CHILDHOOD LEAD EXPOSURE IN NEW JERSEY

ANNUAL REPORT

STATE FISCAL YEAR 2022
(July 1, 2021 – June 30, 2022)

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TABLE OF CONTENTS

GLOSSARY OF TERMS AND ACRONYMS

Abatement: Refers to long-term removal of an environmental lead hazard by a certified lead abatement contractor, such as removing lead-based paint and repairing a cracked wall or surface. N.J.A.C. 8:51 requires lead hazards to be abated (i.e., not remediated) when identified in the home of a lead-burdened child.

BLL: Blood lead level.

Children: Refers to children who are younger than 17 years of age, unless otherwise specified.

Children six to 26 months of age: Includes children in the age range for universal blood lead testing required by N.J.A.C. 8:51A, where health care providers should test children at or around age one (within the age range six to 18 months) and again at or around age two (within the age range 18 to 26 months).

Children less than 72 months of age: Refers to children who are younger than six years, which is the age by which N.J.A.C. 8:51A requires that all children should have received at least one blood lead test.

CLP: The Department's Childhood Lead Program.

Communicable Disease Reporting and Surveillance System (CDRSS): The Department's secure, online central database for reportable conditions including childhood lead test results. As of August 2021, CDRSS has been the repository for all nurse case management and environmental investigation data; prior to this, childhood lead data was managed in a database called Lead Trax.

Confirmed BLL: A blood lead level obtained from a venous blood sample (i.e., blood drawn from a vein).

Department: The New Jersey Department of Health.

EBLL: Refers to an elevated blood lead test result above the minimum threshold, as established by New Jersey Administrative Code Title 8, Chapter 51 (N.J.A.C. 8:51). Since SFY 2018, N.J.A.C. 8:51 defines this threshold as any BLL greater than or equal to 5 µg/dL; prior to SFY 2018, the minimum threshold EBLL was 10 µg/dL. In SFY 2023, the Department will be lowering the minimum threshold EBLL from 5 µg/dL to 3.5 µg/dL to align with recommendations from the Centers for Disease Control and Prevention (CDC). All EBLLs require a public health response, such as nurse case management or environmental investigation.

Geocoding: Before SFY 2022, addresses were geocoded in ArcGIS Pro. Starting SFY 2022, addresses are geocoded within CDRSS. For more information on how cases are coded in CDRSS, please visit: https://cdrs.doh.state.nj.us/cdrss/common/geocodingNotes.

Large Municipality(ies): Municipality(ies) with a population greater than 35,000 residents.

Lead inspector/risk assessor: Someone who is certified to conduct an environmental inspection to identify lead hazards and order lead hazard removal.

LHD: Local health department.

Population Data: The CLP uses decennial population counts from the U.S. Census to calculate rates and other metrics. The U.S. Census 2010 was used for this report, unless otherwise specified, as this is the most recent decennial population count (U.S. Census 2020 population data by age and municipality/county has not been published at the time of this analysis).

Presumptive BLL: A blood lead level obtained from a capillary (i.e., finger stick) blood sample. A venous sample is needed to confirm a presumptive BLL greater than or equal to 5 µg/dL.

Remediation: Refers to temporary measures to disrupt lead exposure, such as re-painting a cracked wall. Remediation may be used and/or required by other programs, but when a lead hazard is identified in a home with a lead-burdened child (i.e., a child with an elevated blood lead level), N.J.A.C. 8:51 requires the hazard must be abated, not remediated.

Screening Number/Percent: Where each child is counted only once, regardless of the number of tests that the child has had during the reporting timeframe.

SFY: Refers to the State Fiscal Year in New Jersey, which for SFY 2022 includes the period of July 1, 2021, to June 30, 2022.

Testing Number/Percent: Where each test is counted during a reporting timeframe, even if multiple tests exist for the same child.

µg/dL: Micrograms of lead per deciliter of whole blood.

Universal screening: Requires health care providers and local health departments to test all children for lead, regardless of where they live, whether they have health insurance, or whether there are any risk factors present.

Unknown Address: An address that could not be geocoded in CDRSS or an address that was not reported to the Department.

LIST OF FIGURES AND TABLES

EXECUTIVE SUMMARY

N.J.A.C. 8:51 and N.J.A.C. 8:51A protect children from the toxic effects of lead exposure by requiring a universal lead screening program in New Jersey and, for children with elevated blood lead levels (EBLL), public health intervention, including nursing case management and environmental investigation. This Annual Report on Childhood Lead Exposure in New Jersey for State Fiscal Year (SFY) 2022 is submitted as required by N.J.S.A. 26:2-135, which tasks the Commissioner of Health with issuing an annual report to the Governor and the Legislature that includes a summary of blood lead testing and environmental investigation activities in the state during the preceding SFY. Highlights from the report include the following:

- Seventy-eight percent (78%) of children born in New Jersey who turned three years of age during SFY 2022 received at least one blood lead test in their lifetime. This represents a higher percentage of children tested as compared to the same analysis in SFY 2021, where 72% of children born in New Jersey who turned age three years of age during SFY 2021 received at least one blood lead test. *From Chapter One, which describes blood lead screening of children less than 17 years of age in New Jersey.*

- Twenty-five percent (25%) of children born in New Jersey who turned three years of age during SFY 2022 received at least one blood lead test at age one year and age two years. *From Chapter One, which describes blood lead screening of children less than 17 years of age in New Jersey.*

- A total of 83,463 children between the ages of six months and 26 months were screened for lead in SFY 2022. Although this number is lower than the 86,737 children screened in SFY 2021, the decrease may be attributed to factors unrelated to childhood lead, such as fluctuations in the overall population eligible for screening (i.e., changes in the number of births, deaths and persons immigrating and emigrating). *From Chapter Two, which describes blood lead screening of children by age group, geographic location, gender, and month of test.*

- In the five years between SFY 2018 and SFY 2022, the percentage of children less than six years of age with an EBLL dropped from 2.5% to 1.9%. Trend data for EBLLs cannot be generated using annual reports prior to SFY 2018, as the minimum threshold for an EBLL was higher before SFY 2018 (i.e., the actionable level was lowered from 10 ug/dL to 5 ug/dL in SFY 2018). It is anticipated in SFY 2025, the minimum threshold for an EBLL will be lowered again, from 5 ug/dL to 3.5 ug/dL. These changes strengthen the standard for intervening in cases of child lead exposure, enabling public health officials and medical providers to intervene earlier with education, case management, home visits, and other steps at the earliest possible time. *From Chapter Two, which describes blood lead screening of children by age group, geographic location, gender, and month of test.*

- In SFY 2022, 55% of children less than six years of age with an EBLL were male, and 45% were female. The peak months of screening for children under six years of age were July and August and the months when the most EBLLs were detected were July through September. During warmer months exposure increases from lea dust produced from friction impact surfaces such as window usage. An uptick in testing occurs in the summer months due to an uptick in testing from back-to-school medical visits. The uptick in testing would identify more children with elevated blood lead levels. *From Chapter Two, which describes blood lead screening of children by age group, geographic location, gender, and month of test.*

- The five large municipalities with the highest percentage of children younger than six years of age with an EBLL in SFY 2022 include the following urban centers: the City of Trenton in Mercer County (35.0% screened, 6.1% EBLL), the City of Irvington in Essex County (48.9% screened, 5.4% EBLL), the City of East Orange in Essex County (37.0% screened, 4.7% EBLL), the City of Plainfield in Union County (54.7% screened, 3.7% EBLL) and the City of Paterson in Passaic County (39.7% screened, 3.5% EBLL). While the percentage of children with an EBLL is the most widely used metric to represent the burden of childhood lead

in a specific geographic area, comparisons of this metric between municipalities cannot be made. The variability in population size and the percentage screened can have a significant impact on the percentage of EBLLs (e.g., the smaller the population, the more dramatic the change to the percentage). Additionally, the causes of EBLLs can vary by municipality. Such causes may include community demographics (e.g., cultural practices, socioeconomics, etc.) and environmental sources of exposure (e.g., the age and/or condition of housing in a geographic area). *From Chapter Three, which compares blood lead screening and elevated blood lead levels in large municipalities.*

- In SFY 2022, a total of 995 environmental investigations (approximately 31% of EBLL cases) were required by local health departments; 324 (approximately 39%) of those environmental investigations resulted in the LHD issuing an order of abatement. Of these 324 new abatements ordered in SFY 2022, the LHDs with the highest volume of orders of abatement were the City of Trenton, Department of Health & Human Services (n=47), and Township of Irvington, Department of Health and Senior Services (n=46). *From Chapter Four, which describes the volume and completion of environmental investigations conducted by local health departments.*

Preventing childhood lead exposure remains a priority for the State Department of Health. In SFY 2022, the Department continued its #kNOwLEAD prevention campaign to increase awareness of all lead hazards in homes, schools, and on the job, and to educate parents about what they can do to prevent exposure and have their children tested. Throughout the SFY 2022, the Department provided funding, technical support, and subject matter expertise to a variety of grantees. These included local health departments, to support screening, environmental investigations, and nursing case management; regional childhood lead coalitions to support primary prevention, outreach, and education initiatives; Isles Inc, to support the New Jersey Healthy Homes Training Center; and Green and Healthy Homes Initiative (GHHI), to provide technical assistance to public health and community partners. Also, the Department implemented several Data Use Agreements (DUAs) with other governmental programs and agencies to allow for the exchange of data to ensure lead-burdened children receive timely medical care and early intervention services and to support regulatory programs in lead remediation, safe housing, and safe drinking water. Lastly, the Department participated in several interagency working groups to evaluate data sources and improve data transparency for all stakeholders addressing childhood lead exposure.

The Department of Health continued with the above initiatives to support its public health mission to prevent, screen, and intervene to ensure the health and safety of New Jersey children. In addition, in SFY 2024, through the rulemaking process in New Jersey, the Department is updating N.J.A.C. 8:51 to lower the blood lead reference value (BLRV) from 5 to 3.5 ug/dL, as recommended by the Centers for Disease Control and Prevention (CDC).

Previous SFY annual reports can be found online at www.nj.gov/health/childhoodlead.

CHAPTER ONE

TESTING CHILDREN FOR ELEVATED BLOOD LEAD LEVELS

In New Jersey, N.J.A.C. 8:51A requires healthcare providers to screen all children for lead at or around 12 months and 24 months of age. Children three years of age or older must be tested at least once before their sixth birthday if they had not already been screened at age one year or two years. Laboratories are required to report all blood lead tests to the Department. This chapter describes statewide blood lead screening among children in New Jersey.

Figures 1a and 1b represent the percentage of children who were born in New Jersey and had at least one blood lead test performed by the year when they turned three or six years of age, respectively, during SFY 2022. To generate statistics for these figures, each child is counted only once, regardless of the number of tests the child has received. The number of tests in a specific age group is then compared to the number of children who were born in New Jersey and are turning three or six years of age during SFY 2022. Because this method uses birth records to calculate screening rates, these statistics closely reflect the population of children in New Jersey who were eligible for and received screening.

As depicted in Figure 1a, 78% of children who were born in New Jersey and turned three years of age during SFY 2022 had at least one blood lead test in their lifetime. This represents a higher percentage than the analysis in the SFY 2021 report, where 72% of children who were born in New Jersey and turned three during SFY 2021 had at least one blood lead test in their lifetime. In Figure 1b, 96% of children who were born in New Jersey and turned six years old during SFY 2022 had at least one blood lead test in their lifetime. This number reflects an increase compared to the SFY 2021 report, where 92% of children who turned six years old during SFY 2021 had at least one blood lead test in their lifetime.

Figure 1c represents the percentage of children who were born in New Jersey and turned three years old during SFY 2022 and had at least two blood lead tests, including one blood lead test performed between the age of six months of age through less than 24 months of age and at least one blood lead test performed between the age of 24 months through less than 36 months. To generate statistics for this figure, each child is counted only once in their age group, regardless of the number of tests the child has received. Young children absorb more lead than adults when ingested. As children become more mobile, the exposure risk increases. Identification of children with elevated blood lead levels allows for timely nurse case management and environmental investigation to identify the sources of exposure. Of the children who were born in New Jersey and turned three years old during SFY 2022, 25% had at least two blood lead tests.

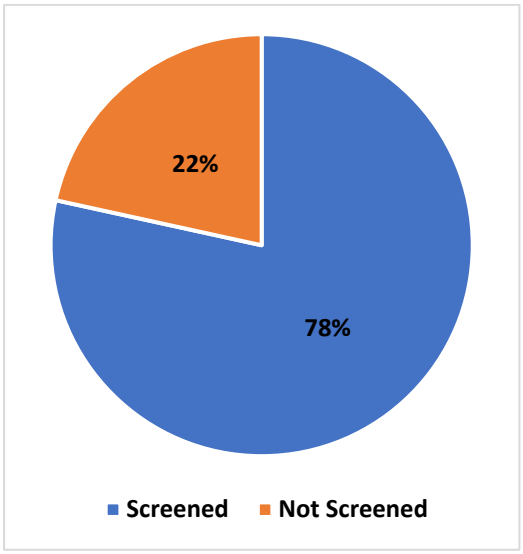
Figure 1d represents the number of children who were born in New Jersey and turned six years old during SFY 2022 and had at least two blood lead tests, including one blood lead test performed prior to age 48 months and at least one blood lead test performed between 48 months and less than 72 months. To generate the statistics represented in this figure, each child is counted only once in their age group, regardless of the number of tests they received. Of the children who were born in New Jersey and turned six years old during SFY 2022, 18% had at least two blood lead tests.

Figure 2 represents annual trends in children six months through 26 months. This age range is used throughout the annual report and was selected to match N.J.A.C. 8:51A, which states a child's first blood lead test should be when they turn one year or during the range of when they are six months to 18 months of age, and a child's second blood lead test should be when they turn two years, or during the range of when they are 18 through 26 months. Given the requirement that children be tested twice, data generated for Figure 2 includes children tested at ages one year and two years. The number of tests is then divided by the total population of children six through 26 months, as reported in the 2000 or 2010 U.S. Census. At the time of analysis, data for single age at the municipality level was unavailable in the 2020 U.S. Census. This method generates screening rates that are less precise than using birth records, as 10-year

census counts may not capture annual changes in the population. For example, a decrease in the annual percent screened may reflect factors other than screening practices, such as fewer children eligible for screening that year or screening saturation, where children were already tested in a previous year and do not require testing again.

Figure 1a

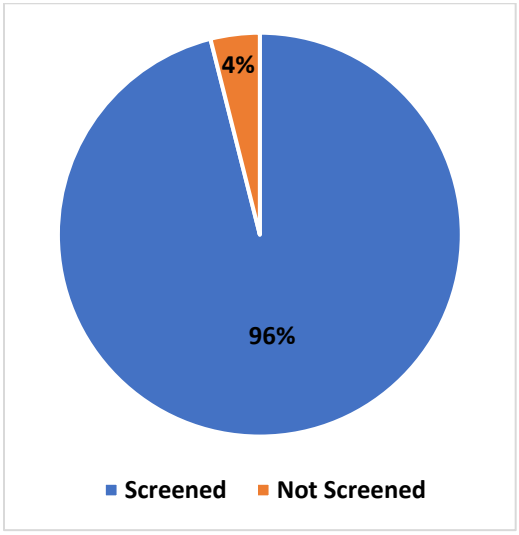
Percentage of Children* Who Turned Three Years of Age During SFY 2022 and Had At Least One Blood Lead Test in their Lifetime



*Number of children born in New Jersey between July 1, 2018, and June 30, 2019 (n = 99,661)
Source: New Jersey Department of Health, Center for Health Statistics, New Jersey Birth Certificate Database

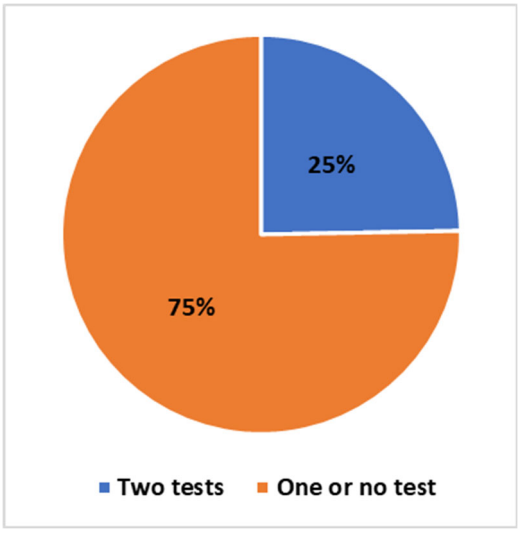
Figure 1b

Percentage of Children* Who Turned Six Years of Age During SFY 2022 and Had At Least One Blood Lead Test in their Lifetime



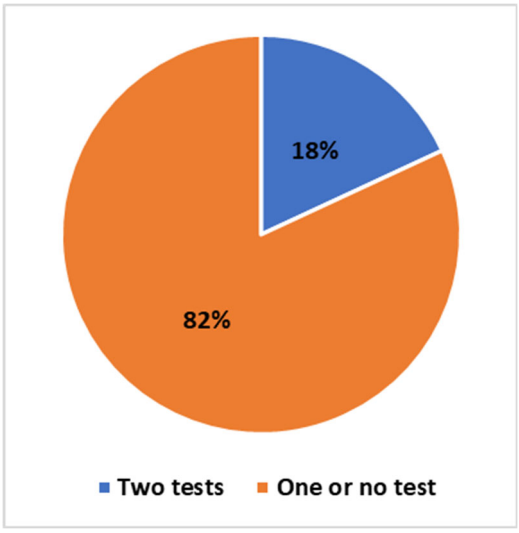
*Number of children born in New Jersey between July 1, 2015, and June 30, 2016 (n = 102,599)
Source: New Jersey Department of Health, Center for Health Statistics, New Jersey Birth Certificate Database

Figure 1c
Percentage of Children* Who Turned Three Years of Age During SFY 2022 and Had Two Blood Lead Tests in their Lifetime



*Number of children born in New Jersey between July 1, 2018, and June 30, 2019 (n = 99,661)
Source: New Jersey Department of Health, Center for Health Statistics, New Jersey Birth Certificate Database

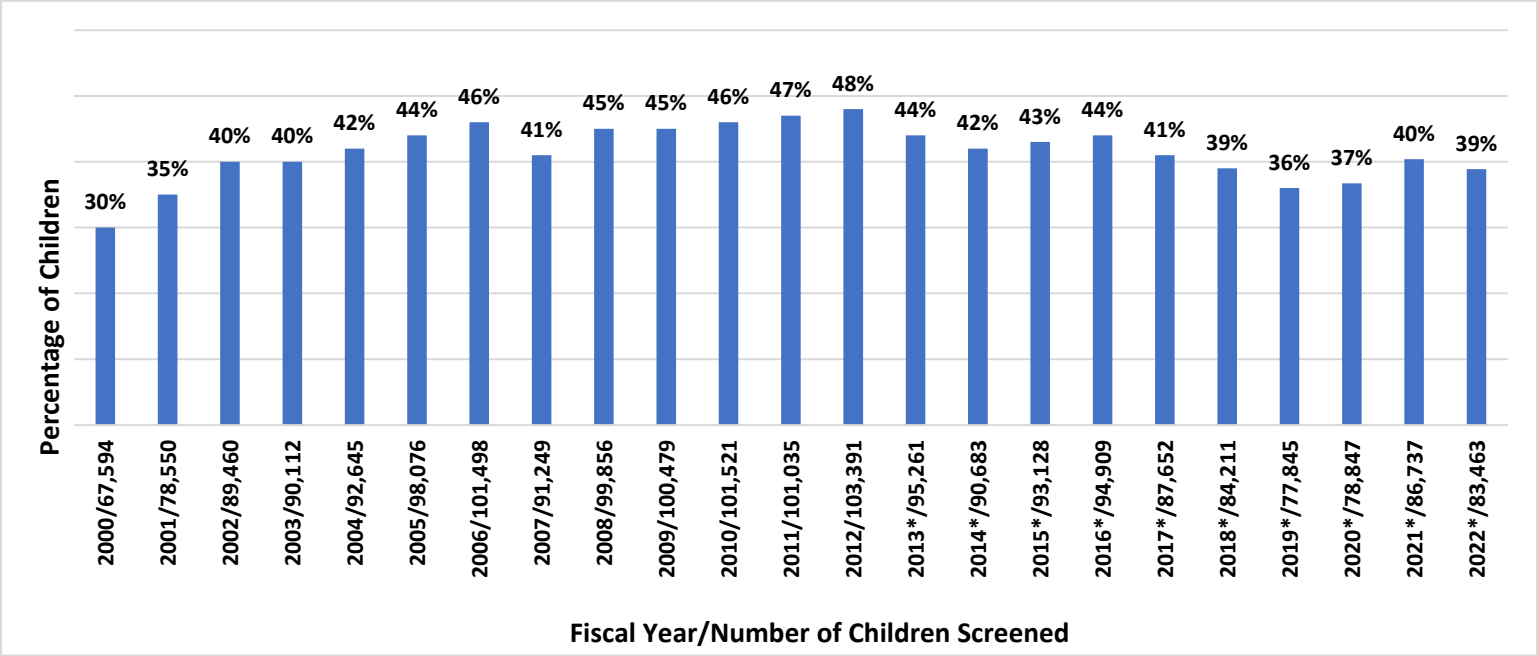
Figure 1d
Percentage of Children* Who Turned Six Years of Age During SFY 2022 and Had Two Blood Lead Tests in their Lifetime



*Number of children born in New Jersey between July 1, 2015, and June 30, 2016 (n = 102,599)
Source: New Jersey Department of Health, Center for Health Statistics, New Jersey Birth Certificate Database

Figure 2

Trend in Percentage* of Children Six Months Through 26/29*** Months of Age Screened by SFY**



*Caution is advised when interpreting these numbers, as percentages calculated using the 10-year census counts do not capture annual changes in the population.

**For SFY 2000 through SFY 2016, the number of blood lead tests used to calculate percentages may include duplicate records.

***For SFY 2000 through SFY 2010:

- Total Children = 2000 U.S. Census for Children 1 and 2 Years of Age
- Total Screened = Frequency of Children 6-29 Months of Age with a Blood Lead Test
- Percent Screened = (Total Screened / Total Children) * 100

For SFY 2011 through SFY 2022:

- Total Children = 2010 U.S. Census for Children 1 and 2 Years of Age
- Total Screened = Frequency of Children 6-26 Months of Age with a Blood Lead Test
- Percent Screened = (Total Screened / Total Children) * 100

CHAPTER TWO

PROFILE OF BLOOD LEAD TESTS PERFORMED AND PREVALENCE OF ELEVATED BLOOD LEAD LEVELS IN CHILDREN

In addition to universal blood lead testing required by N.J.A.C. 8:51A, New Jersey requires public health intervention for all children with an EBLL at or above 5 μg/dL, as defined in N.J.A.C. 8:51 (Note: This number will be lowered to 3.5 ug/dL in SFY 2024 to align with the federal Centers for Disease Control and Prevention standard). This chapter provides a more in-depth look at blood lead screening data and EBLL prevalence by county/municipality of residence (which may differ from the county/municipality of exposure), the gender of children screened, and the month the sample was taken. To protect patient confidentiality, only municipalities with a population of 35,000 or more residents (i.e., large municipalities) are included in this report, as the proportion of children in the blood lead screening age range comprises an even smaller part of each municipal population. For each table in this chapter, a child with an EBLL is counted only once, using the highest EBLL. The number of children with an EBLL is then divided by the total population of children in a given age group, as reported in the 2010 U.S. Census. This method generates screening and prevalence statistics that may not reflect the size of the current population, as 10-year census counts do not capture annual changes such as decreases in the population. At the time of analysis, data for single age at the municipality level was unavailable in the 2020 U.S. Census.

Tables 1 and 2 show screening numbers and results by county and large municipality, respectively, for children six through 26 months of age. As per N.J.A.C. 8:51A, children in this age group must be screened twice, at ages 12 and 24 months. Table 1 shows that in SFY 2022, the average percentage of children ages six through 26 months screened by county was 37.7%, with a range of 25.3 % (Gloucester County) to 53.5% (Hunterdon County). The average percentage of children ages six through 26 months with an EBLL by county was 1.5%, ranging from 0.5% (Ocean County) to 3.2% (Essex County). Table 2 shows that in SFY 2022, the average percentage of children ages six through 26 months screened in large municipalities was 38.0%, with a range of 22.9% (Manalapan in Ocean County) to 64.9 % (Jackson in Ocean County). In large municipalities in NJ, the average percentage of children six to 26 months of age with an EBLL was 1.4%. The range includes zero cases reported in several municipalities—Evesham Township (Burlington County), Monroe and Washington Townships (Gloucester County), Manalapan Township (Monmouth County), Old Bridge Township (Middlesex County), and Manchester Township (Ocean County)—up to 6.5% in the City of Trenton (Mercer County).

Tables 3 and 4 display screening numbers and results by county and by large municipality, respectively, for children less than six years of age. As per N.J.A.C. 8:51A, children must be screened at least once by six years of age. Table 3 shows that in SFY 2022, the average percentage of children under six years of age screened by county was 20.6%, with a range of 11.7% (Gloucester County) to 35.6% (Essex County). The average percentage of children under six years of age with an EBLL by county was 1.8%, with a range of 0.5% (Ocean County) to 3.9% (Cumberland County). Table 4 shows that in SFY 2022, the average percentage of children younger than six years of age screened in large municipalities was 23.8%, with a range of 9.7% (Pennsauken Township in Camden County) to 54.7% (City of Plainfield in Union County), and the average percentage of children younger than six years of age with an EBLL by large municipality was 1.5%, with a range of zero cases (Monroe and Washington Townships in Gloucester County, Manalapan Township in Monmouth County, and Manchester Township in Ocean County) to 6.1% (City of Trenton in Mercer County). Table 5 displays EBLL by county for all children.

Figures 3a and 3b compare the statewide BLL results among children by year of age. Figure 3a shows children with an EBLL and Figure 3b shows children without an EBLL (i.e., BLL is less than 5 μg/dL). As illustrated in Figure 3a, children between one year and three years of age comprise the largest category of EBLL.

Figure 4a displays the percentage of children statewide with an EBLL compared to children without an EBLL and shows that in SFY 2022, 98.2% of all children had a BLL less than 5 μg/dL. Figure 4b includes all children with an EBLL and compares categories of EBLL. In SFY 2022, 77.1% of children with an EBLL had a blood lead level in the lowest category of results (5-9 μg/dL), and 0.4% of children had a blood lead level in the highest category of results (at or above 45 μg/dL).

Figure 5 shows the statewide gender distribution of children younger than six years of age with an EBLL. In SFY 2022, 55% of children younger than six years of age with an EBLL were male, and 45% were female.

Figure 6 shows the seasonal distribution of screening and percent of EBLL among children younger than six years of age. Here, the highest percentage of children younger than six years of age with an EBLL were detected between July and August, which may be due in part to increased exposure to lead dust in and/or around the home, such as frequent opening and closing of windows contaminated with lead-based paint, home renovations, and yard maintenance that occur during warmer months.

Table 1

SFY 2022: Number of Children Six Months Through 26 Months of Age by BLL and County of Residence

County	Total Children	% Screened*	BLL (mg/dL)	EBLL (mg/dL)							Total Screened
			<5	5-9	10-14	15-19	20-44	≥45	Total EBLL	% EBLL	
ATLANTIC	6,521	34.6%	2,225	29	3	0	1	0	33	1.5%	2,258
BERGEN	19,955	35.5%	7,010	52	14	3	2	0	71	1.0%	7,081
BURLINGTON	10,166	40.0%	4,031	24	4	2	4	0	34	0.8%	4,065
CAMDEN	13,215	30.0%	3,918	37	8	1	0	0	46	1.2%	3,964
CAPE MAY	1,822	34.3%	619	5	1	0	0	0	6	1.0%	625
CUMBERLAND	4,368	33.0%	1,398	34	9	2	0	0	45	3.1%	1,443
ESSEX	21,569	43.7%	9,119	239	33	12	12	1	297	3.2%	9,416
GLOUCESTER	6,862	25.3%	1,718	15	2	0	3	0	20	1.2%	1,738
HUDSON	17,288	38.7%	6,562	105	16	5	4	0	130	1.9%	6,692
HUNTERDON	2,316	53.5%	1,226	14	0	0	0	0	14	1.1%	1,240
MERCER	8,591	46.4%	3,872	95	15	3	5	0	118	3.0%	3,990
MIDDLESEX	19,965	37.5%	7,410	68	15	1	2	0	86	1.1%	7,496
MONMOUTH	13,371	31.7%	4,208	29	3	2	0	0	34	0.8%	4,242
MORRIS	10,700	36.8%	3,902	24	4	4	2	0	34	0.9%	3,936
OCEAN	15,532	47.1%	7,269	28	9	2	0	0	39	0.5%	7,308
PASSAIC	13,727	41.3%	5,528	108	16	6	4	1	135	2.4%	5,663
SALEM	1,549	34.2%	518	8	2	1	0	0	11	2.1%	529
SOMERSET	7,581	39.3%	2,947	23	3	4	0	0	30	1.0%	2,977
SUSSEX	3,099	26.4%	812	4	1	0	1	0	6	0.7%	818
UNION	14,148	46.9%	6,488	121	17	5	7	0	150	2.3%	6,638
WARREN	2,382	35.1%	822	10	2	1	1	0	14	1.7%	836
Unknown address	N/A	N/A	508	0	0	0	0	0	0	0.0%	508
Total	214,727	38.9%	82,110	1,072	177	54	48	2	1,353	1.6%	83,463

Total Children = 2010 U.S. Census for Children 0-2 Years of Age
Total Screened = Frequency of Children 6-26 Months of Age with a Blood Lead Test Reported in SFY 2022
Total EBLL = Frequency of Children 6-26 Months of Age with an EBLL ≥ 5ug/dL Reported in SFY 2022
Percent Screened = (Total Screened / Total Children) * 100
Percent EBLL = (Total EBLL / Total Screened) * 100
*Caution is advised when interpreting these numbers, as percentages calculated using 10-year census counts do not capture annual changes in the population.

Table 2

SFY 2022: Number of Children Six Months Through 26 Months of Age by BLL and Large Municipality

Municipality	Total Children	% Screened*	BLL (mg/dL)	EBLL (mg/dL)							Total Screened
			<5	5-9	10-14	15-19	20-44	≥45	Total EBLL	% EBLL	
ATLANTIC CITY	1,249	36.0%	433	15	1	0	1	0	17	3.8%	450
BAYONNE	1,528	42.9%	648	8	0	0	0	0	8	1.2%	656
BELLEVILLE	869	44.0%	373	8	1	0	0	0	9	2.4%	382
BERKELEY	509	39.1%	198	1	0	0	0	0	1	0.5%	199
BLOOMFIELD	1,224	45.6%	548	8	0	1	0	1	10	1.8%	558
BRICK	1,531	25.3%	386	1	0	0	0	0	1	0.3%	387
BRIDGEWATER	978	38.5%	375	2	0	0	0	0	2	0.5%	377
CAMDEN	2,838	24.3%	673	13	3	1	0	0	17	2.5%	690
CHERRY HILL	1,449	35.1%	507	1	0	0	0	0	1	0.2%	508
CLIFTON	2,123	38.8%	815	7	0	1	1	0	9	1.1%	824
EAST BRUNSWICK	860	48.4%	413	3	0	0	0	0	3	0.7%	416
EAST ORANGE	1,916	38.2%	696	29	3	3	0	0	35	4.8%	731
EDISON	2,560	35.4%	885	18	3	1	0	0	22	2.4%	907
EGG HARBOR	1,038	36.7%	378	3	0	0	0	0	3	0.8%	381
ELIZABETH	3,943	47.8%	1,825	48	6	2	3	0	59	3.1%	1,884
EVESHAM	1,016	33.4%	339	0	0	0	0	0	0	0.0%	339
EWING	600	53.5%	317	3	0	0	1	0	4	1.2%	321
FORT LEE	725	30.9%	222	2	0	0	0	0	2	0.9%	224
FRANKLIN (Somerset County)	1,759	36.2%	628	6	1	2	0	0	9	1.4%	637
FREEHOLD	652	26.4%	171	1	0	0	0	0	1	0.6%	172
GALLOWAY	724	35.5%	256	1	0	0	0	0	1	0.4%	257
GLOUCESTER	1,520	26.6%	402	3	0	0	0	0	3	0.7%	405
HACKENSACK	1,118	42.2%	465	6	1	0	0	0	7	1.5%	472
HAMILTON (Mercer County)	1,814	40.5%	725	8	1	0	0	0	9	1.2%	734
HILLSBOROUGH	866	41.3%	357	0	1	0	0	0	1	0.3%	358
HOBOKEN	1,467	25.6%	373	2	0	0	0	0	2	0.5%	375
HOWELL	1,125	27.3%	306	1	0	0	0	0	1	0.3%	307
IRVINGTON	1,692	47.6%	761	35	5	1	3	0	44	5.5%	805
JACKSON	1,100	64.9%	711	3	0	0	0	0	3	0.4%	714
JERSEY CITY	7,192	38.6%	2,714	50	8	4	2	0	64	2.3%	2,778
KEARNY	895	41.1%	364	3	1	0	0	0	4	1.1%	368
LAKEWOOD	6,556	64.1%	4,176	16	6	2	0	0	24	0.6%	4,200
LINDEN	911	43.6%	392	5	0	0	0	0	5	1.3%	397
MANALAPAN	778	22.9%	178	0	0	0	0	0	0	0.0%	178
MANCHESTER	448	29.5%	132	0	0	0	0	0	0	0.0%	132

Municipality	Total Children	% Screened*	BLL (mg/dL)	EBLL (mg/dL)							Total Screened
			<5	5-9	10-14	15-19	20-44	≥45	Total EBLL	% EBLL	
MARLBORO	767	26.9%	204	2	0	0	0	0	2	1.0%	206
MIDDLETOWN	1,444	35.0%	501	2	1	1	0	0	4	0.8%	505
MONROE (Gloucester County)	898	26.9%	242	0	0	0	0	0	0	0.0%	242
MONROE (Middlesex County	655	49.8%	324	1	1	0	0	0	2	0.6%	326
MONTCLAIR	869	37.9%	324	5	0	0	0	0	5	1.5%	329
MOUNT LAUREL	886	50.6%	447	1	0	0	0	0	1	0.2%	448
NEW BRUNSWICK	1,573	37.3%	575	9	2	0	0	0	11	1.9%	586
NEWARK	8,382	46.0%	3,728	105	14	6	6	0	131	3.4%	3,859
NORTH BERGEN	1,498	37.1%	546	9	1	0	0	0	10	1.8%	556
NORTH BRUNSWICK	1,220	38.3%	465	2	0	0	0	0	2	0.4%	467
OLD BRIDGE	1,478	31.0%	458	0	0	0	0	0	0	0.0%	458
PARSIPPANY-TROY HILLS	1,207	25.4%	302	4	0	1	0	0	5	1.6%	307
PASSAIC	2,767	34.6%	928	23	3	1	1	0	28	2.9%	956
PATERSON	4,632	48.2%	2,146	71	10	3	2	1	87	3.9%	2,233
PENNSAUKEN	845	23.1%	193	2	0	0	0	0	2	1.0%	195
PERTH AMBOY	1,584	42.9%	671	8	0	0	1	0	9	1.3%	680
PISCATAWAY	1,361	35.8%	481	5	1	0	0	0	6	1.2%	487
PLAINFIELD	1,628	64.2%	1,003	34	5	2	1	0	42	4.0%	1,045
SAYREVILLE	1,137	31.1%	353	0	1	0	0	0	1	0.3%	354
SOUTH BRUNSWICK	935	33.3%	309	1	1	0	0	0	2	0.6%	311
TEANECK	1,075	30.1%	320	2	2	0	0	0	4	1.2%	324
TOMS RIVER	1,816	35.5%	640	2	2	0	0	0	4	0.6%	644
TRENTON	2,786	49.4%	1,285	72	12	2	4	0	90	6.5%	1,375
UNION CITY	1,880	35.6%	651	13	3	1	1	0	18	2.7%	669
UNION	1,250	41.8%	509	9	1	1	2	0	13	2.5%	522
VINELAND	1,729	31.1%	533	3	0	1	0	0	4	0.7%	537
WASHINGTON (Gloucester County)	900	23.7%	213	0	0	0	0	0	0	0.0%	213
WAYNE	995	53.7%	532	2	0	0	0	0	2	0.4%	534
WEST NEW YORK	1,523	44.7%	668	12	0	0	1	0	13	1.9%	681
WEST ORANGE	1,263	38.1%	464	14	2	0	1	0	17	3.5%	481
WINSLOW	1,122	27.3%	305	1	0	0	0	0	1	0.3%	306
WOODBRIDGE	2,495	35.2%	868	8	3	0	0	0	11	1.3%	879

Total Children = 2010 U.S. Census for Children 0-2 Years of Age
Total Screened = Frequency of Children 6-26 Months of Age with a Blood Lead Test Reported in SFY 2022
Total EBLL = Frequency of Children 6-26 Months of Age with an EBLL ≥ 5ug/dL Reported in SFY 2022
Percent Screened = (Total Screened / Total Children) * 100
Percent EBLL = (Total EBLL / Total Screened) * 100
*Caution is advised when interpreting these numbers, as percentages calculated using 10-year census counts do not capture annual changes in the population.

Table 3

SFY 2022: Number of Children Younger Than Six Years of Age by BLL and County of Residence

County	Total Children	% Screened*	BLL (mg/dL)	EBLL (mg/dL)							Total Screened
			<5	5-9	10-14	15-19	20-44	≥45	Total EBLL	% EBLL	
ATLANTIC	19,909	20.3%	3,975	52	9	1	2	0	64	1.6%	4,039
BERGEN	61,192	19.6%	11,900	83	23	4	3	0	113	0.9%	12,013
BURLINGTON	31,546	16.6%	5,172	45	7	4	7	0	63	1.2%	5,235
CAMDEN	40,195	13.6%	5,383	60	11	3	3	0	77	1.4%	5,460
CAPE MAY	5,423	15.4%	825	8	2	0	1	0	11	1.3%	836
CUMBERLAND	12,963	20.6%	2,563	79	18	4	4	0	105	3.9%	2,668
ESSEX	64,591	35.6%	22,228	586	86	38	37	3	750	3.3%	22,978
GLOUCESTER	21,059	11.7%	2,437	18	4	0	4	0	26	1.1%	2,463
HUDSON	49,759	28.5%	13,934	194	36	13	13	0	256	1.8%	14,190
HUNTERDON	7,484	19.9%	1,468	20	0	0	0	0	20	1.3%	1,488
MERCER	26,052	25.5%	6,424	179	27	8	8	3	225	3.4%	6,649
MIDDLESEX	60,249	24.1%	14,272	168	37	7	6	2	220	1.5%	14,492
MONMOUTH	42,404	16.2%	6,820	50	7	3	3	0	63	0.9%	6,883
MORRIS	33,493	17.4%	5,763	51	12	5	3	0	71	1.2%	5,834
OCEAN	46,657	24.3%	11,291	48	9	2	0	0	59	0.5%	11,350
PASSAIC	41,179	30.4%	12,209	233	43	14	18	3	311	2.5%	12,520
SALEM	4,625	16.7%	748	17	2	4	0	0	23	3.0%	771
SOMERSET	23,622	18.5%	4,323	41	5	5	0	0	51	1.2%	4,374
SUSSEX	9,701	11.9%	1,148	8	1	0	1	0	10	0.9%	1,158
UNION	43,085	30.6%	12,872	244	39	11	14	0	308	2.3%	13,180
WARREN	7,434	14.7%	1,071	16	3	2	1	0	22	2.0%	1,093
Unknown address	N/A	N/A	1,131	0	0	0	0	0	0	0.0%	1,131
Total	652,622	23.1%	147,957	2,200	381	128	128	11	2,848	1.9%	150,805

Total Children = 2010 U.S. Census for Children 0-6 Years of Age
Total Screened = Frequency of Children 0-72 Months of Age with a Blood Lead Test Reported in SFY 2022
Total EBLL = Frequency of Children 0-72 Months of Age with an EBLL ≥ 5ug/dL Reported in SFY 2022
Percent Screened = (Total Screened / Total Children) * 100
Percent EBLL = (Total EBLL / Total Screened) * 100
*Caution is advised when interpreting these numbers, as percentages calculated using 10-year census counts do not capture annual changes in the population.

Table 4

SFY 2022: Number of Children Younger Than Six Years of Age by BLL and Large Municipality

Municipality	Total Children	% Screened*	BLL (mg/dL)	EBLL (mg/dL)							Total Screened
			<5	5-9	10-14	15-19	20-44	≥45	Total EBLL	% EBLL	
ATLANTIC CITY	3,677	26.8%	953	28	3	0	1	0	32	3.2%	985
BAYONNE	4,576	32.3%	1,459	18	3	0	0	0	21	1.4%	1,480
BELLEVILLE	2,601	31.9%	814	13	1	0	1	0	15	1.8%	829
BERKELEY	1,565	19.4%	303	1	0	0	0	0	1	0.3%	304
BLOOMFIELD	3,575	29.5%	1,035	14	0	3	0	1	18	1.7%	1,053
BRICK	4,558	13.8%	627	3	0	0	0	0	3	0.5%	630
BRIDGEWATER	3,052	16.1%	487	5	0	0	0	0	5	1.0%	492
CAMDEN	8,525	12.9%	1,062	26	6	3	1	0	36	3.3%	1,098
CHERRY HILL	4,588	14.8%	675	2	0	0	0	0	2	0.3%	677
CLIFTON	6,187	28.2%	1,723	14	2	2	2	0	20	1.1%	1,743
EAST BRUNSWICK	2,725	25.1%	677	7	1	0	0	0	8	1.2%	685
EAST ORANGE	5,534	37.0%	1,948	80	11	4	1	1	97	4.7%	2,045
EDISON	7,774	24.1%	1,823	38	6	2	1	0	47	2.5%	1,870
EGG HARBOR	3,341	17.8%	592	3	0	0	1	0	4	0.7%	596
ELIZABETH	11,792	37.6%	4,303	104	14	2	6	0	126	2.8%	4,429
EVESHAM	3,117	13.6%	422	1	0	0	0	0	1	0.2%	423
EWING	1,797	27.3%	483	5	1	0	2	0	8	1.6%	491
FORT LEE	2,171	19.0%	407	5	0	0	0	0	5	1.2%	412
FRANKLIN (Somerset County)	5,182	19.1%	975	9	2	2	0	0	13	1.3%	988
FREEHOLD	2,156	14.9%	320	1	0	0	0	0	1	0.3%	321
GALLOWAY	2,240	18.4%	411	1	0	0	0	0	1	0.2%	412
GLOUCESTER	4,647	11.3%	522	4	0	0	0	0	4	0.8%	526
HACKENSACK	3,223	31.6%	1,005	10	2	0	0	0	12	1.2%	1,017
HAMILTON (Mercer County)	5,480	23.3%	1,257	16	2	1	0	2	21	1.6%	1,278
HILLSBOROUGH	2,736	17.9%	486	2	1	0	0	0	3	0.6%	489
HOBOKEN	3,779	13.4%	505	3	0	0	0	0	3	0.6%	508
HOWELL	3,591	14.4%	516	2	0	0	0	0	2	0.4%	518
IRVINGTON	4,993	48.9%	2,309	96	14	7	14	1	132	5.4%	2,441
JACKSON	3,649	31.3%	1,138	5	0	0	0	0	5	0.4%	1,143
JERSEY CITY	20,393	27.9%	5,554	100	18	9	10	0	137	2.4%	5,691
KEARNY	2,681	29.8%	792	5	2	0	0	0	7	0.9%	799
LAKEWOOD	18,872	33.3%	6,242	28	6	2	0	0	36	0.6%	6,278
LINDEN	2,726	30.6%	825	8	0	0	1	0	9	1.1%	834
MANALAPAN	2,541	12.6%	321	0	0	0	0	0	0	0.0%	321
MANCHESTER	1,372	18.1%	249	0	0	0	0	0	0	0.0%	249
MARLBORO	2,606	13.7%	353	3	0	0	0	0	3	0.8%	356
MIDDLETOWN	4,615	15.0%	688	3	1	1	0	0	5	0.7%	693

Municipality	Total Children	% Screened*	BLL (mg/dL)	EBLL (mg/dL)							Total Screened
			<5	5-9	10-14	15-19	20-44	≥45	Total EBLL	% EBLL	
MONROE (Gloucester County)	2,794	12.9%	360	0	0	0	0	0	0	0.0%	360
MONROE (Middlesex County	2,082	24.4%	502	6	1	0	0	0	7	1.4%	509
MONTCLAIR	2,701	19.9%	526	9	1	0	2	0	12	2.2%	538
MOUNT LAUREL	2,705	20.0%	539	2	0	0	0	0	2	0.4%	541
NEW BRUNSWICK	4,753	24.8%	1,150	23	4	1	2	0	30	2.5%	1,180
NEWARK	24,831	45.8%	11,003	282	43	21	13	0	359	3.2%	11,362
NORTH BERGEN	4,473	29.4%	1,298	12	3	1	0	0	16	1.2%	1,314
NORTH BRUNSWICK	3,502	22.5%	781	5	0	1	0	0	6	0.8%	787
OLD BRIDGE	4,548	17.0%	769	3	0	0	0	0	3	0.4%	772
PARSIPPANY-TROY HILLS	3,671	14.0%	503	6	2	1	1	0	10	1.9%	513
PASSAIC	8,226	33.3%	2,662	53	13	3	6	0	75	2.7%	2,737
PATERSON	13,987	39.7%	5,364	151	25	8	9	2	195	3.5%	5,559
PENNSAUKEN	2,696	9.7%	258	3	0	0	0	0	3	1.1%	261
PERTH AMBOY	4,756	39.9%	1,871	21	5	0	1	0	27	1.4%	1,898
PISCATAWAY	3,903	22.7%	873	11	1	0	0	0	12	1.4%	885
PLAINFIELD	4,961	54.7%	2,614	80	14	4	2	0	100	3.7%	2,714
SAYREVILLE	3,338	20.6%	683	0	3	0	0	0	3	0.4%	686
SOUTH BRUNSWICK	3,130	17.7%	549	2	4	0	0	0	6	1.1%	555
TEANECK	3,142	16.5%	514	2	2	0	0	0	4	0.8%	518
TOMS RIVER	5,617	20.2%	1,131	3	2	0	0	0	5	0.4%	1,136
TRENTON	7,998	35.0%	2,626	138	21	6	6	0	171	6.1%	2,797
UNION	3,701	24.4%	882	14	2	2	4	0	22	2.4%	904
UNION CITY	5,742	28.9%	1,635	19	3	2	2	0	26	1.6%	1,661
VINELAND	5,058	18.4%	915	12	1	1	0	0	14	1.5%	929
WASHINGTON (Gloucester County)	2,968	10.2%	303	0	0	0	0	0	0	0.0%	303
WAYNE	3,105	22.7%	703	3	0	0	0	0	3	0.4%	706
WEST NEW YORK	4,258	37.5%	1,576	18	2	1	1	0	22	1.4%	1,598
WEST ORANGE	3,635	23.9%	843	19	4	0	1	0	24	2.8%	867
WINSLOW	3,336	13.2%	441	1	0	0	0	0	1	0.2%	442
WOODBRIDGE	7,326	24.3%	1,751	21	6	1	1	2	31	1.7%	1,782

Total Screened = Frequency of Children < 17 Years of Age with a Blood Lead Test Reported in SFY 2022
Total EBLL = Frequency of Children < 17 Years of Age with an EBLL ≥ 5ug/dL Reported in SFY 2022
Percent EBLL = (Total EBLL / Total Screened) * 100

Table 5

SFY 2022: Number of Children by BLL and County of Residence

County	BLL (mg/dL)	EBLL (mg/dL)							Total Screened
	<5	5-9	10-14	15-19	20-44	≥45	Total EBLL	% EBLL	
ATLANTIC	4,257	59	10	1	2	0	72	1.7%	4,329
BERGEN	13,409	92	27	4	5	0	128	0.9%	13,537
BURLINGTON	5,436	47	8	4	8	0	67	1.2%	5,503
CAMDEN	5,717	62	12	4	3	0	81	1.4%	5,798
CAPE MAY	872	9	2	0	1	0	12	1.4%	884
CUMBERLAND	2,848	94	20	5	4	0	123	4.1%	2,971
ESSEX	27,899	653	101	41	41	3	839	2.9%	28,738
GLOUCESTER	2,560	19	4	0	4	0	27	1.0%	2,587
HUDSON	16,983	220	44	15	14	0	293	1.7%	17,276
HUNTERDON	1,515	20	0	0	0	0	20	1.3%	1,535
MERCER	7,901	198	30	11	9	3	251	3.1%	8,152
MIDDLESEX	17,541	206	40	7	6	4	263	1.5%	17,804
MONMOUTH	8,148	66	8	4	4	0	82	1.0%	8,230
MORRIS	6,371	60	15	6	3	0	84	1.3%	6,455
OCEAN	12,183	57	11	2	0	0	70	0.6%	12,253
PASSAIC	14,278	262	46	15	20	3	346	2.4%	14,624
SALEM	794	17	2	4	1	0	24	2.9%	818
SOMERSET	4,957	49	8	7	1	0	65	1.3%	5,022
SUSSEX	1,283	9	1	0	2	0	12	0.9%	1,295
UNION	15,562	270	43	16	15	0	344	2.2%	15,906
WARREN	1,143	17	3	2	1	0	23	2.0%	1,166
Unknown address	1,416	0	0	0	0	0	-	0.0%	1,416
Total	173,073	2,486	435	148	144	13	3,226	1.8%	176,299

Total Screened = Frequency of Children < 17 Years of Age with a Blood Lead Test Reported in SFY 2022
Total EBLL = Frequency of Children < 17 Years of Age with an EBLL ≥ 5ug/dL Reported in SFY 2022
Percent EBLL = (Total EBLL / Total Screened) * 100

Figure 3a

SFY 2022: Statewide Frequency of Children with an EBLL by Age (n=3,226)

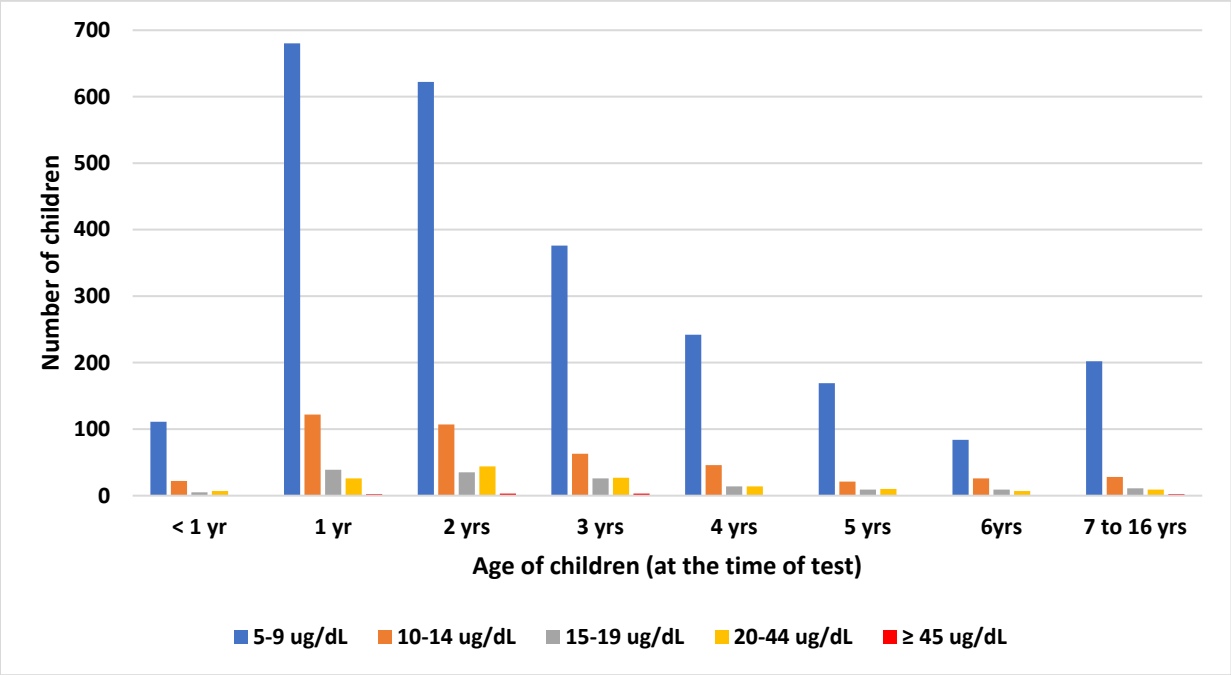


Figure 3b

SFY 2022: Statewide Frequency of Children without an EBLL by Age (n=173,073)

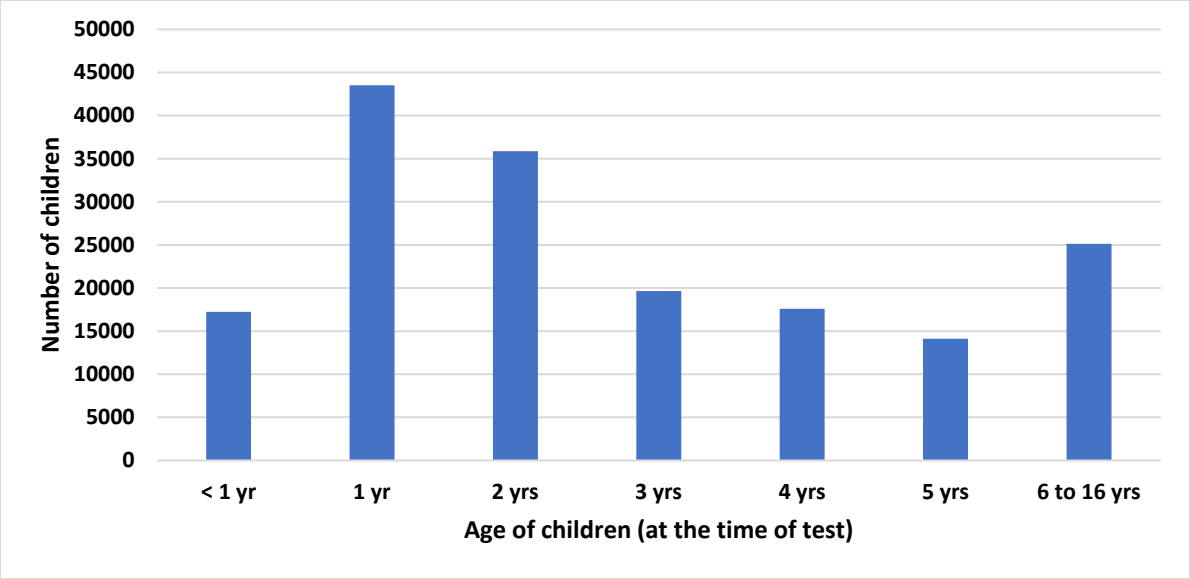


Figure 4a

SFY2022: Statewide Percentage of Children with an EBLL (n=3,226)

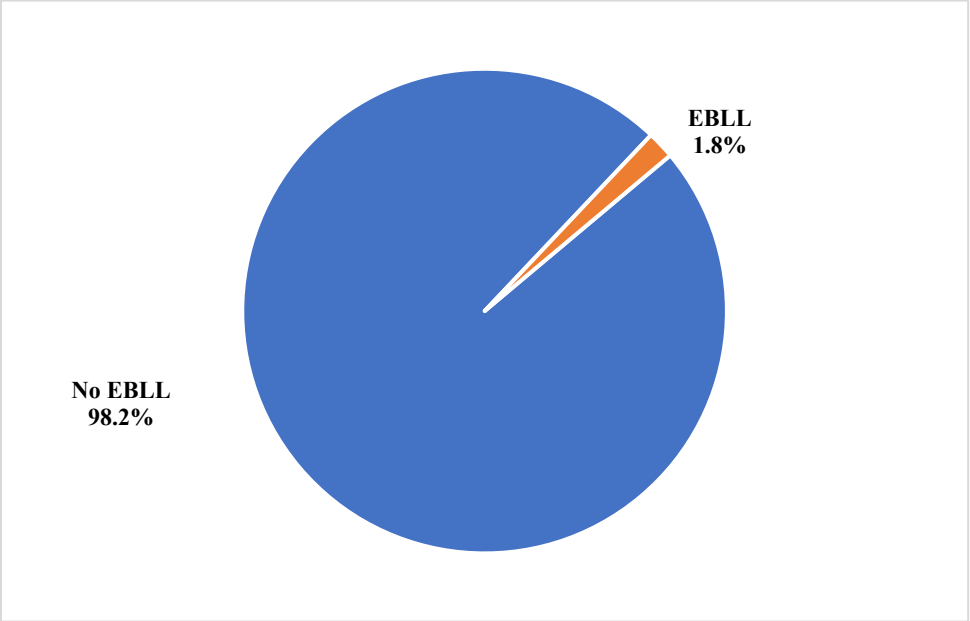


Figure 4b

SFY 2022: Statewide Percentage of Children by Category of EBLL (n=3,226)

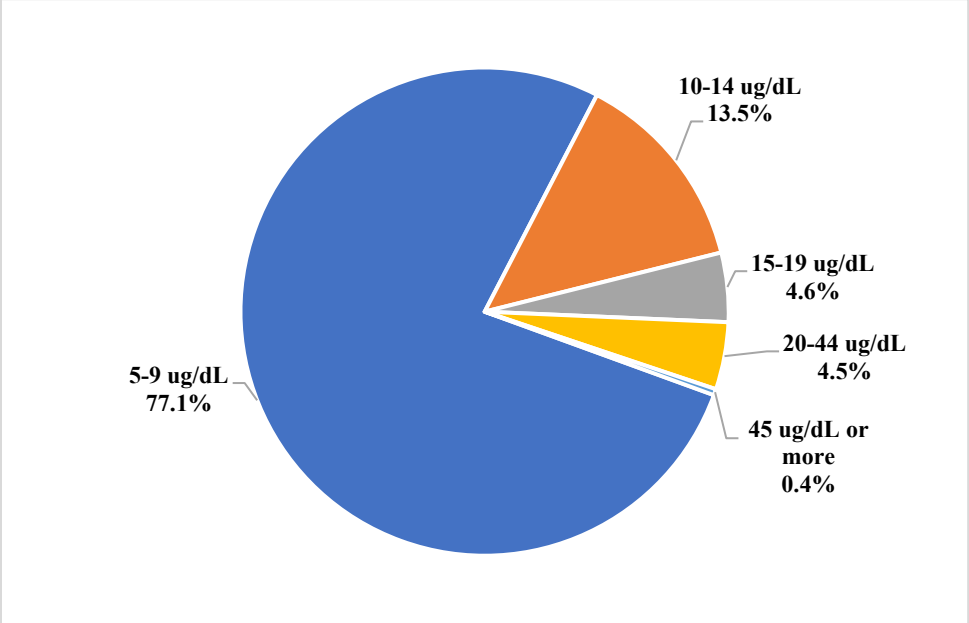


Figure 5

SFY 2022: Statewide Percentage of Children Younger Than Six Years of Age with an EBLL by Gender (n=2,848)

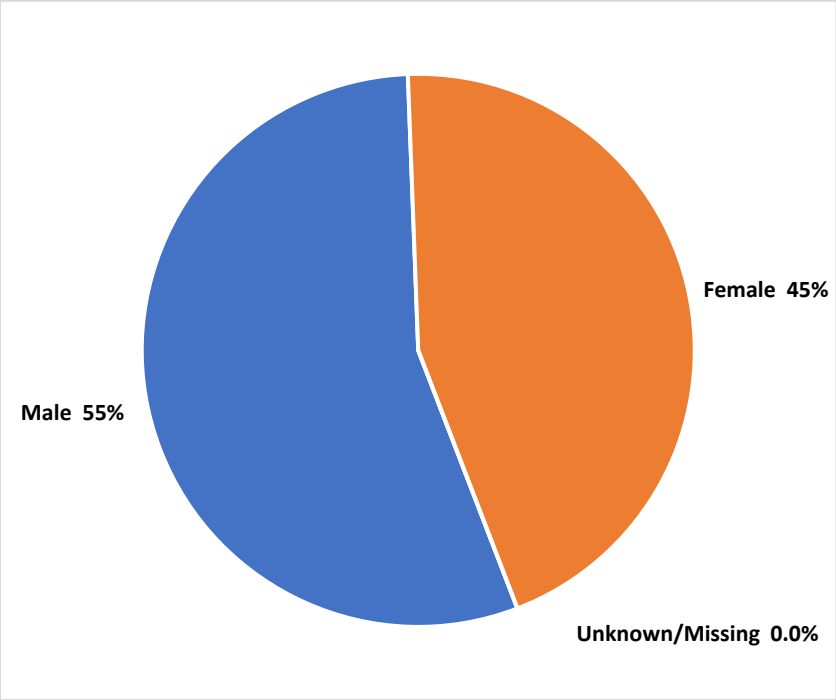
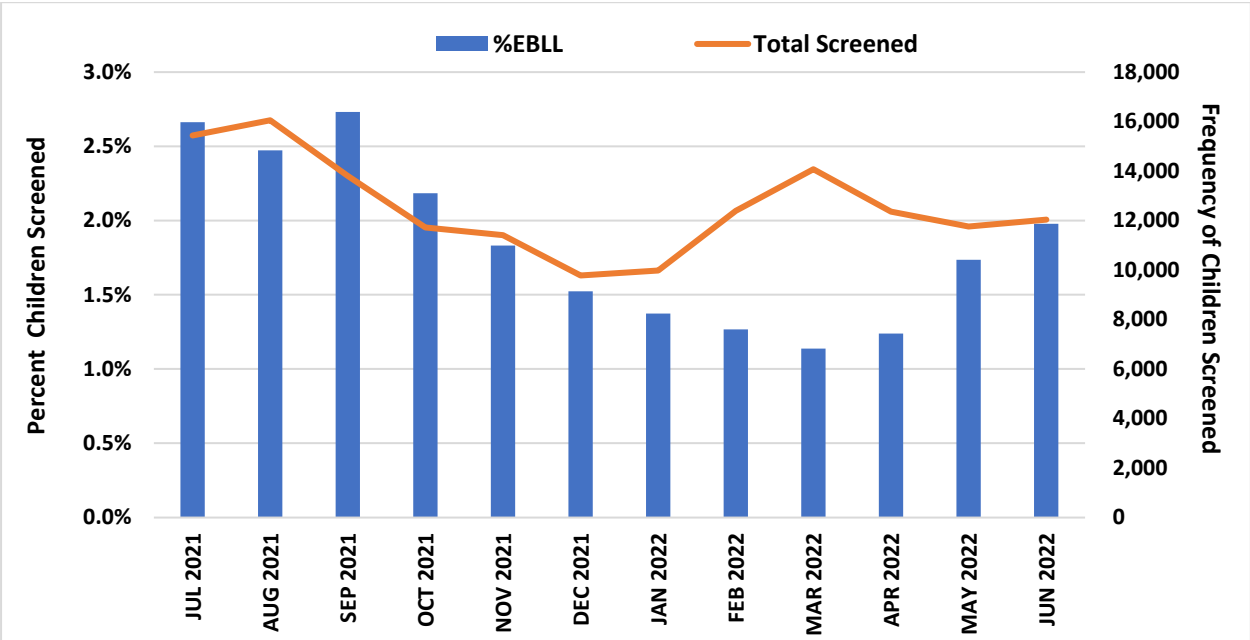


Figure 6

SFY 2022: Statewide Total Children Screened and Percentage of EBLL for Children Younger Than Six Years of Age by Month of Test (n=2,848)



CHAPTER THREE

SPOTLIGHT ON LARGE MUNICIPALITIES IN NEW JERSEY

Childhood lead exposure is an issue that affects all municipalities in New Jersey. This chapter provides a closer look at some large municipalities and how they rank according to attributes such as the population of children under six years of age, percentage of children screened in SFY 2022, and percent EBLL.

Many of New Jersey's large municipalities also have the highest number of children younger than six years of age. Table 6 ranks the top 10 large municipalities by the largest population of children younger than six years of age (based on data from the 2010 U.S. Census). The City of Newark has the largest population of children younger than six years of age (24,831), followed by Jersey City (20,393) and Lakewood (18,872).

Since N.J.A.C. 8:51A requires that children are screened for lead at least once before they turn six years, Table 7 ranks the top 10 large municipalities by the highest percentage of children younger than six years of age who were screened in SFY 2022. The City of Plainfield in Union County (55%) had the highest percentage of children younger than six years of age screened in SFY 2022, followed by the City of Irvington in Essex County (49%), the City of Newark in Essex County (46%), and the City of Perth Amboy in Middlesex County (40%).

Table 8 ranks the top large municipalities by the highest percentage of children younger than six years of age with an EBLL at or above 5 μg/dL. The five large municipalities with the highest percentage of children with an EBLL at or above 5 ug/dL in SFY 2022 include the City of Trenton in Mercer County (6.1%), the City of Irvington in Essex County (5.4%), the City of East Orange in Essex County (4.7%), the City of Plainfield in Union County (3.7%), and the City of Paterson in Passaic County (3.5%). While the percentage of children with an EBLL is one metric that examines the burden of childhood lead in a geographic area, it does not account for factors that may vary from place to place such as population size, screening rates, and sources of exposure (e.g., age of housing).

Table 6

Top 10 Large Municipalities Ranked by Largest Population of Children Younger Than Six Years of Age

Municipality (County)	Population <6 Years
Newark (Essex)	24,831
Jersey City (Hudson)	20,393
Lakewood (Ocean)	18,872
Paterson (Passaic)	13,987
Elizabeth (Union)	11,792
Camden (Camden)	8,525
City of Passaic (Passaic)	8,226
Trenton (Mercer)	7,998
Edison (Middlesex)	7,774
Woodbridge	7,326

Total Children = 2010 U.S. Census for Children 0-6 Years of Age

Table 7

Top 10 Large Municipalities Ranked by Highest Percentage of Children Younger Than Six Years of Age Screened in SFY 2022

Municipality (County)	% Children <6 Years Screened for Lead
Plainfield (Union)	54.7%
Irvington (Essex)	48.9%
Newark (Essex)	45.8%
Perth Amboy (Middlesex)	39.9%
Paterson (Passaic)	39.7%
Elizabeth (Union)	37.6%
West New York (Hudson)	37.5%
East Orange (Essex)	37.0%
Trenton (Mercer)	35.0%
City of Passaic (Passaic)	33.3%

Total Children = 2010 U.S. Census for Children 0-6 Years of Age
Total Screened = Frequency of Children 0-72 Months of Age with a Blood Lead Test Reported in SFY 2022

Table 8

Top 10 Large Municipalities Ranked by Highest Percentage of Children Younger Than Six Years of Age with an EBLL in SFY 2022

Municipality (County)	% Children < 6 Years with an EBLL
Trenton (Mercer)	6.1%
Irvington (Essex)	5.4%
East Orange (Essex)	4.7%
Plainfield (Union)	3.7%
Paterson (Passaic)	3.5%
Camden (Camden)	3.3%
Atlantic City (Atlantic)	3.2% (tie with Newark)
Newark (Essex)	3.2% (tie with Atlantic City)
Elizabeth (Union)	2.8% (tie with West Orange)
West Orange (Essex)	2.8% (tie with Elizabeth)

Total Children = 2010 U.S. Census for Children 0-6 Years of Age
Percent EBLL = (Total EBLL / Total Screened) * 100

CHAPTER FOUR

ENVIRONMENTAL INVESTIGATIONS BY LOCAL HEALTH DEPARTMENTS

N.J.A.C. 8:51 requires LHDs to investigate reported cases of EBLL that meet or exceed the threshold for public health intervention within their jurisdiction and to order the abatement of lead hazards identified during an investigation. The procedures for conducting environmental investigations are specified in N.J.A.C. 8:51 and include an inspection of the child's primary residence and any secondary addresses, such as a childcare center, the home of a relative or caregiver, or wherever the child spends at least 10 hours per week. If the child has recently moved, the property where the child resided when the blood lead test was performed must be inspected. The environmental inspection includes a determination of the presence of lead-based paint and leaded dust; the identification of locations where that paint is in a hazardous condition, such as peeling, chipping, or flaking; and, as appropriate, the presence of lead on the dwelling's exterior or soil. The licensed lead inspector/risk assessor, with a public health nurse case manager, speaks to the child's parent/legal guardian and completes a questionnaire to help determine any other potential sources of exposure to lead such as water and/or consumer products.

The data in this chapter reflects the frequency and results of environmental investigations conducted by LHDs. The data are accurate to the extent that LHDs enter complete and timely information in CDRSS before August 15 of each SFY (i.e., the date when data for the annual report is captured). Open investigations/abatements may reflect the fact that it can take several years to complete the abatement process for a property where lead hazards are identified due to factors such as difficulty in identifying and communicating with property owners, lengthy enforcement actions and court proceedings against recalcitrant property owners, delays in contracting with and/or scheduling work by certified lead abatement contractors, and the inability of property owners to obtain financial assistance to pay for the cost of the required abatement. The New Jersey Department of Community Affairs provides lead abatement assistance funding throughout the State to low-to-moderate income families to offset abatement costs; more information is available online at www.nj.gov/dca/divisions/dhcr/offices/leadsafe.html. Starting SFY 2022, the data source for *Abatement Completed* changed from *Date Referred* to *Abatement Completed Date*. This change has resulted in the removal of *Percentage Abatement Completed* from tables 9 and 10 as abatements completed during the current fiscal year may have been initiated in previous fiscal years and therefore cannot be linked to the number of ordered abatements.

Table 9 shows environmental case activity by county. In SFY 2022, Essex County had the highest number of environmental cases requiring investigation (247), followed by Passaic County (105), Mercer County (103), and Hudson County (96), whereas Sussex County had the fewest number of environmental cases requiring investigation (4), followed by Cape May County (5), Hunterdon County (8), and Warren County (9). Environmental case activity is based on crude data and is not adjusted for factors such as population size, population density, or differences in blood lead screening rates. As shown in Table 9, of the 995 cases requiring an environmental investigation in SFY 2022, over one-third (32.5%) resulted in an LHD issuing an order of abatement.

Table 10 and Figures 8 and 9 display environmental case activity by LHD. As shown in Table 10 and Figure 8, the Newark Department of Community Health & Wellness had the highest number of cases requiring environmental investigation (113) in SFY 2022, followed by the City of Trenton, Department of Health & Human Services (73), and the City of Paterson, Division of Health (62).

In addition to environmental investigations, for all reported cases of EBLL that meet or exceed the threshold for public health intervention, the LHD arranges for a home visit by a public health nurse case manager to educate the child's parent/legal guardian about how to reduce their child's EBLL and the steps that he/she/they can take to protect the child from further exposure. The public health nurse case manager also provides ongoing assistance to the family, including but not limited to follow-up testing, medical treatment, and social services that may be necessary to address the effects

of the child's exposure to lead. Nurse case management for children with EBLLs requires individualized care plans and services for each child and are not part of the annual report.

Table 9

SFY 2022: Environmental Case Activity Status by County

County	Cases Referred *	Investigation Required**	% Investigation Required	Investigation Completed***	% Investigation Completed	Abatement Required	Abatement Completed****
ATLANTIC	14	11	79%	6	55%	3	5
BERGEN	57	52	91%	48	92%	14	21
BURLINGTON	15	13	87%	13	100%	4	0
CAMDEN	18	17	94%	11	65%	6	0
CAPE MAY	5	3	60%	1	33%	1	0
CUMBERLAND	33	20	61%	19	95%	11	13
ESSEX	247	211	85%	183	87%	96	43
GLOUCESTER	12	9	75%	8	89%	5	4
HUDSON	96	89	93%	87	98%	43	20
HUNTERDON	8	8	100%	0	0%	0	N/A
MERCER	103	94	91%	65	69%	53	9
MIDDLESEX	70	47	67%	22	47%	4	4
MONMOUTH	26	24	92%	11	46%	6	9
MORRIS	30	25	83%	13	52%	3	2
OCEAN	13	5	38%	5	100%	2	0
PASSAIC	105	94	90%	87	93%	31	46
SALEM	12	8	67%	8	100%	3	7
SOMERSET	23	17	74%	12	71%	8	1
SUSSEX	4	4	100%	2	50%	0	N/A
UNION	95	68	72%	48	71%	27	19
WARREN	9	9	100%	7	78%	4	2
Total	995	828	83%	656	79%	324	205

*An environmental case is referred to a local health department when a child with an EBLL, who resides at an address that does not have an existing environmental case open, is reported.

**An environmental investigation is required for all environmental cases referred unless the property was built after 1978 or the property has a lead-free certificate. Click here for N.J.A.C. 8:51-4.1.

***An environmental investigation is completed when abatement is completed, and a child's blood lead level is below 5 ug/dL.

****Abatement Completed is cumulative to include abatements from the previous years.

Data for this table are based on case updates entered in CDRSS as of August 15, 2022. If a local health department completed an investigation or abatement but did not update data in CDRSS, it will not be counted as completed in this report.

Table 10

SFY 2022: Environmental Case Activity by Local Health Department

Local Health Department	Cases Referred*	Investigation Required**	Investigation Completed***	% Investigation Completed	Abatement Required	Abatement Completed****
Atlantic City Department of Health & Human Services	7	5	0	0%	0	0
Atlantic County Division of Public Health	7	6	6	100%	3	5
Bayonne Health Department	6	6	6	100%	1	1
Bergen County Department of Health Services	18	17	17	100%	3	6
Bernards Township Health Department	1	1	1	100%	0	0
Bloomfield Department of Health & Human Services	11	11	7	64%	4	7
Borough of Roselle	3	3	0	0%	0	0
Burlington County Health Department	15	13	13	100%	4	0
Camden County Department of Health & Human Services	18	17	11	65%	6	0
Cape May County Health Department	5	3	1	33%	1	0
City of Elizabeth, Department of Health & Human Services	49	27	22	81%	14	0
City of Orange Township	27	24	17	71%	4	4
City of Passaic Division of Health	28	25	20	80%	12	20
City of Paterson, Division of Health	62	56	56	100%	18	23
City of Plainfield Health Department	21	19	19	100%	9	14
City of Trenton, Department of Health & Human Services	73	64	51	80%	47	2
City of Vineland	7	4	3	75%	2	4
Clark Health Department	1	1	1	100%	0	0
Clifton Health Department	10	9	7	78%	1	1
Cumberland County Department of Health	26	16	16	100%	9	9
East Hanover Health Department	6	5	1	20%	0	0
East Orange Department of Health	23	20	15	75%	7	16
East Windsor Health Department	3	3	0	0%	0	0
Edison Department of Health & Human Services	11	10	0	0%	0	0
Englewood Health Department	4	4	4	100%	3	3
Ewing Health Department	5	5	2	40%	0	0
Fort Lee Health Department	2	2	1	50%	0	0
Freehold Health Department	4	4	2	50%	1	1
Gloucester County Department of Health & Senior Services	12	9	8	89%	5	4
Guttenberg Health Department	2	2	2	100%	0	0
Hackensack Department of Health	8	8	7	88%	2	4
Hamilton Township Division of Health	14	14	10	71%	5	6
Harrison Health Department	3	2	2	100%	1	1
Hillsborough Township Health Department	3	3	1	33%	1	1
Hillside Health Department	3	3	0	0%	0	0
Hoboken Health Department	2	1	0	0%	0	0

Local Health Department	Cases Referred*	Investigation Required**	Investigation Completed***	% Investigation Completed	Abatement Required	Abatement Completed****
Hopewell Township Health Department	2	2	1	50%	1	1
Hunterdon County Department of Health	8	8	0	0%	0	0
Irvington Health Department	61	49	49	100%	46	0
Jersey City Department of Health & Human Services	55	54	53	98%	31	12
Kearny Department of Health	4	3	3	100%	0	0
Lawrence Township Health Department	1	1	0	0%	0	0
Linden Board of Health	2	2	1	50%	1	1
Long Branch Department of Health	1	1	0	0%	0	0
Mid-Bergen Regional Health Commission	16	14	12	86%	6	7
Middle-Brook Regional Health Commission	3	3	0	0%	0	0
Middlesex County Office of Health Services	41	22	14	64%	0	0
Monmouth County Board of Health	16	14	8	57%	4	7
Monmouth County Regional Health Commission # 1	5	5	1	20%	1	1
Montclair Health Department	7	4	2	50%	0	3
Montgomery Township Health Department	1	1	1	100%	0	0
Morris County Division of Public Health	1	0	N/A	N/A	0	0
Morristown Division of Health	7	6	5	83%	1	0
Mount Olive Township Health Department	2	1	1	100%	0	0
N.W. Bergen Regional Health Commission	2	1	1	100%	0	0
Newark Department of Health & Community Wellness	113	98	89	91%	33	10
Ocean County Health Department	13	5	5	100%	2	0
Palisades Park Health Department	3	3	3	100%	0	0
Passaic County Department of Health	3	3	3	100%	0	1
Pequannock Township Health Department	3	3	0	0%	0	0
Princeton Health Department	2	2	0	0%	0	0
Rahway Health Department	4	4	2	50%	1	2
Randolph Township Health Department	1	1	0	0%	0	0
Rockaway Township Health Department	1	1	0	0%	0	0

Local Health Department	Cases Referred*	Investigation Required**	Investigation Completed***	% Investigation Completed	Abatement Required	Abatement Completed****
Salem County Department of Health	12	8	8	100%	3	7
Secaucus Health Department	2	1	1	100%	0	0
Somerset County Department of Health	17	11	11	100%	7	0
South Brunswick Health Department	3	2	0	0%	0	0
Sussex County Department of Health and Human Services, Division of Health	4	4	2	50%	0	0
Teaneck Department of Health & Human Services	2	2	2	100%	0	0
Town of Dover Health Department	4	4	2	50%	1	1
Township of Morris Health Department	1	1	1	100%	0	0
Township of North Bergen	4	3	3	100%	1	1
Township of South Orange	1	1	1	100%	1	1
Township of West Milford Department of Health	1	1	1	100%	0	0
Union City Health Department	9	8	8	100%	4	3
Union County Office of Health Management	1	0	N/A	N/A	0	0
Union Township Health Department	8	6	0	0%	0	0
Village of Ridgewood Health Department	2	1	1	100%	0	1
Warren County Health Department	9	9	7	78%	4	2
Washington Township Health Department	1	0	N/A	N/A	0	0
Wayne Health Department	1	0	N/A	N/A	0	1
Weehawken Health Department	3	3	3	100%	1	0
West New York Health Department	6	6	6	100%	4	2
West Orange Health Department	6	6	5	83%	2	3
West Windsor Health Department	2	2	0	0%	0	0
Westfield Regional Health Department	3	3	3	100%	2	2
Woodbridge Township Health & Human Services	15	13	8	62%	4	4

*An environmental case is referred to a local health department when a child with an EBLL, who resides at an address that does not have an existing environmental case open, is reported.

**An environmental investigation is required for all environmental cases referred unless the property was built after 1978 or the property has a lead-free certificate. Click here for N.J.A.C. 8:51-4.1.

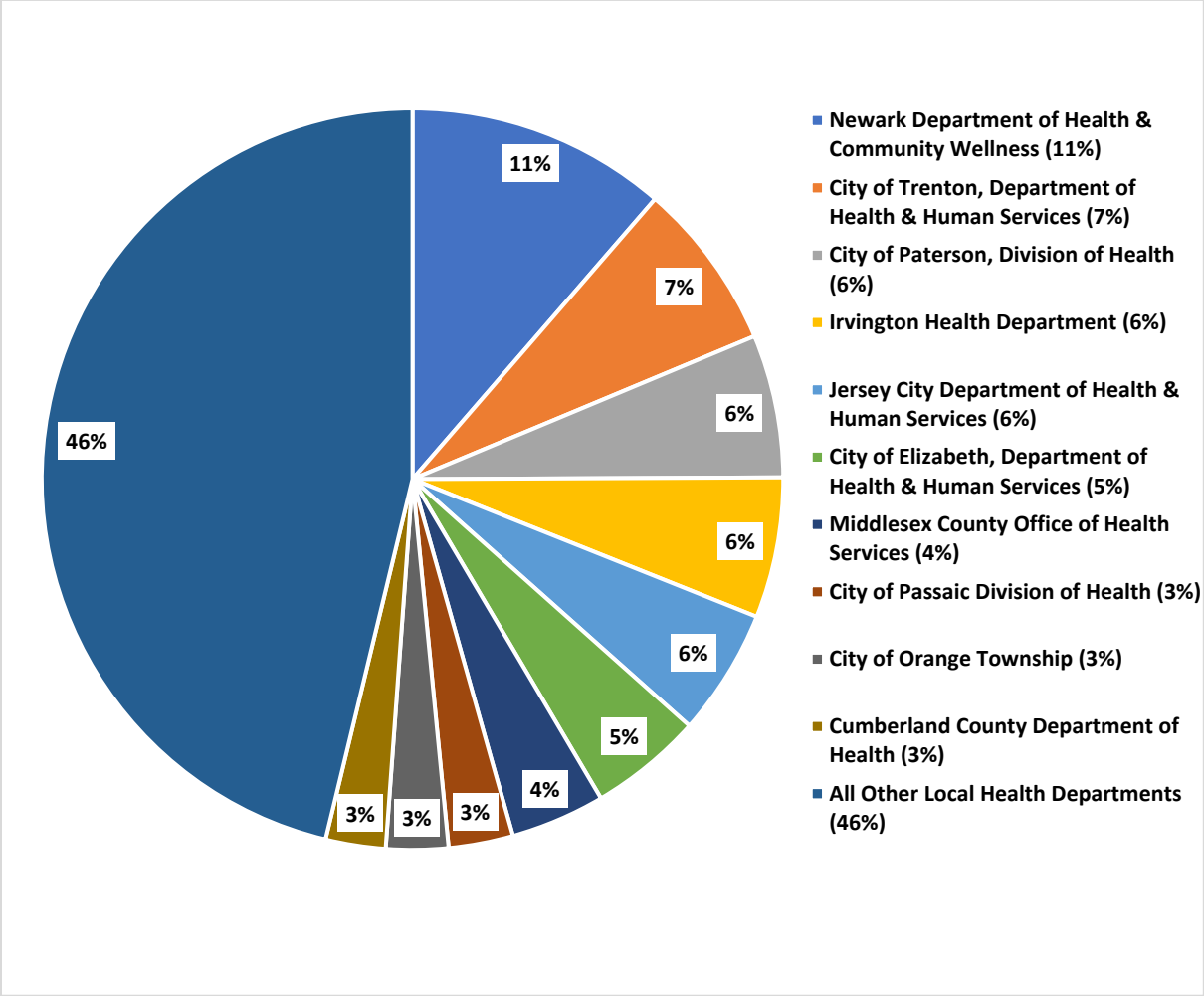
***An environmental investigation is completed when abatement is completed, and a child's blood lead level is below 5 ug/dL.

****Abatement Completed is cumulative to include abatements from the previous years.

Data for this table are based on case updates entered in CDRSS as of August 15, 2022. If a local health department completed an investigation or abatement but did not update data in CDRSS, it will not be counted as completed in this report.

Figure 8

SFY 2022: Top 10 Local Health Departments with the Highest Percentage of New Environmental Case Referrals* Compared to All Other Local Health Departments

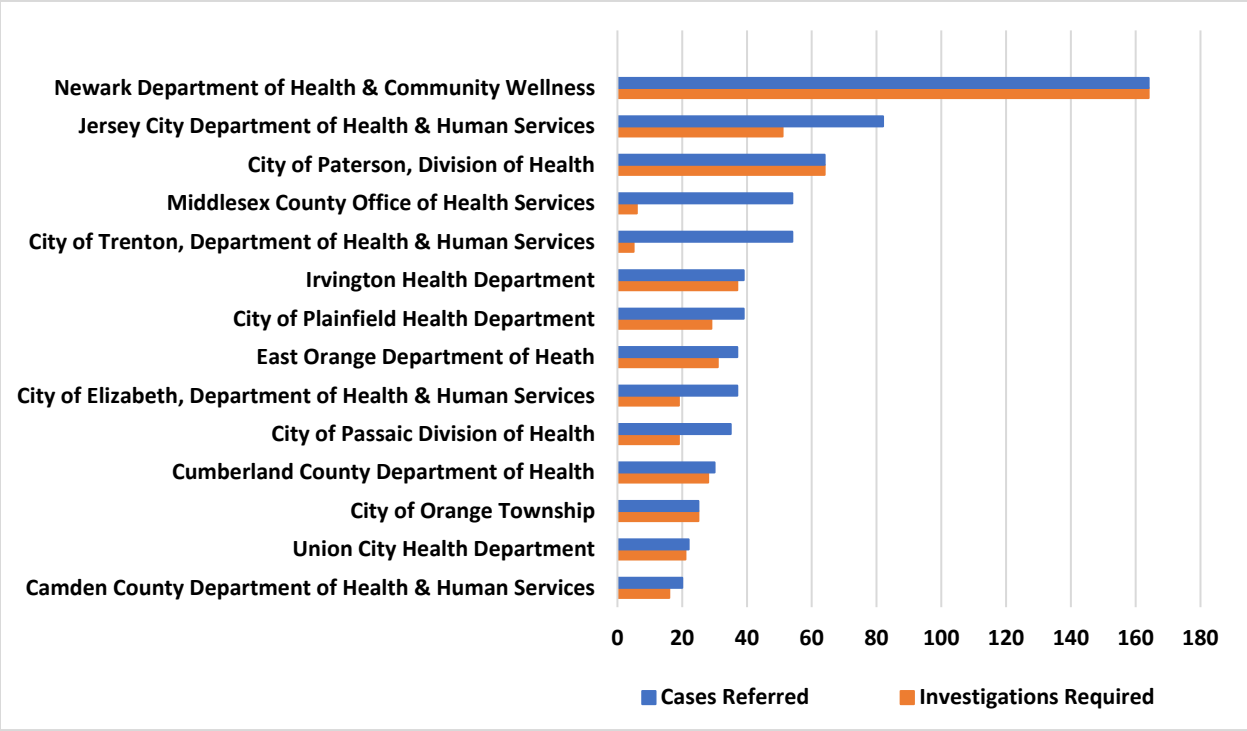


*An environmental case is referred to a local health department when a child with an EBLL, who resides at an address that does not have an existing environmental case open, is reported.

Data for this table are based on case updates entered in CDRSS as of August 15, 2022. If a local health department completed an investigation or abatement but did not update data in CDRSS, it will not be counted as completed in this report.

Figure 9

Local Health Departments with ≥ 20 New Environmental Case Referrals* in SFY 2022 Compared to Environmental Investigations Required**



*An environmental case is referred to a local health department when a child with an EBLL, who resides at an address that does not have an existing environmental case open, is reported.

**An environmental investigation is required for all environmental cases referred unless the property was built after 1978 or the property has a lead-free certificate. Click here for N.J.A.C. 8:51-4.1.

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