

# **CHILDHOOD LEAD POISONING IN NEW JERSEY**

## **ANNUAL REPORT**

**FISCAL YEAR 2003  
(July 1, 2002 – June 30, 2003)**

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## EXECUTIVE SUMMARY

This Annual Report on Childhood Lead Poisoning in New Jersey for Fiscal Year (FY) 2003 is submitted in compliance with Public Law 1995, Chapter 328, which requires the Commissioner of Health and Senior Services to issue an annual report to the Governor and the Legislature that includes a summary of the lead poisoning testing and abatement program activities in the State during the preceding fiscal year.

The New Jersey Department of Health and Senior Services (DHSS) maintains a Childhood Lead Poisoning Prevention Surveillance System (CLPPSS). This system collects reports from laboratories of the results of blood lead tests performed on children, identifies children with elevated test results, and notifies local health departments about the children with elevated blood lead who reside in their jurisdiction. The CLPPSS also includes a database that tracks the actions taken by the local health departments in response to children reported with elevated blood lead, as required by Chapter XIII of the New Jersey State Sanitary Code.

### **Children tested for lead poisoning in FY 2003** (Chapter 1)

This report documents the continued progress of the DHSS and its partners in addressing childhood lead poisoning in New Jersey. The number of children tested for lead poisoning in FY 2003 was 172,932, a slight increase (0.7%) over the 171,712 children tested during FY 2002. This number includes 90,112 children between six months and twenty-nine months of age, the ages at which all children should be tested under State law. This is 40% of all children in New Jersey in this age group.

While the ideal is for all children to be tested at both one and two years of age, at a minimum all children should have at least one blood lead test done before their third birthday. Approximately 69% of the estimated number of two-year-old children in New Jersey has had at least one blood lead test in their lifetime. This is an increase over the 65% of two-year-olds in FY 2002 who had at least one blood lead test.

The percentage of children who were tested was highest in the counties and municipalities where the greatest number of high-risk children reside. These numbers reflect the targeting of activities to increase testing in these communities.

### **Children with elevated blood test results in FY 2003** (Chapter 2)

Analysis of the blood lead reports received from clinical laboratories identified 5,230 children (3.0% of all children tested) who had blood lead test results at or above 10 micrograms per deciliter (ug/dL), the level that the U.S. Centers for Disease Control and Prevention (CDC) has stated may cause health and/or developmental problems in children. This number is a decrease of 227 children (4.2%) from the 5,457 children reported with blood lead levels  $\geq 10$  ug/dL in FY 2002. The percentage of children with elevated test results decreased from 3.2% to 3.0% (a 6.3% decrease).

Included in these numbers are 832 children (one half of one percent of all children tested) who had blood lead test results of 20 ug/dL or greater, the level at which environmental investigation is required under State regulations. This number is a decrease of 102 children (10.9%) from the 934 children reported with blood lead levels  $\geq$  20 ug/dL in FY 2002.

The number and percentage of children with elevated blood lead results was highest in Essex County, where there were 1,879 children with blood lead levels  $\geq$  10 ug/dL (36% of all children in New Jersey with elevated test results). The municipalities with the highest percentages of elevated blood lead among the children tested were East Orange, Irvington, and Newark, all in Essex County. The number of children with elevated test results was also high in the urban counties of Hudson, Mercer, Passaic and Union. However, elevated test results were not limited to urban areas. High percentages of children with elevated test results were also found in Cumberland and Salem counties in South Jersey. Every county in New Jersey had children with elevated blood test results.

### **Environmental Investigations** (Chapter 3)

There were 433 inspections completed in FY 2003 in response to elevated blood lead tests reported during the fiscal year and 102 abatements completed. The percentage of inspections completed was 71%, and the percentage of abatements completed by the end of FY 2003 was 35%. Including cases where the elevated blood lead test on a child was reported prior to July 1, 2002, there were 493 inspections and 340 abatements completed during FY 2003.

### **Major Accomplishments in FY 2003** (Chapter 4)

- **Lead Screening Improvement Pilot Projects** – To increase lead screening, particularly in the Medicaid population, DHSS collaborated with the Department of Human Services (DHS) and a number of community partners in the development of pilot projects in Camden and Irvington. These projects were implemented in August 2002 and will continue through December 2003.
- **Immunization Registry** - A process was established to link blood lead test result records with records in the New Jersey State Immunization Information System (NJSIIS). A field for recording of blood lead test data was incorporated into the design for revision and expansion of the System. This will enable primary care providers to access the blood lead testing records for children in their care.
- **Grants to Local Health Departments** - DHSS provided approximately \$2,300,000 in grant funding in FY 2003 to 15 local health departments to support lead inspections and case management for children with elevated blood lead.
- **Public Education** - From the FY 2003 State Budget appropriation to the DHSS for Childhood Lead Poisoning, \$400,000 was allocated for education activities to expand public awareness of lead hazards and the importance of screening. The funds were used for the pilot projects in Camden and Irvington, the support for regional lead poisoning prevention coalitions, and public awareness activities.

- Lead Rap Video – A four-minute lead poisoning prevention video, using a rap music format, produced by New Jersey Network (NJN) with DHSS support, was developed as an educational tool targeted to parents with children of lead screening age. Seven hundred copies of the video were distributed to agencies who serve families with young children. NJN nominated the video and was the recipient of a CINE Golden Eagle award.
- Public Service Announcements – DHSS was involved with NJN in the development of radio and television public service announcements (PSAs) on childhood lead poisoning. The PSA was co-sponsored by the New Jersey Chapter of the American Academy of Pediatrics, and was completed with the assistance of the Trenton Health Department. The PSAs were broadcast on public television (PBS Kids) and during drive time on National Public Radio.
- Statewide Planning - DHSS continued to be an active participant in the New Jersey Interagency Task Force on the Prevention of Lead Poisoning. Through the Task Force, DHSS staff from Family Health Services, Consumer and Environmental Health Services, and Occupational Health Service worked with their colleagues in other State agencies and community-based organizations to develop and implement policies and projects to reduce childhood lead poisoning in New Jersey. The Task Force revised and updated its Strategic Plan for Prevention of Lead Poisoning in New Jersey, which was originally developed in 1995.

#### **Significant Initiatives Planned for FY 2004**

- Lead Screening Improvement Pilot Projects – The DHSS will continue to implement the collaborative effort to increase lead screening in the cities of Camden and Irvington. Upon completion of these projects in December 2003, the effectiveness of the strategies will be evaluated, and methods will be identified and implemented on a statewide basis to increase lead screening, particularly in the Medicaid population.
- Targeted Screening - The DHSS will develop a targeted screening plan to identify those communities with the highest number of children at risk and envision additional activities to reach the parents of these children, with particular emphasis on communities whose percentage of children screened is lower than the statewide average. In developing this plan, the DHSS will consult with its Physicians Lead Advisory Committee.
- Grants to Local Health Departments - The DHSS has budgeted \$2,613,884 for grants to 15 local health departments to support follow-up activities on behalf of children reported with elevated blood lead, including environmental inspections, home visiting and case management.
- Case Management Plan – The DHSS staff will create a working group to develop a State case management plan for children with elevated blood lead that is consistent with the CDC document “Managing Elevated Blood Lead Levels Among Young Children” and Chapter XIII of the New Jersey State Sanitary Code.

- Statewide Activities - From the FY 2004 State Budget appropriation to the DHSS for Childhood Lead Poisoning, \$400,000 is allocated for education activities to expand public awareness of lead hazards and the importance of screening. The funds will be used to support four regional lead poisoning prevention coalitions and public awareness activities.
- Statewide Planning - Through the New Jersey Interagency Task Force on the Prevention of Lead Poisoning, DHSS staff will continue to work with their colleagues in other State agencies and community-based organizations to implement projects identified in the 2003-2008 Strategic Plan for Prevention of Lead Poisoning in New Jersey. Building upon these partnerships, DHSS staff will spearhead the development of a State plan for the elimination of lead poisoning.
- Newark - The DHSS has budgeted \$134,795 for continued support of the Newark Partnership for Lead Safe Children. This is a significant increase in funding compared to \$62,000 provided in FY 2003. This was made possible because of the increase in funding available from the Centers for Disease Control and Prevention (CDC) to support primary prevention activities.

## Chapter One

### TESTING CHILDREN FOR LEAD POISONING

New Jersey State law (N.J.S.A. 26:2-137.4) requires all physicians, nurse practitioners, and health care facilities to perform lead screening on each patient under six years of age to whom they provide health care services. The law also requires clinical laboratories licensed by the DHSS to report the results of all blood lead tests. The methodology used for blood lead reporting, and the manner in which the DHSS maintains and analyzes those reports, is described in Appendix 4 (page 52).

The Department of Health and Senior Services (DHSS) adopted regulations (N.J.A.C. 8:51A) implementing this law in 1997. These regulations, which follow federal Centers for Disease Control and Prevention (CDC) guidelines, require health care providers to do a blood lead test on all one and two-year old children. These are the ages at which lead poisoning is most damaging to the developing nervous system. Older children, up until six years of age, are to be tested only if they have never been previously tested, or are assessed to be at high risk. While testing of children six years of age and older is not required, health care providers may opt to test these children due to previously elevated test results or other risk factors.

While it is recommended that children be tested at or about their first and second birthdays, the regulations specify that children be tested between nine and 18 months of age, and again between 18 and 26 months of age. In addition, children determined to be a high risk should be tested starting at six months of age. Therefore, this report focuses on children between six months and twenty-nine months (two-and-one-half years) of age as the primary target ages for blood lead testing.

Ideally, all children would be tested for lead poisoning at both one year and two years of age. However, at a minimum, all children should have at least one blood lead test done before their third birthday. As the DHSS has reports of all blood lead tests performed on New Jersey children since July 1, 1999, the database contains complete records of all blood lead tests done on New Jersey resident children born on or after that date (i.e. all children three years of age, or younger). This data was used to determine how many of these children have had a blood lead test during their lifetime.

#### Children tested during FY 2003

During Fiscal Year (FY) 2003, laboratories reported 183,379 blood lead tests to the DHSS. Based on these reports, 172,932 individual children, ages birth through 16 years of age, were identified as having been tested for lead poisoning. Table 1 (page 11) shows the number of children tested, by county of residence and by blood lead test result.

All children in New Jersey who were between six months and two and one-half years of age during FY 2003 should have received a blood lead test. There were 90,112 children in this age range with reported blood lead tests this year. That number is 40.4% of the estimated 222,837 children in this age group, based on the 2000 U.S. Census. Table 2 (page 12) shows by county the number and percentage of children in this age group who were tested. The percentage of children tested ranges from a high of 48% in Passaic County to a low of 19% in Burlington County.

When the analysis is expanded to include all blood lead tests reported since July 1, 1999, there are 76,494 children who were born between July 1, 2000, and June 30, 2001, who have had at least one blood lead test reported. This number is 68.6% of the estimated number of two-year-old children in New Jersey, based on the 2000 Census. Likewise, there were 54,417 children who were one-year old as of June 30, 2003, who had at least one blood lead test reported, which is 48.9% of the estimated number of one-year-olds in New Jersey. And 84,321 children who were three years of age as of that date, 74.1% of the estimated number of three-year-olds, also have been tested (Table 3, page 14).

While all children in New Jersey are at risk for lead poisoning, experience has shown that children living in urban areas are at the highest risk, due to the concentration both of older housing, which is more likely to have lead-based paint, and low-income housing, which is more likely to be in poor repair. Appendix 1 (starting on page 38) contains tables showing the number of children tested, and the test results, for the largest municipalities in New Jersey (population > 35,000). Table 12 shows that the percentage of children tested in the six months through 29 months age group is highest in the urban areas where the greatest number of high-risk children live. The cities with the highest percentages of children tested were New Brunswick (75%), Passaic (68%), Irvington (63%), Hackensack (58%) and Newark (52%). Other cities where the percentage of children tested was higher than the statewide percentage of 40% include Camden (44%), Elizabeth (45%), Paterson (46%), and Vineland (45%).

### Trends in testing

The total number of children tested in FY 2003 increased by 1,220 (0.7%) over the number of children tested in FY 2002 (Table 4, page 15). The largest increases in children tested occurred in children 0-5 months or 30-72 months of age. (Table 5, page 16).

For children between six months and 29 months of age, the number of children tested increased by 652, which is also a 0.7% increase over the number of children in this age group tested in FY 2002. The percentage of all children in this age group who were tested increased from 40.1% in FY 2002 to 40.4% in FY 2003.

## Analysis of testing data

The number of children tested in SFY 2003 increased only slightly (less than one percent) over SFY 2002. This comes after the number of children tested had increased significantly each previous year since the reporting of all blood lead tests began on July 1, 1999. The number of children tested increased from 137,536 in SFY 2000 to 149,233 in SFY 2001 (an 8.5% increase) and to 171,712 in SFY 2002 (a 15% increase). Likewise, the number of children tested for lead poisoning in New Jersey at the target ages (six months through two and one-half years of age) increased only slightly in FY 2003, and still falls far short of the goal of testing all children in the State at both one and two years of age. This plateau in the number and percentage of children tested suggests that testing the remaining children in New Jersey may represent a significant challenge, and that the DHSS will have to reconsider its strategies to obtain screening of these children.

While all one-and two-year-old children in New Jersey should be tested each year, at a minimum all children should be tested at least once by the time they are two years old. Looking at all children with a reported blood lead test since July 1999, an estimated 68.6% of the children in New Jersey who were two-years-old during SFY 2003 (that is, born between July 2000 and June 2001) had been tested for lead poisoning at some time in their life. This is an increase over the 64.7% of children who were two years of age during SFY 2002 (that is born between July 1999 and June 2000) who had ever been tested for lead. And the percentage of children who had ever been tested in the July 1999 to June 2000 birth group, now three years of age, had increased to 74.1% by the end of SFY 2003.

Children migrating in or out of New Jersey during this time period affects the ability of the surveillance database to determine exactly how many of the children currently living in the State have had a blood lead test. However, this figure provides an estimate of the cumulative effect of the activities to screen New Jersey's children for lead poisoning.

While not all children in New Jersey are being tested, the percentage of children who were tested was highest in the counties and cities where the greatest number of high-risk children reside. These numbers reflect targeting of activities to increase testing to these communities.

Data for counties and municipalities is based on the home address provided by the laboratory. Unfortunately, there were a high percentage of test reports (15.6% of all children and 14.7% of six through 29-month-olds) where the address was missing, incomplete, or inaccurate. In these cases, while the children are included in the statewide totals, they cannot be assigned to a county or municipality. Therefore, it should be recognized that the county and municipal data presented here are undercounts, and should be interpreted with caution. However, this also means that the actual number and percentage of children tested in these municipalities is probably higher than shown in these tables.

**Table 1**

**CHILDREN WITH BLOOD TEST RESULTS REPORTED IN FY 2003  
BY BLOOD LEAD LEVEL  
AND COUNTY OF RESIDENCE**

<b>County</b>	<b>Children Tested</b>	<b>Less than &lt;10 ug/dL</b>	<b>10-14 ug/dL</b>	<b>15-19 ug/dL</b>	<b>20-44 ug/dL</b>	<b>≥45 ug/dL</b>
Atlantic	3,920	3,825	55	16	24	0
Bergen	13,449	13,299	80	40	27	3
Burlington	3,199	3,161	26	8	3	1
Camden	7,102	6,929	119	34	19	1
Cape May	972	953	10	6	3	0
Cumberland	3,356	3,145	141	45	25	0
Essex	26,782	24,903	1,112	424	324	19
Gloucester	2,367	2,329	25	5	8	0
Hudson	12,883	12,622	140	57	57	7
Hunterdon	1,448	1,428	11	2	6	1
Mercer	5,390	5,108	179	65	35	3
Middlesex	13,014	12,828	109	49	25	3
Monmouth	7,938	7,827	71	20	20	0
Morris	6,437	6,375	36	15	10	1
Ocean	4,424	4,365	36	10	12	1
Passaic	13,904	13,328	351	126	90	9
Salem	681	651	21	4	5	0
Somerset	4,011	3,962	30	12	6	1
Sussex	1,286	1,275	6	1	4	0
Union	12,045	11,731	175	66	67	6
Warren	1,307	1,278	16	7	6	0
Zip Unknown	27,017	26,380	514	123	0	0
<b>TOTAL</b>	<b>172,932</b>	<b>167,702</b>	<b>3,263</b>	<b>1,135</b>	<b>776</b>	<b>56</b>

**Table 2**

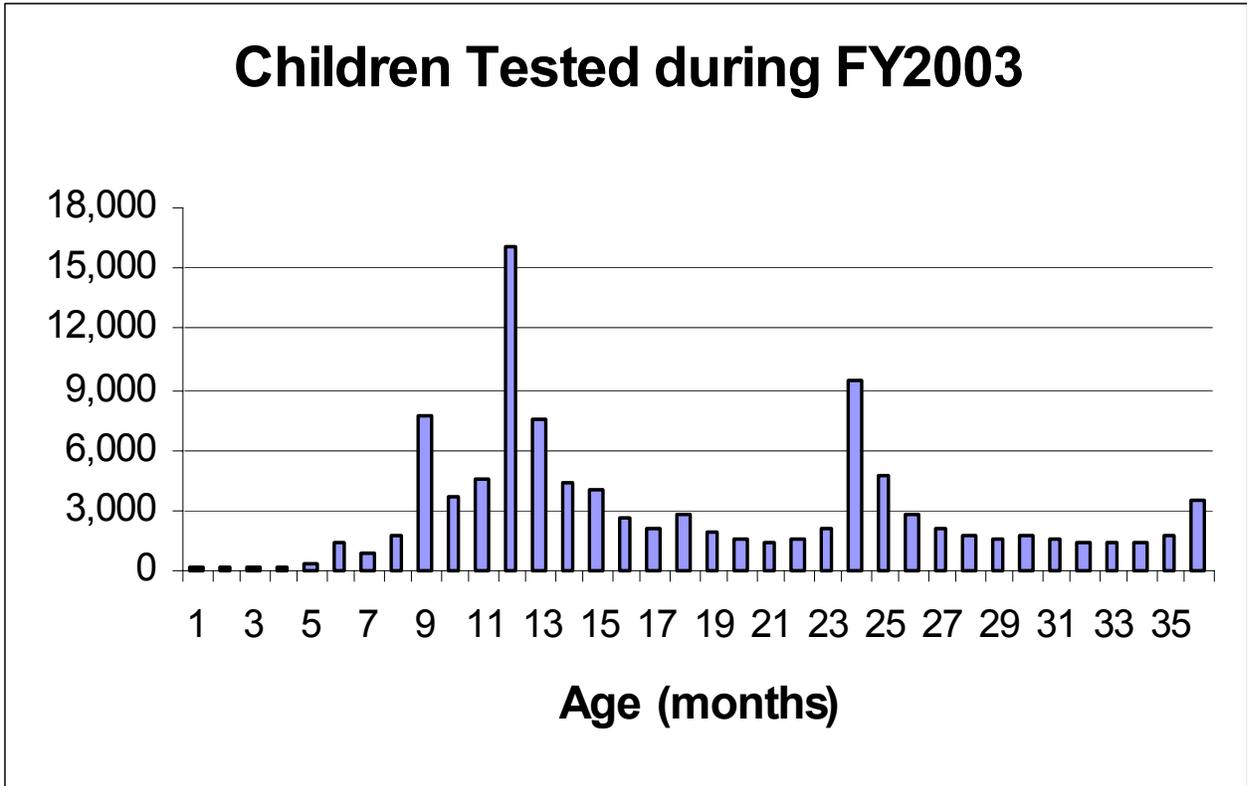
**CHILDREN 6 TO 29 MONTHS OF AGE  
WITH BLOOD LEAD TEST RESULTS REPORTED IN FY2003  
BY COUNTY OF RESIDENCE**

<b>County</b>	<b>No. of Children*</b>	<b>Children Tested</b>	<b>Percent Tested</b>	<b>Percent &lt;10ug/dL</b>	<b>Percent ≥10ug/dL</b>	<b>Percent ≥20ug/dL</b>
Atlantic	6,403	2,059	32.2%	98.1%	1.9%	0.3%
Bergen	21,968	8,826	40.2%	99.0%	1.0%	0.2%
Burlington	10,728	2,047	19.1%	99.0%	1.0%	0.1%
Camden	13,663	3,730	27.3%	97.9%	2.1%	0.2%
Cape May	2,103	563	26.8%	98.0%	2.0%	0.2%
Cumberland	3,639	1,548	42.5%	93.6%	6.4%	0.8%
Essex	22,734	10,484	46.1%	94.1%	5.9%	1.1%
Gloucester	6,666	1,621	24.3%	98.5%	1.5%	0.4%
Hudson	15,205	5,130	33.7%	97.4%	2.6%	0.6%
Hunterdon	3,121	1,238	39.7%	98.9%	1.1%	0.3%
Mercer	8,810	2,691	30.5%	95.4%	4.6%	0.6%
Middlesex	19,683	7,307	37.1%	98.8%	1.2%	0.2%
Monmouth	16,744	4,858	29.0%	98.9%	1.1%	0.2%
Morris	12,987	4,748	36.6%	99.1%	0.9%	0.2%
Ocean	12,765	2,671	20.9%	98.8%	1.2%	0.3%
Passaic	14,232	6,771	47.6%	96.6%	3.4%	0.7%
Salem	1,540	382	24.8%	96.9%	3.1%	0.5%
Somerset	8,843	2,578	29.2%	98.8%	1.2%	0.2%
Sussex	3,876	850	21.9%	99.5%	0.5%	0.1%
Union	14,402	5,749	39.9%	97.4%	2.6%	0.6%
Warren	2,725	975	35.8%	98.3%	1.7%	0.2%
Unknown		13,286		98.2%	1.8%	0.0%
<b>Total</b>	<b>222,837</b>	<b>90,112</b>	<b>40.4%</b>	<b>97.6%</b>	<b>2.4%</b>	<b>0.4%</b>

\*U.S. Census 2000 children 1 and 2 years old

**Figure 1**

**CHILDREN TESTED DURING FY2003  
BY AGE IN MONTHS AT TIME OF TESTING**



**Table 3**

**ALL CHILDREN TESTED SINCE JULY 1999  
BY AGE DURING FY 2003**

<b>Age of Child*</b>	<b>Number of Children**</b>	<b>Children Tested</b>	<b>Percent of Children Tested</b>
Less than 1	110,298	5,135	4.7%
One Year	111,308	54,417	48.9%
Two Years	111,529	76,494	68.6%
Three Years	113,708	84,321	74.1%

\* Age on June 30, 2003

\*\* U.S. Census 2000

**Table 4**

**CHANGES IN CHILDREN TESTED  
FY 2002 - 2003**

	<b>FY 2002</b>	<b>FY 2003</b>	<b>Change 2002 - 03</b>	<b>Percent Change 2002 - 03</b>
<b>ALL CHILDREN</b>				
Number of Children Tested	171,712	172,932	1,220	0.7%
<b>6 – 29 MONTH OLDS</b>				
Number of Children in NJ*	222,837	222,837		
Number of Children Tested	89,460	90,112	652	0.7%
Percent of Children Tested	40.1%	40.4%	0.3%	0.7%

\* Estimated, based on number of one- and two-year-old children in the 2000 U.S. Census.

**Table 5**

**CHILDREN WITH BLOOD LEAD TEST RESULTS REPORTED IN FY 2003  
BY AGE AT TIME OF TEST**

<b>Child's Age in Months</b>	<b>FY2002</b>	<b>FY2003</b>	<b>Difference</b>	<b>Percent Change</b>
0-5	1,195	1,225	30	2.5%
6-11	19,955	19,872	-83	-0.4%
12-29	69,505	70,240	735	1.1%
30-72	57,178	58,494	1316	2.3%
73 +	23,271	23,089	-182	-0.8%
Unknown	608	12	-596	-98.0%
<b>Total</b>	<b>171,712</b>	<b>172,932</b>	<b>1,220</b>	<b>0.7%</b>

## Chapter Two

### CHILDREN WITH ELEVATED BLOOD LEAD

U.S. Centers for Disease Control and Prevention (CDC) guidelines state that a blood lead test of 10 micrograms per deciliter (ug/dL) or greater should be considered elevated. In addition, the CDC guidelines state that a confirmed blood lead test result of 20 ug/dL or greater should trigger public health follow-up, including an environmental investigation to determine the source of the lead, and case management assistance to the family. Following these guidelines, blood lead test reports to the DHSS are analyzed to see if the result is above either of these thresholds. If the result is 20 ug/dL or greater, the local health department covering the community where the child resides is notified. State law and DHSS regulations require the local health department to conduct an environmental investigation of each of these cases (see Chapter 3), and to provide case management for the families of these children.

These numbers are based on the highest blood lead level reported on each child during the year, and include all children with at least one elevated blood test result. They include both newly identified elevated blood levels and children identified in previous years who still have elevated blood lead levels.

#### Blood lead test results in FY 2003

While 97% of the children tested in New Jersey in FY 2003, had blood lead levels below the CDC threshold of 10 ug/dL, there were 5,230 children with a blood lead test result above this level, which was 3% of all children tested. This included 832 children who had at least one test result of 20 ug/dL or greater (Table 6, page 20). The distribution of results by blood lead level is shown in Figure 2 (page 21).

Essex County had the highest number and percentage of children with elevated test results. There were 1,879 children from Essex County with blood lead levels of 10 ug/dL or more, and 343 children with blood lead levels of 20 ug/dL or more (Table 6, page 20). These numbers represent 36% of all children in New Jersey with blood lead levels of 10 ug/dL or more, and 41% of all children with blood lead levels of 20 ug/dL or more. Seven percent of Essex County children tested had blood lead levels of 10 ug/dL or more, and 1.3% had blood lead levels of 20 ug/dL or more. These percentages are more than double the statewide percentages, and significantly higher than in any other county.

There were four other counties in which the percentage of children with blood lead levels of 10 ug/dL or more exceeded the statewide percentage of 3.0% (Table 6, page 20). These were Cumberland (6.3%), Mercer (5.2%), Salem (4.4%) and Passaic (4.1%). Only in Essex County did more than one percent of children tested have blood lead levels of 20 ug/dL or greater. On the other hand, in 16 of the 21 counties, less than 3% of the children tested had blood lead levels of 10 ug/dL or greater. In Sussex County, less than one percent of children tested have elevated test results. Every county in the State had children with elevated test results, including at least one child with a test result  $\geq$  20 ug/dL.

Data for the largest municipalities (population > 35,000) is presented in Appendix 1 (Table 13, starting on page 42). The municipality with the highest percentage of children with elevated blood lead test results is East Orange, with 9.9%, followed closely by Irvington at 9.4%. Other municipalities with percentages of children with elevated blood lead significantly higher than the statewide percentage of 3.0% include Atlantic City (3.9%), Camden (3.9%), Montclair (4.3%), New Brunswick (4.3%), Newark (8.1%), Passaic (3.8%), Paterson (6.5%), Plainfield (4.4%) and Trenton (8.1%).

East Orange, with 2.2%, had the highest percentage of children with results  $\geq 20$  ug/dL. Other municipalities where one percent or more of the children tested had a test result  $\geq 20$  ug/dL were Atlantic City (1.0%), Irvington (1.8%), Newark (1.4%), Paterson (1.1%), Plainfield (1.4%), and Trenton (1.0%). Of the 60 municipalities for which the data were analyzed, there were only four (Berkeley Township, Bridgewater, Manchester Township, and Mount Laurel) where no children with elevated blood lead were reported.

### Trends in elevated blood lead

The 5,230 children reported with test results  $\geq 10$  ug/dL in FY 2003 represents a decrease of 227 children (4.2%) from the 5,457 children with reported elevated blood lead in FY 2002. The percentage of children tested who had elevated results decreased from 3.2% in FY 2002 to 3.0% in FY 2003 (Table 7, page 22).

There was also a decrease in the number of children with blood lead levels  $\geq 20$  ug/dL. The 832 children reported with at least one blood lead test result  $\geq 20$  ug/dL was 102 children less than the 934 reported in FY 2002, a decrease of 10.9%.

### Analysis of elevated blood lead data

The continuing decreases in children with reported blood lead levels (Figure 3, page 23) is consistent with the decline in the number and percentage of children with elevated blood lead found in national studies. This decline would indicate that the efforts of DHSS and its partners in other State agencies, local health departments, and community agencies, to prevent lead poisoning in children are having the desired effect. However, there are still thousands of children in New Jersey with elevated blood lead levels, including children who have not yet been identified through testing. The continuing efforts of the DHSS and its partners to increase screening and to find these children are described in Chapter 4.

While the highest numbers of children with elevated results were in urban counties (Essex, Passaic, Union, Hudson and Mercer), some rural counties in southern New Jersey (Cumberland and Salem) also had high rates of elevated blood lead, and every county in New Jersey had children with reported elevated blood lead test results, including at least one child with a blood lead level  $\geq 20$  ug/dL. This information documents that lead poisoning continues to be a statewide problem.

The fact that childhood lead poisoning is a statewide problem in New Jersey is also shown in the municipal data. Not surprisingly, these data show that the highest percentages of children with elevated results are in the urban municipalities. Of the 60 municipalities with populations greater than 35,000, there were only four where no children with elevated blood lead were reported.

The data at the county and municipal level needed to be evaluated with some caution, as there were a high percentage of test reports (15.6% of all children and 14.7% of six through 29-month-olds) where the address was missing or incomplete. In these cases, the children were included in the statewide totals, but could not be assigned to a county or municipality. If these results could be assigned to the county and municipality where the child resided, the percentage of elevated results might have changed.

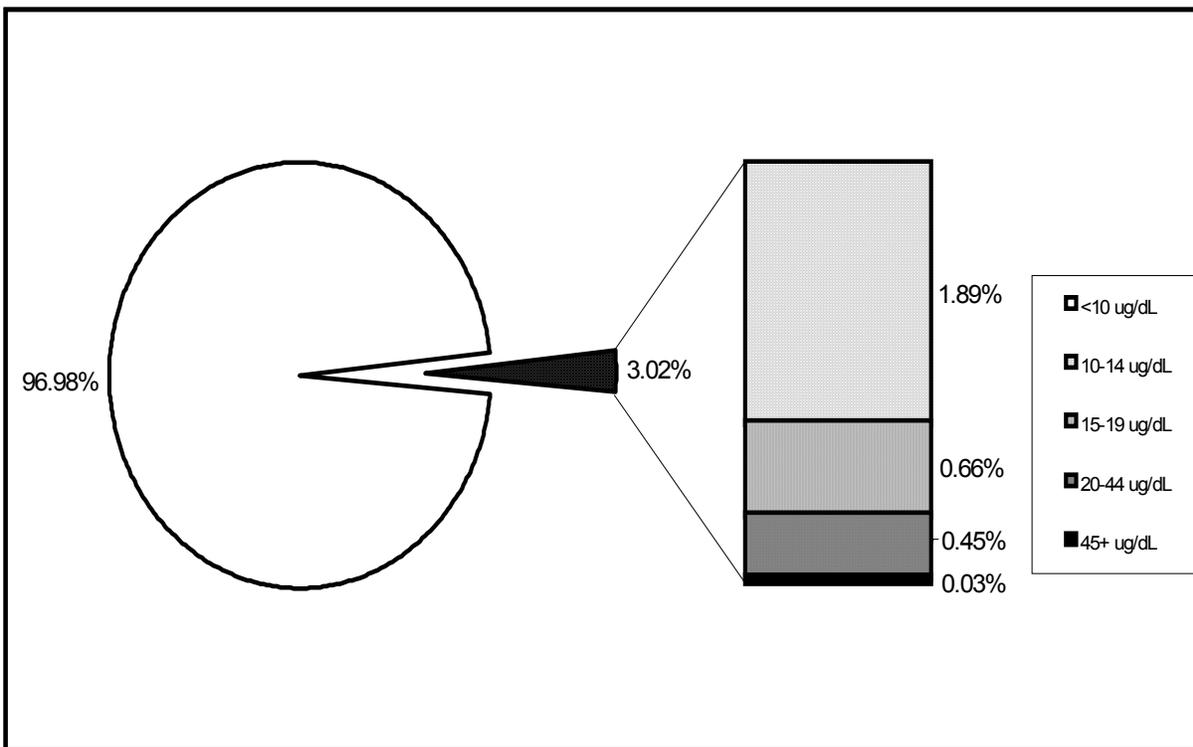
**Table 6**

**CHILDREN WITH BLOOD TEST RESULTS REPORTED IN FY 2003  
NUMBER AND PERCENT OF CHILDREN WITH ELEVATED BLOOD LEAD  
BY COUNTY OF RESIDENCE**

<b>County</b>	<b>Children Tested</b>	<b>Less than 10 ug/dL</b>	<b>10 ug/dL or More</b>	<b>20 ug/dL or More</b>	<b>Percent <math>\geq</math>10 ug/dL</b>	<b>Percent <math>\geq</math>20 ug/dL</b>
Atlantic	3,920	3,825	95	24	2.4%	0.6%
Bergen	13,449	13,299	150	30	1.1%	0.2%
Burlington	3,199	3,161	38	4	1.2%	0.1%
Camden	7,102	6,929	173	20	2.4%	0.3%
Cape May	972	953	19	3	2.0%	0.3%
Cumberland	3,356	3,145	211	25	6.3%	0.7%
Essex	26,782	24,903	1,879	343	7.0%	1.3%
Gloucester	2,367	2,329	38	8	1.6%	0.3%
Hudson	12,883	12,622	261	64	2.0%	0.5%
Hunterdon	1,448	1,428	20	7	1.4%	0.5%
Mercer	5,390	5,108	282	38	5.2%	0.7%
Middlesex	13,014	12,828	186	28	1.4%	0.2%
Monmouth	7,938	7,827	111	20	1.4%	0.3%
Morris	6,437	6,375	62	11	1.0%	0.2%
Ocean	4,424	4,365	59	13	1.3%	0.3%
Passaic	13,904	13,328	576	99	4.1%	0.7%
Salem	681	651	30	5	4.4%	0.7%
Somerset	4,011	3,962	49	7	1.2%	0.2%
Sussex	1,286	1,275	11	4	0.9%	0.3%
Union	12,045	11,731	314	73	2.6%	0.6%
Warren	1,307	1,278	29	6	2.2%	0.5%
Zip Unknown	27,017	26,380	637	0	2.4%	0.0%
<b>TOTAL</b>	<b>172,932</b>	<b>167,702</b>	<b>5,230</b>	<b>832</b>	<b>3.0%</b>	<b>0.5%</b>

**Figure 2**

**BLOOD LEAD LEVELS FOR ALL CHILDREN TESTED  
DURING FY2003**



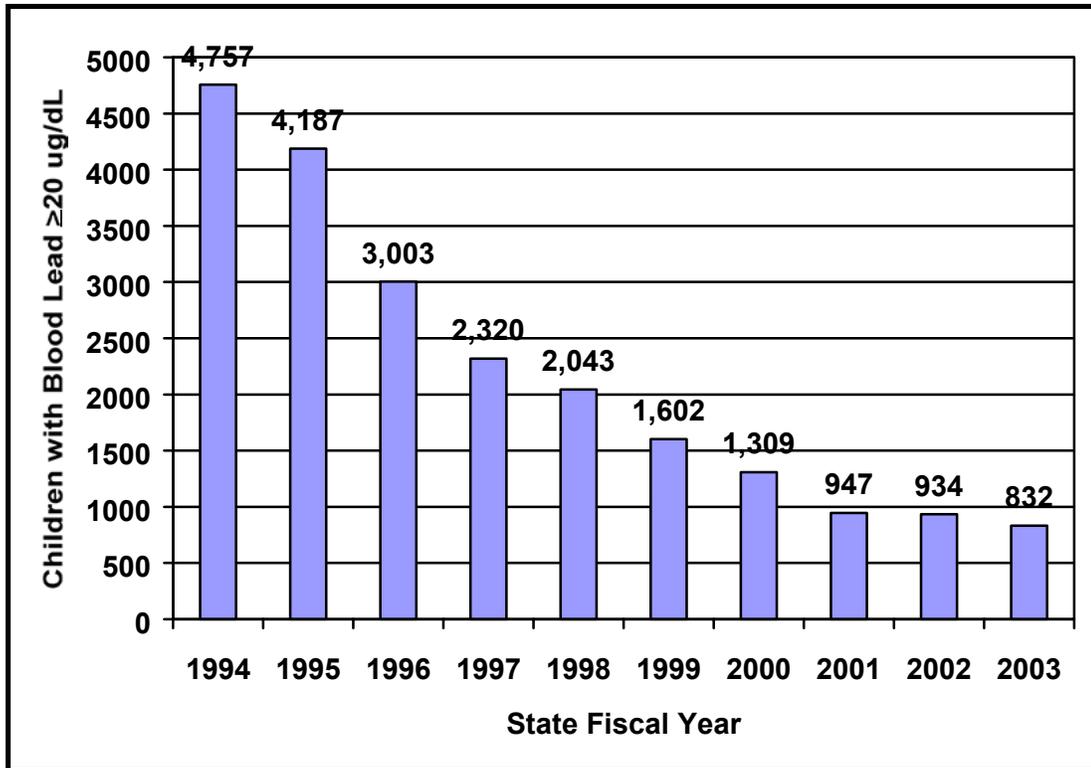
**Table 7**

**CHANGES IN CHILDREN TESTED AND BLOOD LEAD LEVELS  
FY 2002 - 2003**

	<b>FY 2002</b>	<b>FY 2003</b>	<b>Change 2002 - 03</b>	<b>Percent Change 2002 - 03</b>
<b>ALL CHILDREN</b>				
Number of Children Tested	171,712	172,932	+1,220	+0.7%
Number of Children with Results $\geq 10$ ug/dL	5,457	5,230	-227	-4.2%
Percentage of Children with Results $\geq 10$ ug/dL	3.2%	3.0%	-0.2%	-6.3%
Number of Children with Results $\geq 20$ ug/dL	934	832	-102	-10.9%
Percentage of Children with Results $\geq 20$ ug/dL	0.54%	0.48%	-0.06%	-11%

**Figure 3**

**CHILDREN WITH BLOOD LEAD  $\geq 20$  ug/dL  
BY STATE FISCAL YEAR**



## Chapter Three

### ENVIRONMENTAL INVESTIGATIONS BY LOCAL HEALTH DEPARTMENTS

New Jersey law (N.J.S.A. 24:14A) requires local boards of health to investigate all reported cases of lead poisoning within their jurisdiction and to order the abatement of all lead paint hazards identified in the course of the investigation. The procedures for conducting these investigations are specified in Chapter XIII of the New Jersey State Sanitary Code (N.J.A.C. 8:51). The local health department must conduct an inspection of the child's primary residence, and any other places, such as a child care center or the home of a relative or babysitter, where the child spends a significant amount of time. Even if the child moves, the property where the child resided when the blood lead test was done must be inspected. The inspection includes a determination of the presence of lead-based paint, the identification of locations where that paint is in a hazardous condition (such as peeling, chipping, or flaking), and the presence of lead in dust or soil. The inspector completes a questionnaire through speaking to the child's parent or guardian to help determine any other potential sources of lead hazard exposure.

In addition, the local health department arranges for a home visit by a public health nurse to educate the parents about lead poisoning and the steps that they can take to protect their child. The nurse also provides on-going case management services to assist the family in getting follow-up testing and medical treatment, and other social services that they may require to address the effects of their child's exposure to lead.

The DHSS maintains a system for notifying each local health department of all children with elevated blood lead reported in its jurisdiction. This system is described in Appendix 4. When an elevated blood lead test result is received, it is compared with the records in the database to determine if this child has had a previously reported blood lead level  $\geq 20$  ug/dL, for whom a notice had been issued at the same address, within the previous 12 months. For each child not previously reported, a notice is sent to the local health department which has jurisdiction over the address given on the laboratory report. This chapter presents the data on children with elevated blood lead reported to local health departments, and local health department actions in response.

The data in Tables 8, 9, 10 and 11, and in Appendix 2, reflect the results of environmental investigations as reported to the DHSS by local health departments. They are accurate to the extent that local health departments make complete and timely reports to the DHSS. It is possible that additional inspections and/or abatements may have been completed, but not reported.

#### Environmental investigations completed during FY 2003

There were 802 notices of children with elevated blood lead test results sent to local health departments. Table 8 (page 27) shows the number of reports and the actions taken in response to these reports, by county.

There were 196 cases (24%) closed without an investigation being performed. Each of these cases was reviewed by DHSS staff to make sure that the reason given for not investigating the case was appropriate to the circumstances. A case may be closed without investigation if:

- the reported elevated test result was from a capillary blood sample, and a subsequent venous confirmatory test found that the child's blood lead was not elevated;
- an abatement recently had been completed on the child's residence, as a result of either a previous elevated blood lead test on the same child, or an elevated blood lead test on a sibling or other child living at the same address; or
- the child had never lived at the address given on the laboratory report, and the local health department was not able to locate the family.

Of the 606 cases for which an inspection was required, inspections were completed on 433 (71%) within FY 2003. For some additional cases, particularly those children whose elevated blood lead test was reported late in the fiscal year, inspections may have been completed after June 30, 2003, and are not included in this total. Where investigations were completed, local health departments found lead paint hazards in 290 properties (67%). Lead hazard abatement had been completed on 102 of these properties (35%) as of June 30, 2003.

Seventy-six of the 112 local health departments in the State (68%) received at least one notice of a child with elevated blood lead residing within its jurisdiction. However, most of the children with reported elevated blood lead test results resided within the jurisdictions of only 13 local health departments (Table 9, page 28). These local health departments each received 20 or more reports of children with elevated blood lead in FY 2003 and were responsible for 71% of the reported cases. They were also responsible for 76% of the completed investigations, and 70% of all completed hazard abatements. Newark Department of Health and Human Services received 233 reports of children with elevated blood lead in FY 2003, 22% of all reports issued in the State. Complete data on the status of all elevated blood lead reports issued in FY 2003 by local health department is in Appendix 2 (page 45).

#### Analysis of environmental investigation data

The number of inspections and abatements completed during FY 2003 was less than were completed in FY 2002. This reflects the decrease in the number of reports sent to local health departments and in the number of cases where inspections were required. The percentage of inspections completed, 71%, was the same as in FY 2002. And the percentage of abatements completed by the end of FY 2003, 35%, was slightly lower than the 37% completed within FY 2002.

These numbers reflect the status of cases as of the end of the fiscal year on June 30, 2003. Given the time required to complete investigations and (particularly) abatements, there were cases reported to local health departments late in FY 2003 where the inspection and/or abatement was not completed until after July 1. As these tables are based on the date that the elevated blood lead test was performed, local health departments may not have received reports on children tested in late June 2003 until after the end of the fiscal year. Actions that were completed after July 1, 2003 were not included in these numbers, but they will be reflected in the report for FY 2004.

Likewise, there were many cases reported to local health departments during FY 2002 and prior years, that were not completed until FY 2003. This was particularly true with respect to abatements. When the data base was expanded to all cases where some action was completed during FY 2003, including those based on an elevated blood lead test result reported prior to July 1, 2002, there were a total of 493 investigations and 340 abatements completed during FY 2003 (Table 10, page 29).

Tables 9 and 10, when compared, show that 238 of the 340 abatements completed during FY 2003 (70%) were for elevated blood lead tests reported before July 1, 2002. Looking at all cases reported to local health departments over the past six years, more than 90% of investigations had been completed, and 77% of properties with lead hazards had been abated, by the end of FY 2003 (Table 11, page 30). Note that the numbers in Table 11 are cumulative through June 30, 2003, and are not limited to the fiscal year the report was sent to the local health department.

Table 11 illustrates that it can take several years to complete abatement of a property where lead hazards have been identified. The length of time between the reporting of an elevated blood lead test result and the completion of the abatement of the lead hazards responsible for the elevation is affected by a number of factors, which vary from case to case. These factors can include:

- difficulty in identifying and communicating with absentee landlords;
- lengthy enforcement actions required against recalcitrant property owners, including court action, when necessary;
- delays in contracting and scheduling work by State-certified lead abatement contractors; and
- inability of some property owners to cover the cost of the required abatement, and/or to obtain financial assistance for these costs.

**Table 8**

**ENVIRONMENTAL INVESTIGATION STATUS BY COUNTY – FY 2003**

<b>County</b>	<b>EBL Reports Sent</b>	<b>Invest. Required</b>	<b>Invest. Completed</b>	<b>Percent Invest. Complete</b>	<b>% Lead Hazards Found</b>	<b># of Abatement Complete</b>	<b>% Abatement Complete</b>
Atlantic	21	12	11	92%	73%	3	38%
Bergen	27	15	9	60%	33%	1	33%
Burlington	4	3	2	67%	50%	0	0%
Camden	20	17	11	65%	73%	1	13%
Cape May	1	1	0	0%	-	0	-
Cumberland	23	14	13	93%	77%	4	40%
Essex	330	264	186	71%	63%	26	22%
Gloucester	8	6	4	67%	75%	0	0%
Hudson	67	41	30	73%	80%	16	67%
Hunterdon	6	3	2	67%	100%	1	50%
Mercer	35	23	13	57%	85%	2	18%
Middlesex	32	27	19	70%	37%	3	43%
Monmouth	16	12	10	83%	90%	5	56%
Morris	11	9	3	33%	67%	2	100%
Ocean	13	6	3	50%	67%	1	50%
Passaic	99	88	64	73%	66%	12	29%
Salem	4	3	3	100%	100%	1	33%
Somerset	9	6	1	17%	0%	0	-
Sussex	3	3	2	67%	50%	0	0%
Union	67	50	45	90%	82%	24	65%
Warren	6	3	2	67%	0%	0	-
<b>TOTAL</b>	<b>802</b>	<b>606</b>	<b>433</b>	<b>71%</b>	<b>67%</b>	<b>102</b>	<b>35%</b>

**Table 9**

**ENVIRONMENTAL INVESTIGATION STATUS REPORT – FY 2003  
LOCAL HEALTH DEPARTMENTS WITH 20 OR MORE REPORTED  
ELEVATED BLOOD LEAD**

<b>Local Health Department</b>	<b>EBL Reports Sent</b>	<b>Invest. Required</b>	<b>Invest. Complete</b>	<b>Percent Complete</b>	<b># Lead Hazards Found</b>	<b>% Lead Hazards Found</b>	<b># of Abatements Complete</b>	<b>Percent Complete</b>
Newark	174	139	89	64%	42	47%	4	10%
Paterson	63	58	42	72%	30	71%	8	27%
Irvington	58	43	34	79%	26	77%	8	31%
East Orange	50	42	39	93%	33	85%	8	24%
Jersey City	35	21	15	71%	13	87%	7	54%
Middlesex Co	29	24	17	71%	7	41%	3	43%
Elizabeth	27	17	17	100%	12	71%	6	50%
Passaic City	26	21	14	67%	8	57%	2	25%
North Bergen	25	16	12	75%	9	75%	8	89%
Trenton	25	16	13	81%	11	85%	2	18%
Plainfield	22	17	16	94%	15	94%	11	73%
Cumberland	21	12	11	92%	9	82%	3	33%
Camden County	20	17	11	65%	8	73%	1	13%
<b>TOTAL</b>	<b>575</b>	<b>443</b>	<b>330</b>	<b>74%</b>	<b>223</b>	<b>68%</b>	<b>71</b>	<b>32%</b>

**Table 10**

**ENVIRONMENTAL ACTIONS PERFORMED – FY 2003**

<b>County</b>	<b>Investigations Completed</b>	<b>Abatements Complete</b>
Atlantic	11	5
Bergen	15	5
Burlington	2	0
Camden	16	13
Cape May	0	4
Cumberland	12	14
Essex	188	95
Gloucester	3	1
Hudson	48	50
Hunterdon	2	2
Mercer	12	10
Middlesex	26	9
Monmouth	15	15
Morris	3	2
Ocean	6	4
Passaic	81	56
Salem	3	3
Somerset	2	0
Sussex	2	1
Union	44	47
Warren	2	4
<b>TOTAL</b>	<b>493</b>	<b>340</b>

**Table 11**

**CURRENT ENVIRONMENTAL INVESTIGATION STATUS BY FISCAL YEAR  
FY 1997 THROUGH FY 2003**

<b>Fiscal Year</b>	<b>EBL Reports Sent</b>	<b>Invest. Required</b>	<b>Invest. Complete</b>	<b>Percent Invest. Complete</b>	<b>% Lead Hazard Found</b>	<b># Lead Hazard Found</b>	<b># of Abatement Complete</b>	<b>% Abatement Complete</b>
FY 1997	2,168	1,532	1,478	97%	801	54%	749	94%
FY 1998	2,014	1,475	1,437	97%	781	54%	703	90%
FY 1999	1,518	1,056	1,006	95%	652	65%	525	81%
FY 2000	1,144	825	772	94%	596	77%	419	70%
FY 2001	932	664	622	94%	457	74%	316	69%
FY 2002	865	613	582	95%	417	72%	255	61%
FY 2003	802	606	433	72%	290	67%	102	35%
<b>TOTAL</b>	<b>9,443</b>	<b>6,771</b>	<b>6,330</b>	<b>93%</b>	<b>3,994</b>	<b>63%</b>	<b>3,069</b>	<b>77%</b>

**Note:** This table is cumulative and reflects the status of all cases as of June 30, 2003.

## Chapter Four

### Addressing Childhood Lead Poisoning in New Jersey

The goal of the New Jersey Department of Health and Senior Services is to reduce, and ultimately eliminate, childhood lead poisoning in New Jersey. In *Healthy New Jersey 2010*, the DHSS has set health objectives for the State for this decade, including three objectives related to childhood lead poisoning:

- To increase the percentage of children tested for lead poisoning by two years of age to 85%.
- To reduce the percentage of children whose blood lead level is  $\geq 10$  ug/dL by 50%.
- To increase the percentage of residential lead evaluation/risk assessments conducted which meet performance standards to 90%.

#### Accomplishments in FY 2003

- Lead Screening Improvement Pilot Projects – Implementation of a collaborative effort to increase lead screening in the cities of Camden and Irvington. The partners in this pilot program are the DHSS, the New Jersey Department of Human Services (DHS), Division of Medical Assistance and Health Services (DMAHS), the American Civil Liberties Union Foundation, the Association for Children of New Jersey, the New Jersey Chapter of the American Academy of Pediatrics, the Irvington and Camden County health departments, and the HMOs under contract with DHS to provide health services to children enrolled in Medicaid. This lead screening pilot was implemented in August 2002 and will continue through December 31, 2003. The pilot program included the following strategies:
  1. HMO representatives visited medical practices in Irvington and Camden to reinforce that both State law and federal Medicaid rules require that all children under six years of age be screened for lead poisoning, and to encourage lead screenings to be done in provider offices.
  2. Encourage medical practices to perform blood lead screenings in the office by either using the filter paper, venous, or capillary method for collection of blood lead samples.
  3. Lead educational training programs were provided to the directors of all child care centers, Abbott school family workers, child care nurses and family child care providers. Parental lead education packets were provided to the child care center directors for dissemination amongst the caregivers/guardians of their enrolled children.
  4. Health Officers from each local health department mailed letters to the healthcare providers and child care centers encouraging lead screenings for children under six years of age.
  5. In Irvington, the local health department included the review of a child's lead screening status in their immunization audits.
  6. In Irvington, child care centers under contract with the local school district strongly encouraged and tracked lead screenings of their enrolled children.
  7. Various community health events were held in each community providing the public with lead poisoning prevention information.

## Surveillance

- Medicaid Matching – DHS has developed an information system that facilitates the tracking of blood lead screenings and lead poisoning prevalence. Contracted Medicaid HMOs provide lead case management interventions for lead-burdened child whose blood lead levels are equal to or above 10 ug/dL. The information derived from these systems is used for targeting outreach and monitoring timely follow-up care. DMAHS conducts follow-up through the contracted HMOs to determine if blood lead tests were performed on the children for whom matching records were not found. Quarterly lead matches are performed between the Medicaid enrollment file and the DHSS Childhood Lead Poisoning Surveillance System (CLPSS).
- Foster Care Children – Lead matches were performed between the DHS Division of Youth and Family Services (DYFS) files and the CLPSS.
- Electronic Reporting – Ninety percent of all laboratory test results during the fiscal year were electronically reported.
- Data Accuracy - All elevated test results were manually reviewed to ensure data accuracy. In FY 2003, programs were developed to batch clean all of the records thereby eliminating duplicate entries for a child.
- Further Enhancements - The new capabilities of the CLPSS expanded the activities that could be performed by the current data system. Addresses within CLPSS were standardized and geo-coded to permit geo-spatial analyses.
- Immunization Registry - A process was established to link blood lead test result records with records in the New Jersey State Immunization Information System (NJSIIS). A field for recording of blood lead test data was incorporated into the design for revision and expansion of the System. This will enable primary care providers to access the blood lead testing records for children in their care.

## Follow-up of Children with Elevated Blood Lead

- Grants to Local Health Departments - DHSS provided approximately \$2,300,000 in grant funding in FY 2003 to 15 local health departments to support lead inspections and case management for children with elevated blood lead.
- Enforcement of Chapter XIII - The Department proposed the adoption of the a rule (N.J.A.C. 8:51-9) as an amendment to Chapter XIII of the New Jersey State Sanitary Code. Chapter XIII contains the rules that govern local health department activities when children are identified with elevated blood lead levels. The new rule was necessary in order to adequately advise persons of the potential penalties for violations of the regulations.
- Follow-up of Medicaid Children - DMAHS monitors and audits HMO lead case management. DMAHS also directly monitors and tracks lead-burdened children in Medicaid Fee-for-Service and the follow-up care that is provided by the primary care provider.

- Children in Foster Care - DHSS and DMAHS collaborate with DYFS to monitor and track children in foster care who are found to have elevated blood lead.

### Public and Professional Education

- Statewide Activities - From the FY 2003 State Budget appropriation to the DHSS for Childhood Lead Poisoning, \$400,000 was allocated for education activities to expand public awareness of lead hazards and the importance of screening. DHSS developed a plan for the use of these funds in collaboration with the Interagency Task Force on the Prevention of Lead Poisoning and the Office for Prevention of Mental Retardation and Developmental Disabilities (OPMRDD) in the Department of Human Services. The funds were used for the pilot projects in Camden and Irvington, the support for regional lead poisoning prevention coalitions, and public awareness activities.
- Statewide Public Awareness Campaign - \$150,000 of the FY 2003 State Appropriation for Childhood Lead Poisoning was used to create a public awareness campaign. The campaign was planned and implemented in collaboration with the regional coalitions. Initiatives included:
  - Sponsorship of games involving 7 minor league baseball teams.
  - Billboards in 13 northern and central counties for a total of 60 in English and 20 in Spanish.
  - Cable public service announcements (PSA) in Ocean and Monmouth counties.
  - 30-second PSA prior to each movie being shown at 7 Regal/United theatres.
  - Nearly 2,000 New Jersey Transit buses with interior placards.
- Childhood Lead Poisoning Prevention (CLPP) Week (October 20-26, 2002) - Statewide activities were sponsored by the New Jersey Interagency Task Force on Prevention of Lead Poisoning. DHSS, DHS and DCA collaborated on the development and distribution of information packets for CLPP Week. Four hundred packets were mailed to local health departments and other agencies who could participate in these activities.
- Lead Rap Video – A four-minute lead poisoning prevention video, using a rap music format, produced by New Jersey Network (NJN) with DHSS support, was developed as an educational tool targeted to parents with children of lead screening age. The final product was premiered during Childhood Lead Poisoning Prevention Week in October 2002. Seven hundred copies of the video were distributed to agencies who serve families with young children. NJN nominated the video and was the recipient of a CINE Golden Eagle award in the category Professional Non-Telecast, Science and Technology. In addition, a 30-second PSA was developed.
- WIC – DMAHS provided WIC nutritionists with an overview of EPSDT services including lead poison prevention and screening requirements. DMAHS Health Promotion and Lead Poison Prevention Flyers were made available to WIC for distribution to their clients.
- Foster Parents – DMAHS and DYFS completed a collaborative effort to increase the awareness of EPSDT, lead poisoning prevention and screening requirements for the children receiving services through DYFS. Initiatives implemented include in-services for designated DYFS staff and inclusion of DMAHS Health Promotion and Lead Poison Prevention Flyers

in the newly approved foster parent packets and foster child placement packets.

- Public Service Announcements – DHSS was involved with New Jersey Network in the development of radio and television public service announcements (PSAs) on childhood lead poisoning. The PSA, co-sponsored by the New Jersey Chapter of the American Academy of Pediatrics, was completed in August 2002 with the assistance of the Trenton Health Department. The PSAs were broadcast on public television (PBS Kids) and during drive time on National Public Radio (NPR).
- Training for Local Health Department Staff - The DHSS continued to provide training for local health department staff engaged in childhood lead poisoning prevention and follow-up work through the Child Health Regional Network.

### Strengthening Collaborations

- Statewide Planning - DHSS continued to be an active participant in the New Jersey Interagency Task Force on the Prevention of Lead Poisoning. Through the Task Force, DHSS staff from Family Health Services, Consumer and Environmental Health Services, and Occupational Health Service worked with their colleagues in other State agencies and community-based organizations to develop and implement policies and projects to reduce childhood lead poisoning in New Jersey. A major objective of the Task Force that was achieved was to revise and update its Strategic Plan for Prevention of Lead Poisoning in New Jersey, which was developed in 1995.
- Newark - The DHSS provided \$62,000 to support the Newark Partnership for Lead Safe Children. Major projects included:
  - Continued use of the “Leadie Eddie” van to provide lead poisoning prevention education programs at child care centers and community sites, and lead screening at selected sites;
  - Train the Trainer educational programs on lead poisoning prevention for the staff of community based organizations;
  - Educational programs for property owners about lead poisoning prevention and the availability of public and private lead abatement funds.
- Regional Coalitions - \$220,000 of the FY 2003 State appropriation for Childhood Lead Poisoning was used to create four regional childhood lead poisoning prevention coalitions to develop local lead poisoning education programs. These grants were awarded through a competitive process, through a Request for Applications issued in October 2002. Funding started in January 2003 and was awarded to the following grantees:
  - Northern New Jersey Maternal and Child Health Consortium (Bergen and Passaic counties);
  - Monmouth County Health Department (Monmouth and Ocean counties);
  - Camden County Health Department (for a seven county South Jersey region); and
  - Gateway Maternal and Child Health Consortium (on behalf of itself, Central New Jersey Maternal and Child Health Consortium, Hudson Perinatal Consortium, and Northwest New Jersey Maternal and Child Health Consortium, for a 10 county region covering northern and central New Jersey).

- South Jersey – DHSS assisted the South Jersey Lead Consortium in developing and producing a half-hour program for broadcast on “Dateline: Education”, a service of the Camden City Board of Education. The program was broadcast several times a day in October 2002 on Board of Education’s cable-based station.

## **Initiatives Planned for SFY 2004**

### Increasing Screening Rates

- Lead Screening Improvement Pilot Projects – Continue to implement the collaborative effort among DHSS, DMAHS, the American Civil Liberties Union Foundation, the Association for Children of New Jersey, the New Jersey Chapter of the American Academy of Pediatrics, the Irvington and Camden County health departments, the University of Medicine and Dentistry of New Jersey (UMDNJ), the Gateway Maternal and Child Health Consortium and the DMAHS-contracted HMOs, to increase lead screening in the cities of Camden and Irvington. By June 2004, the effectiveness of the project’s strategies will be evaluated, and decisions made as to the feasibility of implementing the pilot statewide.
  1. Camden local health department will include the review of a child’s lead screening status in their immunization audits.
  2. Child Care Centers will consider a policy strongly encouraging their enrollees to have an appropriate lead screening, documenting the results as part of their immunization record.
  3. Medicaid HMO Medical Directors will write letters to participating providers, reviewing federal and State screening requirements and encourage the performance of blood lead screenings in physician’s office.
  4. The Medicaid HMO Medical Directors will have direct contact with providers who are non-compliant with lead screening requirements in both Camden and Irvington cities.
- WIC – DHSS and DMAHS continue to explore the feasibility of lead screenings at WIC sites.
- Provider Awareness – DHSS is partnering with the New Jersey Chapter of the American Academy of Pediatrics in the development of a tool kit for physicians and their staffs.
- Targeted Screening - Even though State law requires all children to be screened for lead poisoning, the federal Centers for Disease Control and Prevention (CDC) recommends that screening be targeted to the children at highest risk, and requires every State that receives CDC funds to develop a plan to target screening. During this fiscal year, the DHSS will develop a targeted screening plan. The plan will identify those communities with the highest number of children at risk and envision additional activities to reach the parents of these children, with particular emphasis on communities whose percentage of children screened is lower than the statewide average. In developing this plan, the DHSS will consult with its Physicians Lead Advisory Committee.

## Surveillance

- Medicaid Matching – DMAHS continues to use their Medicaid Lead Data Surveillance system to track and monitor lead screenings and lead poisoning prevalence. The information derived from this system is used to target lead screening non-compliance and monitoring timely follow-up health care for lead burdened children. Quarterly lead matches are performed between the Medicaid enrollment file and the DHSS Surveillance System.
- System Enhancements - The new capabilities of the CLPSS expanded the activities that could be performed by the current data system. The geographically-coded blood lead test data will be used to produce a variety of maps. For example, maps may be created to show screening penetration and prevalence rates for areas surrounding each medical provider. Physicians will be provided with statistics that highlight screening rates and elevated blood lead in their communities.

## Follow-up of Children with Elevated Blood Lead

- Grants to Local Health Departments - DHSS has budgeted \$2,613,884 for grants to 15 local health departments to support follow-up activities on behalf of children reported with elevated blood lead, including environmental inspections, home visiting and case management.
- Enforcement of Chapter XIII - The current version of Chapter XIII of the NJ State Sanitary Code (N.J.A.C. 8:51) – Childhood Lead Poisoning will expire on June 7, 2004. The Department will be going through the proposal process to readopt Chapter XIII.
- Case Management Plan – DHSS staff will create a working group to develop a State case management plan for children with elevated blood lead (EBL) that is consistent with the CDC “Managing Elevated Blood Lead Levels Among Young Children” and Chapter XIII of the New Jersey State Sanitary Code.

## Public and Professional Education

- Statewide Activities - From the FY 2004 State Budget appropriation to the DHSS for Childhood Lead Poisoning, \$400,000 was allocated for education activities to expand public awareness of lead hazards and the importance of screening. DHSS developed a plan for the use of these funds in collaboration with the Interagency Task Force on the Prevention of Lead Poisoning and the Office for Prevention of Mental Retardation and Developmental Disabilities (OPMRDD) in the Department of Human Services. The funds will be used to support four regional lead poisoning prevention coalitions and public awareness activities.
- Lead Rap Video – DHSS staff will survey purchasers and viewers of the video to assess satisfaction level with the product. An additional four hundred copies will be distributed through the regional coalitions.
- Training for Local Health Department Staff - The DHSS will continue to provide training for local health department staff engaged in childhood lead poisoning prevention and follow-up work through the Child Health Regional Network.

- Joint Activities with Department of Human Services:
  - Web Page – DMAHS is developing a site discussing EPSDT and Lead Poison Prevention on their Department’s web page.
  - Medicaid Provider Newsletter containing State and federal lead screening requirements.
  - Outreach letters to the caregivers/guardians of Medicaid fee-for-service children who do not have an age appropriate documented lead screening encouraging lead screenings and educating methods of lead poison prevention.
  - Foster Parents – EPSDT and lead poisoning prevention information continues to be included in the foster child placement packets along with resource phone numbers.

### Strengthening Collaborations

- Statewide Planning - DHSS continues to be an active participant in the New Jersey Interagency Task Force on the Prevention of Lead Poisoning. Through the Task Force, DHSS staff will continue to work with their colleagues in other State agencies and community-based organizations to implement projects identified in the 2003-2008 Strategic Plan for Prevention of Lead Poisoning in New Jersey. Building upon these partnerships, DHSS staff will spearhead the development of a State plan for the elimination of lead poisoning and a plan for targeted screening.
- Newark - The DHSS has budgeted \$134,795 for continued support of the Newark Partnership for Lead Safe Children. This is a significant increase in funding compared to \$62,000 provided in 2003. This was made possible because of the increase in funding available from the Centers for Disease Control and Prevention (CDC) to support primary prevention activities. Major projects planned by the Partnership for FY 2004 include:
  1. Continued use of the “Leadie Eddie” van to provide lead poisoning prevention education programs at child care centers, faith-based and other community locations (such as WIC).
  2. To help property owners make their rental properties lead safe, development and pilot of a DWI Court Model for landlords who have been remanded to Lead Court.
  3. Training programs to ClearCorps members and Program for Parents (Essex County) staff on reducing lead hazards and how to correctly conduct dust wipe sampling.
- Irvington - A new Irvington Lead Coalition was formed in 2003. This Coalition includes local and State government and community organizations. Participants include the Irvington Department of Health and Department of Community Development, DHSS, DHS, DCA, UMDNJ, and the Gateway MCH Consortium. In addition to continuation of efforts to increase screening, the Coalition is looking to develop initiatives to educate the public and to reduce lead hazards in the community. Through UMDNJ, private funding has been secured for initiatives in Irvington.
- Regional Coalitions - \$220,000 of the FY 2004 State appropriation for Childhood Lead Poisoning will be used to support the four regional childhood lead poisoning prevention coalitions which were established in FY 2003.

**Appendix 1**

**Municipal Data Tables**

**for all Municipalities with Population > 35,000**

**FY 2003**

Table 12

**CHILDREN SIX TO 29 MONTHS OF AGE  
WITH BLOOD TEST RESULTS REPORTED IN FY 2003  
BY MUNICIPALITY OF RESIDENCE  
FOR MUNICIPALITIES WITH POPULATION > 35,000**

<b>MUNICIPALITY</b>	<b>Number of Children*</b>	<b>Number of Children Tested</b>	<b>Percent Tested</b>	<b>Percent &lt;10</b>	<b>Percent &gt;10</b>	<b>Percent &gt;20</b>
Atlantic City	1,186	406	34.3%	96.3%	7.7%	0.5%
Bayonne City	1,376	304	22.1%	97.7%	2.3%	0.3%
Belleville Township	836	404	48.3%	99.8%	0.2%	0.2%
Berkeley Township	433	142	32.8%	100.0%	0.0%	0.0%
Bloomfield Township	1,102	492	44.6%	97.0%	3.0%	0.4%
Brick Township	1,847	331	17.9%	99.7%	0.3%	0.0%
Bridgewater Township	1,300	260	20.0%	100.0%	0.0%	0.0%
Camden City	2,845	1,257	44.2%	95.9%	4.1%	0.3%
Cherry Hill Township	1,591	369	23.2%	100.0%	0.0%	0.0%
Clifton City	1,766	821	46.5%	97.6%	2.4%	0.4%
Dover Township	1,915	370	19.3%	99.5%	0.5%	0.0%
East Brunswick Township	1,065	353	33.1%	99.7%	0.3%	0.0%
East Orange City	2,132	835	39.2%	90.9%	9.1%	1.6%
Edison Township	2,481	870	35.1%	98.9%	1.1%	0.2%
Elizabeth City	3,700	1,679	45.4%	96.4%	3.6%	0.6%
Evesham Township	1,227	300	24.4%	99.7%	0.3%	0.0%
Ewing Township	666	185	27.8%	97.8%	2.2%	0.0%
Fort Lee Boro	766	301	39.3%	99.3%	0.7%	0.3%
Franklin Township	1,488	708	47.6%	99.6%	0.4%	0.0%

<b>MUNICIPALITY</b>	<b>Number of Children*</b>	<b>Number of Children Tested</b>	<b>Percent Tested</b>	<b>Percent &lt;10</b>	<b>Percent ≥10</b>	<b>Percent &gt;20</b>
<b>Gloucester Township</b>	1,763	324	18.4%	99.4%	0.6%	0.0%
<b>Hackensack City</b>	1,010	587	58.1%	98.8%	1.2%	0.0%
<b>Hamilton Township</b>	1,981	563	28.4%	97.5%	2.5%	0.5%
<b>Hillsborough Township</b>	1,140	152	13.3%	100.0%	0.0%	0.0%
<b>Hoboken City</b>	491	253	51.5%	97.2%	2.8%	0.8%
<b>Howell Township</b>	1,547	364	23.5%	100.0%	0.0%	0.0%
<b>Irvington Township</b>	1,936	1,238	63.1%	91.1%	8.9%	2.0%
<b>Jackson Township</b>	1,420	235	16.5%	99.6%	0.4%	0.0%
<b>Jersey City</b>	6,558	2,088	31.8%	96.4%	3.6%	0.9%
<b>Kearny Town</b>	918	326	35.5%	99.1%	0.9%	0.0%
<b>Lakewood Township</b>	2,961	708	23.9%	97.2%	2.8%	0.8%
<b>Linden City</b>	877	317	36.1%	99.1%	0.9%	0.0%
<b>Manchester Township</b>	371	97	26.1%	100.0%	0.0%	0.0%
<b>Marlboro Township</b>	1,033	331	32.0%	100.0%	0.0%	0.0%
<b>Middletown Township</b>	1,777	493	27.7%	99.8%	0.2%	0.0%
<b>Montclair Township</b>	1,048	437	41.7%	94.3%	5.7%	0.9%
<b>Mount Laurel Township</b>	993	205	20.6%	100.0%	0.0%	0.0%
<b>New Brunswick City</b>	1,308	986	75.4%	96.2%	3.8%	1.0%
<b>Newark City</b>	8,217	4,305	52.4%	92.5%	7.5%	1.3%
<b>North Bergen Township</b>	1,435	494	34.4%	99.2%	0.8%	0.2%
<b>North Brunswick Township</b>	1,009	367	36.4%	99.7%	0.3%	0.0%
<b>Old Bridge Township</b>	1,700	494	29.1%	99.8%	0.2%	0.0%

MUNICIPALITY	Number of Children*	Number of Children Tested	Percent Tested	Percent <10	Percent ≥10	Percent >20
Parsippany-Troy Hills Township	1,202	371	30.9%	100.0%	0.0%	0.0%
Passaic City	2,607	1,786	68.5%	95.5%	4.5%	0.9%
Paterson City	4,973	2,293	46.1%	94.7%	5.3%	1.0%
Pennsauken Township	873	233	26.7%	96.6%	3.4%	0.9%
Perth Amboy City	1,474	633	42.9%	98.1%	1.9%	0.3%
Piscataway Township	1,381	480	34.8%	100.0%	0.0%	0.0%
Plainfield City	1,492	667	44.7%	93.7%	6.3%	3.0%
Sayreville Boro	1,079	333	30.9%	99.1%	0.9%	0.0%
South Brunswick Township	1,223	465	38.0%	99.4%	0.6%	0.2%
Teaneck Township	1,048	355	33.9%	98.0%	2.0%	0.3%
Trenton City	2,602	1,051	40.4%	91.4%	8.6%	1.0%
Union City	1,955	708	36.2%	96.9%	3.1%	1.3%
Union Township	1,176	453	38.5%	97.8%	2.2%	0.7%
Vineland City	1,375	626	45.5%	99.0%	1.0%	0.2%
Washington Township	1,086	287	26.4%	99.7%	0.3%	0.0%
Wayne Township	1,284	527	41.0%	99.8%	0.2%	0.2%
West New York Town	1,174	477	40.6%	98.7%	1.3%	0.0%
West Orange Township	1,191	465	39.0%	97.0%	3.0%	0.0%
Woodbridge Township	2,495	760	30.5%	99.1%	0.9%	0.0%
<b>Total</b>	<b>102,930</b>	<b>38,721</b>	<b>37.6%</b>	<b>96.5%</b>	<b>3.5%</b>	<b>0.7%</b>
<b>*U.S. Census 2000 - 1- and 2-year olds</b>						

**Table 13**

**CHILDREN WITH BLOOD TEST RESULTS REPORTED IN FY 2003  
BY BLOOD LEAD LEVEL  
AND MUNICIPALITY OF RESIDENCE  
FOR MUNICIPALITIES WITH POPULATION > 35,000**

<b>MUNICIPALITY</b>	<b>Total Children Tested</b>	<b>Number &lt;10</b>	<b>Number ≥10</b>	<b>Number &gt;20</b>	<b>Percent ≥10</b>	<b>Percent &gt;20</b>
<b>Atlantic City</b>	955	918	37	10	3.9%	1.0%
<b>Bayonne City</b>	697	687	10	3	1.4%	0.4%
<b>Belleville Township</b>	813	802	11	3	1.4%	0.4%
<b>Berkeley Township</b>	208	208	0	0	0.0%	0.0%
<b>Bloomfield Township</b>	955	930	25	4	2.6%	0.4%
<b>Brick Township</b>	553	550	3	0	0.5%	0.0%
<b>Bridgewater Township</b>	345	345	0	0	0.0%	0.0%
<b>Camden City</b>	3,344	3,214	130	10	3.9%	0.3%
<b>Cherry Hill Township</b>	525	522	3	1	0.6%	0.2%
<b>Clifton City</b>	1,539	1,497	42	10	2.7%	0.6%
<b>Dover Township</b>	626	624	2	0	0.3%	0.0%
<b>East Brunswick</b>	570	568	2	0	0.4%	0.0%
<b>East Orange City</b>	2,644	2,381	263	59	9.9%	2.2%
<b>Edison Township</b>	1,479	1,468	11	2	0.7%	0.1%
<b>Elizabeth City</b>	4,218	4,085	133	30	3.2%	0.7%
<b>Evesham Township</b>	357	356	1	0	0.3%	0.0%
<b>Ewing Township</b>	330	326	4	0	1.2%	0.0%
<b>Fort Lee Boro</b>	439	437	2	1	0.5%	0.2%
<b>Franklin Township</b>	1,143	1,136	7	0	0.6%	0.0%
<b>Gloucester Township</b>	455	453	2	0	0.4%	0.0%
<b>Hackensack City</b>	1,113	1,098	15	2	1.3%	0.2%
<b>Hamilton Township</b>	1,087	1,052	35	6	3.2%	0.6%

<b>MUNICIPALITY</b>	<b>Total Children Tested</b>	<b>Number &lt;10</b>	<b>Number ≥10</b>	<b>Number &gt;20</b>	<b>Percent ≥10</b>	<b>Percent &gt;20</b>
Hillsborough Township	205	203	2	1	1.0%	0.5%
Hoboken City	413	405	8	2	1.9%	0.5%
Howell Township	556	553	3	0	0.5%	0.0%
Irvington Township	3,469	3,143	326	61	9.4%	1.8%
Jackson Township	372	370	2	0	0.5%	0.0%
Jersey City	5,361	5,201	160	38	3.0%	0.7%
Kearny Town	767	764	3	0	0.4%	0.0%
Lakewood Township	1,305	1,264	41	11	3.1%	0.8%
Linden City	717	708	9	0	1.3%	0.0%
Manchester Township	172	172	0	0	0.0%	0.0%
Marlboro Township	508	506	2	0	0.4%	0.0%
Middletown Township	660	659	1	0	0.2%	0.0%
Montclair Township	866	829	37	5	4.3%	0.6%
Mount Laurel Township	275	275	0	0	0.0%	0.0%
New Brunswick City	1,810	1,733	77	14	4.3%	0.8%
Newark City	12,852	11,811	1,041	180	8.1%	1.4%
North Bergen Township	1,286	1,271	15	3	1.2%	0.2%
North Brunswick Township	568	565	3	0	0.5%	0.0%
Old Bridge Township	905	902	3	1	0.3%	0.1%
Parsippany-Troy Hills Township	532	531	1	0	0.2%	0.0%
Passaic City	4,208	4,049	159	25	3.8%	0.6%
Paterson City	5,582	5,218	364	61	6.5%	1.1%
Pennsauken Township	444	430	14	4	3.2%	0.9%
Perth Amboy City	1,496	1,455	41	4	2.7%	0.3%

<b>MUNICIPALITY</b>	<b>Total Children Tested</b>	<b>Number &lt;10</b>	<b>Number ≥10</b>	<b>Number &gt;20</b>	<b>Percent ≥10</b>	<b>Percent &gt;20</b>
<b>Piscataway Township</b>	815	811	4	0	0.5%	0.0%
<b>Plainfield City</b>	1,778	1,700	78	25	4.4%	1.4%
<b>Sayreville Boro</b>	597	593	4	0	0.7%	0.0%
<b>South Brunswick Township</b>	711	704	7	2	1.0%	0.3%
<b>Teaneck Township</b>	589	574	15	4	2.5%	0.7%
<b>Trenton City</b>	2,720	2,501	219	28	8.1%	1.0%
<b>Union City</b>	1,937	1,898	39	16	2.0%	0.8%
<b>Union Township</b>	964	945	19	5	2.0%	0.5%
<b>Vineland City</b>	1,230	1,212	18	2	1.5%	0.2%
<b>Washington Township</b>	418	415	3	0	0.7%	0.0%
<b>Wayne Township</b>	703	702	1	1	0.1%	0.1%
<b>West New York Town</b>	1,392	1,378	14	0	1.0%	0.0%
<b>West Orange Township</b>	899	874	25	1	2.8%	0.1%
<b>Woodbridge Township</b>	1,394	1,379	15	1	1.1%	0.1%
<b>TOTAL</b>	<b>85,871</b>	<b>82,360</b>	<b>3,511</b>	<b>636</b>	<b>4.1%</b>	<b>0.7%</b>

**Appendix 2**

**ENVIRONMENTAL INVESTIGATION STATUS  
BY LOCAL HEALTH DEPARTMENT JURISDICTION  
FY 2003**

	ENVIRONMENTAL INVESTIGATION STATUS BY LOCAL HEALTH DEPARTMENT - FY2003										
LOCAL HEALTH DEPARTMENT	EBL REPORTS SENT	INVEST. NOT REQUIRED	INVEST. REQUIRED	INVEST. PENDING	INVEST. COMPLETED	% INVEST. COMPLETED	LEAD HAZARDS FOUND	% LEAD HAZARDS FOUND	ABATEMENT PENDING	ABATEMENT COMPLETED	% ABATEMENT COMPLETED
<b>ATLANTIC COUNTY</b>											
ATLANTIC COUNTY HEALTH DEPARTMENT	12	7	5	0	5	100%	3	60%	2	1	33%
ATLANTIC CITY HEALTH DEPARTMENT	9	2	7	1	6	86%	5	83%	3	2	40%
<b>BERGEN COUNTY</b>											
BERGEN COUNTY DEPARTMENT OF HEALTH SERVICES	8	4	4	0	4	100%	2	50%	2	0	0%
BERGENFIELD HEALTH DEPARTMENT	3	2	1	0	1	100%	0	0%	0	0	
ENGLEWOOD HEALTH DEPARTMENT	1	0	1	1	0	0%	0		0	0	
FAIR LAWN HEALTH DEPARTMENT	2	1	1	0	1	100%	0	0%	0	0	
FORT LEE DEPARTMENT OF HEALTH	1	1	0	0	0		0		0	0	
HACKENSACK HEALTH DEPARTMENT	2	0	2	1	1	50%	1	100%	0	1	100%
MID-BERGEN REGIONAL HEALTH COMMISSION	3	3	0	0	0		0		0	0	
TEANECK DEPARTMENT OF HEALTH & HUMAN SERVICES	3	1	2	2	0	0%	0		0	0	
TOWNSHIP OF WASHINGTON LOCAL HEALTH AGENCY	4	0	4	2	2	50%	0	0%	0	0	
<b>BURLINGTON COUNTY</b>											
BURLINGTON COUNTY HEALTH DEPARTMENT	4	1	3	1	2	67%	1	50%	1	0	0%
<b>CAMDEN COUNTY</b>											
CAMDEN COUNTY DEPARTMENT OF HEALTH	20	3	17	6	11	65%	8	73%	7	1	13%
<b>CAPE MAY COUNTY</b>											
CAPE MAY COUNTY HEALTH DEPARTMENT	1	0	1	1	0	0%	0		0	0	
<b>CUMBERLAND COUNTY</b>											
CUMBERLAND COUNTY HEALTH DEPARTMENT	21	9	12	1	11	92%	9	82%	6	3	33%
CITY OF VINELAND DEPARTMENT OF HEALTH	2	0	2	0	2	100%	1	50%	0	1	100%
<b>ESSEX COUNTY</b>											
BELLVILLE HEALTH DEPARTMENT	2	0	2	0	2	100%	1	50%	0	1	100%
BLOOMFIELD DEPARTMENT OF HEALTH	6	0	6	3	3	50%	1	33%	1	0	0%
EAST ORANGE HEALTH DEPARTMENT	50	8	42	3	39	93%	33	85%	25	8	24%
IRVINGTON DEPARTMENT OF HEALTH & WELFARE	58	15	43	9	34	79%	26	77%	18	8	31%
LIVINGSTON HEALTH DEPARTMENT	4	2	2	2	0	0%	0		0	0	
MAPLEWOOD HEALTH DEPARTMENT	6	1	5	1	4	80%	4	100%	4	0	0%
MONTCLAIR HEALTH DEPARTMENT	14	5	9	5	4	44%	4	100%	3	1	25%

	ENVIRONMENTAL INVESTIGATION STATUS BY LOCAL HEALTH DEPARTMENT - FY2003										
LOCAL HEALTH DEPARTMENT	EBL REPORTS SENT	INVEST. NOT REQUIRED	INVEST. REQUIRED	INVEST. PENDING	INVEST. COMPLETED	% INVEST. COMPLETED	LEAD HAZARDS FOUND	% LEAD HAZARDS FOUND	ABATEMENT PENDING	ABATEMENT COMPLETED	% ABATEMENT COMPLETED
NEWARK DEPARTMENT OF HEALTH	174	35	139	50	89	64%	42	47%	38	4	10%
SOUTH ORANGE HEALTH DEPARTMENT	1	0	1	1	0	0%	0		0	0	
WEST ORANGE HEALTH DEPARTMENT	16	1	15	4	11	73%	6	55%	2	4	67%
<b>GLOUCESTER COUNTY</b>											
GLOUCESTER COUNTY DEPARTMENT OF HEALTH	8	2	6	2	4	67%	3	75%	3	0	0%
<b>HUDSON COUNTY</b>											
BAYONNE DEPARTMENT OF HEALTH	3	0	3	0	3	100%	2	67%	1	1	50%
HOBOKEN HEALTH DEPARTMENT	2	2	0	0	0		0		0	0	
JERSEY CITY DIVISION OF HEALTH	35	14	21	6	15	71%	13	87%	6	7	54%
KEARNY DEPARTMENT OF HEALTH	1	0	1	1	0	0%	0		0	0	
NORTH BERGEN HEALTH DEPARTMENT	25	9	16	4	12	75%	9	75%	1	8	89%
WEST NEW YORK HEALTH DEPARTMENT	1	1	0	0	0		0		0	0	
<b>HUNTERDON COUNTY</b>											
HUNTERDON COUNTY DEPARTMENT OF HEALTH	6	3	3	1	2	67%	2	100%	1	1	50%
<b>MERCER COUNTY</b>											
HAMILTON TOWNSHIP DIVISION OF HEALTH	7	1	6	6	0	0%	0		0	0	
HOPEWELL TOWNSHIP HEALTH DEPARTMENT	2	2	0	0	0		0		0	0	
CITY OF TRENTON DEPT OF HEALTH & HUMAN SERVICES	25	9	16	3	13	81%	11	85%	9	2	18%
WEST WINDSOR TOWNSHIP HEALTH DEPARTMENT	1	0	1	1	0	0%	0		0	0	
<b>MIDDLESEX COUNTY</b>											
MIDDLESEX COUNTY PUBLIC HEALTH DEPARTMENT	29	5	24	7	17	71%	7	41%	4	3	43%
MIDDLE-BROOK REGIONAL HEALTH COMMISSION	1	0	1	1	0	0%	0		0	0	
EDISON DEPARTMENT OF HEALTH & HUMAN RESOURCES	1	0	1	0	1	100%	0	0%	0	0	
SOUTH BRUNSWICK HEALTH DEPARTMENT	1	0	1	1	0	0%	0		0	0	
WOODBRIIDGE TOWNSHIP DEPT OF HEALTH & HUMAN SERVICES	1	0	1	0	1	100%	0	0%	0	0	
<b>MONMOUTH COUNTY</b>											
MONMOUTH COUNTY HEALTH DEPARTMENT	6	1	5	0	5	100%	4	80%	2	2	50%
MONMOUTH COUNTY REGIONAL HEALTH COMMISSION NO.1	2	1	1	0	1	100%	1	100%	0	1	100%
FREEHOLD AREA HEALTH DEPARTMENT	1	0	1	1	0	0%	0		0	0	

ENVIRONMENTAL INVESTIGATION STATUS BY LOCAL HEALTH DEPARTMENT - FY2003											
LOCAL HEALTH DEPARTMENT	EBL REPORTS SENT	INVEST. NOT REQUIRED	INVEST. REQUIRED	INVEST. PENDING	INVEST. COMPLETED	% INVEST. COMPLETED	LEAD HAZARDS FOUND	% LEAD HAZARDS FOUND	ABATEMENT PENDING	ABATEMENT COMPLETED	% ABATEMENT COMPLETED
LONG BRANCH DEPARTMENT OF HEALTH	5	1	4	1	3	75%	3	100%	1	2	67%
MATAWAN REGIONAL DEPARTMENT OF HEALTH	1	1	0	0	0		0		0	0	
HAZLET-ABERDEEN HEALTH DEPARTMENT	1	0	1	0	1	100%	1	100%	1	0	0%
<b>MORRIS COUNTY</b>											
DOVER HEALTH DEPARTMENT	2	1	1	1	0	0%	0		0	0	
TOWNSHIP OF HANOVER HEALTH DEPARTMENT	2	0	2	2	0	0%	0		0	0	
JEFFERSON TOWNSHIP HEALTH DEPARTMENT	1	1	0	0	0		0		0	0	
LINCOLN PARK HEALTH DEPARTMENT	1	0	1	0	1	100%	0	0%	0	0	
MADISON BORO BOARD OF HEALTH	2	0	2	1	1	50%	1	100%	0	1	100%
MORRISTOWN DIVISION OF HEALTH	2	0	2	1	1	50%	1	100%	0	1	100%
ROXBURY TOWNSHIP BOARD OF HEALTH	1	0	1	1	0	0%	0		0	0	
<b>OCEAN COUNTY</b>											
OCEAN COUNTY HEALTH DEPARTMENT	13	7	6	3	3	50%	2	67%	1	1	50%
<b>PASSAIC COUNTY</b>											
CLIFTON BOARD OF HEALTH	9	0	9	1	8	89%	4	50%	2	2	50%
PASSAIC CITY HEALTH DEPARTMENT	26	5	21	7	14	67%	8	57%	6	2	25%
PATERSON DIVISION OF HEALTH	63	5	58	16	42	72%	30	71%	22	8	27%
<b>SALEM COUNTY</b>											
SALEM COUNTY DEPARTMENT OF HEALTH	4	1	3	0	3	100%	3	100%	2	1	33%
<b>SOMERSET COUNTY</b>											
SOMERSET COUNTY HEALTH DEPARTMENT	3	0	3	3	0	0%	0		0	0	
BRANCHBURG TOWNSHIP HEALTH DEPARTMENT	1	1	0	0	0		0		0	0	
HILLSBOROUGH TOWNSHIP HEALTH DEPARTMENT	1	0	1	0	1	100%	0	0%	0	0	
MONTGOMERY TOWNSHIP HEALTH DEPARTMENT	1	1	0	0	0		0		0	0	
SOMERVILLE HEALTH DEPARTMENT	2	1	1	1	0	0%	0		0	0	
<b>SUSSEX COUNTY</b>											
SUSSEX COUNTY DEPT HEALTH, PUBLIC SAFETY & SR. SERVICES	1	0	1	0	1	100%	1	100%	1	0	0%
HOPATCONG BOARD OF HEALTH	1	0	1	0	1	100%	0	0%	0	0	
SPARTA HEALTH DEPARTMENT	1	0	1	1	0	0%	0		0	0	

ENVIRONMENTAL INVESTIGATION STATUS BY LOCAL HEALTH DEPARTMENT - FY2003											
LOCAL HEALTH DEPARTMENT	EBL REPORTS SENT	INVEST. NOT REQUIRED	INVEST. REQUIRED	INVEST. PENDING	INVEST. COMPLETED	% INVEST. COMPLETED	LEAD HAZARDS FOUND	% LEAD HAZARDS FOUND	ABATEMENT PENDING	ABATEMENT COMPLETED	% ABATEMENT COMPLETED
<b>UNION COUNTY</b>											
ELIZABETH DEPARTMENT OF HEALTH & HUMAN SERVICES	27	10	17	0	17	100%	12	71%	6	6	50%
LINDEN BOARD OF HEALTH	2	0	2	0	2	100%	2	100%	0	2	100%
CITY OF PLAINFIELD HEALTH DEPARTMENT	22	5	17	1	16	94%	15	94%	4	11	73%
RAHWAY HEALTH DEPARTMENT	8	1	7	3	4	57%	4	100%	2	2	50%
TOWNSHIP OF UNION DEPARTMENT OF HEALTH	6	1	5	0	5	100%	4	80%	1	3	75%
WESTFIELD REGIONAL HEALTH DEPARTMENT	2	0	2	1	1	50%	0	0%	0	0	
<b>WARREN COUNTY</b>											
WARREN COUNTY HEALTH DEPARTMENT	6	3	3	1	2	67%	0	0%	0	0	
<b>Statewide Totals</b>	<b>802</b>	<b>196</b>	<b>606</b>	<b>173</b>	<b>433</b>	<b>71%</b>	<b>290</b>	<b>67%</b>	<b>188</b>	<b>102</b>	<b>35%</b>

## Appendix 3

### WHY IS LEAD POISONING IN CHILDREN A PRIORITY FOR NEW JERSEY?

Lead is a heavy metal that has been widely used in industrial processes and consumer products. When absorbed into the human body, lead affects the blood, kidneys and nervous system. Lead's effects on the nervous system are particularly serious and can cause learning disabilities, hyperactivity, decreased hearing, mental retardation and possible death. Because their neurological system and organs are still developing, lead is particularly hazardous to children between six months and six years of age. Children who have suffered from the adverse effects of lead exposure for an extended period of time are frequently in need of special health and educational services in order to assist them to develop to their potential as productive members of society.

The primary method for lead to enter the body is the ingestion of lead containing substances. Lead was removed from gasoline in the United States in the early 1980's. This action is credited with reducing the level of lead in the air, and thereby the amount of lead inhaled by children. However, significant amounts of lead remain in the environment, where it poses a threat to children. Some common lead containing substances that are ingested or inhaled by children include:

- lead-based paint;
- dust and soil in which children play;
- tap water;
- food stored in lead soldered cans or improperly glazed pottery; and
- traditional folk remedies and cosmetics containing lead.

Because lead-based paint and other lead-containing substances are present throughout the environment in New Jersey, all children in the State are at risk. Some children, however, are at particularly high risk due to exposure to high dose sources of lead in their immediate environment. These potential high dose sources include:

- leaded paint that is peeling, chipped, or otherwise in a deteriorated condition;
- lead-contaminated dust created during removal or disturbance of leaded paint in the process of home renovation; and
- lead-contaminated dust brought into the home by adults who work in an occupation that involves lead or materials containing lead, or who engage in a hobby where lead is used.

Today, the primary lead hazard to children comes from lead-based paint. In recognition of the danger that lead-based paint presents to children, such paint was banned for residential use in New Jersey in 1971, and nationwide in 1978. These bans have effectively reduced the risk of lead exposure for children who live in houses built after 1978, but any house built before 1978 still may contain leaded paint. The highest risk for children is found in houses built before 1950, when paints contained a very high percentage of lead. There are nearly one million housing units in New Jersey, 30% of the housing in the state, which were built before 1950. Every county in the State has more than 9,000 housing units built before 1950. (See Table 15)

**Table 15**

**HOUSING BUILT BEFORE 1950 IN NEW JERSEY**

<b>County</b>	<b>Total Housing Units</b>	<b># of Units Built Pre-1950</b>	<b>% of Units Built Pre-1950</b>
Atlantic	114,090	24,868	21.8%
Bergen	339,820	126,125	37.1%
Burlington	161,311	26,363	16.3%
Camden	199,679	57,949	29.0%
Cape May	91,047	20,248	22.2%
Cumberland	52,863	16,316	30.9%
Essex	301,011	142,297	47.3%
Gloucester	95,054	19,029	20.0%
Hudson	240,618	125,180	52.0%
Hunterdon	45,032	11,720	26.0%
Mercer	133,280	44,117	33.1%
Middlesex	273,637	52,430	19.2%
Monmouth	240,884	56,969	23.6%
Morris	174,379	40,039	23.0%
Ocean	248,711	24,076	9.7%
Passaic	170,048	70,979	41.7%
Salem	26,158	9,623	36.8%
Somerset	112,023	21,286	19.0%
Sussex	56,528	12,221	21.6%
Union	192,945	82,231	42.6%
Warren	41,157	14,786	35.9%
<b>Statewide</b>	<b>3,310,275</b>	<b>998,852</b>	<b>30.2%</b>
<i>Source: 2000 U.S. Census of Housing and Population</i>			

## Appendix 4

### **NJDHSS CHILDHOOD LEAD POISONING SURVEILLANCE SYSTEM**

All clinical laboratories licensed by the DHSS are required to report all blood lead tests. This universal reporting was authorized by Public Law 1995, chapter 328 (N.J.S.A. 26:2-137.5.b). The regulations establishing the requirement for reporting of all blood lead tests were adopted on April 6, 1998 (30 NJR 1310(c)), and became effective on July 1, 1999. Prior to July 1999, reporting was required only of elevated test results.

During FY 2003, laboratories were able to report blood lead test results to the DHSS on paper forms or electronically. Programming work is underway to enable laboratories to transmit files of blood lead tests results via secure Internet file transfer.

All reported blood lead tests are entered into a computer database. This database records the child's name, address, birth date, and blood lead level, as well as the medical provider and laboratory performing the testing. These data are used to track childhood lead poisoning in New Jersey, both geographically and over time, and to produce reports of this information (such as this Annual Report). The database contains files of nearly 1 million blood lead test results on more than 650,000 children, dating back to the mid-1970's. Most of the records from before July 1999 are of elevated test results.

Blood lead tests results are reviewed to identify children with elevated blood lead ( $\geq 20$  ug/dL). The DHSS then notifies local health departments of children with elevated blood lead reported in their jurisdictions. This is currently done through issuing a Lead Poisoning Environmental Intervention Report. This report is issued whenever the DHSS receives a report of an elevated blood lead test on a child, unless a report form has already been issued on the same child, at the same address, within the previous 12 months. More than one form may be issued on the same child if the address shown on the laboratory report is different from that on a previous report. This is done to ensure that the local health department is aware of any changes of address made by the child and their family, and to ensure that all places where the child resides are investigated for lead hazards.

The local health department is required to report the closure or completion of an investigation and/or abatement to the DHSS, using copies of these forms. The DHSS Child and Adolescent Health Program maintains a database for tracking the status and results of lead poisoning investigations. The database contains more than 27,000 records on environmental actions taken by local health departments since the mid-1980's. When the local health department reports that an inspection has been completed and the lead hazards abated, or the case otherwise closed, the DHSS will record the case as closed. Any case of lead poisoning in a child for which the DHSS has not received a completed report from the local health department is considered to be "open". Reports are sent to local health departments to remind them of cases still open.

## **Creation of Report Tables**

### Testing for Lead Poisoning

An analysis database was created, based upon all blood lead test results that were reported to the New Jersey Department of Health and Senior Services prior to August 1, 2003, in which the analysis date was within FY2003. Blood lead test results were reported in either electronic or hardcopy format. All hardcopy reports were initially entered into a temporary database. All the reports were then batch loaded into the Childhood Lead Poisoning Prevention Surveillance System (CLPPSS) for processing. During processing, the new records were matched to existing child and address records.

All new address records were processed by CLPPSS and, if possible, standardized into US Postal Services format and geocoded with county, municipal, and census block level data. If addresses could not be standardized, then the reported address was retained and geocoded as unknown. This process for the FY2003 report resulted in more addresses being coded as unknown than in past reports because addresses were matched to individual street addresses. In previous reports, addresses were only coded to the county level based upon zip code.

For those records missing date of birth, age was assigned as unknown. An attempt was made to count each child only once by creating a unique identifier based upon the child's full name and date of birth. If more than one result was reported for a child, then highest result for each child that had a standardized address was selected. If all results for a child were associated with addresses that could not be standardized, then the highest result was selected. It was not possible to specifically identify the number of screening tests because the reason for testing was not reported. In assigning test results to a blood lead level group, if the result was reported as "<" some value, then the result was assigned to a group as if the "<" sign was not reported. For example, a result reported as "<3" was processed as if the value was 3 and therefore assigned to the "< 10 ug/dL" group.

U.S. Census 2000 data was used when reporting the total number of children by age group within a specific geographic area. When performing analyses for children aged 6 through 29 months of age, the denominator used was children aged 1 through 2 years because the U.S. Census 2000 tables did not report age in months. This provided a reasonable estimate of children within the 6 through 29 month age group because of the relative stability of New Jersey's population within this age group.

### Environmental Activities

All records were selected from the environmental portion of the database. Environmental records were assigned to a fiscal year based upon the date of analysis of the blood lead test result that generated the environmental record. All environmental activities (investigation, abatement, and closure) counted within this report as occurring during FY2003 actually occurred during FY2003. That is, the date for any activity completed after June 30, 2003, was set to missing and, therefore, not counted within this report. Activities counted within this section of the report were based upon records updated on August 29, 2003. It should be noted that because of the dynamic nature of the database, that comparison with previous years reports may result in small discrepancies because of added, deleted, updated, and corrected records.