	0	not applicable
NOBLE	164	<5	<5	<5	<5	<5	<5	<5	not available	0	not applicable
OHIO	10	<5	<5	<5	<5	<5	<5	<5	not available	0	not applicable
ORANGE	168	<5	<5	<5	<5	<5	<5	<5	50	<5	22
OWEN	278	5	<5	<5	<5	<5	<5	<5	31	<5	7
PARKE	65	<5	<5	<5	<5	<5	<5	<5	not available	<5	2
PERRY	86	<5	<5	<5	<5	<5	<5	<5	36	<5	7
PIKE	28	<5	<5	<5	<5	<5	<5	<5	not available	0	not applicable
PORTER	662	<5	<5	<5	<5	<5	<5	<5	not available	0	not applicable
POSEY	145	<5	<5	<5	<5	<5	<5	<5	9	0	not applicable

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PULASKI	60	<5	<5	<5	<5	<5	<5	<5	not available	0	not applicable
PUTNAM	311	5	<5	5	<5	<5	<5	<5	46	0	not applicable
RANDOLPH	158	<5	<5	<5	<5	<5	<5	<5	15	<5	8
RIPLEY	203	<5	<5	<5	<5	<5	<5	<5	4	0	not applicable
RUSH	93	6	<5	<5	<5	<5	<5	<5	48	0	not applicable
SCOTT	130	<5	<5	<5	<5	<5	<5	<5	60	0	not applicable
SHELBY	47	<5	<5	<5	<5	<5	<5	<5	not available	0	not applicable
SPENCER	158	<5	<5	<5	<5	<5	<5	<5	not available	0	not applicable
ST JOSEPH	2,912	78	30	58	<5	34	15	25	52	83	43
STARKE	133	<5	<5	<5	<5	<5	<5	<5	56	0	not applicable
STEUBEN	184	<5	<5	<5	<5	<5	<5	<5	37	0	not applicable
SULLIVAN	77	<5	<5	<5	<5	<5	<5	<5	not available	0	not applicable
SWITZERLAND	52	<5	<5	<5	<5	<5	<5	<5	26	0	not applicable
TIPPECANOE	1,394	14	<5	11	<5	<5	<5	8	54	<5	1
TIPTON	60	<5	<5	<5	<5	<5	<5	<5	15	0	not applicable
UNION	108	<5	<5	<5	<5	<5	<5	<5	not available	<5	5
VANDERBURGH	1,520	62	30	43	<5	30	<5	23	53	12	30
VERMILLION	79	<5	<5	<5	<5	<5	<5	<5	7	<5	41
VIGO	567	28	21	13	<5	21	<5	6	53	11	10
WABASH	224	<5	<5	<5	<5	<5	<5	<5	not available	0	not applicable
WARREN	37	<5	<5	<5	<5	<5	<5	<5	74	<5	60
WARRICK	152	<5	<5	<5	<5	<5	<5	<5	7	0	not applicable
WASHINGTON	187	<5	<5	<5	<5	<5	<5	<5	20	0	not applicable
WAYNE	835	26	11	19	<5	11	9	6	38	6	13
WELLS	156	5	<5	<5	<5	<5	<5	<5	60	<5	10
WHITE	133	<5	<5	<5	<5	<5	<5	<5	not available	0	not applicable
WHITLEY	95	<5	<5	<5	<5	<5	<5	<5	not available	0	not applicable
UNKOWN	1,728	10	7	<5	<5	7	<5	<5			